

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Application of San Diego Gas & Electric
Company (U 902 M) for Approval of The
SDG&E Solar Energy Project

Application 08-07-017
(Filed July 11, 2008)

**SAN DIEGO GAS & ELECTRIC COMPANY'S (U 902 M) ANNUAL
COMPLIANCE REPORT ON THE SOLAR ENERGY PROJECT**

(PUBLIC VERSION)

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April 11, 2019

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Pursuant to Decision ("D.") 10-09-016, San Diego Gas and Electric Company ("SDG&E") respectfully submits its Annual Compliance Report on the Solar Energy Project ("SEP") program.

I. INTRODUCTION

The Solar Energy Project ("SEP") is a five-year program¹ adopted by the California Public Utilities Commission ("CPUC") in D.10-09-016 ("Decision"), issued on September 3, 2010, to spur the development of distributed solar photovoltaic ("PV") projects in SDG&E's service territory. As originally approved, the Decision allowed SDG&E to build and own up to 26 MWdc² PV, tied to SDG&E's distribution system, with individual projects no greater in size than 5 MW.³ In the Decision, the CPUC instructed SDG&E to file an annual compliance report on the operating performance of the SEP projects.⁴

¹ SDG&E received approval for a one-time six-month extension to the SEP program from the Executive Director of the Energy Division on November 20, 2015 which established the new SEP termination date of October 11, 2016.

² Capacity shall be listed as direct current ("dc") unless otherwise noted.

³ Decision at 26.

⁴ See *id.* at 49-50, Ordering Paragraph ("OP") 9.

On December 1, 2010, SDG&E filed Advice Letter (“AL”) 2210-E requesting approval of SDG&E’s solicitation process where it sought PV projects to be developed and constructed by third parties and owned by SDG&E as utility-owned generation (“UOG”). On April 15, 2011, Energy Division issued a disposition letter approving AL 2210-E and the implementation and administration of the SEP program, effective April 11, 2011.

SDG&E issued a competitive solicitation on September 6, 2011 for a third party Engineering, Procurement, and Construction (“EPC”) contractor and executed a turnkey agreement on June 20, 2012. On June 20, 2012, SDG&E also executed a 10-year O&M agreement with the Phase 1 approved EPC vendor at a cost less than the CPUC cap of \$25/kW-year.⁵ This O&M agreement is integral with the warranties afforded under the EPC contract. Subsequent to the competitive solicitation for a third-party contractor, SDG&E filed AL 2374-E on June 20, 2012 and AL 2374-E-A on July 6, 2012 seeking CPUC approval of the executed contract and to procure up to 17 MW of UOG for the SEP program.⁶

The solicitation resulted in an award for eight sites located on SDG&E property with the potential to accommodate 17 MW of solar capacity. Projects needed to have the ability to deliver a competitive levelized cost of electricity at or below an installed cost of \$3.50/W (“Price Cap”).⁷ However, in March 2013 due to adverse geotechnical and/or higher than expected interconnection costs four sites were forecasted to exceed the Price Cap and development of these sites ceased.

Environmental permitting pre-application meetings were initiated in July 2013, and an additional site was dropped in October 2013, due to higher than expected permitting costs, which pushed forecasted construction costs beyond the \$3.50/W cap. Formal applications were submitted for the remaining sites Q1 2014 and Q2 2014. After extensive discussions and application revisions another site was dropped in December 2014, due to a shrinking project

⁵ *Id.* at 2 and Appendix A.

⁶ AL 2374-E, approved on August 23, 2012 and effective July 20, 2012. AL 2374-E-A, approved on August 23, 2012 and effective August 5, 2012.

⁷ *Id.*

footprint together with increasing permit and mitigation requirements, which pushed forecasted costs beyond the cap.

Two sites remained viable with the potential to accommodate 7.2 MW and continued through the development process. SDG&E received environmental permitting approval from San Diego County in October and December 2015 for the two sites. SDG&E and its EPC contractor entered into contract for construction of the two facilities March 1, 2016.

Construction began on or about July 1, 2016 for both sites.

At the first site, a 2.2 MW facility (“Pala Project”), a sub-contractor to the EPC contractor graded out of bounds impacting less than 1000 square feet of coastal sage scrub. The on-site biological monitor halted grading activity, and the excursion was promptly self-reported to the County. Work was halted for the better part of three months while a mitigation plan was agreed upon and enacted. By December, the EPC was in contractual default. In late April 2017, the contract for the Pala Project site was terminated. During late spring and summer of 2017, SDG&E proceeded to stabilize the site and the project was formally terminated.

The second remaining site, a 5 MW facility (“Creelman or Ramona Solar Project”) was largely constructed, but failed to make Substantial Completion by September 23, 2016. By December 2016, the EPC was in contractual default. In February 2017, work resumed by the lead subcontractor. On or about March 22, 2017, the site began delivering to the grid full output, but never achieved Substantial Completion under the contract. Remote monitoring was not effectuated until April 21, 2017. SDG&E deemed commercial operation effective April 1, 2017. SDG&E terminated its contract with its contractor in late April. The contractor is currently in bankruptcy litigation and the bond company and SDG&E are parties to that proceeding.

II. REPORTING ON THE UTILITY-OWNED GENERATION PORTION OF THE SOLAR ENERGY PROJECT

- a. **A description of all UOG facilities for which work has been initiated or completed in the previous year, including: capital costs, and operations and maintenance expenses, generating capacity, type of technology, annual average expected generation, description of the site (existing SDG&E-owned land or newly acquired/leased, land/lease cost, proximity to substation), and progress toward completion.**

Below and in Attachment A, SDG&E provides a description of each of the UOG facilities for which work was initiated in the previous year, including: (1) site name, (2) location address, and (3) installed generating capacity.

In calendar year 2018, the Creelman Project (CAISO name: Ramona Solar Project) delivered to SDG&E's grid. In the table below, SDG&E identifies the capacity ratings of the Creelman Project.

SEP Number	Site Name	Location Address	MW _{dc}	MW _{CEC-ac}
SEP 1002	Creelman	1029 Creelman Ln, Ramona, CA.	4.95	4.32

- b. **A Calculation of the Levelized Cost of Energy ("LCOE") for each UOG facility That is completed and interconnected to the grid. This calculation shall include workpapers showing actual amounts for all cost and electrical output entries used to calculate the LCOE.**

The LCOE for Ramona is \$0.18/kWh. Supporting workpapers are provided in Attachment B.

- c. **Electrical output by month for the previous year for each UOG facility that is completed and interconnected to the grid.**

Creelman	Gross (MWH)	Net (MWH)
January	450.4	447
February	564.8	561
March	662.5	659
April	802.3	800
May	727.3	724

June	731.4	729
July	729.5	729
August	801.4	799
September	802.4	800
October	593.2	590
November	511.3	508
December	432.8	430
Total	7809	7774

- d. **A description of the project specific distribution and network upgrades needed to facilitate the PV PPA Program. The known or projected costs of those upgrades, associated with interconnecting each UOG facility, including all distribution and network upgrades, a listing of the UOG projects identified as triggering the need for network upgrades, and identification of the UOG projects implemented notwithstanding the need for network upgrades, and the cost of those network upgrades.**

No distribution upgrades have been needed.

Respectfully submitted,

By: /s/ Paul A. Szymanski

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April 11, 2019

VERIFICATION

I am the Director of the Electric Generation Department of San Diego Gas & Electric Company and am authorized to make this verification on its behalf. I am informed and believe that the matters stated in the foregoing pleading are true.

I declare under penalty of perjury that the foregoing is true and correct based on my knowledge.

Executed this 11th day of April 2019, at San Diego, California.

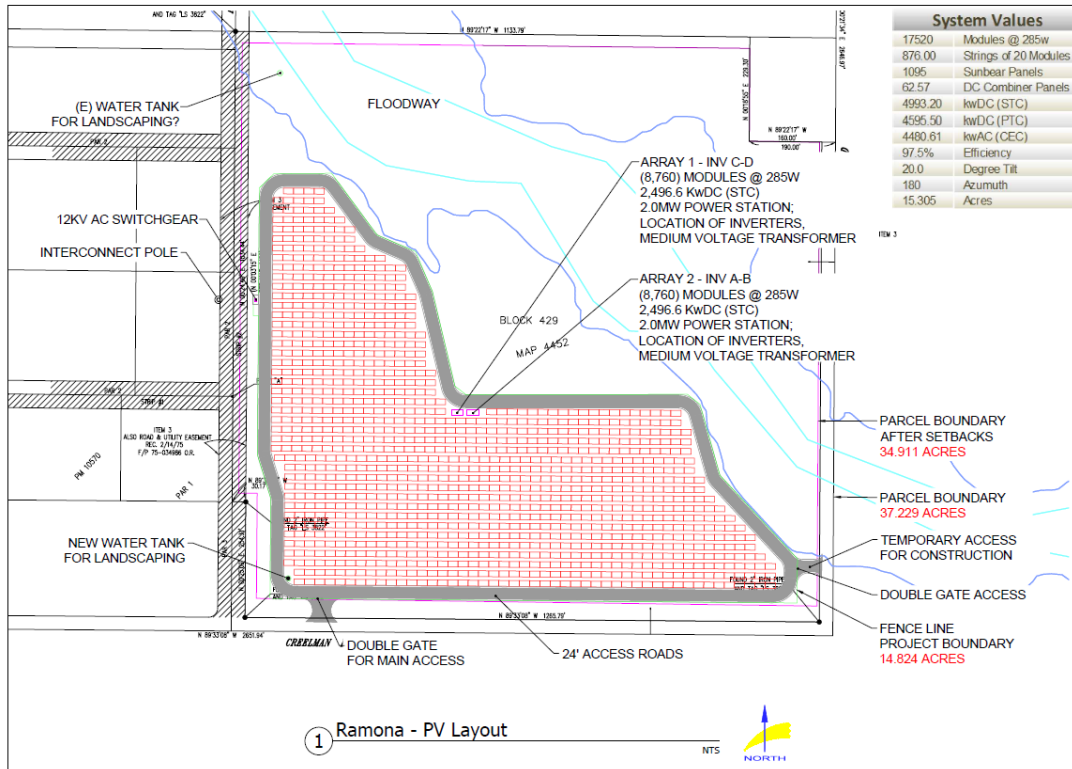
By: /s/ Daniel Baerman

Daniel Baerman
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2300 Harveson Place
Escondido, California 92029

Attachment A

SDG&E Site Description

Creelman Map



DATE	6/30/2014
SCALE	As Noted
SHEET NAME	
Ramona Project	
SHEET	PV-1

Attachment B

2018 SEP LCOE

Solar Energy Project ~ Ramona Solar Energy (Creelman) LCOE Data
Capital\$: \$16,307,325 2018
Spare Parts (non-capital)\$: \$0 2018

Year	Creelman (kWdc)	Forecast Production (kWhac)	Expected Production (kWhac)	Actual Production (kWhac)	Performance %	LCOE Energy (kWhac)	CPUC O&M Cost Cap Forecast	Actual O&M	LCOE O&M	Notes
2017			7,359,938	6,590,000	90%	6,590,000		\$33,996	33,996	Facility delivery started 4-1-2017. Expected Production based on April thru December
2018			8,712,072	7,774,000	89%	7,774,000		\$66,647	66,647	
2019			-	-	-			-		
2020			-	-	-			-		
2021			-	-	-			-		
2022			-	-	-			-		
2023			-	-	-			-		
2024			-	-	-			-		
2025			-	-	-			-		
2026			-	-	-			-		
2027			-	-	-			-		
2028			-	-	-			-		
2029			-	-	-			-		
2030			-	-	-			-		
2031			-	-	-			-		
2032			-	-	-			-		
2033			-	-	-			-		
2034			-	-	-			-		
2035			-	-	-			-		
2036			-	-	-			-		
2037			-	-	-			-		
2038			-	-	-			-		
2039			-	-	-			-		
2040			-	-	-			-		
2041			-	-	-			-		

Notes
Starting energy forecast numbers based on first year output PV Syst model provided by IES dated 12/16/2016
Annual Degradation: 0.5%
Energy numbers are in units of kWh AC input to the Grid
Expected Production is the hypothetical energy production for actual solar insolation and temperatures in the given year
Capacity numbers are in units of kW DC STC Nominal