

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

**RESOLUTION E-5049
January 16, 2020**

REDACTED
RESOLUTION

Resolution E-5049. Pacific Gas and Electric Company requests approval of Amendments to solar and energy storage procurement agreements that delay project online dates and reduce contract prices.

PROPOSED OUTCOME:

- This Resolution approves Amendments to an existing solar photovoltaic (PV) power purchase agreement (PPA) between Pacific Gas and Electric Company (PG&E) and Java Solar, LLC and to an existing energy storage resource adequacy (ESRA) agreement between PG&E and Dynegy Marketing and Trade, LLC. The Amendments are approved without modification.

SAFETY CONSIDERATIONS:

- The Amendments to the PPA and capacity agreements do not appear to result in any adverse safety impacts on the facilities or operations of PG&E. The Amendments do not change the sellers' obligations to comply with all applicable safety requirements outlined in the original agreements.

ESTIMATED COST:

- The PV PPA, as amended, will result in a 10% cost reduction and the ESRA agreement, as amended, will result in a 5% cost reduction. These project costs reductions will directly result in lower costs for ratepayers.

By Advice Letter 5658-E, filed on October 15, 2019.

SUMMARY

Pacific Gas and Electric Company's (PG&E) solar photovoltaic (PV) power purchase agreement (PPA), as amended, with Java Solar, LLC complies with the Renewables Portfolio Standard (RPS) procurement guidelines and is approved without modification. PG&E's energy storage resource adequacy agreement, as amended, with Dynegy Marking and Trade, LLC complies with the local capacity requirements identified in Resolution E-4949 and is approved without modification.

PG&E filed Advice Letter (AL) 5658-E on October 15, 2019, requesting that the California Public Utilities Commission (CPUC) review and approve the Amendments to the photovoltaic (PV) PPA between PG&E and Java Solar and the energy storage resource adequacy (ESRA) agreement between PG&E and Dynegy Marking and Trade, LLC.

Java Solar PPA Amendments (Second Amendment)

The original, approved PPA was a 20-year contract for generation from one new solar photovoltaic facility, Java Solar, that is being developed by Java Solar, LLC in Kings County, California. The existing long-term PPA was amended (First Amendment) in 2017 to reduce the delivery term from 20 to 17.25 years, modify the commercial operation date, and reduce the annual contract quantities. The First Amendment was approved by the CPUC through Resolution E-4890.

Changes to the PPA pursuant to the proposed Second Amendment include:

- Reduction of contract price by ten percent for all contract years;
- Extension of the commercial online date from October 1, 2020 to October 1, 2022;
- Contract assumption in PG&E's ongoing bankruptcy proceeding;
- Increase in the Net Market Value (NMV) of the PPA because of lower contract costs and higher expected energy values.

Dynegy Energy Storage Agreement Amendments

Dynegy's Moss Landing project is a 20-year agreement executed on June 6, 2018, for a 300 megawatt (MW) four-hour lithium-ion battery. The energy storage

project will be interconnected to serve the South Beach Moss Landing reliability needs.

Changes to the capacity agreement pursuant to the proposed amendments include:

- Reduction of contract price by five percent for all contract years;
- Extension of the commercial online date from December 1, 2020 to June 1, 2021;
- Contract assumption in PG&E’s ongoing bankruptcy proceeding;
- Increase in the Net Market Value due to the lowered contract costs and higher expected energy and capacity values.

Table 1 below provides a summary of the Amended PPA between PG&E and Java Solar and Dynegy.

Table 1: Summary of the Amended PPA and Capacity Agreement

Generating Facility	Technology Type	Delivery Term (Years)	Capacity (MW)	Original COD	Amended COD	Location
Java Solar	Solar PV	17.25	13.5 MW	October 1, 2020	October 1, 2022	Kings County, California
Dynegy Moss Landing	4-hour lithium-ion battery	20	300 MW	December 1, 2020	June 1, 2021	Moss Landing, California

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, SB 2 (1X), SB 350, and SB 100.¹ The RPS program is codified in Public Utilities Code (PUC) Sections 399.11-399.32.²

Under SB 2 (1X), the RPS program administered by the Commission requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources equal an average of 20 percent of the total electricity sold to retail customers in California for compliance period 2011-2013; 25 percent of retail sales by December 31, 2016; and 33 percent of retail sales by December 31, 2020.³ On October 7, 2015, SB 350 made further changes to (PUC) Sections 399.11, et seq., including raising the RPS requirement to 50% by December 31, 2030.⁴ Lastly, on September 10, 2018, SB 100 was signed into law, which advances the RPS requirements and increases the RPS requirements to 60% by 2030 while also requiring all of the state's electricity to come from zero carbon resources by 2045.⁵

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at

¹ 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); SB 350 (de León, Chapter 547, Statutes of 2015); SB 100 (de León, Chapter 312, Statutes of 2018).

² All further statutory references are to the Public Utilities Code unless otherwise specified.

³ 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). Note it is 33% of a Load Serving Entity's annual retail sale for 2020 and each year thereafter.

⁴ SB 350 (De León, Chapter 547, Statutes of 2015) effective on January 1, 2016; D.16-12-040 established additional procurement requirement quantities for the three compliance periods established by SB 350: 2021-2024, 2025-2027, 2028-2030.

⁵ SB 100 (De León, Chapter 312, Statutes of 2018) effective on January 1, 2019.

http://www.cpuc.ca.gov/RPS_Overview/ and
http://www.cpuc.ca.gov/RPS_Decisions_Proceedings/.

Resolution E-4909, PG&E Energy Storage Procurement Authorization

The Commission authorized PG&E to procure preferred resources including energy storage to address local deficiencies and ensure local reliability in the Moss Landing area through Resolution E-4909 on January 12, 2018. This procurement authorization was a response to the following: (1) notification of likely retirements of five gas peaker plants; (2) the California Independent System Operator's (CAISO) determination that three of these plants were needed to address local deficiencies and ensure local reliability; and (3) the CAISO's subsequent execution of reliability must run (RMR) contracts with these three gas peaker plants outside of the normal resource adequacy process and without initiation of the CAISO's Capacity Procurement Mechanism (CPM).⁶

To avoid on-going RMR contracting for the three identified gas peaker plants, the Commission allowed PG&E to solicit new resources that could effectively fill the local deficiencies and reliability issues the CAISO identified. The objective was for these new resources to eliminate the need for the RMR contracts for the plants mentioned, or renewal in subsequent years.

Resolution E-4909 PG&E Procurement Requirements

Resolution E-4909 directed PG&E to conduct a solicitation with the following requirements:

- (1) Consider solutions and procurement that will reduce or eliminate the need for RMR agreements in any year between 2019 through 2022.⁷
- (2) Procure projects with interconnection points that are located within the relevant sub-area(s) and are interconnected at location(s) that will

⁶ CPUC Resolution E-4909. Authorizing PG&E to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, January 12, 2018, (CPUC Resolution E-4909) p. 4.

⁷ CPUC Resolution E-4909, p. 10.

mitigate local capacity and voltage issues sufficient to obviate the need for RMR contracts for the aforementioned plants.⁸

- (3) Require that the resources procured in this solicitation to be at a reasonable cost to ratepayers and to this end take into consideration the cost of the specific RMR contracts, with adjustments for contract terms such as contract length and expedited delivery date.⁹
- (4) Coordinate any proposed procurement with the CAISO and confirm their agreement that the procurement will contribute to reducing or eliminating the local sub-area deficiencies in the Pease and South Bay-Moss Landing subareas and high voltage in the Bogue subarea.¹⁰

Resolution E-4949 PG&E's Dynegy Moss Landing Procurement Justifications

The Commission approved the proposed Moss Landing Energy Storage agreements for the following reasons:

- (1) Lack of long-term contractual commitments, and an increase in the projected capacity needed in the South Bay Moss Landing subarea which created conditions for possible incidents of market power and the potentially to extend the Metcalf RMR agreement.¹¹
- (2) PG&E's Local Sub-Area (LSA) Request for Offers (RFO) and its proposed procurements including the Dynegy Moss Landing Project, which met the requirements and goals set forth in the Resolution 4909-E.¹²
- (3) The Dynegy Moss Landing Project procured in this RFO is located in, and will be interconnected within, the South Bay-Moss Landing sub area.¹³
- (4) CAISO provided a letter of support for the proposed Moss Landing Energy Storage projects, including Dynegy, which included a statement regarding the benefits of storage capacity to the South Bay Moss Landing subarea.¹⁴

⁸ CPUC Resolution E-4909, p. 20.

⁹ CPUC Resolution E-4909, p. 18

¹⁰ CPUC Resolution E-4909, p. 7.

¹¹ CPUC Resolution E-4949, p. 41.

¹² CPUC Resolution E-4949, p. 8.

¹³ CPUC Resolution E-4949, p. 7.

¹⁴ CPUC Resolution E-4949, p. 7.

- (5) The proposed procurements, including the Dynegy Moss Landing project, were reasonably priced; and the related costs to PG&E were fully recoverable in rates over the life of the PPAs.¹⁵
- (6) The proposed procurements, including the Dynegy Moss Landing project, meet the criteria for local resource adequacy in the South Bay and Moss Landing subarea. The Dynegy project would add capacity to the constrained South Bay Moss Landing local subarea. Together they may alleviate the need for backstop procurement by the CAISO and will assist with mitigating the impacts of future retirements.¹⁶
- (7) The cost comparison provided by PG&E showed its consideration of the unique benefits of the proposed energy storage projects as compared to Metcalf and illustrated that the Moss Landing energy storage projects result in net benefits over the Metcalf RMR agreement.¹⁷

The Dynegy Moss Landing Project will be a transmission-connected, stand-alone four-hour duration lithium- ion battery energy storage resource located in Moss Landing in Monterey County, addressing resource needs in the South Bay – Moss Landing sub-area. The Dynegy Project has a project capacity of 300 MW/1,200 MWh and is going through the CAISO interconnection process.

NOTICE

Notice of AL 5658-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed to the R.18-07-003, R.15-03-011, and R.17-09-020 service lists in accordance with Section 4 of General Order 96-B.

PROTESTS

PG&E Advice Letter 5658-E was not protested.

¹⁵ CPUC Resolution E-4949, p. 3.

¹⁶ CPUC Resolution E-4949, pp. 6, 7 and 42.

¹⁷ CPUC Resolution E-4949, p. 27.

DISCUSSION

Pacific Gas and Electric Company requests approval of Amendments to an existing power purchase agreement with Java Solar, LLC.

The Java Solar project is a 13.5 megawatt (MW) solar photovoltaic facility in the Kings County, California. The existing PPA was executed as part of PG&E's sixth RAM solicitation in 2015 and was made effective by the Commission in 2016. The existing long-term PPA was amended (First Amendment) in 2017 to reduce the delivery term from 20 to 17.25 years, modify the commercial operation date, and reduce the annual contract quantities. The First Amendment was approved by the CPUC through Resolution E-4890.

Now, through AL 5658-E, PG&E seeks to delay the commercial online-date twenty-four months from October 1, 2020 to October 1, 2022. The purpose of the proposed Amendments (Second Amendment) is to resolve uncertainty related to PG&E's ongoing bankruptcy proceeding so that Java Solar may move forward in the development process.

Changes to the PPA pursuant to the proposed Second Amendment include:

- Reduction of contract price by ten percent for all contract years;
- Extension of the commercial online date from October 1, 2020 to October 1, 2022; and
- Contract assumption in PG&E's ongoing bankruptcy proceeding.

The point of interconnection for the Java Solar PPA remains the same.

Pacific Gas and Electric Company requests approval of Amendments to an existing resource adequacy agreement with Dynegy LLC.

The Dynegy Moss Landing project is scheduled to serve the South Bay Moss Landing area and provide a total of 300 MW to address local reliability issues in the area. The Commission approved the solicitation of this project through Resolution 4909-E and the original proposed agreements through Resolution 4949-E. PG&E has provided the Commission executed Amendments for these

projects for review and approval. Commission staff have determined that the proposed Amendments make changes solely to the project milestones, expected initial delivery dates, and contract prices.

The expected delivery date is now June 1, 2021 instead of December 1, 2020, and the project review milestone is now July 1, 2020 instead of January 1, 2020. Dynegy LLC has also agreed to lower the contract price by five percent (5%) for all years of the contract term. As a result, the net market value (NMV) for the amended contract is slightly higher.

PG&E and the Commission have confirmed that the identified benefits of the original contract with Dynegy LLC will remain intact following the requested extension of the on-line dates. The later on-line date for the Dynegy Moss Landing project, which is in 2021, still meet the Resolution 4909-E objective of procuring resources that come on-line between the 2019-2022 timeframe. Assuming no retirements in the South Bay Moss Landing area, there is enough generation in the area through 2024.

Changes to the Dynegy agreement pursuant to the proposed Amendments include:

- Reduction of contract price by five percent for all contact years;
- Extension of the commercial online date from December 1, 2020 to June 1, 2021; and
- Contract assumption in PG&E's ongoing bankruptcy proceeding.

The point of interconnection for the Dynegy Moss Landing project remains the same.

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

1. Approves each of the Amendments in its entirety, including payments to be made by PG&E pursuant to each of the Agreement Parties as amended by the Amendments, subject to the approval of the federal bankruptcy court and the Commission's review of PG&E's administration of the Amendments.

2. Finds that all procurement and administrative costs, as provided by Public Utilities Code section 399.13(g), associated with the Agreements as amended by the Amendments shall be recovered in rates.
3. Finds that the terms of each of the Amendments are reasonable.
4. Adopts the following findings of fact and conclusions of law in support of cost recovery for the energy storage Agreement as amended:
 - a. The payments under the amended Dynegy energy storage agreement shall continue to be recovered through the Cost Allocation Mechanism (CAM) in PG&E's Energy Resource Recovery Account.
5. Adopts the following findings of fact and conclusions of law in support of cost recovery for the PV PPA as amended by the Amendments:
 - a. The payments under the amended Java Solar PPA shall continue to be recovered through PG&E's Energy Resource Recovery Account and included in calculation of the Power Charge Indifference Adjustment (PCIA).

Energy Division evaluated the Second Amended Java Solar PPA and the Amended Dynegy Energy Storage Resource Adequacy Agreement based on the following criteria:

- Consistency with PG&E's 2018 RPS Procurement Plan;
- Consistency with Bilateral Contracting Rules;
- Consistency with PG&E's Least-Cost, Best-Fit methodology (LCBF);
- Disadvantaged Communities Considerations;
- Net Market Value and Cost Reasonableness;
- Independent Evaluator Review;
- Procurement Review Group Participation;
- Project Viability Assessment and Development Status; and
- Public Safety.

Consistency with PG&E's 2018 RPS Procurement Plan

Pursuant to statute, PG&E's RPS Procurement Plan (Plan) includes an assessment of RPS supply and demand to determine the optimal mix of renewable generation resources; a description of its existing RPS portfolio; a description of potential RPS compliance delays; a 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.¹⁸ California's RPS statute also requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.¹⁹ The Commission reviews the results to verify that the utility conducted its solicitation according to its Commission-approved procurement plan.²⁰

In PG&E's 2018 RPS Plan, PG&E explained that its assessment for determining need is based on a stochastic model that assesses the impact of demand and supply-side variables, including retail sales variability, RPS generation variability, expected curtailment, and project failure variability. PG&E asserts that it is well positioned to meet the current 33% RPS by 2020 target, as well as meet its RPS compliance requirements for third (2017-2020), fourth (2021-2024), and fifth (2025-2027) compliance periods. Based on that assessment, PG&E stated that it will not have an incremental RPS physical need until at least 2026.

As a Commission-approved PPA arising out of PG&E's 2015 Renewable Auction Mechanism (RAM) Solicitation, it was assumed in PG&E's 2016 RPS Plan as a facility that would contribute to RPS supply in PG&E's portfolio. PG&E's proposed Amendments will not change the expected amount of RPS procurement but will postpone the guaranteed commercial operation date from October 1, 2020, to October 1, 2022.

Based on analysis of PG&E's assessment of RPS portfolio supplies and demand outlined in its 2018 RPS Plan, the Amendment does not change the amount of RPS supply in any significant way.

¹⁸ Pub. Util. Code § 399.13(a)(5).

¹⁹ Pub. Util. Code § 399.13(d).

²⁰ PG&E's 2018 Draft RPS Procurement Plan was approved by D.19-02-007 on February 21, 2019.

Therefore, the Amendments to the Java Solar PPA are consistent with PG&E's RPS portfolio needs in its 2018 RPS Procurement Plan, as approved by D. 19-02-007.

Consistency with Bilateral Contracting Rules

The Amendments were negotiated through bilateral negotiations and were not the result of competitive solicitations. The Amendments were negotiated through bilateral efforts to resolve uncertainty related to PG&E's ongoing bankruptcy proceeding. The bankruptcy court has granted approval of the Amendments.²¹

The Commission has guidelines pursuant to which utilities may enter into bilateral RPS contracts. In D.03-06-071, the Commission authorized entry into bilateral RPS contracts. In D.06-10-019, the Commission further established rules pursuant to which the IOUs could enter into bilateral RPS contracts. PG&E adhered to these bilateral contracting rules for the Java Solar PPA.

In D.09-06-050, the Commission determined that bilateral agreements should be reviewed according to the same processes and standards as projects that come through a solicitation.

The Java Solar PPA, as amended, is consistent with the bilateral contracting guidelines established in D.06-10-019 and D.09-06-050.

Consistency with PG&E's Least-Cost, Best-Fit Methodology (LCBF)

²¹ Order Pursuant to 11 U.S.C. 365(a), FED. R. Bankr P. 6006, and B.L.R. 6006-1 Approving Utility's Sixth Omnibus Motion to Assume Certain Contract Price Discounted Energy Procurement Agreements, Bankruptcy Case No. 19-30088, Doc# 4574, Filed: November 4, 2019

In D.04-07-029, the Commission directs the utilities to use certain criteria in their LCBF selection of renewable resources.²² 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, PG&E’s LCBF bid evaluation includes a quantitative analysis and qualitative criteria. PG&E’s quantitative analysis or market valuation includes evaluation of price, transmission and congestion costs as well as resource adequacy. PG&E’s qualitative analysis focuses on comparing similar bids across numerous factors, such as location, benefits to minority and low-income areas, and resource diversity.

Java Solar PPA Second Amendment

PG&E and Java Solar, LLC negotiated the Second Amendment bilaterally; therefore, the Second Amended PPA did not compete directly with other RPS projects. However, the Second Amended PPA underwent a Net Market Value and Cost Reasonableness review. The Second Amended PPA was compared against the existing amended PPA on a LCBF basis whereby the Second Amendment to the PPA was evaluated consistent with the least-cost best-fit methodology identified in PG&E’s 2018 RPS Procurement Plan.

Dynegy Moss Landing Project Amendment

For original energy storage capacity agreements, PG&E assessed the value using the LCBF methodology as well as the portfolio adjusted value (PAV) developed by PG&E. As explained in AL 5658-E, the proposed Amendment results in reduced net capacity costs for the Dynegy Moss Landing project thus resulting in greater value to customers.²³ PG&E also included confidential analysis detailing a comparison of the contracts to the cost of future RMR agreements.²⁴ This analysis demonstrated that the Dynegy Moss Landing project provides greater value to ratepayers than other procurement options. PG&E provided an updated analysis with the Amendment that demonstrates that the proposed Dynegy Moss Landing project, as amended still provides greater value to ratepayers than other

²² See § 399.14(a)(2)(B).

²³ PG&E AL 5658 E, October 15, 2019, p. 3.

²⁴ CPUC Resolution E-4949, Pacific Gas and Electric request approval of four energy storage facilities with the following counterparties: mNOC, Dynegy, Hummingbird Energy Storage, LLC and Tesla, November 8, 2018, Table 7. Comparison to Metcalf RMR, p. 28.

procurement options.²⁵ PG&E goes on to state that cost alone is not a sufficient basis of comparison as energy storage resources offer benefits that gas resources do not provide, such as flexible capacity, which doubles project capacity, given the bi-directional ability of storage to both dispatch and absorb energy.²⁶

Therefore, with the proposed Amendment, the Dynegy Moss Landing project is still reasonably priced and provide a cost savings over available RMR contracts.

Disadvantaged Communities Considerations

Senate Bill 350 (de León, Chapter 547, Stats. 2015) and SB 2 (1X) (Simitian, Stats. 2011, ch.1) contain disadvantaged community goals that are cross-cutting and therefore will be integrated into all policy areas. The CalEPA's CalEnviroScreen tool identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. Disadvantaged communities are defined as those areas in the 75-100th percentile, or the top 25% of the highest scoring census tracts in CalEnviroScreen 3.0. Thus, the Commission analyzed the two project locations relative to such communities.

Java Solar PPA Second Amendment

According to the CalEnviroScreen, the Java Solar project is in census tract 6031001601, which received a CalEnviroScreen Version 3.0²⁷ score of 85-90 percent. Utilizing the CalEnviroScreen data to identify disadvantaged communities in California, it has been determined that the Java Solar facility is indeed located in a disadvantaged community.

Dynegy Moss Landing Project Amendment

Similarly utilizing the CalEnviroScreen tool, the Dynegy Moss Landing project is in census tract 6053014601, which received a CalEnviroScreen score of 65-70

²⁵ PG&E Non-Case Discovery Data Response Question 3, September 13, 2019, p.2.

²⁶ Pacific Gas and Electric Company's Reply to Protests of Advice Letter 5322-E for Energy Storage Contracts Resulting from PG&E's Local Sub-Area Request for Offers Per Resolution E-4909. July 26, 2018, pp. 12-14.

²⁷ The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) created CalEnviroScreen through a public process in order to help the state identify disadvantaged communities, and the tool "uses environmental, health, and socioeconomic information to produce scores for every census tract in the state." (<https://oehha.ca.gov/calenviroscreen/>)

percent. Given this score, it has been determined that the Dynegy Moss Landing project is not located in a disadvantaged community.

Additionally, the Dynegy Moss Landing Storage site is expected to be surrounded by vulnerable sea level rise areas in the long-term (by 2040), as calculated by the National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise and Coastal Flooding Impacts tool.²⁸

The Java Solar project is located in a CalEnviroScreen Version 3.0 designated disadvantaged community. The Dynegy Moss Landing project is not located in a disadvantaged community.

Cost Reasonableness and Net Market Value

Java Solar PPA Second Amendment

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. Because Advice Letter 5658-E seeks an Amendment to an existing contract that was executed in 2015, the reasonableness of the amended price is compared to the original PPA price, which was deemed reasonable at the time of initial approval and not modified in the First Amended PPA.²⁹ The Commission found the original contract price to be reasonable when approving the original Java Solar PPA.

Deliveries from Java Solar to PG&E will be priced at a 10% discount compared to the original contract price. In addition to the lowering contract prices, PG&E expects the net impact of the Second Amendment will further benefit ratepayers compared to the First Amended PPA. Therefore, the Amendments are expected to improve the NMV of the PV PPA by more than 10%. The Second Amended Java Solar PPA compares reasonably to the net market value of the First Amended PPA, which would remain in effect in the absence of the Amendments.

²⁸ See the NOAA map here: <https://coast.noaa.gov/slr/#/layer/slr/6/-13555908.39349426/4411722.748141687/14/satellite/none/0.8/2050/interHigh/midAccretion>

²⁹ PG&E Advice Letter 5216-E, submitted on August 16, 2017, approved by CPUC Resolution E-4890 on December 14, 2017

Payments made by PG&E under the Java Solar PPA, as amended, are fully recoverable in rates over the life of the amended PPAs, subject to Commission review of PG&E's administration of the amended PPAs.

Dynegy Moss Landing Project Amendment

As mentioned, PG&E provided an updated cost and benefit analysis of the proposed Dynegy LLC contract Amendments over a possible Metcalf Reliability Must Run (RMR) contract. The provided analysis illustrated PG&E ratepayers will continue to receive a savings with the energy storage contracts versus an RMR contract.

As Advice Letter 5658-E seeks Amendments to existing contracts that were executed in 2018, the reasonableness of the amended prices are compared to the original prices, which were deemed reasonable at the time of their initial submittal.³⁰ The Commission found the original contract prices to be reasonable when approving the two capacity agreements.

Deliveries from the energy storage projects to PG&E will be priced at a 5% discount compared to the original contract prices. As a result, the Amendment is expected to increase the net market value (NMV) of the Dynegy agreement. This Amendment compares reasonably to the NMV of the original agreements, which would remain in effect in the absence of the Amendment.

Payments made by PG&E under the Dynegy agreement, as amended, are fully recoverable in rates over the life of the amended agreements, subject to Commission review of PG&E's administration of the amended agreements.

Independent Evaluator Review

Java Solar and Dynegy Energy Storage Amendments

³⁰ PG&E Advice Letter 5322-E, Filed on June 29, 2018.

Because the Amendments were negotiated through bilateral negotiations and were not the result of competitive solicitations, and because the Amendments resulted in price decreases rather than price increases, PG&E did not engage an Independent Evaluator (IE). An IE review for the proposed Amendments is not required since the Amendments are the result of bilateral negotiations.

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.³¹ On September 27, 2019, PG&E notified the PRG via e-mail of the proposed Amendments to the Java Solar PPA and Dynegy energy storage agreement and solicited comments on the proposed transactions.

Pursuant to D.02-08-071, PG&E's Procurement Review Group participated in the review of the proposed Amendments.

PG&E complied with the PRG procurement notification process.

Project Viability Assessment and Development Status

With PG&E's bankruptcy proceeding underway, the aim of the proposed Amendments is to provide greater certainty for the projects' financing. Thus, the Amendments support the viability of the PV and energy storage projects and their development within the amended timeframe. Specifically, the proposed later online dates in the Amendments will increase the likelihood of both projects achieving successful completion and realizing the intended benefits.

RPS Eligibility and CPUC Approval

³¹ PG&E's PRG includes representatives from the Commission's Energy Division and the California Public Advocates Office (formerly, Office of Ratepayer Advocates), Coalition of California Utility Employees ("CUE"), Coast Economic Consulting, Earth Justice, The Utility Reform Network ("TURN"), and the Union of Concerned Scientists.

Pursuant to Public Utilities Code 399.13, the California Energy Commission (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 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.³²

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.³³

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

³² See, e.g. D.08-04-009 at Appendix A, STC 6, Eligibility.

³³ See, e.g. D.08-04-009 at Appendix A, STC 1, CPUC Approval.

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.

The Java Solar Project has received certification by the CEC as an Eligible Renewable Energy Resource. The facility must continue to maintain its RPS-certification as required by the standard and non-modifiable "eligibility" language of the PPA.

Public Safety

Public Utilities Code Section 451 requires that every public utility maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities to ensure the safety, health, and comfort of the public. The original agreements required Java Solar, LLC and Dynegy to comply with all applicable laws relating to project safety, including those related to planning, construction, ownership, decommissioning, and/or operation of the projects.

Specifically, the Dynegy agreement requires a project safety plan that demonstrates responsible safety management during all phases of the project lifecycle, including project design, construction, operation, and maintenance. The project safety plan must comply with applicable Safety Requirements. The project developer must also monitor and comply with changes to Safety Requirements, even if such compliance requires the project developer to modify the project.

The proposed Amendments do not change the Agreement terms related to safety, there are no incremental safety implications associated with approval of the Amendments beyond the status quo.

While the Commission is not authorized to administer Occupational Safety & Health Administration (OSHA) workplace safety standards, the Commission reviewed historic OSHA records for the parties related to projects in California. Both the Dynegy energy storage project and Java Solar project had no OSHA violations.

Confidential Information

The Commission, in implementing Public Utilities Code Section 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 sensitive data does not influence the behavior of bidders in future RPS and energy storage solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS and energy storage contracts. Such information, such as price, is confidential for three years from the date the contract states that energy deliveries begin, except contracts between the investor owned utilities 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 Public Utilities Code Section 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS

1. The Java Solar PPA, as amended, is consistent with PG&E's 2018 RPS Procurement Plan, as approved by D.19-02-007.
2. The Dynegy energy storage resource adequacy (ESRA) agreement, as amended, is consistent with Commission Resolutions 4909-E and 4949-E.
3. The Java Solar PPA, as amended, is consistent with the bilateral contracting guidelines established in D.06-10-019 and D.09-06-050.
4. The Java Solar PPA, as amended, was evaluated consistent with the least-cost best-fit methodology identified in PG&E's 2018 RPS Procurement Plan.
5. The Java Solar project is located in a CalEnviroScreen Version 3.0 designated disadvantaged community. The Dynegy Moss Landing project is not located in a disadvantaged community.

6. The Dynegy ESRA agreement, as amended, is still reasonably priced and provide a cost savings over available RMR contract options.
7. Payments made by PG&E under the Second Amended Java Solar PPA and the Amended Dynegy ESRA agreement are fully recoverable in rates over the life of the amended agreements, subject to Commission review of PG&E's administration of the Amendments and any other conditions contained herein or required by law.
8. An Independent Evaluator review was not required for the Amendments since the Amendments were the result of bilateral negotiations.
9. Pursuant to D.02-08-071, PG&E's Procurement Review Group participated in the review of the proposed Java Solar PPA and Dynegy ESRA agreement Amendments.
10. Procurement pursuant to the Second Amended Java Solar PPA is procurement from an eligible renewable energy resource for purposes of determining PG&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.
11. 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 PG&E of its obligation to enforce compliance with the amended PPA.
12. The proposed 2021 online date in the Amendments for the Dynegy Moss Landing project would not result in adverse local reliability impacts in the South Bay Moss Landing area.
13. The proposed Amendments do not change the Agreement terms related to safety, there are no incremental safety implications associated with approval of the Amendments beyond the status quo.
14. The confidential information in the public copy of this resolution marked [REDACTED], as well as the confidential portions of Advice Letter 5658-E, should remain confidential at this time.
15. AL 5658-E should be approved effective today without modification.

THEREFORE, IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's Advice Letter 5658-E requesting Commission review and approval of the Amendments to existing PV Renewables Portfolio Standard power purchase agreement with Java Solar, LLC and the energy storage resource adequacy agreement with Dynegy LLC are 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 January 16, 2020; the following Commissioners voting favorably thereon:

/s/ Alice Stebbins
ALICE STEBBINS
Executive Director

MARYBEL BATJER

President

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

GENEVIEVE SHIROMA

Commissioners

Confidential Appendix A

[REDACTED]