PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Agenda Item 34
Agenda ID 12617
ENERGY DIVISION **RESOLUTION E-4613**
December 5, 2013

REDACTED
R E S O L U T I O N

Resolution E-4613. San Diego Gas & Electric Company requests approval of an amendment to a power purchase agreement (PPA) with CSolar IV West, LLC.

PROPOSED OUTCOME: This Resolution approves cost recovery for the long-term renewable energy power purchase agreement, as amended, between San Diego Gas & Electric Company and CSolar IV West, LLC. The amendment results in several modifications, including: revised commercial online date, revised financing deadline, allowance of non-concentrating photovoltaic panels, and other conforming changes to make the amendment consistent. It is approved without modifications.

SAFETY CONSIDERATIONS:
The CSolar IV West, LLC power purchase agreement, as amended is between San Diego Gas & Electric Company and CSolar IV West, LLC. Based on the information before us, this power purchase agreement, as amended, does not appear to result in any adverse safety impacts on the facilities or operations of SDG&E.

ESTIMATED COST: Costs of the power purchase agreement, as amended, are confidential at this time.

By Advice Letter 2487-E filed on June 4, 2013 and Advice Letter 2487-E-A filed on November 8, 2013.

SUMMARY

San Diego Gas & Electric Company's contract with CSolar IV West, LLC complies with the Renewables Portfolio Standard (RPS) procurement guidelines and is approved without modification

San Diego Gas & Electric Company (SDG&E) filed Advice Letter (AL) 2487-E on June 4, 2013 and AL 2487-E-A on November 8, 2013, requesting California Public Utilities Commission (Commission) review and approval of an amendment to a renewable energy contract between SDG&E and CSolar IV West, LLC. The original PPA was a 25-year contract with for generation from a new 96 - 150 megawatt (MW) concentrating solar photovoltaic facility that is being developed by Tenaska Solar Ventures, Inc. in Imperial County, California, approximately eight miles southwest of the City of El Centro.[1]

Changes to the original PPA pursuant to the proposed amendment include:

1. Modifies the Commercial Online Date ("COD") from December 31, 2015 to December 31, 2016,
2. establishes a target of 67 megawatts (MW) quantity of concentrating solar photovoltaic ("CPV") panels to be used in constructing the project,
3. updates time of day (TOD) factors,
4. adds downward pricing adjustments if the project is constructed with fewer than the target MW of CPV panels,
5. adds allowance for a PPA price adjustment if interconnection facilities are not deemed to be reimbursable network upgrades,
6. extends the deadline to obtain financing, and
7. adds and modifies definitions, milestone dates, and operational/technical sections of the PPA to make it consistent with the amendment.

The amendment does not affect project location, interconnection point, or contract term length and the unamended terms of the original PPA remain in full force and effect.

[1] The original CSolar IV West PPA was approved in Resolution –E-4446 on December 15, 2011.

SDG&E's execution of this amendment is consistent with SDG&E's 2012 RPS Procurement Plan, approved in Decision 12-11-016.
This resolution approves the amendment to the CSolar IV West PPA without modification. Payments for deliveries from the CSolar IV West contract, as amended, are fully recoverable in rates of the life of the contract, subject to Commission review of SDG&E's administration of the amended contract.

The following table provides a summary of the CSolar IV West PPA:

Generating Facilities	Technology Type	Term (Years)	Minimum Capacity (MW)	Minimum Energy (GWh/year)	Online Date	Location
CSolar IV West	Concentrating Solar PV and Non-Concentrating Solar PV	25	67 of CPV 83 of PV	408	12/31/2016	El Centro, CA

BACKGROUND

Overview of the Renewables Portfolio Standard (RPS) Program

The California RPS program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107, SB 1036, and SB 2 (1X).[2] The RPS program is codified in Public Utilities Code Sections 399.11-399.31.[3] Under SB 2 (1X), the RPS program requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources be an amount that equals an average of 20 percent of the total electricity sold to retail customers in California for compliance period

[2] SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007); SB 2 (1X) (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session).

[3] All further references to sections refer to Public Utilities Code unless otherwise specified.

2011-2013; 25 percent of retail sales by December 31, 2016; and 33 percent of retail sales by December 31, 2020.[4]

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm and http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm.

NOTICE

Notice of Advice Letter 2487-E and Supplemental Advice Letter 2487-E-A was made by publication in the Commission's Daily Calendar. SDG&E states that copies of the Advice Letters were mailed and distributed in accordance with Section IV of General Order 96-B.

PROTESTS

SDG&E Advice Letter 2487-E and Advice Letter 2487-E-A were not protested.

DISCUSSION

San Diego Gas & Electric Company requests approval of a renewable energy power purchase agreement, as amended, with CSolar IV West, LLC.

The CSolar IV West (or Tenaska West) project is a new concentrating solar photovoltaic (CPV) and conventional photovoltaic (PV) facility to be located in El Centro, Imperial County, California.[5] On December 15, 2011, the Commission approved Resolution E-4446, which approved a PPA between SDG&E and Tenaska West for RPS-eligible energy and associated RECs generated from the Tenaska West facility. On June 4, 2013, SDG&E filed AL 2487-E requesting Commission approval of an amendment to the original PPA with Tenaska West. On November 8, 2013, SDG&E filed supplemental AL 2487-E-A requesting

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[4] D.11-12-020 established a methodology to calculate procurement requirement quantities for the three different compliance periods covered in SB 2 (1X) (2011-2013, 2014-2016, and 2017-2020).

[5] Tenaska West project information website: http://tenaskaprojects.com/tenaskaimperialsolar/wp-content/uploads/sites/7/2013/05/Solar-Fact-sheet-West.pdf

approval of an amended and restated amendment. SDG&E asserts in AL 2487-E and AL 2487-E-A that the purpose of the proposed amendment is to enhance project viability by giving the developer more time and flexibility in securing financing for the project.[6]

The amendment modifies the original Tenaska West PPA in several aspects:

1. Modifies the Commercial Online Date ("COD") from December 31, 2015 to December 31, 2016,
2. establishes a target of 67 megawatts (MW) quantity of concentrating solar photovoltaic ("CPV") panels to be used in constructing the project,
3. updates time of day (TOD) factors,
4. adds downward pricing adjustments if the project is constructed with fewer than the target MW of CPV panels,
5. adds allowance for a PPA price adjustment if interconnection facilities are not deemed to be reimbursable network upgrades,
6. extends the deadline to obtain financing, and
7. adds or modifies definitions, milestone dates, and operational/technical sections of the PPA to make it consistent with the amendment.

The amendment does not affect project location, interconnection, or contract term length. Pursuant to the PPA, as amended, the facility is to reach commercial operation by December 31, 2016; thus, generation from the facilities could count towards SDG&E's RPS requirements in Compliance Period 2017-2020.[7]

SDG&E requests that the Commission issue a resolution that:

1. The PPA, as amended, is reasonable and consistent with SDG&E's Commission-approved RPS Plan and; procurement from the PPA, as amended, will contribute towards SDG&E's RPS procurement obligation.

[6] SDG&E AL 2487-E, p. 1 and AL 2487-E-A, p.1.

[7] In addition to raising California's RPS requirement to 33% from 20%, SB 2 (1X) (Stats. 2011 (Simitian)) establishes three different compliance periods, 2011-2013, 2014-2016, and 2017-2020.

2. SDG&E's entry into the amendment and the terms of such proposed amendment are reasonable; therefore, the proposed amendment is approved in its entirety and all costs of the purchase associated with the PPA, as amended by the proposed amendment, including costs for energy, green attributes, and resource adequacy, are fully recoverable in rates over the life of the PPA, as amended by the proposed amendment, subject to Commission review of SDG&E's administration of the PPA, as amended by the proposed amendment.
3. Generation procured pursuant to the PPA, as amended by the proposed amendment, constitutes generation from eligible renewable energy resources for purposes of determining SDG&E's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewable Portfolio Standard program (Public Utilities Code §§ 399.11, *et seq*. and/or other applicable law) and relevant Commission decisions.
4. The PPA, as amended by the proposed amendment, will contribute to SDG&E's minimum quantity requirement established in D. 12-06-038.

Energy Division evaluated the Tenaska West PPA, as amended, with the following criteria:

- Consistency with SDG&E's 2012 RPS Procurement Plan and RPS Portfolio Need;
- Consistency with SDG&E's Least-Cost, Best-Fit requirements;
- Cost Reasonableness and Net Market Value;
- Independent Evaluator review;
- Procurement Review Group participation; and
- Project Viability Assessment and Development Status.

Consistency with SDG&E's 2012 RPS Procurement Plan

Pursuant to statute, SDG&E's RPS Procurement Plan (Plan) includes an assessment of supply and demand to determine the optimal mix of renewable generation resources; description of potential RPS compliance delays; status update of projects within its RPS portfolio; an assessment of the project failure and delay risk within its RPS portfolio; and a bid solicitation protocol setting forth the need for renewable generation of various operational characteristics.[8] California's RPS statute also requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.[9] The Commission reviews the results to verify that the utility conducted its solicitation according to its Commission-approved procurement plan.[10]

In SDG&E's 2012 RPS Plan, SDG&E expressed a commitment to meet its RPS requirements in a cost-effective manner. SDG&E's 2012 RPS Plan also called for SDG&E to issue competitive solicitations for the purchase and sale of RPS-eligible energy and/or RECs and that bilateral offers would be considered if they were competitive when compared against recent solicitation offers and provide benefits to SDG&E customers. Specifically, SDG&E expressed a preference for CODs beginning in 2017. In addition SDG&E stated that it would consider short-term contracts when it is short in the most immediate Compliance Period, but long in the subsequent Compliance Period. SDG&E also noted that it would consider procurement strategies that maximize the product category limitations in order to optimize ratepayer value across compliance periods. Lastly, SDG&E's Plan discussed utility plans to pursue renewable energy generation development partnerships and utility-owned resources.

SDG&E's 2012 RPS Plan, as noted above, included an assessment of SDG&E's supply and demand of renewable generation resources. Energy Division also completed an analysis of SDG&E's RPS need and forecasts SDG&E to have excess renewable generation in all three Compliance Periods (See Figure 1, below).[11] This Energy Division forecast risk-adjusts SDG&E's RPS net

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[8] Pub. Util. Code § 399.13(a)(5).

[9] Pub. Util. Code § 399.13(d).

[10] SDG&E's 2012 RPS Procurement Plan was approved by D.12-11-016 on November 8, 2012.

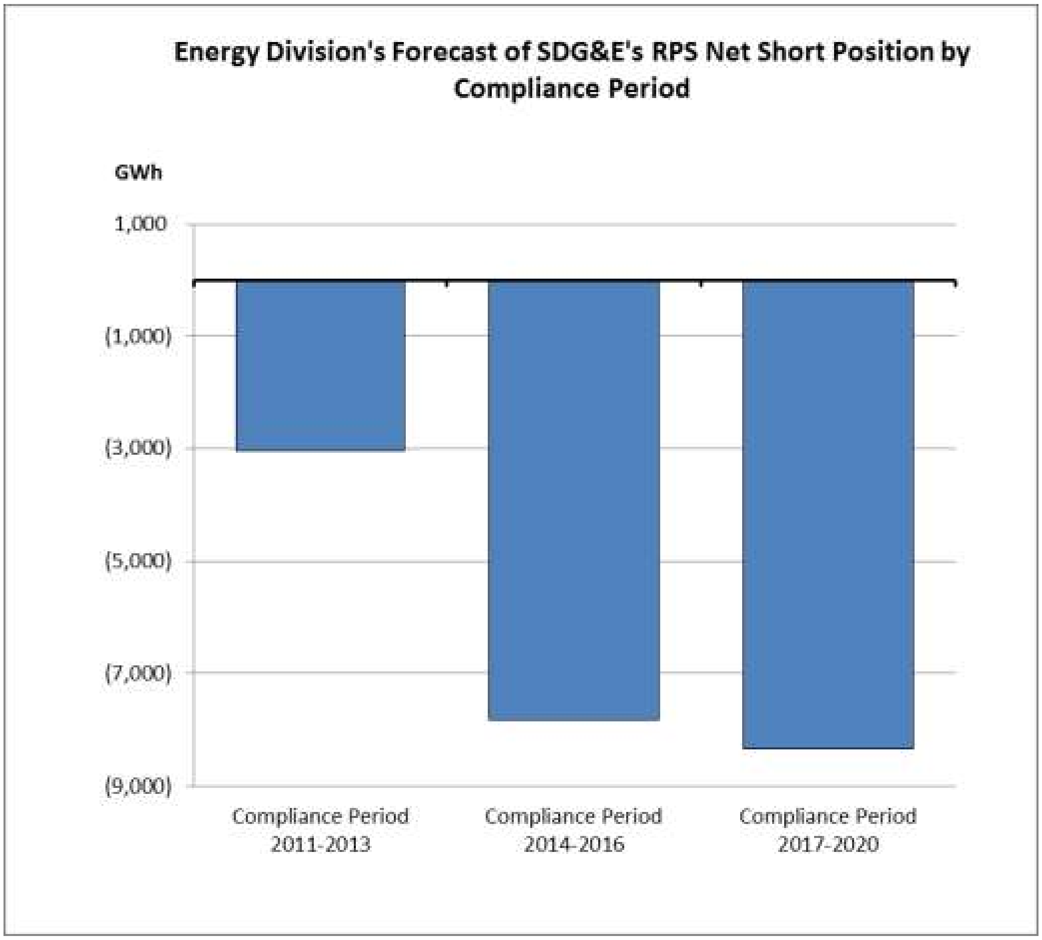
[11] In addition to increasing California's RPS requirement to 33 percent from 20 percent, SB 2 (1X) (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session) establishes three different compliance periods. In D.11-12-020 the Commission defined the compliance periods (2011-2013; 2014-2016; and 2017-2020) and the methodology for calculating the RPS procurement quantity requirements for each compliance period.

long/short position to take into account a certain amount of contract failure within SDG&E's RPS procurement portfolio.[12,13]

[12] Energy Division staff's forecast of SDG&E's RPS Procurement Portfolio is based on SDG&E's 2012 Preliminary Annual 33% RPS Compliance Report and the Commission's RPS Project Status Table. The Energy Division's forecast does not include any contracts pending Commission approval, contracts executed - but not filed, nor contracts under negotiation.

[13] Energy Division staff made several assumptions in developing its forecast: 1) operational projects will generate 100% of contracted generation; 2) projects under development will have a 75 percent rate of meeting the terms and conditions of the PPAs; 3) no carrying over of forecasted excess generation from one compliance period to another because SDG&E may or may not choose to apply all excess procurement towards subsequent requirements (but, if all forecasted eligible excess procurement is applied to future compliance periods, SDG&E is forecasted to have a net long position, instead of a net short position, for Compliance Period 2017-2020); and 4) prior deficits will need to be satisfied.

Figure 1: Energy Division forecasts that SDG&E may have excess RPS procurement



All or a portion of the forecasted excess procurement from a compliance period could potentially be applied towards future RPS requirements, and thus could reduce SDG&E's future RPS procurement needs. As a Commission-approved PPA, the Tenaska West PPA was assumed in Energy Division's RPS need analysis. Thus, the amendment would only slightly increase the amount of expected RECs in SDG&E's portfolio.

The amendment does change the COD from December 31, 2015 to December 31, 2016. That change reduces the amount SDG&E is over contracted in Compliance Period 2014-2016 and moves the start date for procuring from the project to Compliance Period 2017-2020. Accordingly, the modification improves the fit of the Tenaska West PPA with SDG&E's RPS need. Based on the characteristics of the amended Tenaska West agreement, it fits SDG&E's renewable resource needs as identified in its 2012 RPS Plan. Therefore, the amended Tenaska PPA is consistent with SDG&E's 2012 RPS Procurement Plan, as approved by D.12-11-016.

Consistency with SDG&E's least-cost best-fit (LCBF) methodology

In D.04-07-029, the Commission directs the utilities to use certain criteria in their LCBF selection of renewable resources.[14] The decision offers guidance regarding the process by which the utility ranks bids in order to select or "shortlist" the bids with which it will commence negotiations. As described in its RPS Procurement Plan, SDG&E's LCBF bid evaluation includes a quantitative analysis and qualitative criteria. SDG&E's quantitative analysis or market valuation includes evaluation of price, time of delivery factors, transmission costs, congestion costs, and resource adequacy. SDG&E's qualitative analysis focuses on comparing similar bids across numerous factors, such as location, benefits to minority and low income areas, resource diversity.

SDG&E negotiated the proposed amendment bilaterally; therefore, the amended Tenaska West PPA did not compete directly with other RPS projects. In AL 2487-E and AL 2487-E-A, SDG&E explains that it evaluated the amended Tenaska West PPA using the same LCBF evaluation methodology it employs for evaluating bids from its annual RPS solicitations. Thus, SDG&E used its LCBF methodology to evaluate the amended Tenaska West PPA. See the "Cost Reasonableness and Net Market Value" section of this resolution for a discussion of the cost and value of the amended PPA. In addition, see Confidential Appendix A for SDG&E's LCBF evaluation of the project.

The amended Tenaska West PPA was evaluated consistent with the LCBF methodology identified in SDG&E's RPS Procurement Plan

Cost Reasonableness and Net Market Value

The Commission's reasonableness review for RPS PPAs includes a comparison of the proposed PPA's price and net market value (the result of the LCBF calculation) relative to other RPS offers received in recent RPS solicitations and to contracts executed in the 12 months prior to the proposed PPA's execution date. Using this methodology the Commission found the original Tenaska West PPA's

[14] *See* § 399.14(a)(2)(B).

costs were reasonable. The proposed amendment allows for a portion of the Tenaska West facility to be built with non-concentration PV and updates the PPA's TOD factors. Additionally, the amendment adds a price adjustment if the interconnection facilities are not deemed network upgrades. Based on the analysis provided by SDG&E in AL 2487-E and 2487-E-A, the Commission determines that the net market value of the amended Tenaska West PPA has improved slightly over the original PPA and that the costs of the amended Tenaska West PPA are reasonable. (See Confidential Appendix A for a discussion of the contractual pricing terms.)

<u>The Tenaska West PPA, as amended, has slightly improved net market value in comparison to the original Tenaska West PPA.</u>

<u>Payments made by SDG&E under the Tenaska West PPA, as amended, are fully recoverable in rates over the life of the amended PPA, subject to Commission review of SDG&E's administration of the amended PPA.</u>

Independent Evaluator Review

SDG&E retained independent evaluator (IE) Jonathan Jacobs of PA Consulting Group to oversee SDG&E's amendment negotiations with Tenaska West and to evaluate the overall merits for Commission approval of the amendment. AL 2487-E and AL 2487-E-A included a public and confidential independent evaluator's report. Because the IE reviewed the original PPA, he revised his original report to reflect the proposed amendment. In the revised IE report, the IE states that the proposed amendment will increase costs to ratepayers but slightly improves the economics of the PPA.

<u>Consistent with D.06-05-039 and D.09-06-050, an independent evaluator oversaw SDG&E's negotiations with Tenaska West.</u>

Procurement Review Group Participation

The Procurement Review Group (PRG) was initially established in D.02-08-071 as an advisory group to review and assess the details of the IOUs' overall procurement strategy, solicitations, specific proposed procurement contracts and other procurement processes prior to submitting filings to the Commission.[15] SDG&E asserts that the proposed amendment to the Tenaska West PPA was discussed at PRG meetings in September and October of 2013.

Pursuant to D.02-08-071, SDG&E's Procurement Review Group participated in the review of the proposed amendment to the Tenaska West PPA.

Project Viability Assessment and Development Status

SDG&E asserts that the Tenaska West project continues to be viable and will be developed according to the terms and conditions in the PPA, as amended. SDG&E bases its assertion on its evaluation of the project's viability using the Commission-approved project viability calculator, which uses standardized criteria to quantify a project's strengths and weaknesses in key areas of renewable project development. Additionally, SDG&E provided the following information about the project's developer and development status.

Developer experience

Tenaska Solar Ventures is the developer of the project. Tenaska Solar Ventures is an affiliate of Tenaska, Inc. which operates 17 natural gas-fired projects representing more than 12,000 MW. Tenaska Solar Ventures personnel have broad experience in all areas of the energy sector. Tenaska additionally has some experience in the installation and management of rooftop solar facilities.

Technology

The facilities will use Soitec's Concentrix™ technology for the CPV portion of the facility. The modules consist of a "triple-junction" solar cell and uses lenses to

[15] SDG&E's PRG includes representatives of the Union of Concerned Scientists, the Coalition of California Utility Employees, The Utility Reform Network, the Commission's Energy Division and the Office of Ratepayer Advocates, and the California Department of Water Resources.

focus the sunlight onto the solar cells to increase the overall system efficiency.[16] Soitec recently completed a 1.5 MW facility in Newberry Springs, CA and additional commercial installations are located in Spain, South Africa, and the State of New Mexico. The modules for the Tenaska West facility are to be manufactured by Soitec at its new facility located in the San Diego area. The manufacturing facility is projected to have an annual production capacity of 280 MW.

Site control and permitting status

The proposed facility is to be located on private land for which Tenaska Solar Ventures has secured full site control through site leases. Tenaska Solar Ventures has received a Right-of-Way grant from the U.S. Bureau of Land Management (BLM) for the project's 230 kV gen-tie that will run from the facility to the Imperial Valley substation. All necessary remaining permits are expected to be obtained by the end of 2013.

Interconnection and transmission

Tenaska West will interconnect at the Imperial Valley Substation. The Phase I and Phase II CAISO Transmission Studies for the project are complete and expects to execute its interconnection agreement by the end of 2013.

Financing Plan

The project is expected to be financed through a combination of debt and equity. Additionally, the developer plans to pursue a cash grant under Section 1603 of ARRA (Payments for Specified Energy Property in Lieu of Tax Credits).

RPS Eligibility and CPUC Approval

Pursuant to Pub. Util. Code § 399.13, the CEC certifies eligible renewable energy resources. Generation from a resource that is not CEC-certified cannot be used to meet RPS requirements. To ensure that only CEC-certified energy is procured under a Commission-approved RPS contract, the Commission has required standard and non-modifiable "eligibility" language in all RPS contracts. That language requires a seller to warrant that the project qualifies and is certified by

[16] See Soitec's website for more information:
http://www.soitec.com/en/products-and-services/solar-cpv/

the CEC as an "Eligible Renewable Energy Resource," that the project's output delivered to the buyer qualifies under the requirements of the California RPS, and that the seller uses commercially reasonable efforts to maintain eligibility should there be a change in law affecting eligibility.[17]

The Commission requires a standard and non-modifiable clause in all RPS contracts that requires "CPUC Approval" of a PPA to include an explicit finding 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.[18]

Notwithstanding this language, the Commission has no jurisdiction to determine whether a project is an eligible renewable energy resource, nor can the Commission determine prior to final CEC certification of a project that "any procurement" pursuant to a specific contract will be "procurement from an eligible renewable energy resource."

Therefore, while we include the required finding here, this finding has never been intended, and shall not be read now, to allow the generation from a non-RPS-eligible resource to count towards an RPS compliance obligation. Nor shall such a finding absolve the seller of its obligation to obtain CEC certification, or the utility of its obligation to pursue remedies for breach of contract. Such contract enforcement activities shall be reviewed pursuant to the Commission's authority to review the utilities' administration of contracts.

Confidential Information

The Commission, in implementing Pub. Util. Code § 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market

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17 *See, e.g.* D.08-04-009 at Appendix A, STC 6, Eligibility.

18 *See, e.g.* D.08-04-009 at Appendix A, STC 1, CPUC Approval.

sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, such as price, is confidential for three years from the date the contract states that energy deliveries begin, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked "[REDACTED]" in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.

COMMENTS

This is an uncontested matter in which the resolution grants the relief requested. Accordingly, pursuant to Pub. Util. Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS AND CONCLUSIONS

1. The CSolar IV West (Tenaska West) PPA, as amended, is consistent with SDG&E's 2012 RPS Procurement Plan, as approved by D.11-04-030.
2. The Tenaska West PPA, as amended, was evaluated consistent with the least-cost best-fit methodology identified in SDG&E's 2012 RPS Procurement Plan.
3. The Tenaska West PPA, as amended, has slightly improved net market value in comparison to the original Tenaska West PPA.
4. Payments made by SDG&E under the Tenaska West PPA, as amended, are fully recoverable in rates over the life of the PPA and amendment, subject to Commission review of SDG&E's administration of the PPA and amendment.
5. Pursuant to D.02-08-071, SDG&E's Procurement Review Group participated in the review of the amendment to the Tenaska West PPA.
6. SDG&E asserts that the Tenaska West project is viable and will provide renewable energy according to the terms and conditions in the Tenaska West PPA, as amended.

7. Procurement pursuant to the amended Tenaska West PPA is procurement from eligible renewable energy resources for purposes of determining SDG&E'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.), D.03-06-071 and D.06-10-050, or other applicable law.
8. The immediately preceding finding shall not be read to allow generation from a non-RPS eligible renewable energy resource under this amended PPA to count towards an RPS compliance obligation. Nor shall that finding absolve SDG&E of its obligation to enforce compliance with this amended PPA.
9. The confidential appendices, marked "[REDACTED]" in the public copy of this Resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.
10. AL 2487-E and AL 2487-E-A should be approved effective today without modification.

<u>THEREFORE IT IS ORDERED THAT:</u>

1. San Diego Gas & Electric Company's Advice Letter 2487 and Advice Letter 2487-E-A, requesting Commission review and approval of an amendment to a renewable power purchase agreement with CSolar IV West, LLC, is approved without modification.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on December 5, 2013; the following Commissioners voting favorably thereon:

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PAUL CLANON
Executive Director

Confidential Appendix A

Evaluation Summary of the Amended Tenaska West PPA

[Redacted]