

Application No.: A.19-05-
Exhibit No.: _____
Witness: Daniel L. Sullivan
Date: May 31, 2019

SAN DIEGO GAS & ELECTRIC COMPANY
PREPARED DIRECT TESTIMONY OF
DANIEL L. SULLIVAN

PUBLIC VERSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

May 31, 2019



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ATTACHMENTS & EXHIBITS

- 1) EXHIBIT A: E&FP Organizational Chart
- 2) EXHIBIT B: 2018 Termination Letters - **CONFIDENTIAL**
- 3) EXHIBIT C: Pro-Forma Agreements
- 4) EXHIBIT D: SDG&E Direct Testimony of Sue E. Garcia (Electric and Fuel Procurement)
(November 2014) in the 2016 GRC proceeding (A.14-11-003)
- 5) ATTACHMENT 1 - **CONFIDENTIAL**:
 - a) Tab “Summary”
 - b) Tab “Electric Contracts”:
 1. Contract Class & Project Name: Contracts that were in effect and their delivery amounts during the record period.
 2. Contract Terms: Contracts for the procurement of electric power, energy, or ancillary services in effect or under negotiation, initiation, revision, amendment, or termination.
 3. Payment Terms: Energy and capacity payment terms.

4. New Contracts: New electric power, energy or ancillary services service contracts executed during the record period.
 5. Summary of Contract Modifications, Letter Agreements and Amendments filed in an AL or Application: Electric power, energy, or ancillary services amendments, modifications and/or letters agreements executed during the record period.
 6. Amendments & Modifications for Review in the ERRA Application: Amendments, modifications, renegotiations, and/or letter agreements executed during the record period that are being submitted for review through the ERRA application.
 7. Terminated Contracts: Summary of all its contracts which expired or terminated during the record period, and their relevant termination information.
- c) Tab GAS CONTRACTS - Contracts for the procurement of fuel services in effect or under negotiation, initiation, revision, amendment, or termination.

Tab QF CONTRACTS – Monthly payments to QFs that sold energy to SDG&E during the record period.

ACRONYM GLOSSARY

AB	Assembly Bill
AL	Advice Letter
Allegro	Allegro Development Corporation
AZ	Arizona
Bio-Mat	Bioenergy Market Adjusting Tariff
Buyer	Used interchangeably with SDG&E
CA	California
CAISO	California Independent System Operator
CBF	Capacity bonus factor
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CECL	Carlsbad Energy Center
CHP	Combined Heat & Power
COD	Commercial Operation Date
Commission	California Public Utilities Commission
Consent	Consented to a change of control
CPI	Consumer Price Index
CPIA	Consumer Price Index adjustment
CRE	Customer Renewable Credit
CRR	Congestion Revenue Rights
CTC	Competitive Transition Charge
D.	Decision
DG	Distributed Generation
DoN	Department of the Navy
DOT	Dispatch Operations Target
DR	Demand Response
DRAM	Demand Response Auction Mechanism
DRP	Distribution Resources Plan
E&FP	Electric & Fuel Procurement Department
EcoChoice	GT program
ECEC	El Cajon Energy Center
EE	Energy Efficiency
EcoShare	Enhanced Community Renewables
EEC	Escondido Energy Center
ERM	Energy Risk Management
ERRA	Energy Resource Recovery Account
ES	Energy Storage
ES&D	Energy Supply & Dispatch
ESSA	Electricity Scheduling and Settlement Application
ESJ	Energía Sierra Juárez
FERC	Federal Energy Regulatory Commission
FIT	Feed-In-Tariff
GHG	Greenhouse Gas

GIP	GIP III Zephyr Acquisition Partners, L.P.
GMC	Grid Management Charges
G.O.	General Order
GRC	General Rate Case
GTSR	Green Tariff Shared Renewables
HLP	Honey Lake Power Company
IDER	Integrated Distributed Energy Resources
ISTs	Inter-SC trades
kW	Kilowatt
kWh	kilowatt hour
LGBA	Local Generation Balancing Account
LGIA	Large Generator Interconnection Agreement
LMUD	Lassen Municipal Utility
Miramar	MM San Diego
MRTU	Market Redesign and Technology Update
MW	Megawatt
MDPS	Meter Data Processing System
MWh	Megawatt hour
Midway	Midway Solar Farm III (97WI 8ME LLC)
NTC/MCRD	Naval Training Center/Marine Corps Recruit Depot
O&M	Operation & maintenance
OES&D	Origination, Energy Supply & Dispatch
OMEC	Otay Mesa Energy Center
OGE	Orange Grove Energy
ORA	Office of Ratepayer Advocates
Otay	Otay Landfill Gas, LLC
P.U. Code	California Public Utilities Code
PCI	Power Costs Inc.
PCIA	Power Charge Indifference Adjustment
PDF	Portable Document Format in Adobe Acrobat
PMAX	CAISO test where generator maintains maximum output for 30 minutes.
PPA	Power Purchase Agreement
PPEC	Pio Pico Energy Center
POC	Protect Our Communities
PPTA	Power Purchase Tolling Agreement
Prima	MM Prima Deshecha Energy
QF	Qualifying Facility
Ramona 1	Sol Orchard San Diego 21 Ramona 1
Ramona 2	Sol Orchard San Diego 22 Ramona 2
RA	Resource Adequacy
RAM	Renewable Auction Mechanism
RDT	Resource Data Template
REC	Renewable Energy Credit
ReMat	Renewable Market Adjusting Tariff
Respondents	Marketers and Generators

RFO	Request for Offer
RPS	Renewable Portfolio Standard
RP	Resource Planning
S&S	Settlements and Systems
SC	Scheduling Coordinator
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric Company
SGWII	San Gorgonio Westwinds II
SCB+BTS	SoCal Gas border index plus the Backbone Transmission Service
SWG	Southwest Gas
SOC	Strained Operating Condition
SOX	Sarbanes-Oxley
SRAC	Short Run Avoided Costs
STC 6	Standard Terms and Conditions 6
TCBA	Transition Cost Balancing Account
TOD	Time of Delivery
TY	Test Year
UFO	Uncontrollable Forced Outage
UOG	Utility Owned Generation
USAs	Utility Services Agreements
V Performance	Versify Solutions
Valley Center 1	Sol Orchard San Diego 22 Valley Center 1
Valley Center 2	Sol Orchard San Diego 23 Valley Center 2
WREGIS	Western Renewable Energy Generation Information
WSPP	Western Systems Power Pool
YCA	Yuma Cogen Associates

1 As described in Section III of Ms. Ngo’s prepared direct testimony, the purpose of the
2 TCBA is to accrue all Competitive Transition Charge (“CTC”) eligible revenues and recover all
3 Qualifying Facility (“QF”) generation-costs above a calculated market benchmark. The TCBA
4 was authorized by D.02-12-074 and D.02-11-022.

5 Also, described in Ms. Ngo’s prepared direct testimony, the purpose of the LGBA is to
6 record the revenues and costs of generating contracts where the Commission has determined that
7 the resource is subject to a cost allocation mechanism. In the record period, the only projects
8 included in SDG&E’s LGBA were the contracts for Carlsbad Energy Center, LLC (“CECL”),
9 Escondido Energy Center (“EEC”), Pio Pico Energy Center (“PPEC”), Honey Lake Power
10 Company (“HLP”), CP Kelco CHP and the Grossmont Hospital CHP and the utility-owned El
11 Cajon Energy Storage and Escondido Energy Storage Facilities. The LGBA activity is described
12 in more detail in Ms. Ngo’s prepared direct testimony. The LGBA was authorized by
13 D.13-03-029 and established in Advice Letter (“AL”) 2499-E, approved on August 9, 2013 and
14 effective on July 31, 2013.

15 **A. CTC Contract Costs**

16 In accordance with D.02-12-074, this category captured expenses recorded in ERRRA up
17 to the market benchmark value of the QF and transition Combined Heat & Power (“CHP”) PPAs
18 that are non-LGBA. In D.11-12-018, the responsibility of calculating the benchmark changed
19 from the Energy Division to SDG&E. SDG&E calculated a benchmark of \$46.53/MWh in 2018.
20 The expenses for QFs were calculated by multiplying the purchased MWh by the effective
21 market benchmark. This category also includes indirect Greenhouse Gas (“GHG”) costs
22 associated with the PPAs. Any expenses above the benchmark were recorded in the TCBA

1 pursuant to Assembly Bill (“AB”) 1890. The 2018 activity in SDG&E’s TCBA is described in
2 more detail in Attachment B of the Ms. Ngo’s prepared direct testimony.

3 **B. Contract Costs (non-CTC)**

4 This category captured the expenses for renewable PPAs, SDG&E tolling agreements and
5 other bilateral PPAs. The costs include capacity, energy, fuel, fuel transportation costs, and
6 indirect GHG cost associated with the PPAs. Also included in this category are revenues and
7 expenses for real-time bilateral purchases and sales, contract-related California Independent
8 System Operator (“CAISO”) revenue or payment adjustments and revenues for contract damages
9 or awards, broker fees, and other miscellaneous service fees.

10 **C. Generation Fuel & In-Lieu Payments**

11 All monthly recorded fuel and transportation expenses for SDG&E’s utility-owned
12 generation, and fuel purchased for SDG&E’s tolling agreements, were recorded in ERRA. In-
13 Lieu Payments (of franchise fees) were collected for Palomar fuel costs and recorded in ERRA.

14 **D. Other CAISO Related Costs**

15 Included in this category are revenues and charges associated with transmission losses,
16 and ancillary services. This also includes SDG&E’s share of imbalance energy charges and Grid
17 Management Charges (“GMC”).

18 **E. CAISO Supply & Load Costs**

19 This category captures the CAISO payments and charges to SDG&E as the Scheduling
20 Coordinator (“SC”) for its supply resources, including Inter-SC trades (“ISTs”), Day-Ahead and
21 Real-Time Market activities, and their imbalance energy charges and revenues. This category
22 also includes the CAISO payments and charges to SDG&E as the SC for load, GMC, Day-Ahead
23 and Real-Time Market load activities, and load imbalance energy.

1 **F. Hedging Costs & Financial Transactions**

2 This expense category captures the monthly expenses for hedging generation fuel and
3 commissions and other bank fees.

4 **G. Western Renewable Energy Generation Information (“WREGIS”) Costs**

5 This category reflects costs relating to participation in the Renewable Energy Certificate
6 management program administered by WREGIS.

7 **H. Congestion Revenue Rights (“CRR”) CAISO Costs**

8 This category includes costs and revenues relating to CRR activity charged to SDG&E by
9 the CAISO.

10 **I. CAISO Convergence Bidding Costs**

11 This category includes revenues and costs related to convergence bidding as authorized in
12 D.10-12-034.

13 **J. Rebalancing Costs related to Otay Mesa Energy Center (“OMEC”)/Calpine**

14 SDG&E recorded the monthly rebalancing costs associated with the Revised OMEC PPA
15 in compliance with D.06-09-021 and D.11-07-041.

16 **K. Greenhouse Gas (“GHG”) & Carrying Costs**

17 This category includes costs and cost adjustments related to SDG&E’s procurement of
18 GHG compliance instruments to comply with California Air Resources Board’s Cap-and-Trade
19 program pursuant to AB 32. The 2018 GHG compliance activity is described in more detail in
20 the prepared direct testimony of SDG&E witness Ana Garza-Beutz.

21 **III. ELECTRIC & FUEL PROCUREMENT FUNCTIONS**

22 The Electric & Fuel Procurement Department (“E&FP”) is responsible for managing
23 SDG&E’s electric generating portfolios, procuring new resources, managing Renewable
24 Portfolio Standard (“RPS”) compliance, energy and gas contract administration and settlements.

1 This section generally describes the responsibilities of the major functions provided by various
2 sections of E&FP. Also, attached in Exhibit A is an organizational chart of the E&FP
3 department as of the end of the record period.

4 **A. Long-Term Procurement Functions**

5 Origination, Energy Supply and Dispatch (“OES&D”) is comprised of two functional
6 areas: Origination (Origination Analytics & Energy Origination) and Energy Supply &
7 Dispatch. Origination Analytics provides long-term procurement functions in support of
8 renewable energy, energy storage (“ES”), QFs, demand-side resources, utility owned generation
9 (“UOG”), and other resources as required. This group manages the procurement of long-term
10 renewable and conventional resources in accordance with Commission directives through
11 competitive solicitations and on a bilateral basis. Long-term resources include demand response,
12 solar, wind, biomass, small hydro, combined heat and power, conventional generation, and
13 energy storage. Energy Origination negotiates and executes PPA and resource requirements for
14 UOG, to meet SDG&E’s long-term energy and capacity requirements and regularly update the
15 Procurement Review Group.

16 **B. Resource Planning Section**

17 The Resource Planning (“RP”) Section provides support for several regulatory agencies
18 and filings including the ERRA proceeding. They forecast procurement costs for the ERRA,
19 TCBA, LGBA and the Power Charge Indifference Adjustment (“PCIA”). SDG&E’s witness
20 Ms. Ngo uses these forecasts to develop ERRA revenue requirements for each element. The
21 forecasts include expected generation and purchases from SDG&E’s resource portfolio including
22 tolling projects, UOG, renewable projects, QFs and market purchases. RP also forecasts the
23 CAISO charges, hedging costs, San Onofre Generating Station Unit 1 Offsite Spent Fuel Storage

1 Costs and a forecast of total GHG costs. RP provides support for the development of the GHG
2 allowance revenue return allocation and the volumetric revenue return for small business and
3 residential customers, as well as rates for the Green Tariff Shared Renewables (“GTSR”)
4 program.

5 **C. Trading & Scheduling Functions**

6 Energy Supply & Dispatch (“ES&D”) provides trading and scheduling functions in
7 support of UOG, tolling agreements, renewable energy, QFs, demand-side resources and other
8 resources as required. They manage the portfolio of assets consistent with the Commission-
9 approved procurement plans and gas supply plans for UOG. ES&D manages the least-cost
10 dispatch of the UOG and tolling agreements, battery energy storage, purchases and sales of gas
11 and power, and hedges to maintain the portfolio’s price risk exposure within the Customer Risk
12 Tolerance limits. They perform all scheduling and interface functions with the CAISO and
13 participate in CAISO-related meetings and working groups. ES&D manages compliance with
14 annual and monthly Resource Adequacy (“RA”) requirements and oversees the real-time
15 scheduling, dispatch, and trading functions. ES&D staffs a real-time desk to manage real-time
16 energy transactions and scheduling activities and ensures that ES&D complies with various
17 regulatory and financial constraints/requirements. Details of the least-cost dispatch are provided
18 in the prepared direct testimony of SDG&E witness Joseph Pasquito.

19 **D. Back-Office Functions**

20 Settlements and Systems (“S&S”) provides back-office support for UOG, renewable
21 energy, QFs and other resources as required. S&S manages PPAs through construction and
22 development phases, up to the commercial operation date (“COD”), monitors and administers
23 energy supply (*e.g.*, PPAs for QFs, renewable energy resources and tolling agreements) and gas

1 marketing contracts delivering energy and capacity to SDG&E and participates in various
2 regulatory proceedings relating to contract administration. During the record period, the
3 responsibility for managing PPAs through construction and development phases, up to the
4 commercial operation date (“COD”), was transferred from OES&D to the S&S Section. S&S
5 also verifies, validates, and processes invoices and billing requests for bilateral transactions, and
6 prepares journal entries to record expenses and revenues. In terms of interaction with CAISO,
7 S&S validates and processes settlement statements and invoices from the CAISO, disputes any
8 questionable charges, and reports generation and load meter data. They also coordinate
9 Sarbanes-Oxley (“SOX”) 404 compliance and control activities for many E&FP Functions.

10 The Systems Section is responsible for system administration for departmental software
11 supported by SDG&E's Information Technology department. The primary applications are the a)
12 Allegro Development Corporation’s electronic database (“Allegro”), a repository and payment
13 database, b) Power Costs Inc. (“PCI”) dispatch program, c) Versify Solutions (“V Performance”)
14 for RA requirements and d) the Meter Data Processing System (“MDPS”), which performs the
15 meter reporting and submissions to the CAISO.

16 **E. Mid-Office Functions**

17 SDG&E’s Energy Risk Management (“ERM”) department, which reports to SDG&E’s
18 Vice President - Controller and Chief Financial Officer division, provides mid-office support
19 functions to E&FP by identifying, managing, monitoring and reporting on market, credit,
20 financial and operational risks. The ERM department conducts daily reviews of electric
21 procurement physical and financial positions, including Commission-approved risk metrics,
22 trader authority limits, counterparty credit risk positions and compliance with financial

1 liquidity/collateral limits. ERM also supports the Front Office in the development of hedging
2 plans and monitors compliance with the approved plans.

3 ERM monitors and enforces process controls related to the execution, recording and
4 valuation of trades, including derivatives. ERM is also responsible for compliance with
5 Dodd-Frank requirements, including trade reporting and record retention activities, and for SOX
6 404 compliance and testing for many of the controls related to ERM activities.

7 **IV. SUPPLY PORTFOLIO ADMINISTRATION IN GENERAL**

8 Settlements and Systems is responsible for: (a) contract administration, (b) preparing,
9 reviewing and issuing invoices, (c) issuing payments associated with energy transactions and
10 generation fuel agreements, and (d) providing mandated regulatory and financial reporting.

11 As of the end of the record period, S&S administered an electric supply portfolio
12 consisting of UOG and bilateral PPAs with conventional and renewable power plants. The UOG
13 portion of the portfolio was comprised of SDG&E’s 100% ownership of the following plants:

SDG&E Power Plants	MW ¹
Miramar Energy Facility 1 & 2	96
Cuyamaca Energy Center	45
Palomar Energy Center	575
Desert Star Energy Center	495
Ramona Solar	4.3
Vista Fuel Cell	0.4
El Cajon Energy Battery Storage	7.5
Escondido Energy Battery Storage	30
Rooftop Solar (combined)	4.8

14

¹ The fossil fueled UOG MWs are consistent with SDG&E’s Resource Data Template (“RDT”) reported to the CAISO as updated when necessary from time-to-time. However, the small SDG&E-owned Vista Fuel Cell and Rooftop Solar (combined) MW’s are not reported to the CAISO.

1 SDG&E's PPAs include the following:

Status as of December 31, 2017

Commercial Operations				TOTAL PPA'S				Pre-Operational				TOTAL PPA'S				Expired/Terminated PPAs				TOTAL PPA'S			
Contract Summary				Number	MW	MWH	Contract Summary				Number	MW	MWH	Contract Summary				Number	MW	MWH			
Large Hydro				1	40.0	0	Large Hydro				0	0.0	0	Large Hydro				0	0.0	0			
QF/CHP				9	246.4	872,764	QF/CHP				2	86.6	0	QF/CHP				3	34.8	5,037			
Renewable				48	2,586.9	6,892,335	Renewable				3	128.0	0	Renewable				3	12.9	21,682			
Tolling				5	1,100.0	2,371,218	Tolling				1	500.0	0	Tolling				0	0.0	0			
Energy Storage				0	0.0	0	Energy Storage				3	12.5	0	Energy Storage				0	0.0	0			
WSPP				2	243.0	640,331	WSPP				0	0.0	0	WSPP				0	0.0	0			
Total				65	4,216.3	10,776,649	Total				9	728.1	0	Total				6	67.7	26,719			
Commercial Operations				TOTAL PPA'S				Pre-Operational				TOTAL PPA'S				Expired/Terminated PPAs				TOTAL PPA'S			
Technology Type				Number	MW	MWH	Technology Type				Number	MW	MWH	Technology Type				Number	MW	MWH			
Bio-Mass				1	24.0	159,570	Bio-Mass				0	0.0	0	Bio-Mass				0	0.0	0			
Conduat-Hydro				3	2.3	3,562	Conduat-Hydro				0	0.0	0	Conduat-Hydro				2	6.0	0			
Bio-Gas				0	0.0	0	Bio-Gas				1	2.0	0	Bio-Gas				0	0.0	0			
Digester Gas/Conduat Hydro				0	0.0	0	Digester Gas/Conduat Hydro				0	0.0	0	Digester Gas/Conduat Hydro				1	4.6	21,344			
Battery Energy Storage				0	0.0	0	Battery Energy Storage				3	13.5	0	Battery Energy Storage				0	0.0	0			
Landfill Gas				9	21.9	144,220	Landfill Gas				0	0.0	0	Landfill Gas				1	3.8	338			
Mastee				2	243.0	640,331	Mastee				0	0.0	0	Mastee				0	0.0	0			
Natural Gas				13	1,346.1	3,242,560	Natural Gas				3	586.6	0	Natural Gas				2	25.3	5,037			
Pumped-Storage Hydro				1	40.0	0	Pumped-Storage Hydro				0	0.0	0	Pumped-Storage Hydro				0	0.0	0			
Solar PV				21	1,306.1	3,362,764	Solar PV				1	20.0	0	Solar PV				0	0.0	0			
Wind				15	1,233.0	3,222,641	Wind				1	105.0	0	Wind				0	0.0	0			
Total				65	4,216.3	10,776,649	Total				9	728.1	0	Total				6	67.7	26,719			

2
3
4 Although not in SDG&E's portfolio until the end of 2018, SDG&E administered
5 contractual milestones for the CECL (527.5 MW) described later in this testimony.

6 S&S performs the following routine tasks to ensure compliance with contract terms and
7 regulatory requirements.

8 **A. Contract Management for New Projects**

9 Before new projects reach COD, S&S provides contract management during a project's
10 construction phase insuring that all conditions precedent and milestones are met. Additionally,
11 S&S manages the transition between construction and commercial operation including multiple
12 meetings with the new counterparty to introduce staff, review the scheduling communication
13 protocols, and discuss the invoicing and settlement procedures. The purpose of these meetings is
14 to ensure a smooth transition from the construction phase to commercial operation.

15 **B. Invoice Verification**

16 For most non-QF contracts, the Sellers issue monthly invoices to SDG&E. For QFs,
17 SDG&E issues monthly invoices to the Seller. Based on contract terms, and the daily
18 communication records, the S&S staff prepares, reviews and verifies the details of the invoices,
19 including, but not limited to: prices and quantity of energy delivered or scheduled, verification

1 of excused outages, prices of capacity, time of delivery factors, index prices, startup payments,
2 economic curtailment compensation, and validity of any adjustments to the invoices. S&S staff
3 follows the complete payment process to verify it is done in a timely manner per the contract.

4 S&S staff is also responsible for coordinating, investigating and resolving disputes, if
5 necessary, in a timely manner and in accordance with terms and conditions of the contract and
6 applicable utility and CAISO tariffs.

7 **C. WREGIS Administration**

8 Starting in 2007, as part of the RPS compliance effort, the California Energy Commission
9 (“CEC”), the Western Governors’ Association and Western Electricity Coordinating Council
10 jointly launched the implementation of WREGIS, an online system which tracks renewable
11 energy generation from units that register in the system using verifiable data and creates
12 Renewable Energy Credits (“RECs”) for this generation. In 2008, SDG&E became an account
13 holder and qualified reporting entity within WREGIS and worked with the renewable
14 counterparties to register each facility into the system. SDG&E started reporting renewable
15 generation from these facilities through WREGIS starting on May 1, 2008. During the record
16 period, S&S staff diligently monitored and administrated the WREGIS accounts.

17 **D. Active Monitoring**

18 Most of the PPAs require Contract Administrators to monitor and track generation to
19 ensure the Generator’s compliance with the contract terms through the life of the contracts. It
20 includes, but is not limited to: generation, insurance, credit requirements and status, and
21 compliance with regulatory and reporting requirements. Contract Administrators work closely
22 with the Generators to immediately address any contractual issues that may arise.

1 Particularly for the renewable contracts, D.10-06-004 mandated SDG&E to actively
2 monitor the Seller’s compliance with Standard Terms and Conditions 6 (“STC 6”), as defined in
3 the P.U. Code.² SDG&E implements the following method of active monitoring:

- 4 I. Request the Seller’s copy of CEC’s certification, both pre-& final;
- 5 II. Request that the Seller register the contracted facility with WREGIS and provide
6 SDG&E their WREGIS ID; and
- 7 III. Request that the Seller certify that the product SDG&E received during the record
8 period was indeed in compliance with STC 6.

9 For the record period, all RPS projects reported they complied with the STC 6 based on
10 above activities (i) and (ii). All Sellers responded to SDG&E’s questionnaire at year end
11 according to (iii) above, confirming their compliance.

12 **E. Contract System Administration**

13 During the record period, E&FP’s front, mid and back offices used Allegro as its primary
14 contract management trading and tracking system. Allegro is a SOX compliance system that is
15 used for regulatory reporting, accounting, commodity trading management, and portfolio
16 valuation. It creates an audit trail when changes are made to contracts in the system. During the
17 record period, S&S supported SDG&E’s goals of complying with SOX requirements,
18 maintaining up-to-date systems, enhancing forecast accuracy, and ensuring compatibility
19 between software systems used within E&FP.

² STC 6 requires the Sellers to warrant throughout the term of the PPA that: (i) the Project qualifies and is certified by the CEC [California Energy Commission] as an Eligible Renewable Energy Resource (“ERR”) as such term is defined in the Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project’s output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in the law. *See* D.10-06-004 at 4-5 (citation omitted).

1 **F. Summary of SDG&E’s Long-Term Energy Contract Portfolio**

2 During the record period, S&S managed the contract terms and activities of conventional
3 and renewable contracts in its long-term energy contract portfolio. The Electric Contracts tab in
4 Attachment 1 of this testimony lists and summarizes the contract terms and activities during the
5 record period in the following categories:

Contract Class
Contract Name
Contract Terms
Payment Terms
New Contracts
Modifications, Letter Agreements & Amendments filed in AL’s or Applications
Modifications, Letter Agreements & Amendments for Review in ERRA Application
Terminated Contracts

6
7 **G. Non-QF Contract Types**

8 There are generally three Non-QF contract types in SDG&E’s portfolio that include,
9 among other benefits, the purchase or sale of as-available capacity and energy, RECs and RA
10 benefits. Below is a list and definitions of those contracts:

11 **1. Renewable Contracts**

12 Power purchase and sale contracts with power suppliers whose generation fuel (wind,
13 solar, etc.) are certified as renewable. This type includes both bilateral PPAs and standard
14 agreements.

15 **2. Bilateral PPAs**

16 Contracts that originate from a Request for Offer (“RFO”) and are not tariff or regulatory
17 mandated contracts may originate from bilateral negotiations. The Buyer and Seller negotiate

1 the terms and are bound by the provisions. Bilateral PPAs typically include the purchase of
 2 energy and/or capacity and may be firm or dispatchable.

3 **3. Tolling Agreements**

4 These are dispatchable contracts, and SDG&E purchases and transports the natural gas to
 5 the power plants. SDG&E pays for capacity based on the availability of the plants and the
 6 contracts include fixed and variable O&M charges, startup costs, etc. SDG&E economically
 7 bids the plants and available ancillary services into the CAISO market.

8 **H. QF/CHP Contract Administration**

9 As of the end of the record period, the following tables list and summarize the names,
 10 sizes, energy and capacity prices and quantities of all exporting and non-exporting QF/CHP's
 11 during the record period:

12

QF & CHP PLANTS THAT SOLD POWER OR WERE DISPATCHED BY SDG&E					
Plant	PPA Type	Nameplate MW	Fixed Capacity MW	Energy Price	Capacity Price
SF Peak Hydro	SO1	0.4	0	SRAC	SRAC
Goal Line	CHP	49.9	49.9	\$5.63/MWh variable O&M	\$172/KW-yr. + \$23.40-\$33.00/kW-yr.
YCA	CHP	55.0	55.0	\$3.14/MWh variable O&M	\$140/kW-yr. with 17.65% bonus adj.
CP Kelco	CHP	26.7	0	SRAC	SRAC
Grossmont	CHP	4.6	0	SRAC	SRAC
Total		136.6	104.9		

13

ALL QF/CHP CONTRACTS INCLUDING SELF-SERVED ONLY				
QF	Total Number of Operational QFs/CHP	Operational (MW)	Number of Non-Operational	Non-Operation (MW)
Biogas	2	0.2	0	
Cogeneration	19	100.1	1	.02
Hydroelectric	1	.35	0	0
CHP	4	136.2	0	0
Total	26	236.9	0	0

14 The following table lists the percentages of generation (MWh) supplied by QF projects,
 15 but not CHP, relative to SDG&E's total energy supply for the record period.

Total QF Supply (MWh)	SDG&E's Total Energy Supply (retail sales MWh)	% of QF generation relative to SDG&E's total energy supply
94,836.6	15,169,149	0.625%

1
2 The following table lists the percentages of QF renewable energy (MWh), but not CHP,
3 relative to total QF supply for the record period.

QF RPS Eligible Renewable Purchased Energy (MWh)	Total QF Purchases (MWh)	% of QF RPS eligible renewable Purchased Energy relative to total QF Purchases
296.0	94,836.6	0.312%

4
5 The following table lists the percentages of QF renewable energy (MWh) relative to total
6 RPS supply.

QF Renewable Purchases (MWh)	Total RPS Purchases (MWh)	% of QF RPS eligible Renewable Energy relative to total RPS supply
296	6,806,076	0.004%

7
8 **1. Payments to QFS/CHP**

9 During the record period, there were no unusual or significant payments to, or claims by,
10 the QFs. The table below shows the QF only monthly delivered energy GWh and the energy,
11 capacity and bonus payments made to QFs during the record period. The table is also provided
12 in Attachment 1.

2018 QF MONTHLY PAYMENTS		Confidential/privileged pursuant to applicable provisions of D.06-06-066, G.O. 86-D and PUC Code Section 583 and Section 454.5(g).													
Monthly Energy Purchases (GWh)		NOTE: DOES NOT INCLUDE GENERATION FROM, OR PAYMENT TO, COVERED CHP PLANTS													
QFID	Technology	Generating Facility	Jan Total GWh	Feb Total GWh	Mar Total GWh	Apr Total GWh	May Total GWh	Jun Total GWh	Jul Total GWh	Aug Total GWh	Sept Total GWh	Oct Total GWh	Nov Total GWh	Dec Total GWh	Total GWh
223	Cogeneration	North Island Cogeneration													31.41
233	Cogeneration	Naval Station													42.32
162	Cogeneration	NTC/MCRD Steam Turbine													2.22
232	Steam Turbine	NTC/MCRD Cogeneration													18.66
119	Conduit Hydro	San Francisco Peak Hydro Plant													0.30
027	Conduit Hydro	Bear Valley Hydro Plant													0.13
	GRAND TOTAL														94.84
Monthly Energy Purchases (\$MM)															
QFID	Customer Name	Generating Facility	Jan Energy \$	Feb Energy \$	Mar Energy \$	Apr Energy \$	May Energy \$	Jun Energy \$	Jul Energy \$	Aug Energy \$	Sept Energy \$	Oct Energy \$	Nov Energy \$	Dec Energy \$	Total Energy \$
223	Cogeneration	North Island Cogeneration													\$ 1.11
233	Cogeneration	Naval Station													\$ 1.50
162	Cogeneration	NTC/MCRD Steam Turbine													\$ 0.08
232	Steam Turbine	NTC/MCRD Cogeneration													\$ 0.65
119	Conduit Hydro	San Francisco Peak Hydro Plant													\$ 0.01
027	Conduit Hydro	Bear Valley Hydro Plant													\$ 0.01
	GRAND TOTAL														\$ 3.86
Monthly Capacity Purchases (\$MM)															
QFID	Customer Name	Generating Facility	Jan Capacity	Feb Capacity	Mar Capacity	Apr Capacity	May Capacity	Jun Capacity	Jul Capacity	Aug Capacity	Sept Capacity	Oct Capacity	Nov Capacity	Dec Capacity	Total Capacity
223	Cogeneration	North Island Cogeneration													\$ 0.37
233	Cogeneration	Naval Station													\$ 0.51
162	Cogeneration	NTC/MCRD Steam Turbine													\$ 0.01
232	Steam Turbine	NTC/MCRD Cogeneration													\$ 0.23
119	Conduit Hydro	San Francisco Peak Hydro Plant													\$ 0.00
027	Conduit Hydro	Bear Valley Hydro Plant													\$ 0.00
	GRAND TOTAL														\$ 1.12

2. Efficiency Monitoring

SDG&E did not review any QF cogeneration efficiency records for year 2018. SDG&E's only remaining QF cogeneration plants - Naval Station, North Island and NTC/MCRD, were granted temporary waivers from FERC of their QF efficiency standards in 2018. Further, all three plants discontinued operations when their base leases ended on February 8, 2018, and their Standard Offer PPAs were terminated on March 31, 2018. See the terminated projects in Section VI.H. Expired and Terminated PPAs for more information.

3. Insurance Monitoring

During the record period, the S&S staff solicited and tracked insurance certificates for all PPAs to ensure current certificates are maintained by TrackCertsNow, an Ebix Inc. system.

4. Firm Capacity Payments

Firm capacity QFs are required to maintain at least an 80% capacity factor during the on-peak and semi-peak periods to receive 100% of their firm capacity payments. A QF that fails to

1 maintain an 80% capacity factor for any month will have its firm capacity payment reduced. If a
2 QF fails to maintain an 80% capacity factor for any summer on-peak month, the QF will be
3 placed on probation for a period not to exceed fifteen months. The QF would continue to receive
4 its firm capacity payment but would not receive a capacity bonus factor (“CBF”). If the QF
5 operates above an 80% capacity factor during each of the ensuing summer months, they will be
6 removed from probation and are permitted to earn a CBF adjustment. If the QF fails to operate
7 above an 80% capacity for the ensuing summer on-peak months, the QF’s firm capacity can be
8 derated to the capacity kW the QF could have operated.

9 **5. Capacity Bonus Factor**

10 Firm capacity QFs that operate greater than an 85% capacity factor during the on-peak
11 hours of the peak summer months in a calendar year receive a CBF multiplier between 1.0 and
12 1.1765 times the firm capacity payment. QFs who operate at or below an 85% capacity factor
13 receive a CBF multiplier of 1.0.

14 **6. Uncontrollable Forced Outage (“UFO”)**

15 When a firm capacity QF is unable to perform due to a UFO (a.k.a. “Force Majeure”),
16 SDG&E continues to make firm capacity payments while the Force Majeure claim is being
17 verified. The QF must provide a root cause analysis verifying the validity of the event. If a UFO
18 cannot be verified, the event is redefined as a simple forced outage and SDG&E will attempt to
19 recover the capacity payment made during the event.

20 **V. EXPIRED AND TERMINATED CONTRACTS**

21 SDG&E normally administers each contract from execution through the end of the
22 contract term at which point, the contract will expire. However, SDG&E can terminate a PPA
23 earlier than the expiration date due to a counterparty event of default. If this occurs, SDG&E
24 will notify the counterparty of the default. If the counterparty fails to cure the default, SDG&E

1 may terminate the contract. The expired and terminated contracts are discussed in the relevant
2 sections below and in Attachment 1. Copies of the applicable termination letters are included in
3 Exhibit B of this testimony.

4 **A. Contract Amendments, Modifications and Letter Agreements**

5 During the record period, SDG&E modified and amended several contracts. Some
6 contract modifications were material in nature and required Commission approval, and some
7 other modifications were not material. The material modifications are discussed in the relevant
8 sections below. Attachment 1 of this testimony summarizes all changes and modifications to
9 contracts during the record period.

10 **B. Contract Administration of Fuel Procurement Contracts**

11 During the record period, SDG&E had fuel procurement contracts in effect or under
12 negotiation, initiation, revision, amendment, or termination. Attachment 1 of this testimony
13 includes a tab entitled “Gas Contracts” that identifies the counterparties, contract types and
14 effective dates of all active fuel procurement contracts in effect or otherwise acted upon during
15 the record period.

16 **C. Hypothetical Maximum Disallowance for Standard of Conduct 4 Violations**

17 For the record period, SDG&E calculated \$19.949 million³ as the hypothetical Maximum
18 Disallowance for Standard of Conduct 4 Violations which equates to twice the estimated
19 administrative expenses of \$9.975 million calculated in the table below. In D.02-12-074, the
20 Commission set “each utility’s maximum disallowance risk equal to two times their annual
21 administrative expenses for all procurement functions, including those related to DWR contract

³ SDG&E provides this information on a hypothetical basis. SDG&E sees no practical usefulness of this number in this proceeding.

1 administration, utility-retained generation, renewables, QFs, demand-side resources, and any
2 other procurement resources.”⁴ This hypothetical disallowance cap was established in Ordering
3 Paragraph 25 of D.02-12-074 and modified by Ordering Paragraph 3.a. of D.03-06-067.

4 The record period falls under the 2016 GRC period which is effective from 2016 through
5 2018. In the table below, SDG&E provides a hypothetical disallowance cap utilizing the GRC
6 Authorized Revenues for Procurement Expenses and shows how those costs are hypothetically
7 distributed in three major functions: Long-Term Procurement, Trading & Scheduling, and the
8 Mid and Back Office. More information about the test-year (“TY”) 2016’s O&M costs for non-
9 shared services are summarized in the SDG&E Direct Testimony of Sue E. Garcia (Electric and
10 Fuel Procurement) (November 2014) in the 2016 GRC proceeding (Application (“A.”) 14-11-
11 003) and attached Exhibit D is a copy of this testimony.⁵

⁴ D.02-12-074 at 55.

⁵ SDG&E uses USA (Federal Energy Regulatory Commission (“FERC”)) Accounts 556 (System Control and Load Dispatch) and 557 (Other Expense – Purchase Power). There are no USA numbers that can be used for the procurement functions in the table. It is SDG&E’s understanding that the USA systems of accounts relates to FERC accounts only.

SDG&E's Hypothetical Disallowance Cap Utilizing the GRC Authorized Revenues for Procurement Expenses

Administration Expenses for all Procurement Functions		SDG&E's Authorized Revenue Requirement for Procurement Expenses (2017\$)			Attition Years	
		Labor	Non-Labor	Total	Year	Escalation Rates
1	Long Term Procurement	2,390	0,413	2,803		
2	Trading and Scheduling	2,557	0,821	3,378	2019	3.50%
3	Middle and Back Office	2,853	1,141	3,994		
4	Total	7,800	2,375	9,975	19,949	

From CPUC D.16-06-054		SDG&E's Proxy Procurement Expenses (2018\$)		
		Labor	Non-Labor	Total
1	Long Term Procurement	2,45		2,45
2	Trading and Scheduling	2,97		2,97
3	Middle and Back Office	3,34		3,34
4	Total	8,76		8,76

		electro			
		2019 \$	2019 \$	2016\$	2016\$
		L	NL	L	NL
IEP001	Long Term Procurement	2.11	0.38	2.27	0.39
IEP002	Trading and Scheduling	2.38	0.80	2.56	0.82
IEP003	Middle and Back Office	2.47	1.11	2.65	1.14

		gen			
		2019 \$	2019 \$	2016\$	2016\$
		L	NL	L	NL
IEP001	Long Term Procurement	0.01	0.00	0.01	0.00
IEP002	Trading and Scheduling	0.00	0.00	-	-
IEP003	Middle and Back Office	0.06	0.00	-	-

		gas			
		2019 \$	2019 \$	2016\$	2016\$
		L	NL	L	NL
IEP001	Long Term Procurement	0.16	0.02	0.11	0.02
IEP002	Trading and Scheduling	0.00	0.00	-	-
IEP003	Middle and Back Office	0.06	0.00	-	-

		Total					
		2019 \$	2019 \$	Total	2016\$	2016\$	Total
		L	NL	L	NL	L	NL
IEP001	Long Term Procurement	2.22	0.40	2.63	2.39	0.41	2.80
IEP002	Trading and Scheduling	2.38	0.80	3.18	2.56	0.82	3.38
IEP003	Middle and Back Office	2.47	1.11	3.58	2.65	1.14	3.73
							\$ 97

Escalation Rates		
Ele/Gen/Gas	Ele/Gen	Gas
Labor	NLbr	NLbr
107400	1030200	1035900

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VI. CONTRACT PORTFOLIO AND STATUS

This section lists each of the executed contracts in SDG&E's portfolio by technology type and provides a brief description of the contract or project status. SDG&E also describes any issues that occurred in the record period.

During the record period, SDG&E conducted resource-specific and Preferred-Resources RFOs requesting solicitations with the following pro-forma agreements:⁶

⁶ Excludes solicitations for resources such as the 2018 Demand Response Auction Mechanism ("DRAM") and the 2017 Distribution Resources Plan ("DRP") Demo C RFO. For listings of all RFO's see San Diego Gas & Electric Company, Request for Proposals and Request for Offers, available at <https://www.sdge.com/more-information/doing-business-with-us/rfps-rfos>.

1

PROCUREMENT- RELATED RESOURCES SOLICITATION IN 2018

Pro-Forma Agreement Type	Date Issued	Description
Fall 2018 Green Tariff Shared Renewables Solicitation	November 1, 2018	The GTSR Decisions mandate SDG&E to implement the GTSR Program, which includes two components: (1) a Green Tariff (GT) program (“EcoChoice”), allowing customers to choose a higher percentage of renewable generation than they already get from SDG&E; and (2) an Enhanced Community Renewables program (“EcoShare”), allowing customers to participate in community-based projects.
2019 FALL Local Resource Adequacy (RA) Solicitation	August 20, 2018	Seeks to purchase and/or sell 2019 Local Resource Adequacy (“RA”) capacity products from load serving entities, marketers and generators (“Respondents”) to assist in optimizing SDG&E’s RA portfolio.
Spring 2018 Green Tariff Shared Renewables Solicitation	May 25, 2018	The GTSR Decisions mandate SDG&E to implement the GTSR Program, which includes two components: (1) a Green Tariff (GT) program (“EcoChoice”), allowing customers to choose a higher percentage of renewable generation than they already get from SDG&E; and (2) an Enhanced Community Renewables program (“EcoShare”), allowing customers to participate in community-based projects.
2018 RPS REC Sale Request for Proposal	April 3, 2018	RFP seeking proposals from third parties (“Respondents”) who are interested in purchasing energy products from eligible renewable resources under contract with SDG&E (“Resources”).
2019 Local Resource Adequacy Solicitation	March 16, 2018	Seeks to purchase Local Resource Adequacy (“RA”) capacity products with load serving entities, marketers and generators (“Respondents”) to assist in optimizing its RA portfolio.
2019 DRAM RFO ⁷	January 25, 2018	The DRAM is a pay-as-bid auction of monthly local, system, and flexible RA for Offerors to bid directly in the California Independent Operator System (“CAISO”) market, with participation from customers in the SDG&E’s service territory.
2018 IDER Request for Offers (see Footnote 8)	January 10, 2018	Seeking distribution capacity, no later than February 1, 2020 for circuits 303 and 783 near Carlsbad, California. SDG&E will consider integrated hybrid resource types to meet the total required distribution capacity for each circuit to be considered one project with one counterparty per circuit. The minimum contract delivery term SDG&E is willing to consider is five (5) years and the maximum contract term to be considered is ten (10) years.

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Copies of the pro forma PPAs are attached in a PDF format in Exhibit C of this

4

testimony.

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In addition to the PPAs listed above, SDG&E had a Bioenergy Market Adjusting Tariff

6

(“Bio-Mat”), and CHP PPA (for CHP Facilities less than 5 MW) available during the record

7

period.

8

A. Renewable Resources

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SDG&E’s PPA renewable portfolio is comprised of resources from competitive

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solicitations, bilateral PPAs, and standard PPAs. This section provides a description of each

⁷ O&PD ran the DRAM and Integrated Distributed Energy Resources (“IDER”) solicitations on behalf of the business units due to its expertise in solicitations and market valuation. However, it did not technically own the solicitations.

1 renewable energy resource project in SDG&E’s electric portfolio that delivered energy to
2 SDG&E during the record period, arranged by technology type, along with discussions of
3 activities unique to each project. Additional details about each project can be found in the
4 Electric Contracts tab of Attachment 1 of this testimony.

5 **1. BIO-GAS & BIO-MASS**

6 During the record period, SDG&E purchased energy from the following bio-fuel projects:

- 7 ○ HL Power Company, LP: This five-year Bio-RAM PPA (with five one-year
8 extensions at SDG&E’s option) was executed on November 14, 2016 and started
9 delivering energy under the PPA in 2017. [REDACTED]

10 [REDACTED] The bio-mass project size is 24
11 MW, is in Wendel, CA, and is connected to the Lassen Municipal Utility
12 (“LMUD”) which delivers their energy to the PG&E system.

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

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[REDACTED]

[REDACTED]

- MM Prima Deshecha Energy LLC (“Prima”): This fifteen-year bilateral PPA was executed on September 6, 2005 and started delivering energy under the PPA in 2007. The PPA price started at \$48.50/MWh and escalates to \$68.53/MWh. The landfill gas project size is 6.1 MW and is in Orange County, CA.

[REDACTED]

[REDACTED]

[REDACTED]

- MM San Diego (“Miramar”) - This ten-year RAM PPA was executed on November 9, 2012 and started delivering energy under the PPA in 2013. The PPA price is \$87.00/MWh adjusted by time-of-delivery (“TOD”) factors. The landfill gas project size is 4.5 MW and is in San Diego, CA.
- Otay Landfill 1: This ten-year Customer Renewable Credit (“CRE”) Feed-In-Tariff (“FIT”) PPA was executed on May 1, 2009. The plant started delivering energy under the PPA in 2009. The PPA price is \$100.43/MWh adjusted by TOD factors. The landfill gas plant size is 1.5 MW and is in Chula Vista, CA.
- Otay Landfill 2: This twenty-year CRE FIT PPA was executed with SDG&E on February 22, 2011. The plant started delivering energy under the PPA in 2011. The PPA price is \$100.98/MWh adjusted by TOD factors. The landfill gas plant size is 1.5 MW and is in Chula Vista, CA.
- Otay Landfill 3: Please see Section VI.H. Expired and Terminated PPAS for information on this expired PPA.

- Bear Valley Hydro Plant: This evergreen restated bilateral PPA was executed on April 13, 1994. The conduit hydro facility started delivering power in 1994. The PPA price is Short Run Avoided Costs (“SRAC”) with as-available capacity payments. The conduit hydro plant size is 1.5 MW and is in Escondido, CA.
- Olivenhain Municipal Water District: This twenty-year Wastewater FIT PPA with the Public Water and Wastewater was executed on July 23, 2013 and started delivering energy under the PPA in 2013. The PPA price is \$93.75/MWh adjusted by TOD factors. The conduit hydro project size is 0.45 MW and is in Encinitas, CA.

3. SOLAR

During the record period, SDG&E purchased energy from the following solar projects:

- Arlington Valley Solar: This twenty-five-year bilateral PPA was executed on June 3, 2011 and started delivering energy under the PPA in 2013. The PPA price is \$107.50/MWh adjusted by TOD factors. SDG&E exercised its curtailment rights during the record period. The solar PV project size is 127 MW and is in Arlington, AZ.
- Calipatria Solar: This twenty-year RAM PPA was executed on December 13, 2012 and started delivering energy under the PPA in 2016. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] The solar PV project size is 19.99 MW and is in Imperial Valley, CA.
[REDACTED]
[REDACTED]

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[REDACTED]

- Campo Verde Solar: This twenty-year bilateral PPA was executed on October 31, 2006 and started delivering energy under the PPA in 2013. The PPA price started at \$112.52/MWh in year 2013 and escalates to \$135.93/MWh throughout the term adjusted by TOD factors. [REDACTED]

[REDACTED] The solar PV project size is 139 MW and is in Imperial Valley, CA.

[REDACTED]

- Cascade Solar: This twenty-year RAM PPA was executed on October 19, 2012. The plant started delivering energy under the PPA in 2013. The PPA price started at \$64.81/MWh in year 2014 and escalates to \$103.61/MWh throughout the term adjusted by TOD factors. The solar PV project size is 18.5 MW and is in Sun Fair, CA.

- Catalina Solar: This twenty-five-year bilateral PPA was executed on June 3, 2011 and started delivering energy under the PPA in 2013. The PPA price started at \$112.19/MWh in year 2013 and escalates to \$142.45/MWh throughout the term

1 adjusted by TOD factors. The solar PV project size is 109.44 MW and is in Kern
2 County, CA.

3 ○ Centinela Solar Energy 1: This is a twenty-year bilateral PPA executed on May
4 10, 2010 and started delivering energy under the PPA in 2013. The PPA price is
5 \$125.00/MWh adjusted by TOD factors. SDG&E exercised its curtailment rights
6 during the record period. The solar PV project size is 125 MW and is in Calexico,
7 CA.

8 ○ Centinela Solar Energy 2: This twenty-year bilateral PPA was executed on July
9 29, 2010. This expansion plant started delivering energy under the PPA in 2014.
10 The PPA price is \$121.00/MWh adjusted by TOD factors. SDG&E exercised its
11 curtailment rights during the record period. The solar PV project size is 45 MW
12 and is in Calexico, CA.

13 ○ CSolar IV South: This twenty-five-year bilateral PPA was executed on November
14 10, 2010 and started delivering energy under the PPA in 2013. The PPA price is
15 \$125.85/MWh adjusted by TOD factors. SDG&E exercised its economic
16 curtailment rights during the record period. The solar PV project size is 130 MW
17 and is in Calexico, CA.

18 ○ CSolar IV West: This twenty-five-year bilateral PPA was executed on March 8,
19 2011 and started delivering energy under the PPA in 2016. [REDACTED]

20 [REDACTED] An Interconnect Adjustment Charge of
21 [REDACTED] MWh was added to the PPA price from the date of first delivery of energy
22 through the last day of the second contract year and [REDACTED]/MWh thereafter until
23 the end of the contract term. SDG&E exercised its economic curtailment rights

1 during the record period. The solar PV project size is 150 MW and is in Imperial
2 Valley, CA.

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 ○ Desert Green Solar Farm: This twenty-five-year bilateral PPA was executed on
8 March 31, 2011 and started delivering energy under the PPA in 2014. The PPA
9 price is \$139.50/MWh. The solar PV project size is 6.3 MW and is in Borrego
10 Springs, CA.

11 ○ Imperial Valley Solar 1 (Silver Ridge Mt Signal): This twenty-five-year bilateral
12 PPA was executed on February 3, 2012 and started delivering energy under the
13 PPA in 2013. The PPA price is \$98.59/MWh adjusted by TOD factors. SDG&E
14 exercised its curtailment rights during the record period. The solar PV project
15 size is 200 MW and is in Calexico, CA.

16 ○ Maricopa West Solar PV: This fifteen-year RAM PPA was executed on April 16,
17 2013 and started delivering energy under the PPA in 2015. The RAM PPA price
18 is [REDACTED] The solar PV project size is 20 MW
19 and is in Taft, CA.

20 [REDACTED] Midway Solar Farm III ("Midway") (a.k.a. 97WI 8ME LLC) This twenty-year
21 RAM PPA was executed on December 11, 2015 and started delivering energy
22 under the PPA in 2018. [REDACTED]

23 [REDACTED] The solar plant size is 20 MW and is in Calipatria, CA.

- 1 ○ NLP Granger A82 Solar: This twenty-year ReMat PPA was executed on April 3,
2 2014 and started delivering energy under the PPA in 2016. The solar PV PPA
3 price is [REDACTED] The solar PV project size is 3
4 MW and is in Valley Center, CA.
- 5 ○ NLP Valley Center Solar: This twenty-year ReMat PPA was executed on July 20,
6 2015 and started delivering energy under the PPA in 2016. The PPA price is
7 [REDACTED] The solar PV project size is 2.33 MW
8 and is in Valley Center, CA.
- 9 ○ SG2 Imperial Valley: This twenty-five-year bilateral PPA was executed on June
10 24, 2011 and started delivering energy under the PPA in 2014. The PPA price
11 started at \$90.93/MWh escalated to \$129.98/MWh throughout the term adjusted
12 by TOD factors. SDG&E exercised its curtailment rights during the record
13 period. The solar PV project size is 150 MW and is in Imperial Valley, CA.
- 14 ○ Sol Orchard San Diego 20 LLC ("Ramona 1"): This twenty-five-year bilateral
15 PPA was executed on April 11, 2011 and started delivering energy under the PPA
16 in 2013. The PPA price started at \$111.86/MWh escalates to \$142.03/MWh
17 throughout the term and adjusted by TOD factors. The solar PV project size is 2
18 MW and is in Ramona, CA.
- 19 ○ Sol Orchard San Diego 21 LLC ("Ramona 2"): This twenty-five-year bilateral
20 PPA was executed on April 11, 2011 and started delivering energy under the PPA
21 in 2013. The PPA price started at \$111.86/MWh and escalated to \$142.03/MWh
22 and adjusted by TOD factors. The solar PV project size is 5 MW and is in
23 Ramona, CA.

- 1 ○ Sol Orchard San Diego 22 LLC (“Valley Center 1”): This twenty-five-year
2 bilateral PPA was executed on April 11, 2011 and started delivering energy under
3 the PPA in 2013. The PPA price started at \$111.86/MWh escalates throughout
4 the term to \$142.03/MWh and adjusted by TOD factors. The solar PV project
5 size is 2.5 MW and is in Valley Center, CA.
- 6 ○ Sol Orchard San Diego 23 LLC (“Valley Center 2”): This twenty-five-year
7 bilateral PPA was executed on April 11, 2011 and started delivering energy under
8 the PPA in 2013. The PPA price started at \$111.86/MWh in Year 1 and escalates
9 to \$142.03/MWh throughout the term adjusted by TOD factors. The solar PV
10 project size is 5.0 MW and is in Valley Center, CA.
- 11 ○ Solar Borrego I (formerly NRG Solar Borrego I): This twenty-five-year bilateral
12 PPA was executed on January 25, 2011 and started delivering energy under the
13 PPA in 2013. The PPA price is \$130.00/MWh adjusted by TOD factors. The
14 solar PV project size is 26 MW and is in Borrego Springs, CA.

15 [Redacted]

16 [Redacted]

17 [Redacted]

18 [Redacted]

19 [Redacted]

20 [Redacted]

21 [Redacted]

22 [Redacted]

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[REDACTED]

- TallBear Seville: This twenty-year RAM PPA was executed on December 13, 2012. The project started delivering energy under the PPA in 2015. The RAM PPA price is [REDACTED]. The solar PV project size is 20 MW and is in Imperial County, CA.

4. WIND

During the record period, SDG&E purchased energy from the following wind projects:

- Coram Energy, LLC: This fifteen-year bilateral PPA was executed on July 12, 2010. The plant started delivering energy under the PPA in 2011. The PPA price started at \$95.00/MWh and escalates to \$109.20/MWh through the term adjusted by TOD factors. The wind project size is 7.5 MW and is in the Tehachapi area of CA.
- Energía Sierra Juárez: This twenty-year bilateral PPA with an IEnova Sempra affiliate was executed on April 6, 2011 and started delivering energy under the PPA in 2015. The PPA price is \$106.50/MWh adjusted by TOD factors. The

1 wind project size is 155.1 MW and is in Ejido Jacume, Mexico, and it is directly
2 interconnected to SDG&E's East County Substation.

3 ○ FPL Energy Green Power Wind, LLC (a.k.a. "WTE"): Please see Section VI.H.
4 Expired and Terminated PPAS for information on this expired PPA.

5 ○ Kumeyaay Wind LLC: This twenty-year bilateral PPA was executed on May 31,
6 2004 and started delivering energy under the PPA in 2006. The PPA price started
7 at \$49.00/MWh and escalated to \$51.75/MWh in year five and then leveled
8 through the term. SDG&E and Kumeyaay have been transacting ISTs under their
9 MRTU Agreement since April 2009. The wind project size is 50 MWs and is
10 located on the Campo Indian Reservation in eastern San Diego County, CA.

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]

17 ○ Manzana Wind (Avangrid Renewables): This twenty-year bilateral PPA was
18 executed on February 14, 2012 and started delivering energy under the PPA in
19 2012. The PPA price is \$95.00/MWh minus the average real-time market prices.
20 SDG&E exercised its economic curtailment rights during the record period.
21 SDG&E purchases 53%, or 100 MW of the 189 MW wind project located in
22 Rosamond, CA.

- 1 ○ Mountain Wind (Avangrid Renewables): Please see Section VI.H. Expired and
2 Terminated PPAS for information on this expired PPA.
- 3 ○ Naturener Glacier 1: This fifteen-year bilateral PPA was executed on May 16,
4 2008 and started delivering energy under the PPA in 2008. The transaction is a
5 combination of two products. SDG&E buys the output at \$89.00/MWh which
6 includes the green attributes. Glacier 1 buys back the output at \$68.00/MWh,
7 excluding green attributes, at the same delivery point. The wind project size is
8 106.5 MW and is in Ethridge, Montana.
- 9 ○ Naturener Glacier 2: This fifteen-year bilateral PPA was executed on May 23,
10 2008 and started delivering energy under the PPA in 2009. The transaction is a
11 combination of two products. SDG&E buys the output at \$98.00/MWh which
12 includes the green attributes. Glacier 2 buys back the output at \$68.00/MWh,
13 excluding green attributes, at the same delivery point. The wind project size is
14 103.5 MW is in Ethridge, Montana.
- 15 ○ Naturener Rim Rock: This twenty-year bilateral PPA was executed on May 5,
16 2009 and started delivering energy under the PPA in 2013. The transaction is a
17 combination of two products. SDG&E buys the output at \$105.99/MWh which
18 includes the green attributes. Rim Rock buys back the output at \$62.00/MWh,
19 excluding green attributes, at the same delivery point. The wind project size is
20 189 MW and is in Toole and Glacier County, Montana.
- 21 ○ Oak Creek Wind Power, LLC: This ten-year RAM PPA was executed on April
22 16, 2013 and started delivering energy under the PPA in 2014. The PPA price is

1 \$67.00/MWh adjusted by TOD factors. The wind project size is 3.5 MW and is in
2 Imperial Valley, CA.

- 3 ○ Oasis Power Partners, LLC: This fifteen-year bilateral PPA was executed on
4 October 30, 2002 and started delivering energy under the PPA in 2004. The PPA
5 price is \$49.20/MWh. SDG&E and Oasis have been transacting ISTs under their
6 Market Redesign and Technology Update (“MRTU”) Agreement since April
7 2009. The wind project size is 60 MW and is in Tehachapi, CA.
- 8 ○ Ocotillo Express, LLC: This twenty-year bilateral PPA was executed on February
9 1, 2011. The project started delivering energy under the PPA in 2013. The PPA
10 price is \$105.00/MWh. The wind project size is 265.29 MW and is in Imperial
11 Valley, CA. SDG&E exercised its curtailment rights starting during the record
12 period.
- 13 ○ Pacific Wind Lessee, LLC: This twenty-year bilateral PPA was executed on April
14 20, 2010. The plant started delivering energy under the PPA in 2012. The PPA
15 price is \$115.47/MWh. The wind project size is 140 MW and is in Rosamond,
16 CA.
- 17 ○ Phoenix Wind (Avangrid Renewables): Please see Section VI.H. Expired and
18 Terminated PPAS for information on this expired PPA.
- 19 ○ San Gorgonio Westwinds II (“SGWII”): This ten-year RAM PPA was executed
20 on April 16, 2013. The wind plant started delivering energy under the PPA in
21 2015. The PPA price is \$71.00/MWh adjusted by TOD factors. The project size
22 is 11.2 MW and is in Palm Springs, CA.

1 **B. QF/CHP Projects**

2 **1. Renewable**

- 3 ○ San Francisco Peak Hydro Plant: This evergreen SO1 QF PPA was executed on
4 August 29, 1985. The small hydro plant started delivering energy under the PPA
5 effective in December 1985. The energy and capacity prices are SRAC. The
6 conduit hydro plant size is 0.4 MW and is in Oceanside, CA.

7 **2. Conventional**

- 8 ○ C.P. Kelco: This seven-year non-dispatchable CHP PPA was executed on
9 November 19, 2015. The cogeneration plant started delivering energy under the
10 PPA on June 1, 2017. [REDACTED] The converted
11 cogeneration QF project size is 26.65 MW and is in San Diego, CA.
- 12 ○ Goal Line, LLP: This seven-year dispatchable CHP PPA was executed on July 2,
13 2013. The PPA is a restated QF SO2 PPA. The plant started delivering energy
14 under the CHP PPA in 2015. The firm capacity price is \$172.00/kW-yr. plus
15 dispatchable rights from \$23.40 - \$33.00/kW-yr. over the PPA term. The variable
16 O&M is \$5.63/MWh times a Consumer Price Index Adjustment (“CPIA”). The
17 converted cogeneration QF project size is 49.9 MW and is in Escondido, CA.

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

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[REDACTED]

[REDACTED]

- Grossmont Hospital: This ten-year non-dispatchable CHP PPA - less than 5 MW PPA was executed on May 1, 2016. The plant started delivering energy under the PPA in January 2017. [REDACTED] The converted cogeneration QF project size is 4.6 MW and is in La Mesa, CA.
- Naval Station CHP: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- North Island CHP: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- Naval Station QF: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- North Island QF: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- NTC/MCRD: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- NTC/MCRD Steam Turbine: Please see Section VI.H. Expired and Terminated PPAs for information on this terminated PPA.
- Yuma Cogeneration Associates (“YCA”): This dispatchable CHP PPA was executed on August 19, 2014. The plant started delivering energy under the PPA in 2015. Under the PPTA, YCA acts as its own fuel manager and purchases gas from Southwest Gas (“SWG”). The firm capacity price was \$140/kW-yr. with a 17.65% bonus payment during the Summer Peak period and a variable O&M rate

1 of \$3.14/MWh times the CPIA. The converted cogeneration QF project size is 55
2 MW and is in Yuma, AZ.

3 [Redacted]

4 [Redacted]

5 [Redacted]

6 [Redacted]

7 [Redacted]

8 [Redacted]

9 [Redacted]

10 [Redacted]

11 [Redacted]

12 [Redacted]

13 [Redacted]

14 [Redacted]

15 [Redacted]

16 **C. Energy Storage - Large Hydro Project**

17 During the record period, SDG&E had the following pump storage facility.

- 18 ○ Olivenhain-Hodges Pump Storage Facility: This twenty-five-year Bilateral PPA
19 was executed on January 29, 2004 and started delivering energy under the PPA in
20 2012. The capacity price is \$65.00/kW-year plus a variable rate at \$5.00/kW-year
21 times CPIA and the variable O&M is \$2.00/MWh times the CPIA. The hydro
22 pump storage facility is 40 MW and is in Escondido, CA.

1 The San Diego County Water Authority (“SDCWA”) project pumps water from
2 Lake Hodges to the Olivenhain Reservoir typically during off-peak hours consuming
3 power, and then generates power typically during on-peak hours by flowing water
4 from Olivenhain back to Lake Hodges. SDG&E utilizes the market price spreads
5 between on-peak and off-peak time periods. SDG&E manages the economics
6 through dispatching the generation and pump load.

7 **D. Tolling Agreements**

8 During the record period, SDG&E had the following operational combined cycle and
9 quick-start gas turbine plants. SDG&E purchases the natural gas and pays the GHG costs.

- 10 ○ Carlsbad Energy Center (Carlsbad): This twenty-year PPTA was executed on
11 June 1, 2015. [REDACTED]

12 The capacity price starts at [REDACTED] throughout
13 the term and the variable O&M price is [REDACTED]. The gas
14 turbine quick start plant has two units – one unit consisting of four (4) GE
15 LMS100 PA+ gas turbines and the other unit consisting of one (1) GE LMS100
16 PA+ gas turbine. The plant is approximately 527 MW and is in Carlsbad, CA.

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

- 1 ○ ECEC: This twenty-five-year Power Purchase & Tolling Agreement (“PPTA”) was executed on May 24, 2010 and started commercial operations in 2010. The capacity price started at \$105.10/kW-year plus \$37.50/kW-year times a CPIA and the variable O&M price started at \$7.00/MWh times CPIA. The quick-start peaking plant is approximately 47 MW and is in El Cajon, CA.

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

- 10 ○ EEC: This twenty-five-year PPTA was executed in February 25, 2011 and started commercial operations in 2014. The capacity price started at \$106.50/kW-year plus \$43.50/kW-year times CPIA and the variable O&M price started at \$7.00/MWh times a CPIA. The quick-start peaking plant is approximately 47 MW and is in Escondido, CA.

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

- 19 ○ OGE: This twenty-five-year PPTA was executed on July 14, 2009 and started commercial operations 2010. The capacity price is \$172.12/kW-year plus a base rent of \$125,000 times a CPIA and the variable O&M price was \$5.01/MWh times a CPI. The two-gas turbine quick-start peaking plant is approximately 99 MW and is in Pala, CA.

1 OGE leased its property for the plant from SDG&E until the end of the PPTA
2 which ends in 2035 after which the lease will expire and the title to the plant will
3 transfer at no cost to SDG&E. SDG&E may, at its option, request OGE to remove
4 the plant and return the property to SDG&E in its original condition.

5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]

- 9 ○ OMEC: This ten-year Amended and Restated Power Purchase & Tolling
10 Agreement was executed on May 1, 2007 and started commercial operations in
11 2009. The capacity price is \$117.00/kW-year and the variable O&M cost started
12 at \$2.26/MWh escalated by 2.5% each calendar year. The combined cycle plant
13 is approximately 600 MW and is in Otay Mesa, CA near the United
14 States/Mexico International Border.

15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

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[Redacted text block]

- PPEC: [Redacted text block]
- The quick-start peaking plant is comprised of three GE LMS100 PA+ gas turbines with a total capacity of approximately [Redacted] and is in Otay Mesa, San Diego, near the United States/Mexico International Border.
- [Redacted text block]

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[REDACTED]

E. Market Purchases

During the record period, SDG&E had two (2) firm market Western Systems Power Pool (“WSPP”) PPA’s:

- BP Energy: This four-year bilateral PPA was executed on May 21, 2015 and started delivering power in 2015. The fixed energy price is \$100.00/MWh from July-September from 2015 through 2019. The contract quantity is 68 MW of 24x7 firm energy and the delivery point is SDG&E Default Load Aggregation Point.
- Morgan Stanley Capital Group (NOB): This ten-year bilateral PPA was executed on October 26, 2011 and started delivering power in 2013. The applicable fixed energy prices are:

Years	Months	MW	Price
2016-2022	Sep-Oct	125 - 175	\$71.00/MWh

1 **F. Bundled Energy & REC Sales**

2 During the record period, SDG&E executed four (4) WSPP Confirmations for the sale of
3 energy plus green attributes:

- 4 ○ Clean Power Alliance of Southern California: This two-year Confirmation was
5 executed on December 18, 2018. [REDACTED]

6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]

- 12 ○ Direct Energy Business Marketing, LLC: This two-year Confirmation was
13 executed on December 16, 2018. [REDACTED]

14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]

19 [REDACTED] The Advice Letter 3310-E for this confirmation was approved by the
20 CPUC Energy division effective November 30, 2018.

- 21 ○ Peninsula Clean Energy Authority: This two-year plus Confirmation was
22 executed on November 9, 2018. [REDACTED]

23 [REDACTED]
24 [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The Advice Letter 3302-E for this confirmation was approved by the CPUC Energy division effective November 15, 2018.

- Sacramento Municipal Utility District: This two-year plus Confirmation was executed on November 30, 2018. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The Advice Letter 3314-E for this confirmation was approved by the CPUC Energy division effective December 7, 2018.

G. Pre-Operational Contracts

During the record period, SDG&E managed the following pre-operational PPAs.

1. Bio-Gas:

- Lakeside Biogas, LLC: This fifteen-year BioMAT PPA was executed on February 15, 2019. This project is expected to reach commercial operations in [REDACTED]. The PPA price [REDACTED] This biogas plant size is 3 MW and will be in Lakeside, CA.

[REDACTED]

[REDACTED]

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[REDACTED]

2. Solar

- ORNI 33: This twenty-year Green Tariff PPA was executed on April 19, 2018. The plant is expected to reach commercial operations [REDACTED]. The PPA price is \$ [REDACTED]. This solar plant is [REDACTED].

[REDACTED]

- FFP CA Community Solar: This twenty-year Green Tariff PPA was executed on May 17, 2018. The plant is expected to reach commercial operations [REDACTED]. The PPA price is [REDACTED]. This solar plant is [REDACTED].

3. Wind

- Energía Sierra Juárez 2 ("ESJ 2"): This twenty-year RAM PPA was executed on November 16, 2017 with IEnova - a Sempra affiliate and was submitted to the CPUC in AL-3151-E. The plant is expected to reach commercial operations in April 2021. The PPA price is \$56.00/MWh adjusted by TOD factors. The project

1 size is 105 MW and will be in Ejido Jacume, Mexico and interconnected to
2 SDG&E's East County Substation. The PPA allows economic curtailment.

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 **4. Energy Storage**

- 13 ○ Don Lee Bess 1, LLC: This ten-year PPTA was executed on March 30, 2017.

14 The plant is expected to reach commercial operation in June 2021. [REDACTED]

15 [REDACTED]

16 [REDACTED] The battery storage facility [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

- 21 ○ Hybrid Holdings 1: This twenty-year PPTA was executed on March 30, 2017.

22 The plant is expected to reach commercial operation in December 2019. [REDACTED]

23 [REDACTED]

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[REDACTED] The battery storage facility [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Pomerado Energy Storage: This fifteen-year PPTA was executed on March 30, 2017. The plant is expected to reach commercial operation in December 2021.

[REDACTED]

The battery storage facility [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

H. Expired and Terminated PPAs

During the record period, the following projects were part of SDG&E’s portfolio and may or may not have operated during the record period. The PPAs either expired or were terminated:

1 **1. Renewable**

- 2 ○ FPL Energy Green Power Wind, LLC (a.k.a. "WTE"): This fifteen-year bilateral
3 PPA was executed on October 31, 2002. The plant started delivering energy
4 under the PPA in 2004. The PPA price is \$52.60/MWh. The wind project size is
5 16.5 MW and is in the Gorgonio Pass area of Riverside County, CA. The PPA
6 term expired on December 31, 2018.
- 7 ○ Otay Landfill 3: As reported in last year’s testimony, Otay Landfill 3, whose PPA
8 expired on March 7, 2017, had filed a complaint with the Commission on June 22,
9 2016, claiming SDG&E had improperly denied them a request to execute a
10 ReMat PPA. On March 16, 2018, SDG&E filed a motion to dismiss stating that
11 Otay Landfill 3 was ineligible for service under that tariff due to “daisy-
12 chaining,” which is prohibited under Section D.8 of the ReMat tariff. No decision
13 on the Complaint or Motion to Dismiss had been issued by the Commission as of
14 the date of this testimony.
- 15 ○ Phoenix Wind (Avangrid Renewables): This fifteen-year bilateral PPA was
16 executed on November 7, 2003. The project, owned by Avangrid Renewables,
17 started delivering energy under the PPA in 2003. The PPA price is \$49.15/MWh.
18 The wind project size is 2.1 MW and is in Palm Springs, CA. The PPA term
19 expired on December 31, 2018.

20 The plant was out of service for a Force Majeure claim since November 2015 and
21 did not return to service in 2018. No payments were paid during the outage and no
22 penalties were assessed. The PPA term expired on December 15, 2018.

- 23 ○ Mountain Wind (Avangrid Renewables): This fifteen-year bilateral PPA was
24 executed on October 31, 2002 and started delivering energy under the PPA in

1 2003. The PPA price is \$49.15/MWh. SDG&E and Mountain Wind have been
2 transacting ISTs under their Market Redesign and Technology Update (“MRTU”)
3 Agreement since April 2009. This wind project size is 22.8 MW and is in Palm
4 Springs, CA. The PPA term expired on December 15, 2018.

- 5 ○ Lakeside Biogas, LLC: This fifteen-year BioMAT PPA was executed on August
6 24, 2017. This project was expected to reach commercial operations in August
7 24, 2019. The PPA price \$127.72/MWh adjusted by TOD factors. This biogas
8 plant size is 3 MW and will be in Lakeside, CA.

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 **2. Conventional**

- 13 ○ Naval Station CHP: This seven-year CHP PPA was executed on July 25, 2017.
14 The fixed capacity price was \$75/kW-yr. plus a fixed O&M of \$50/kW-yr.
15 escalated to \$59.70. The energy price was heat rate times the gas price plus
16 \$10.25/MWh VOM escalated to \$12.24/MWh. The project size was 48 MW and
17 was in San Diego, CA.

18 The CHP PPA was CPUC approved and it became effective on March 31, 2018.

19 The leases and Utility Services Agreements (“USAs”) with the Department of the
20 Navy (“DoN”) ended on February 8, 2018 and the plant ceased operations. The plant
21 engaged in discussions for a new lease with the DoN, but could not reobtain site
22 control which was a condition precedent to the effectiveness of the CHP PPA. As a
23 result, Seller terminated the North Island CHP PPA on August 6, 2018.

- 1 ○ North Island CHP: This seven-year CHP PPA was executed on July 25, 2017.
2 The fixed capacity price was \$55/kW-yr. plus a fixed O&M of \$65/kW-yr.
3 escalated to \$77.61. The energy price was heat rate times the gas price plus
4 \$4.70/MWh VOM escalated to \$5.61/MWh. The project size was 38.6 MW and
5 was in Coronado, CA.

6 The CHP PPA was CPUC approved and it became effective on March 31, 2018.
7 The leases and USAs with the DoN ended on February 8, 2018 and the plant ceased
8 operations. The plant engaged in discussions for a new lease with the DoN, but could
9 not reobtain site control which was a condition precedent to the effectiveness of the
10 CHP PPA. As a result, Seller terminated the North Island CHP PPA on August 6,
11 2018.

- 12 ○ Naval Station QF: This QF SO4 PPA was executed on March 29, 1985 and had a
13 30-year term ending on November 30, 1989. The energy price was SRAC and the
14 firm capacity price is \$152.50/kW-year. The plant started delivering energy
15 under the PPA in 1989. The project size was 49.9 MW cogeneration plant and
16 was in San Diego, CA.

17 On July 25, 2017, as a result of signing the Naval Station CHP PPA (see above),
18 the parties executed a Seventh Amendment terminating the QF SO4 PPA on the later
19 of (a) February 8, 2018 (when the leases and USAs with the DoN expired) or (b)
20 CPUC approval of the Seventh Amendment. The CPUC approved the Seventh
21 Amendment and it became effective on March 31, 2018. Under the terms of a letter
22 agreement executed by the parties in 1985 (and as further memorialized in the

1 Seventh Amendment), the plant was excused from any Termination Payments under
2 the QF SO4 PPA.

- 3 ○ North Island QF: This QF SO4 PPA was executed on March 29, 1985 and had a
4 30-year term ending on November 30, 2019. The plant started delivering energy
5 under the PPA in 1989. The energy price is SRAC and the firm capacity price is
6 \$152.50/kW-year. The project size is 34.5 MW cogeneration plant and is in
7 Coronado, CA.

8 On July 25, 2017, as a result of signing the North Island CHP PPA (see above),
9 the parties executed an Amendment terminating the QF SO4 PPA on the later of (a)
10 February 8, 2018 (when the leases and USAs with the DoN ended) or (b) CPUC
11 approval of the Amendment. The CPUC approved the Amendment and it became
12 effective on March 31, 2018. Under the terms of a letter agreement executed by the
13 parties in 1985 (and as further memorialized in the Amendment), the plant was
14 excused from any Termination Payments under the QF SO4 PPA.

- 15 ○ NTC/MCRD QF: This QF SO4 PPA was executed on April 16, 1985 and had a
16 30-year term ending on November 30, 2019. The plant started delivering energy
17 under the PPA in 1989. The energy price is SRAC and the firm capacity price is
18 \$152.50/kW-year. The project size is 23 MW cogeneration plant and is in San
19 Diego, CA.

20 On July 25, 2017, the parties executed an Amendment terminating the QF SO4
21 PPA on the later of (a) February 8, 2018 (when the leases and USAs with the DoN
22 ended) or (b) CPUC approval of the Amendment. The CPUC approved the
23 Amendment and it became effective on March 31, 2018. Pursuant to the terms of the

1 Amendment, the plant was excused from any Termination Payments under the QF
2 SO4 PPA.

- 3 ○ NTC/MCRD Steam Turbine QF: This evergreen QF SO1 PPA was executed on
4 July 31, 1984. The steam plant started delivering energy under the PPA in 1984.
5 The project size is 2.6 MW cogeneration plant and is in San Diego, CA.

6 On July 25, 2017, the parties executed an Amendment terminating the QF SO1
7 PPA on the later of (a) February 8, 2018 (when the leases and USAs with the DoN
8 ended) or (b) CPUC approval of the Amendment. The CPUC approved the
9 Amendment and it became effective on March 31, 2018. Pursuant to the terms of the
10 Amendment, the plant was excused from any Termination Payments under the QF
11 SO1 PPA.

12 **VII. CONCLUSION**

13 Based on the foregoing, SDG&E's recorded contract expenses to the ERRRA are in
14 conformance with the Public Utilities Code, Commission decisions, and the contract terms for
15 the 2018 record period. SDG&E respectfully requests that the Commission find that SDG&E's
16 contract administration and power procurement-related activities and costs for the record period
17 were reasonable and therefore should be approved.

18 This concludes my prepared direct testimony.

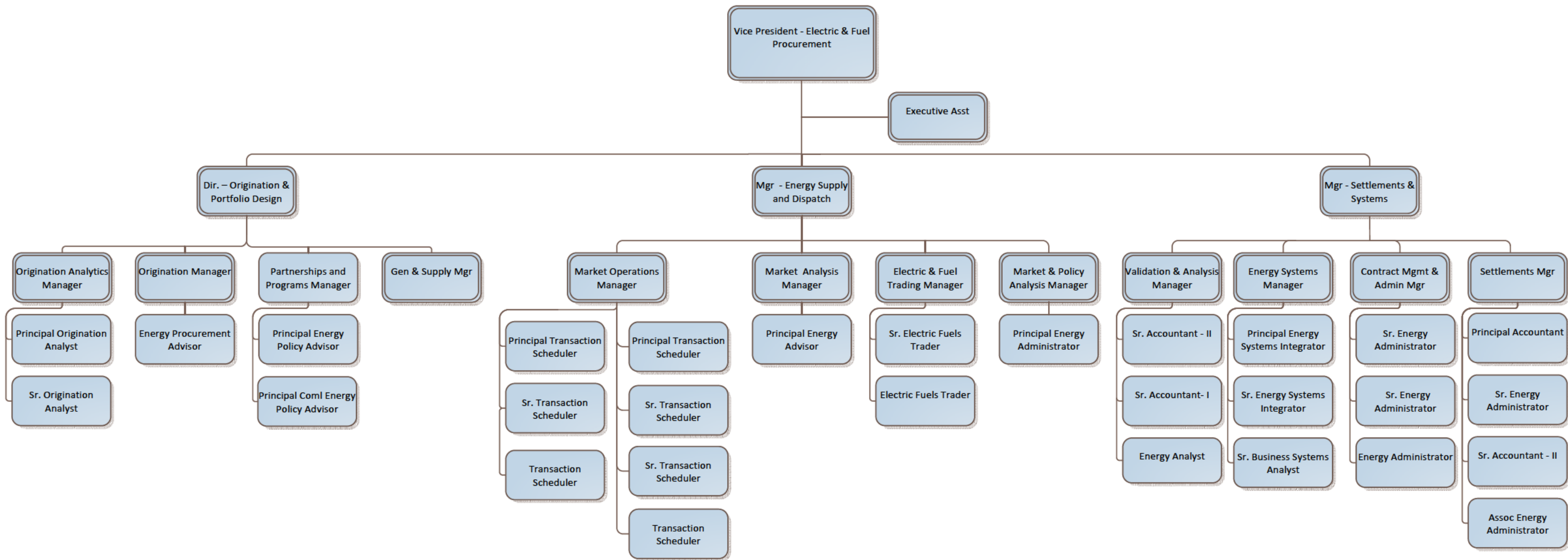
1 **VIII. QUALIFICATIONS**

2 My name is Daniel L. Sullivan. My business address is 8315 Century Park Court, San
3 Diego, CA 92123. I am employed by SDG&E as the Sr. Energy Administrator in the Electric
4 and Fuel Procurement Department. My present duties include the administration of renewable
5 agreements, Tolling and QF agreements and Bilateral agreements. I have been employed by
6 SDG&E since 1978. I have been in my current position since February 2009.

7 I received an MBA, with an emphasis in Financial Management from National University
8 in 1993.

9 I have previously testified before the Commission.

EXHIBIT A
E&FP ORGANIZATIONAL CHART



Organizational Chart – E&FP, as of 06/20/2018

VP – Controller & CFO

Manager – Energy Risk
Management

Assoc Accountant - R

Senior Business Analyst I

Senior Energy Risk Advisor

Energy Analyst

Energy Risk Advisor

EXHIBIT B
COPIES OF TERMINATION LETTERS
CONFIDENTIAL

[REDACTED]

[REDACTED]

VIA E-MAIL

[REDACTED]

[REDACTED]

[REDACTED]

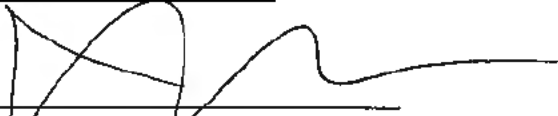
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

By: 
Name: Joseph Cofelice
Title: EVP, Commercial Development



[REDACTED]

[REDACTED]

[REDACTED]

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EXHIBIT C

RPS RAM PRO-FORMA AGREEMENT

Exhibit C

2018 SDG&E ERRA Sullivan - RFO Pro Forma PPA

Pro-Forma Agreement Type	Date Issued	Description
Fall 2018 Green Tariff Shared Renewables Solicitation	November 1, 2018	The GTSR Decisions mandate SDG&E to implement the GTSR Program, which includes two components: (1) a Green Tariff (GT) program ("EcoChoice"), allowing customers to choose a higher percentage of renewable generation than they already get from SDG&E; and (2) an Enhanced Community Renewables program ("EcoShare"), allowing customers to participate in community-based projects.
2019 FALL Local Resource Adequacy (RA) Solicitation	August 20, 2018	Seeks to purchase and/or sell 2019 Local Resource Adequacy ("RA") capacity products from load serving entities, marketers and generators ("Respondents") to assist in optimizing SDG&E's RA portfolio.
Spring 2018 Green Tariff Shared Renewables Solicitation	May 25, 2018	The GTSR Decisions mandate SDG&E to implement the GTSR Program, which includes two components: (1) a Green Tariff (GT) program ("EcoChoice"), allowing customers to choose a higher percentage of renewable generation than they already get from SDG&E; and (2) an Enhanced Community Renewables program ("EcoShare"), allowing customers to participate in community-based projects.
2018 RPS REC Sale Request for Proposal	April 3, 2018	RFP seeking proposals from third parties ("Respondents") who are interested in purchasing energy products from eligible renewable resources under contract with SDG&E ("Resources").
2019 Local Resource Adequacy Solicitation	March 16, 2018	Seeks to purchase Local Resource Adequacy ("RA") capacity products with load serving entities, marketers and generators ("Respondents") to assist in optimizing its RA portfolio.
2019 DRAM RFO	January 25, 2018	The DRAM is a pay-as-bid auction of monthly local, system, and flexible RA for Offerors to bid directly in the California Independent Operator System ("CAISO") market, with participation from customers in the SDG&E's service territory.
2018 IDER Request for Offers	January 10, 2018	Seeking distribution capacity no later than February 1, 2020 for circuits 303 and 783 near Carlsbad, California. SDG&E will consider integrated hybrid resource types to meet the total required distribution capacity for each circuit to be considered one project with one counterparty per circuit. The minimum contract delivery term SDG&E is willing to consider is five (5) years and the maximum contract term to be considered is ten (10) years.



FALL 2018 GT RAM PPA

[Form of PPA for Green Tariff]

GREEN TARIFF POWER PURCHASE AGREEMENT

Between

SAN DIEGO GAS & ELECTRIC COMPANY
(as “Buyer”)

and

(as “Seller”)

GREEN TARIFF POWER PURCHASE AGREEMENT

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COVER SHEET

This Green Tariff Power Purchase Agreement is made as of the following date: [_____]. This Green Tariff Power Purchase Agreement and all exhibits, schedules, appendices, and any written supplements hereto, any designated collateral, credit support or margin agreement or similar arrangement between the Parties as well as all written and signed amendments and modifications thereto shall be a part of, and shall be referred to as, the "Agreement." The Parties to this Agreement (hereinafter individually a "Party" and collectively the "Parties") are the following:

Name: _____ ("Seller")

All Notices:

Street: _____
City: _____ Zip: _____
Attn: Contract Administration
Phone: _____
Facsimile: _____
Duns: _____
Federal Tax ID Number: _____

Invoices:

Attn: _____
Phone: _____
Facsimile: _____

Scheduling:

Attn: _____
Phone: _____
Facsimile: _____

Payments:

Attn: _____
Phone: _____
Facsimile: _____

Wire Transfer:

BNK: _____
ABA: _____
ACCT: _____
Confirmation: _____
FAX: _____

Credit and Collections:

Name: San Diego Gas & Electric Company
("Buyer")

All Notices:

Street: 8315 Century Park Court
City: San Diego, CA Zip: 92123
Attn: Electric & Fuel Procurement - Contract
Administration
Phone: (858) 636-5536
Facsimile: (858) 650-6190
Duns: 006911457
Federal Tax ID Number: 95-1184800

Invoices:

San Diego Gas & Electric Company
8315 Century Park Ct.
San Diego, California 92123-1593
Attn: Electric & Fuel Procurement – Invoicing and
Reporting
Phone: (858) 650-6187
Facsimile: (858) 650-6190

Scheduling:

San Diego Gas & Electric Company
8315 Century Park Ct.
San Diego, California 92123-1593
Attn: Transaction Scheduling Manager
Phone: (858) 650-6160
Facsimile: (858) 650-6191

Payments:

San Diego Gas & Electric Company
PO Box 25110
Santa Ana, CA 92799-5110
Attn: Mail Payments
Phone: (619) 696-4521
Facsimile: (619) 696-4899

Wire Transfer:

BNK: Union Bank of California
for: San Diego Gas & Electric Company
ABA: Routing # 122000496
ACCT: #4430000352
Confirmation: SDG&E, Major Markets
FAX: (213) 244-8316

Credit and Collections:

San Diego Gas & Electric Company, Major
Markets
555 W. Fifth Street, ML 18A3

Attn: _____
Phone: _____
Facsimile: _____

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

Attn: _____
Phone: _____
Facsimile: _____

Los Angeles, CA 90013-1011
Attn.: Major Markets, Credit and Collections
Manager
Fax No.: (213) 244-8316
Phone: (213) 244-4343

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

San Diego Gas & Electric Company
8330 Century Park Ct.
San Diego, California 92123
Attn: General Counsel
Phone: (858) 650-6141
Facsimile: (858) 650-6106

GENERAL TERMS AND CONDITIONS

ARTICLE ONE: GENERAL DEFINITIONS

1.1 General. The following terms shall have the following meaning for purposes of this Agreement.

“JAMS” means JAMS, Inc.

“Affiliate” means, with respect to any person, any other person (other than an individual) that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such person. For this purpose, “control” means the direct or indirect ownership of fifty percent (50%) or more of the outstanding capital stock or other equity interests having ordinary voting power.

“Agreement” has the meaning set forth in the preamble to the Cover Sheet.

“Arbitration” has the meaning set forth in Section 12.3.

[For As-Available Product only: “As-Available” means a Product for which, subject to the terms of this Agreement, Seller is excused from selling and delivering the Product to Buyer, and Seller shall not be liable to Buyer for any damages determined pursuant to Section 3.1(h) of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reasons:

- (a) if the Project is unavailable as a result of a Forced Outage and such Forced Outage is not the result of Seller’s negligence or willful misconduct;
- (b) Force Majeure;
- (c) by the Buyer’s failure to perform;
- (d) by a Planned Outage of the Project;
- (e) a reduction in output as ordered under Dispatch Down Periods; or
- (f) [the unavailability of landfill gas which was not anticipated as of the Execution Date, which is not within the reasonable control of, or the result of negligence of, Seller or the party supplying such landfill gas to the Project, and which by the exercise of reasonable due diligence, Seller is unable to overcome or avoid or causes to be avoided.] OR [insufficient wind power for the Project to generate energy as determined by the best wind speed and direction standards utilized by other wind producers or purchasers in the vicinity of the Project or if wind speeds exceed the Project’s technical specifications.] OR [the unavailability of water or the unavailability of sufficient pressure required for operation of the hydroelectric turbine-generator as reasonably determined by Seller within its operating procedures, neither of which was anticipated as of the

Execution Date, which is not within the reasonable control of, or the result of negligence of, Seller or the party supplying such water to the Project, and which by the exercise of due diligence, such Seller or the party supplying the water is unable to overcome or avoid or causes to be avoided.] OR [insufficient solar power for the Project to generate energy as determined by the best solar standards utilized by other solar producers or purchasers in the vicinity of the Project.]

“Availability Incentive Payments” shall mean Availability Incentive Payments as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Availability Standards” shall mean Availability Standards as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Bankrupt” means with respect to any entity, such entity that (a) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar Law, (b) has any such petition filed or commenced against it which remains unstayed or undismissed for a period of sixty (60) days, (c) makes an assignment or any general arrangement for the benefit of creditors, (d) otherwise becomes bankrupt or insolvent (however evidenced), (e) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets, or (f) is generally unable to pay its debts as they fall due.

“Bundled Green Energy” means Energy, Green Attributes, and any other Product, the quantity of which is measured based on the amount of Delivered Energy, in each case, that are produced by or associated with the Project. The quantity of Bundled Green Energy shall be equal to the lesser of the quantity of (i) ***[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program: Contract Energy] [When SDG&E is SC for the Project and Project is in the VER Forecasting Program: Delivered Energy]*** (ii) Green Attributes that are delivered to Buyer, and (iii) any other Product that is delivered to Buyer, the quantity of which is measured based on the amount of Delivered Energy. For example, if the quantity of Renewable Energy Credits that are delivered to Buyer is less than the quantity of the ***[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program: Contract Energy] [When SDG&E is SC for the Project and Project is in the VER Forecasting Program: Delivered Energy]***, then the quantity of Bundled Green Energy shall be equal to the quantity of Renewable Energy Credits that are delivered to Buyer.

“Business Day” means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday and shall be between the hours of 8:00 a.m. and 5:00 p.m. local time for the relevant Party’s principal place of business where the relevant Party, in each instance unless otherwise specified, shall be the Party from whom the Notice, payment or delivery is being sent and by whom the Notice or payment or delivery is to be received.

“Buyer” has the meaning set forth on the Cover Sheet.

“CAISO” means the California Independent System Operator Corporation or any successor entity performing similar functions.

[When SDG&E is the SC for the Project: “CAISO Charges Invoice” has the meaning set forth in Section 3.3([a/b])(iv).]

“CAISO Grid” means the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the CAISO’s operational control.

“CAISO Tariff” means the CAISO Operating Agreement and Tariff, including the rules, protocols, procedures and standards attached thereto, as the same may be amended or modified from time-to-time and approved by FERC.

“California Renewables Portfolio Standard” means the Renewables Portfolio Standard of California under California Senate Bills 1078 and 107, as codified in California Public Utilities Code Sections 387, 390.1, and Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1, as such provisions are amended or supplemented from time to time.

[For FCDS bids and for Green Tariff Projects located outside of the CAISO insert: “Capacity Attributes” means any current or future defined characteristic, certificate, tag, credit, or ancillary service attribute, whether general in nature or specific as to the location or any other attribute of the Project intended to value any aspect of the capacity of the Project to produce Energy or ancillary services, including but not limited to any accounting construct so that the Contract Capacity of the Project may be counted toward a Resource Adequacy obligation or similar measure in respect to the capacity of the Project to generate Energy by the CPUC, the CAISO, the FERC, or any other entity vested with the authority under federal or state Law, to require Buyer to procure, or to procure at Buyer’s expense, Resource Adequacy or other similar products.]

“CEC” means the California Energy Commission or its successor agency.

“CEC Certification and Verification” means that the CEC has certified (or, with respect to periods before the Project has been constructed, that the CEC has pre-certified) that the Project is an ERR for purposes of the California Renewables Portfolio Standard and that all Energy produced by the Project qualifies as generation from an ERR for purposes of the Agreement.

“Claims” has the meaning set forth in Section 11.2(a).

“Commercial Operation” means that (a) the Project is operating and able to produce and deliver the Product to Buyer pursuant to the terms of this Agreement; (b) Seller shall have satisfied the requirements set forth in the Commercial Operation Certificate in the form attached as Exhibit D; (c) Seller shall have delivered a true, correct, and complete Commercial Operation Certificate from Seller, the Renewable Generation Equipment Supplier, the EPC Contractor, and a Licensed Professional Engineer; (d) Seller shall have delivered to Buyer the Delivery Term Security required under Article 8; (e) Seller has received all local, state and federal Governmental Approvals and other approvals as may be required by Law for the construction, operation and maintenance of the Project, including approvals, if any, required under the California Environmental Quality Act for the Project and related interconnection facilities

“Commercial Operation Date” means the date on which Seller achieves Commercial Operation for the Project.

“Conditions Precedent” has the meaning set forth in Section 2.3.

“Construction Period Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(ii)/(iii)] to secure performance of its obligations hereunder.

“Contract Capacity” has the meaning set forth in Section 3.1(f).

[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program: “Contract Energy” means the lower of Delivered Energy or Scheduled Energy for any given period in each case net of all Electrical Losses.]

“Contract Quantity” has the meaning set forth in Section 3.1(e).

“Contract Year” means a period of twelve (12) consecutive months (except in the case of the first Contract Year which may be longer) with the first Contract Year commencing on the Commercial Operation Date and each subsequent Contract Year commencing on the anniversary of the first day of the month following the Commercial Operation Date.

“Costs” means, with respect to the Non-Defaulting Party, brokerage fees, commissions and other similar third party transaction costs and expenses reasonably incurred by such Party either in terminating any arrangement pursuant to which it has hedged its obligations or entering into new arrangements which replace a Terminated Transaction; and all reasonable attorneys’ fees and expenses incurred by the Non-Defaulting Party in connection with such Terminated Transaction.

“Cover Sheet” means the document that precedes Article 1: General Definitions to this Agreement.

“CP Satisfaction Date” shall mean the date on which all of the Conditions Precedent have been satisfied (or waived in writing by the Party described in Section 2.4).

“CPUC” or “Commission or successor entity” means the California Public Utilities Commission, or successor entity.

“CPUC Approval” means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to the Parties, or either of them, which contains the following terms:

(a) approves this Agreement in its entirety, including payments to be made by the Buyer, subject to CPUC review of the Buyer’s administration of the Agreement; and

(b) finds that any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer’s compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the

California Renewables Portfolio Standard (Public Utilities Code Section 399.11 *et seq.*), Decision 03-06-071, or other applicable Law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

“CPUC Approval Date” shall mean the date on which the Conditions Precedent set forth in Section 2.3(a) have been satisfied (or waived in writing by the beneficiary Party described in Section 2.4).

“CPUC Approval Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)(i) to secure performance of its obligations hereunder.]

“Credit Rating” means, with respect to any entity, the rating then assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) by S&P or Moody’s.

“Day-Ahead Forecast” has the meaning set forth in Section 3.3([d/e]).

[For As-Available and Baseload Products only: “Deemed Bundled Green Energy” means the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of Economic Dispatch Down. The quantity of Deemed Bundled Green Energy shall be equal to **[For As-Available Products:** (a) the Deemed Delivery Forecast of Energy corresponding to the applicable Economic Dispatch Down periods, whether or not Seller is participating in the VER Forecasting Program during such events, less the amount of Energy scheduled under Economic Dispatch Down as specified in the Dispatch Notice during such periods, and less any amount of Energy that was not delivered associated with any concurrent Planned Outage, Forced Outage, Force Majeure, System Dispatch Down, and/or CAISO fault but only to the extent the Deemed Delivery Forecast does not already reflect the foregoing *provided that*, if the applicable amount calculated pursuant to this clause (a) is negative, the Deemed Bundled Green Energy shall be zero (0), or (b) if there is no such Deemed Delivery Forecast available during the applicable Economic Dispatch Down periods or if the Bundled Green Energy amount has historically not been determined based on clause (i) of the definition of Bundled Green Energy, the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer as a result of Economic Dispatch Down as determined by Buyer in a commercially reasonable manner, which amount shall not include any amount of Energy that was not delivered associated with any concurrent Planned Outage, Forced Outage, Force Majeure, System Dispatch Down, and/or CAISO fault.] **[For Baseload Products:** the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer during the applicable Economic Dispatch Down periods, as determined by Buyer in a commercially reasonable manner, which amount shall not include any amount of Energy that was not delivered associated with any concurrent Planned Outage, Forced Outage, Force Majeure, System Dispatch Down, and/or CAISO fault.]

[For As-Available only: “Deemed Delivery Forecast” means the forecast of the Energy to be produced by the Project prepared by the CAISO or its agent in accordance with the VER Forecasting Program and communicated to the Scheduling Coordinator, which forecast is the last such forecast prepared by the CAISO that does not reflect curtailed production as a result of Economic Dispatch Down periods. As of the Execution Date, such Deemed Delivery Forecast is the CAISO forecast generated through its Resource Specific VER Forecast Usage Report

“Defaulting Party” means the Party that is subject to an Event of Default.

“Default Rate” means for any date, the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in *The Wall Street Journal* under “Money Rates” on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) and (b) the maximum rate permitted by applicable Law.

“Deliverability Value” means the amount stated in Section 4.1(c).

“Delivered Energy” means all Energy produced from the Project and delivered to Buyer at the Delivery Point as measured in MWh at the CAISO revenue meter of the Project based on a power factor of precisely one (1) and net of all Electrical Losses.

“Delivery Point” means the point at which Buyer receives Seller’s Product, as set forth in Section 3.1(d).

“Delivery Term” has the meaning set forth in Section 3.1(c).

“Delivery Term Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(iii)/(iv)] to secure performance of its obligations hereunder.

“Development Period Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(i)/(ii)] to secure performance of its obligations hereunder.

“Disclosing Party” has the meaning set forth in Section 13.1(a).

“Disclosure Order” has the meaning set forth in Section 13.1(a).

“Dispatch Down Period” means the period of curtailment of delivery of Product from the Project resulting from System Dispatch Down or Economic Dispatch Down.

“Dispatch Notice” means the operating instruction, and any subsequent updates given either by Buyer to Seller or by the CAISO to Seller, directing Seller to operate the Project at a specified megawatt output for the period of time set forth in such order.

“Distribution Upgrades” has the meaning set forth in the CAISO Tariff.

“DUNS” means the Data Universal Numbering System, which is a unique nine character identification number provided by Dun and Bradstreet.

[For Green Tariff Projects located outside of the CAISO: “Dynamic Scheduling Agreement” means the agreement between the CAISO and Buyer or Seller, as Scheduling Coordinator (as applicable), with respect to the duties and responsibilities of the Scheduling Coordinator with respect to facilities located outside the CAISO balancing area and whose product is dynamically transferred via a pseudo-tie to the CAISO, in form and substance reasonably acceptable to the parties thereto.]

“Early Termination Date” has the meaning set forth in Section 5.2.

“Economic Dispatch Down” means curtailment of delivery of Product from the Project that is the result of economic curtailment where Buyer (as the Scheduling Coordinator) or a third party Scheduling Coordinator (in accordance with Buyer’s directions) either submits a self-schedule with a binding Product quantity or an economic bid in the applicable CAISO market or fails to submit any such schedule or bid, in either case, that when implemented by the CAISO results in an otherwise available Product quantity not being scheduled or awarded in such CAISO market and such curtailment is not concurrently the result of a Planned Outage, Forced Outage, Force Majeure, System Dispatch Down, and/or CAISO fault.

“Electrical Losses” means all electrical losses associated with the transmission of Product to the Delivery Point, including if applicable, but not limited to, any transmission or transformation losses between the CAISO revenue meter and the Delivery Point.

“Electrical Interconnection Upgrades” means the facilities to which Seller shall be able to interconnect and deliver Energy from the Project to and at the Delivery Point and Buyer shall be able to transmit Energy from the Delivery Point and the facilities that protect the Participating Transmission Owner’s, Transmission Provider’s, distribution operator’s, ***[For Green Tariff Projects located outside of the CAISO:*** Native Balancing Authority’s,] or other affected system owner’s, as applicable, electric system (or other systems to which such electric systems are connected, including the CAISO Grid) and the Participating Transmission Owner’s, Transmission Provider’s, distribution operator’s, ***[For Green Tariff Projects located outside of the CAISO:*** Native Balancing Authority’s,] or other affected system owner’s, as applicable, customers from faults occurring at the Project, including, but not limited to, all network, distribution, connection, transformation, switching, metering, communications, control, and safety equipment, as such equipment may be required pursuant to Good Industry Practices or in accordance with the Participating Transmission Owner’s, Transmission Provider’s, distribution operator’s, ***[For Green Tariff Projects located outside of the CAISO:*** Native Balancing Authority’s,] or other affected system owner’s, as applicable, facility connection requirements. Such Electrical Interconnection Upgrades include all Network Upgrades, Distribution Upgrades, Interconnection Facilities, and other network upgrades, distribution upgrades, or interconnection facilities on ***[For Green Tariff Projects located outside of the CAISO:*** the Native Balancing Authority’s, or] any other affected system owner’s electrical system that are determined to be necessary by the CAISO, Participating Transmission Owner, ***[For Green Tariff Projects located outside of the CAISO:*** Native Balancing Authority,] other affected system owner, as applicable, to physically and electrically interconnect the Project to ***[For Green Tariff Projects located outside of the CAISO:*** the Native Balancing Authority’s system and] the Participating Transmission Owner’s electric system so as to allow Seller to deliver Energy from the Project to the Delivery Point and Buyer to be able to transmit Energy from the Delivery Point.

“Eligible Renewable Energy Resource” or “ERR” has the meaning set forth in California Public Utilities Code Section 399.11, *et seq.*, as amended or supplemented from time to time.

“Energy” means electric energy measured in MWh and net of Station Service (unless otherwise specified).

“Energy Price” has the meaning set forth in Section 4.[1/2](a).

“EPC Contract” means the Seller’s engineering, procurement and construction contract with the EPC Contractor.

“EPC Contractor” means an engineering, procurement, and construction contractor, selected by Seller, with substantial experience in the engineering, procurement, and construction of power plants of the same type of facility as Seller’s.

“Equitable Defenses” means any bankruptcy, insolvency, reorganization or other Laws affecting creditors’ rights generally and, with regard to equitable remedies, the discretion of the court before which proceedings may be pending to obtain same.

“Event of Default” has the meaning set forth in Section 5.1.

“Execution Date” means the date hereof as set forth in the preamble of the Cover Sheet.

“Executive(s)” has the meaning set forth in Section 12.2(a).

“FCDS” has the meaning set forth in Section 4.1(c).

“FERC” means the Federal Energy Regulatory Commission or any successor government agency.

“Force Majeure” means any event or circumstance which wholly or partly prevents or delays the performance of any material obligation arising under this Agreement but only to the extent (1) such event is not within the reasonable control, directly or indirectly, of the Party seeking to have its performance obligation(s) excused thereby, (2) the Party seeking to have its performance obligation(s) excused thereby has taken all reasonable precautions and measures in order to prevent or avoid such event or mitigate the effect of such event on such Party’s ability to perform its obligations under this Agreement and which by the exercise of due diligence such Party could not reasonably have been expected to avoid and which by the exercise of due diligence it has been unable to overcome, and (3) such event is not the direct or indirect result of the fault or negligence of the Party seeking to have its performance obligations excused thereby.

(a) Subject to the foregoing, events that could qualify as Force Majeure include, but are not limited to the following:

(i) acts of God, flooding, lightning, landslide, earthquake, fire, drought, explosion, epidemic, quarantine, storm, hurricane, tornado, volcano, other natural disaster or unusual or extreme adverse weather-related events;

(ii) war (declared or undeclared), riot or similar civil disturbance, acts of the public enemy (including acts of terrorism), sabotage, blockade, insurrection, revolution, expropriation or confiscation; or

(iii) except as set forth in subpart (b)(vii) below, strikes, work stoppage or other labor disputes (in which case the affected Party shall have no obligation to settle the strike or labor dispute on terms it deems unreasonable).

(b) Force Majeure shall not be based on:

(i) Buyer's inability economically to use or resell the Product purchased hereunder;

(ii) Seller's ability to sell the Product at a price greater than the price set forth in this Agreement;

(iii) Seller's inability to obtain Governmental Approvals or other approvals of any type for the construction, operation, or maintenance of the Project;

(iv) a lack of wind, sun or other fuel source of an inherently intermittent nature;

(v) Seller's inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Project, except to the extent Seller's inability to obtain sufficient labor, equipment, materials, or other resources is caused by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above;

(vi) Seller's failure to obtain financing or other funds, including funds authorized by a state or the federal government or agencies thereof to supplement the payments made by Buyer pursuant to this Agreement;

(vii) a strike, work stoppage or labor dispute limited only to any one or more of Seller, Seller's Affiliates, the EPC Contractor or subcontractors thereof or any other third party employed by Seller to work on the Project; or

(viii) any equipment failure except if such equipment failure is caused solely by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above.

"Forced Outage" means any unplanned reduction or suspension of production of Product from the Project or unavailability of the Project in whole or in part that is not a Planned Outage or a willful withholding of Product when the Project is otherwise capable of delivering Product under Good Industry Practices.

"GAAP" has the meaning set forth in Section 13.4.

"Gains" means with respect to any Party, an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from the termination of this Agreement

for the remaining Delivery Term, determined in a commercially reasonable manner, subject to Section 5.2 hereof. Factors used in determining economic benefit may include, without limitation, reference to information either available to it internally or supplied by one or more third parties, including, without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets market referent prices for renewable power set by the CPUC, comparable transactions, forward price curves based on economic analysis of the relevant markets, settlement prices for comparable transactions at liquid trading hubs (e.g., NYMEX), all of which should be calculated for the remaining term of this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO [*For Green Tariff Projects located outside of the CAISO:* , the Native Balancing Authority,] and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.

“Governmental Approval” means all authorizations, consents, approvals, waivers, exceptions, variances, filings, permits, orders, licenses, exemptions and declarations of or with any governmental entity and, with respect to the Seller, shall include those siting and operating permits and licenses, and any of the foregoing under any applicable environmental Law, that are required for the construction, use, and operation of the Project.

“Governmental Authority” means any federal, state, local or municipal government, governmental department, commission, board, bureau, agency, or instrumentality, or any judicial, regulatory or administrative body, having jurisdiction as to the matter in question.

“Governmental Charges” has the meaning set forth in Section 9.2.

“Green Attributes” means, subject to the limitations in the final sentence of this definition, any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by Law, to contribute to the actual or

potential threat of altering the Earth’s climate by trapping heat in the atmosphere;¹ and (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state Law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local Law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the Project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or “tipping fees” that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project and for all electric generation using biomethane as fuel, Seller shall transfer to Buyer sufficient Green Attributes of biomethane production and capture to ensure that there are zero net emissions associated with the production of electricity from the Project using the biomethane.

“Guaranteed Commercial Operation Date” or “GCOD” means the date that is thirty-six (36) months after the date of satisfaction or waiver of the Condition Precedent in Section 2.3(a), as may be extended pursuant to Section 3.9(c)(ii).

“Guaranteed Energy Production” has the meaning set forth in Section 3.1(e).

“Imbalance Energy” means the amount of Energy, in any given settlement interval, by which the amount of Delivered Energy deviates from the amount of Scheduled Energy.

“Initial Negotiation End Date” has the meaning set forth in Section 12.2(a).

[For Green Tariff Projects located outside of the CAISO: “Interconnected Balancing Authority Agreement” means an agreement between the Native Balancing Authority and the CAISO to govern operation of their interconnected electric systems, including the dynamic transfer of Project output via a pseudo-tie from the Native Balancing Authority and the CAISO, in form and substance reasonably acceptable to the parties thereto.]

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

“Interconnection Facilities” has the meaning set forth in the CAISO Tariff.

“Interest Amount” means, with respect to an Interest Period, the amount of interest derived from the product of (a) the sum of (i) the principal amount of Performance Assurance in the form of cash held by Buyer during that Interest Period, and (ii) the sum of all accrued and unpaid Interest Amounts accumulated prior to such Interest Period; multiplied by (b) the Interest Rate in effect on the first day of the Interest Period; multiplied by (c) the number of days in that Interest Period; divided by (d) 360.

“Interest Payment Date” means the date on which cash held as Performance Assurance is returned pursuant to the terms of this Agreement.

“Interest Period” means the monthly period beginning on the first day of each month and ending on the last day of each month or the shorter period during which Performance Assurance in the form of cash is held by Buyer.

“Interest Rate” means for any date the rate per annum equal to the Commercial Paper (non-financial, 3 months) rate as published the prior month in the Federal Reserve Statistical Release, H.15. Should publication of the interest rate on Commercial Paper (non-financial, 3 months) be discontinued, then the interest rate on commercial paper, which most closely approximates the discontinued rate, published the prior month in the Federal Reserve Statistical Release, H.15, or its successor publication.

“[Large/Small/Rule 21/Native Balancing Authority] Generator Interconnection Agreement” has the meaning set forth in the [CAISO/Wholesale Open Access Distribution/Rule 21/Native Balancing Authority’s] Tariff.

“Law” means any statute, law, treaty, rule, regulation, ordinance, code, Governmental Approval, enactment, injunction, order, writ, decision, authorization, judgment, decree or other legal or regulatory determination or restriction by a court or Governmental Authority of competent jurisdiction, including any of the foregoing that are enacted, amended, or issued after the Execution Date, and which become effective prior to the end of the Delivery Term; or any binding interpretation of the foregoing by a Governmental Authority.

“Letter(s) of Credit” means one or more irrevocable, standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank having a Credit Rating of at least A- with an outlook designation of “stable” from S&P or A3 with an outlook designation of “stable” from Moody’s, in substantially the form as contained in Exhibit C to this Agreement.

“Licensed Professional Engineer” means a person acceptable to Buyer in its reasonable judgment who (a) is licensed to practice engineering in California, (b) has training and experience in the power industry specific to the technology of the Project, (c) has no economic relationship, association, or nexus with Seller or Buyer, other than to meet the obligations of Seller pursuant to this Agreement, (d) is not a representative of a consultant, engineer, contractor, designer or other individual involved in the development of the Project or of a manufacturer or supplier of any equipment installed at the Project, and (e) is licensed in an appropriate engineering discipline for the required certification being made.

“Locational Marginal Price” has the meaning set forth in the CAISO Tariff.

“Losses” means with respect to any Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from a Terminated Transaction for the remaining term of this Agreement, determined in a commercially reasonable manner. Factors used in determining the loss of economic benefit may include, without limitation, reference to information either available to it internally or supplied by one or more third parties including without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets, market referent prices for renewable power set by the CPUC, comparable transactions, forward price curves based on economic analysis of the relevant markets, settlement prices for comparable transactions at liquid trading hubs (e.g. NYMEX), all of which should be calculated for the remaining term of this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Manager” has the meaning set forth in Section 12.2(a).

“Milestones” has the meaning set forth in Section 3.9(b)(i).

“Monthly Energy Payment” has the meaning set forth in Section 4.[1/2]([b/c]).

“Moody’s” means Moody’s Investor Services, Inc., or its successor.

“MWh” means megawatt-hour.

[For Green Tariff Projects located outside of the CAISO: “Native Balancing Authority” means the balancing authority for the balancing authority area where the Project is physically interconnected to the electric system. As of the Execution Date, the Native Balancing Authority is ***[insert name].***

[For Green Tariff Projects located outside of the CAISO: “NBA Generator Agreement” means the agreement between the Native Balancing Authority and Seller with respect to Seller’s obligations to the Native Balancing Authority in connection with the Native Balancing Authority’s duties and obligations under the Interconnected Balancing Authority Agreement, in form and substance reasonably acceptable to the parties thereto.]

“Negative Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“NERC” means the North American Electric Reliability Corporation or a successor organization that is responsible for establishing reliability criteria and protocols.

“NERC Holiday” means any of the following holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Three of these days, Memorial Day, Labor Day, and Thanksgiving Day, occur on the same day each year. Memorial Day is the last Monday in May; Labor Day is the first Monday in September; and Thanksgiving Day is the fourth (4th) Thursday in November. New Year’s Day, Independence Day, and Christmas Day occur on the same date each year, but in the event any of these holidays occur on a Sunday, the “NERC Holiday” is celebrated on the Monday immediately following that Sunday; and if any of these holidays occur on a Saturday, the “NERC Holiday” remains on that Saturday.

“Network Upgrades” has the meaning set forth in the CAISO Tariff.

“Non-Availability Charges” shall mean Non-Availability Charges as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Non-Defaulting Party” has the meaning set forth in Section 5.2.

“Notice” shall, unless otherwise specified in the Agreement, mean written communications by a Party to be delivered by hand delivery, United States mail, overnight courier service, facsimile or electronic messaging (e-mail).

“Notice to Proceed” or “NTP” means the notice provided by Seller to the EPC Contractor following execution of the EPC Contract between Seller and such EPC Contractor and satisfaction of all conditions precedent to performance of such contract, by which Seller authorizes such EPC Contractor to commence and complete full performance of the work under the EPC Contract without any delay or waiting periods.

“Outage Notification Form” means the completed document from Seller notifying Buyer of an outage of the Project substantially in the form attached hereto as Exhibit G. Buyer reserves the right to reasonably revise or change the form upon Notice to Seller.

[For intermittent As-Available Product: “Participating Intermittent Resource” shall have the meaning set forth in the CAISO Tariff.]

“Participating Transmission Owner” or “Participating TO” means an entity that (a) owns, operates and maintains transmission lines and associated facilities and/or has entitlements to use certain transmission lines and associated facilities that are interconnected to the Delivery Point and (b) has transferred to the CAISO operational control of such facilities and/or entitlements to be made part of the CAISO Grid. As of the Execution Date, the Participating Transmission Owner is **[San Diego Gas & Electric Company]**.

“Party” or “Parties” means the Buyer or Seller individually, or to both collectively.

“Performance Assurance” means collateral provided by Seller to Buyer to secure Seller’s obligations hereunder and includes CPUC Approval Security, Development Period Security, Construction Period Security, and Delivery Term Security.

[For As-Available, Baseload, Peaking Product: “Performance Measurement Period” has the meaning set forth in Section 3.1(e).]

“Planned Outage” means any planned reduction or suspension of the electrical output from the Project or unavailability of the Project in whole or in part as a result of the inspection, maintenance, or repair of equipment that is scheduled in accordance with Section 3.7(a).

“PNode” has the meaning set forth in the CAISO Tariff.

“Positive Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“Product” has the meaning set forth in Section 3.1(a).

“Project” means all of the *[insert technology]* electric generating units, the Site at which the generating facility is located, the utility interconnection facilities up to the point of change in ownership to the applicable utility’s facilities, and the other assets, tangible and intangible, that compose the generation facility as more particularly described on Exhibit A.

“Project Cure Period” has the meaning set forth in Section 3.9(c)(ii).

“Quarterly Progress Report” means the report similar in form and content attached hereto as Exhibit F, as may be modified from time to time to meet applicable CPUC requirements.

[For Green Tariff Projects located outside of the CAISO: “Pseudo Participating Generator Agreement” means an agreement between CAISO and Seller that is the equivalent of a Participating Generator Agreement (as defined in the CAISO Tariff) for generators interconnected to a Native Balancing Authority other than CAISO and whose output is dynamically transferred via a pseudo-tie to the CAISO, in form and substance reasonably acceptable to the parties thereto.]

[For Green Tariff Projects located outside of the CAISO: “Pseudo Tie Agreements” means the Interconnected Balancing Authority Agreement, the Dynamic Scheduling Agreement, the Pseudo Participating Generator Agreement, and the NBA Generator Agreement, or equivalent agreements that may be adopted by the CAISO or included in the CAISO Tariff, which are intended to permit and facilitate the dynamic transfer of the output of the Project via a pseudo-tie from its Native Balancing Authority to the CAISO.]

“Recording” has the meaning set forth in Section 13.6.

“Reductions” has the meaning set forth in Section 3.2(c).

“Referral Date” has the meaning set forth in Section 12.2(a).

“Remedial Action Plan” has the meaning provided in Section 3.9(b)(ii)

“Renewable Energy Credit” has the meaning set forth in California Public Utilities Code Section 399.12(h) and CPUC Decision 08-08-028, as each may be amended from time to time or as further defined or supplemented by Law.

“Renewable Generation Equipment Supplier” means the supplier of the [electric generating [wind] [gas] [steam] turbine(s)] [solar electric generating equipment] for the Project, selected by Seller.

“Replacement Price” means the price (in dollars per megawatt hour) at which Buyer, acting in a commercially reasonable manner, purchases for delivery at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) a replacement for any Product (including its associated Green Attributes) that was not Scheduled and delivered by Seller, plus (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Buyer in purchasing such replacement Product and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Buyer for such replacement Product, or absent a purchase,

the market price at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) for such replacement Product for the hours impacted by such failure to Schedule or deliver such Product as determined by Buyer in a commercially reasonable manner. The Replacement Price also shall include all CAISO [*For Green Tariff Projects located outside of the CAISO:* , Native Balancing Authority,] and other charges and penalties calculated in dollars per megawatt hour with respect to the deviation from the Scheduled supply resulting from Seller’s failure to Schedule or deliver; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Buyer be required to utilize or change its utilization of its owned or controlled assets or market positions to minimize Seller’s liability. For the purposes of this definition, Buyer shall be considered to have purchased replacement Product to the extent Buyer shall have entered into one or more arrangements in a commercially reasonable manner whereby Buyer repurchases its obligation to sell and deliver the Product to another party. If for any reason a Replacement Price is unavailable when Seller fails to deliver or Schedule Product, then the Replacement Price for the hours when a Replacement Price is unavailable shall be the last available Replacement Price together with any charges and penalties allocated to Buyer during such time.

[For FCDS bids and for Green Tariff Projects located outside of the CAISO insert: “Resource Adequacy” means the procurement obligation of load serving entities, including Buyer, as such obligations are described in CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-025, 13-06-024, and subsequent CPUC decisions addressing Resource Adequacy issues, as those obligations may be altered from time to time in the CPUC Resource Adequacy Rulemakings (R.) 04-04-003 and (R.) 05-12-013 or by any successor proceeding, and all other Resource Adequacy obligations established by any other entity, including the CAISO.]

“Sales Price” means the price (in dollars per megawatt hour) at which Seller, acting in a commercially reasonable manner, resells any Product not Scheduled and received by Buyer, deducting from such proceeds any (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Seller in reselling such Product including all costs charged by CAISO [*For Green Tariff Projects located outside of the CAISO:* and the Native Balancing Authority,] to Schedule and deliver the Product into the CAISO System [*For Green Tariff Projects located outside of the CAISO:* or the Native Balancing Authority’s system], and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Seller in Scheduling and delivering such Product to the third party purchasers, or absent a sale despite commercially reasonable efforts to resell the Product, zero. The Sales Price shall also be reduced by all CAISO [*For Green Tariff Projects located outside of the CAISO:* , Native Balancing Authority,] and other costs, charges and penalties with respect to the deviation from the Scheduled supply, in each case, resulting from Buyer’s failure to take Product and calculated in dollars per megawatt hour; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Seller be required to utilize or change its utilization of its owned or controlled assets, including contractual assets, or market positions to minimize Buyer’s liability. The Sales Price may be less than zero.

“S&P” means the Standard & Poor’s Rating Group (a division of McGraw-Hill, Inc.) or its successor.

“Schedule” means the actions of Seller, Buyer and/or their designated representatives, or Scheduling Coordinators, including each Party’s Transmission Providers, if applicable, of notifying, requesting and confirming to each other and the CAISO the quantity and type of Product to be delivered on any given day or days at a specified Delivery Point.

“Scheduling Coordinator” or “SC” means an entity certified by the CAISO as qualifying as a Scheduling Coordinator pursuant to the CAISO Tariff, for the purposes of undertaking the functions specified in “Responsibilities of a Scheduling Coordinator,” of the CAISO Tariff, as amended from time-to-time.

“Scheduled Energy” means the Energy that clears under the applicable CAISO market based on the final Schedule developed in accordance with this Agreement, the operating procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices.

“SEC” means the U.S. Securities and Exchange Commission.

“Seller” shall have the meaning set forth on the Cover Sheet.

“Settlement Amount” means, with respect to the Non-Defaulting Party, the Losses or Gains, and Costs, expressed in U.S. Dollars, which such Party incurs as a result of the liquidation of a Terminated Transaction pursuant to Sections 5.2 and 5.3.

“Site” shall mean the location of the Project as described in Exhibit A.

“Station Service” means the electric energy produced by the Project that is used within the Project to power the lights, motors, control systems and other auxiliary electrical loads that are necessary for operation of the Project [*For Excess Sales bids*: and electric energy produced by the Project that is used to service onsite load which is subtracted from the CAISO revenue meter].

“System Dispatch Down” means curtailment of delivery of Product from the Project resulting from (a) curtailment ordered by the CAISO (whether directly or through the Scheduling Coordinator or the Participating Transmission Owner), for any reason, including, but not limited to, an Exceptional Dispatch (as defined in the CAISO Tariff), any system emergency as defined in the CAISO Tariff (“System Emergency”), any warning of an anticipated System Emergency, or any warning of an imminent condition or situation which could jeopardize the CAISO’s or Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the CAISO or Participating Transmission Owner is connected, any warning, forecast, or anticipated overgeneration conditions, including a request from CAISO to manage over-generation conditions; (b) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) for reasons including, but not limited to, (i) any situation that affects normal function of the electric system including, but not limited to, any abnormal condition that requires action to prevent circumstances such as equipment damage, loss of load, or abnormal voltage conditions, (ii) any warning, forecast or anticipation of conditions or situations that jeopardize the Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the Participating Transmission Owner is connected; (c) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) as a result of

scheduled or unscheduled maintenance or construction on the Participating Transmission Owner's transmission facilities or distribution operator's facilities (if interconnected to distribution or sub-transmission system) that prevents the delivery or receipt of Delivered Energy to or at the Delivery Point, (d) curtailment in accordance with Seller's obligations under its interconnection agreement with the Participating Transmission Owner or distribution operator, ***[For Green Tariff projects located outside of the CAISO:*** or Native Balancing Authority; or (e) curtailment ordered by the Native Balancing Authority or another Transmission Provider of Seller provided, that Seller has contracted for firm transmission or equivalent arrangements with the Native Balancing Authority or such Transmission Provider for the Product to be delivered to the Delivery Point and such curtailment is due to "force majeure" or "uncontrollable force" or a similar term as defined under the Transmission Provider's tariff]; provided, however, that System Dispatch Down shall not include Economic Dispatch Down].

"Terminated Transaction" means the termination of this Agreement in accordance with Section 5.2 of this Agreement.

"Termination Payment" has the meaning set forth in Section 5.2.

[For TOD Pricing Only: "TOD Delivery Cap" has the meaning set forth in Section 4.[1/2](a).]

[For TOD Pricing Only: "TOD Factors" has the meaning set forth in Section 4.[1/2](b).]

[For TOD Pricing Only: "TOD Period" has the meaning set forth in Section 4.[1/2](b).]

"Transmission Provider" means any entity or entities transmitting or transporting the Product on behalf of Seller or Buyer to or from the Delivery Point.

"VER Forecasting Program" means the rules, protocols, procedures and standards for Participating Intermittent Resources under the CAISO's Eligible Intermittent Resource Protocol, as may be amended from time to time, as set forth in the CAISO Tariff.]

"WECC" means the Western Electricity Coordinating Council or successor agency.

"WREGIS" means the Western Renewable Energy Generating Information System or any successor renewable energy tracking program.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) The term "month" shall mean a calendar month unless otherwise indicated, and a "day" shall be a 24-hour period beginning at 12:00:01 a.m. Pacific Prevailing Time and ending at 12:00:00 midnight Pacific Prevailing Time; provided that a "day" may be 23 or 25 hours on those days on which daylight savings time begins and ends.

(b) Unless otherwise specified herein, all references herein to any agreement or other document of any description shall be construed to give effect to amendments, supplements, modifications or any superseding agreement or document as then exist at the applicable time to which such construction applies.

(c) Capitalized terms used in this Agreement, including the appendices hereto, shall have the meaning set forth in Article 1, unless otherwise specified.

(d) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa, pronouns having masculine or feminine gender will be deemed to include the other, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal personality). Other grammatical forms of defined words or phrases have corresponding meanings.

(e) The term “including” when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation.

(f) References to a particular article, section, subsection, paragraph, subparagraph, appendix or attachment shall, unless specified otherwise, be a reference to that article, section, subsection, paragraph, subparagraph, appendix or attachment in or to this Agreement.

(g) Any reference in this Agreement to any natural person, Governmental Authority, corporation, partnership or other legal entity includes its permitted successors and assigns or to any natural person, Governmental Authority, corporation, partnership or other legal entity succeeding to its functions.

(h) All references to dollars are to U.S. dollars.

ARTICLE TWO: EFFECTIVENESS OF AGREEMENT; CONDITIONS PRECEDENT

2.1 Effectiveness of Agreement Prior to CP Satisfaction Date. Commencing on the Execution Date until the CP Satisfaction Date, this Agreement shall be in full force and effect, enforceable and binding only to the extent required to give full effect to, and enforce, the rights and obligations of the Parties under this Article 2, including, as it relates to Article 2, the rights and obligations under Articles 1, 5, 7, 8, 9, 10, 11, 12, and 13.

2.2 Obligations of the Parties. The Parties shall cooperate with each other to cause the Conditions Precedent to be satisfied as soon as reasonably practical.

(a) Seller’s Obligations. Prior to the CP Satisfaction Date, Seller shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in Sections [___], (ii) diligently pursue development of the Project in accordance with Section 3.9, (iii) comply with Section 3.9(b) in achieving the applicable Milestones that have due dates occurring prior to the CP Satisfaction Date, reporting completion of such Milestones, and delivering Remedial Action Plans in respect of missed Milestones as more fully described therein, (iv) deliver the Quarterly Progress Report in accordance with Section 3.9(a), and (v) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. Upon an Event of Default of Seller prior to the CPUC Approval Date, Buyer may terminate this Agreement in which case Seller shall owe Buyer liquidated damages in the amount of the CPUC Approval Security. Upon an Event of Default of Seller on or after the CPUC Approval Date but prior to the CP Satisfaction Date, Buyer may terminate this Agreement in which case Seller shall

owe Buyer liquidated damages in the amount of the Development Period Security. Buyer may retain such Performance Assurances to pay such liquidated damages. Each Party agrees and acknowledges that (a) the actual damages that Buyer would incur due to an Event of Default of Seller prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Seller prior to the CP Satisfaction Date.

(b) Buyer's Obligations. Prior to the CP Satisfaction Date, Buyer shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in Sections 2.3(a), and (ii) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. Upon an Event of Default of Buyer prior to the CPUC Approval Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the CPUC Approval Security. Upon an Event of Default of Buyer on or after the CPUC Approval Date but prior to the CP Satisfaction Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the Development Period Security. Each Party agrees and acknowledges that (a) the actual damages that Seller would incur due to an Event of Default of Buyer prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Buyer prior to the CP Satisfaction Date.

2.3 Conditions Precedent. Subject to Section 2.1, the effectiveness of the remainder of this Agreement is conditioned upon the satisfaction (or waiver by the Party described in Section 2.4) of all of the following conditions precedent ("Conditions Precedent") by the deadline dates set forth below for each Condition Precedent without extension for Force Majeure or any other reason:

(a) CPUC Approval. No later than [_____], Buyer shall have obtained CPUC Approval. Prior to this deadline, should the CPUC issue an order approving this Agreement but with conditions or modifications that materially alter the commercial aspects of this Agreement, the Parties agree to use good faith efforts to renegotiate this Agreement and file the amended agreement with the CPUC seeking CPUC Approval therefor. If, no later than the earlier of (i) sixty (60) days after such order or (ii) the deadline date above, no agreement is reached, either Party may terminate this Agreement upon delivery of Notice to the other Party.

(b) Electrical Interconnection. No later than [_____], Seller shall have entered into a [Large/Small/Rule 21/Native Balancing Authority] Generator Interconnection Agreement [*For Green Tariff Projects located outside of the CAISO:* along with any supplemental arrangements with the CAISO as an affected system owner] providing for the construction of the Electrical Interconnection Upgrades necessary to maintain the "[Full Capacity] [Energy Only] Deliverability Status" (as defined in the CAISO Tariff) of the Project and setting forth:

(i) an estimated in-service interconnection date for the "Participating TO's Interconnection Facilities," the "Network Upgrades," and the "Distribution Upgrades" (as each term is defined in the [CAISO Tariff/Wholesale Distribution Access/Rule 21]) of no later

than [_____] months after Seller provides the [CAISO/Participating Transmission Owner/distribution system owner/Native Balancing Authority/or any other affected transmission provider] with the appropriate security and written authorization to proceed under its [Large/Small/Rule 21/Native Balancing Authority] Generator Interconnection Agreement for the Project [*For Green Tariff Projects located outside of the CAISO*: and its supplemental arrangements with the CAISO as an affected system owner], and,

(ii) a refundable cost for [Note: add “reliability” here for Energy Only interconnection agreements which bid FCDS] “Network Upgrades” (as defined in the CAISO Tariff) that Seller would be obligated to pay and would be entitled to reimbursement from the CAISO, a Participating Transmission Owner, or any other affected transmission provider as provided thereunder not exceeding \$[_____], and

(iii) a nonrefundable cost that Seller would be obligated to pay thereunder not exceeding \$[_____] (or such greater amount as Seller may approve, in its sole discretion).

(c) [*Others, Major Governmental Approvals, Financing, etc.*]

2.4 Failure to Meet All Conditions Precedent.

(a) Beneficiary Party.

(i) Both of the Parties are the beneficiaries of the Conditions Precedent set forth in Sections 2.3(a), 2.3(b)(i)-(ii) [*Others*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, both of the Parties must waive (in their sole discretion) non-satisfaction by the deadline date therefor.

(ii) Buyer shall be the sole beneficiary of the Conditions Precedent set forth in Sections [*List*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Buyer alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(iii) Seller shall be the sole beneficiary of the Conditions Precedent set forth in Sections 2.3(b)(iii) [*Others*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Seller alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(b) Termination. If any of the Conditions Precedent is not satisfied or waived in writing by the beneficiary Parties thereto on or before the date that is fifteen (15) days after the applicable deadline date therefor, then this Agreement shall automatically terminate with no further obligation to either Party (other than as set forth in Sections 2.4(b)(i)-(ii) below and any other payment obligations which are accrued and payable at the time of termination).

(i) Upon a termination of this Agreement for any reason under Section 2.4 other than as described in Section 2.4(b)(ii) below, Seller shall forfeit to Buyer an amount equal to the Performance Assurance then required to be delivered to Buyer hereunder. Buyer may retain such Performance Assurance to pay such amount.

(ii) Upon a termination of this Agreement under this Section 2.4 as a result of the failure of the Conditions Precedent set forth in Sections 2.3(a) to be satisfied (or waived by both Parties) or as a result of the failure of the Conditions Precedent set forth in Sections 2.3(b)(i)-(ii) to be satisfied or waived by Buyer, Buyer shall return to Seller the Performance Assurances then held by Buyer.

2.5 Effectiveness of Agreement on and after CP Satisfaction Date. This Agreement shall be in full force and effect, enforceable and binding in all respects as of the CP Satisfaction Date until the conclusion of the Delivery Term or earlier termination pursuant to the terms of this Agreement; provided however, that this Agreement shall remain in effect until (i) the Parties have fulfilled all obligations under this Agreement, including payment in full of amounts due for the Product delivered prior to the end of the Delivery Term, the Settlement Amount, indemnification payments or other damages (whether directly or indirectly such as through set-off or netting) and (ii) the undrawn portion of the CPUC Approval Security, Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, is released and/or returned as applicable (if any is due). All indemnity rights shall survive the termination or expiration of this Agreement for the longer of twelve (12) months or the expiration of the statute of limitations period of the claim underlying the indemnity obligation.

ARTICLE THREE: OBLIGATIONS AND DELIVERIES

3.1 Transaction.

(a) Product. The “Product” to be delivered and sold by Seller and received and purchased by Buyer under this Agreement is [*Seller to select:* As-Available, Baseload, Peaking, or Dispatchable] Energy, [*Delete for Energy Only Bids, except for Green Tariff Projects located outside of the CAISO:* Capacity Attributes.] Green Attributes, and other ancillary products, services or attributes similar to the foregoing which are or can be produced by or associated with the Project (net of Station Service) in accordance with the terms hereof.

(b) Transaction. Unless specifically excused by the terms of this Agreement during the Delivery Term, Seller shall sell and deliver, or cause to be delivered, and Buyer shall purchase and receive, or cause to be received, the Product at the Delivery Point, and Buyer shall pay Seller for the Product in accordance with the terms hereof. In no event shall Seller have the right to procure any element of the Product from sources other than the Project for sale or delivery to Buyer under this Agreement [*If the Project is located outside of the CAISO:* except with respect to Imbalance Energy from the Transmission Provider].

(c) Delivery Term. The Parties agree that the period of Product delivery is [*insert:* “ten (10)”, “fifteen (15), or “twenty (20)”] Contract Years. As used herein, “Delivery Term” shall mean the period of Contract Years specified above beginning on the Commercial Operation Date and continuing until the end of the last Contract Year unless terminated earlier as provided by the terms of this Agreement.

(d) Delivery Point. [*For Project with transmission level interconnection, insert:* “The Delivery Point shall be the point of interconnection of the Project to the CAISO Grid (and, for payment purposes, the corresponding PNode for the Project).”] [*For Project with*

distribution level interconnection, insert: “The Delivery Point shall be the point on the CAISO Grid where the Participating Transmission Owner’s distribution system interconnects to the CAISO Grid as set forth in their Meter Services Agreement, as may be acceptable to Buyer in its reasonable discretion (and, for payment purposes, the corresponding PNode for the Project).”] *[For Green Tariff Projects located outside of the CAISO, insert:* “The Delivery Point shall be the point on the CAISO Grid where the Native Balancing Authority’s grid is interconnected to the CAISO Grid at the *[identify the local CAISO substation to which the Project has firm transmission rights]* Substation (and, for payment purposes, the corresponding PNode for the Project, or if none exists, the PNode corresponding to the point on the CAISO Grid where the Native Balancing Authority’s grid is interconnected to the CAISO Grid at the Delivery Point).”] The Delivery Point shall be [the point of interconnection of the Project to the CAISO Grid] *[Seller may specify another delivery point; for a Project located outside the CAISO Grid, the Delivery Point should be a CAISO Scheduling Point as defined by the CAISO]* and for financial settlement purposes under the applicable CAISO market, the PNode corresponding to such point.

(e) *[For Baseload, Peaking, As-Available Product: Contract Quantity and Guaranteed Energy Production.* The quantity of Bundled Green Energy that Seller expects to be able to deliver to Buyer during each Contract Year is as follows (“Contract Quantity”):

Contract Year	Contract Quantity (in MWh)

Throughout the Delivery Term, Seller shall be required to deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in any [twelve (12)] [twenty-four (24)] consecutive calendar month period during the Delivery Term (“Performance Measurement Period”). “Guaranteed Energy Production” means an amount of Bundled Green Energy, as measured in MWh, equal to [two times] [_____] % of the Contract Quantity. Notwithstanding the excuses to performance set forth in the definition of the Product type (as such Product type is specified in Section 3.1(a)), Seller shall be excused from achieving the Guaranteed Energy Production during any Performance Measurement Period only to the extent of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods. For purposes of determining whether Seller has achieved the Guaranteed Energy Production, Seller shall be deemed to have delivered to Buyer an amount of Bundled Green Energy that it could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods.

(f) Contract Capacity. The “Contract Capacity” is the full generation capacity of the Project net of all Station Service which shall be [___MWac] and [___MWdc]. Throughout the Delivery Term, Seller shall sell and Schedule all Product associated with the Contract Capacity of the Project *[For FCDS bids and for Green Tariff Projects located outside of the CAISO insert: ,including Capacity Attributes,]* solely to Buyer, except in the case of an Event of Default of Buyer or an unexcused failure by Buyer to Schedule, receive, and pay for Product under Section 3.1(h)(ii).

(g) Project. All Product provided by Seller pursuant to this Agreement shall be supplied from the Project only. Other than maintenance in accordance with Good Industry Practices, Seller shall not make any alteration or modification to the Project which results in a change to the Contract Capacity of the Project or any other material changes to the Project without Buyer's prior written consent. The Project is further described in Exhibit A.

(h) Performance Excuses.

(i) Seller Excuses. The performance of Seller to Schedule, deliver, and sell the Product shall be excused only for the reasons set forth in the definition of "As-Available". If Seller fails to Schedule, deliver, or sell all or part of the Product for a period or a series of periods that is cumulatively longer than thirty (30) days, and such failure is not excused as described above, then such failure shall be an Event of Default. If Seller fails to Schedule, deliver, or sell all or part of the Product for any period prior to an Early Termination Date, and such failure is not excused as described above, then Seller shall pay Buyer, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (A) the product of the Energy Price [*For FCDS Projects located in the CAISO*: (or for each month during which Seller has not achieved FCDS as determined by the CAISO, the Energy Price minus the Deliverability Value)] [*TOD Pricing Only*: times the weighted average TOD Factor for such period of Product deficiency] times the Product deficiency, from (B) the product of the Replacement Price times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(ii) Buyer Excuses. The performance of Buyer to Schedule, receive, and pay for the Product shall be excused only (A) during periods of Force Majeure, (B) by Seller's failure to perform or (C) during Dispatch Down Periods [*For all Products other than Dispatchable Product*: (except that Buyer shall not be excused from paying for the Product as required under Section 3.4 during periods of Economic Dispatch Down)]. If Buyer fails to Schedule, receive, or purchase all or part of the Product for a period or a series of periods that is cumulatively longer than thirty (30) days and such failure is not excused as described above, then such failure shall be an Event of Default. If Buyer fails to Schedule, receive, or purchase all or part of the Product for any period prior to an Early Termination Date and such failure is not excused as described above, then Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (Y) the product of the Sales Price times the Product deficiency from (Z) the product of the Energy Price [*For FCDS located in the CAISO*: (or, for each month during which Seller has not achieved FCDS as determined by the CAISO, the Energy Price minus the Deliverability Value)] [*TOD Pricing Only*: times the weighted average TOD Factor for such period of Product deficiency] times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(i) Green Attributes. Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as

included in the delivery of the Product from the Project. *[For Green Tariff Projects only: During the Delivery Term, Seller shall register, provide and maintain a Green-e Energy Renewable Generator Registration Form and Attestation.]* For all electric generation using biomethane as fuel, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane if the capture and destruction is required by Law. If the capture and destruction of the biomethane is not required by Law, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane, unless the environmental attributes associated with the capture and destruction of the biomethane pursuant to that contract are transferred to Buyer and retired on behalf of the retail customers consuming the electricity associated with the use of that biomethane, or unless Seller's procurement contract with the source of biomethane prohibits the source of biomethane from separately marketing the environmental attributes associated with the capture and destruction of the biomethane sold pursuant to that contract, and such attributes have been retired.

(j) *[Delete and replace with "Reserved" for Energy Only Bids, except for Green Tariff Projects located outside of the CAISO: Resource Adequacy.* During the Delivery Term, Seller grants, pledges, assigns and otherwise commits to Buyer all of the Project's Contract Capacity, including Capacity Attributes, from the Project for Buyer to use in meeting its Resource Adequacy or successor program requirements, as the CPUC, CAISO or other regional entity may prescribe. Seller understands that the CPUC is currently in the process of developing requirements for Resource Adequacy and these requirements and the implementation thereof have not been finalized. Seller agrees that it shall take all commercially reasonable actions and execute any and all documents or instruments reasonably necessary to enable Buyer to use all of the Contract Capacity, including Capacity Attributes, to be committed by Seller to Buyer pursuant to this Agreement for the Resource Adequacy requirements of Buyer, including for necessary deliverability Network Upgrades. *[For Green Tariff Projects located within the CAISO who bid FCDS but have an Energy Only Interconnection Agreement (and Phase II study) at the time of contract execution:* If the Generator Interconnection Agreement requires an amendment to achieve FCDS and there are deliverability Network Upgrades, Buyer can request that Seller elect to fund or elect not to fund all deliverability Network Upgrades. However, if Seller elects to fund all deliverability Network Upgrades after Buyer's request that Seller not fund such deliverability Network Upgrades, Buyer shall have the right to declare a termination, and Seller shall owe Buyer a Termination Payment. If Buyer requests that Seller fund certain deliverability Network Upgrades and Seller elects to fund, but the Project does not obtain Full Capacity Deliverability Status on or before January 1, 2027, Buyer shall have the right to declare a termination, and Seller shall owe Buyer a Termination Payment. If the Seller is required to provide Resource Adequacy hereunder, Seller agrees that the Project is subject to the terms of the Availability Standards.] *[For Green Tariff Projects located outside of the CAISO insert:* Seller acknowledges that in order for the Project, as a generator that is dynamically transferred via a pseudo-tie to the CAISO, to qualify its Capacity Attributes as Resource Adequacy capacity, Seller will need, among other things, to maintain firm transmission service to the Delivery Point or equivalent arrangements, to maintain as effective the Pseudo-Tie Agreements, to establish a "Qualifying Capacity" (or its equivalent)

periodically with the CPUC, to establish a “Net Qualifying Capacity” (or its equivalent) periodically with the CAISO, and to submit through Seller’s Scheduling Coordinator a Resource Adequacy supply plan periodically to the CAISO. Seller acknowledges that (i) Buyer may allocate its share of import capability on the CAISO Grid to any CAISO import scheduling point on the CAISO Grid as it deems appropriate in its sole discretion, and (ii) Buyer may allocate its share, if any, of import capability at the CAISO import scheduling point corresponding to the Delivery Point to any resource at such CAISO import scheduling point as it deems appropriate in its sole discretion, even if, in either case, Buyer’s allocation of such import capability, if any, to the CAISO import scheduling point corresponding to the Delivery Point or to the Project may not be sufficient for the Capacity Attributes from the Project to be accepted and approved by the CPUC and the CAISO as qualifying for the determination of, and as satisfying Buyer’s requirement for demonstrating its procurement of, Resource Adequacy capacity. If there are determined to be deliverability Network Upgrade costs on the CAISO Grid as an affected system of the Native Balancing Authority as a result of this Project, Buyer can request that Seller elect to fund or elect not to fund all deliverability Network Upgrades. If Seller elects to fund any such deliverability Network Upgrades after Buyer’s request that Seller not fund such deliverability Network Upgrades, Buyer shall have the right to declare a termination, and Seller shall owe Buyer a Termination Payment. If Buyer requests that Seller fund certain deliverability Network Upgrades, but Seller does not fund such deliverability Network Upgrades, Buyer shall have the right to declare a termination, and Seller shall owe Buyer a Termination Payment. If the Seller is required to provide Resource Adequacy hereunder, Seller agrees that the Project is subject to the terms of the Availability Standards.]]

(k) WREGIS. Prior to the initial delivery of Energy to Buyer, Seller shall register the Project in WREGIS, execute a CAISO Qualified Reporting Entity Service Agreement to allow CAISO, on the Seller’s behalf, to upload generation information directly into WREGIS, and take all other actions necessary to ensure that the Green Attributes produced from the Project in an amount equal to the amount of Delivered Energy are issued and tracked for purposes of satisfying the requirements of the California Renewable Portfolio Standard and transferred to Buyer, including payment of all fees required to register the facility in WREGIS, issue WREGIS certificates, and transfer such certificates to Buyer. Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in WREGIS will be taken prior to the first delivery under the Agreement.

(l) Prevailing Wage. To the extent applicable, Seller shall comply with the prevailing wage requirements of California Public Utilities Code Section 399.13, subdivision (h).

3.2 Transmission.

(a) Seller’s Transmission Service Obligations. During the Delivery Term, Seller shall arrange and be responsible for transmission service for delivery of the Product to and at the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission and distribution losses, and any transmission or distribution level outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods. ***[For Green Tariff Projects located outside of CAISO:*** Seller shall obtain and maintain during the Delivery Term firm transmission service or equivalent arrangements to deliver the Product from the Site to the

Delivery Point from all intermediary Transmission Providers between the Site and the Delivery Point. At Buyer's request, Seller shall provide to Buyer a copy of all firm transmission service agreements or equivalent arrangements and any amendments thereto.] Seller shall fulfill all contractual, metering and applicable interconnection requirements, including those set forth in *[For Green Tariff Projects located outside of CAISO: the Native Balancing Authority's applicable tariffs,]* the Participating Transmission Owner's applicable tariffs, the CAISO Tariff and implementing CAISO standards and requirements, including, but not limited to, executing applicable interconnection agreements, Participating Generator Agreement and Meter Service Agreement *[For Green Tariff Projects located outside of CAISO: (or equivalent arrangements (such as a Pseudo-Participating Generator Agreement) for projects located outside the CAISO whose output is dynamically transferred via a pseudo-tie to the CAISO)]* so as to be able to deliver Energy to the CAISO Grid. *[For Green Tariff Project located within the CAISO: Seller shall arrange for any interconnection agreement with the CAISO (or the Participating Transmission Owner, for distribution level interconnections).]* *[For Green Tariff Projects located outside of CAISO: Seller shall arrange for and maintain, or cause to be maintained, during the Delivery Term appropriate interconnection agreements with the Native Balancing Authority and appropriate Pseudo Tie Agreements among the parties thereto that permit and facilitate the dynamic transfer of the output of the Project via a pseudo-tie from the Native Balancing Authority to the CAISO.]* Any and such interconnection agreement is separate and not a part of this Agreement.

(b) Buyer's Transmission Service Obligations. During the Delivery Term, Buyer shall arrange and be responsible for transmission service for delivery of the Product from the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission losses, and any transmission outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods.

(c) Congestion Charges. Seller shall be responsible for all costs of congestion for transmission of the Product up to and at the Delivery Point. Buyer shall be responsible for all costs of congestion for transmission of the Product from the Delivery Point. To the extent that Seller is reimbursed for or receives any refunds, credits, or benefits from the CAISO for congestion charges or losses in respect of transmission of the Product from the Delivery Point, whether due to differences between the locational marginal pricing at the Delivery Point and Buyer's load aggregation point or any other point downstream of the Delivery Point, congestion revenue rights associated with any transmission path downstream of the Delivery Point, or any other hedging instruments associated with the transmission of the Product from the Delivery Point (collectively, any such refunds, credits or benefits are referred to as "Reductions"), then, at Buyer's option, either (i) Seller shall transfer any such Reductions and their related rights to Buyer; or (ii) Buyer shall reduce payments due to Seller under this Agreement in amounts equal to the Reductions and Seller shall retain the Reductions.

3.3 Scheduling.

(a) VER Forecasting Program Requirements. Seller shall cause the Project to become a Participating Intermittent Resource including executing all necessary documents to become a Participating Intermittent Resource. Seller shall be responsible for all CAISO forecasting fees and related charges associated with the Project becoming a Participating

Intermittent Resource and participating in the VER Forecasting Program. Seller and Buyer shall comply with the VER Forecasting Program, and all additional protocols issued by the CAISO relating to Participating Intermittent Resources, including the VER Forecasting Program, for the Delivery Term. Seller shall provide Buyer with a copy of the notice from the CAISO certifying the Project as a Participating Intermittent Resource prior to the Commercial Operation Date. In the event that the VER Forecasting Program or the CAISO Tariff and/or any protocols relating thereto are changed, amended, modified replaced or terminated, Seller and Buyer agree to comply with such revisions and, to the extent practical, to implement such revisions in a manner that maintains the relative economic positions of the Parties as of the date of this Agreement.]

(b) Scheduling Coordinator.

[When Seller is SC for the Project, include the following two paragraphs:

(i) Seller as Scheduling Coordinator for the Project. During the Delivery Term, Seller shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to Schedule and deliver the Product to the Delivery Point and Buyer shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to Schedule and receive the Product at the Delivery Point. Throughout the Delivery Term, Buyer and Seller shall submit inter-SC trades for scheduling all Product from the Project at the Delivery Point (including Energy, Integrated Forward Market Load Uplift Obligations in respect of self-scheduled Energy, and other Product from time to time contemplated under the CAISO Tariff to be subject to inter-SC trades), based on a final Schedule developed in compliance with this Agreement. During the Delivery Term, each Party or each Party's SC shall conduct all Scheduling in accordance with the operating procedures developed by the Parties pursuant to Section 3.10 and in full compliance with the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Whenever the VER Forecasting Program is available, Seller shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer may direct the Scheduling Coordinator to submit, and Seller shall cause the Scheduling Coordinator to submit in accordance with such Buyer's directions, a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO. It is the intent of the Parties that neither Party be subject to a double payment or a double charge for Product from the Project through this Agreement and CAISO settlement process and that the more detailed Scheduling and operating procedures developed pursuant to Section 3.10 complement the CAISO settlement process to produce a final economic result between them that is consistent with the fundamental transaction of this Agreement.

(ii) CAISO Costs and Revenues. Seller shall be responsible for CAISO costs (including penalties and other charges) and shall be entitled to all CAISO revenues (including credits and other payments) as the Scheduling Coordinator for the Project, in each case, associated with Imbalance Energy, including all CAISO charges or penalties incurred as a consequence of the Project not being available, the Seller not notifying the CAISO and Buyer of outages in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7), any other failure by

Seller to abide by the CAISO Tariff, and any other deviations between Delivered Energy and Scheduled Energy that are attributable to Seller, the Project, or any event, circumstance, act, or incident occurring prior to or at the Delivery Point, including without limitation uninstructed deviation penalties. The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, the cost of the sanctions or penalties shall be the Seller's responsibility. Buyer shall be entitled to all credits, payments, or revenues from the CAISO in respect of the Contract Energy from the Project, including revenues associated with CAISO dispatches, inter-SC trade credits, and bid cost recovery.]

[When SDG&E is SC for the Project and for Green Tariff Projects located outside of the CAISO, include the following seven paragraphs:

(iii) Buyer as Scheduling Coordinator for the Project. [During the Delivery Term] [Upon initial synchronization of the Project to the CAISO Grid], Buyer shall be the Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with the CAISO for the Project for both the delivery and the receipt of the Product at the Delivery Point. At least thirty (30) days prior to the [Commercial Operation Date of the Project] [initial synchronization of the Project to the CAISO Grid], Seller shall take all actions and execute and deliver to Buyer and the CAISO all documents necessary to authorize or designate Buyer as Seller's Scheduling Coordinator for the Project effective as of [the beginning of the Delivery Term] [initial synchronization of the Project to the CAISO Grid]. [During the Delivery Term] [On and after initial synchronization of the Project to the CAISO Grid], Seller shall not authorize or designate any other party to act as Seller's Scheduling Coordinator, nor shall Seller perform for its own benefit the duties of Scheduling Coordinator, and Seller shall not revoke Buyer's authorization to act as Seller's Scheduling Coordinator unless agreed to by Buyer. Buyer (as Seller's SC) shall submit Schedules to the CAISO based on the final Schedule developed in accordance with this Agreement, the operating procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Buyer (as Seller's SC) shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program whenever the VER Forecasting Program is available, and consistent with Buyers' best estimate based on the information reasonably available to Buyer including Buyer's forecast whenever the VER Forecasting Program is not available.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO.

(iv) Notices. Buyer (as Seller's SC) shall provide Seller with access to a web based system through which Seller shall submit to Buyer and the CAISO all notices and updates required under the CAISO Tariff regarding the Project's status, including, but not limited to, all outage requests, forced outages, forced outage reports, clearance requests, or must offer

waiver forms. In accordance with Section 3.7 and this Section 3.2, Seller will cooperate with Buyer to provide such notices and updates. If the web based system is not available, Seller shall promptly submit such information to Buyer and the CAISO (in order of preference) telephonically, by electronic mail, or facsimile transmission to the personnel designated to receive such information.

(v) CAISO Costs and Revenues. Except as otherwise set forth below, ***[For all Products other than Dispatchable Product: in Section 3.4(c)(ii),]*** and elsewhere in this Agreement, Buyer (as Seller's SC) shall be responsible for CAISO costs (including penalties, ***[For As-Available Product VER Forecasting Program Participants only: Negative Imbalance Energy costs or revenues,]*** and other charges) and shall be entitled to all CAISO revenues (including credits, ***[For As-Available Product VER Forecasting Program Participants only: Positive Imbalance Energy revenues or costs,]*** and other payments) as the Scheduling Coordinator for the Project, including revenues associated with CAISO dispatches, bid cost recovery, inter-SC trade credits, or other credits in respect of the Product Scheduled or delivered from the Project; provided, however that during periods when the Project is under curtailment for both System Dispatch Down and Economic Dispatch Down during the same CAISO settlement interval, Imbalance Energy costs and revenues shall be allocated in accordance with Section 3.4(c)(ii). ***[For As-Available Product VER Forecasting Program Participants only: Seller shall be responsible for all CAISO charges or penalties net of credits and payments (including without limitation all Imbalance Energy costs), in each case, resulting from the Seller not notifying the CAISO and Buyer (as Seller's SC) of outages or other unavailability of Project capacity in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7) or any other failure by Seller to abide by the CAISO Tariff.]*** The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, and any such sanctions or penalties are imposed upon the Project or to Buyer as Scheduling Coordinator due to the actions or inactions of Seller, the cost of the sanctions or penalties shall be the Seller's responsibility.

(vi) CAISO Settlements. Buyer (as Seller's SC) shall be responsible for all settlement functions with the CAISO related to the Project. Buyer shall render a separate invoice to Seller for any CAISO charges or penalties ("CAISO Charges Invoice") for which Seller is responsible under this Agreement. CAISO Charges Invoices shall be rendered after settlement information becomes available from the CAISO that identifies any CAISO charges. Notwithstanding the foregoing, Seller acknowledges that the CAISO will issue additional invoices reflecting CAISO adjustments to such CAISO charges. Seller shall pay the amount of CAISO Charges Invoices within ten Business Days of Seller's receipt of the CAISO Charges Invoice. If Seller fails to pay such CAISO Charges Invoice within that period, Buyer may net or offset any amounts owing to it for these CAISO Charges Invoices against any future amounts it may owe to Seller under this Agreement. The obligations under this section with respect to payment of CAISO Charges Invoices shall survive the expiration or termination of this Agreement.

(vii) Dispute Costs. Buyer (as Seller's SC) may be required to dispute CAISO settlements in respect of the Project. Seller agrees to pay Buyer's costs and expenses

(including reasonable attorneys' fees, including reasonably allocated costs of in-house counsel of the Buyer) associated with its involvement with such CAISO disputes. In no event shall Buyer (or its third party designee, as Scheduling Coordinator) be liable to Seller for the actions, inactions, errors, or omissions of the CAISO or its agents in the performance of their scheduling functions and/or market operations.

(viii) Terminating Buyer's Designation as Scheduling Coordinator. At least thirty (30) days prior to expiration of this Agreement or as soon as reasonably practicable upon an earlier termination of this Agreement, the Parties will take all actions necessary to terminate the designation of Buyer as Scheduling Coordinator for the Project as of 11:59 p.m. on such expiration date.

(ix) Master File and Resource Data Template. Seller shall provide the data to the CAISO (and to Buyer) that is required for the CAISO's Master File and Resource Data Template (or successor data systems) for this Project consistent with this Agreement. Neither Party shall change such data without the other Party's prior written consent.]

(c) Annual Delivery Schedules. No later than forty-five (45) days before (A) the first day of the first Contract Year of the Delivery Term and (B) the beginning of each calendar year for every subsequent Contract Year during the Delivery Term, Seller shall provide a non-binding forecast of each month's average-day expected Delivered Energy, by hour, for the following calendar year.

(d) Monthly Delivery Schedules. Ten (10) Business Days before the beginning of each month during the Delivery Term, Seller shall provide a non-binding forecast of each day's average expected Delivered Energy, by hour, for the following month ("Monthly Delivery Forecast").

(e) Daily Delivery Schedules. By 5:30 AM Pacific Prevailing Time on the Business Day immediately preceding the date of delivery, Seller shall [*When Seller is SC for the Project:* cause its Scheduling Coordinator to] provide Buyer with a [*For As-Available intermittent Product only:* non-binding forecast of the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)] [*For all Products other than As-Available intermittent:* binding forecast of the expected Delivered Energy] for each hour of the immediately succeeding day ("Day-Ahead Forecast") [*For all Products other than As-Available intermittent:* [*When Seller is SC for the Project:* concurrent with delivery to the CAISO] [*When SDGE is SC for the Project:* and Buyer shall submit a Schedule to the CAISO consistent with such Day-Ahead Forecast], it being understood that, [*For all Products other than Dispatchable:* consistent with its Economic Dispatch Down curtailment rights,] Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO]. A Day-Ahead Forecast provided in a day prior to any non-Business Day(s) shall include Schedules for the immediate day, each succeeding non-Business Day and the next Business Day. Each Day-Ahead Forecast shall clearly identify, for each hour, Seller's best estimate of [*For As-Available intermittent Product only:* the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)] [*For all Products other than As-Available intermittent:* the expected Delivered Energy]. Seller

may not change such Schedule past the deadlines provided in this section except in the event of a Forced Outage or Schedule change imposed by Buyer or the CAISO, in which case Seller shall promptly provide Buyer with a copy of any and all updates to such Schedule indicating changes from the then-current Schedule. These notices and changes to the Schedules shall be sent to Buyer's on-duty Scheduling Coordinator. If Seller fails to provide Buyer with a Day-Ahead Forecast as required herein, then for such unscheduled delivery period only Buyer shall rely on the delivery Schedule provided in the Monthly Delivery Forecast or Buyer's best estimate based on information reasonably available to Buyer and Seller shall be liable for Scheduling and delivery based on such Monthly Delivery Forecast or Buyer's best estimate.

(f) Real Time Delivery Schedules. Notwithstanding anything to the contrary herein, in the event Seller makes a change to its Schedule on the actual date of delivery for any reason including Forced Outages (other than a scheduling change imposed by Buyer or CAISO) which results in a change to its deliveries (whether in part or in whole), Seller shall notify Buyer immediately by calling Buyer's on-duty Scheduling Coordinator. Seller shall notify Buyer and the CAISO of Forced Outages in accordance with Section 3.7. Seller shall keep Buyer informed of any developments that will affect either the duration of the outage or the availability of the Project during or after the end of the outage.

(g) [For Green Tariff Projects located outside of CAISO: Scheduling with the Native Balancing Authority]. Seller shall be responsible for all communications of generation scheduling for the Project, if any are required, with the Native Balancing Authority.]

3.4 Dispatch Notices.

(a) General. Seller shall adjust delivery amounts as directed by the CAISO, the Participating Transmission Owner, Buyer, [For Green Tariff Projects located outside of CAISO: the Native Balancing Authority,] or a Transmission Provider during any Dispatch Down Period.

(b) System Requirements. Seller shall acquire, install, and maintain such facilities, communications links and other equipment, and implement such protocols and practices, as necessary (i) for Seller to respond and follow instructions, including an electronic signal conveying real time instructions, to operate the Project as directed by the Buyer and/or the CAISO, including to implement a System Dispatch Down or an Economic Dispatch Down in accordance with the then-current methodology used to transmit such instructions as it may change from time to time, and (ii) for Buyer and/or the CAISO to control the quantity of Product generated by the Project in order to implement a System Dispatch Down or an Economic Dispatch Down, in each case, in accordance with the then-current methodology used to transmit such instructions as it may change from time to time. As of the Execution Date, the systems required to comply with clause (i) include at a minimum the CAISO's Automatic Dispatch System (as described in the CAISO website) and the systems required to comply with clause (ii) include at a minimum the CAISO'S Application Programming Interfaces (as described in the CAISO website). If at any time during the Delivery Term Seller's facilities, communications links or other equipment, protocols or practices are not in compliance with then-current methodologies, Seller shall take all commercially reasonable steps necessary to become compliant as soon as possible. Seller shall be liable pursuant to Section [For all Products other than Dispatchable Product: 3.4(c)(ii)] [For Dispatchable Product: 3.3(b)(ii)/(iii)] for failure to comply with an order directing a Dispatch Down Period,

during the time that Seller's facilities, communications links or other equipment, protocols or practices are not in compliance with then-current methodologies. For the avoidance of doubt, an order directing a Dispatch Down Period via such systems and facilities shall have the same force and effect on Seller as any other form of communication. If an electronic submittal is not possible, Buyer and/or the CAISO may provide Dispatch Notices by (in order of preference) electronic mail, telephonically, or facsimile transmission to Seller's personnel designated to receive such communications, as provided by Seller in writing and Seller shall maintain communications systems necessary to permit such transmittal of Dispatch Notices. The Parties shall describe with more specificity the Economic Dispatch Down process (including the automated communication process for Dispatch Notices) in the operating procedures developed by the Parties pursuant to Section 3.10.

(c) ***[For all Products other than Dispatchable Product: Economic Dispatch Down. [For Projects where SDG&E purchases Test Energy: Before or after the Commercial Operation Date,]*** each of Buyer and the CAISO has the right to order Seller to curtail deliveries of Energy from the Project to the Delivery Point for Economic Dispatch Down purposes, seven days per week and 24 hours per day (including holidays), by providing Dispatch Notices and updated Dispatch Notices to Seller electronically via the communications systems described in Section 3.4(b), subject to the requirements and limitations set forth in this Agreement, including the Project operating restrictions set forth in Exhibit H. Each Dispatch Notice will be effective unless and until Buyer (or the CAISO) modifies such Dispatch Notice by providing Seller with an updated Dispatch Notice. In addition to any other requirements set forth or referred to in this Agreement, all Dispatch Notices and updated Dispatch Notices will be made in accordance with the timelines as specified in the CAISO Tariff. Seller agrees to adjust the Project's Delivered Energy as set forth in a Dispatch Notice that meets the requirements of Economic Dispatch Down.]

(i) ***[Buyer Payments. [For Projects where SDG&E purchases Test Energy: On and after the Commercial Operation Date], Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which any such Economic Dispatch Down occurred an amount equal to the positive difference, if any, of (Y) the product of the Energy Price, times [For TOD Pricing Only: the weighted average TOD Factor for such period of Economic Dispatch Down, times] the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down [For Projects receiving PTCs: plus the product of the after tax value of any lost PTC benefits (in dollars per megawatt hour) that Seller has not been able to mitigate after use of reasonable efforts, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down], minus (Z) the product of the positive value of the Sales Price, if received, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down. [For Projects receiving PTCs: Seller shall provide Buyer with documentation that establishes to Buyer's reasonable satisfaction (A) that Seller would have been entitled to receive PTCs for the Deemed Bundled Green Energy if it had actually been generated; and (B) the after tax value of any lost PTC benefits (in dollars per megawatt hour) due under this Section 3.4(c)(i).]]***

(ii) ***[Failure to Comply. If Seller fails to comply with a Dispatch Notice that is in compliance with this Agreement, then, for the deviation between the Delivered Energy and the amount set forth in the Dispatch Notice, Seller shall pay Buyer an amount equal to the sum of (A) + (B) + (C), where: (A) is the amount, if any, paid to Seller by Buyer for any Delivered***

Energy in excess of the amount set forth in the Dispatch Notice (for example, the Energy Price ***[For TOD Pricing Only: adjusted by TOD Factors]***), and (B) is all Imbalance Energy costs or charges (excluding any revenues or credits), and (C) is any penalties or other charges resulting from Seller's failure to comply with the Dispatch Notice.]

3.5 Standards of Care.

(a) General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, ***[For Green Tariff Projects located outside of CAISO: the Native Balancing Authority,]*** NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).

(b) CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO ***[For Green Tariff Projects located outside of CAISO: and the Native Balancing Authority,]*** (ii) WECC scheduling practices and (iii) Good Industry Practices.

(c) Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, "Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities," and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider ***[For Green Tariff Projects located outside of CAISO: and the Native Balancing Authority,]***

3.6 Metering.

(a) CAISO Revenue Meter. All output from the Project per the terms of this Agreement must be delivered through a single CAISO revenue meter and that meter must be dedicated exclusively to the Project described herein. All Product purchased under this Agreement must be measured by the Project's CAISO revenue meter to be eligible for payment under this Agreement. Seller shall bear all costs relating to all metering equipment reasonably necessary to accommodate the Project. In addition, Seller hereby agrees to provide all meter data to Buyer in a form acceptable to Buyer, and consents to Buyer obtaining from the CAISO the CAISO meter data applicable to the Project and all inspection, testing and calibration data and reports. Seller shall grant Buyer the right to retrieve the meter reads from the CAISO meter reporting website and/or directly from the CAISO meter(s) at the Project site. If the CAISO makes any adjustment to any CAISO meter data for a given time period, Seller agrees that it shall submit revised monthly invoices, pursuant to Section 6.2, covering the entire applicable time period in order to conform fully such adjustments to the meter data. Seller shall submit any such revised invoice no later than thirty (30) days from the date on which the CAISO provides to Seller such binding adjustment to the meter data.

(i) Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice

of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer's expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.

(ii) Inaccurate Meters. If any of the electric meters is deemed to be inaccurate under the Meter Service Agreement, deliveries shall be measured by reference to Seller's check-meters, if any are installed and registering accurately, or the meter readings for the period of inaccuracy shall be adjusted as far as can be reasonably ascertained by Seller from the best available data, subject to review and approval by Buyer. If the period of the inaccuracy cannot be ascertained reasonably, any such adjustment shall be for a period equal to one-half of the time elapsed since the preceding test by applying the percentage of inaccuracy so found. Seller shall promptly cause such electric meters to be corrected and, where such inaccuracy was determined pursuant to a test required by Buyer, Seller shall bear the expense of any such test.

(iii) Delivered MWh Adjustments. In the event that, due to correction for inaccurate electric meters deemed to be inaccurate under the Meter Service Agreement, the Delivered Energy is increased or decreased, the revised Delivered Energy shall be used for purposes of calculating payments. If any of such amounts for any period have already been calculated using the previous amount of Delivered Energy, they shall be recalculated using the revised amount of Delivered Energy. If the recalculation changes the amount payable for the period in question, revised payments shall be made by Buyer or Seller, as applicable, in accordance with Section 6.2.

(b) Real Time Telemetry. Seller shall install, activate and maintain metering, communication and telemetry equipment for the Project in a centralized system to which Buyer shall have real time access. Seller shall link its system to Buyer via an approved Buyer communication network, utilizing existing industry standard network protocol, as reasonably approved by Buyer. Seller shall correct any problems with such equipment as soon as practicable.

(c) *[The following section is for As-Available Intermittent Products only]* Meteorological Station. Seller, at its own expense, shall install and maintain such stand-alone meteorological stations at the Project as may be required under the VER Forecasting Program and the CAISO Tariff to monitor and report weather data to both the CAISO and Buyer's weather station data collection system. Each station shall be equipped with instruments and equipment that meet the specifications of the VER Forecasting Program and shall measure, collect, record, format, and communicate the data required under the VER Forecasting Program. Seller shall submit to Buyer for review and approval, which shall not be unreasonably withheld, its technical specifications for the meteorological station along with a site plan showing the location of the station within the Project. Seller shall correct any problems with such equipment as soon as practicable.

3.7 Outage Notification.

(a) Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all

circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1st of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

(b) Forced Outages. Within [*When Seller is the SC for the Project:* Within two hours of any Forced Outage,] [*When SDG&E is the SC for the Project:* Within one-half of the notification time prescribed under the CAISO Tariff for Forced Outages,] Seller shall submit a completed Outage Notification Form to the Buyer in accordance with the instructions shown on the form and shall submit outage information to the CAISO in accordance with the CAISO Tariff [*When SDG&E is the SC for the Project:* and Section 3.3(b)(ii) above]. Seller shall not substitute Energy from any other source for the output of the Project during a Forced Outage.

(c) Coordination with CAISO. Seller shall be responsible [*When SDG&E is SC for the Project:* in accordance with Section 3.3(b)(ii)] for all outage coordination communications with the CAISO. Buyer shall cooperate with Seller in arranging and coordinating all Project outages with the CAISO.

3.8 Operations Logs and Access Rights.

(a) Operations Logs. Seller shall maintain a complete and accurate log of all material operations and maintenance information on a daily basis. Such log shall include, but not be limited to, information on power production, fuel consumption, efficiency, availability, maintenance performed, outages, results of inspections, manufacturer recommended services, replacements, electrical characteristics of the generators, control settings or adjustments of equipment and protective devices. Seller shall maintain this information for at least two (2) years and shall provide this information electronically to Buyer within one day of Buyer's request.

(b) Access Rights. Buyer, its authorized agents, employees and inspectors shall have the right of ingress to and egress from the Project during normal business hours upon reasonable advance Notice and for any purposes reasonably connected with this Agreement.

3.9 New Generation Facility.

(a) Project Development. Seller, at no cost to Buyer, shall:

(i) Design and construct the Project.

(ii) Perform all studies, pay all fees, obtain all necessary approvals and execute all necessary agreements with the CAISO [*For Green Tariff Projects located outside of CAISO:* ,the Native Balancing Authority,] and the Participating Transmission Owner for the Electrical Interconnection Upgrades to Schedule and deliver the Product from the Project [*For FCDS bids, insert:* “under “Full Capacity Deliverability Status” (as defined in the CAISO Tariff), except when construction of deliverability Network Upgrades is not required under Section 3.1(j).”] [*For Green Tariff Projects located outside of CAISO:* “in a manner that enables the Capacity Attributes from the Project to be accepted and approved by the CPUC and the CAISO as qualifying for the determination of, and as satisfying Buyer’s requirement for demonstrating its procurement of, Resource Adequacy capacity.”] Following satisfaction or waiver of the Conditions Precedent set forth in Section 2.3(b), Seller shall not request from the CAISO or the Participating Transmission Owner or the distribution system operator any changes to its plan of interconnection that are inconsistent with the plan of interconnection that was evaluated in connection with the satisfaction or waiver of the Conditions Precedent in Section 2.3(b) without Buyer’s prior written consent, except in accordance with Section 3.1(j).

(iii) Acquire all Governmental Approvals and other approvals necessary for the construction, operation, and maintenance of the Project.

(iv) Complete all environmental impact studies necessary for the construction, operation, and maintenance of the Project, including all environmental analysis required under the California Environmental Quality Act for the Project and related interconnection facilities.

(v) At Buyer’s request, provide to Buyer Seller’s electrical specifications and design drawings pertaining to the Project.

(vi) Within fifteen (15) days after the close of each calendar quarter following the Execution Date until the Commercial Operation Date, provide to Buyer a Quarterly Progress Report and agree to regularly scheduled meetings between representatives of Buyer and Seller to review such reports and discuss Seller’s construction progress. The Quarterly Progress Report shall identify the Milestones and indicate whether Seller has met or is on target to meet such Milestones.

(vii) Provide access to Buyer, its authorized agents, employees and inspectors for purpose of inspecting the Project’s construction site or on-site Seller data and information pertaining to the Project during normal business hours upon reasonable advance Notice.

(viii) At Buyer’s request, provide information to Buyer relating to Seller’s or Seller’s contractor’s use, during Project construction, of “Women-Owned Businesses” or “Minority-Owned Businesses” or “Disabled Veteran Business Enterprises” as defined in CPUC

General Order 156, and the number of new employees hired by Seller or Seller's contractors and the number of women, minority, and disabled veterans trained or hired by Seller or Seller's contractor's as contemplated under Cal. Public Utilities Code §910(a)(8), as each such group of entities and individuals may be amended from time to time or further defined, supplemented, or superseded by applicable Law or replaced with similar designations or certifications. [*Include other covenants related to "women-owned business" or "minority-owned business" as may be applicable to the Seller's RFO bid.*]

(b) Construction Milestones.

(i) The Parties agree time is of the essence in regards to this Agreement. As such, the Parties also agree certain milestones for the construction of the Project as set forth in the Milestone schedule attached hereto as Exhibit B ("Milestones") must be achieved in a timely fashion or Buyer will suffer damages.

(ii) Within seven (7) days after completion of each Milestone, Seller shall provide Buyer with Notice along with accompanying documentation (including reasonably redacted copies of applicable agreements, Governmental Approvals, and certificates) to reasonably demonstrate the achievement of such Milestone. If Seller misses the deadline date for three (3) or more Milestones or misses the deadline date for any one Milestone by more than ninety (90) days, Seller shall submit to Buyer, within ten (10) Business Days of such missed Milestone completion date, a remedial action plan ("Remedial Action Plan") that describes in detail a reasonable course of action and plan (including accelerating the work, for example, by using additional shifts, overtime, additional crews or resequencing of the work, as applicable) to achieve the missed Milestones and all subsequent Milestones no later than the Guaranteed Commercial Operation Date (as it may be extended under Section 3.9(c)(ii)); provided, that delivery of any Remedial Action Plan shall not relieve Seller of its obligation to meet any subsequent Milestones and the Guaranteed Commercial Operation Date.

(c) Guaranteed Commercial Operation.

(i) COD. Seller shall cause the Project to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date, unless extended in accordance with Section 3.9(c)(ii).

(ii) Extensions. The Guaranteed Commercial Operation Date may be extended one time for no more than a six (6) month period (the "Project Cure Period") for cumulative delays if Seller demonstrates to Buyer's reasonable satisfaction after giving written notice as soon as reasonably possible but at least at sixty (60) days prior to the original Guaranteed Commercial Operation Date, which includes a feasible remedial action plan, if any of the following have occurred:

(A) Seller has used commercially reasonable efforts (including but not limited to Seller's timely filing of required documents and payment of all applicable fees) to obtain permits necessary for the construction and operation of the Project, but is unable to obtain such permits due to delays beyond Seller's reasonable control;

(B) *[For all Projects other than Green Tariff Projects located outside of CAISO:* Seller has used commercially reasonable efforts (including but not limited to Seller’s timely filing of required documents and payment of all applicable fees) to have the Project physically interconnected to the CAISO Grid, or to the Participating Transmission Owner’s distribution system, as applicable, and to complete all Electrical Interconnection Upgrades needed, if any, in order to interconnect the Project, as required herein, to the CAISO Grid, but fails to secure any necessary commitments from CAISO or the Participating Transmission Owner for such interconnection and upgrades due to delays beyond Seller’s reasonable control; or] *[For Green Tariff Projects located outside of CAISO:* Seller has used commercially reasonable efforts (including but not limited to Seller’s timely filing of required documents and payment of all applicable fees) to have the Project physically interconnected to the Native Balancing Authority’s transmission system and to complete all Electrical Interconnection Upgrades needed, if any, in order to interconnect, as required herein, the Project to the Native Balancing Authority’s transmission system and the Native Balancing Authority’s transmission system to the CAISO Grid, and to commence firm transmission service from the Project to the Delivery Point under the firm transmission service agreement with the applicable Transmission Provider, but Seller has been unable to secure any necessary commitments from the Native Balancing Authority, the CAISO, the Participating Transmission Owner, or the Transmission Provider for such interconnection and upgrades due to delays beyond Seller’s reasonable control; or]

(C) an event of Force Majeure has occurred; provided that Seller works diligently to resolve the effect of the Force Majeure and provides evidence of its efforts promptly to Buyer upon Buyer’s written request.

3.10 Operating Procedures. No later than forty-five (45) days before the Commercial Operation Date, and from time to time as reasonably determined necessary by the Parties, the Parties shall meet to address how each Party will perform its respective obligations under this Agreement, including, but not limited to: (1) the method of day-to-day communications; (2) key personnel lists for each Party; (3) procedures for Forced Outage and Planned Outage reporting; (4) procedures for delivery forecasting; (5) procedures for record keeping; (6) Scheduling procedures; and (7) invoicing and payment procedures; provided, that the failure to agree on these operating procedures will not relieve the Parties of their respective obligations under this Agreement, and any failure to agree shall be resolved in accordance with the dispute resolution procedures in Article 12.

ARTICLE FOUR: COMPENSATION; MONTHLY PAYMENTS

4.1 Energy Payment.

(a) Energy Price. The price for the Bundled Green Energy and Deemed Bundled Green Energy that is delivered to Buyer in each Contract Year shall be as follows (“Energy Price”):

Contract Year	Energy Price (\$/MWh)

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provided, however, that:

(i) if Seller delivers Bundled Green Energy in the aggregate for any CAISO settlement interval (not to exceed one hour) in excess of the product of the Contract Capacity times the length of such settlement interval, expressed in hours, then the Energy Price for such excess Bundled Green Energy in such settlement interval shall be reduced to zero dollars (\$0), and if the real time Locational Marginal Price for the Delivery Point during such settlement interval is less than zero dollars (\$0), Seller shall pay to Buyer an amount equal to the absolute value of such negative Locational Marginal Price times such excess Bundled Green Energy;

(ii) if Seller delivers Bundled Green Energy plus Deemed Bundled Green Energy, in the aggregate, for any Contract Year during the Delivery Term in excess of one hundred fifteen percent (115%) of the annual Contract Quantity, then the Energy Price for such excess Bundled Green Energy and Deemed Bundled Green Energy, if any, for each settlement interval for the remainder of that Contract Year shall be reduced to zero dollars (\$0) and Seller shall be entitled to the CAISO revenues (including positive Locational Marginal Prices, credits and other payments) in respect of such excess amounts and Seller shall be responsible for the CAISO costs (including negative Locational Marginal Prices, penalties, sanctions and other charges) in respect of such excess amounts.

(iii) ***[For TOD Pricing Only:*** if Seller delivers Bundled Green Energy plus Deemed Bundled Green Energy in the aggregate for any TOD Period during the Delivery Term in excess of one hundred fifteen percent (115%) of the TOD Delivery Cap listed in the table below for that TOD Period (“TOD Delivery Cap”), then the Energy Price for such excess Bundled Green Energy and Deemed Bundled Green Energy, if any, in such TOD Period shall be reduced to zero dollars (\$0), and for each CAISO settlement interval during that time in which the real time Locational Marginal Price is less than zero dollars (\$0), Seller shall pay to Buyer an amount equal to the absolute value of such negative Locational Marginal Price times the Bundled Green Energy and Deemed Bundled Green Energy, if any, delivered during such settlement interval:

[Insert TOD Delivery Cap number by Contract Year and applicable TOD Period, which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]

Contract Year	TOD Period Delivery Cap						
	Annual Contract Quantity	Winter On-Peak	Winter Semi-Peak	Winter Off-Peak	Summer On-Peak	Summer Semi-Peak	Summer Off-Peak
2020							

(b) *[For TOD Pricing Only: TOD Factors and TOD Periods.* In accordance with all other terms of this Article 4, the Energy Price shall be adjusted by the following Time of Delivery Factors (“TOD Factors”) for each of the specified Time of Delivery Periods (“TOD Periods”) in which Energy is delivered.:]

[For FCDS bids only with Projects Located in the CAISO Providing Local Resource Adequacy:

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	2.638
Winter Semi-Peak	Nov 1 - Jun 30 Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.541
Winter Off-Peak	Nov 1 - Jun 30 All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.823
Summer On-Peak	Jul 1 - Oct 31 Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	1.943
Summer Semi-Peak	Jul 1 - Oct 31 Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	0.819
Summer Off-Peak	Jul 1 - Oct 31 All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	0.963

[For Energy Only bids and for Green Tariff Projects located outside of the CAISO:

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	2.641
Winter Semi-Peak	Nov 1 - Jun 30 Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.562
Winter Off-Peak	Nov 1 - Jun 30 All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.864
Summer On-Peak	Jul 1 - Oct 31 Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	1.714
Summer Semi-Peak	Jul 1 - Oct 31 Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	0.758
Summer Off-Peak	Jul 1 - Oct 31 All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	0.971

(c) **[For FCDS bids (excluding Green Tariff Projects located outside of the CAISO): Monthly Energy Payment.** For each month during which Seller has achieved “Full Capacity Deliverability Status,” as defined in the CAISO Tariff (“FCDS”) as determined by the CAISO, Buyer shall pay Seller for the Product an amount equal to the sum for each hour in the month of the product of the Energy Price **[For TOD Pricing Only:** times the TOD Factor for the applicable TOD Period] times the sum of Bundled Green Energy plus Deemed Bundled Green Energy in each hour (“Monthly Energy Payment”). For each month during which Seller has not achieved FCDS as determined by the CAISO, Buyer shall pay Seller for the Product an amount equal to the sum for each hour in the month of the product of (i) the Energy Price minus **[insert the \$/MWh equal to the Deliverability Value]** (“Deliverability Value”) times (ii) the TOD Factor for the applicable TOD Period times (iii) the sum of Bundled Green Energy plus Deemed Bundled Green Energy (together, the “Monthly Energy Payment”).

[When the Project has achieved FCDS: Monthly Energy Payment for months that Seller has obtained FCDS = \sum Energy Price x **[For TOD Pricing Only:** TOD Factor x] (Bundled Green Energy + Deemed Bundled Green Energy)

[When the Project has not achieved FCDS: Monthly Energy Payment for months that Seller has not obtained FCDS = \sum ([Energy Price – Deliverability Value] **[For TOD Pricing Only:** x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy))]

[For Energy Only bids and Green Tariff Projects located outside of the CAISO: Monthly Energy Payment. For each month, Buyer shall pay Seller for the Product an amount equal to the sum for each hour in the month of the product of the Energy Price ***[For TOD Pricing Only:*** times the TOD Factor for the applicable TOD Period] times the sum of Bundled Green Energy plus Deemed Bundled Green Energy in each hour (“Monthly Energy Payment”).

Monthly Energy Payment = \sum Energy Price ***[For TOD Pricing Only:*** x TOD Factor] x (Bundled Green Energy + Deemed Bundled Green Energy)]

For any period where the quantity of Bundled Green Energy is less than the quantity of Delivered Energy and the quantity of Bundled Green Energy cannot practicably be determined for each settlement interval during such period (for example, where WREGIS does not specify in which settlement intervals Renewable Energy Credits were delivered or not delivered), then the quantity of Bundled Green Energy for any settlement interval during the entire period shall be equal to the product of the quantity of Delivered Energy for a settlement interval multiplied by the quotient of the aggregate quantity of Green Attributes that are delivered to Buyer during such entire period divided by the aggregate quantity of Delivered Energy that is delivered to Buyer during such entire period.

4.2 Imbalance Energy. Seller shall use commercially reasonable efforts to deliver Energy in accordance with the Scheduled Energy. Buyer and Seller recognize that from time to time the amount of Delivered Energy will deviate from the amount of Scheduled Energy. When Delivered Energy minus Scheduled Energy is a positive amount, it shall be considered “Positive Imbalance Energy;” when Delivered Energy minus Scheduled Energy is a negative amount, the absolute (i.e., positive) value of that amount shall be considered the “Negative Imbalance Energy.” ***[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:*** Seller shall be responsible for settlement of Imbalance Energy with the CAISO and all fees, liabilities, assessments, or similar charges assessed by the CAISO in connection with Imbalance Energy.] Buyer and Seller shall cooperate to minimize charges and imbalances associated with Imbalance Energy to the extent possible. Seller shall promptly notify Buyer as soon as possible of any material imbalance that is occurring or has occurred. ***[When SDG&E is SC for the Project and Project is in the VER Forecasting Program:*** Buyer shall receive all Green Attributes for the Positive Imbalance Energy in all settlement intervals.]

[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program, include the following two paragraphs:

(a) Positive Imbalance Energy (Over Deliveries). In the event that Delivered Energy for any CAISO settlement interval is equal to or greater than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Positive Imbalance Energy. Buyer shall receive all Green Attributes for the Positive Imbalance Energy in such CAISO settlement interval regardless as to whether it was sold into the CAISO. Seller shall be entitled to all payments or credits from the CAISO to Seller’s SC and Seller shall make all payments to the CAISO in respect of the Positive Imbalance Energy.

(b) Negative Imbalance Energy (Under Deliveries). In the event that Delivered Energy for any CAISO settlement interval is less than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Negative Imbalance Energy. Seller shall make all payments to the CAISO and Seller shall be entitled to all payments or credits from the CAISO to Seller's SC in respect of the Negative Imbalance Energy required under the CAISO Tariff.]

4.3 Additional Compensation. To the extent not otherwise provided for in this Agreement, in the event that Seller is compensated by a third party for any Product produced by the Project, including, but not limited to, compensation for *[For FCDS bids and for Green Tariff Projects located outside of the CAISO insert: Resource Adequacy or]* Green Attributes, Seller shall remit all such compensation directly to Buyer; provided that for avoidance of doubt, nothing herein precludes Seller from retaining credits related to transmission upgrades funded by Seller.

4.4 Energy Sales Prior to Commercial Operation Date. For each month prior to the Commercial Operation Date, as compensation for the Product delivered to Buyer, (i) Buyer shall pay Seller for the Product an amount equal to the product of *[SDG&E to insert REC value amount in \$/MWh]* times the total Bundled Green Energy delivered to Buyer in such month, and (ii) Seller shall be entitled to all CAISO revenues (including credits, Imbalance Energy revenues, and other payments), including revenues associated with CAISO dispatches, bid cost recovery, inter-SC trade credits, or other credits in respect of the Product Scheduled or delivered from the Project, and Seller shall be responsible for all CAISO costs (including penalties, Imbalance Energy costs, and other charges) including all CAISO charges or penalties, in each case, resulting from the Project not being available, the Seller not notifying the CAISO of outages in a timely manner, and any other failure by Seller to abide by the CAISO Tariff, including without limitation uninstructed deviation penalties. *[When Buyer is SC for the Project, include the following:* Each month, Buyer (as the SC for the Project) shall deliver an invoice to Seller including a statement of all such CAISO revenues and charges within thirty (30) days after the CAISO final settlement data is available to Buyer for such deliveries.]

ARTICLE FIVE: EVENTS OF DEFAULT; FORCE MAJEURE

5.1 Events of Default. An "Event of Default" shall mean,

(a) with respect to a Party that is subject to the Event of Default the occurrence of any of the following:

(i) the failure by such Party to make, when due, any payment required pursuant to this Agreement and such failure is not remedied within five (5) Business Days after Notice thereof;

(ii) any representation or warranty made by such Party herein is false or misleading in any material respect when made or when deemed made or repeated, and such default is not remedied within thirty (30) days after Notice thereof;

(iii) the failure by such Party to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default, and except for such Party's unexcused failure to perform its obligations to Schedule, deliver, or

receive (as applicable), or sell or purchase (as applicable) the Product for a period or a series of periods that is cumulatively no longer than thirty (30) days, the exclusive remedy for which is provided in Section 3.1(h)) and such failure is not remedied within thirty (30) days after Notice thereof;

(iv) the failure by such Party to perform its obligations to Schedule, deliver or receive (as applicable), or sell or purchase (as applicable) the Product for a period or a series of periods that is cumulatively longer than thirty (30) days and such failure is not excused as described in Section 3.1(h);

(v) such Party becomes Bankrupt;

(vi) such Party assigns this Agreement or any of its rights hereunder other than in compliance with Section 13.2; or

(vii) such Party consolidates or amalgamates with, or merges with or into, or transfers all or substantially all of its assets to, another entity and, at the time of such consolidation, amalgamation, merger or transfer, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this Agreement to which it or its predecessor was a party by operation of Law or pursuant to an agreement reasonably satisfactory to the other Party.

(b) with respect to Seller as the Defaulting Party, the occurrence of any of the following:

(i) if at any time, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement Energy that was not generated by the Project [*If the Project is located outside of the CAISO*: other than Imbalance Energy from the Transmission Provider];

(ii) the failure by Seller to achieve the Commercial Operation Date no later than the Guaranteed Commercial Operation Date;

(iii) [*For Baseload, Peaking, As-Available Product*: the failure by Seller to achieve the Guaranteed Energy Production requirement during any Performance Measurement Period as set forth in Section 3.1(e) of this Agreement];

(iv) the failure by Seller to deliver a Remedial Action Plan that reasonably demonstrates in detail how Seller will achieve the Commercial Operation Date no later than the Guaranteed Commercial Operation Date, if such failure is not remedied within ten (10) days after Notice;

(v) failure by Seller to satisfy the collateral requirements pursuant to Sections 8.3 or 8.4 of this Agreement; or

(vi) with respect to any outstanding Letter of Credit provided for the benefit of Buyer that is not then required under this Agreement to be canceled or returned, the failure by Seller to provide for the benefit of Buyer either (1) cash, or (2) a substitute Letter of Credit from a different issuer meeting the criteria set forth in the definition of Letter of Credit, in

each case, in the amount required hereunder within five (5) Business Days after Seller receives Notice of the occurrence of any of the following events:

- (A) the issuer of the outstanding Letter of Credit shall fail to maintain a Credit Rating of at least “A-” by S&P or “A3” by Moody’s;
- (B) the issuer of such Letter of Credit becomes Bankrupt;
- (C) the issuer of the outstanding Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit and such failure shall be continuing after the lapse of any applicable grace period permitted under such Letter of Credit;
- (D) the issuer of the outstanding Letter of Credit shall fail to honor a properly documented request to draw on such Letter of Credit;
- (E) the issuer of the outstanding Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit;
- (F) such Letter of Credit fails or ceases to be in full force and effect at any time; or
- (G) Seller shall fail to renew or cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit and as provided in accordance with this Agreement, and in no event less than sixty (60) days prior to the expiration of the outstanding Letter of Credit.

5.2 Remedies; Declaration of Early Termination Date. If an Event of Default with respect to a Defaulting Party shall have occurred and be continuing, the other Party (“Non-Defaulting Party”) shall have the right (a) to send Notice, designating a day, no earlier than the day such Notice is deemed to be received and no later than twenty (20) days after such Notice is deemed to be received, as an early termination date of this Agreement (“Early Termination Date”) that terminates this Agreement and ends the Delivery Term effective as of the Early Termination Date, to accelerate all amounts owing between the Parties, and to collect liquidated damages calculated in accordance with Section 5.3 below (“Termination Payment”); (b) to withhold any payments due to the Defaulting Party under this Agreement; (c) to suspend performance; and (d) to exercise any other right or remedy available at law or in equity, including specific performance or injunctive relief, except to the extent such remedies are expressly limited under this Agreement.

5.3 Termination Payment. The Termination Payment for a Terminated Transaction shall be the aggregate of all Settlement Amounts plus any or all other amounts due to the Non-Defaulting Party netted into a single amount. Except in the case of a termination of this Agreement by the Non-Defaulting Party solely as a result of an Event of Default by the Defaulting Party under Section 5.1(a)(iv) [Bankruptcy], if the Non-Defaulting Party’s aggregate Gains exceed its aggregate Losses and Costs, if any, resulting from the termination of this Agreement, the Termination Payment shall be zero. The Non-Defaulting Party shall calculate, in a commercially

reasonable manner, a Settlement Amount for the Terminated Transaction as of the Early Termination Date. Third parties supplying information for purposes of the calculation of Gains or Losses may include, without limitation, dealers in the relevant markets, end-users of the relevant product, information vendors and other sources of market information. The Settlement Amount shall not include consequential, incidental, punitive, exemplary, indirect or business interruption damages; provided, however, that any lost Capacity Attributes and Green Attributes shall be deemed direct damages covered by this Agreement. Without prejudice to the Non-Defaulting Party's duty to mitigate, the Non-Defaulting Party shall not have to enter into replacement transactions to establish a Settlement Amount. Each Party agrees and acknowledges that (a) the actual damages that the Non-Defaulting Party would incur in connection with a Terminated Transaction would be difficult or impossible to predict with certainty, (b) the Termination Payment described in this section is a reasonable and appropriate approximation of such damages, and (c) the Termination Payment described in this section is the exclusive remedy of the Non-Defaulting Party in connection with a Terminated Transaction but shall not otherwise act to limit any of the Non-Defaulting Party's rights or remedies if the Non-Defaulting Party does not elect a Terminated Transaction as its remedy for an Event of Default by the Defaulting Party.

5.4 Notice of Payment of Termination Payment. As soon as practicable after a Terminated Transaction, Notice shall be given by the Non-Defaulting Party to the Defaulting Party of the amount of the Termination Payment and whether the Termination Payment is due to the Non-Defaulting Party. The Notice shall include a written statement explaining in reasonable detail the calculation of such amount and the sources for such calculation. The Termination Payment shall be made to the Non-Defaulting Party, as applicable, within ten (10) Business Days after such Notice is effective.

5.5 Disputes With Respect to Termination Payment. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment, in whole or in part, the Defaulting Party shall, within five (5) Business Days of receipt of the Non-Defaulting Party's calculation of the Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute. Disputes regarding the Termination Payment shall be determined in accordance with Article 12.

5.6 Rights And Remedies Are Cumulative. Except where liquidated damages are provided as the exclusive remedy, the rights and remedies of a Party pursuant to this Article 5 shall be cumulative and in addition to the rights of the Parties otherwise provided in this Agreement.

5.7 Mitigation. Any Non-Defaulting Party shall be obligated to mitigate its Costs, losses and damages resulting from any Event of Default of the other Party under this Agreement.

5.8 Force Majeure. To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this Agreement and such Party gives Notice and details of the Force Majeure to the other Party as detailed below, then, the Party impacted by Force Majeure shall be excused from the performance of its obligations to the extent impacted. Within forty-eight (48) hours of commencement of an event of Force Majeure, the non-performing Party shall provide the other Party with oral notice of the event of Force Majeure, and within two (2) weeks of the commencement of an event of Force Majeure the non-performing Party shall provide the other Party with Notice in the form of a letter describing in detail the particulars of the

occurrence giving rise to the Force Majeure claim. Seller shall not substitute Product from any other source for the output of the Project during an outage resulting from Force Majeure. The suspension of performance due to a claim of Force Majeure must be of no greater scope and of no longer duration than is required by the Force Majeure. Buyer shall not be required to make any payments for any Product that Seller fails to Schedule, deliver or provide as a result of Force Majeure during the term of a Force Majeure. This Agreement may be terminated by the non-claiming Party with no further obligation to the Force-Majeure-claiming Party if a Force Majeure event prevents the performance of a material portion of the obligations of the Force-Majeure-claiming Party hereunder and such Force Majeure event is not resolved within eight (8) months after the commencement of such Force Majeure event.

ARTICLE SIX: PAYMENT

6.1 Billing and Payment. On or about the tenth (10th) day of each month beginning with the second month of the first Contract Year and every month thereafter, and continuing through and including the first month following the end of the Delivery Term, Seller shall provide to Buyer (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation of Product by the Project for any CAISO settlement time interval during the preceding months, (b) access to any records, including invoices or settlement data from CAISO, necessary to verify the invoice; and (c) an invoice, in a format reasonably specified by Buyer, covering the services provided in the preceding month determined in accordance with Article 4 (which may include preceding months), with all component charges and unit prices identified and all calculations used to arrive at invoiced amounts described in reasonable detail. Buyer shall pay the undisputed amount of such invoices on or before thirty (30) days after receipt of the invoice. If either the invoice date or payment date is not a Business Day, then such invoice or payment shall be provided on the next following Business Day. Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any undisputed amounts not paid by the due date will be deemed delinquent and will accrue interest at the Default Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full. Invoices may be sent by facsimile or e-mail.

6.2 Disputes and Adjustments of Invoices. A Party may, in good faith, dispute the correctness of any invoice or any adjustment to an invoice, rendered under this Agreement or adjust any invoice for any arithmetic or computational error within twelve (12) months of the date the invoice, or adjustment to an invoice, was rendered. In the event an invoice or portion thereof, or any other claim or adjustment arising hereunder, is disputed, payment of the undisputed portion of the invoice shall be required to be made when due. Any invoice dispute or invoice adjustment shall be in writing and shall state the basis for the dispute or adjustment. Payment of the disputed amount shall not be required until the dispute is resolved. Upon resolution of the dispute, any required payment shall be made within two (2) Business Days of such resolution along with interest accrued at the Default Rate from and including the original due date to but excluding the date paid. Inadvertent overpayments shall be returned upon request or deducted by the Party receiving such overpayment from subsequent payments, with interest accrued at the Interest Rate from and including the date of such overpayment to but excluding the date repaid or deducted by the Party receiving such overpayment. Any dispute with respect to an invoice is waived if the other Party is not notified in accordance with this Section 6.2 within twelve (12) months after the

invoice is rendered or subsequently adjusted, except to the extent any misinformation was from a third party not Affiliated with any Party and such third party corrects its information after the twelve-month period. If an invoice is not rendered within twelve (12) months after the close of the month during which performance occurred, the right to payment for such performance is waived.

6.3 Netting of Payments. The Parties hereby agree that they shall discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts owed by each Party to the other Party for the purchase and sale of Product during the monthly billing period under this Agreement, including any related damages calculated pursuant to Section 3.1(h), interest, and payments or credits, shall be netted so that only the excess amount remaining due shall be paid by the Party who owes it.

ARTICLE SEVEN: LIMITATIONS

7.1 Limitation of Remedies, Liability and Damages. EXCEPT AS SET FORTH HEREIN, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN THIS AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF. 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, THE OBLIGOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED, UNLESS THE PROVISION IN QUESTION PROVIDES THAT THE EXPRESS REMEDIES ARE IN ADDITION TO OTHER REMEDIES THAT MAY BE AVAILABLE. EXCEPT FOR A PARTY'S INDEMNITY OBLIGATION IN RESPECT OF THIRD PARTY CLAIMS OR AS OTHERWISE 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. UNLESS EXPRESSLY HEREIN PROVIDED, AND SUBJECT TO THE PROVISIONS OF SECTION 11.2 (INDEMNITIES), 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.

ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS / INSURANCE

8.1 Buyer Financial Information. If requested by Seller, Buyer shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Buyer's annual report

containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Buyer's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as Buyer diligently pursues the preparation, certification and delivery of the statements. Buyer shall be deemed to have satisfied such delivery requirement if the applicable report is publicly available.

8.2 Seller Financial Information. If requested by Buyer, Seller shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Seller's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Seller's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as Seller diligently pursues the preparation, certification and delivery of the statements.

8.3 Grant of Security Interest/Remedies. To secure its obligations under this Agreement and to the extent Seller delivers Performance Assurance hereunder, Seller hereby grants to Buyer a present and continuing first priority security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, Buyer, and each Party agrees to take such action as the other Party reasonably requires in order to perfect the Buyer's first-priority security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence and during the continuation of an Event of Default by Seller or an Early Termination Date as a result thereof, Buyer may do any one or more of the following: (i) exercise any of the rights and remedies of a secured party with respect to all Performance Assurance, including any such rights and remedies under Law then in effect; (ii) exercise its rights of setoff against such collateral and any and all proceeds resulting therefrom or from the liquidation thereof; (iii) draw on any outstanding Letter of Credit issued for its benefit; and (iv) liquidate all or any portion of any Performance Assurance then held by or for the benefit of Buyer free from any claim or right of any nature whatsoever of Seller, including any equity or right of purchase or redemption by Seller. Buyer shall apply the proceeds of the collateral realized upon the exercise of any such rights or remedies to reduce the Seller's obligations under the Agreement (Seller remaining liable for any amounts owing to Buyer after such application), subject to Buyer's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

8.4 Performance Assurance.

(a) CPUC Approval Security, Development Period Security, Construction Period Security, Delivery Term Security. To secure its obligations under this Agreement Seller

agrees to deliver to Buyer and maintain in full force and effect for the period set forth below, the following Performance Assurance:

(i) CPUC Approval Security, in the amount of [_____] in the form of cash or a Letter of Credit from the Execution Date of this Agreement until the return date specified in Section 8.4(b)(i) below;

(ii) Development Period Security in the amount of [_____] in the form of cash or a Letter of Credit from CPUC Approval Date until the return date specified in Section 8.4(b)[(i)/(ii)] below;

(iii) Construction Period Security in the amount of [_____] in the form of cash or a Letter of Credit from the CP Satisfaction Date until the return date specified in Section 8.4(b)[(ii)/(iii)] below; and

(iv) Delivery Term Security in the amount of [_____] in the form of cash or a Letter of Credit from the commencement of the Delivery Term until the return date specified in Section 8.4(b)[(iii)/(iv)] below.

Except as set forth in Section 2.2 as it pertains to the CPUC Approval Security and the Development Period Security, any such Performance Assurance shall not be deemed a limitation of damages.

(b) Return of Performance Assurance.

(i) Buyer shall promptly return to Seller the unused portion of the CPUC Approval Security after the earlier of (A) the date on which Seller has delivered the Development Period Security or the Construction Period Security, as applicable, and (B) termination of the Agreement under Section 2.4(b)(ii).

(ii) Buyer shall promptly return to Seller the unused portion of the Development Period Security after the earlier of (A) the date on which Seller has delivered the Construction Period Security, and (B) termination of the Agreement under Section 2.4(b)(ii).

(iii) Buyer shall promptly return to Seller the unused portion of the Construction Period Security after the earlier of (A) the date on which Seller has delivered the Delivery Term Security, and (B) the date that all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting) after an Early Termination Date.

(iv) Buyer shall promptly return to Seller the unused portion of the Delivery Term Security after the following have occurred: (A) the Delivery Term has expired or terminated early; and (B) all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting).

8.5 Interest on Cash. If Seller provides Performance Assurance in the form of cash, Buyer shall pay interest on such cash held as CPUC Approval Security, Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, at the Interest Rate. On or before each Interest Payment Date, Buyer shall transfer the sum of all accrued and unpaid Interest Amounts due to Seller for such security in the form of cash by wire transfer to the bank account specified under “Wire Transfer” in the Cover Sheet.

8.6 Costs of Letter of Credit. If Seller provides Performance Assurance in the form of a Letter of Credit, in all cases, the reasonable costs and expenses of (including but not limited to the reasonable costs, expenses, and attorneys’ fees, including reasonably allocated costs of in-house counsel of the Buyer) establishing, renewing, substituting, canceling, increasing and reducing the amount of (as the case may be) one or more Letters of Credit shall be borne by the Seller.

8.7 Insurance. In connection with Seller’s performance of its duties and obligations under this Agreement, Producer shall maintain, from the CP Satisfaction date until the end of the term of this Agreement, insurance in accordance with Exhibit E.

ARTICLE NINE: GOVERNMENTAL CHARGES

9.1 Cooperation. Each Party shall use reasonable efforts to implement the provisions of and to administer this Agreement in accordance with the intent of the Parties to minimize all taxes, so long as neither Party is materially adversely affected by such efforts.

9.2 Governmental Charges. Seller shall pay or cause to be paid all taxes imposed by any governmental authority (“Governmental Charges”) on or with respect to the Product or the transaction under this Agreement arising prior to and at the Delivery Point, including, but not limited to, ad valorem taxes and other taxes attributable to the Project, land, land rights or interests in land for the Project. Buyer shall pay or cause to be paid all Governmental Charges on or with respect to the Product or the transaction under this Agreement from the Delivery Point. In the event Seller is required by Law or regulation to remit or pay Governmental Charges which are Buyer’s responsibility hereunder, Buyer shall promptly reimburse Seller for such Governmental Charges. If Buyer is required by Law or regulation to remit or pay Governmental Charges which are Seller’s responsibility hereunder, Buyer may deduct such amounts from payments to Seller with respect to payments under the Agreement; if Buyer elects not to deduct such amounts from Seller’s payments, Seller shall promptly reimburse Buyer for such amounts upon request. Nothing shall obligate or cause a Party to pay or be liable to pay any Governmental Charges for which it is exempt under the Law.

ARTICLE TEN: REPRESENTATIONS AND WARRANTIES; COVENANTS

10.1 General Representations and Warranties. On the Execution Date and the CP Satisfaction Date, each Party represents and warrants to the other Party that:

(a) it is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(b) it has all Governmental Approvals necessary for it to perform its obligations under this Agreement, except for as of the Execution Date (i) CPUC Approval in the case of Buyer,

and (ii) all Governmental Approvals necessary to construct, operate and maintain the Project and related interconnection facilities in the case of Seller;

(c) the execution, delivery and performance of this Agreement is within its powers, have been duly authorized by all necessary action and do not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law;

(d) this Agreement and each other document executed and delivered in accordance with this Agreement constitutes a legally valid and binding obligation enforceable against it in accordance with its terms, subject to any Equitable Defenses;

(e) it is not Bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming Bankrupt;

(f) except as may be set forth in its reports filed with the SEC, there is not pending or, to its knowledge, threatened against it or any of its Affiliates any legal proceedings that could materially adversely affect its ability to perform its obligations under this Agreement;

(g) no Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its obligations under this Agreement;

(h) it is acting for its own account, has made its own independent decision to enter into this Agreement and as to whether this Agreement is appropriate or proper for it based upon its own judgment, is not relying upon the advice or recommendations of the other Party in so doing, and is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this Agreement; and

(i) it has entered into this Agreement in connection with the conduct of its business and it has the capacity or the ability to make or take delivery of the Product as provided in this Agreement.

10.2 Seller Representations and Warranties.

(a) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource (“ERR”) as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project’s output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in Law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in Law.

(b) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in CPUC Decision 08-08-028, and as may be modified

by subsequent decision of the CPUC or by subsequent legislation. To the extent a change in Law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in Law.

(c) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that the Project qualifies as a Green-e® Energy Certified product.

(d) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

10.3 Covenants.

(a) General Covenants. Each Party covenants that throughout the Delivery Term:

(i) it shall continue to be duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(ii) it shall maintain (or obtain from time to time as required, including through renewal, as applicable) all Governmental Approvals necessary for it to legally perform its obligations under this Agreement;

(iii) it shall perform its obligations under this Agreement in a manner that does not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law; and

(iv) it shall not dispute its status as a “forward contract merchant” within the meaning of the United States Bankruptcy Code.

(b) Seller Covenants.

(i) Seller covenants throughout the Delivery Term that it, or its permitted successors or assigns, shall maintain ownership of a fee, easement, long-term leasehold interest, or other similar asset ownership interest in the Project.

(ii) Seller covenants throughout the Delivery Term that it shall maintain market based rate authority from FERC to sell Product to Buyer under the terms of this Agreement.

(iii) If at any time during the Delivery Term, Seller’s representations and warranties set forth in Section 10.2 become materially false or misleading, Seller covenants that it shall provide prompt Notice to Buyer describing such default along with a description of its efforts to cure such default.

(iv) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

(v) *[Include other appropriate covenants regarding the use of contractors that may be diverse business enterprises.]*

ARTICLE ELEVEN: TITLE, RISK OF LOSS, INDEMNITIES

11.1 Title and Risk of Loss. Title to and risk of loss related to the Product shall transfer from Seller to Buyer at the Delivery Point. Seller warrants that it will deliver to Buyer the Product free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person arising prior to or at the Delivery Point.

11.2 Indemnities.

(a) Indemnity by Seller. Seller shall release, indemnify, defend, and hold harmless Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all actions, suits, losses, costs, damages, injuries, liabilities, claims, demands, penalties and interest, including reasonable costs and attorneys' fees ("Claims") resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product delivered under this Agreement up to and at the Delivery Point, (ii) Seller's development, permitting, construction, ownership, operation and/or maintenance of the Project, (iii) the failure by Seller or the failure of the Project to comply with applicable Law, including without limitation the CAISO Tariff, (iv) any Governmental Charges for which Seller is responsible hereunder, or (v) any liens, security interests, encumbrances, or other adverse claims against the Product delivered hereunder made by, under, or through Seller, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

(b) Indemnity by Buyer. Buyer shall release, indemnify, defend, and hold harmless Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all Claims resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product received by Buyer under this Agreement after the Delivery Point, (ii) the failure by Buyer to comply with applicable Law, including without limitation the CAISO Tariff, or (iii) any Governmental Charges for which Buyer is responsible hereunder, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

ARTICLE TWELVE: DISPUTE RESOLUTION

12.1 Intent of the Parties. Except as provided in the next sentence, the sole procedure to resolve any claim arising out of or relating to this Agreement or any related agreement is the dispute resolution procedure set forth in this Article 12. Either Party may seek a preliminary injunction or other provisional judicial remedy if such action is necessary to prevent irreparable

harm or preserve the status quo, in which case both Parties nonetheless will continue to pursue resolution of the dispute by means of the dispute resolution procedure set forth in this Article 12.

12.2 Management Negotiations.

(a) The Parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement or any related agreements by prompt negotiations between each Party's authorized representative designated in writing as a representative of the Party (each a "Manager"). Either Manager may, by Notice to the other Party, request a meeting to initiate negotiations to be held within ten (10) Business Days of the other Party's receipt of such request, at a mutually agreed time and place (either in person or telephonically). If the matter is not resolved within fifteen (15) Business Days of their first meeting ("Initial Negotiation End Date"), the Managers shall refer the matter to the designated senior officers of their respective companies that have authority to settle the dispute ("Executive(s)"). Within five (5) Business Days of the Initial Negotiation End Date ("Referral Date"), each Party shall provide one another Notice confirming the referral and identifying the name and title of the Executive who will represent the Party.

(b) Within five (5) Business Days of the Referral Date, the Executives shall establish a mutually acceptable location and date, which date shall not be greater than thirty (30) days from the Referral Date, to meet. After the initial meeting date, the Executives shall meet, as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

(c) All communication and writing exchanged between the Parties in connection with these negotiations shall be confidential and shall not be used or referred to in any subsequent binding adjudicatory process between the Parties.

(d) If the matter is not resolved within forty-five (45) days of the Referral Date, or if the Party receiving the Notice to meet, pursuant to Section 12.2(a) above, refuses or does not meet within the ten (10) Business Day period specified in Section 12.2(a) above, either Party may initiate arbitration of the controversy or claim by providing Notice of a demand for binding arbitration at any time thereafter.

12.3 Arbitration. Any dispute that cannot be resolved by management negotiations as set forth in Section 12.2 above shall be resolved through binding arbitration by a retired judge or justice from the [AAA][JAMS] panel conducted in San Diego, California, administered by and in accordance with [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive]][Streamlined] Arbitration Rules and Procedures] ("Arbitration").

(a) Any arbitrator shall have no affiliation with, financial or other interest in, or prior employment with either Party and shall be knowledgeable in the field of the dispute. The Parties shall cooperate with one another in selecting the arbitrator within sixty (60) days after Notice of the demand for arbitration. If, notwithstanding their good faith efforts, the Parties are unable to agree upon a mutually-acceptable arbitrator, the arbitrator shall be appointed as provided for in [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive]][Streamlined] Arbitration Rules and Procedures].

(b) At the request of a Party, the arbitrator shall have the discretion to order depositions of witnesses to the extent the arbitrator deems such discovery relevant and appropriate. Depositions shall be limited to a maximum of three (3) per Party and shall be held within thirty (30) days of the making of a request. Additional depositions may be scheduled only with the permission of the arbitrator, and for good cause shown. Each deposition shall be limited to a maximum of six (6) hours duration unless otherwise permitted by the arbitrator for good cause shown. All objections are reserved for the Arbitration hearing except for objections based on privilege and proprietary and confidential information. The arbitrator shall also have discretion to order the Parties to exchange relevant documents. The arbitrator shall also have discretion to order the Parties to answer interrogatories, upon good cause shown.

(c) The arbitrator shall have no authority to award punitive or exemplary damages or any other damages other than direct and actual damages and the other remedies contemplated by this Agreement.

(d) The arbitrator shall prepare in writing and provide to the Parties an award including factual findings and the reasons on which their decision is based.

(e) The arbitrator's award shall be made within nine (9) months of the filing of the notice of intention to arbitrate (demand) and the arbitrator shall agree to comply with this schedule before accepting appointment. However, this time limit may be extended by agreement of the Parties or by the arbitrator, if necessary.

(f) Judgment on the award may be entered in any court having jurisdiction.

(g) The prevailing Party in this dispute resolution process is entitled to recover its costs. Until such award is made, however, the Parties shall share equally in paying the costs of the Arbitration.

(h) The arbitrator shall have the authority to grant dispositive motions prior to the commencement of or following the completion of discovery if the arbitrator concludes that there is no material issue of fact pending before the arbitrator.

(i) The existence, content, and results of any Arbitration hereunder is confidential information that is subject to the provisions of Section 13.1.

ARTICLE THIRTEEN: MISCELLANEOUS

13.1 Confidentiality.

(a) General. Neither Party shall disclose the non-public terms or conditions of this Agreement or any transaction hereunder to a third party, other than (i) the Party's Affiliates and its and their officers, directors, employees, lenders, counsel, accountants or advisors who have a need to know such information and have agreed to keep such terms confidential, (ii) for disclosure to the Buyer's Procurement Review Group, as defined in CPUC Decision (D) 02-08-071, subject to a confidentiality agreement, (iii) to the CPUC under seal for purposes of review, (iv) disclosure of terms specified in and pursuant to Section 13.1(b) of this Agreement; (v) in order to comply with any applicable Law, regulation, or any exchange, control area or CAISO rule, or

order issued by a court or entity with competent jurisdiction over the disclosing Party (“Disclosing Party”), other than to those entities set forth in subsection (vi); or (vi) in order to comply with any applicable regulation, rule, or order of the CPUC, CEC, or the Federal Energy Regulatory Commission. In connection with requests made pursuant to clause (v) of this Section 13.1(a) (“Disclosure Order”) each Party shall, to the extent practicable, use reasonable efforts to prevent or limit such disclosure. After using such reasonable efforts, the Disclosing Party shall not be: (i) prohibited from complying with a Disclosure Order or (ii) liable to the other Party for monetary or other damages incurred in connection with the disclosure of the confidential information. Except as provided in the preceding sentence, 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.

(b) RPS Confidentiality. Notwithstanding Section 13.1(a) of this Agreement, at any time on or after the date on which the Buyer makes its filing seeking CPUC Approval for this Agreement, either Party shall be permitted to disclose the following terms with respect to this Agreement: Party names, resource type, Delivery Term, Project location, Contract Capacity, anticipated Commercial Operation Date, Contract Quantity, and Delivery Point.

(c) Publicity. Except as otherwise agreed to in this Section 13.1 above, no announcement, publicity, advertising, press release, promotional or marketing materials regarding the arrangement contemplated under this Agreement, including the existence hereof, shall be made by either Party without the prior written approval of the other Party which approval shall not be unreasonably withheld or delayed.

13.2 Assignment. Neither Party shall assign this Agreement or its rights hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld. For purposes hereof, the transfer of more than fifty percent (50%) of the equity ownership or voting interest of Seller (or any parent entity holding directly or indirectly at least fifty percent (50%) of the equity ownership or voting interest of Seller if such interest constitutes more than twenty percent (20%) of the fair market value of the assets of such parent entity) to a person that is not an Affiliate of Seller shall also constitute an assignment of this Agreement requiring Buyer’s prior written consent. Notwithstanding the foregoing, either Party may, without the consent of the other Party (and without relieving itself from liability hereunder), transfer, sell, pledge, encumber, or assign this Agreement or the accounts, revenues or proceeds hereof to its financing providers. In connection with any financing or refinancing of the Project by Seller, Buyer shall in good faith negotiate and agree upon a consent to collateral assignment of this Agreement in substantially the same form as Exhibit E.

13.3 Audit. Each Party has the right, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement including amounts of Delivered Energy or Scheduled Energy. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made promptly and shall bear interest calculated at the Default Rate from the date the overpayment or underpayment was made until paid; provided, however, that no adjustment for any statement or payment will be made unless objection to the accuracy thereof was made prior to the lapse of twelve (12) months from the rendition thereof, and thereafter any objection shall be deemed waived except to the extent any misinformation was from a third party not Affiliated with

any Party and such third party corrects its information after such twelve-month period. In addition, Buyer shall have the right, at its sole expense and during normal working hours, to examine the records of Seller to the extent reasonably necessary to verify Seller's compliance with its representations and warranties set forth in Section 10.2.

13.4 Sarbanes-Oxley and SEC Requirements. The Parties acknowledge that accounting principles generally accepted in the United States of America ("GAAP") and SEC rules require Buyer and its independent auditor to evaluate whether Buyer must consolidate Seller's financial information (but not financial information of Seller's constituent members unless deemed to be included in the entity under GAAP). Buyer require access to information concerning Seller's organizational structure, including its debt/capital structure, as well as to personnel of Seller to determine if consolidated financial reporting is required. If Buyer and its independent auditor determine at any time that the Buyer must consolidate the Seller's financial statements to comply with GAAP and/or SEC rules regarding consolidated financial reporting, then:

(a) Buyer shall require from Seller and Seller agrees to provide to Buyer the following during the Term of this Agreement:

(i) Unaudited financial statements of the Seller prepared in accordance with GAAP as of the end of the quarterly period. The financial statements should include quarter to date and year to date information and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(ii) Unaudited financial schedules of the Seller, as deemed necessary for Buyer to prepare its consolidated financial statements and related footnotes to the financial statements in accordance with GAAP as of the end of the quarterly period. The financial schedules should include quarter to date and year to date information underlying the financial statements and footnotes to the financial statements and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(iii) Access to Seller's accounting and other records, and accounting and management personnel as reasonably determined by both Buyer and Seller so that (A) Buyer's independent auditor or its internal auditors may conduct financial audits (in accordance with the standards of the Public Company Accounting Oversight Board (United States)) as well as internal control audits (in accordance with Section 404 of the Sarbanes-Oxley Act of 2002) and (B) Buyer can be provided analytical information, as needed, to enable Buyer to meet its SEC filing requirements, including but not limited to those under Item 2 on Form 10-Q, and Item 7 on Form 10-K, "Management's Discussion and Analysis of Financial Condition and Results of Operations;"

(iv) Upon the request of Buyer, such certifications by a duly authorized representative(s) of Seller as may be reasonably requested by Buyer (which certifications shall presumptively be reasonable if the certifications are substantially identical to those required by Buyer or its parent of business units of Buyer or its parent); and

(v) As reasonably requested by Buyer, such information or schedules, similar to the items noted in clauses (i)-(iv) above, to enable Buyer to prepare consolidated financial statements and schedules as may be required for Buyer to obtain financing or to prepare

other reports as required by regulatory bodies, such as the SEC, for periods other than as of the end of the monthly, quarterly or year to date periods then ended.

(b) If Buyer (i) in its sole discretion determines that the financial statements of the Seller would be considered material to the Buyer or its parent company's financial statements, financial condition, or internal controls over financial reporting, and (ii) reasonably determines Seller's internal controls over financial reporting are not operating effectively or have resulted in a control deficiency, Buyer shall provide Notice to Seller. Upon receipt of such Notice, Seller will have thirty (30) days to remediate any deficiency in Seller's internal controls over financial reporting identified by the Buyer, which Buyer and Buyer's independent auditor deem to be necessary to ensure Seller's internal controls over financial reporting are adequate, during or as a result of the audits permitted under Section 13.4(a)(iii) or any other provision of this Agreement.

(c) As soon as possible, but in no event later than two (2) Business Days following any occurrence that would affect Seller in any material way, Seller shall provide to Buyer a Notice describing such occurrence in sufficient detail to permit the Buyer to file a report on SEC Form 8-K. Such occurrences include all reportable events on the then current Form 8-K that applies to Buyer and its parent company at such time, including but not limited to a material acquisition or disposition of assets, a material direct financial obligation or off-balance sheet financing arrangement, material litigation, and the execution or termination of a material contract.

(d) Any information provided to Buyer shall be treated as confidential except that it may be disclosed in connection with the preparation, review, certification and publication of Buyer's financial statements.

(e) Seller shall notify Buyer at any time during the term of this Agreement of any services provided or proposed to be provided to Seller by Buyer's independent auditor. Seller, and any of Seller's Affiliates, are prohibited from engaging Buyer's independent auditor for any services or in any consulting agreement without the express written consent of partner in charge of Buyer's independent audit.

13.5 Entire Agreement. This Agreement, together with the Cover Sheet and each and every appendix, attachment, amendment, schedule and any written supplements hereto, if any, between the Parties constitutes the entire agreement between the Parties.

13.6 Recording. Unless a Party expressly objects to a Recording (defined below) at the beginning of a telephone conversation, each Party consents to the creation of a tape or electronic recording ("Recording") of all telephone conversations between the Parties to this Agreement, and that any such Recordings will be retained in confidence, secured from improper access, and may be submitted in evidence in any proceeding or action relating to this Agreement. Each Party waives any further notice of such monitoring or recording, and agrees to notify its officers and employees of such monitoring or recording and to obtain any necessary consent of such officers and employees.

13.7 Forward Contract. The Parties acknowledge and agree that this Agreement constitutes a "forward contract" within the meaning of the United States Bankruptcy Code.

13.8 Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. TO THE EXTENT ENFORCEABLE AT SUCH TIME, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.

13.9 Attorneys' Fees. In any proceeding brought to enforce this Agreement or because of the breach by any Party of any covenant or condition herein contained, the prevailing Party shall be entitled to reasonable attorneys' fees (including reasonably allocated fees of in-house counsel) in addition to court costs and any and all other costs recoverable in said action.

13.10 General. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent provided for herein, no amendment or modification to this Agreement shall be enforceable unless reduced to writing and executed by both Parties. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. The headings used herein are for convenience and reference purposes only. This Agreement shall be binding on each Party's successors and permitted assigns.

13.11 Severability. If any provision in this Agreement 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 Agreement and the Parties shall use their best efforts to modify this Agreement to give effect to the original intention of the Parties.

13.12 Counterparts. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by fax will be deemed as effective as delivery of an originally executed counterpart. Any Party delivering an executed counterpart of this Agreement by facsimile will also deliver an originally executed counterpart, but the failure of any Party to deliver an originally executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.

13.13 Notices. Whenever this Agreement requires or permits delivery of a "Notice" (or requires a Party to "notify"), the Party with such right or obligation shall provide a written communication delivered personally, by a nationally recognized overnight courier, mailed by registered or certified mail (return receipt requested), or by facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice) to the receiving Party at the addresses identified on the Cover Sheet (or at such other addresses as such receiving Party shall identify by like Notice to the other Party); provided, however, that notices of Outages or other Scheduling or dispatch information or requests, shall be provided in accordance with the terms set forth in the relevant section of this Agreement. Invoices may be sent by

facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice). A Notice delivered in accordance herewith shall be deemed received (i) on the date of delivery, if hand delivered, (ii) two Business Days after the date of sending, if sent by a nationally recognized overnight courier, or at such earlier time as is confirmed by the receiving Party, (iii) three Business Days after the date of mailing, if mailed by registered or certified mail, return receipt requested, or at such earlier time as is confirmed by the receiving Party, and (iv) on the Business Day on which such Notice was transmitted by facsimile transmission or e-mail (where permitted); provided, however, that a Notice delivered in accordance with this Section but received on any day other than a Business Day or after 5:00 p.m. in the place of receipt will be deemed received on the next Business Day. Each Party shall provide Notice to the other Party of the persons authorized to nominate and/or agree to a Schedule or Dispatch Order for the delivery or acceptance of the Product or make other Notices on behalf of such Party and specify the scope of their individual authority and responsibilities, and may change its designation of such persons from time to time in its sole discretion by providing Notice.

13.14 Mobile Sierra. Notwithstanding any provision of this Agreement, neither Party shall seek, nor shall they support any third party in seeking, to prospectively or retroactively revise the rates, terms or conditions of service of this Agreement through application or complaint to FERC pursuant to the provisions of Section 205, 206 or 306 of the Federal Power Act, or any other provisions of the Federal Power Act, absent prior written agreement of the Parties. Further, absent the prior agreement in writing by both Parties, the standard of review for changes to the rates, terms or conditions of service of this Agreement proposed by a Party, a non-Party or the FERC acting *sua sponte* shall be the “public interest” application of the “just and reasonable” standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 US 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 US 348 (1956) and clarified by *Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1 of Snohomish County*, 128 S. Ct. 2733 (2008).

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

[_____]

a [_____]

SAN DIEGO GAS & ELECTRIC
COMPANY
a California corporation

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

Exhibit A

PROJECT DESCRIPTION INCLUDING DESCRIPTION OF SITE

PROJECT DESCRIPTION

Project name: _____

Project Site name: _____

Project physical address: _____

Total number of electric generating units at the Project (committed and not committed to Buyer) _____

Technology Type: _____

Point of Interconnection of the Project (Substation and PNode): _____

The term "Site" as defined in the Agreement means the following parcel description upon which the Project is located:

Latitude and Longitude of Project: _____.

The nameplate capacity of the Project is: _____.

[For Excess Sales bids: include details on onsite load estimates and meter configuration (if CAISO meter reflects subtraction of customer onsite load from Project output.]

[INSERT MAP]

The electric generating units utilized as generation assets as part of the Project are described below:

<u>Project Specifications</u>	
<u>Project Size (MWdc)</u>	
<u>Mounting technology</u>	
<u>Module model</u>	
<u>Module size (W)</u>	
<u>Number of modules</u>	
<u>Inverter model</u>	
<u>Inverter size (kW)</u>	
<u>Number of inverters</u>	
<u>Medium voltage transformer (M.V.T.) size</u>	
<u>Number of M.V.T.s</u>	
<u>Step-up transformer (S.T.) size</u>	
<u>Number of S.T.s</u>	

Exhibit B

MILESTONE SCHEDULE

	<i>Date</i>	<i>Project Name</i>
1.		Obtains control of all lands and rights-of-way comprising the Site.
2.		Files a CEC Pre-Certification and Verification application.
3.		Files CEQA/NEPA application with appropriate agency(ies).
4.		Executes interconnection agreement and/or transmission agreement and receives FERC approval.
5.		Obtain a final draft of the amendment to the Generator Interconnection Agreement which allows the Project to achieve FCDS. [To be included for Energy Only interconnection agreements which bid FCDS.]
6.		Receives CEQA/NEPA approval/permit
7.		Executes a supply contract.
8.		Executes an Engineering, Procurement and Construction (“EPC”) contract.
9.		Delivers full NTP under EPC contract and begins construction of the Project.
10.		<i>[For all Projects other than Green Tariff Projects located outside of the CAISO: Executes Meter Service Agreement and Participating Generator Agreement.] [For Green Tariff Projects located outside of the CAISO: Executes or causes to be executed all Pseudo Tie Agreements.]</i>
11.		Delivers Energy to the Transmission Provider to which the Project is physically interconnected.
12.		Receives all Governmental Approvals necessary to achieve COD.
13.		Receives CEC Certification and Verification.

Exhibit C

FORM OF LETTER OF CREDIT

[DATE]

To: San Diego Gas & Electric Company
555 W. Fifth Street
Mail Code: ML 18A3
Los Angeles, CA 90013

Re: Our Irrevocable Standby Letter of Credit No. _____
In the Amount of US _____

Ladies and Gentlemen:

We hereby open our irrevocable standby Letter of Credit Number _____ in favor of [name of Beneficiary] (“Beneficiary”), by order and for account of [name of Applicant] (“Applicant”), [address of Applicant], available at sight upon demand at our counters, at [location] for an amount of US\$ _____ [amount spelled out and xx/100 U.S. Dollars] against presentation one of the following documents:

1- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “[name of Applicant] (“Applicant”) is in default under the Green Tariff Power Purchase Agreement between Beneficiary and Applicant dated _____ or under any transaction contemplated thereby (whether by failure to perform or pay any obligation thereunder or by occurrence of a “default”, “event of default” or similar term as defined in such agreement, any other agreement between Beneficiary and Applicant, or otherwise). The amount due to Beneficiary is U.S. \$ _____.”

or

2- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “[name of Applicant] (“Applicant”) has forfeited all or part of its CPUC Approval Security or Development Period Security as set forth and defined in the Green Tariff Power Purchase Agreement between Beneficiary and Applicant dated _____. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$ _____.”

or

3- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “as of the close of business on [insert date, which is less than 60 days prior to the expiration date of the Letter of Credit] you have provided written notice to us indicating your election not to permit extension of this Letter of Credit

beyond its current expiry date. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$ _____.”

Special Conditions:

- All costs and banking charges pertaining to this Letter of Credit are for the account of Applicant.
- Partial and multiple drawings are permitted.
- Fax of Document 1 or 2 or 3 above is acceptable. Notwithstanding anything to the contrary herein, any drawing hereunder may be requested by transmitting the requisite documents as described above to us by facsimile at _____ or such other number as specified from time to time by us. The facsimile transmittal shall be deemed delivered when received. It is understood that drawings made by facsimile transmittal are deemed to be the operative instrument without the need of originally signed documents.

This Letter of Credit expires on _____ at our counters.

We hereby engage with Beneficiary that upon presentation of a document as specified under and in compliance with the terms of this Letter of Credit, this Letter of Credit will be duly honored in the amount stated in Document 1, 2, or 3 above. If a document is so presented by 1:00 pm on any New York banking day, we will honor the same in full in immediately available New York funds on that day and, if so presented after 1:00 pm on a New York banking day, we will honor the same in full in immediately available New York funds by noon on the following New York banking day.

It is a condition of this Letter of Credit that it shall be deemed automatically extended without an amendment for a one year period beginning on the present expiry date hereof and upon each anniversary of such date, unless at least ninety (90) days prior to any such expiry date we have sent you written notice by regular and registered mail or courier service that we elect not to permit this Letter of Credit to be so extended beyond, and will expire on its then current expiry date. No presentation made under this Letter of Credit after such expiry date will be honored.

We agree that if this Letter of Credit would otherwise expire during, or within 30 days after, an interruption of our business caused by an act of god, riot, civil commotion, insurrection, act of terrorism, war or any other cause beyond our control or by any strike or lockout, then this Letter of Credit shall expire on the 30th day following the day on which we resume our business after the cause of such interruption has been removed or eliminated and any drawing on this Letter of Credit which could properly have been made but for such interruption shall be permitted during such extended period.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision) International Chamber of Commerce, Publication No. 600 (“UCP”), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall

govern. Matters not covered by the UCP shall be governed and construed in accordance with the laws of the State of California.

[Name of Bank]

Authorized Signature(s)

Exhibit D

COMMERCIAL OPERATION CERTIFICATE

The undersigned, _____ (“EPC Contractor”), _____ (“Renewable Generation Equipment Supplier”), _____ (“Licensed Professional Engineer”) and [_____] (“Owner”) make the following certifications to San Diego Gas & Electric Company (“SDG&E”), dated as of _____. All capitalized terms not otherwise defined herein shall have the meaning given to them in the Green Tariff Power Purchase Agreement dated _____ between Owner and SDG&E (the “Agreement”).

Renewable Generation Equipment Supplier hereby certifies that:

1. The [_____] comprising the Project have been erected and installed at the project site and have been commissioned as required under the Supply and Installation Agreement (“[_____] Supply Agreement”) dated as of _____, by and between Renewable Generation Equipment Supplier and Owner and each such [_____] has passed the performance testing required to be performed pursuant to the [_____] Supply Agreement.
2. The Warranty Period under the Warranty Agreement (“Warranty Agreement”) dated as of _____, by and between Renewable Generation Equipment Supplier and Owner has commenced.

EPC Contractor hereby certifies that:

All requirements necessary to achieve [Commercial Operation/Substantial Completion] as set forth in the agreement between the EPC Contractor and Owner dated _____ (“EPC Contract”) have been completed and the Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [minimum performance guarantees].

Owner hereby certifies that:

1. Except for punch list items that would not materially affect the performance, reliability or safe operation of the Project, the Project has been completed in accordance with all applicable specifications and is ready for continuous commercial operation in compliance with all applicable laws and governmental approvals. The Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [insert minimum performance guarantees], and complete test reports have been submitted to Buyer.
2. The Operation and Maintenance Agreement (O&M Agreement), by and between Owner and _____ dated as of _____ has commenced.

3. Owner has a valid leasehold or real property interest in the Project Site for a term of at least [___] years from the Commercial Operation date.
4. The interconnection facilities have been completed in accordance with applicable specifications, tariffs, laws and governmental approvals to enable power generated by the Project to be received at the Delivery Point.
5. Owner has obtained all governmental approvals necessary for the continuous commercial operation of the Project and the Project is in compliance with all such governmental approvals and all other applicable laws.
6. The Contract Capacity of the Project is [___] MWac and [___] MWdc at [_____] conditions.

Licensed Professional Engineer certifies that:

1. We have read the Agreement, the [_____] Supply Contract, and the EPC Contract and we understand the requirements for Commercial Operation under the Agreement, the specifications and performance testing requirements under the [_____] Supply Contract, and the requirements for [Commercial Operation/Substantial Completion] under the EPC Contract.
2. We have reviewed the material and data made available to us by the Owner, the Renewable Generation Equipment Supplier, and the EPC Contractor for the Project.
3. To the extent practical, we have reviewed the engineering, procurement, construction and performance testing for the Project and in the course of this review we have not discovered any material errors or omissions in the work performed to date.
4. We have reviewed the certificates of Owner, Renewable Generation Equipment Supplier, and EPC Contractor above, and find the representations provided to be correct in all material respects.
5. We have reviewed all Governmental Approvals and permits identified by the Owner as being required for the construction and operation of the Project and are of the opinion that the Project as completed is in compliance in all material respects with the environmental and technical requirements contained therein.
6. Based on our review of the aforementioned information and of information provided to us by others which we have not independently verified, we are of the opinion that, as of, Commercial Operation has occurred as defined in the Agreement.

Executed this ____ day of ____, 20__

**RENEWABLE GENERATION EQUIPMENT
SUPPLIER**

*[Name of Renewable Generation Equipment
Supplier]*

a _____ corporation

By: _____

Name:

Title:

EPC CONTRACTOR

[Name of EPC Contractor]

a _____ corporation

By: _____

Name:

Title:

OWNER

[Name of Owner]

a _____ limited liability company

By: _____

Name:

Title:

LICENSED PROFESSIONAL ENGINEER:

[Name of Licensed Professional Engineer]

a _____

By: _____

Name:

Title:

ACCEPTED BY SAN DIEGO GAS & ELECTRIC COMPANY

By: _____

Name: _____

Title: _____

Date: _____

Exhibit E

CONSENT AND AGREEMENT

This CONSENT AND AGREEMENT (“Consent”) is entered into as of [Date] among San Diego Gas & Electric Company (“SDG&E”), [_____] (the “Assignor”), and [Name of Lender/Agent for the Financing Parties] (the “Assignee”).

RECITALS

WHEREAS, pursuant to the RAM Power Purchase Agreement made as of [Date] (the “Assigned Agreement”), between the Assignor and SDG&E, SDG&E has agreed to purchase output from the Assignor’s [_____] MW [_____] electric generating facility] (the “Project”) as further specified in therein;

WHEREAS, pursuant to a [Security Agreement] dated as of [Date] (the “Security Agreement”), the Assignor has granted to the Assignee a lien on and a security interest in, to and under all of its right, title and interest in the Assigned Agreement, as collateral security for the Assignor’s obligations under that certain [Credit Agreement] dated as of the date of the Security Agreement among the Assignor, [_____] (“Lenders”) and the related financing documents (the “Credit Agreement” and collectively, the “Financing Documents”) pursuant to which the Lenders have agreed to loan funds to the Assignor in connection with the Project.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which hereby are acknowledged, the parties hereto agree as follows:

Section 1. Definitions. Any capitalized term used but not defined herein shall have the meaning specified for such term in the Assigned Agreement.

Section 2. Consent to Assignment.

(a) Under the terms and conditions set forth in this Consent, SDG&E hereby consents to (i) the assignment by the Assignor of all its right, title and interest in, to and under the Assigned Agreement to the Assignee, as collateral security for the obligations as and to the extent provided in the Security Agreement, and (ii) the assignment by the Assignor to any transferee or assignee of, or successor to, the Assignee (provided that any transferee or nominee satisfies the requirements of Article 8 (*credit support*) of the Assigned Agreement and is otherwise a Qualified Transferee. “Qualified Transferee” shall mean any transferee or assignee of, or successor to, the Assignee that (x) has (or has entered into contracts for the provision of services with an entity that has) substantial experience in the construction and/or operation of [wind/geothermal/solar generating facilities] of a type similar to the Project and (y) has the financial capability to perform under the Assigned Agreement (taking into account the fact that such transferee or nominee may be a special purpose vehicle whose sole asset may be the Project), in each case as reasonably determined by SDG&E.

(b) The Assignor agrees that it shall remain liable to SDG&E for all obligations of the Assignor under the Assigned Agreement, notwithstanding the collateral assignment contemplated in the Security Agreement.

(c) If the Assignee elects to exercise its remedies under the Security Agreement to foreclose on its lien in the Assigned Agreement, the Assignee shall notify SDG&E pursuant to Section 6(f) of this Consent. Upon completion of such foreclosure, the Assignee (or its permitted assignee or transferee or successor thereof) (i) shall be entitled to all of the benefits of the Assigned Agreement, (ii) shall assume in writing and be liable for each and every duty, obligation and liability of the Assignor under the Assigned Agreement, including but not limited to the duties and obligations that arose or accrued prior to the date of execution of this Consent, and (iii) shall cure any and all then existing Seller Events of Default that have arisen prior to the date of the assumption of the Assigned Agreement by Assignee (or its permitted assignee or transferee or successor thereof) except for any Seller Events of Default that, by their nature, are not capable of being cured by Assignee (or its permitted assignee or transferee or successor thereof).

Section 3. Representations and Warranties. SDG&E hereby represents and warrants to the Assignee that, as of the date of this Consent:

(a) The execution and delivery by SDG&E of the Assigned Agreement and this Consent, and the performance by SDG&E of its obligations under the Assigned Agreement and this Consent, have been duly authorized by all necessary corporate action, and do not and will not require any further consents or approvals which have not been obtained, or violate any provision of any law, regulation, order, judgment, injunction or similar matters or breach any material agreement presently in effect with respect to or binding upon SDG&E.

(b) All government approvals necessary for the execution and delivery by SDG&E of the Assigned Agreement and this Consent, and the performance by SDG&E of its obligations under the Assigned Agreement and this Consent, have been obtained and are in full force and effect.

(c) This Consent and the Assigned Agreement have been duly executed and constitute legal, valid and binding obligations of SDG&E, enforceable against it in accordance with their respective terms, except as such enforcement may be limited by bankruptcy, insolvency or similar laws of general application relating to the enforcement of creditors' rights generally or by general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law, or by principles of public policy.

(d) To the knowledge of SDG&E, the Assignor is not in default under any material covenant or obligation under the Assigned Agreement, and no events have occurred that, with the giving of notice or the passage of time, would constitute a default by the Assignor under the Assigned Agreement, and the Assigned Agreement is in full force and effect and has not been amended.

Section 4. Consent and Agreement.

SDG&E and the Assignor hereby agree that, so long as any obligations of the Assignor under the Credit Agreement and the Security Agreement remain outstanding:

(a) No Material Amendments. SDG&E and the Assignor will not enter into any material amendment, supplement or other modification of the Assigned Agreement (an "Amendment") until after the Assignee has been given at least fifteen (15) Business Days' prior written notice of the proposed Amendment by the Assignor (a copy of which notice will be provided to SDG&E by the Assignor), and will not then enter into such Amendment if SDG&E has, within such fifteen (15) Business Day period, received a copy of (a) the Assignee's objection to such Amendment or (b) the Assignee's request to the Assignor for additional information with respect to such Amendment.

(b) Notices of Default and Right to Cure.

(i) SDG&E shall deliver to the Assignee at the address set forth on the signature pages hereof, or at such other address as the Assignee may designate in writing from time to time to SDG&E, concurrently with the delivery thereof to the Assignor, a copy of each notice of default under the Assigned Agreement. Notwithstanding anything to the contrary contained in the Assigned Agreement, such notice shall be coupled with an opportunity to cure any such default within the longer of the cure period available to the Assignor in the Assigned Agreement or thirty (30) days after notice thereof (except with respect to payment defaults, which cure must be made within five (5) Business Days after the last day of the cure period available to the Assignor in the Assigned Agreement with respect to payment defaults), such cure period shall commence upon receipt of notice by the Assignee). If possession of the Facility is necessary to cure any Default by the Assignor under the Assigned Agreement, and the Assignee commences foreclosure proceedings against the Assignor, the Assignee will be allowed an additional sixty (60) days to complete such proceedings. In order for the Assignee to cure a default under Section 5.1(d) of the Assigned Agreement, the Assignee shall secure, as soon as reasonably practical after such default, an order from the court (the "Bankruptcy Court") administering the proceeding under which the Assignor is a debtor in a proceeding under Title 11 of the United States Code, as amended (the "Bankruptcy Code") in a form reasonably acceptable to SDG&E which authorizes (a) the Assignor to pledge collateral to secure the Assignor's obligations under the Assigned Agreement (whether by the maintenance or provision of a Letter of Credit or otherwise) whether such obligations arose prior or following the Section 5.1(d) default of the Assigned Agreement, (b) the right of SDG&E to terminate the Assigned Agreement upon a subsequent default and expiration of cure periods described herein with respect to the Assignor (including, without limitation, the conversion of a case under Chapter 11 of the Bankruptcy Code to a case under Chapter 7 of the Bankruptcy Code), and to exercise rights of netting or setoff of obligations upon such termination, in each case without regard to Section 362 of the Bankruptcy Code and without regard to whether the amounts to be netted or setoff were incurred pre-petition or post-petition, (c) that the rights of SDG&E specified in the foregoing clause (b) not be subject to being modified, stayed, avoided or otherwise limited by any further order of the Bankruptcy Court or any court proceeding under the Bankruptcy Code, and (d) the assumption by Assignor of the Assigned Agreement (a "Bankruptcy Order"). It being further understood that if such Bankruptcy Order is not timely obtained, Buyer shall have

the right to declare an Early Termination Date in accordance with Article 5 of the Assigned Agreement.

(ii) Except to the extent that automatic cancellation, suspension or termination occurs pursuant to the Assigned Agreement, no cancellation, suspension or termination of the Assigned Agreement by SDG&E, shall be binding upon the Assignee without such notice and the opportunity to cure during the applicable extended cure periods specified in this Section 4(b). If the Assignee fails to cure or rectify the effect of a default within the extended cure periods specified in this Section 4(b), SDG&E shall have all its rights and remedies with respect to such default, action or omission as set forth in the Assigned Agreement.

(c) **Payments to Designated Account.** The Assignor and SDG&E acknowledge and agree that all payments to be made by SDG&E to the Assignor (if any) under the Assigned Agreement shall be made in lawful money of the United States of America in immediately available funds, to the following account:

[name and details for account designated by the Assignee]

or to such other person or entity and/or at such other address as the Assignee may from time to time specify in writing to SDG&E. In making such payments, SDG&E shall be entitled to rely conclusively on instructions that it may receive from time to time from the Assignee without any duty to make inquiry into the authority of the Assignee to give such instructions or the authenticity of any signatures placed upon such instructions.

Section 5. Damages Limitation.

NO PARTY SHALL BE LIABLE TO ANY OTHER PARTY UNDER THIS CONSENT FOR ANY CONSEQUENTIAL, EXEMPLARY, PUNITIVE, REMOTE, OR SPECULATIVE DAMAGES OR LOST PROFITS.

Section 6. Miscellaneous.

(a) This Consent shall be binding upon the successors and permitted assigns of each party and shall inure, together with the rights and remedies of the Assignee hereunder, to the benefit of the successors and permitted assigns of the parties hereto, including the Financing Parties and their respective permitted successors, transferees and assigns.

(b) No amendment or waiver of any provisions of this Consent or consent to any departure by any party hereto from any provisions of this Consent shall in any event be effective unless the same shall be in writing and signed by the Assignee and SDG&E.

(c) This Consent shall be governed by, and construed under, the laws of the State of California applicable to contracts made and to be performed in such State and without reference to conflicts of laws. The parties hereto agree that any legal action or proceeding arising out of this Consent may be brought in the courts of the State of California, in and for the County of San Diego, or of the United States of America for the Southern District of California. By execution and delivery of this Consent, the parties hereto accept, for themselves and in

respect of their property, generally and unconditionally, the jurisdiction of the aforesaid courts. The parties hereto irrevocably consent to the service of process out of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by registered or certified airmail, postage prepaid, to the Assignee, SDG&E and the Assignor, as the case may be, at their respective addresses for notices as specified herein and that such service shall be effective five (5) business days after such mailing. Nothing herein shall affect the right to serve process in any other manner permitted by law or the right of the Assignee or SDG&E to bring legal action or proceedings in any other competent jurisdiction. The parties hereto hereby waive any right to stay or dismiss any action or proceeding under or in connection with any or all of this Consent or the transactions contemplated hereby brought before the foregoing courts on the basis of *forum non-conveniens*.

(d) EACH OF SDG&E, THE ASSIGNEE AND THE ASSIGNOR HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS CONSENT AND AGREEMENT.

(e) This Consent may be executed in one or more counterparts with the same effect as if such signatures were upon the same instrument. This Consent may be delivered by facsimile transmission.

(f) All notices to be given under this Consent shall be in writing and shall be delivered personally, sent by certified mail return receipt requested or registered first-class mail, postage prepaid, or sent by facsimile, or courier to the intended recipient at its address as set forth on the signature pages below, and all payments to be made under this Consent shall be made by wire transfer of immediately available funds or check representing immediately collectible funds to the account or address of the intended recipient as set forth on the signature pages hereto, unless the recipient has given notice of another address or account for receipt of notices or payments.

(g) This Consent shall terminate in its entirety upon the earlier of (i) the indefeasible payment in full in cash of all obligations of the Assignor under the Credit Agreement, and (ii) the termination of the Credit Agreement in accordance with the terms thereof and the terms of this Consent. The Assignee agrees to give prompt written notice to the Assignor and SDG&E of the occurrence of either such event.

(h) The captions or headings at the beginning of each Section of this Consent are for convenience only and are not a part of this Consent.

IN WITNESS WHEREOF, each of SDG&E, the Assignee and the Assignor has duly executed this Consent and Agreement as of the date first above written.

SAN DIEGO GAS & ELECTRIC
COMPANY

By: _____
Name:
Title:

[Address for Notices:]

[ASSIGNOR]

By: _____
Name:
Title:

[Address for Notices:]

[ASSIGNEE]

By: _____
Name:
Title:

[Address for Notices:]

Exhibit F

FORM OF QUARTERLY PROGRESS REPORT

**Quarterly Progress Report
of**

[_____]

(“Seller”)

**provided to
San Diego Gas & Electric Company**

[Date]

Table of Contents

[Insert Table of Contents]

1.0 Instructions.

All capitalized terms used in this report shall have the meanings set forth below and any capitalized terms used in this report which are not defined below shall have the meanings ascribed thereto in the Green Tariff Power Purchase Agreement by and between _____ (“Seller”) and San Diego Gas & Electric Company dated _____, ____ (the “Agreement”).

Seller shall review the status of each significant element of the Project schedule and Seller shall identify such matters referenced in clauses (i)-(v) below as known to Seller and which in Seller’s reasonable judgment are expected to adversely affect the Project or the Project schedule, and with respect to any such matters, shall state the actions which Seller intends to take to ensure that Conditions Precedent and the Milestones will be attained by their required dates. Such matters may include, but shall not be limited to:

(i) Any material matter or issue arising in connection with a Governmental Approval, or compliance therewith, with respect to which there is an actual or threatened dispute over the interpretation of a law or regulation, actual or threatened opposition to the granting of a necessary Governmental Approval, any organized public opposition, any action or expenditure required for compliance or obtaining approval that Seller is unwilling to take or make, or in each case which could reasonably be expected to materially threaten or prevent financing of the Project, attaining any Condition or Milestone, or obtaining any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or which otherwise reasonably could be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(ii) Any development or event in the financial markets or the independent power industry, any change in taxation or accounting standards or practices or in Seller’s business or prospects which reasonably could be expected to materially threaten financing of the Project, attainment of any Condition or Milestone or materially threaten any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or could otherwise reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iii) A change in, or discovery by Seller of, any legal or regulatory requirement which would reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iv) Any material change in the Seller’s schedule for initiating or completing any material aspect of Project;

(v) The status of any matter or issue identified as outstanding in any prior Quarterly Report and any material change in the Seller’s proposed actions to remedy or overcome such matter or issue.

Seller shall complete, certify, and deliver this form Quarter Quarterly Progress Report to [_____], together with all attachments and exhibits, with [3] copies of the Report delivered to [_____] and [_____].

2.0 Executive Summary.

2.1 Major activities to be performed for each aspect of the Project during the current calendar quarter.

Please provide a brief summary of the Major² activities to be performed for each of the following aspects of the Project during the current calendar quarter:

- 2.1.1 Design
- 2.1.2 Engineering
- 2.1.3 Major Equipment procurement
- 2.1.4 Construction
- 2.1.5 Milestone report
- 2.1.6 Permitting (See Section 3.0)

2.2 Major activities scheduled to be performed in the previous calendar quarter but not completed as scheduled.

Please provide a brief summary of the Major activities which were scheduled to be performed in the previous calendar quarter and their status, including those activities that were not completed as scheduled:

- 2.2.1 Design
- 2.2.2 Engineering
- 2.2.3 Major Equipment procurement
- 2.2.4 Construction
- 2.2.5 Milestone report
- 2.2.6 Permitting

² For Purposes of this Report, “Major” shall mean any activity, event, or occurrence which may have a material adverse impact on the construction of the Facility or completion of the Project on a timely basis if such activity, event, or occurrence occurs or if such activity, event, or occurrence fails to occur as anticipated or scheduled, which material adverse impact includes, but is not limited to, Seller’s inability to achieve a Milestone Date.

3.0 Permitting.

The following describes each of the major Governmental Approvals required for the construction of the Project and the status of each:

3.1 State and/or federal Governmental Approvals.

Please describe each of the Major state and/or federal Governmental Approval (including the Permit to Construct issued by the San Diego County Air Pollution Control District) to be obtained by Seller (or EPC Contractor) and the status of each.

DESCRIPTION	STATUS

3.2 Local and/or county Governmental Approvals.

Please describe each of the Major local and/or county Governmental Approvals to be obtained by Seller and the status of each.

DESCRIPTION	STATUS

3.3 Permitting activities which occurred during the previous calendar quarter.

Please list all permitting activities which occurred during the previous calendar quarter.

3.4 Permitting activities occurring during the current calendar quarter.

Please list all permitting activities which are expected to occur during the current calendar quarter.

3.5 Permitting Notices received from EPC Contractor.

Please attach to this Quarterly Progress Report copies of any notices related to permitting activities received from EPC Contractor during the previous calendar quarter.

4.0 Design Activities.

4.1 Table of design schedule to be followed by Seller and its subcontractors.

The following table lists the design schedule to be followed by Seller and its subcontractors.

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

4.2 Design activities to be performed during the current calendar quarter.

Please explain in detail the design activities which are expected to be performed during the current calendar quarter.

4.3 Table of design activities completed during the previous calendar quarter.

Please explain in detail the design activities which were completed during the previous calendar quarter.

5.0 Engineering Activities.

5.1 Table of engineering schedule to be followed by Seller and its subcontractors.

The following table lists the engineering schedule to be followed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

5.2 Engineering activities to be performed during the current calendar quarter.

Please explain in detail the engineering activities which are expected to be performed during the current calendar quarter.

5.3 Engineering activities completed during the previous calendar month.

Please explain in detail the engineering activities which were completed during the previous calendar quarter.

5.4 Three-month look-ahead engineering schedule.

Please provide a three-month look ahead engineering schedule.

6.0 Major Equipment Procurement.

6.1 Table of major equipment to be procured by Seller and its subcontractors.

The following table lists major equipment to be procured by Seller and its subcontractors:

EQUIPMENT DESCRIPTION	MANUFACTURER	MODEL	CONTRACTED DELIVERY DATE	ACTUAL DELIVERY DATE	PROJECTED INSTALLATION DATE	ACTUAL INSTALLATION DATE

6.2 Major Equipment procurement activities to be performed during the current calendar quarter.

Please explain in detail the major equipment procurement activities which are expected to be performed during the current calendar quarter.

6.3 Major Equipment procurement activities completed during the previous calendar quarter.

Please explain in detail the major equipment procurement activities which were completed during the previous calendar quarter.

7.0 Construction Activities.

7.1 Table of construction activities to be performed by Seller and its subcontractors.

The following tables lists construction activities to be performed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE
Civil Progress			
Structural Progress			
[Steam] Generator Progress			
Piping Progress			
IC and Electrical Progress			
Subcontractor Progress			

7.2 Construction activities to be performed during the current calendar quarter.

Please explain in detail the construction activities which are expected to be performed during the current calendar quarter.

7.3 Construction activities completed during the previous calendar quarter.

Please explain in detail the construction activities which are expected to be performed during the previous calendar quarter.

7.4 EPC Contractor Monthly Progress Report.

Please attach a copy of the Monthly Progress Reports received during the previous calendar quarter from the EPC Contractor pursuant to the EPC Contract, certified by the EPC Contractor as being true and correct as of the date issued.

7.5 Three-month look-ahead construction schedule.

Please provide a three-month look ahead construction schedule.

8.0 Milestones.

8.1 Milestone schedule.

Please state the status and progress of each Milestone and identify any completed Milestone(s) for the previous calendar quarter.

8.2 Remedial Action Plan (applicable if Seller fails to achieve Milestone by the Milestone Date).

Please explain in detail each of the following aspects of Seller's remedial action plan:

8.2.1 Missed Milestone

8.2.2 Plans to achieve missed Milestone

8.2.3 Plans to achieve subsequent Milestone

8.2.4 Delays in engineering schedule

Please explain in detail any delays beyond the scheduled Milestone Dates stated in Section 5.1, any impact from the delays on the engineering schedule, and Seller's plans to remedy such impact.

8.2.5 Delays in Major Equipment procurement

Please explain in detail any delays beyond the contracted delivery date and/or the projected installation date stated in Section 6.1, any impact from the delays on Major Equipment procurement schedule, and Seller's plans to remedy such impact.

8.2.6 Delays in construction schedule

Please explain in detail any delays beyond the scheduled completion dates stated in Section 7.1, any impact from the delays on the construction schedule, and Seller's plans to remedy such impact.

9.0 Safety and Health Reports

9.1 Please list all accidents from the previous calendar quarter:

9.2 Any work stoppage from the previous calendar quarter:

9.3 Work stoppage impact on construction of the Project:

I, _____, on behalf of and as an authorized representative of, do hereby certify that any and all information contained in the attached Seller's Quarterly Progress Report is true and accurate, and reflects, to the best of my knowledge, the current status of the construction of the Project as of the date specified below.

By: _____

Name: _____

Title: _____

Date: _____

RPS Project Development Status Report

Project Name
Date

Date of Latest Construction Progress Report from Counterparty:

Project Owner/Counterparty:

Technology:

Capacity (MW):

Annual Energy (GWh/year):

On-Line Date:

Term/Duration (years):

Construction Start Date:

Point of Delivery:

Location:

Status At-A-Glance

The below to be filled in w/ either: Completed, Acceptable, Unknown, or Concern. See Section B for a description of milestones. When the answer is "Concern" the milestone should be flagged with a notation number where additional detail is provided in Section A.

Milestones	Status	Initial Completion Date	Projected Completion Date
Fuel/Resource Supply:			
Financing:			
Corporate Financing			
Project Financing			
Site Control (100%):			
Permitting:			
Engineering:			
Major Equipment Procurement:			
Construction:			
Startup Testing and Commissioning:			
Transmission:			

Transmission - Detail (see Section C)

Dependent Transmission Upgrade(s):

Scheduled Completion:

Point of Interconnection:

Early Interconnection:

Gen-Tie Length:

Gen-Tie Voltage:

ISO Queue Position:

Feasibility Study (FS):

System Impact Study (SIS):

Facilities Study (FAS):

Remedial Action Plan:

Additional Comments:

Date of Preparation:

Exhibit G

OUTAGE NOTIFICATION FORM

OUTAGE NOTIFICATION FORM

This form may be used to comply with CAISO's outage notification requirements for both planned and forced outages. Report outages as soon as possible by submitting form via email to TSched@SempraUtilities.com or via fax at (858) 650-6191.

Request Type:

New Scheduled Maintenance Outage

Previous Notification (if applicable)

Date Sent: mm/dd/yyyy
Time Sent: hh:mm

Generator Name:

Location Code:

Address:

(For times, use 24hr format)

Today's Date: mm/dd/yyyy

Current Time: hh:mm

Contact Name:

Phone Number:

Email:

Outage Start Date: mm/dd/yyyy

Outage Start Time: hh:mm

Outage End Date: mm/dd/yyyy

Outage End Time: hh:mm

Alternate Name:

Alternate Number:

Email:

Outage Duration:

MW Available During Outage:

MW Unavailable During Outage:

RMR Unit? Yes/No

System (Select One)

- Boiler Codes 0010-1999
Generator Codes 4500-4899
Regulatory, Safety, Environmental Codes 9504-9720
Balance of Plant Codes 3110-3999
Pollution Control Equipment Codes 8000-8835
Others Codes 9900-9999
Steam Turbine Codes 4000-4499
External Codes 9000-9040

Cause Code Ranges / Affected Component

(Select One)

Cause Code / Component Problem

(Select One)

Comments

Multiple horizontal lines for entering comments.

Exhibit H

PROJECT OPERATING RESTRICTIONS

Operational characteristics of the Project must be equal to or greater than the resource flexibility reflected in the resource Master File, as such term is defined in the CAISO Tariff. Buyer may request that CAISO modify the Master File for the Project to reflect the findings of a CAISO audit of the Project and to ensure that the information provided by Seller is true and accurate. Seller agrees to coordinate with Buyer and any third party Scheduling Coordinator to ensure all information provided to the CAISO regarding the operational and technical constraints in the Master File for the Project are accurate and are actually based on physical characteristics of the resource. The Parties agree to make reasonable modifications to this Exhibit H to modify existing operating restrictions or add additional operating restrictions that may be necessary to address changes in the CAISO Tariff or applicable Law applicable to the Products provided from this Project.

- Nameplate capacity of the Project: ____MW
- Minimum operating capacity: ____MW
- Advance notification required for a Dispatch Notice: ____
- Ramp Rate: ____MW/minute

Exhibit I
INSURANCE

In connection with Seller's performance of its duties and obligations under this Agreement, Seller shall maintain, from the CP Satisfaction Date until the end of the term of this Agreement, general liability insurance with a combined single limit of not less than Two million dollars (\$2,000,000) for each occurrence.

Such general liability insurance shall include coverage for "Premises-Operations, Owners and Contractors Protective, Products/Completed Operations Hazard, Explosion, Collapse, Underground, Contractual Liability, and Broad Form Property Damage including Completed Operations."

The general liability insurance required herein shall, by endorsement to the policy or policies, (a) include Buyer as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Buyer shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to Buyer prior to cancellation, termination, alteration, or material change of such insurance.

Evidence of the insurance required herein shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Buyer.

Seller agrees to furnish the required certificates and endorsements to Buyer prior to initial deliveries of test energy. Buyer shall have the right to inspect or obtain a copy of the original policy or policies of insurance.

If Seller is self-insured with an established record of self-insurance, Seller may comply with the following in lieu of the third-party insurance if:

- (a) Seller shall provide to Buyer, at least thirty (30) calendar days prior to the date of initial deliveries of test energy, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required by third party insurance providers as stated herein.
- (b) If Seller ceases to self-insure to the level required hereunder, or if Seller is unable to provide continuing evidence of Seller's ability to self-insure, Seller agrees to immediately obtain the third-party insurance coverage required hereunder.

All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued, clearly labeled with agreement ID number and submitted to the following:

San Diego Gas & Electric Company
Attention: Director, Procurement and Portfolio Design
Address: 8315 Century Park Court, CP21D
City: San Diego, CA 92123

**ENHANCED COMMUNITY RENEWABLES PROGRAM
RIDER AND AMENDMENT TO THE RENEWABLE AUCTION MECHANISM
POWER PURCHASE AGREEMENT**

between

SAN DIEGO GAS & ELECTRIC COMPANY

and

[NAME OF SELLER]

This Enhanced Community Renewables (ECR) Rider and Amendment (“ECR Rider and Amendment”) to the ECR RAM PPA (as that term is defined below) is entered into between San Diego Gas & Electric Company, a California corporation (“Buyer”), and **[Name of Seller]**, a **[Legal Status of Seller]** (“Seller”), dated as of _____, 2018 (“Effective Date”). Buyer and Seller are hereinafter sometimes referred to individually as a “Party” and jointly as the “Parties”. Capitalized terms used herein and not otherwise defined in this Rider shall have the meanings ascribed to such terms in the ECR RAM PPA (as that term is defined below).

RECITALS

The Parties enter into the ECR Rider and Amendment with reference to the following facts:

- A. Concurrently herewith, Buyer and Seller enter into that certain Green Tariff Renewable Auction Mechanism Power Purchase Agreement (as amended from time to time, the “ECR RAM PPA”), under which, among other things, Seller will sell to Buyer, and Buyer will purchase from Seller, Product upon commencement of the Delivery Term.
- B. The Parties seek to modify the ECR RAM PPA with this ECR Rider and Amendment (together, the “Agreement”) in order to incorporate provisions related to the Enhanced Community Renewables program *[If DERP applies, add:* and to permit Distributed Energy Resource Providers as defined by the CAISO Tariff (“DERP”)].
- C. *[If DERP applies, add:* The CPUC in D. 16-05-006, O.P. 5, ordered that at such time as the California Independent System Operator expanded market eligibility to sub-500 kilowatt projects, the Enhanced Community Renewables projects procurement should include eligibility for to such projects. The Federal Energy Regulatory Commission ordered on June 2, 2016, that the California Independent System Operator allow for market participation by providers of aggregations of distributed sub-500 kilowatt energy resources.]

AGREEMENT

In consideration of the promises, mutual covenants and agreements hereinafter set forth, and for other good and valuable consideration, as set forth herein, the Parties agree to amend the ECR RAM PPA as follows:

[If DERP applies, add: This ECR Rider and Amendment permits Seller to aggregate Distributed Energy Resources (DER), as such term is defined by the CAISO Tariff, to form one “Project” with one CAISO Resource ID (as such term is defined in the CAISO Tariff) under this Agreement. All references to “Project” shall refer to the resources in the aggregate. Except for the generation resource specific terms contained in this ECR Rider and Amendment, all provisions of the Agreement pertaining to a Project,

including but not limited to scheduling, Delivery Point, excess deliveries from Article 4 of the ECR RAM PPA, Guaranteed Energy Production, CAISO charges, and Non-Availability Charges shall apply to the Project in the aggregate. Seller shall provide Buyer with all information necessary to implement this Agreement for each DERP resource, including:

- (a) **[INSERT** name of substation or method of identifying the location of interconnection to Transmission Provider’s electric system. First point of interconnection must be within Buyer’s service territory.] All resources composing the Project must have and maintain a valid interconnection agreement applicable to DERPs.
- (b) **[INSERT** Information for identifying [Distributed Energy Resource Aggregation] location on CAISO-Controlled Grid for DERP resources.]. Seller shall not modify or change the location of any resource composing the Project without Buyer’s prior written consent.
- (c) **[INSERT** capacity and all other production information for each resource composing the Project.]
- (d) Execute and maintain all CAISO and CPUC agreements, and all interconnection related agreements, including **[INSERT]**, related to the Project, DERP providers and each resource composing the Project under this Agreement.

a. All exhibits shall include resource specific detail.]

1. The following changes are made to Section 1.1:

a. Delete the definition of Commercial Operation Date and replace with the following:

“Commercial Operation Date” means the first calendar day of the month following the date on which Seller achieves Commercial Operation for the Project. ***[For existing Project in operation for which CPUC Approval is all that is needed for effectiveness of the Agreement, delete and insert:*** “Commercial Operation Date” means the later of (a) the first calendar day of the month following the date that is thirty (30) days after the date of satisfaction or waiver of the Condition Precedent in Section 2.3(a) or (b) [insert date].”]

b. ***[If DERP applies, add:*** Delete the definition of Project and replace with the following:

“Project” means the [total aggregation of each and every] [insert technology] resource, the Site(s) at which the [resource is or resources are] located, the utility interconnection facilities up to the point of change in ownership to the applicable utility’s facilities, and the other assets, tangible and intangible, that compose the resources as more particularly described on Exhibit A.]

c. The following defined terms are added, in alphabetical order, to Section 1.1:

“Customer” means a bundled utility customer in Buyer’s service territory who meets the eligibility requirements and /or (i) receives service pursuant to Schedule ECR and (ii) enters into a CSA with Seller.

“Customer-Seller Agreement” or “CSA” means that agreement to be executed between Customer and Seller in order for Customer to Subscribe to Seller’s Facility, which shall be subject to those requirements set forth within Section 13 of this Agreement. Buyer shall not be a party to, and is prohibited from requesting pricing information contained in, the CSA.

“Default Load Aggregation Point” or “DLAP” has the meaning set forth in the CAISO Tariff.

“Default Load Aggregation Point Price” or “DLAP Price,” as determined by the CAISO, means the hourly Integrated Forward Market DLAP Locational Marginal Price for the applicable Transmission

Access Charge Area, as defined in the CAISO Tariff.

“Disclosure Documents” means those disclosure documents required by Green-e[®] Energy to be provided by Seller to Customers and potential Customers, as they may be amended, supplemented or replaced from time to time, as set forth on the Green-e[®] Energy website at http://green-e.org/verif_docs.html or any successor webpage.

“ECR Tariff” means Buyer’s Schedule ECR Enhanced Community Renewables Tariff, as may be amended from time to time, as posted on Buyer’s website at <http://www.sdge.com>.

“FTC” means the Federal Trade Commission.

“FTC Green Guides” means those guiding documents published on the FTC website intended to provide guidance on 1) general principles applicable to environmental marketing claims, 2) how consumers are likely to interpret particular claims and how marketers can substantiate these claims, and (3) how marketers can qualify their claims to avoid deceiving customers.

“Green-e[®] Energy” means the national certification program for renewable energy administered by the Center for Resource Solutions, as such program may be amended, supplemented or otherwise changed from time to time, and about which information can be found at <http://www.green-e.org/> or any successor webpage.

“Minimum Subscription Requirement” has the meaning set forth in Section 3.1(f)(iii).

“Renewable Energy Credit Market Price” means \$10/MWh, pursuant to D.16-05-006 as may be amended from time to time.

“Subscribed Capacity” has the meaning set forth in Section 3.1(f)(i).

“Subscribed Delivered Energy” means the quotient of Subscribed Capacity divided by Contract Capacity, multiplied by Delivered Energy in all hours for the TOD Period being calculated, measured in MWh.

“Subscription”, “Subscribe”, “Subscribed” and other grammatical variations thereof means:

a) In the case of a capacity-based subscription business model employed in the CSA, the subscription that a Customer has signed up for, expressed in kW.

b) In the case of an energy-based subscription business model employed in the CSA, the subscription that a Customer has signed up for (expressed in kWh), multiplied by the Contract Capacity (expressed in kW), divided by the Contract Quantity (expressed in kWh/year), multiplied by 12 months/year, the product of which shall be equal to the Subscription of the Customer, expressed in kW.

Example: $\text{Subscription} = \text{Load} \times \text{Contract Capacity} / \text{Contract Quantity} \times 12 \text{ months}$

“Subscription Information and Bill Credit Instructions” mean the information required to be provided by Seller to Buyer in accordance with Section 3.1(m) as set forth in the form provided in Appendix J.

“Unsubscribed Capacity” has the meaning set forth in Section 3.1(f)(ii).

“Unsubscribed Delivered Energy” means the quotient of Unsubscribed Capacity divided by Contract Capacity, multiplied by Delivered Energy in all hours for the TOD Period being calculated, measured in MWh.

“Unsubscribed Energy Price” means the DLAP Price plus the Renewable Energy Credit Market Price.

- d. ***[If DERP applies:*** The following definitions are modified as follows:
- i. In the definition of Delivered Energy, replace reference to “CAISO revenue meter” with “CAISO approved DERP meter”.
 - ii. In the definition of Electrical Losses, replace reference to “CAISO revenue meter” with “CAISO approved DERP meter”.]
2. ***[If DERP applies, add:*** Insert the phrase “the aggregated resources composing the Project” immediately after the phrase “a refundable cost for” in Section 2.3(b)(ii).]
3. Insert the following subsections after Section 3.1(f):
- (i) **Subscribed Capacity.** The aggregate Subscription level of all Customers with Subscriptions to the Project for each month represents the portion of the Contract Capacity that is Subscribed for the Project (“Subscribed Capacity”).
 - (ii) **Unsubscribed Capacity.** The Contract Capacity less the Subscribed Capacity for each billing month represents the portion of the Contract Capacity that is Unsubscribed for the Project (“Unsubscribed Capacity”).
 - (iii) **Seller’s Minimum Subscription Requirement.** The minimum Subscribed level required for each month of a Contract Year for the Project shall be as follows (“Minimum Subscription Requirement”):

Year of Operation	Minimum Subscription Requirement
First Contract Year	50%
Second Contract Year	75%
Third Contract Year	95%
Remaining Delivery Term	95%

Provided, that if the Project is below the Minimum Subscription Requirement, a five percent (5%) margin is reasonable to account for Subscription changes in the normal course of business.”

4. Insert the following new Section 3.1(m) after Section 3.1(l):
- (m) **ECR Program Subscription Requirements.**

Seller shall provide Buyer with Subscription Information and Bill Credit Instructions in the format set forth in Appendix J (as such Appendix J may be modified by the Buyer in its reasonable discretion to reflect updates to its business practices) setting forth, with respect to each of Seller’s Customers for the Project, the information required in Appendix J, such

Subscription Information and Bill Credit Instructions to be delivered no later than sixty (60) days prior to the Commercial Operation Date and, thereafter, ten (10) Business Days after the first day of each calendar month, with respect to the prior calendar month.

Buyer shall confirm in writing that it has verified Customer's Subscription requirements, with respect to each Subscribed Customer listed in Seller's Subscription Information and Bill Credit Instructions delivered pursuant to Section 3.1(m)(i) above.

Customer's subscription must be sized to meet at least 50% of the customer's energy demand, and may meet up to 100% of demand (not to exceed one hundred twenty percent (120%) of such Customer's forecasted annual consumption, as such consumption is reasonably determined by Buyer based on historical usage data), subject to the following limits:

(A) Customer's Minimum Subscription: the Subscription amount for each Customer is projected to be in an amount of energy per year equal to or greater than: (x) one hundred (100) kWh per month on average, calculated on an annual basis, or (y) twenty-five percent (25%) of such Customer's forecasted annual consumption ("Minimum Subscription"); and

(B) Customer's Maximum Subscription: each Customer cannot subscribe to more than two (2) MW of nameplate generating capacity for a calendar year; except, that this limitation does not apply to federal, state, or local governments, schools or school districts, county offices of education, the California Community Colleges, the California State University, or the University of California, in which case such entities may exceed the two (2) MW cap provided that no single entity, its affiliates or subsidiaries Subscribes to more than twenty percent (20%) of any single calendar year's total cumulative rated generating capacity ("Maximum Subscription").

5. Insert the following new Section 3.1(n) after Section 3.1(m):

(n) Customer Service Agreement. Seller shall enter into a CSA with each Customer with the following required provisions:

(C) An outline detailing the program structure of the ECR Tariff, including the bill credit mechanism and a statement that Buyer is not a party to, or third party beneficiary of, the CSA or the transactions between Seller and Customer, other than as a conduit for bill credits pursuant to Seller's Subscription Information and Bill Credit Instructions;

(D) The benefits and risks to Customer of subscribing to the Facility, including any termination of the PPA or termination fees that may be assessed by Seller or Buyer, and that Customer should not expect to receive bill credits in excess of the amount of consideration it provides to Seller under the CSA;

(E) Customer acknowledgment of the risks associated with participating in wholesale energy markets;

(F) Customer acknowledgment that it should not have any expectation of profits in deciding to enter into the CSA;

(G) Customer acknowledgment that it will only receive bill credits to the extent the Project actually generates Energy and Seller provides the correct Subscription Information and Bill Credit Instructions to Buyer as specified in Section 3.7;

(H) The CSA will automatically terminate upon termination or expiration of this Agreement;

(I) Customer acknowledgment that Buyer is not an issuer or underwriter under California or federal securities laws with respect to the Project, and that Buyer is not making an offer to sell or selling any securities whatsoever;

(J) All disputes (including those related to bill credits) will be handled between the Seller and Customer pursuant to the dispute resolution provisions in the CSA;

(K) Customers must enroll with Buyer's ECR Tariff as a condition to being eligible to receive bill credits;

(L) Customers must un-enroll from Buyer's ECR Tariff if Customer no longer wishes to subscribe to the Project; Customers cannot transfer their Subscriptions to other parties;

(M) Customers may not subscribe for more than 120% of their forecasted annual load, as reasonably determined by Buyer based on historical usage data;

(N) Customer Subscription payments to Seller, if any, are refundable until the Commercial Operation Date has been achieved, and Customer subscriptions are portable within Buyer's territory upon the Execution Date;

(O) Seller shall notify Customer in the event of Seller's imminent bankruptcy or insolvency, or if foreclosure proceedings are initiated on the Project;

(P) Disclosure that the Customer Subscription may be considered a "security" issued by Seller under federal or state law;

(Q) Customer is not guaranteed any energy production from the Project;

(R) Information describing Green-e® Energy and what requirements Seller is subject to in order to provide Customers with Green-e® Energy product;

(S) A description of Customer access rights to the Site and the Facility, if any;

(T) Seller and Buyer shall share Customer information amongst themselves for purposes of billing and credits, program eligibility and

verifying participation and that Buyer and Seller shall maintain the confidentiality of Customer information;

(U) Seller's customer service department must respond to Customer inquiries within two (2) Business Days after a Customer request;

(V) Seller shall indemnify Customers for claims arising from or related to Seller's construction, operation or financing of the Project, including liens of any type, mortgages, stop notices, and claims for bodily injury, death or property damage or destruction;

(W) Seller will provide Buyer with Subscription Information and Bill Credit Instructions related to the Subscribed Capacity, and Seller shall indemnify Buyer for all related claims and billing disputes between Customer and Seller. All bill credits to Customer shall be subject to set-off and counterclaim by Buyer under Seller's power purchase agreement with Buyer;

(X) A Seller transfer or sale of the Project to another entity will be subject to Buyer's consent and the transferee must (i) accept all of Seller's obligations under the power purchase agreement between Buyer and Seller, including all duties, liabilities and indemnities, and (ii) either enter into new CSAs containing same terms and conditions as the original CSAs with existing Customers, or accept assignment of the existing CSAs with existing Customers. In addition, Seller shall provide Customers with notice of any such transfer or sale of the Project;

(Y) Seller shall notify Customers of any proposed modifications to the Project and provide Customers adequate time to withdraw their Subscription to the Project, subject to any applicable termination provisions in the ECR Tariff, due to any such proposed modifications;

(Z) A Customer's minimum Subscription must be projected to be an amount of energy per year equal to or greater than: (x) 100 kWh per month on average, calculated on an annual basis or (y) twenty five percent (25%) of such Customer's load;

(AA) Within sixty (60) days after the Commercial Operation Date, Seller must provide completed Disclosure Documents and a statement that Seller is required by Green-e® Energy to provide updated Disclosure Documents to Customer on an annual basis;

(BB) Seller will not make any statements or representations in the CSA or its marketing materials implying that renewable energy is being used or delivered to anyone unless Seller knows that Renewable Energy Credit ownership supports such statements;

(CC) Seller representation that any electricity, stripped of Renewable Energy Credits is null power and no longer renewable and that, due to change of law provisions in the power purchase agreement between Buyer and Seller, power delivered may cease to be renewable;

(DD) Seller covenants not to claim the Renewable Energy Credits associated with any Delivered Energy;

(EE) Seller obligation regarding transfer and chain of custody of Renewable Energy Credits;

(FF) Seller shall provide Customer notice of any direct change of control of Seller (whether voluntary or by operation of Law); and

(GG) Seller shall disclose to Customers whether or not Seller will pursue Full Capacity Deliverability Status for the Project and the effects of achieving or not achieving Full Capacity Deliverability Status on the amount Customers will receive in bill credits.

Prior to or upon the Execution Date, Seller shall deliver to Buyer an original legal opinion, in form and substance acceptable to Buyer, and addressed to Buyer. The legal opinion shall state that the transactions between the Customers and Seller: (x) do not involve the offer or sale of “securities” under California or federal law, or (y) to the extent that such transactions involve the offer or sale of securities under California or federal law, the transactions, (i) involve the offer or sale of securities that are registered under federal securities law and exempt from qualification under California securities law, (ii) involve the offer or sale of securities that are qualified under federal securities law and qualified under California securities law, (iii) involve the offer or sale of securities that are exempt from registration under federal securities law and are qualified under California securities law, or (iv) involve the offer or sale of securities exempt from registration under federal securities law and exempt from qualification under California securities law, as applicable. The legal opinion may not contain any exceptions or qualifications unacceptable to Buyer in its reasonable discretion. The Seller must submit to Buyer an attestation from an officer of Seller that the fact certificate provided by an officer of the Seller to the law firm issuing the legal opinion is true and complete and that Seller’s business model with Customers is, and throughout the Delivery Term will be, as described in the legal opinion.”

6. ***[If DERP applies, add: Replace all references to “CAISO revenue meter” with “CAISO approved DERP meter” in Section 3.6.]***

7. Insert the following new Section 3.11 after Section 3.10:

“3.11 Green-e[®] Energy Certification. Throughout the Term, Seller must comply with Green-e[®] Energy eligibility criteria and requirements in its marketing materials and the CSA, throughout the Term and surviving the expiration of the Agreement, Seller must disclose requested information to the Buyer and/or Green-e[®] Energy for Green-e[®] Energy certification, including but not limited to:

(a) Agreeing to provide Green-e[®] Energy certified resources to all Customers;

(b) Agreeing to abide by Green-e[®] Energy requirements and best practices, as specified on the Green-e[®] Energy website;

Monthly Energy Payment to Seller assigned to Customers for Subscribed Delivered Energy = \sum (Energy Price x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Subscribed Capacity/Contract Capacity))

Monthly Energy Payment to Seller from Buyer for Unsubscribed Delivered Energy for months that Seller has obtained FCDS = \sum (Energy Price [– Deliverability Value, only if Seller has not achieved FCDS] x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Unsubscribed Capacity/Contract Capacity))

(ii) Monthly Payment for Projects that do not Achieve the Minimum Subscription Requirement. During each month of the Delivery Term, if the quotient of the average billing month Subscribed Capacity divided by the Contract Capacity is less than the applicable Minimum Subscription Requirement, then the payment for Unsubscribed Delivered Energy for each month shall be an amount equal to the sum for each hour in the month of the product of the lesser of (i) the Unsubscribed Energy Price, and (ii) the Energy Price, less the Deliverability Value if the Project has not achieved FCDS, multiplied by the applicable TOD Factor for the TOD Period at the time of delivery, times the sum of Bundled Green Energy plus Deemed Bundled Green Energy (together, the “Monthly Energy Payment”).

Monthly Energy Payment to Seller assigned to Customers for Subscribed Delivered Energy = \sum (Energy Price x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Subscribed Capacity/Contract Capacity))

Monthly Energy Payment to Seller from Buyer for Unsubscribed Delivered Energy for months that Seller has obtained FCDS = \sum (the lesser of (i) the Unsubscribed Energy Price and (ii) the Energy Price [– Deliverability Value, only if Seller has not achieved FCDS] x TOD Factor for the TOD Period) x (Bundled Green Energy + Deemed Bundled Green Energy) x (Unsubscribed Capacity/Contract Capacity))

(iii) Seller shall assign payment for Subscribed Delivered Energy from Subscribed Capacity to its Customers in the CSA, and payment for the Subscribed Delivered Energy shall be applied as a bill credit to Seller’s Customers. Payment for the Unsubscribed Delivered Energy from Unsubscribed Capacity, net amounts owed to Buyer from Seller, shall be paid to Seller from Buyer. For avoidance of doubt, if in any month Seller does not provide Subscription Information and Bill Credit Instructions pursuant to Section 3.1(m), Buyer shall not apply Customers’ bill credit or pay Seller’s Monthly Energy Payment until such time as Seller provides its Customer Subscription Information and Bill Credit Instructions for that month.]

[For Energy Only bids and ECR Projects located in Imperial Valley: Monthly Energy Payment.

(i) Monthly Payment for Projects that Achieve the Minimum Subscription Requirement. During each month of the Delivery Term, if the quotient of the billing month Subscribed Capacity divided by the Contract Capacity is greater than the Minimum Subscription Requirement for the corresponding billing month, if the quotient of the billing month Subscribed Capacity divided by the Contract Capacity is greater than the Minimum Subscription Requirement for the corresponding billing month, then the payment

applicable for Unsubscribed Delivered Energy from the Project shall be an amount equal to the sum for each hour in the month of the product of the Energy Price times the TOD Factor for the applicable TOD Period times the sum of Bundled Green Energy plus Deemed Bundled Green Energy in each hour (“Monthly Energy Payment”).

Monthly Energy Payment to Seller assigned to Customers for Subscribed Delivered Energy = \sum (Energy Price x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Subscribed Capacity/Contract Capacity))

Monthly Energy Payment to Seller from Buyer for Unsubscribed Delivered Energy = \sum (Energy Price x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Unsubscribed Capacity/Contract Capacity))

(ii) Monthly Payment for Projects that do not Achieve the Minimum Subscription Requirement. During each month of the Delivery Term, if the quotient of the average billing month Subscribed Capacity divided by the Contract Capacity is less than the applicable Minimum Subscription Requirement, then the payment for Unsubscribed Delivered Energy shall be an amount equal to the sum for each hour in the month of the product of the lesser of (i) the Unsubscribed Energy Price, and (ii) the Energy Price multiplied by the applicable TOD Factor for the TOD Period at the time of delivery, times the sum of Bundled Green Energy plus Deemed Bundled Green Energy (together, the “Monthly Energy Payment”).

Monthly Energy Payment to Seller assigned to Customers for Subscribed Delivered Energy = \sum (Energy Price x TOD Factor x (Bundled Green Energy + Deemed Bundled Green Energy) x (Subscribed Capacity/Contract Capacity))

Monthly Energy Payment to Seller from Buyer for Unsubscribed Delivered Energy = \sum (the lesser of (i) the Unsubscribed Energy Price and (ii) the Energy Price multiplied by the applicable TOD Factor for the TOD Period) x (Bundled Green Energy + Deemed Bundled Green Energy) x (Unsubscribed Capacity/Contract Capacity))

(iii) Seller shall assign payment for Subscribed Delivered Energy from Subscribed Capacity to its Customers in the CSA, and payment for the Subscribed Delivered Energy shall be applied as a bill credit to Seller’s Customers. Payment for the Unsubscribed Delivered Energy from Unsubscribed Capacity, net amounts owed to Buyer from Seller, shall be paid to Seller from Buyer. For avoidance of doubt, if in any month Seller does not provide Subscription Information and Bill Credit Instructions pursuant to Section 3.1(m), Buyer shall not apply Customers’ bill credit or pay Seller’s Monthly Energy Payment until such time as Seller provides its Customer Subscription Information and Bill Credit Instructions for that month.]”

10. Delete Section 6.1 in its entirety and replace with the following:

“6.1. Billing and Payment. On or about the tenth (10th) day of each month beginning with the second month of the first Contract Year and every month thereafter, and continuing through and including the first month following the end of the Delivery Term, [*Where Seller is the SC:* Seller shall provide to Buyer (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation of Product by the Project for any

CAISO settlement time interval during the preceding months, (b) access to any records, including invoices or settlement data from CAISO, necessary to verify the invoice; and (c) an invoice, in a format reasonably specified by Buyer indicating the payments associated with the Unsubscribed Delivered Energy,] [Where Buyer is the SC: Buyer shall provide to Seller an invoice indicating the payments associated with the Unsubscribed Delivered Energy and] covering the services provided in the preceding month determined in accordance with Article 4 (which may include preceding months), with all component charges and unit prices identified and all calculations used to arrive at invoiced amounts described in reasonable detail. Buyer shall pay the undisputed amount of such invoices on or before thirty (30) days after receipt of the invoice; except, that payments to Seller under this Agreement of each undisputed invoice related to the Subscribed Delivered Energy shall be made by Buyer in the form of bill credits to Customers in accordance with the Seller's Subscription Information and Bill Credit Instructions, and Seller hereby assigns any right to receive all such payments in respect of Subscribed Delivered Energy to such Customers. If either the invoice date or payment date is not a Business Day, then such invoice or payment shall be provided on the next following Business Day. Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any undisputed amounts not paid by the due date will be deemed delinquent and will accrue interest at the Default Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full. Invoices may be sent by facsimile or e-mail. Each invoice will be adjusted by any amounts owed by or to Seller under this Agreement, on or before the last Business Day of the second month from which Buyer receives an invoice from Seller; provided, that Buyer shall have the right, but is not obligated, to apply any amounts due to Buyer from Seller for any charges incurred under this Agreement, for past due bills for electric service or for Buyer services, towards any amount owed to Seller under this Agreement. In the event Buyer applies any amounts due to Buyer from Seller towards an invoice issued by Seller, Buyer shall provide an explanation of the amounts Buyer has applied towards Seller's invoice. Buyer shall make payment of each undisputed invoice related to the Unsubscribed Capacity directly to Seller. Buyer and Seller acknowledge that payment to Seller under this Agreement of each undisputed invoice related to the Subscribed Delivered Energy shall be made by Buyer in the form of bill credits to Customers in accordance with the Seller's Subscription Information and Bill Credit Instructions, and Seller hereby assigns any right to receive all such payments in respect of Subscribed Delivered Energy to such Customers. Notwithstanding any other provision in this Agreement, Buyer is not obligated to provide a bill credit to any Customer that does not meet the requirements of this Agreement and the ECR Tariff or if Buyer determines, in its reasonable discretion, that the information contained in the Subscription Information and Bill Credit Instructions is incorrect. Retroactive changes to Subscription Information and Bill Credit Instructions will not be permitted."

11. Delete Section 6.3 in its entirety and replace with the following:

"6.3 Netting of Payments. Any amounts owed by Seller under this Agreement shall not be included in Seller's Subscription Information and Bill Credit Instructions, but shall be included in amounts payable directly to or from Seller. Each invoice will be adjusted by any amounts owed by or to Seller under this Agreement, on or before the later of the last Business Day of the second month from which Buyer receives an invoice from Seller; provided, that Buyer shall have the right, but is not obligated, to apply any amounts due to Buyer from Seller for any charges incurred under this Agreement, for past due bills for electric service or for Buyer services, towards any amount owed to Seller under this Agreement. In the event Buyer applies any amounts due to Buyer from Seller towards an invoice issued by Seller, Buyer shall provide an explanation of the amounts Buyer has applied towards Seller's invoice. Buyer shall make payment of each undisputed invoice related to the Unsubscribed Capacity directly to Seller."

12. Delete Section 10.2(c) entirely and replace with the following:

“(c) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term: (i) the Delivered Energy qualifies and is Green-e[®] Energy eligible; (ii) Seller shall comply with the Green-e[®] Energy requirements and best practices as updated from time to time by Green-e[®] Energy; (iii) Seller shall provide all forms, disclosures and other documentation required by Buyer and its auditors in connection with the annual Green-e[®] Energy verification and audit; (iv) Seller shall provide to Buyer a copy of all annual Disclosure Documents that it provides to Customers; and (v) Seller shall provide Buyer with a completed “Green-e[®] Energy Attestation From Generator Participating In A Tracking System” (or successor form available on Green-e[®]’s website) promptly when required by Buyer, and (vi) Seller shall provide Buyer with Green-e[®] Energy Host attestations as they are requested.”

13. Insert new Sections 10.2(d) – 10.2(m) as follows:

(d) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term, Seller has not entered and will not enter into any other agreement with any party for the sale of Product produced by the Project, other than Customers in accordance with the CSA and with ECR Tariff.

(e) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term, that prior to the Execution Date and during the Term, (a) Seller has not and will not enter into CSAs for Subscribed Capacity exceeding, in the aggregate, one hundred percent (100%) of the Contract Capacity; and (b) Seller has not and will not enter into a CSA with any individual Customer for a Subscription exceeding 2 MW (except in the case of federal, state or local governments, schools or school districts, county offices of education, any of the California Community Colleges, the California State University or the University of California).

(f) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term, the Subscription Information and Bill Credit Instructions required under Section 3.1(m) shall be accurate and complete. If Seller becomes aware of incorrect information contained in any current or previously submitted Subscription Information and Bill Credit Instructions, Seller shall provide Buyer with updated Subscription Information and Bill Credit Instructions. Buyer shall not be liable for any action it takes or fails to take based on incorrect information contained in inaccurate or incomplete Subscription Information and Bill Credit Instructions.

(g) Seller, and, if applicable, its successors, represents, warrants and covenants that prior to the Execution Date and throughout the Term: (i) Seller has complied with and shall continue to comply with the marketing plan requirements of the ECR Tariff and Green-e[®] Energy, (ii) all marketing by Seller shall be accurate and in compliance with the Federal Trade Commission Green Guides, (iii) any changes to the marketing plan shall be submitted to Buyer for review prior to Seller’s use of such materials, (iv) Seller shall maintain an internet website dedicated to the Project containing disclosures about the Project required by Green-e[®] Energy, including a link to Buyer’s ECR Tariff webpage, a link to the Green-e[®] Energy website, and customer service contact information; and (v) Seller has received from Buyer and has read Attachment 1 of the CPUC’s CCA Code of Conduct decision (D.12-12-036) and has not and will not circumvent it.

(h) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term, Seller has and shall continue to incorporate in each CSA it enters

into with Customers the provisions required to be included in the CSA as identified in Section 3.1(m)(iv).

(i) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term, Seller shall not use Buyer's corporate name, trademark, trade name, logo, identity or any affiliation for any reason, without Buyer's prior written consent.

(j) Seller acknowledges that the Subscriptions it sells may be considered securities under federal or California law and, accordingly, has retained its own legal counsel to provide advice on securities law matters.

(k) Seller, and, if applicable, its successors, represents, warrants and covenants that throughout the Delivery Term that the Project shall comply with the requirements of the California Air Resources Board's Voluntary Renewable Electricity Program, and Seller shall provide Buyer with all documents necessary to enable Buyer to retire greenhouse gas allowances on behalf of Customers in compliance with the Voluntary Renewable Electricity Program.

(l) ***[If DERP applies, add: [Include additional DERP-related representations.]]***

(m) With respect to the legal opinion delivered pursuant to Section 3.1(m), Seller hereby represents and covenants that:

(i) The lawyer primarily responsible for the issuance of the opinion has, within the last eight (8) years, practiced federal and California securities law as a significant portion of their practice (meaning at least five (5) full-time years), and such experience including registering or qualifying offerings or sales of securities, effecting private placements of securities, and/or advising issuers or sellers of securities with respect to exemptions from qualifications and registration requirements;

(ii) The lawyer primarily responsible for the issuance of the opinion is licensed to practice law in California and the lawyer's license is active and not under suspension; and,

(iii) The law firm issuing the opinion carries a minimum of \$10 million in professional liability insurance coverage

14. ***[If DERP applies, add: Insert Section 10.3(b)(vi) after Section 10.3(b)(v) as follows:***

“(e) [Include other appropriate DERP-related covenants.]”

15. Insert the following at the end of Section 11.2(a):

“, or in connection with Seller's Subscription Information and Bill Credit Instructions, subscriptions, bill credits, disputes, violations of Law, misrepresentations made by Seller or Seller's contractors, agents, or representatives, claims relating to securities laws, or Green-e[®] Energy certification, or loss thereof”

16. Insert a new Section 13.15 after Section 3.14:

“13.15 No Partnership or Joint Venture. Nothing contained in this Agreement shall be construed as creating any relationship whatsoever between Buyer and Seller, including that of partners, co-employment, or joint venture parties.”

17. A new Appendix J (attached hereto) is added after Appendix I.

MISCELLANEOUS

- (a) Reservation of Rights. Each of the Parties expressly reserves all of its respective rights and remedies under this Agreement and the ECR RAM PPA .
- (b) Legal Effect. Except as expressly modified as set forth herein, the ECR RAM PPA remains unchanged and, as so modified, the ECR RAM PPA remains in full force and effect. Each of the Parties hereby represents and warrants that the representations contained in the ECR RAM PPA are true on and as of the date hereof as if made by the Party on and as of said date.
- (c) Governing Law. THIS AGREEMENT AND THE ECR RAM PPA AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER ARE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. TO THE EXTENT ENFORCEABLE AT SUCH TIME, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS ECR RIDER AND AMENDMENT.
- (d) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.
- (e) Authorized Signatures; Notices. Each Party represents and warrants that the person who signs below on behalf of such Party has authority to execute this Agreement on behalf of such Party and to bind such Party to this Agreement. Any written notice required to be given under the terms of this Agreement shall be given in accordance with the terms of the Agreement.
- (f) Effective Date. This Agreement shall be deemed effective as of the Execution Date.
- (g) Further Agreements. This Agreement shall not be amended, changed, modified, abrogated or superseded by a subsequent agreement unless such subsequent agreement is in the form of a written instrument signed by the Parties.
- (h) Counterparts; Electronic Signatures. This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement. The exchange of copies of this Agreement and of signature pages by facsimile transmission, Portable Document Format (i.e., PDF), or by other electronic means shall constitute effective execution and delivery of this Agreement as to the Parties and may be used in lieu of the original Agreement for all purposes.

[Remainder of Page Left Intentionally Blank.]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the Effective Date.

[SELLER], a [State and form of incorporation] .
By: _____
[Name] [Title]

SAN DIEGO GAS & ELECTRIC COMPANY, a California corporation.
By: _____
Emily C. Shults Vice President – Energy Supply

APPENDIX J
Subscribed Customer Reporting Form

Customer Subscription details are to be provided sixty (60) days prior to the Commercial Operation Date, and afterwards, on a monthly basis to Buyer in the form attached below. Note that Seller should only fill out either (i) the “Capacity Subscribed (kW)” or (ii) the “Load Subscribed (kWh)” column, the appropriate column shall be dictated by the business model being employed by Seller pursuant to the CSA.

Name	Service Address	SDG&E Service Account Number	SDG&E Meter Number	Capacity Subscribed (%)	Load Subscribed (kWh)	Load Served (kW)

*** End of Appendix J ***

LONG FORM CONFIRMATION
FOR RESOURCE ADEQUACY CAPACITY PRODUCT
Resource Adequacy Contract Number: _____

This confirmation letter ("Confirmation") confirms the transaction (the "Transaction") between _____ ("Seller") and San Diego Gas & Electric Company ("Buyer"), each individually a "Party" and together the "Parties", dated as of October __, 2018 (the "Confirmation Execution Date") in which Seller agrees to provide to Buyer the right to the Product, as such term is defined in Section 3 of this Confirmation. This Transaction shall be deemed to have been entered into pursuant to, and shall supplement, form a part of, and be governed by the terms and conditions of the form of Master Power Purchase and Sale Agreement published by the Edison Electric Institute and the National Energy Marketers Association (version 2.1 dated 4/25/00) (the "EEI Agreement") with a Cover Sheet containing the elections and other changes contained herein as if the Parties have executed the EEI Agreement (with such Cover Sheet the "Master Agreement"). The Parties agree that the only transactions to be concluded pursuant to such Master Agreement shall be the Transaction documented in this Confirmation. The Master Agreement and this Confirmation shall be collectively referred to herein as the "Agreement". Capitalized terms used but not otherwise defined in this Confirmation have the meanings ascribed to them in the Master Agreement or the Tariff (defined herein). To the extent that this Confirmation is inconsistent with any provision of the Master Agreement, this Confirmation shall govern the rights and obligations of the Parties hereunder.

Name: Party A / Seller

Name: Party B / Buyer

All Notices:

< company name >
< street address >
< city/state/zip >
Attn: _____
Telephone: (____) ____ - ____
Facsimile: (____) ____ - ____
Duns: _____
Federal Tax ID Number: _____

All Notices:

San Diego Gas & Electric Company
8315 Century Park Court CP 21D
San Diego CA 92123-1593
Attn: Contract Administration
Telephone: (858) 650-6176
Facsimile: (858) 650-6190
Duns: 006911457
Federal Tax ID Number: 95-1184800

Invoices:

< company name >
< street address >
< city/state/zip >
Attn: _____
Telephone: (____) ____ - ____
Facsimile: (____) ____ - ____

Invoices:

San Diego Gas & Electric Company
8315 Century Park Court
San Diego CA 92123-1593
Attn: Energy Accounting Manager
Telephone: (858) 650-6177
Facsimile: (858) 650-6190

Scheduling:

< company name >
< street address >
< city/state/zip >
Attn: _____
Day Ahead: (____) ____ - ____
Real Time: (____) ____ - ____
Facsimile: (____) ____ - ____

Payments:

< company name >
< street address >
< city/state/zip >
Attn: _____
Telephone: (____) ____ - ____
Facsimile: (____) ____ - ____

Wire Transfer:

< bank name >
< bank street address >
< bank city/state/zip >
ABA Routing Number: _____
Payee: _____
Account Number: _____
Confirmation: _____
Facsimile: (____) ____ - ____

Credit and Collections:

< company name >
< street address >
< city/state/zip >
Attn: _____
Telephone: (____) ____ - ____
Facsimile: (____) ____ - ____

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

< company name >
< street address >
< city/state/zip >
Attn: _____
Telephone: (____) ____ - ____
Facsimile: (____) ____ - ____

Scheduling:

San Diego Gas & Electric Company
8315 Century Park Court, CP 21D
San Diego, CA 92123-1593
Attn: Transaction Scheduling Manager
Day Ahead: (858) 650-6168
Real Time: (858) 650-6160
Facsimile: (858) 650-6191

Payments:

San Diego Gas & Electric Company
8315 Century Park Court
San Diego CA 92123-1593
Attn: Energy Accounting Manager
Telephone: (858) 650-6177
Facsimile: (858) 650-6190

Wire Transfer:

Union Bank of California
445 South Figueroa Street
Los Angeles CA 90071
ABA Routing Number: 122000496
Payee: San Diego Gas & Electric Company
Account Number: 4430000352
Confirmation: SDG&E – Major Markets
Facsimile: (213) 244-8316

Credit and Collections:

San Diego Gas & Electric Company
555 West Fifth Street, ML 18A3
Los Angeles, CA 90013-1011
Attn: Major Markets – Credit and
Collections Manager
Telephone: (213) 244-4343
Facsimile: (213) 244-8316

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

San Diego Gas & Electric Company
8330 Century Park Ct.
San Diego, California 92123
Attn: General Counsel
Telephone: (858) 650-6141
Facsimile: (858) 650-6106

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

Article Two

Transaction Terms and Conditions

- Optional provision in Section 2.4. If not checked, inapplicable.

Article Four

Remedies for Failure to Deliver or Receive

- Accelerated Payment of Damages. If not checked, inapplicable.

Article Five

Events of Default; Remedies

- Cross Default for Party A:
- Party A: _____ Cross Default Amount: _____
- Other Entity: _____ Cross Default Amount: _____

- Cross Default for Party B:
- Party B: N/A Cross Default Amount: N/A
- Other Entity: N/A Cross Default Amount: N/A

5.6 Closeout Setoff

- Option A (Applicable if no other selection is made.)
- Option B – Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: _____
- Option C (No Setoff)

Article 8

Credit and Collateral Requirements

8.1 Party A Credit Protection:

- (a) Financial Information:
 - Option A
 - Option B Specify: _____
 - Option C Specify: _____
- (b) Credit Assurances:
 - Not Applicable
 - Applicable
- (c) Collateral Threshold:
 - Not Applicable
 - Applicable
- (d) Downgrade Event:
 - Not Applicable
 - Applicable
- (e) Guarantor for Party B: None.
Guarantee Amount: N/A

8.2 Party B Credit Protection: _____

- (a) Financial Information:
 Option A
 Option B Specify: _____
 Option C Specify: _____
- (b) Credit Assurances:
 Not Applicable
 Applicable
- (c) Collateral Threshold:
 Not Applicable
 Applicable
 If applicable, complete the following:
 Party A Collateral Threshold: \$ _____;
 provided, however, that Party A's Collateral
 Threshold shall be zero if an Event of Default or
 Potential Event of Default with respect to Party A
 has occurred and is continuing.
 Party A Independent Amount: \$ _____
 Party A Rounding Amount: \$ _____
- (d) Downgrade Event:
 Not Applicable
 Applicable
 If applicable, complete the following:
 It shall be a Downgrade Event for Party A if
 Party A 's Credit Rating falls below _____
 from S&P or _____ from Moody's or if Party A
 is not rated by either S&P or Moody's
 Other:
 Specify: _____
- (e) Guarantor for Party A: None
 Guarantee Amount: N/A

Article 10

Confidentiality Confidentiality Applicable If not checked, inapplicable.

Schedule M

- Party A is a Governmental Entity or Public Power System
 Party B is a Governmental Entity or Public Power System
 Add Section 3.6. If not checked, inapplicable
 Add Section 8.4. If not checked, inapplicable

Other Changes

1. The modifications to Section 1.12, 1.50 and 5.2 of the Master Agreement specified in that certain Errata published by the Edison Electric Institute (version 1.1, July 18, 2007) are hereby incorporated herein as if set forth in full.

2. Section 10.2(ii) of the Master Agreement shall be modified by inserting “Except for the approval by the CPUC as stated in Section 2.2 of this Confirmation,” at the beginning of the first sentence in such section.

3. Section 10.6 of the Master Agreement shall be deleted in its entirety and replaced with the following:

“THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. TO THE EXTENT PERMISSIBLE UNDER APPLICABLE LAW, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.”

4. Schedule P: Products and Related Definitions shall be deleted in its entirety.

1. Definitions

- 1.1 “Applicable Laws” means any law, rule, regulation, order, decision, judgment, or other legal or regulatory determination by any Governmental Body having jurisdiction over one or both Parties or this Transaction, including without limitation, the Tariff.
- 1.2 “Availability Incentive Payments” has the meaning set forth in the Tariff [and includes any similarly defined payments under the Tariff in respect of Flexible RA Attributes] [REDACTED]
- 1.3 “Availability Standards” has the meaning set forth in the Tariff [and includes any similarly defined standards under the Tariff in respect of Flexible RA Attributes] [REDACTED]
- 1.4 “Buyer” has the meaning specified in the introductory paragraph.
- 1.5 “CAISO” means the California Independent System Operator Corporation, or any successor entity performing the same functions.
- 1.6 “Capacity Attributes” means (a) the Local RA Attributes, (b) the RA Attributes, (c) the Flexible RA Attributes, and (d) any other current or future defined characteristics (including the ability to generate at a given capacity level, provide ancillary services, ramp up or down at a given rate, and flexibility or dispatch-ability attributes), certificates, tags, credits, howsoever entitled, including any accounting construct applied to any Compliance Obligations.
- 1.7 “Capacity Price” means the price specified in the Capacity Price Table in Section 4.1.

- 1.8 “Capacity Replacement Price” means (a) the actual rate per kW-day paid for any Replacement Capacity purchased by Buyer pursuant to Section 5.2(a) including any penalties, fines, transaction costs and expenses reasonably incurred by Buyer in purchasing such Replacement Capacity, or (b) absent a purchase of Replacement Capacity, any penalties, fines, transaction costs and expenses plus the per kW-day market price for the Product not delivered by Seller under this Confirmation. Buyer shall determine such market prices in a commercially reasonable manner. For purposes of Section 1.51 of the Master Agreement, “Capacity Replacement Price” shall be deemed the “Replacement Price” for this Transaction.
- 1.9 “Compliance Obligations” means the RAR, Local RAR, Flexible RAR, and other resource adequacy requirements associated with a generating unit’s Capacity Attributes established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction.
- 1.10 “Compliance Showing” means one or more of the following: (a) Local RAR Showing, (b) RAR Showing, (c) Flexible RAR Showing, or (d) other Capacity Attributes compliance or advisory filing (or similar or successor showing or filing), in each case, that an LSE is required to make to the CPUC (and/or, to the extent authorized by the CPUC, to the CAISO), pursuant to the CPUC Decisions, or to any Governmental Body having jurisdiction.
- 1.11 “Confirmation” has the meaning specified in the introductory paragraph.
- 1.12 “Confirmation Effective Date” has the meaning specified in Section 2.2.
- 1.13 “Confirmation Execution Date” has the meaning specified in the introductory paragraph.
- 1.14 “Contract Price” means, for any day in any Monthly Delivery Period, the Capacity Price for such period.
- 1.15 “Contract Quantity” means the quantity of Product (in MW) as set forth in Section 3.5.
- 1.16 “Contract Term” has the meaning set forth in Section 2.1.
- 1.17 “CPUC” means the California Public Utilities Commission.
- 1.18 “CPUC Decisions” means CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-25, and any other existing or subsequent decisions, resolutions or rulings related to resource adequacy, as may be amended from time to time by the CPUC.
- 1.19 “CPUC Filing Guide” is the annual document issued by the CPUC which sets forth the guidelines, requirements and instructions for LSEs to demonstrate compliance with the CPUC’s resource adequacy program as provided in the CPUC Decisions.
- 1.20 “Credit Rating” means, with respect to any entity, the rating assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) by S&P, Moody’s or any other rating agency agreed by the Parties as set forth in the Master Agreement, or if such entity does not have a rating for its

senior unsecured long-term debt, then the rating then assigned to such entity as an issuer rating by S&P, Moody's or any other rating agency agreed by the Parties as set forth in the Master Agreement.

- 1.21 "Delivery Period" has the meaning specified in Section 3.4.
- 1.22 "Emission Reduction Credits" or "ERC(s)" means emission reductions that have been authorized by a local air pollution control district pursuant to California Division 26 Air Resources; Health and Safety Code Sections 40709 and 40709.5, whereby such district has established a system by which all reductions in the emission of air contaminants that are to be used to offset certain future increases in the emission of air contaminants shall be banked prior to use to offset future increases in emissions.
- 1.23 "Environmental Costs" means costs incurred in connection with acquiring and maintaining all environmental permits and licenses for the Product, and the Product's compliance with all applicable environmental laws, rules and regulations, including capital costs for pollution mitigation or installation of emissions control equipment required to permit or license the Product, all operating and maintenance costs for operation of pollution mitigation or control equipment, costs of permit maintenance fees and emission fees as applicable, and the costs of all Emission Reduction Credits or Marketable Emission Trading Credits (including any costs related to greenhouse gas emissions) required by any applicable environmental laws, rules, regulations, and permits to operate, and costs associated with the disposal and clean-up of hazardous substances introduced to the site, and the decontamination or remediation, on or off the site, necessitated by the introduction of such hazardous substances on the site.
- 1.24 "Flexible RA Attributes" means, with respect to a Unit, any and all flexible resource adequacy attributes, as may be identified from time to time by the CPUC, CAISO or other Governmental Body having jurisdiction that can be counted toward Flexible RAR, exclusive of any RA Attributes and Local RA Attributes.
- 1.25 "Flexible RAR" means the flexible capacity requirements, including, without limitation, maximum continuous ramping, load following, and regulation, established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction. Flexible RAR may also be known as ramping, maximum ramping, maximum continuous ramping, maximum continuous ramping capacity, maximum continuous ramping ramp rate, load following, load following capacity, load following ramp rate, regulation, regulation capacity, regulation ramp rate.
- 1.26 "Flexible RAR Showing" means the Flexible RAR compliance or advisory filing (or similar or successor showing or filing) an LSE is required to make to the CPUC (and, to the extent authorized by the CPUC, to the CAISO) pursuant to the CPUC Decisions, or to any Governmental Body having jurisdiction.
- 1.27 "GADS" means the Generating Availability Data System, or its successor.
- 1.28 "Governmental Body" means any federal, state, local, municipal or other government; any governmental, regulatory or administrative agency, commission or other authority lawfully exercising or entitled to exercise any administrative,

executive, judicial, legislative, police, regulatory or taxing authority or power; and any court or governmental tribunal.

- 1.29 “Local Capacity Area” has the meaning set forth in the Tariff.
- 1.30 “Local RA Attributes” means, with respect to a Unit, any and all resource adequacy attributes or other locational attributes for the Unit related to a Local Capacity Area, as may be identified from time to time by the CPUC, CAISO or other Governmental Body having jurisdiction, associated with the physical location or point of electrical interconnection of the Unit within the CAISO Control Area, that can be counted toward a Local RAR, but exclusive of any RA Attributes and Flexible RA Attributes.
- 1.31 “Local RAR” means the local resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction. Local RAR may also be known as local area reliability, local resource adequacy, local resource adequacy procurement requirements, or local capacity requirement in other regulatory proceedings or legislative actions.
- 1.32 “Local RAR Showing” means the Local RAR compliance or advisory filing (or similar or successor showing or filing) an LSE is required to make to the CPUC (and, to the extent authorized by the CPUC, to the CAISO) pursuant to the CPUC Decisions, or to any Governmental Body having jurisdiction.
- 1.33 “LSE” means load-serving entity.
- 1.34 “Marketable Emission Trading Credits” means without limitation, emissions trading credits or units pursuant to the requirements of California Division 26 Air Resources; Health & Safety Code Section 39616 and Section 40440.2 for market based incentive programs such as the South Coast Air Quality Management District’s Regional Clean Air Incentives Market, also known as RECLAIM, and allowances of sulfur dioxide trading credits as required under Title IV of the Federal Clean Air Act (see 42 U.S.C. § 7651b.(a) to (f)).
- 1.35 “Master Agreement” has the meaning specified in the introductory paragraph.
- 1.36 “Monthly Delivery Period” means each calendar month during the Delivery Period and shall correspond to each Showing Month.
- 1.37 “Monthly Payment” has the meaning specified in Section 4.1.
- 1.38 “Moody’s” means Moody’s Investors Services, Inc. or its successor.
- 1.39 “NERC” means the North American Electric Reliability Corporation, or its successor.
- 1.40 “NERC/GADS Protocols” means the GADS protocols established by NERC, as may be updated from time to time.
- 1.41 “Net Qualifying Capacity” has the meaning set forth in the Tariff.

- 1.42 “Non-Availability Charges” has the meaning set forth in the Tariff [and includes any similarly defined charges under the Tariff in respect of Flexible RA Attributes]
[REDACTED]
- 1.43 “Non-Specified RA Replacement Capacity” has the meaning set forth in the Tariff [and includes any similarly defined capacity under the Tariff in respect of Flexible RA Attributes]
[REDACTED]
- 1.44 “Outage” means any disconnection, separation, or reduction in the capacity of any Unit that relieves all or part of the offer obligations of the Unit consistent with the Tariff.
- 1.45 “Outage Schedule” has the meaning specified in Section 3.8.
- 1.46 “Planned Outage” shall have the meaning in CPUC Decisions, and includes a planned, scheduled, or any other Outage approved by the CAISO for the routine repair or maintenance of the Unit, or for the purposes of new construction work, and does not include any Outage designated as either forced or unplanned as defined by the CAISO or NERC/GADS Protocols.
- 1.47 “Product” has the meaning specified in Section 3.1.
- 1.48 “Prorated Percentage of Unit Factor” means the percentage, as specified in Appendix A, of the Unit NQC as of the Confirmation Execution Date that is dedicated to Buyer under this Transaction.
- 1.49 “Prorated Percentage of Unit Flexible Factor” means the percentage, as specified in Appendix A, of the Unit EFC as of the Confirmation Execution Date that is dedicated to Buyer under this Transaction.
- 1.50 “RA Attributes” means, with respect to a Unit, any and all resource adequacy attributes, as may be identified from time to time by the CPUC, CAISO or other Governmental Body having jurisdiction that can be counted toward RAR, exclusive of any Local RA Attributes and Flexible RA Attributes.
- 1.51 “RA Substitute Capacity” means capacity that the CAISO permits under the CAISO Tariff to be substituted for a Resource Adequacy Resource that is on Outage.
- 1.52 “RAR” means the resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction.
- 1.53 “RAR Showing” means the RAR compliance or advisory filing (or similar or successor showing or filing) an LSE is required to make to the CPUC (and/or, to the extent authorized by the CPUC, to the CAISO), pursuant to the CPUC Decisions, or to any Governmental Body having jurisdiction.

any RA Substitute Capacity under Section 3.9, and in all cases, shall not include (i) any portion of Contract Capacity for which Buyer is required under the Compliance Obligations or the Tariff to procure Replacement Capacity, and (ii) any portion of Contract Capacity for which Seller is required hereunder, but fails, to provide Replacement Capacity to Buyer.

2. Term

2.1 Contract Term

The "Contract Term" shall mean the period of time commencing upon the Confirmation Effective Date and continuing until the later of (a) the expiration of the Delivery Period or (b) the date the Parties' obligations under this Agreement have been fulfilled.

2.2 Conditions Precedent; Binding Nature

This Agreement shall not be effective or binding on either Party until, and it shall become effective and binding on both Parties as of, the date on which the conditions precedent, if any, described below shall have been achieved (or waived in writing by each of the Parties in their sole discretion) (the "Confirmation Effective Date").

(a) None.

If any of the foregoing conditions precedent are not achieved (or waived in writing by each of the Parties) on or before the deadline dates therefor (without extension for Force Majeure or any other reason), then this Agreement shall automatically terminate. If there are no conditions precedent listed above in this Section 2.2 then the Confirmation Effective Date shall be the Confirmation Execution Date. This Agreement shall be effective and binding as of the Confirmation Effective Date.

3. Transaction

3.1 Product

- (a) Seller shall sell and Buyer shall receive and purchase, the Capacity Attributes (including all Local RA Attributes [but excluding Flexible RA Attributes (if any)][and Flexible RA Attributes] ██████████ of the Units identified in Appendix A (collectively, the "Product") and Seller shall deliver the Product as described in Section 3.2 below. Product does not include any right to dispatch or receive the energy or ancillary services from the Unit. Seller retains the right to sell any Product from a Unit in excess of its Unit Contract Quantity.
- (b) The Parties agree that (i) the Contract Price for the Product shall not change if the CAISO, CPUC or other Governmental Body (A) defines new or re-defines existing Local Capacity Areas which decreases or increases the amount of Local RA Attributes provided hereunder, or (B) defines new or re-defines existing Local Capacity Areas whereby the Units qualify for a Local

Capacity Area and (ii) if the event in Section 3.1(b)(i)(B) occurs then the Product shall include such Local RA Attributes.

- (c) [The Parties agree that (i) the Contract Price for the Product shall not change if the CAISO, CPUC or other Governmental Body defines new or re-defines existing Flexible RAR, Capacity Attributes related to Flexible RAR, or attributes of the Unit related to Flexible RAR, that results in a decrease or increase in the amount of Capacity Attributes related to Flexible RAR provided hereunder, and (ii) if the event in Section 3.1(c)(i) occurs then the Product shall include such Capacity Attributes related to Flexible RAR.]



3.2 Firm Quantity

During the Delivery Period, Seller shall provide Buyer with the Product from the Unit(s) in the amount of the Contract Quantity. Except for reasons of Force Majeure, if the Unit(s) are not available to provide any portion of the Product for any reason including without limitation any Outage or any adjustment of the Capacity Attributes of any Unit(s), Seller shall provide Buyer with Replacement Capacity from one or more Replacement Units pursuant to Section 5.1. If Seller fails to provide Buyer with Replacement Capacity pursuant to Section 5.1, then Seller shall be liable for damages and/or to indemnify Buyer for penalties, fines or costs pursuant to the terms of Section 5 and Section 10. Reserved.

3.3 Delivery Period

The "Delivery Period" shall be _____ thru _____, inclusive, unless terminated earlier in accordance with the terms of this Agreement.

3.4 Contract Quantity:

During each month of the Delivery Period, Seller shall provide the Product from each Unit in the total amount for such month as follows:

CONTRACT QUANTITY TABLE

Unit Name	CAISO Resource ID*	Month(s)	Unit Contract Quantity (MW)	
			Capacity Attributes (excluding Flexible RA Attributes)	Flexible RA Attributes

Unit Name	CAISO Resource ID*	Month(s)	Unit Contract Quantity (MW)	
			Capacity Attributes (excluding Flexible RA Attributes)	Flexible RA Attributes
* CAISO Resource ID should match a Unit described in Appendix A				

3.5 Delivery of Product

Seller shall provide Buyer with the Contract Quantity for each day in each Monthly Delivery Period consistent with the following:

- (a) Seller shall, on a timely basis, submit, or cause each Unit's SC to submit, Supply Plans to identify and confirm the Unit Delivered Quantity for each Unit provided to Buyer so that the total amount of Unit Delivered Quantity identified and confirmed equals the Unit Contract Quantity for each Unit, unless specifically notified or requested not to do so by the Buyer pursuant to Section 3.9, and;
- (b) Seller shall cause each Unit's SC to submit written notification to Buyer, no later than fifteen (15) Business Days before the relevant deadline for any applicable Compliance Showing, that Buyer will be credited with Unit Delivered Quantity for the applicable portion of the Delivery Period in the Unit's SC Supply Plan so that the total amount of Unit Delivered Quantity for each Unit credited equals the Unit Contract Quantity.

3.6 CAISO/CPUC Offer Requirements

Subject to Buyer's request under Section 3.9(a), Seller shall, or cause the Unit's SC to, bid and/or schedule with, or make available to, the CAISO the Unit Contract Quantity for each Unit in compliance with the Tariff and the CPUC Filing Guide, including any must offer obligation under the Tariff or the CPUC Filing Guide, and shall, or cause the Unit's SC, owner, or operator, as applicable, to perform all obligations under the Tariff and the CPUC Filing Guide that are associated with the sale and delivery of Product hereunder. Buyer shall have no liability for the failure of Seller or the failure of any Unit's SC, owner, or operator to comply with such Tariff and CPUC Filing Guide provisions, including any penalties, charges or fines imposed on Seller or the Unit's SC, owner, or operator for such noncompliance.

3.7 Reserved

3.8 Unit Substitution; RA Replacement Capacity

- (a) RA Replacement Capacity: No later than five (5) Business Days before the relevant deadline for each applicable Compliance Showing, Buyer may (i) request, subject to Seller's reasonable approval, that Seller not, or cause each Unit's SC not to, list a portion or all of a Unit's applicable Unit Contract Quantity on the Supply Plan or (ii) notify Seller that a portion or all of the Unit Contract Quantity of a Unit will be included in an applicable Compliance Showing as RA Substitute Capacity. The amount of Unit Contract Quantity that is the subject of such a request or notice shall be known as "RA Substitute Capacity" and, for purposes of calculating a Monthly Payment pursuant to Section 4.1, to the extent provided, such RA Substitute Capacity shall be deemed Unit Delivered Quantity provided consistent with Section 3.6.
- (b) Seller's Obligations With Respect to RA Substitute Capacity: If Buyer requests RA Substitute Capacity, Seller shall (i) make such RA Substitute Capacity available to Buyer during the applicable Showing Month to allow Buyer to utilize, as applicable, the substitution rules in Sections 9.3.1.3.1, 9.3.1.3.2 and 40.9.4.2.1 of the Tariff [including any similarly defined substitution rules under the Tariff in respect of Flexible RA Attributes] (b) ("Substitution Rules") and (ii) take, or cause each Unit's SC to take, all action to allow Buyer to utilize, as applicable, the Substitution Rules, including, but not limited to, ensuring that the RA Substitute Capacity will qualify, as applicable, for substitution under the Substitution Rules, and providing Buyer with all information needed to utilize the Substitution Rules.
- (c) Seller agrees that all RA Substitute Capacity utilized by Buyer under the Substitution Rules, as applicable, is subject to the requirements identified in Section 3.7.
- (d) Failure to Provide RA Substitute Capacity: If Seller fails to provide RA Substitute Capacity or Buyer is unable to utilize the RA Substitute Capacity under the Substitution Rules due to Seller's failure to fulfill its obligations under Section 3.9(b)(ii), then Seller shall reimburse Buyer for any and all Non-Availability Charges incurred by Buyer and shall pay Buyer the CPM revenue the CASIO would have paid the Buyer but for Seller failure, due to such failure or inability to utilize the Substitution Rules; provided, that if Buyer is unable to utilize the Substitution Rules because the RA Substitute Capacity does not qualify for substitution under Section 9.3.1.3.1, 9.3.1.3.2, 40.9.4.2.1(1)(i) or (ii) of the Tariff, then Seller shall not be responsible for any such Non-Availability Charges described in this Section 3.9(d) associated with such inability.

3.9 Buyer's Re-Sale of Product

Buyer may re-sell all or a portion of the Product.

4. Payment

4.1 Monthly Payment

In accordance with the terms of Article Six of the Master Agreement, Buyer shall make a "Monthly Payment" to Seller for each Unit after the applicable Monthly Delivery Period, as follows:

$$\text{Monthly Payment} = \sum_{n=1}^d (A_n * B_n * 1000)$$

where:

A = applicable Contract Price (in \$/kW-day) for that calendar day

B = Unit Delivered Quantity (in MW) for Capacity Attributes provided by Seller for such Unit in that calendar day; provided, however, in no event shall this quantity "B" exceed the Contract Quantity for such Unit (in MW) for Capacity Attributes nor shall this quantity "B" be less than zero.

d = Total number of calendar days in the respective Monthly Delivery Period

The Monthly Payment calculation shall be rounded to two decimal places. In no case shall a Unit's Monthly Payment (or any day in any Monthly Payment) be less than zero.

CAPACITY PRICE TABLE

2019 Contract Month	Capacity Price (\$/kW-day)
January	
February	
March	
April	
May	
June	

2019 Contract Month	Capacity Price (\$/kW-day)
July	
August	
September	
October	
November	
December	

4.2 Reserved.

4.3 Allocation of Other Payments and Costs

- (a) Seller shall retain any revenues it may receive from and pay all costs charged by, the CAISO or any other third party with respect to any Unit for (i) start-up, shutdown, and minimum load costs, (ii) capacity revenue for ancillary services, (iii) energy sales, and (iv) any revenues for black start or reactive power services. Seller shall indemnify, defend and hold Buyer harmless from and against all liabilities, damages, claims, losses, costs or expenses (including, without limitation, attorneys' fees) incurred by or brought against Buyer in connection with Environmental Costs.
- (b) Buyer shall be entitled to receive and retain all revenues associated with the Contract Quantity during the Delivery Period including any capacity or availability revenues from RMR Contracts for any Unit, Capacity Procurement Mechanism (CPM) or its successor, and Residual Unit Commitment (RUC) Availability Payments, or its successor but excluding payments described in Section 4.3(a)(i)-(iv).
- (c) In accordance with Section 4.1 of this Confirmation and Article Six of the Master Agreement, all such Buyer revenues described in Section 4.3(b), but received by Seller, or a Unit's SC, owner, or operator shall be remitted to Buyer, and Seller shall pay such revenues to Buyer if the Unit's SC, owner, or operator fails to remit those revenues to Buyer. In order to verify the accuracy of such revenues, Buyer shall have the right, at its sole expense and during normal working hours after reasonable prior notice, to hire an independent third party reasonably acceptable to Seller to audit any documents, records or data of Seller associated with the Contract Quantity.
- (d) If a centralized capacity market develops within the CAISO region, Buyer will have exclusive rights to offer, bid, or otherwise submit the Contract Quantity for re-sale in such market, and retain and receive any and all related revenues.

- (e) Subject to the Unit being made available to the CAISO in accordance with Article 3 of this Confirmation, Seller agrees that the Unit is subject to the terms of the Availability Standards, Non-Availability Charges, and Availability Incentive Payments under the Tariff. Furthermore, the Parties agree that any Availability Incentive Payments are for the benefit of Seller and for Seller's account and that any Non-Availability Charges are the responsibility of Seller and for Seller's account.

4.4 Offset Rights

Either Party may offset any amounts owing to it for revenues, penalties, fines, costs, reimbursement or other payments pursuant to Article Six of the Master Agreement against any future amounts it may owe to the other Party under this Confirmation.

5. Seller's Failure to Deliver Contract Quantity

5.1 Seller's Duty to Provide Replacement Capacity

Planned Outage replacement shall be addressed by the Tariff. For all other replacements, if Seller is unable to provide the Contract Quantity from any Unit(s) for any day in any Monthly Delivery Period and Replacement Capacity is required under Section 3.2, then:

- (a) Seller shall notify Buyer of the non-availability of any portion of the Contract Quantity from any Unit(s) and identify Replacement Unit(s), and
- (b) Seller shall, at no additional cost to Buyer, provide Buyer with Replacement Capacity from one or more Replacement Units, such that the total amount of Product provided to Buyer from all Units and Replacement Units equals Contract Quantity.

provided that the designation of any Replacement Unit by Seller shall be subject to Buyer's prior written approval, which shall not be unreasonably withheld. Once Seller has identified in writing any Replacement Units that meet the requirements of this Section 5.1, and Buyer has approved the designation of the Replacement Unit, then any such Replacement Unit shall be deemed a Unit for purposes of this Confirmation for that day in such Monthly Delivery Period. Notwithstanding anything to the contrary in this Confirmation, Seller's failure to properly provide Replacement Capacity, including Seller's obligation to identify Replacement Units within the notice deadlines specified in this Section 5.1, may result in the calculation of damages payable to Buyer and/or the indemnification of Buyer against any penalties, fines or costs under Section 5 and Section 10.

5.2 Damages for Failure to Provide Replacement Capacity

If Seller fails to provide Buyer any portion of the Contract Capacity from Replacement Units for any day in any Monthly Delivery Period as required by Section 5.1, then the following shall apply:

- (a) Buyer may, but shall not be obligated to, obtain Replacement Capacity. Buyer may enter into purchase transactions with one or more parties to

replace the portion of Contract Capacity not provided by Seller. Additionally, Buyer may enter into one or more arrangements to repurchase its obligation to sell and deliver the capacity to another party, and such arrangements shall be considered the procurement of Replacement Capacity. Buyer shall act in a commercially reasonable manner in purchasing any Replacement Capacity, and;

- (b) Seller shall pay to Buyer damages, in accordance with the terms of Section 4.1 of the Master Agreement relating to “Accelerated Payment of Damages,” if applicable, an amount equal to the positive difference, if any, between (i) the sum of (A) the Capacity Replacement Price paid by Buyer for any Replacement Capacity purchased by Buyer pursuant to Section 5.2(a) for such day, plus (B) the Capacity Replacement Price times the portion of Contract Capacity not provided by Seller nor purchased by Buyer pursuant to Section 5.2(a) for such day times 1,000 kW/MW, and (ii) the portion of Contract Capacity not provided for the applicable day in the applicable Monthly Delivery Period times the Contract Price for that day times 1,000 kW/MW.

5.3 Indemnities for Failure to Deliver Contract Capacity

If Buyer is unable to purchase Replacement Capacity after Seller fails to provide Buyer a portion of the Contract Capacity from Replacement Units for any day in any Monthly Delivery Period as required by Section 5.1, then in addition to the damages pursuant to Section 5.2(b)(i)(B) with respect to the portion of Contract Capacity that Buyer has not replaced, Seller agrees to indemnify, defend and hold harmless Buyer from any penalties, fines or costs assessed against Buyer by the CPUC, CAISO, or any Governmental Body having jurisdiction, resulting from any of the following:

- (a) Seller’s failure to provide any portion of the Contract Capacity or any portion of the Replacement Capacity;
- (b) Seller’s failure to provide timely notice of the non-availability of any portion of the Contract Capacity;
- (c) A Unit’s SC’s failure to timely submit Supply Plans that identify Buyer’s right to the Unit Contract Quantity purchased hereunder, or;
- (d) any other failure by Seller to perform its obligations under this Confirmation.

With respect to the foregoing, the Parties shall use commercially reasonable efforts to minimize such penalties, fines and costs; provided, that in no event shall Buyer be required to use or change its utilization of its owned or controlled assets or market positions to minimize these penalties, fines and costs.

6. Other Buyer and Seller Covenants

6.1 Seller’s and Buyer’s Duty to Take Action to Allow the Utilization of the Product

Buyer and Seller shall, throughout the Delivery Period, take commercially reasonable actions and execute any and all documents or instruments reasonably necessary to

ensure Buyer's right to the use of the Contract Quantity for the sole benefit of Buyer's Compliance Obligations. The Parties further agree to negotiate in good faith to make necessary amendments, if any, to this Confirmation to conform this Transaction to subsequent clarifications, revisions or decisions rendered by the CPUC, FERC, or other Governmental Body having jurisdiction to administer Compliance Obligations, to maintain the benefits of the bargain struck by the Parties on the Confirmation Execution Date. The Parties acknowledge that the benefit of the bargain as stated in this Agreement attempts to reflect anticipated changes to the CASIO and CPUC Resource Adequacy rules as such rules have been proposed as of the Confirmation Execution Date.

6.2 Seller's Represents, Warrants and Covenants

Seller represents, warrants and covenants to Buyer that, throughout the Delivery Period:

- (a) Seller owns or has the exclusive right to the Product sold under this Confirmation from each Unit, and shall furnish Buyer, CAISO, CPUC or other Governmental Body with such evidence as may reasonably be requested to demonstrate such ownership or exclusive right;
- (b) No portion of the Contract Quantity has been committed by Seller to any third party in order to satisfy Compliance Obligations or analogous obligations in any CAISO or non-CAISO markets, other than pursuant to an RMR Contract between the CAISO and either Seller or the Unit's owner or operator;
- (c) Each Unit is connected to the CAISO Controlled Grid, is within the CAISO Control Area, and is under the control of CAISO;
- (d) Seller shall, and each Unit's SC, owner and operator is obligated to, comply with Applicable Laws, including the Tariff, relating to the Product;
- (e) If Seller is the owner of any Unit, the aggregation of all amounts of Capacity Attributes that Seller has sold, assigned or transferred for any Unit does not exceed the Unit NQC or Unit EFC, as applicable, for that Unit;
- (f) Seller has notified the SC of each Unit that Seller has transferred the Unit Contract Quantity to Buyer, and the SC is obligated to deliver the Supply Plans in accordance with the Tariff fully reflecting such transfer;
- (g) Seller has notified the SC of each Unit that Seller is obligated to cause each Unit's SC to provide to Buyer, at least fifteen (15) Business Days before the relevant deadline for each Compliance Showing, the Unit Contract Quantity of each Unit that is to be submitted in the Supply Plan associated with this Agreement for the applicable period;
- (h) Seller has notified each Unit's SC that Buyer is entitled to the revenues set forth in Section 4.3, and such SC is obligated to promptly deliver those revenues to Buyer, along with appropriate documentation supporting the amount of those revenues;

- (i) In the event Seller has rights to the energy output of any Unit, and Seller or the Unit's SC schedules energy from the Unit for export from the CAISO Control Area, or commits energy to another entity in a manner that could result in scheduling energy from the Unit for export from the CAISO Control Area, it shall do so only as allowed by, and in accordance with, Applicable Laws and such exports may, if allowed by the Tariff, be curtailed by the CAISO, and;
- (j) The owner or operator of each Unit is obligated to maintain and operate each Unit using Good Utility Practice and, if applicable, General Order 167 as outlined by the CPUC in the Enforcement of Maintenance and Operation Standards for Electric Generating Facilities Adopted May 6, 2004, and is obligated to abide by all Applicable Laws in operating such Unit; provided, that the owner or operator of any Unit is not required to undertake capital improvements, facility enhancements, or the construction of new facilities.

7. Confidentiality

Notwithstanding Section 10.11 of the Master Agreement, the Parties agree that Buyer and Seller may disclose this Agreement to the CPUC, CAISO and any Governmental Body, as required by Applicable Law, and Seller may disclose the transfer of the Contract Quantity under this Transaction to the SC of each Unit in order for such SC to timely submit accurate Supply Plans; provided, that each disclosing Party shall use reasonable efforts to limit, to the extent possible, the ability of any such applicable Governmental Body, CAISO, or SC to further disclose such information. In addition, in the event Buyer resells all or any portion of the Product, Buyer shall be permitted to disclose to the other party to such resale transaction all such information necessary to effect such resale transaction.

8. Counterparts

This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by fax will be deemed as effective as delivery of an originally executed counterpart. Any Party delivering an executed counterpart of this Agreement by facsimile will also deliver an originally executed counterpart, but the failure of any Party to deliver an originally executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.

9. Collateral Requirements

On or before the Confirmation Execution Date, to secure its obligations under this Confirmation, Seller agrees to deliver a Letter of Credit or cash in the amount of _____ to Buyer and maintain such security in full force and effect until it is required to be returned in accordance with this Section 9. The security posted under this Section 9 shall not be deemed a limitation of Seller's damages. Buyer shall return to Seller any unused portion of this security after the following have occurred: (i) the Delivery Period has expired or terminated early; and (ii) all payment obligations of the Seller arising under this Confirmation, including compensation for penalties, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting).

10. Declaration of an Early Termination Date and Calculation of Settlement Amounts

Notwithstanding anything to the contrary, the Parties shall determine the Settlement Amount for this Transaction in accordance with Section 5.2 of the Master Agreement using the defined terms contained in this Confirmation as applicable. Furthermore, with respect to this Transaction only, the following language is to be added at the end of Section 5.2 of the EEI Agreement:

“If Buyer is the Non-Defaulting Party and Buyer reasonably expects to incur penalties, fines or costs from the CPUC, the CAISO, or any other Governmental Body having jurisdiction, because Buyer is not able to include the Contract Quantity in any applicable Compliance Showing due to the termination of the Transaction under the Master Agreement caused by Seller’s Event of Default and Buyer has not purchased Replacement Capacity for the applicable portion of the Contract Quantity, then Buyer may, in good faith, estimate as its Losses in respect of the Transaction the present value of the amount of those penalties, fines and costs on a \$/kW-day basis subtracting the Contract Price (in \$/kW-day) and include this estimate in its determination of the Settlement Amount, subject to accounting to Seller when those penalties, fines and costs are finally ascertained. The rights and obligations with respect to determining and paying any Settlement Amount or Termination Payment, and any dispute resolution provisions with respect thereto, shall survive the termination of this Transaction and shall continue until after those penalties or fines are finally ascertained.”

[Signature page follows]

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

_____ SAN DIEGO GAS & ELECTRIC COMPANY
a _____ a California corporation

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

APPROVED as to legal form _____

APPENDIX A**Unit Information**

Unit Resource Name	
CAISO Resource ID	
Unit SCID	
Unit NQC (MW)	
Prorated Percentage of Unit Factor	
Unit EFC (MW)	<i>[Comment: If the Product does not include flexible capacity, insert "Not Applicable"]</i>
Prorated Percentage of Unit Flexible Factor	
Resource Type	
Resource Category (MMC Bucket 1, 2, 3 or 4)	
Path 26 (North or South)	
Local Capacity Area (if any, as of Confirmation Execution Date)	
Unit Contract Quantity (MW) for Capacity Attributes (excluding Flexible RA Attributes)	
Unit Contract Quantity (MW) for Flexible RA Attributes	
Deliverability restrictions, if any, as described in most recent CAISO deliverability assessment	
Run Hour Restrictions	

Renewable Products Offer Form



General Instructions

Form Field Key:

Free Form Field
Pull Down Menu
Calculated Field
Comment Field

Instructions:

- Follow instructions as they appear in each fields' comments or pop-up messages
- Complete **ALL** fields. Enter N/A if the question is not applicable. Don't put units in the cells, just the raw numbers. (i.e. 10, not 10 Mwh)
- Fill out all fields in the units requested
- Do not add, change, or move any cells, rows, columns or worksheets in the workbook
- **Confidential Information should be entered in Red Font**
- Limit and focus the discussion of the free form fields
- Submit One Offer Form per offer variation
- There is no limit on the number of Forms that can be submitted. Therefore, respondents are encouraged, but not required, to submit additional offers for our consideration, such as bids with different tenors and escalators

Renewable Products Offer Form



Company Information

Company Name Submitting Offer:	
Company Name on Potential Contract:	
Company Address:	
Company City:	
Company State:	
Company Zip:	
Company Country:	
Is the company Women/Minority/Disabled Veteran owned Business Enterprise as per CPUC General Order 156?	
How did the company hear of the RFO? (SDG&E website, SDG&E email, Colleague, Other (please elaborate))	
Does the Developer have the appropriate experience?	

Company Representative

	Primary Contact	Secondary Contact
Contact Name:		
Contact Title:		
Office Number:		
Cell Number:		
Email:		
Is the Respondent an affiliate of SDG&E?		
Does the Respondent have one or more contracts with SDG&E?		

Corporate Profile and Experience

Describe your corporate background and organizational structure for the project. Please submit a complete organizational chart with all affiliates and parents.	
Describe project team's background and experience developing projects of a similar nature and technology. How many MW total are currently under construction? Please submit bios for key personnel involved in the project.	
List and describe other projects of a similar nature and technology developed by Respondent currently in operation. What are the total MW of projects installed?	
You must list all companies who participated in putting together this offer and who helped prepare documents. This includes engineering consultants, interconnection consultants, land consultants, etc.	

Renewable Products Offer Form



Project Information

Project Name	
Site Name	
Project Latitude	
Project Longitude	
Project Parcel Number	
Project Address	
Project City (closest city to proposed site)	
Project State	
Project Zip	
Project County	
Project Country	
CREZ	

Quantitative Description

Technology	
Technology Sub-type	
Expected Number of Solar Panels or Wind Turbines:	0
Turbine/Panel Manufacturer model # and rating	Company X Model Y 300 W
Total Solar Panel Nameplate Capacity (MWdc), Total Maximum Wind Turbine Power Curve Output (MWac) Total Maximum Generator Output (MWac):	0
Total Inverter Nameplate AC Capacity (MWac) or Nameplate Turbine Output (MWac):	0
Contract Capacity at the Delivery Point, net of all plant losses (MWac):	0
Capacity Factor	
Solar Tracking system Manufacturer and Model Number (Solar Only):	
Total Project Area (acres)	
Product Category	
Type of Product Offered	
Expected PCC Classification of Project's Product	
Resource Origin	
If this is an existing project, when is the current PPA scheduled to end	
Program Origination	
Project Control Timescales	

Qualitative Description

Describe merits of proposed site/location.	
--	--

<p><u>Discuss status of site control, including required easements. Site control documentation should be in the name of the entity that will sign the PPA. If not, please provide explanation. Note: if shortlisted, Respondent's site control documents must be: 1) in the name of the same entity that will execute the PPA, or 2) shall have been assigned to such entity by the time Respondent accepts its position on the shortlist.</u></p>	
<p><u>State and explain the percentage of site control that has been achieved.</u></p>	
<p><u>Discuss the viability of proposed technology and credibility of the manufacturer.</u></p>	
<p><u>Discuss operational reliability of proposed technology and manufacturer.</u></p>	
<p><u>How many projects and MWs with proposed technology have been installed worldwide? Discuss year(s) of installation, project locations, project size at each location and operational success.</u></p>	

<p><u>Discuss and provide published reports demonstrating that the proposed technology is commercially proven.</u></p>	
<p><u>Described the warranty of major components, including panels and inverters.</u></p>	
<p><u>Explain how the Respondent has operational control of the project. Either through contractual operational control of the project, or if the Respondent is the project operator.</u></p>	
<p><u>Discuss the project's financing plan and status, including on-going debt/equity ratio to be carried by the project during construction (if a new facility) and during operation, sources of debt and equity, equity percentage by sponsor, financing organizations (including rates and terms), level of commitment by investors and lenders. If anticipating the need for subsidies, grants, Production Tax Credits, Investment Tax Credits or any other third party monetary awards, detail finances associated with monetary awards and discuss how the lack of funding shall impact the offer and deadlines for obtaining such awards.</u></p>	
<p><u>Discuss operational characteristics including required maintenance, delivery profile (peak and off-peak, hourly, daily, seasonal, annual), curtailability and dispatchability.</u></p>	

<p><u>For excess sales bids: include details on onsite load estimates and meter configuration (if CAISO meter reflects subtraction of customer onsite load from Project output).</u></p>	
<p><u>Explain in detail the contributions the project will make to the local community. (i.e. utilizing local resources and employing local hires).</u></p>	
<p><u>SDG&E's customers have many other regulatory mandates (e.g. LCR, resource adequacy requirements). Please describe and highlight how your project may contribute to fulfilling multiple CPUC mandates.</u></p>	
<p><u>Please describe any new and unique attributes your project may have that could benefit SDG&E's customers in other ways, such as smart inverters that can be used for voltage support.</u></p>	
<p><u>Please describe how your project may help SDG&E with its Electric Vehicle (EV) program and EV adoption in our service territory.</u></p>	

<p>Please describe how your project may help achieve city and community climate action plan goals within SDG&E service territory.</p>	
<p>Is there additional relevant information necessary for SDG&E to evaluate the merits of the proposal.</p>	

Renewable Products Offer Form



Electrical Interconnection

Interconnection Request Type:	
Interconnection Status	
If the project has a completed deliverability study, please provide the estimated date for completion of the deliverability upgrades.	
Where the Project's is Interconnected	
Balancing Authority (BA)	
Under what tariff did you submit an interconnection Request?	
Date Application Filed	
Queue Position Number (if assigned), and Cluster Number	
Interconnection Point	
City of Interconnection Point (Closest City)	
Expected Interconnection COD Date	
Interconnection Voltage Level	
Interconnection Level	
Participating Transmission Owner (PTO)	
CAISO Board Approval Status	
Status of System Impact Study / Phase I Study	
Status of Facility Study / Phase II Study	
Highest Level of Transmission Upgrade Progress (Project-Specific)	

List document and page number where this number is taken from If the value is different than listed in the Study, please explain why?

Non-Reimbursable Interconnection Costs Listed in the Study (in \$).	\$	-	
Reimbursable Interconnection Costs Listed in the Study (in \$).	\$	-	
How much in non-reimbursable interconnection cost is assumed in your bid price?	\$	-	

<p>Discuss interconnection plan and status, including FCDS status. (Even if application has not been submitted.)</p>	
<p>Please identify any termination clauses or other potential issues with existing Interconnection Agreements (for existing only)</p>	

Renewable Products Offer Form



PPA Summary

Will this project sell 100% of its output to SDG&E and purchase any energy needed to serve onsite load from SDG&E or other utility (full buy/sell) or will it serve onsite load and sell excess to SDG&E (excess sales)?	
Who will be Scheduling Coordinator for the Project?	
Delivery Term (years)	1
CPUC Approval Security	\$ 100,000.00
Development Period Security	\$ -
Construction Period Security	\$ -
Delivery Period Security	\$ -
Does the Respondent request a flat TOD of 1 in all periods?	Yes
TODF Type	Flat

Can only be 10, 15, or 20 years

PPA Section 8.3 Performance Assurance

PPA Section 8.3 Performance Assurance

PPA Section 8.3 Performance Assurance

PPA Section 8.3 Performance Assurance

Renewable Products Offer Form



Schedule

Milestone	Insert dates for all milestones below:
Obtain control of all lands and rights-of-way comprising the Site.	
File a CEC Pre-Certification and Verification application.	
Receive a completed Phase II Interconnection Study Report	
Complete a comprehensive resource assessment.	
File permitting application with appropriate agency(ies).	
Execute interconnection agreement and/or transmission agreement.	
Receive permitting approval(s)	
Execute a supply contract.	
Execute a Project Labor Agreement (PLA)	
Execute an Engineering, Procurement and Construction ("EPC") contract.	
Complete financing.	
Expected LNTP Date	
Expected FNTP Date	
Execute Meter Service Agreement and Participating Generator Agreement.	
For projects dynamically transferred via pseudo-tie and scheduled into the CAISO only, Pseudo Tie Agreements and inter-BA wheeling agreements	
Achieve initial operation.	
Receive all Governmental Approvals necessary to achieve Commercial Operation.	
Receive CEC Certification and Verification.	
Project Completion Date	
Expected Delivery Start Date under SDG&E PPA	

Contract Begins (First day of the month after project completion)

<p>Discuss overall project development and construction schedule.</p>	
---	--

Renewable Products Offer Form



Confidentiality

Identify parts, sections and elements of the offer (including information in this and all other forms) which Respondent considers to be Confidential and Proprietary in accordance with Confidentiality Provisions as described in the RFO Protocols. *Put all confidential information in RED font.*

A large rectangular area with a light green background, intended for identifying confidential and proprietary information from the offer.

Renewable Products Offer Form



Eligibility Criteria

Criteria	Yes/No?	Please include a brief sentence supporting your Eligibility or Explaining why you think you are exempt
<p>Resou ce</p> <p>Will the P oject eep ve CFC-ce t f eat on by the P oject Complet on Date?</p> <p>Will the P oject gene ale elect ct y us ng only esou ces that e an ll g ble Renewable Ene gy Resou ce as def ned n PUC Sect on 399.127?</p> <p>Will the P oject ut l ze comme c ally p oven technology?</p> <p>Will the P oject sel ent e ts output to SDG&E (full buy/sell) o all output n excess of ons to load to SDG&E (evens sales)?</p> <p>If the fac l ty s not new, w l the cu ent PPA te m rate w th n 36 month's of expected CPUC app oval of the PPA w th SDG&E (as est mated n the RFO P otocols)?</p> <p>Have you subm tted a fuel ava l ab l ty code form? (esso on, b omax and etc...) study?</p> <p>If you e b dd ng a sola plant, have you subm tted the full PVsyst Model and does the output of that match the nputs to the Del ve y P of ac?</p>		
<p>P oject Capac ty/Ten</p> <p>Is you p oject capac ty la ge than 0.5 MWac and sma le than 20 MWac?</p> <p>Does the Respondent ag ee not to sell ea t l output f om a system s eed above 20 MWs?</p> <p>Does the Respondent ag ee that the P oject s not pa t of an nstall on la ge than 20 MW n the same gene al locat on that has been o s be ng developed by the espondent o the espondent s A f fates, o s t sha ng fac l l es w th one o mo e p ojects?</p> <p>Is you p oject tem one of th ee months 10, 15, o 20 yes ?</p>		
<p>Locat on/S te Cont ol</p> <p>Is the P oject located w th n the se v ce te y of SDG&E o located n the mpe al Valley and dynam calty ansle ed nto CAISO?</p> <p>Does the Respondent have s te cont ol fo the du at on of the powe pu chase ag eement?</p> <p>Has the Respondent attached subm tted a fo m show ng th s owne sh p? (D ct owne sh p, lease, o lease opt on)</p>		
<p>Locat on/Requ ed Maps</p> <p>D d the Respondent subm t s te locat on map(s) clea ly show ng the locat on, s ze, and o entat on of the s te?</p> <p>D d the Respondent subm t s te locat on map(s) clea ly show ng the locat on of the expected nte connect on fo t anm s on, l ab and nte ?</p> <p>D d the Respondent subm t s te locat on map(s) clea ly show ng the locat on of es dent al communt es, schools, hosp tal, a po ts, chu ches, cemete es, o other expected sens t ve n ghbo s w th n f ve m les of the s te?</p> <p>D d the Respondent nse t fac l ty d aw ngs and d ag ams nclud ng gene al equ pment a ngement of the p oject, elect c nte connect one l ne d ag am show ng the scope of supply, del ve y po nt and mete ng fo the elect c nte connect on nclud ng any t anm s on n l ne and sw tchng d?</p>		
<p>Inte connect on</p> <p>A) If you p oject s nte connect n CAISO cont ol te to y, have you completed a Phase II nte connect on study o d st on level equ valent o do you have a completed nte connect on Ag eement?</p> <p>B) If you p oject s not n an CAISO cont ol te to y, does you p oject have dynam ct ansle a ngements fo has t s te d the p oject, and Phase II nte connect on study o Completed nte connect on Ag eement?</p> <p>Have you subm tted a copy of the most ecent completed Phase II study o nte connect on ag eement w th n the offer? Note: f sho t s te d, Respondent s nte connect on documents must be s) n the name of the same ent ty that w ll execute the PPA, o J) sha l have been ass gred to such ent ty by the t me Respondent accepts ts pos t on on the sho ll s t?</p> <p>Have you subm tted a P oject one l ne d ag am show ng pe nt ment equ pment, connect on w th othe p ojects (f any), and clea ly show ng whe e the po nt of nte connect on and change of owne sh p to the BA sccu s?</p> <p>Will the nte connect on CDD occur befo e P oject on Complet on?</p>		
<p>Develope Expe ence</p> <p>Will the Respondent and/o membe s of the p oject development team completed of a p oject us ng a technology s m l a to the offe ed technology, that s at least 500 kW nameplate capac ty?</p>		
<p>P oject Sta t Date</p> <p>Is the ant c pated del ve y sta t date w th n 36 months afte the expected CPUC App oval date as l sted n the RFO P otocols?</p>		
<p>Incent ves</p> <p>Has you P oject eve appl ed fo CSI funds o w ll you apply fo CSI funds du ng the PPA te m?</p> <p>Has th s P oject eve pa t c pated n NEM o w ll the p oject pa t c pate n NEM du ng the PPA te m?</p> <p>Has you P oject eve appl ed fo SGIP funds o w ll you apply fo SG P funds du ng the PPA te m?</p>		
<p>PPA/RFO</p> <p>Will the p oject ab de by a l l te ms n the PPA te m s sh s w thout any changes?</p> <p>Is the Respondent p oved to pay the nte ty amounts requ ed fo th s p oject?</p> <p>Have you uploaded all of you documents to Power Advocate?</p> <p>Has the Respondent ead Sect on 8 and 9 of the RFO p otocols and ag ee to ab de by these te ms?</p>		
<p>GTSR - Both EcoSha e and EcoCho ce</p> <p>Will the P oject comply w th the CARB s VRE P oq am?</p> <p>Will the P oject must meet G een-eD Ene gy e g b l y c te a th oughout the Del ve y Te m of the EcoSha e PPA?</p>		
<p>Env onmental Just ce P ojects Only</p> <p>Have you subm tted add t onal elevant nfo mat on necessary fo SDG&E to evaluate p oject e g b l ty as an Env onmental Just ce oject?</p> <p>Is the P oject located n one of the census t acts des gnated as an E j a fo SDG&E? https://www.sdge.com/sites/default/files/documents/1957705328/SDGE-Env onmental-Just ce-Census t acts.xlsx</p>		
<p>EcoSha e Only</p> <p>Will the Respondent SDG&E app oval of ma let ng mate als o o to b d sp l c tat on?</p> <p>Has the Respondent p oved an attestation to SDG&E that t has ee ved and ead Attachment 1 of the Commun ty Cho ce Ag gnt on (CCA) Code of Conduct Dec s on (D 12-12-036) that t w ll not c comment s?</p> <p>Has the Respondent ev ewed the Commun ty nte est Requ e ments n the GTSR Dec s ons and SDG&E s wets to http://www.sdge.com/sha e-sun-fo-sda-developer-s and plans to adhe e to those equ e ments?</p> <p>Will the Respondent o v de the legal op n on outl ned n the RFO and GTSR dec s ons?</p>		
<p>DERPs</p> <p>If you have a DERP, d d you contact SDG&E by the quest on dead l ne and have a call about you nte connect on status?</p>		
<p>Ove v ew</p> <p>Please nclude a b e f sentence summa z ng you conclus on on why you e o, o a e not, e g ble?</p>		

Renewable Products Offer Form



For DERP resources only

Discuss your DERP resource, its characteristics, operating characteristics, location, individual project specifics, etc. Submit separate documentation as necessary.

Boolean

Yes

No

Contract Info

Developer Experience

Developer has no demonstrated experience developing energy projects

Developer has demonstrated experience developing energy projects

Developer has demonstrated experience developing renewable energy projects

Developer has demonstrated experience developing renewable energy projects of similar technology

Developer has demonstrated experience developing renewable energy projects of similar size and technology

Developer has demonstrated experience developing renewable energy projects of similar size and technology in CA

Developer has demonstrated experience developing renewable energy projects of similar size and technology in this IOU's service territory

Project Description

Project Country	CREZ	Technology Type	Technology Subtype	Product Category	Bundled/REC Only
USA	Barstow	Biodiesel	Solar: Fixed Tilt	Peaking	Bundled
Canada	Baja	Biogas	Solar: Tracking (1 Axis)	Non-Peaking	REC Only
Mexico	Carrizo North	Biomass	Solar: Tracking (2 Axis)	Baseload	
Multiple	Carrizo South	Conduit hydro	Hydro: Run-of-River	N/A	
TBD	Cuyama	Digester gas	Hydro: Reservoir		
	Fairmont	Geothermal	Hydro: Unknown		
	Imperial East	Hybrid	N/A		
	Imperial North	Landfill gas			
	Imperial South	Muni solid waste			
	Inyokern	Ocean/tidal			
	Iron Mountain	Small hydro			
	Kramer	Solar PV - Rooftop			
	Lassen North	Solar PV - Ground mount			
	Lassen South	Solar Thermal - No Storage			
	Mountain Pass	Solar Thermal - With Storage (molten salt)			
	N/A	Space solar			
	Needles	Wind			
	Nevada N	Various			
	Nevada C				
	Non-CREZ				
	Owens Valley				
	Palm Springs				
	Pisgah				
	Riverside East				
	Round Mountain				
	San Bernardino - Bakersfield				
	San Bernardino - Lucerne				
	San Diego North Central				
	San Diego South				
	Santa Barbara				
	Solano				

TBD

Tehachapi

Twenty-nine Palms

Unidentified

Unknown

Victorville

Westlands

Expected PCC Classification	Resource Origin	Program Origination	CAISO Control Timescale	Interconnection Request Type	Status of Interconnection Agreement	Where is the Project Interconnected
Category 0	New Facility	PPA - Solicit	Day Ahead	Energy only	Not started	SDG&E
Category 1	Existing Facility	PPA - Bilateral	Hour Ahead	Fully delivered	Developer has	SCE
Category 2	Re-power	PSA - Bilateral	Real-Time		Developer has	PG&E
Category 3	Re-start	FIT - 1969	All of the Above		Project accepted	Other CAISO (
	Expansion	FIT - ReMAT	No Control Capability		Project has to	Outside CAISC
		FIT - BioMAT			Project is undergoing	Phase
		FIT - SB1122			Developer has received resu	
		PV PPA Programs			Developer filed application f	
		Renewable Standard Contract (RSC)			(GIDAP) ISO performs reass	
		Utility-Owned Generation (UOG)			Project is undergoing Phase	
		Renewable Auction Mechanism (RAM)			Developer has received resu	
		QF Standard Contract			(GIDAP) Developer has rece	
		QF CHP			(GIDAP) CAISO provides TP I	
		Green Tariff			Project is negotiating its GIA	
		Enhanced Community Renewables			GIA executed and developer	
					Project makes third financia	
					Self Perform	
					Complete	
					Withdrawn	
					Unknown	
					N/A	

Interconnection

Balancing Authority	Interconnect ion Tariff	Point of System Interconnect ion	Participating Transmission Owner (PTO)	CAISO Board Approval Status	Status of System Impact Study / Phase I Study
Alberta Electric System Operator (AESO)	CAISO	Transmission	PGE	Not yet in TPP	Not Yet Filed
Arizona Public Service Company (AZPS)	IID	Distribution	Other	In TPP study Recommend ed to the Board	Filed - Study T
Arlington Valley LLC (DEAA)	BPA		SCE	Approved by the Board	Filed - Study i
Avista Corporation (AVA)	WDAT		SDGE	Terminated	Complete
Balancing Authority of Northern (BANC)	Rule 21			Approval Not Required	Waived
Bonneville Power Administration (BPAT)	GIP				Withdrawn
British Columbia Hydro Authority (BCHA)	Idaho				Unknown
California Independent System Operator (CAISO)	LGIP				N/A
Comision Federal de Electricidad (CFE)	SGIP				
El Paso Electric Company (EPE)	Other				
Gila River Power LP (GRMA)	N/A				
Griffith Energy LLC (GRIF)					
Idaho Power Company (IPCO)					
Imperial Irrigation District (IID)					
Lassen Municipal Utility District (LMUD)					
Los Angeles Department of Water and Power (LDWP)					
Missouri Region (Colorado)					
NaturEner Power Watch LLC (GWA)					
Nevada Power Company (NEVP)					
New Harquahala Generating Company (HGMA)					
NorthWestern Energy (NWMT)					
PacifiCorp East (PACE)					
PacifiCorp West (PACW)					
Portland General Electric Company (PGE)					
Public Service Company of Colorado (PSCO)					
Public Service Company of New Mexico (PNM)					
PUD No. 1 of Chelan County (CHPD)					
PUD No. 1 of Douglas County (DOPD)					
PUD No. 2 of Grant County (GCPD)					
Puget Sound Energy (PSEI)					
Salt River Project (SRP)					

Seattle City Light (SCL)

Sierra Pacific Power Company (SPPC)

City of Tacoma Department of Public Utilities (TPWR)

Tucson Electric Power Company (TEPC)

Turlock Irrigation District (TIDC)

Western Area Power Administration (WACM)

Unknown

Western Area Power Administration (WALC)

Western Area Power Administration (WAUW)

PPA

Status of Facility Study / Phase II Study	Highest Level of Transmission Upgrade Progress (Project-Specific)	Full Buy/Sell or Excess Sales		SC?	Delivery Term
Not Yet Filed	N/A - Project has not completed interconnection study process Project has finished its GIP/GIDAP interconnection study and executed a	Full Buy/Sell		Seller	10
Filed - Study 1	GIA No transmission upgrades are required and project has passed all fast track	Excess Sales		Buyer (SDG&E)	15
Filed - Study i	creens				20
Filed - Re-Stu	An application is being reviewed for a CPCN or PTC				
Complete	A Tier 1 Advice letter is being reviewed for a PTC or NOC				
Waived	Application has been filed for PTC/CPCN and transmission upgrades are undergoing CEQA review				
Withdrawn	Transmission System Upgrades have received CPUC approval;				
Unknown	Construction has begun for transmission system upgrades				
N/A					

Permitting

Lead Permitting Process	Permitting Status	Primary Permit Type	Status of Secondary Permits	Site Control Status
NEPA	Not yet filed	AFC	Not Yet Filed	No Control of Site
CEQA	Applied for pæ CUP		Applied for permit(s)	Minority control of Site or Gen-Tie Line
Both	Application is Record of Dec		Permit(s) Received	Minority control of Site and Gen-Tie Line
Other	Project is und Local		Permit(s) Denied	Majority control of Site or Gen-Tie Line
	Draft environ Other		N/A	Majority control of Site and Gen-Tie Line
	Final environmental document is published			Full control of Site or Gen-Tie Line
	Environmental document is certified/approved			Full control of Site and Gen-
	Permit Received			Has sole ownership options
	Permit Denied			Has sole ownership options
	N/A			
	Unknown			

Renewable Products Offer Form (RPS REC Sale RFP)



General Instructions

Form Field Key:

Free Form Field
Pull Down Menu

Instructions:

- Follow instructions as they appear in each fields' comments or pop-up messages
- Complete **ALL** fields. Enter N/A if the question is not applicable. Don't put units in the cells, just the raw numbers. (i.e. 10, not 10 MWh)
- Fill out all fields in the units requested
- Do not add, change, or move any cells, rows, columns or worksheets in the workbook
- **Confidential Information should be entered in Red Font**
- Limit and focus the discussion of the free form fields
- Submit One Offer Form per offer variation
- There is no limit on the number of Forms that can be submitted. Therefore, respondents are encouraged, but not required, to submit additional offers for our consideration, such as bids with different tenors and escalators

Renewable Products Offer Form (RPS REC Sale RFP)



Company Information

Company Name Submitting Offer	
Company Name on Potential Contract	
Company Address	
Company City	
Company State	
Company Zip	
Company Country	
Is the company Women/Minority/Disabled Veteran owned Business Enterprise as per CPUC General Order 156?	
How did the company hear of the RFO? (SDG&E website, SDG&E email, Colleague, Other (please elaborate))	
Does the Developer have the appropriate experience?	

Company Representative

	Primary Contact	Secondary Contact
Contact Name		
Contact Title		
Office Number		
Cell Number		
Email		
Is the Respondent an affiliate of SDG&E?		
Does the Respondent have one or more contracts with SDG&E?		

Corporate Profile and Experience

Describe your corporate background and organizational structure for the project. Please submit a complete organizational chart with <u>all</u> affiliates and parents.	
You must list all companies who participated in putting together this offer and who helped prepare documents.	

Renewable Products Offer Form (RPS REC Sale RFP)



Product Information

Product:	
Point of Delivery:	

Comments / Other Information

Is there additional relevant information necessary for SDG&E to evaluate the merits of the proposal?

Quantitative Description

Please determine whether delivery term will be monthly OR annually. Provide Bid Quantity and Bid Price in the schedule below.

Monthly		
Date	Bid Quantity (MWhs or RECs)	Index Price + Premium (\$/MWh)
<u>Nov-2018</u>		
<u>Dec-2018</u>		
<u>Jan-2019</u>		
<u>Feb-2019</u>		
<u>Mar-2019</u>		
<u>Apr-2019</u>		
<u>May-2019</u>		
<u>Jun-2019</u>		

<u>Jul-2019</u>		
<u>Aug-2019</u>		
<u>Sep-2019</u>		
<u>Oct-2019</u>		
<u>Nov-2019</u>		
<u>Dec-2019</u>		
<u>Jan-2020</u>		
<u>Feb-2020</u>		
<u>Mar-2020</u>		
<u>Apr-2020</u>		
<u>May-2020</u>		
<u>Jun-2020</u>		
<u>Jul-2020</u>		
<u>Aug-2020</u>		
<u>Sep-2020</u>		
<u>Oct-2020</u>		
<u>Nov-2020</u>		
<u>Dec-2020</u>		
<u>Jan-2021</u>		
<u>Feb-2021</u>		
<u>Mar-2021</u>		
<u>Apr-2021</u>		
<u>May-2021</u>		
<u>Jun-2021</u>		
<u>Jul-2021</u>		
<u>Aug-2021</u>		
<u>Sep-2021</u>		
<u>Oct-2021</u>		
<u>Nov-2021</u>		
<u>Dec-2021</u>		
<u>Jan-2022</u>		
<u>Feb-2022</u>		
<u>Mar-2022</u>		
<u>Apr-2022</u>		
<u>May-2022</u>		




<u>Jun-2022</u>		
<u>Jul-2022</u>		
<u>Aug-2022</u>		
<u>Sep-2022</u>		
<u>Oct-2022</u>		
<u>Nov-2022</u>		
<u>Dec-2022</u>		
<u>Jan-2023</u>		
<u>Feb-2023</u>		
<u>Mar-2023</u>		
<u>Apr-2023</u>		
<u>May-2023</u>		
<u>Jun-2023</u>		
<u>Jul-2023</u>		
<u>Aug-2023</u>		
<u>Sep-2023</u>		
<u>Oct-2023</u>		
<u>Nov-2023</u>		
<u>Dec-2023</u>		
<u>Jan-2024</u>		
<u>Feb-2024</u>		
<u>Mar-2024</u>		
<u>Apr-2024</u>		
<u>May-2024</u>		
<u>Jun-2024</u>		
<u>Jul-2024</u>		
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<u>Sep-2024</u>		
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<u>Nov-2024</u>		
<u>Dec-2024</u>		
<u>Jan-2025</u>		
<u>Feb-2025</u>		
<u>Mar-2025</u>		
<u>Apr-2025</u>		

<u>May-2025</u>		
<u>Jun-2025</u>		
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<u>Aug-2025</u>		
<u>Sep-2025</u>		
<u>Oct-2025</u>		
<u>Nov-2025</u>		
<u>Dec-2025</u>		
<u>Jan-2026</u>		
<u>Feb-2026</u>		
<u>Mar-2026</u>		
<u>Apr-2026</u>		
<u>May-2026</u>		
<u>Jun-2026</u>		
<u>Jul-2026</u>		
<u>Aug-2026</u>		
<u>Sep-2026</u>		
<u>Oct-2026</u>		
<u>Nov-2026</u>		
<u>Dec-2026</u>		
<u>Jan-2027</u>		
<u>Feb-2027</u>		
<u>Mar-2027</u>		
<u>Apr-2027</u>		
<u>May-2027</u>		
<u>Jun-2027</u>		
<u>Jul-2027</u>		
<u>Aug-2027</u>		
<u>Sep-2027</u>		
<u>Oct-2027</u>		
<u>Nov-2027</u>		
<u>Dec-2027</u>		
<u>Jan-2028</u>		
<u>Feb-2028</u>		
<u>Mar-2028</u>		

<u>Apr-2028</u>		
<u>May-2028</u>		
<u>Jun-2028</u>		
<u>Jul-2028</u>		
<u>Aug-2028</u>		
<u>Sep-2028</u>		
<u>Oct-2028</u>		

INSTRUCTIONS:

- 1) Respondents only need to complete one "*Contact Information*" tab per offering company but you must complete separate "*Unit Description*" and "*Product*" tabs for each unit being proposed and separate product (system, local, import) or variations of offers being proposed.
- 2) Be sure to read the NOTES section at the bottom of each tab
- 3) Respondents are strongly encouraged to describe their bids in the comment box at the bottom of the product tab

 Yellow Tab: Instructions
 Blue Tabs: All Respondent tabs
 Red Tabs: Product



Respondent Information — The purpose of this Tab is to identify the counterparty making the proposal.

INSTRUCTIONS:

All Respondents must complete this tab. Fill-in the Response column with the appropriate data.

Company Information

Company Name Submitting Offer:	
Company Name on Potential Contract:	
Company Address:	
Company City:	
Company State:	
Company Zip:	
Company Country:	
Is the company Women/Minority/Disabled Veteran owned Business Enterprise as per CPUC General Order 156?	
Please indicate whether the Respondent has or will utilize DBE services during the development and/or construction of the project.	
To assist in SDG&E's data collection efforts in compliance with PU Code Section 910(a)(8), for the current calendar year please provide the number of new employees that have been hired, and the number of women, minority, and/or disabled veterans that have been trained or hired by the persons or corporations owning or operating this facility (please distinguish between owner and operator in the response).	
How did the company hear of the RFO? (SDG&E website, SDG&E email, Colleague, Other (please elaborate))	

Company Representative

	Primary Contact	Secondary Contact
Contact Name:		
Contact Title:		
Office Number:		
Cell Number:		
Email:		
Is the Respondent an affiliate of SDG&E?		
Does the Respondent, or any affiliate, have one or more contracts with SDG&E?		



Unit Description — The purpose of this Tab is to identify which CAISO BAA generating unit(s) the RA capacity Offered will originate from.

INSTRUCTIONS:

If an item is not applicable please indicate so in the Response column. Additional Offer Forms are required for each distinct generating unit.

DESCRIPTION ITEM	RESPONSE
Unit Resource Name	
CAISO Resource ID	
Scheduling Coordinator: Name / SCID	
Net Qualifying Capacity (NQC in MW)	
Effective Flexible Capacity (EFC in MW)	
Once-Through Cooling (OTC) Unit?	
Resource Type (GT/CT, ST, CC, DR Program, etc.)	
Resource Category (MCC Bucket 1, 2, 3 or 4?)	
Path 26 (North or South?)	
Local Capacity Area (if any, as of Confirmation Effective Date)	
Deliverability restrictions, if any, as described in most recent CAISO deliverability assessment	
Run Hour Restrictions?	
Comments / Other Information	



INSTRUCTIONS:
 Each blue heading and its associated rows represent a different Offer with either calendar-year, quarterly, or monthly contract terms. If multiple Offers for the same contract term are going to be proposed, please duplicate the tab to submit the alternate Offer. If Offering in Flexible RA, you must also list the flexible category type and price the flexible RA separately. Duplicate the "Product" tab as appropriate for the different Product(s) being proposed. Respondents are strongly encouraged to describe their bids in the comment box at the bottom of the product tab. Be sure to read the NOTES section at the bottom of this tab

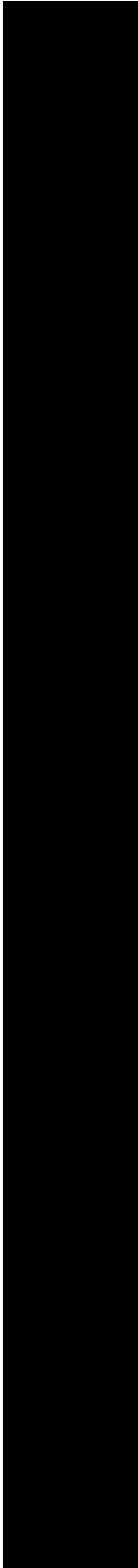
Contract Term	CAISO Resource ID or CAISO Scheduling Point & Branch Group ¹		Local (MW) ²	Price ³ (\$/kW-mo)	Flex RA (MW) ⁶	Flex Category	Flex RA Price ⁴ (\$/kW-mo)	Mutually Exclusive Y/N? ⁵	Comment
	Calendar Year (12-month strip) ⁷								
Jan - Dec									
Quarterly									
Jan - Mar									
Apr - Jun									
Jul - Sept									
Oct - Dec									
Monthly/Daily									
Jan									
Feb									
Mar									
Apr									
May									
Jun									
Jul									
Aug									
Sep									
Oct									
Nov									
Dec									
Comments / Other Information:									

- NOTES:**
- The CAISO Resource ID should match a unit on the *Unit Description* Tab(s).
 - Whole MW increments only; a MW range may be proposed as well
 - Resource Adequacy price for Generic RA plus Flex RA
 - Resource Adequacy price for Flex RA only
 - Use *Comments* column to explain any mutual exclusivity between proposals; e.g., if you take Q1 then Jan, Feb, and Mar Monthly is not available
 - Of the MW Offered in the *RA MW* column, how many MW have the Flex RA Attribute? If this column is filled in, the bidder must also fill out the Flex Category being offered. The resource may have different flex categories for different months/quarters so please select the correct flex category for each month/quarter you offer in.
 - Price shaping is negotiable and any proposed shaping should be shown on the *Capacity Pricing Table* in *Section 4.1* as part of the *Confirmation Template* redline; for this Proposal Form show the price per month and note in the offer form the bids are mutually inclusive.

San Diego Gas & Electric Company
2019 DRAM RFO

Offer Form

Legal Entity Name that will sign the Contract	Offer Number	Variation Number
	1	1
		1
		2
		3
		4
		5
		6
		7
		8
		9
		10
		11
		12
		13
		14
		15
		16
		17
		18
		19



Apr-18	Jan-19	Feb-19	Mar-19
---------------	---------------	---------------	---------------

Maximum Capacity Payments from SDG&E to

2019

Apr-19	May-19	Jun-19	Jul-19	Aug-19
---------------	---------------	---------------	---------------	---------------

Offeror

Sep-19	Oct-19	Nov-19	Dec-19	Total
---------------	---------------	---------------	---------------	--------------

DRP IDER Offer Form



General Instructions

Form Field Key:

Free Form Field
Pull Down Menu
Calculated Field
Comment Field

Instructions:

- Follow instructions as they appear in each fields' comments or pop-up messages
- Complete **ALL** fields. Enter N/A if the question is not applicable. Don't put units in the cells, just the raw numbers. (i.e. 10, not 10 MW)
- Fill out all fields in the units requested
- Do not add, change, or move any cells, rows, columns or worksheets in the workbook. Doing so may make your offer **NON-CONFORMING**
- **Confidential Information should be entered in Red Font**
- Limit and focus the discussion of the free form fields
- Submit One Offer Form per offer variation
- There is no limit on the number of Forms that can be submitted. Therefore, respondents are encouraged, but not required, to submit additional offers for our consideration, such as bids with different tenors and escalators

DRP IDER Offer Form



Company Information

Company Name Submitting Offer:	
Company Name on Potential Contract:	
Company Address:	
Company City	
Company State	
Company Zip	
Company Country	
Is the company Women/Minority/Disabled Veteran owned Business Enterprise as per CPUC General Order 156? Please indicate whether the Respondent has or will utilize DBE services during the development and/or construction of the project.	
To assist in SDG&E's data collection efforts in compliance with PU Code Section 910(a)(8) , for the current calendar year please provide the number of new employees that have been hired, and the number of women, minority, and/or disabled veterans that have been trained or hired by the persons or corporations owning or operating this facility (please distinguish between owner and operator in the response).	
How did the company hear of the RFO? (SDG&E website, SDG&E email, Colleague, Other (please elaborate))	
Does the Developer have the appropriate experience?	

Company Representative

	Primary Contact	Secondary Contact
Contact Name:		
Contact Title:		
Office Number:		
Cell Number:		
Email:		
Is the Respondent an affiliate of SDG&E?		
Does the Respondent, or any affiliate, have one or more contracts with SDG&E?		

Corporate Profile and Experience

Describe your corporate background and organizational structure for the project. Please submit a complete organizational chart with <u>all</u> affiliates and parents.	
Is your company licensed to do business in California: If yes, what are your applicable business license numbers?	
Describe project team's background and experience developing projects of a similar nature and technology. How many MW total are currently under construction? Please submit bios for key personnel involved in the project. Please provide contact / reference information for projects in operation.	
List and describe other projects of a similar nature and technology developed by Respondent currently in operation. What are the total MW of projects installed?	
You must list all companies who participated in putting together this offer and who helped prepare documents. This includes engineering consultants, interconnection consultants, land consultants, etc.	

DRP IDER Offer Form



Project Information

Project Name:	
Site Name	
Project Latitude	
Project Longitude	
Project Parcel Number	
Project Address	
Project City (closest city to proposed site)	
Project State	
Project Zip	
Project Country	
Project Country	
CREZ	

Quantitative Description

Technology :	
Technology Sub-type	
Expected Number of Solar Panels or Wind Turbines or number of Customers/Registrations or Generators:	0
Primary Engine/Turbine/Panel Manufacturer, model # and rating or maximum Customer load drop/EE savings	Company X Model Y, 300 W
Total Solar Panel Nameplate Capacity (MWdc), Total Maximum Wind Turbine Power Curve Output (MWac), Total Maximum Generator Output (MWac), Total Maximum Customer Drop/decrease (MWac):	0
Total Inverter Nameplate AC Capacity (MWac) or Nameplate Turbine Output (MWac) (Solar and Wind Only):	0
Contract Capacity at the Delivery Point, net of all plant losses (MWac) or maximum possible load drop or EE savings:	0
Solar Tracking system Manufacturer and Model Number (Solar Only):	
Total Project Area (acres):	
Emissions Factor (lbs CO2/MWh/year):	
Product Category:	
Type of Product Offered	
Expected PCC Classification of Project's Product	
Resource Origin:	
If this is an existing project, when is the current PPA scheduled to end	
Program Origination	
Project Control Timescales	
Which circuit is this Project providing distribution capacity for?	

Qualitative Description

<p>Please provide a brief description of the project or program being proposed. In particular, if your project or program is intended to include multiple resource types (ie: Energy Storage and EE, Solar and Energy Storage, etc) please include those details</p>	
<p>Explain any operating and scheduling/dispatch restrictions</p>	
<p>SDG&E is seeking creative approaches to maintaining circuit reliability in the event that the project or program (which may include multiple integrated resource types) does not perform as expected. Such approaches as the Respondent having sufficient load on the circuit under their direct control and that may be dropped may be one approach, but SDG&E is willing to consider other approaches and encourages creative solutions be proposed. Such approaches may be described in the red-lines provided to the model agreement(s). Please also describe any creative solutions or approaches to this issue</p>	

<p>Describe merits of proposed site/location.</p>	
<p>Discuss status of site control, including required easements. Site control documentation should be in the name of the entity that will sign the PPA. If not, please provide explanation. <i>Note: if shortlisted, Respondent's site control documents must be: 1) in the name of the same entity that will execute the PPA, or 2) shall have been assigned to such entity by the time Respondent accepts its position on the shortlist.</i></p>	
<p>State and explain the percentage of site control that has been achieved.</p>	
<p>Discuss project's overall fuel plan and status (as applicable).</p>	
<p>Discuss the viability of proposed technology and credibility of the manufacturer:</p>	
<p>Discuss operational reliability of proposed technology and manufacturer:</p>	

<p>How many projects and MWs with proposed technology have been installed worldwide? Discuss year(s) of installation, project locations, project size at each location and operational success.</p>	
<p>Discuss and provide published reports demonstrating that the proposed technology is commercially proven.</p>	
<p>Describe the warranty of major components, including panels and inverters.</p>	
<p>Explain how the Respondent has operational control of the project. <i>Either through contractual operational control of the project, or if the Respondent is the project operator.</i></p>	
<p>Discuss the project's financing plan and status, including on-going debt/equity ratio to be carried by the project during construction (if a new facility) and during operation, sources of debt and equity, equity percentage by sponsor, financing organizations (including rates and terms), level of commitment by investors and lenders. If anticipating the need for subsidies, grants, Production Tax Credits, Investment Tax Credits or any other third party monetary awards, detail finances associated with monetary awards and discuss how the lack of funding shall impact the offer and deadlines for obtaining such awards.</p>	
<p>Discuss operational characteristics including required maintenance, delivery profile (peak and off-peak, hourly, daily, seasonal, annual), curtailability and dispatchability.</p>	

<p>For excess sales bids: include details on onsite load estimates and meter configuration (if CAISO meter reflects subtraction of customer onsite load from Project output).</p>	
<p>The DRP Resources that have the operational flexibility necessary to aid in integrating renewables may have a renewables integration benefit included, but only to the extent that the benefit is not captured in flexible RA or A/S value. If Respondents believe their resource merits such renewables integration benefits, they should provide details / arguments as to how such benefits may be provided</p>	
<p>Explain in detail the contributions the project will make to the local community. (i.e. utilizing local resources and employing local hires).</p>	
<p>SDG&E's customers have many other regulatory mandates (e.g. LCR, resource adequacy requirements). Please describe and highlight how your project may contribute to fulfilling multiple CPUC mandates.</p>	
<p>Please describe any new and unique attributes your project may have that could benefit SDG&E's customers in other ways, such as smart inverters that can be used for voltage support.</p>	
<p>Please describe how your project may help SDG&E with its Electric Vehicle (EV) program and EV adoption in our service territory.</p>	

<p>Please describe how your project may help and promote development of disadvantaged communities.</p>	
<p>Please describe how your project may help achieve city and community climate action plan goals within SDG&E service territory.</p>	
<p>Is there additional relevant information necessary for SDG&E to evaluate the merits of the proposal.</p>	
<p>The DRP Guidance Ruling (Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning -- available here: http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M146/K374/146374514.PDF) -- defines three categories of natural gas fired DG that may be considered as eligible DERs in this solicitation (fuel cells, Combined Heat & Power ("CHP") and stationary internal combustion engines). See the definitions beginning on p. 14 in the attachment to the ruling. In order to be eligible, these resources must show that they are able to "produce greenhouse gas ("GHG") emissions reductions over its lifecycle." If Respondents believe this is true of their offer, please provide an explanation of how this requirement may be met:</p>	
<p>For customer-side resources only: Describe the target market for participation in the program by customer class and whether the customers will be bundled SDG&E customers, Direct Access customers or both.</p>	
<p>For customer-side resources only: What is the primary technology and method used fo reducing load?</p>	

<p><i>For customer-side resources only: Please describe how the resource load reduction and/or energy savings are proposed to be measured to ensure the load reduction amount committed is achieved (i.e. what is your M&V plan)?</i></p>	
<p><i>For customer-side resources only: How will your resource be designed to minimize or exclude free ridership? "Free ridership" refers to load reduction that would have occurred even without program being put in place.</i></p>	

DRP IDER Offer Form



Electrical Interconnection

Interconnection Request Type:	
Interconnection Status	
If the project has a completed deliverability study, please provide the estimated date for completion of the deliverability upgrades.	
Where the Project's is Interconnected	
Balancing Authority (BA)	
Under what tariff did you submit an interconnection Request?	
Date Application Filed	
Queue Position Number (if assigned), and Cluster Number	
Interconnection Point and Circuit #	
City of Interconnection Point (Closest City)	
Expected Interconnection COD Date	
Interconnection Voltage Level	
Interconnection Level	
Participating Transmission Owner (PTO)	
CAISO Board Approval Status	
Status of System Impact Study / Phase I Study	
Status of Facility Study / Phase II Study	
Highest Level of Transmission Upgrade Progress (Project-Specific)	

List document and page number where this number is taken from. If the value is different than listed in the Study, please explain why?

Non-Reimbursable Interconnection Costs Listed in the Study (in \$).	\$	-	
Reimbursable Interconnection Costs Listed in the Study (in \$).	\$	-	
How much in non-reimbursable interconnection cost is assumed in your bid price?	\$	-	

<u>Discuss interconnection plan and status, including FCDS status. (Even if application has not been submitted.)</u>	
<u>Discuss how you will meter your project.</u>	
<u>Please identify any termination clauses or other potential issues with existing Interconnection Agreements (for existing only)</u>	
<u>Provide an itemized cost breakdown of expected interconnection costs attributable to both Respondent and host utility (SDG&E), (i.e. voltage support costs, reconductoring costs, etc.) (Note that gen-tie costs (including but not limited to cable, transformers, protection gear and other equipment on the generator side of the meter) attributable to Respondent shall be included in the bid price indicated on the Pricing / offer Forms.)</u>	

DRP IDER Offer Form



Power Purchase Agreement (PPA)

Have you reviewed the indicative Term Sheet?	
Please provide the cost of credit per \$100,000 of requested security	

DRP IDER Offer Form



Schedule

Milestone	Insert dates for all milestones below:
Obtain control of all lands and rights-of-way comprising the Site.	
File a CEC Pre-Certification and Verification application.	
Receive a completed Phase II Interconnection Study Report	
Complete a comprehensive resource assessment.	
FERC Approval	
File permitting application with appropriate agency(ies).	
Execute interconnection agreement and/or transmission agreement.	
Receive permitting approval(s)	
Execute a supply contract for major equipment	
Execute a Project Labor Agreement (PLA)	
Execute an Engineering, Procurement and Construction ("EPC") contract.	
For customer-side resources: 50% of Customer acquisitions	
For customer-side resources: 75% of Customer acquisitions	
For customer-side resources: 100% of Customer acquisitions	
Complete financing.	
Expected LNTP Date	
Expected FNTP Date	
Execute Meter Service Agreement and Participating Generator Agreement.	
For projects dynamically transferred via pseudo-tie and scheduled into the CAISO only, Pseudo Tie Agreements and inter-BA wheeling agreements	
Achieve initial operation.	
Receive all Governmental Approvals necessary to achieve Commercial Operation.	
Receive CEC Certification and Verification.	
Project Completion Date	1/31/2020
Expected Delivery Start Date under SDG&E PPA	2/1/2020

Contract Begins (First day of the month after project completion)

<p>Discuss overall project development and construction schedule.</p>	
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DRP IDER Offer Form

Circuit Requirements - DO NOT MODIFY

Minimum Requirements

- These requirements apply for each hour and year from June 1 – October 31
- Quantities shown within the tables are in MW
- Hours shown are 'hour beginning'
- These are minimum requirements, and do not reflect full value equivalency to the tr such, alternatives should consider providing commitments above these minimums.

Circuit 303

Hour	2020	2021	2022	2023	2024	2025	2026
1:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19:00	0.91	0.97	1.02	1.12	1.21	1.31	1.41
20:00	0.79	0.85	0.91	1.00	1.10	1.20	1.30
21:00	0.24	0.30	0.36	0.46	0.56	0.67	0.77
22:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Circuit

Hour	2020	2021	2022
1:00	0.00	0.00	0.00
2:00	0.00	0.00	0.00
3:00	0.00	0.00	0.00
4:00	0.00	0.00	0.00
5:00	0.00	0.00	0.00
6:00	0.00	0.00	0.00
7:00	0.00	0.00	0.00
8:00	0.00	0.00	0.00
9:00	0.00	0.00	0.00
10:00	0.00	0.00	0.00
11:00	0.00	0.00	0.00
12:00	0.00	0.00	0.00
13:00	0.00	0.00	0.00
14:00	0.00	0.00	0.00
15:00	0.00	0.00	0.00
16:00	0.00	0.00	0.00
17:00	0.00	0.00	0.00
18:00	0.00	0.09	0.38
19:00	0.91	1.21	1.50
20:00	0.85	1.15	1.45
21:00	0.00	0.22	0.53
22:00	0.00	0.00	0.00
23:00	0.00	0.00	0.00
0:00	0.00	0.00	0.00



A  Sempra Energy utility®



additional distribution project. As

t 783

2023	2024	2025	2026
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.02
0.00	0.00	0.16	0.51
0.03	0.34	0.66	0.96
0.67	0.97	1.26	1.54
1.81	2.11	2.42	2.71
1.76	2.07	2.37	2.67
0.86	1.17	1.50	1.80
0.00	0.00	0.10	0.41
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00

DRP IDER Offer Form

Project Costs

Please explain any mutual exclusivity or inclusivity with any other offers.

Explain any project or program costs not identified above.

NPV of Cash Flows (\$)

Contract Month	Contract Begins (First day of the month after project completion)	Month Ends	Bid Price (\$)
1	2/1/20 12:00 AM	2/28/20 11:59 PM	0
2	3/1/20 12:00 AM	3/31/20 11:59 PM	0
3	4/1/20 12:00 AM	4/30/20 11:59 PM	0
4	5/1/20 12:00 AM	5/31/20 11:59 PM	0
5	6/1/20 12:00 AM	6/30/20 11:59 PM	0
6	7/1/20 12:00 AM	7/31/20 11:59 PM	0
7	8/1/20 12:00 AM	8/31/20 11:59 PM	0
8	9/1/20 12:00 AM	9/30/20 11:59 PM	0
9	10/1/20 12:00 AM	10/31/20 11:59 PM	0
10	11/1/20 12:00 AM	11/30/20 11:59 PM	0
11	12/1/20 12:00 AM	12/31/20 11:59 PM	0
12	1/1/21 12:00 AM	1/31/21 11:59 PM	0
13	2/1/21 12:00 AM	2/28/21 11:59 PM	0
14	3/1/21 12:00 AM	3/31/21 11:59 PM	0
15	4/1/21 12:00 AM	4/30/21 11:59 PM	0
16	5/1/21 12:00 AM	5/31/21 11:59 PM	0
17	6/1/21 12:00 AM	6/30/21 11:59 PM	0
18	7/1/21 12:00 AM	7/31/21 11:59 PM	0
19	8/1/21 12:00 AM	8/31/21 11:59 PM	0
20	9/1/21 12:00 AM	9/30/21 11:59 PM	0
21	10/1/21 12:00 AM	10/31/21 11:59 PM	0
22	11/1/21 12:00 M	11/30/21 11:59 PM	0
23	12/1/21 12:00 M	12/31/21 11:59 PM	0
24	1/1/22 12:00 M	1/31/22 11:59 PM	0
25	2/1/22 12:00 AM	2/28/22 11:59 PM	0
26	3/1/22 12:00 AM	3/31/22 11:59 PM	0
27	4/1/22 12:00 AM	4/30/22 11:59 PM	0
28	5/1/22 12:00 AM	5/31/22 11:59 PM	0
29	6/1/22 12:00 AM	6/30/22 11:59 PM	0
30	7/1/22 12:00 AM	7/31/22 11:59 PM	0
31	8/1/22 12:00 AM	8/31/22 11:59 PM	0
32	9/1/22 12:00 AM	9/30/22 11:59 PM	0
33	10/1/22 12:00 AM	10/31/22 11:59 PM	0
34	11/1/22 12:00 AM	11/30/22 11:59 PM	0
35	12/1/22 12:00 AM	12/31/22 11:59 PM	0
36	1/1/23 12:00 AM	1/31/23 11:59 PM	0
37	2/1/23 12:00 AM	2/28/23 11:59 PM	0
38	3/1/23 12:00 AM	3/31/23 11:59 PM	0
39	4/1/23 12:00 AM	4/30/23 11:59 PM	0
40	5/1/23 12:00 AM	5/31/23 11:59 PM	0
41	6/1/23 12:00 AM	6/30/23 11:59 PM	0
42	7/1/23 12:00 AM	7/31/23 11:59 PM	0
43	8/1/23 12:00 AM	8/31/23 11:59 PM	0
44	9/1/23 12:00 AM	9/30/23 11:59 PM	0
45	10/1/23 12:00 AM	10/31/23 11:59 PM	0
46	11/1/23 12:00 AM	11/30/23 11:59 PM	0
47	12/1/23 12:00 M	12/31/23 11:59 PM	0
48	1/1/24 12:00 M	1/31/24 11:59 PM	0
49	2/1/24 12:00 M	2/28/24 11:59 PM	0
50	3/1/24 12:00 M	3/31/24 11:59 PM	0
51	4/1/24 12:00 AM	4/30/24 11:59 PM	0
52	5/1/24 12:00 AM	5/31/24 11:59 PM	0
53	6/1/24 12:00 AM	6/30/24 11:59 PM	0
54	7/1/24 12:00 AM	7/31/24 11:59 PM	0
55	8/1/24 12:00 AM	8/31/24 11:59 PM	0
56	9/1/24 12:00 AM	9/30/24 11:59 PM	0
57	10/1/24 12:00 AM	10/31/24 11:59 PM	0
58	11/1/24 12:00 AM	11/30/24 11:59 PM	0
59	12/1/24 12:00 AM	12/31/24 11:59 PM	0
60	1/1/25 12:00 AM	1/31/25 11:59 PM	0
61	2/1/25 12:00 AM	2/28/25 11:59 PM	0
62	3/1/25 12:00 AM	3/31/25 11:59 PM	0
63	4/1/25 12:00 AM	4/30/25 11:59 PM	0
64	5/1/25 12:00 AM	5/31/25 11:59 PM	0
65	6/1/25 12:00 AM	6/30/25 11:59 PM	0
66	7/1/25 12:00 AM	7/31/25 11:59 PM	0
67	8/1/25 12:00 AM	8/31/25 11:59 PM	0
68	9/1/25 12:00 AM	9/30/25 11:59 PM	0
69	10/1/25 12:00 AM	10/31/25 11:59 PM	0
70	11/1/25 12:00 AM	11/30/25 11:59 PM	0
71	12/1/25 12:00 AM	12/31/25 11:59 PM	0
72	1/1/26 12:00 AM	1/31/26 11:59 PM	0
73	2/1/26 12:00 M	2/28/26 11:59 PM	0
74	3/1/26 12:00 M	3/31/26 11:59 PM	0
75	4/1/26 12:00 M	4/30/26 11:59 PM	0
76	5/1/26 12:00 M	5/31/26 11:59 PM	0
77	6/1/26 12:00 AM	6/30/26 11:59 PM	0
78	7/1/26 12:00 AM	7/31/26 11:59 PM	0
79	8/1/26 12:00 AM	8/31/26 11:59 PM	0
80	9/1/26 12:00 AM	9/30/26 11:59 PM	0
81	10/1/26 12:00 AM	10/31/26 11:59 PM	0
82	11/1/26 12:00 AM	11/30/26 11:59 PM	0
83	12/1/26 12:00 AM	12/31/26 11:59 PM	0
84	1/1/27 12:00 AM	1/31/27 11:59 PM	0
85	2/1/27 12:00 AM	2/28/27 11:59 PM	0
86	3/1/27 12:00 AM	3/31/27 11:59 PM	0
87	4/1/27 12:00 AM	4/30/27 11:59 PM	0
88	5/1/27 12:00 AM	5/31/27 11:59 PM	0
89	6/1/27 12:00 AM	6/30/27 11:59 PM	0
90	7/1/27 12:00 AM	7/31/27 11:59 PM	0
91	8/1/27 12:00 AM	8/31/27 11:59 PM	0
92	9/1/27 12:00 AM	9/30/27 11:59 PM	0
93	10/1/27 12:00 AM	10/31/27 11:59 PM	0

DRP IDER Offer Form



Confidentiality

Identify parts, sections and elements of the offer (including information in this and all other forms) which Respondent considers to be Confidential and Proprietary in accordance with Confidentiality Provisions as described in the RFO Protocols. *Put all confidential information in RED font.*

A large, empty rectangular area with a light green background, intended for identifying confidential and proprietary information from the offer.

EXHIBIT D
SDG&E DIRECT TESTIMONY OF SUE E. GARCIA (ELECTRIC AND
FUEL PROCUREMENT) (November 2014) IN THE 2016 GRC
PROCEEDING (A.14-11-003)

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2016 General Rate Case
Application: A.14-11-XXX (NOI)
NOI Exhibit: SDGE-08

SDG&E

DIRECT TESTIMONY OF SUE E. GARCIA

ELECTRIC AND FUEL PROCUREMENT

July 2014

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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SUMMARY

O&M	2013 (\$000)	2016 (\$000)	Change
Non-Shared	\$8,569	\$8,757	\$188
Total	\$8,569	\$8,757	\$188

Summary of Requests

- San Diego Gas & Electric Company (“SDG&E”) requests that the California Public Utilities Commission (“CPUC”) adopt its proposal for \$8.8 million of operations and maintenance expenses for the function of procuring electricity for SDG&E’s bundled customers. Bundled customers are those which buy the electric commodity from SDG&E.
- A five year average was used as the base forecast methodology to develop the 2016 forecast.
- One full-time equivalent position (“FTE”)¹ will be added to administer the increasing workload of procurement functions, including the development of energy supply request for offers (“RFOs”) and to negotiate and execute contracts associated with energy storage and conventional generation.
- 2.0 FTEs will be added due to the increasing workload of procurement functions related to new renewable and conventional generation contracts. 0.5 FTE will be subtracted due to a reduction in Cap and Trade activities for electric commodity customers.²

¹ An FTE of 1.0 means that the person is equivalent to a full-time worker, while an FTE of 0.5 means that the worker is only half-time.

² In 2015, Cap and Trade activities for core gas will begin. However, additional FTEs are not forecasted to be needed because existing personnel working on electric Cap and Trade activities will, beginning in 2015, work on both core gas and electric and will allocate their time accordingly between the two functions. Cost recovery of the 0.5 FTE of core gas labor will be addressed in R. 14-03-003, Order Instituting Rulemaking to address Natural Gas Distribution Utility Cost and Revenue Issues Associated with Greenhouse Gas Emissions.

SDG&E DIRECT TESTIMONY OF SUE E. GARCIA
ELECTRIC AND FUEL PROCUREMENT

I. INTRODUCTION

A. Summary of Costs

I sponsor the test year 2016 forecasts for operations and maintenance (“O&M”) costs for non-shared services for the forecast years 2014 and 2015, and test year 2016, associated with the Electric and Fuel Procurement (“E&FP”) function for SDG&E. Table 1 summarizes my sponsored costs.

TABLE 1

Test Year 2016 Summary of Total Costs

SDG&E ELECTRIC & FUEL PROCUREMENT			
Shown in Thousands of 2013 Dollars	2013 Adjusted-Recorded	TY2016 Estimated	Change
Total Non-Shared	\$8,569	\$8,757	\$188
Total Shared Services (Incurred)	\$0	\$0	\$0
Total O&M	\$8,569	\$8,757	\$188

B. Summary of Activities

E&FP is responsible for procuring, managing, planning and administrating SDG&E’s electric and fuel supply for bundled commodity customers. Bundled commodity customers are those customers that buy the commodity of electricity from SDG&E. Annually, since 2011, the bundled commodity costs have been over \$1 billion dollars. The procurement and administration activities conducted by SDG&E’s E&FP department are necessary to ensure that SDG&E plans for and acquires resources so that least-cost supply is available when needed by commodity customers. E&FP meets customer demand by bidding or scheduling energy resources into the wholesale energy and ancillary services markets. SDG&E buys all the electricity it needs from the California Independent System Operator (“CAISO”) market to serve its customers and sells electricity to the CAISO markets to offset its energy procurement expenses. CAISO optimizes the bids and schedules submitted into the market and determines which resources should run for each hour. SDG&E’s daily procurement process of buying and selling electricity in the CAISO market is done according to least cost dispatch requirements set forth by the CPUC.

SDG&E requests that the CPUC adopt its proposal for \$8.8 million of O&M expenses for each of the foregoing functions, which are described in more detail below. My testimony addresses the administrative expenses necessary to operate the E&FP department, but does not include commodity expenses themselves. The commodity expenses are recovered in the Energy Resource Recovery Account (“ERRA”) proceeding and the Greenhouse Gas (“GHG”) costs will be addressed in the core gas GHG proceeding.³ Regarding the administrative fees associated with the implementation of Assembly Bill 32, they are included as a part of Scott Pearson’s Environmental Services testimony, Exhibit SDG&E-18.

II. NON-SHARED COSTS

A. Introduction

SDG&E requests \$8.8 million of O&M expenses for the function of procuring electricity for SDG&E’s commodity customers. Table 2 summarizes the total non-shared O&M forecasts for the listed cost categories.

TABLE 2

Non-Shared O&M Summary of Costs

SDG&E ELECTRIC & FUEL PROCUREMENT			
Shown in Thousands of 2013 Dollars			
Categories of Management	2013 Adjusted-Recorded	TY2016 Estimated	Change
A. Long Term Procurement	\$2,269	\$2,451	\$182
B. Trading & Scheduling	\$2,948	\$2,966	\$18
C. Middle and Back Office	\$3,352	\$3,340	(\$12)
Total	\$8,569	\$8,757	\$188

B. Long-Term Procurement

Long-Term procurement functions include the Origination and Portfolio Design department and Vice President – E&FP.

³ Order Instituting Rulemaking (“OIR”) to address Natural Gas Distribution Utility Cost and Revenue Issues Associated with Greenhouse Gas Emissions (R.14-03-003).

1 **1. Description of Costs and Underlying Activities**

2 Origination and Portfolio Design (“O&PD”)

3 The O&PD department is responsible for negotiation and execution of Power Purchase
4 Agreements (“PPAs”) to meet SDG&E’s long-term energy and capacity requirements. As their
5 title indicates, PPAs are contracts for the purchase of energy and capacity ranging from 1
6 Megawatt (“MW”) to 602 MW with terms ranging from 1 year to 30 years. The parties to these
7 contracts are companies like NRG and CalPine. Through its negotiations with these independent
8 power suppliers, O&PD executes contracts for both long-term renewable and conventional
9 resources needed to supply energy and capacity to SDG&E customers. O&PD also interfaces
10 with various regulatory agencies, including the CPUC, and participates in regulatory proceedings
11 as required to develop procurement policies and implementation of long-term and renewable
12 procurement plans and legislative mandates. For example, the Long Term Procurement Plan
13 (“LTPP”)⁴ is a reoccurring two year CPUC proceeding that integrates all of SDG&E’s activities
14 in carrying out the CPUC’s preferred loading order for resource additions. This includes
15 integrating resources such as renewables, energy efficiencies, demand response, energy storage
16 and conventional resources into a single plan.

17 Regarding how supply contracts are negotiated, the O&PD group procures renewable and
18 conventional resources in accordance with rules established by the CPUC on both a bilateral (one
19 on one with a single party) basis and through solicitations (where SDG&E issues a solicitation or
20 RFO to a group of potential parties who then submit bids). When the procurement involves an
21 RFO, O&PD conducts the RFO process and negotiates with the winning bidder toward execution
22 of a final contract. O&PD also provides input into long-range planning models related to future
23 procurement options for renewable resources. Ultimately, after following the appropriate
24 selection process, all procurement is eventually approved by the CPUC as falling within the
25 authorized need identified in the LTPP, Renewables Portfolio Standard (“RPS”) procurement
26 management plans, and/or Energy Storage plans.

27 SDG&E meets monthly with its Procurement Review Group (“PRG”) to address a variety
28 of SDG&E procurement issues and transactions. The PRG consists of “non-market participants”
29 who sign non-disclosure agreements, and includes The Utility Reform Network, Coalition of

⁴ The last approved LTPP was approved by the CPUC in Resolution E-4543 and was effective October 11, 2012.

1 California Utility Employees, the CPUC Energy Division, and Office of Ratepayer Advocates.
2 The PRG's purpose is to review and assess the details of the Investor Owned Utilities' overall
3 procurement strategy and specific proposed procurement contracts and processes prior to
4 submitting filings to the Commission.⁵

5 The O&PD is responsible for coordination of electric procurement activities related to
6 new conventional and renewable generation. This generation project-related work includes
7 contract management starting after the contract has been executed to completion of the new
8 resource for commercial operation. These responsibilities include verifying that conditions
9 precedent to the agreement have been satisfied and monitoring the project schedule, design and
10 construction to ensure it is being constructed to meet the stated performance in the contract.
11 These performance measures may include contract capacity, heat rate, reliability/availability, and
12 ancillary services. O&PD also coordinates internal SDG&E functions necessary to meet all the
13 terms and conditions of the agreement.

14 *Vice President of E&FP*

15 The Vice President of E&FP provides direction and managerial oversight for Long-Term
16 Procurement, Trading and Scheduling, and Middle-Office and Back-Office functions. This
17 involves overseeing over 60 employees within the four departments. Overall, the Vice President
18 is responsible for ensuring that E&FP plans for and acquires resources so that least-cost supply is
19 available when needed by commodity customers and that all procurement is consistent with
20 internal policies, Commission rules and decisions and CAISO tariffs. In addition, the Vice
21 President is responsible for the development of new policies designed to improve procurement.

22 **2. Forecast Method**

23 The forecast method chosen for this cost category is a five-year average. This is most
24 appropriate because work load can vary from year to year, and by using the five-year average
25 this reduces the variability between years. For example, over the time period of 2009 through
26 2013 this cost category had costs ranging between \$2,140,000 and \$2,723,000. Although using a
27 four-year average would result in a slightly lower value, SDG&E opted to use the longer term for
28 averaging this cost category in order to be consistent with the other forecast methodologies
29 chosen for the other cost categories in my testimony. Specifically, using a five-year average
30 forecast methodology, the underlying forecast is labor of \$1,968,000 and non-labor of \$363,000,

⁵ D.02-08-071

1 with 15.4 FTEs and is forecasted to rise to \$2,077,000 for labor and \$374,000 for non-labor, with
2 16.4 FTEs in 2016 due mainly to an increase in work associated with additional procurement
3 functions needed to procure energy storage and conventional resources, as described in more
4 detail below.

5 **3. Cost Drivers**

6 As noted above, the primary cost driver is the 1.0 FTE that will be added to administer
7 RFOs and to negotiate and execute contracts associated with energy storage and conventional
8 generation. In the CPUC Energy Storage Decision, D. 13-10-040, a procurement target of 165
9 MW for Energy Storage resources was established for SDG&E covering the time period 2014
10 through 2020⁶. In addition, in D.14-03-004, Track 4 of the LTPP proceeding, the CPUC
11 determined that new resources are required to meet local capacity requirement needs resulting
12 from the retirement of the San Onofre Nuclear Generating Station, as well as the mandatory
13 retirement of once-through cooling resources located in Southern California in accordance with
14 State Water Resources Control Board regulations.⁷ In particular, the Track 4 Decision authorizes
15 SDG&E to procure through an all-source RFO or through bilateral negotiations between 500 and
16 800 MW of electrical capacity in its territory to meet long term local capacity requirements by
17 the end of 2021.⁸ Such procurement must include at least 25 MW of energy storage resources as
18 part of 200 MW of preferred resources consistent with the Loading Order of the Energy Action
19 Plan.⁹

20 **C. Trading and Scheduling**

21 **1. Description of Costs and Underlying Activities**

22 Trading and Scheduling involves the following work groups in the Energy Supply &
23 Dispatch (“ES&D”) department, each of which is described in more detail below: Electric
24 Procurement & Trading , Market Operations, and Market & Policy Analysis.

⁶ D.13-10-040 OP. 2 and Appendix A, p.2.

⁷ In May, 2010, the State Water Resources Control Board adopted its statewide *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (Resolution No. 2010-0020), which applies to power plants located along the California coast that rely on Once Through Cooling technology (the “OTC Policy”).- The OTC Policy implements § 316(b) of the federal Clean Water Act, which seeks to minimize the adverse environmental impacts of cooling water intake structures, and requires OTC facilities to meet certain requirements or retire by a specified compliance date.

⁸ D.14-03-004, mimeo, Ordering Paragraphs (“OPs”) 2 and 3.

⁹ *Id.*

1 Electric Procurement & Trading (“EP&T”)

2 EP&T department performs short-term planning and trading functions. EP&T manages
3 the portfolio of assets to serve bundled customers consistent with the Commission-approved
4 procurement plans. As these plans describe, SDG&E manages the portfolio in a least-cost
5 dispatch manner that includes economic dispatch of the combined portfolio of SDG&E assets,
6 purchases and sales of gas and power, and ‘hedging’. Hedging is a risk management strategy
7 used in limiting or offsetting the probability of loss from fluctuations in the prices of
8 commodities. In effect, hedging is a transfer of risk without buying insurance policies.
9 Generally this involves taking market positions that maintain SDG&E’s energy portfolio’s price
10 risk exposure within the customer risk tolerance limits set by CPUC.¹⁰

11 EP&T also plans and implements procurement strategies within a five-year time horizon.
12 They monitor and implement changes in tariffs and regulations and monitor changes to CPUC
13 regulations and requirements governing least-cost dispatch of electric and gas portfolios.

14 EP&T is responsible for management and implementation of short-term electric energy
15 procurement transactions related to dispatchable generation. EP&T conducts and oversees the
16 performance of energy or power planning studies, regulatory analyses, and short-term
17 forecasting methodologies. EP&T is responsible for planning and executing trades and
18 managing the electricity supply portfolio to economically meet customer demand in a manner
19 consistent with SDG&E’s LTPP. They also are responsible for various CPUC compliance
20 reporting functions related to ES&D activities, including the CPUC quarterly compliance report.

21 EP&T is also responsible for the management and implementation of gas procurement
22 transactions related to dispatchable generation resources (i.e., natural gas fuel for conventional
23 power plants such as gas turbines, steam turbines or combined cycle turbines). This group
24 purchases and sells natural gas and performs gas scheduling on the electronic bulletin boards of
25 the interstate and intrastate pipelines it uses to deliver fuel to its gas-fired resources, including
26 SDG&E-owned resources and contracted for tolling resources.

¹⁰ Limits are set in the LTPP. The last approved LTPP was approved by the CPUC in Resolution E-4543 and was effective October 11, 2012.

1 Finally, EP&T is responsible for the GHG compliance activities, including developing
2 procurement policies, for the GHG compliance obligation related to SDG&E's electric portfolio.
3 EP&T procures GHG allowances and GHG offsets in compliance with the limits established in
4 the LTPP.

5 Market Operations

6 Market Operations oversees the real-time scheduling and dispatch functions. SDG&E
7 staffs a Real Time desk to perform these functions around the clock. Market Operations serves
8 as the point of contact for operational administration of approximately 65 SDG&E PPAs. They
9 manage energy transactions with the CAISO of over \$1 billion dollars a year. Market Operations
10 performs CAISO scheduling activities to ensure regulatory compliance, least-cost dispatch, and
11 compliance with other constraints/requirements. Market Operations is also responsible for
12 scheduling SDG&E's own generating capacity into the CAISO's day-ahead, hour-ahead and 15
13 minute markets, and complying with CAISO dispatch instructions in accordance with Federal
14 Energy Regulatory Commission ("FERC") approved tariffs and protocols. They are also
15 responsible for forecasting day-ahead demand. Market Operations conducts analysis of and
16 manages overall performance of the scheduling and bidding strategies of ES&D. Market
17 Operations also is responsible for various regulatory reporting functions related to its least-cost
18 dispatch operations, including the ERRR Compliance regulatory filing.

19 Market & Policy Analysis ("M&PA")

20 M&PA also manages compliance with annual and monthly resource adequacy
21 requirements and purchases short-term resources as needed to satisfy its resource adequacy
22 requirements. "Resource adequacy" is a policy framework designed to provide sufficient
23 resources to the CAISO to ensure the safe and reliable operation of the grid in real time and to
24 provide appropriate incentives for the siting and construction of new resources needed for
25 reliability in the future. Specifically, via Commission decisions (pursuant to P.U. Code §380),
26 all Load Serving Entities within the CPUC's jurisdiction (i.e., investor owned utilities, energy
27 service providers, and community choice aggregators) are required to procure capacity so that
28 capacity is available to the CAISO when and where needed. SDG&E's M&PA group is required
29 to prepare system and local resource adequacy filings at the CPUC demonstrating that they have
30 procured sufficient capacity resources including reserves needed to serve its aggregate system
31 load on a monthly basis.

1 M&PA also participates in CAISO-related meetings and working groups to monitor
2 upcoming changes at the CAISO and how it will impact SDG&E's operations and ultimately
3 SDG&E's ratepayers.

4 **2. Forecast Method**

5 The forecast method chosen for this cost category is five-year average. This is most
6 appropriate because work load can vary from year to year, and by using the five year average this
7 reduces the variability between years. For example, over the time period of 2009 through 2013
8 this cost category had costs ranging between \$2,407,000 and \$3,458,000. Using the 2009-2013
9 time frame is appropriate as in 2009 the CAISO implemented the "New Market." The New
10 Market involved a renovation of the electricity markets administered by the CAISO and
11 implementation of a new network model that integrates both the supply and demand resources
12 operations of the CAISO-controlled grid, to allow for more efficient dispatch of supply resources
13 to meet demand. The five-year average in this instance happens to result in a lesser underlying
14 forecast than either a three year or base year methodology. In addition, SDG&E opted to use the
15 longer term for averaging this cost category in order to be consistent with the other forecast
16 methodologies chosen for the other cost categories in my testimony. Using a five-year average
17 forecast methodology, as described above, the underlying forecast is labor of \$2,157,000 and
18 non-labor of \$737,000, with 20.3 FTEs and is forecasted to rise to \$2,222,000 for labor and
19 \$744,000 for non-labor, with 20.9 FTEs in 2016.

20 **3. Cost Drivers**

21 The primary cost driver is 1.0 FTE that will be added mainly due to increased scheduling activity
22 associated with two new conventional resources and approximately 25 renewable generation
23 resources coming on-line between 2014 and 2016. This cost supports the company's goal of
24 performing compliance and mandated activities efficiently and effectively for SDG&E's
25 commodity customers. In addition, 0.4 FTEs will be subtracted from the average due to a
26 reduction in Cap and Trade activities for electric commodity customers. In 2015, Cap and Trade
27 activities for core gas will begin. However, additional FTEs are not forecasted to be needed
28 because existing personnel working on electric Cap and Trade activities will, beginning in 2015,
29 work on both core gas and electric and will allocate their time accordingly between the two
30 functions. Cost recovery of the 0.4 FTE of core gas labor will be addressed in R. 14-03-003.

1 **D. Middle-Office and Back-Office**

2 Middle-Office and Back-Office functions include the Settlements and Systems
3 department and Energy Risk department of the E&FP department.

4 **1. Description of Costs and Underlying Activities**

5 Settlements and Systems (“S&S”)

6 S&S is responsible for financial and accounting activities, including confirmation of
7 electric and gas transactions, annually verifying and processing over 1,600 invoices and billing
8 requests for bilateral transactions, and preparing journal entries for recording expenses and
9 revenues. Settlement activities with the CAISO include processing of daily settlement
10 statements and weekly invoices; validating settlements, including, when appropriate, the filing of
11 disputes of questionable charges; and reporting of generation and load meter data. Proposed
12 CAISO changes to its settlements process are reviewed and commented on, including
13 intervening at FERC, if appropriate.

14 S&S is also responsible for accounting for the commodity, transportation, hedging and
15 other related transactions associated with the gas burned in SDG&E-owned power plants and as
16 a result of tolling agreements. SDG&E owns 5 power plants¹¹ and manages 3 tolling
17 agreements. The S&S department is responsible for the confirmations of gas transaction;
18 verifying and processing payments; and preparing journal entries for recording the expenses and
19 revenues of gas transactions.

20 S&S contract administrators monitor and administer PPAs for Qualifying Facilities,
21 renewable energy resources and tolling agreements for combined cycle and peaking plants.
22 During 2013, S&S contract administrators were responsible for 65 PPAs.¹² This includes daily
23 interactions with the counterparties, coordinating and resolving disputes, coordinating
24 participation at quarterly meetings, invoice verifications, contract interpretations and serving as
25 points of contact. Contract administrators work closely with the settlement personnel to ensure
26 proper distribution of settlement payments and charges. They also monitor and verify various

¹¹ Miramar Energy Facility I, Miramar Energy Facility II, Palomar Energy Center, Cuyamaca Peak Energy Center and Desert Star Energy Center are further described in Carl LaPeter’s Generation Testimony Exhibit SDG&E-11.

¹² SDG&E 2013 ERRR Compliance Filing, A.14-05-026, S. Chen Testimony Table 1:Historical Purchases, p. SC-34.

1 contract terms, including scheduled maintenance, curtailments, insurance and efficiency
2 monitoring.

3 S&S is also responsible for preparing reports for monthly and annual CPUC filings and
4 for internal and external financial reporting. For example, S&S prepares the FERC form 1
5 sections related to purchased power and sales for resale. S&S personnel also prepare testimony,
6 data responses and reports for various regulatory agencies, including the CPUC and FERC, to
7 establish or revise policies within the scope of various regulatory proceedings, including ERRA
8 compliance and General Rate Case proceedings.

9 S&S is responsible for system administration for departmental software supported by
10 SDG&E's Information Technology department, including systems provided by Allegro and
11 Power Cost, Inc. Allegro and Power Cost, Inc. provide systems used to record gas and power
12 transactions and to schedule and bid power with the CAISO.

13 Energy Risk ("ER")

14 The ER department is responsible for middle-office functions, such as identifying,
15 managing, monitoring, and reporting on market, credit, financial and operational risks associated
16 with E&FP functions. For example, the ER section conducts daily reviews of electric
17 procurement physical and financial positions, including trader authority limits, counterparty
18 credit risk positions and compliance with financial liquidity/collateral limits. On a daily basis,
19 the ER section has responsibility for reviewing market pricing data which is used to develop
20 forward price curves, volatilities and correlations used for the evaluation and measurement of
21 portfolio risk and to ensure compliance with Commission-approved risk metrics¹³ and internal
22 policies. All these efforts help ensure that the energy procured on behalf of SDG&E's customers
23 is best fit and least cost.

24 This group also maintains and supports all trading and risk management related models
25 and applications. For example, ER monitors and enforces operational risk controls related to the
26 execution, recording and valuation of trades. This group is also responsible for compliance with
27 the Dodd-Frank requirements, including trade reporting and record retention activities, and
28 Sarbanes-Oxley ("SOX") 404 compliance, through testing of energy risk control activities. ER
29 also supports ES&D in the development of procurement and hedge plans, consistent with the
30 Commission approved LTPP, and monitors compliance with the approved plans. Finally, ER is

¹³ LTPP D.12-01-033

1 also responsible for reporting fixed price transactions to index publishers in accordance with
2 FERC requirements.

3 **2. Forecast Method**

4 The forecast method chosen for this cost category is five-year average. This is most
5 appropriate because work load can vary from year to year, and by using the five-year average
6 this reduces the variability between years. For example, over the time period of 2009 through
7 2013 this cost category had costs ranging between \$3,164,000 and \$3,352,000. Moreover, using
8 the 2009-2013 time frame is appropriate because in 2009 the CAISO implemented the New
9 Market. As noted above, the New Market involved a renovation of the electricity markets
10 administered by the CAISO and implementation of a new network model that integrates both the
11 supply and demand resources operations of the CAISO controlled grid, to allow for more
12 efficient dispatch of supply resources to meet demand. Although using a four-year average
13 would result in a slightly lower value, SDG&E opted to use the longer term for averaging this
14 cost category in order to be consistent with the other forecast methodologies chosen for the other
15 cost categories in my testimony. Specifically, using a five-year average forecast methodology,
16 the underlying forecast is labor of \$2,234,000 and non-labor of \$1,027,000, with 25.9 FTEs and
17 is forecasted to rise to \$2,306,000 for labor and \$1,034,000 for non-labor, with 26.8 FTEs in
18 2016.

19 **3. Cost Drivers**

20 The primary cost driver is the 1.0 FTE that will be added mainly due to increased
21 settlement and contract administration activity associated with two new conventional resources
22 and approximately 25 renewable generation resources coming on-line between 2014 and 2016.
23 In addition, 0.1 FTEs will be subtracted from the average due to a reduction in Cap and Trade
24 activities for electric commodity customers. In 2015, Cap and Trade activities for core gas will
25 begin. However, additional FTEs are not forecasted to be needed because existing personnel
26 working on electric Cap and Trade activities will, beginning in 2015, work on both core gas and
27 electric and will allocate their time accordingly between the two functions. Cost recovery of the
28 0.1 FTE of core gas labor will be addressed in R. 14-03-003.

1 **III. CONCLUSION**

2 The E&FP functions that SDG&E will undertake in 2016, as the above testimony
3 demonstrates, will expand beyond the 2013 workload, thus requiring the requested increases.
4 SDG&E requests that the Commission adopt its proposal for \$8.8 million of O&M expenses for
5 E&FP in order to allow SDG&E to meet all of its electric commodity procurement
6 responsibilities through the 2016-2018 rate case cycle.

7 This concludes my prepared direct testimony.

1 **IV. WITNESS QUALIFICATIONS**

2 My name is Sue E. Garcia. My business address is 8315 Century Park Court, San Diego,
3 CA 92123. I am employed by SDG&E as the Manager - Settlements and Systems in the E&FP
4 Department. My present duties include the settlements of all electric and fuel commodity
5 transactions as well as the management and administration of existing agreements, including
6 renewable agreements, tolling agreements, and bilateral agreements. I have been employed by
7 SDG&E since 1995. I have been in my current position since December 2011.

8 I received a B.S. in Business Administration, with an Accounting emphasis, from San
9 Diego State University. I am a Certified Public Accountant and a Certified Internal Auditor.

10 I have previously testified before the Commission.
11

APPENDIX A – GLOSSARY OF ACRONYMS

CAISO: California Independent System Operator
E&FP: Electric & Fuel Procurement
EP&T: Electric Procurement & Trading
ER: Energy Risk
ERRA: Energy Resource Recovery Account
ES&D: Energy Supply and Dispatch
FERC: Federal Energy Regulatory Commission
FTEs: full time equivalents
GHG: greenhouse gas
LTPP: Long Term Procurement Plan
M&PA: Market & Policy Analysis
MW: Megawatt
O&PD: Origination and Portfolio Design
PPAs: Power Purchase Agreements
PRG: Procurement Review Group
RFOs: Request for Offers
RPS: Renewables Portfolio Standard
S&S: Settlements and Systems
SOX: Sarbanes-Oxley

ATTACHMENT 1

CONFIDENTIAL

Status as of:
December 31, 2018

Commercial Operations	TOTAL PPA'S		
Contract Summary	Number	MW	MWH
QF/CHP	5	136.4	71,579
Renewable	46	2,565.5	6,617,867
Tolling	6	1,655.0	725,918
Energy Storage - Pumped Hydro	1	40.0	0
Energy Storage - Battery	0	0.0	0
WSPP	5	243.0	444,376
Total	63	4,639.9	7,859,740
Commercial Operations	TOTAL PPA'S		
Technology Type	Number	MW	MWH
Bio-Mass	1	24.0	182,222
Conduit-Hydro	3	2.3	1,294
Bio-Gas	0	0.0	0
Digester Gas/Conduit Hydro	0	0.0	0
Energy Storage - Pumped Hydro	1	40.0	0
Energy Storage - Battery	0	0.0	0
Landfill Gas	9	21.9	140,307
Market	5	243.0	444,376
Natural Gas	10	1,791.1	797,201
Solar PV	22	1,326.1	3,151,206
Wind	12	1,191.6	3,143,133
Total	63	4,639.9	7,859,740

Pre-Operational	TOTAL PPA'S		
Contract Summary	Number	MW	MWH
QF/CHP	0	0.0	0
Renewable	4	130.4	0
Tolling	0	0.0	0
Energy Storage - Pumped Hydro	0	0.0	0
Energy Storage - Battery	3	13.5	0
WSPP	1	0.0	0
Total	8	143.9	0
Pre-Operational	TOTAL PPA'S		
Technology Type	Number	MW	MWH
Bio-Mass	0	0.0	0
Conduit-Hydro	0	0.0	0
Bio-Gas	1	3.0	0
Digester Gas/Conduit Hydro	0	0.0	0
Energy Storage - Pumped Hydro	0	0.0	0
Energy Storage - Battery	3	13.5	0
Landfill Gas	0	0.0	0
Market	1	0.0	0
Natural Gas	0	0.0	0
Solar PV	2	22.4	0
Wind	1	105.0	0
Total	8	143.9	0

Expired/Terminated	TOTAL PPA'S		
Contract Summary	Number	MW	MWH
QF/CHP	6	196.6	94,408
Renewable	4	44.4	74,931
Tolling	0	0.0	0
Energy Storage - Pumped Hydro	0	0.0	0
Energy Storage - Battery	0	0.0	0
WSPP	0	0.0	0
Total	10	241.0	169,339
Expired/Terminated	TOTAL PPA'S		
Technology Type	Number	MW	MWH
Bio-Mass	0	0.0	0
Conduit-Hydro	0	0.0	0
Bio-Gas	1	3.0	0
Digester Gas/Conduit Hydro	0	0.0	0
Energy Storage - Pumped Hydro	0	0.0	0
Energy Storage - Battery	0	0.0	0
Landfill Gas	0	0.0	0
Market	0	0.0	0
Natural Gas	6	196.6	94,408
Solar PV	0	0.0	0
Wind	3	41.4	74,931
Total	10	241.0	169,339

NEW - LONG-TERM RESOURCE ADEQUACY (1 YEAR OR MORE)

Project Names	Technology	Product	Contract MW	Execution Date	Year Executed	Delivery Period (Years)	CPUC Authorization	Capacity Price	Contract Status @ year end
Otay Mesa Energy Center	Natural Gas	Resource Adequacy	RAR/Local 603.6 MW; Flex RAR (Cat 1) 448.6 MW	10/24/2018	2018	Oct 2019 - Aug 2024	CPUC Resolution E-4981	Oct 3, 2019 to Sep 30, 2020: \$6.30; Oct 1, 2020 to Sep 30, 2021: \$6.74; Oct 1, 2021 to Sep 30, 2022: \$7.21; Oct 1, 2022 to Sep 30, 2023: \$7.72; Oct 1, 2023 to Aug 31, 2024: \$8.26.	Active

TERMINATED - LONG-TERM RESOURCE ADEQUACY (1 YEAR OR MORE)

Project Names	Technology	Product	Contract MW	Execution Date	Year Executed	Delivery Period (Years)	CPUC Authorization	Capacity Price	Contract Status @ year end
Naval Station	Natural Gas	Resource Adequacy	48.0	07/25/2017	2017	Jan 2018 - Dec 2018	CPUC Resolution E-4901	\$0.0822/day	August 6, 2018 - Terminated by Seller due to no site control.
North Island	Natural Gas	Resource Adequacy	VARIOUS	07/25/2017	2017	Jan 2018 - Dec 2018	CPUC Resolution E-4901	\$0.0822/day	August 6, 2018 - Terminated by Seller due to no site control.

**CONTRACTS FOR THE PROCUREMENT OF FUEL SERVICES IN EFFECT OR UNDER NEGOTIATION, INITIATION, REVISION,
AMENDMENT, OR TERMINATION**

ERRA Record Period: 2018

Contract type	Contract Description	Tradebook	Contract class	Product	Status	Effective date
BILATERAL	Anadarko Energy Services Company	UEG	NAESB	NG	ACTIVE	9/1/2003
BILATERAL	Anahau Energy, LLC - Gas	UEG	NAESB	NG	ACTIVE	2/11/2014
BILATERAL	Arizona Public Service Company	UEG	GISB	NG	ACTIVE	3/22/1999
BILATERAL	Atlantic Coast Energy Corporation - Gas	UEG	NAESB	NG	ACTIVE	10/22/2012
BILATERAL	ATO Power, Inc. - Gas	UEG	NAESB	NG	ACTIVE	2/26/2013
BILATERAL	Barclays Bank	UEG	ISDA	NG	ACTIVE	10/13/2005
BILATERAL	BioUrja Trading, LLC	UEG	NAESB	NG	ACTIVE	10/1/2015
BILATERAL	BNP Paribas Energy Trading GP - ISDA	UEG	ISDA	NG	ACTIVE	10/1/2004
BILATERAL	BP Corporation North America Inc	UEG	ISDA	NG	ACTIVE	4/1/2005
BILATERAL	BP Energy Company	UEG	NAESB	NG	ACTIVE	6/1/2003
BILATERAL	BP Energy Company - WSPP	UEG	WSPP	NG	ACTIVE	5/21/2015
TRANSPORT	California Gas Transmission	UEG	Other	NG	ACTIVE	1/1/1993
BILATERAL	Canadian Imperial Bank of Commerce	UEG	ERMA	NG	ACTIVE	4/1/1997
BILATERAL	Cargill, Inc.	UEG	NAESB	NG	ACTIVE	2/1/2003
BILATERAL	Castleton Commodities Merchant Trading L.P.	UEG	NAESB	NG	ACTIVE	4/3/1996
BILATERAL	Chevron Natural Gas	UEG	NAESB	NG	ACTIVE	1/1/2003
BILATERAL	CIMA ENERGY, LTD.	UEG	NAESB	NG	ACTIVE	7/1/2006
BILATERAL	Citadel Energy Marketing LLC	UEG	NAESB	NG	ACTIVE	11/14/2016
BILATERAL	Citigroup Energy Inc.	UEG	NAESB	NG	ACTIVE	2/27/2007
BILATERAL	Concord Energy LLC	UEG	NAESB	NG	ACTIVE	8/27/2002
BILATERAL	Conexus Energy, LLC	UEG	NAESB	NG	ACTIVE	6/21/2016
BILATERAL	ConocoPhillips Company	UEG	NAESB	NG	ACTIVE	12/1/2002
BILATERAL	Continuum Energy Services, LLC	UEG	NAESB	NG	ACTIVE	9/1/2014
BILATERAL	CRC Marketing, Inc.	UEG	NAESB	NG	ACTIVE	9/1/2015
BILATERAL	Credit Suisse Energy LLC	UEG	ISDA	NG	ACTIVE	4/1/2008
BILATERAL	Cross Timbers Energy Services, Inc.	UEG	NAESB	NG	ACTIVE	6/1/2015
BILATERAL	DCP Midstream Marketing, LLC	UEG	NAESB	NG	ACTIVE	9/1/2009
BILATERAL	DES Wholesale, LLC dba DES-Gas	UEG	NAESB	NG	ACTIVE	7/15/2011
BILATERAL	Deutsche Bank AG	UEG	ISDA	NG	ACTIVE	12/1/2005
BILATERAL	EDF Trading North America, LLC	UEG	NAESB	NG	ACTIVE	12/12/2008
TRANSPORT	El Paso Natural Gas Company	UEG	Other	NG	ACTIVE	1/1/1993
BILATERAL	Elk Mountain Energy, LLC - Gas	UEG	NAESB	NG	ACTIVE	8/30/2012

BILATERAL	Energy Transfer Company	UEG	NAESB	NG	ACTIVE	1/16/2004
BILATERAL	ENSTOR Energy Services, LLC	UEG	NAESB	NG	ACTIVE	2/1/2003
BILATERAL	Enterprise Products Operating LLC	UEG	NAESB	NG	ACTIVE	4/24/2009
BILATERAL	Euell Energy Resources	UEG	NAESB	NG	ACTIVE	12/1/2007
BILATERAL	Exelon Generation Company, LLC	UEG	NAESB	NG	ACTIVE	5/2/2005
BILATERAL	Freepoint Commodities LLC	UEG	NAESB	NG	ACTIVE	2/6/2012
TRANSPORT	Gas Transmission Northwest	UEG	Other	NG	ACTIVE	1/1/1993
TRANSPORT	Gasoducto Bajanorte	UEG	Other	NG	ACTIVE	9/21/2011
BILATERAL	GearyEnergy, LLC - Gas	UEG	NAESB	NG	ACTIVE	5/23/2008
BILATERAL	ICC Energy Corporation - Gas	UEG	NAESB	NG	ACTIVE	10/1/2006
BILATERAL	IPC (USA), Inc.	UEG	NAESB	NG	ACTIVE	6/16/2008
BILATERAL	J. Aron & Company - ISDA	UEG	ISDA	NG	ACTIVE	4/2/2003
BILATERAL	J. Aron & Company - NAESB	UEG	NAESB	NG	ACTIVE	6/1/2003
BILATERAL	J.P. Morgan Ventures Energy Corporation - ISDA	UEG	ISDA	NG	ACTIVE	12/1/2007
BILATERAL	J.P. Morgan Ventures Energy Corporation - NAESB	UEG	NAESB	NG	ACTIVE	10/14/2008
TRANSPORT	Kern River Gas Transmission Company	UEG	Other	NG	ACTIVE	1/1/1993
BILATERAL	Kerr-McGee Energy Services Corporation	UEG	NAESB	NG	ACTIVE	2/20/2006
BILATERAL	Macquarie Energy LLC - ISDA	UEG	ISDA	NG	ACTIVE	6/10/1999
BILATERAL	Macquarie Energy LLC - NAESB	UEG	NAESB	NG	ACTIVE	2/1/2003
BILATERAL	Meritspan Energy California, LLC	UEG	NAESB	NG	ACTIVE	4/23/2015
BILATERAL	Mieco Inc.	UEG	NAESB	NG	ACTIVE	7/16/2013

Contract type	Contract Description	Tradebook	Contract class	Product	Status	Effective date
BILATERAL	Morgan Stanley Capital Group Inc. - Spot	UEG	Spot	NG	ACTIVE	11/20/1995
BILATERAL	Munich Re Trading LLC	UEG	NAESB	NG	ACTIVE	6/1/2015
BILATERAL	National Fuel Marketing Company, LLC	UEG	NAESB	NG	ACTIVE	8/1/2002
BILATERAL	NDR Energy Group, LLC - Gas	UEG	NAESB	NG	ACTIVE	3/19/2015
BILATERAL	Nevada Power Company dba NV Energy	UEG	NAESB	NG	ACTIVE	8/1/2015
BILATERAL	NextEra Energy Marketing, LLC	UEG	NAESB	NG	ACTIVE	7/1/2006
BILATERAL	NJR Energy Services Company	UEG	NAESB	NG	ACTIVE	10/1/2009
BILATERAL	Noble Americas Energy Solutions, LLC	UEG	NAESB	NG	ACTIVE	8/27/2012
BILATERAL	Noble Americas Gas & Power Corp	UEG	NAESB	NG	ACTIVE	4/4/2012
TRANSPORT	North Baja Pipeline, LLC	UEG	Other	NG	ACTIVE	9/12/2011
TRANSPORT	Nova Gas Transmission	UEG	Other	NG	ACTIVE	1/1/1993
BILATERAL	Occidental Energy Marketing Inc.	UEG	NAESB	NG	ACTIVE	5/1/2005
BILATERAL	One Nation Energy Solutions, LLC	UEG	NAESB	NG	ACTIVE	2/1/2003
BILATERAL	Pacific Gas & Electric Company	UEG	NAESB	NG	ACTIVE	5/1/2003
BILATERAL	Pacific Summit Energy LLC	UEG	NAESB	NG	ACTIVE	10/11/2005
BILATERAL	Patten Energy Enterprises, Inc.	UEG	NAESB	NG	ACTIVE	4/10/2012
BILATERAL	PetroChina International (America), Inc.	UEG	NAESB	NG	ACTIVE	11/2/2015
BILATERAL	Powerex Corporation	UEG	NAESB	NG	ACTIVE	12/1/2005
BILATERAL	QEP Energy Company	UEG	NAESB	NG	ACTIVE	9/2/2011
BILATERAL	Red Willow Production Company	UEG	GISB	NG	ACTIVE	4/1/2000
BILATERAL	Sacramento Municipal Utility District	UEG	NAESB	NG	ACTIVE	4/1/2007
BILATERAL	Saja Energy LLC	UEG	NAESB	NG	ACTIVE	8/21/2013
BILATERAL	Salt River Project	UEG	NAESB	NG	ACTIVE	10/1/2004
BILATERAL	Samson Resources Co. - bankrupt ch 11	UEG	NAESB	NG	ACTIVE	8/1/2006
BILATERAL	Sempra Energy Trading LLC - ERMA	UEG	ERMA	NG	ACTIVE	12/2/1996
BILATERAL	Sempra Energy Trading LLC - Umbrella	UEG	Umbrella	NG	ACTIVE	12/2/1996
BILATERAL	Sequent Energy Management, L.P.	UEG	NAESB	NG	ACTIVE	9/14/2007
BILATERAL	Shell Energy North America (US), L.P.	UEG	NAESB	NG	ACTIVE	5/1/2009
TRANSPORT	Southern California Gas Company	UEG	GISB	NG	ACTIVE	7/1/1998
BILATERAL	Southern California Gas Company Capacity Products	UEG	NAESB	NG	ACTIVE	6/17/2005
TRANSPORT	Southern Trails Pipeline	UEG	Other	NG	ACTIVE	1/1/1993
TRANSPORT	Southwest Gas Corporation	UEG	Other	NG	ACTIVE	10/1/2011

BILATERAL	Southwest Gas Corporation	UEG	Spot	NG	ACTIVE	4/1/1999
BILATERAL	Suez Energy Marketing NA, Inc.	UEG	NAESB	NG	ACTIVE	12/10/2002
BILATERAL	Susterra Energy, LLC - Gas	UEG	NAESB	NG	ACTIVE	1/16/2013
BILATERAL	Talen Energy Marketing, LLC	UEG	NAESB	NG	ACTIVE	2/28/2003
BILATERAL	Targa Gas Marketing LLC	UEG	NAESB	NG	ACTIVE	5/1/2009
BILATERAL	Tenaska Gas Storage, LLC	UEG	NAESB	NG	ACTIVE	1/1/2003
BILATERAL	Tenaska Marketing Ventures	UEG	NAESB	NG	ACTIVE	1/1/2003
BILATERAL	Tiger Natural Gas, Inc.	UEG	NAESB	NG	ACTIVE	5/23/2008
BILATERAL	Total Gas & Power North America, Inc.	UEG	NAESB	NG	ACTIVE	4/1/2004
TRANSPORT	TransCanada Pipeline Company	UEG	Other	NG	ACTIVE	1/1/1993
TRANSPORT	Transportador de Gas Natural	UEG	Other	NG	ACTIVE	9/21/2011
TRANSPORT	Transwestern Pipeline Company	UEG	Other	NG	ACTIVE	1/1/1993
BILATERAL	Tristar Producer Services of Texas, L.P.	UEG	Umbrella	NG	ACTIVE	1/16/1996
BILATERAL	Twin Eagle Resource Management, LLC	UEG	NAESB	NG	ACTIVE	12/4/2012
BILATERAL	Twine Gas & Power, Inc.	UEG	GISB	NG	ACTIVE	7/1/2001
BILATERAL	UBS AG - ISDA	UEG	ISDA	NG	ACTIVE	4/1/2008
BILATERAL	Ultra Resources, Inc.	UEG	NAESB	NG	ACTIVE	11/1/2004
BILATERAL	United Energy Trading, LLC	UEG	NAESB	NG	ACTIVE	5/1/2003
BILATERAL	Walden Energy LLC	UEG	NAESB	NG	ACTIVE	12/12/2003
BILATERAL	Wells Fargo Commodities, LLC	UEG	NAESB	NG	ACTIVE	1/1/2007
BILATERAL	WPX Energy Marketing, LLC	UEG	NAESB	NG	ACTIVE	3/1/2010

**BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA**

**DECLARATION
OF DANIEL L. SULLIVAN**

A.19-06-XXX

Application of San Diego Gas & Electric Company (U 902-E) for Approval of: (i) Contract Administration, Least Cost Dispatch and Power Procurement Activities in 2018, (ii) Costs Related to those Activities Recorded to the Energy Resource Recovery Account and Transition Cost Balancing Account in 2018 and (iii) Costs Recorded in Related Regulatory Accounts in 2018

I, Daniel L. Sullivan, declare as follows:

1. I am a Senior Energy Administrator for San Diego Gas & Electric Company (“SDG&E”). I have included my Direct Testimony (“Testimony”) in support of SDG&E’s Application for Approval of: (i) Contract Administration, and (ii) Costs Related to those Activities Recorded to the Energy Resource Recovery Account, Incurred During the Record Period January 1, 2018 through December 31, 2018, and (iii) the Entries Recorded in Related Regulatory Accounts. Additionally, I am thoroughly familiar with the facts and representations in this declaration and if called upon to testify I could and would testify to the following based upon personal knowledge.

2. I am providing this Declaration to demonstrate that the confidential information (“Protected Information”) in support of the referenced Application falls within the scope of data provided confidential treatment in the IOU Matrix (“Matrix”) attached to the Commission’s Decision D.06-06-066 (the Phase I Confidentiality decision). Pursuant to the procedures adopted in D.08-04-023, I am addressing each of the following five features of Ordering Paragraph 2 in D.06-06-066:

- that the material constitutes data listed in the Matrix;
- the category or categories in the Matrix the data correspond to;
- that SDG&E is complying with the limitations on confidentiality specified in the Matrix for that type of data;
- that the information is not already public; and
- that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

3. The confidential information contained in my Testimony constitutes material, market sensitive, electric procurement-related information that is within the scope of Section 454.5(g) of the Public Utilities Code.¹ As such, the Protected Information provided by SDG&E is allowed confidential treatment in accordance with Appendix 1 – IOU Matrix in D.06-06-066.

Confidential Information	Matrix Reference	Reason for Confidentiality and Timing
The highlighted areas in Section IV.H.1. entitled “ <u>Payments to QFS/CHP</u> ” <ul style="list-style-type: none"> • Table entitled “2018 <u>QF MONTHLY PAYMENTS</u>” 	VII.B	Pricing terms of the contracts confidential for three years from date contract states deliveries to begin; or until one year following expiration, whichever comes first.
All highlighted areas in the body, tables or footnotes of Section V.A entitled “ <u>Renewable Resources</u> ” <ol style="list-style-type: none"> 1. Bio-Gas & Bio-Mass 3. Solar 4. Wind 	VII.G	Contract terms; confidential for 3 years
All highlighted areas in the body, tables or footnotes of Section V.B entitled “ <u>QF/CHP Projects</u> ” <ol style="list-style-type: none"> 2. Conventional 	VII.B	Contract terms; confidential for 3 years
All highlighted areas in the body, tables or footnotes of Section V.D entitled “Tolling Agreements”	VII.B VII.E	Contract terms; confidential for 3 years
All highlighted areas in the body, tables or footnotes of Section V.F entitled “Bundled Energy & REC Sales”	VII.B	Contract terms; confidential for 3 years

¹ In addition to the details addressed herein, SDG&E believes that the information being furnished in my Testimony is governed by Public Utilities Code Section 583 and General Order 66-C. Accordingly, SDG&E seeks confidential treatment of such data under those provisions, as applicable.

All highlighted areas in the body, tables or footnotes of Section V.G entitled "Pre-Operational Contracts" 1. Bio-Gas 2. Solar 3. Wind 4. Energy Storage	VII.B VII.E VII.G	Contract terms; confidential for 3 years
EXHIBIT B All highlighted areas in ATTACHMENT 1	VII.G XI	Contract terms; confidential for 3 years Detail of monthly variable cost on energy operation; confidential for 3 years

4. I am not aware of any instances where the Protected Information has been disclosed to the public. To my knowledge, no party, including SDG&E, has publicly revealed any of the Protected Information.

5. I will comply with the limitations on confidentiality specified in the Matrix for the type of data that is provided herewith.

6. The Protected Information cannot be provided in a form that is aggregated, partially redacted, or summarized and continue to provide the level of support to the Application as intended; however, SDG&E is certainly willing to work with the Commission regarding possible aggregations if the Commission seeks to make any of the confidential information provided in the Testimony public.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 31st day of May 2019, at San Diego, California.



Daniel L. Sullivan
Senior Energy Administrator
San Diego Gas & Electric Company