

**Regular Meeting of the Board of Directors of the
Peninsula Clean Energy Authority (PCEA)****AGENDA****Thursday, September 22, 2022
5:30 p.m.****Zoom Link:** <https://pencleanenergy.zoom.us/j/82688645399>**Meeting ID:** 826-8864-5399 **Passcode:** 2075 **Phone:** +1(346)248-7799**NOTE: Please see attached document for additional detailed teleconference instructions.**

In accordance with AB 361, the Board will adopt findings that meeting in person would present imminent risks to the health or safety of attendees of in-person meetings. Consistent with those findings, this Board Meeting will be held remotely. PCEA shall make every effort to ensure that its video conferenced meetings are accessible to people with disabilities as required by Governor Newsom's March 17, 2020 Executive Order N-29-20. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the meeting materials should contact Nelly Wogberg, Board Clerk, at least 2 working days before the meeting at nwogberg@peninsulacleanenergy.com. Notification in advance of the meeting will enable PCEA to make best efforts to reasonably accommodate accessibility to this meeting and the materials related to it.

*If you wish to speak to the Board of Directors, please use the "Raise Your Hand" function in the Zoom platform or press *6 if you phoned into the meeting. If you have anything that you wish to be distributed to the Board of Directors and included in the official record, please send to nwogberg@peninsulacleanenergy.com.*

CALL TO ORDER / ROLL CALL**PUBLIC COMMENT**

This item is reserved for persons wishing to address the Committee on any PCEA-related matters that are not otherwise on this meeting agenda. Public comments on matters listed on the agenda shall be heard at the time the matter is called. Members of the public who wish to address the Board are customarily limited to two minutes per speaker. The Board Chair may increase or decrease the time allotted to each speaker.

ACTION TO SET AGENDA AND TO APPROVE CONSENT AGENDA ITEMS

1. Adopt Findings Pursuant to AB 361 to Continue Fully Teleconferenced Committee Meetings Due to Health Risks Posed by In-Person Meetings
2. Approval of the Minutes for the August 25, 2022 Board of Directors Meeting

REGULAR AGENDA

3. Chair Report (Discussion)
4. CEO Report (Discussion)

5. Citizens Advisory Committee Report (Discussion)
6. Approve an Amended and Restated Power Purchase Agreement (PPA) with Arica Solar + Storage (Action)
7. Diversity, Equity, Accessibility, and Inclusion (DEAI) Policy Update (Discussion)
8. Strategic Plan Dashboard Update
 - a. Break (5min)
9. Update and Discussion on 100% Renewable on 24/7 Basis by 2025
 - a. Break (5 min)
10. Update and Discussion on 2035 Decarbonization Plan
11. Board Members' Reports (Discussion)

INFORMATIONAL REPORTS

12. Update on Marketing, Outreach Activities, and Account Services
13. Update on Regulatory Policy Activities
14. Update on Legislative Activities
15. Update on Community Energy Programs
16. Update on Energy Supply Procurement
17. Industry Acronyms and Terms

ADJOURNMENT

Public records that relate to any item on the open session agenda are available for public inspection. The records are available at the Peninsula Clean Energy offices or on PCEA's Website at: <https://www.peninsulacleanenergy.com>.

Instructions for Joining a Zoom Meeting via Computer or Phone

Best Practices:

- Please mute your microphone when you are not speaking to minimize audio feedback
- If possible, utilize headphones or ear buds to minimize audio feedback
- If participating via videoconference, audio quality is often better if you use the dial-in option (Option 2 below) rather than your computer audio

Options for Joining

- A. Videoconference with Computer Audio – see Option 1 below
- B. Videoconference with Phone Call Audio– see Option 2 below
- C. Calling in via Telephone/Landline – see Option 3 below

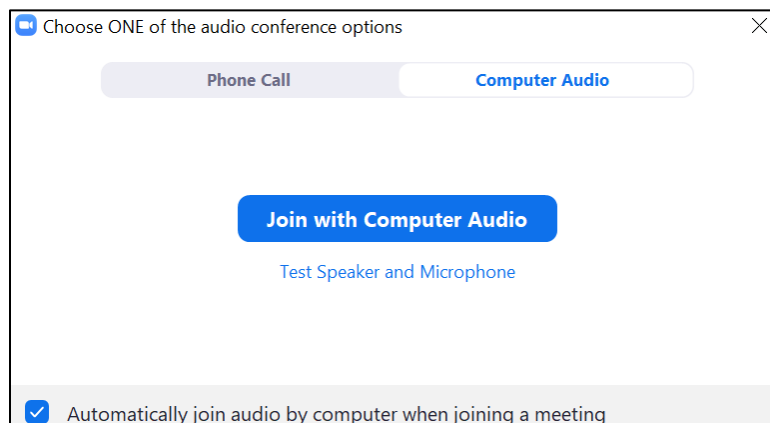
Videoconference Options:

Prior to the meeting, we recommend that you install the Zoom Meetings application on your computer by clicking here <https://zoom.us/download>.

If you want full capabilities for videoconferencing (audio, video, screensharing) you must download the Zoom application.

Option 1 Videoconference with Computer Audio:

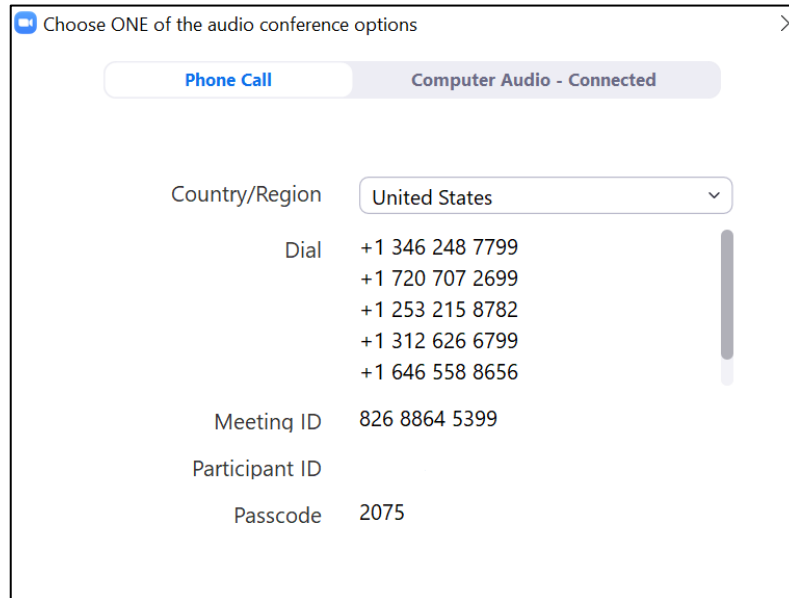
1. From your computer, click on the following link that is also included in the Meeting Calendar Invitation: <https://pencleanenergy.zoom.us/j/82688645399>
2. The Zoom application will open on its own or you will be instructed to open Zoom.
3. After the application opens, the pop-up screen below will appear asking you to choose ONE of the audio conference options. Click on the Computer Audio option at the top of the pop-up screen.



4. Click the blue, "Join with Computer Audio" button.
5. In order to enable video, click on "Start Video" in the bottom left-hand corner of the screen. This menu bar is also where you can mute/unmute your audio.

Option 2 Videoconference with Phone Call Audio:

1. From your computer, click on the following link that is also included in the Meeting Calendar Invitation: <https://pencleanenergy.zoom.us/j/82688645399>
2. The Zoom Application will open on its own or you will be instructed to Open Zoom.



3. After the application opens, the pop-up screen below will appear asking you to choose ONE of the audioconference options. Click on the Phone Call option at the top of the pop-up screen.
4. Please dial +1(346)248-7799
5. You will be instructed to enter the meeting ID: **826-8864-5399 followed by #**
6. You will be instructed to enter in your participant ID. Your participant ID is unique to you and is what connects your phone number to your Zoom account
7. After a few seconds, your phone audio should be connected to the Zoom application on your computer
8. In order to enable video, click on "Start Video" in the bottom left-hand corner of the screen. This menu bar is also where you can mute/unmute your audio

Audio Only Options:

Please note that if you call in/use the audio only option, you will not be able to see the speakers or any presentation materials in real time.

Option 3: Calling in via Telephone/Landline:

1. Dial +1(346)248-7799
2. You will be instructed to enter the meeting ID: **826-8864-5399 followed by #**
3. You will be instructed to enter your **Participant ID** followed by #. If you do not have a participant ID or do not know it, you can press # to stay on the line
4. You will be instructed to enter the meeting passcode **2075 followed by #**



PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence

DATE: September 16, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: Majority Present

TO: Honorable Peninsula Clean Energy Authority Board of Directors
FROM: Jan Pepper, Chief Executive Officer, Peninsula Clean Energy Authority
SUBJECT: Resolution to Make Findings Allowing Continued Remote Meetings Under Brown Act

RECOMMENDATION:

Adopt a resolution finding that, as a result of the continuing COVID-19 pandemic state of emergency declared by Governor Newsom, meeting in person would present imminent risks to the health or safety of attendees.

BACKGROUND:

On June 11, 2021, Governor Newsom issued Executive Order N-08-21, which rescinded his prior Executive Order N-29-20 and set a date of October 1, 2021 for public agencies to transition back to public meetings held in full compliance with the Brown Act. The original Executive Order provided that all provisions of the Brown Act that required the physical presence of members or other personnel as a condition of participation or as a quorum for a public meeting were waived for public health reasons..

On September 16, 2021, the Governor signed AB 361, a bill that formalizes and modifies the teleconference procedures implemented by California public agencies in response to the Governor's Executive Orders addressing Brown Act compliance during shelter-in-place periods. AB 361 allows a local agency to continue to use teleconferencing under the same basic rules as provided in the Executive Orders when certain circumstances occur or when certain findings have been made and adopted by the local agency.

AB 361 requires that, if the state of emergency remains active for more than thirty (30) days, the agency must make findings by majority vote to continue using the bill's exemption to the Brown Act teleconferencing rules. The findings are to the effect that the need for teleconferencing persists due to the nature of the ongoing public health emergency and the social distancing recommendations of local public health officials. **Effectively, this means that agencies, including PCEA, must agendize a Brown Act**

meeting and make findings regarding the circumstances of the emergency on a thirty (30) day basis. If at least thirty (30) days have transpired since its last meeting, the Boards must vote whether to continue to rely upon the law's provision for teleconference procedures in lieu of in-person meetings.

AB 361 allows for meetings to be conducted virtually *as long as* there is a gubernatorially-proclaimed public emergency in combination with (1) local health official recommendations for social distancing or (2) adopted findings that meeting in person would present risks to health. AB 361 will sunset on January 1, 2024.

On September 25, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361. Out of an abundance of caution given AB 361's narrative that describes each legislative body's responsibility to reauthorize remote meetings, staff and counsel brings this memo and corresponding resolution to the attention of the Board of Directors.

On October 28, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On November 18, 2021 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On December 16, 2021 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On January 27, 2022 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On February 24, 2022 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On March 24, 2022 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On April 28, 2022 the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On May 26, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On June 23, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On July 28, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

On August 25, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361.

DISCUSSION:

Because of continuing concerns regarding COVID-19 transmission, especially when individuals are grouped together in close quarters, it is recommended that the Peninsula Clean Energy Board of Directors avail itself of the provisions of AB 361 allowing continuation of online meetings by adopting findings to the effect that conducting in-person meetings would present risk to the health and safety of attendees. A resolution to that effect and directing staff to agendize the renewal of such findings in the event that thirty (30) days has passed since the Board's last meeting, is attached hereto.

RESOLUTION NO. _____

PENINSULA CLEAN ENERGY AUTHORITY, COUNTY OF SAN MATEO,

STATE OF CALIFORNIA

* * * * *

**RESOLUTION FINDING THAT, AS A RESULT OF THE CONTINUING COVID-19
PANDEMIC STATE OF EMERGENCY DECLARED BY GOVERNOR NEWSOM,
MEETING IN PERSON FOR MEETINGS OF THE PENINSULA CLEAN ENERGY
BOARD OF DIRECTORS WOULD PRESENT IMMINENT RISKS TO THE HEALTH
OR SAFETY OF ATTENDEES**

WHEREAS, on March 4, 2020, the Governor proclaimed pursuant to his authority under the California Emergency Services Act, California Government Code section 8625, that a state of emergency exists with regard to a novel coronavirus (a disease now known as COVID-19); and

WHEREAS, on June 4, 2021, the Governor clarified that the “reopening” of California on June 15, 2021 did not include any change to the proclaimed state of emergency or the powers exercised thereunder, and as of the date of this Resolution, neither the Governor nor the Legislature have exercised their respective powers pursuant to California Government Code section 8629 to lift the state of emergency either by proclamation or by concurrent resolution in the state Legislature; and

WHEREAS, on March 17, 2020, Governor Newsom issued Executive Order N-29-20 that suspended the teleconferencing rules set forth in the California Open Meeting law, Government Code section 54950 et seq. (the “Brown Act”), provided certain requirements were met and followed; and

WHEREAS, on September 16, 2021, Governor Newsom signed AB 361 that provides that a legislative body subject to the Brown Act may continue to meet without fully complying with the teleconferencing rules in the Brown Act provided the legislative body determines that meeting in person would present imminent risks to the health or safety of attendees, and further requires that certain findings be made by the legislative body every thirty (30) days; and,

WHEREAS, on January 5, 2022, Governor Newsom extended the sunset provision of AB361 and Government Code Section 11133(g) to January 1, 2024 due to surges and instability in COVID-19 cases; and,

WHEREAS, California Department of Public Health (“CDPH”) and the federal Centers for Disease Control and Prevention (“CDC”) caution that COVID-19 continues to be highly transmissible and that even fully vaccinated individuals can spread the virus to others; and,

WHEREAS, the Board has an important governmental interest in protecting the health, safety and welfare of those who participate in its meetings;

WHEREAS, on September 25, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361. Out of an abundance of caution given AB 361’s narrative that describes each legislative body’s responsibility to reauthorize remote meetings, staff and counsel bring this resolution to the attention of the Board of Directors, and;

WHEREAS, on October 28, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on November 18, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on December 16, 2021, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on January 27, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

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WHEREAS, on April 28, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on May 26, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on June 23, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and;

WHEREAS, on July 28, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and

WHEREAS, on August 25, 2022, the Peninsula Clean Energy Board of Directors approved a thirty (30) day extension of remote meetings in accordance with AB 361, and

WHEREAS, in the interest of public health and safety, as affected by the emergency caused by the spread of COVID-19, the Board deems it necessary to find that meeting in person would present imminent risks to the health or safety of attendees, and thus intends to invoke the provisions of AB 361 related to teleconferencing.

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that

1. The recitals set forth above are true and correct.
2. The Board finds that meeting in person would present imminent risks to the health or safety of attendees.
3. Staff is directed to return no later than thirty (30) days, or, alternatively, at the next scheduled meeting of the Board, after the adoption of this resolution with an item for the Board to consider making the findings required by AB 361 in order to continue meeting under its provisions.
4. Staff is directed to take such other necessary or appropriate actions to implement the intent and purposes of this resolution.

* * * * *

**Regular Meeting of the Board of Directors of the
Peninsula Clean Energy Authority (PCEA)
Minutes**

Thursday, August 25, 2022
6:30 p.m.
Zoom Video Conference and Teleconference

CALL TO ORDER

Meeting was called to order at 6:33 p.m. in virtual teleconference.

ROLL CALL

Participating Remotely:

Rick DeGolia, Atherton, *Chair*
Coleen Mackin, Brisbane
Donna Colson, Burlingame, *Vice Chair*
Roderick Daus-Magbual, Daly City – arrived at 6:35 p.m.
Carlos Romero, East Palo Alto
Sam Hindi, Foster City
Harvey Rarback, Half Moon Bay
Laurence May, Hillsborough
Betsy Nash, Menlo Park
Anders Fung, Millbrae left at 7:00 PM
Tygarjas Bigstyk, Pacifica
Jeff Aalfs, Portola Valley
Marty Medina, San Bruno
Laura Parmer-Lohan, San Carlos – arrived at 7:35 p.m.
Rick Bonilla, San Mateo

Pradeep Gupta, Director Emeritus
John Keener, Director Emeritus

Absent:

Dave Pine, San Mateo County
Warren Slocum, San Mateo County
Julia Mates, Belmont
Raquel Gonzalez, Colma
Tom Faria, Los Banos
Giselle Hale, Redwood City
James Coleman, South San Francisco
Jennifer Wall, Woodside

A quorum was established.

PUBLIC COMMENT

Tom Kabat

The Board of Directors observed a moment of silence for Board Member Rae Gonzalez from Colma who passed away on August 2, 2022.

ACTION TO SET THE AGENDA AND APPROVE REMAINING CONSENT AGENDA ITEMS

Director Mackin asked, regarding Agenda Item Number 4, for clarification on if the appointment of Chief Financial Officer as the Treasurer is an interim measure or if there were plans to create a separate position of Treasurer. Jan Pepper, Chief Executive Officer, explained that Andy Stern, the prior Chief Financial Officer, was the prior Treasurer and this item is asking to appoint Kristina Cordero to Treasurer as Andy's replacement. Director Mackin asked if this could be a separate position in the future.

Director Bigstyk asked, for Agenda Item Number 3, if the contract is for a pilot program and what happens if more agencies are interested? Phillip Kobernick, Programs Manager, explained that the program is not a pilot program but is meant to cover 6-9 fleets, however if there is more interest the program is expandable.

MOTION: Director Bonilla moved, seconded by Director Fung to set the Agenda and approve Agenda Item Numbers 1-8.

1. Adopt Findings Pursuant to AB 361 to Continue Fully Teleconferenced Committee Meetings Due to Health Risks Posed by In-Person Meetings
2. Approval of the Minutes for the July 28, 2022 Board of Directors Meeting
3. Approval of Contract with Optony for the Local Government Fleets Program for a Total of \$390,000 Over 3 Years
4. Appointment of Kristina Cordero as Peninsula Clean Energy Treasurer
5. Approval of 2021 Power Content Label
6. Approval of Contract Amendment with NewGen Strategies in the Amount of \$75,000 for the Peninsula Clean Energy Data Warehouse Ongoing Support & Maintenance for the Period of November 1, 2022 Through December 31, 2023 in an Amount Not-to-Exceed \$220,000
7. Approval of Peninsula Clean Energy Social Media Policy
8. Approval of 2022 Amended Conflict of Interest Code for Peninsula Clean Energy

Staff requested that Agenda Item Number 14.b. be pulled from the Agenda. Jennifer Stalzer, Associate County Counsel, explained that Agenda Item Number 14.b. is not ready for Board approval at this moment and will be reagendaized for a later meeting.

MOTION AS AMENDED: Director Bonilla moved, seconded by Director Fung to set the Agenda with the removal of Agenda Item Number 14.b. and approve Agenda Item Numbers 1-8.

1. Adopt Findings Pursuant to AB 361 to Continue Fully Teleconferenced Committee Meetings Due to Health Risks Posed by In-Person Meetings

2. Approval of the Minutes for the July 28, 2022 Board of Directors Meeting
3. Approval of Contract with Optony for the Local Government Fleets Program for a Total of \$390,000 Over 3 Years
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7. Approval of Peninsula Clean Energy Social Media Policy
8. Approval of 2022 Amended Conflict of Interest Code for Peninsula Clean Energy

MOTION AS AMENDED PASSED: 14-0 (Absent: San Mateo County, San Mateo County, Belmont, Colma, Los Banos, Redwood City, San Carlos, South San Francisco, Woodside)

JURISDICTION	BOARD MEMBER	YES	NO	ABSTAIN	ABSENT
San Mateo County	Director Pine				X
San Mateo County	Director Slocum				X
Atherton	Director DeGolia	X			
Belmont	Director Mates				X
Brisbane	Director Mackin	X			
Burlingame	Director Colson	X			
Colma	Director Gonzalez				X
Daly City	Director Daus-Magbual	X			
East Palo Alto	Director Romero	X			
Foster City	Director Hindi	X			
Half Moon Bay	Director Rarback	X			
Hillsborough	Director May	X			
Los Banos	Director Faria				X
Menlo Park	Director Nash	X			
Millbrae	Director Fung	X			
Pacifica	Director Bigstyk	X			
Portola Valley	Director Aalfs	X			
Redwood City	Director Hale				X
San Bruno	Director Medina	X			
San Carlos	Director Parmer-Lohan				X
San Mateo	Director Bonilla	X			
South San Francisco	Director Coleman				X
Woodside	Director Wall				X
	Totals	14			9

REGULAR AGENDA

9. Chair Report

Chair DeGolia reported that the CEO Review Subcommittee received Jan Pepper's self-assessment and has had one meeting. At the next Executive Committee Meeting on September 12, 2022 the Committee will discuss if a closed session should be held.

10. CEO Report

Jan Pepper, Chief Executive Officer, gave a report including a staffing update, recruitment for a position on the Audit & Finance Committee, a summary of presentations given to City Councils, a preview of the September 22, 2022 Board Retreat Agenda, information on the Inflation Reduction Act and a Legislative Update. Jan also shared information on a billing error in July 2022.

Director Nash requested a memo on the July 2022 billing error.

Vice Chair Colson asked the average amount of the underbilling. Jan explained it varies based on the size of bill, but for an average usage of 400 kwh/month, it would equate to approximately \$8 for the month. The error began on July 1, 2022 so some customers had a reduction in only one statement while others may have a reduction split between two statements, depending on the billing date.

Vice Chair Colson asked for if there was a cap on the vehicle price for the \$7500 rebate on Electric Vehicles (EV) as part of the Inflation Reduction Act. Jan explained there are MSRP caps of \$55,000 for cars and \$80,000 on trucks and vans. Vice Chair Colson asked about rebates without income qualifications. Jan explained that this will be discussed at the September 22 Retreat and shared that the plan is for Peninsula Clean Energy to provide some rebates in addition to the federal incentives.

Director Romero asked if the Audit and Finance Committee could review the change in tax credits.

11. Citizens Advisory Committee Report

Jason Mendelson, Citizens Advisory Committee (CAC) Vice Chair, gave a report from the August 11, 2022 CAC meeting, prepared by the CAC Chair, Cheryl Schaff.

12. Report from the Audit and Finance Committee on Investment Management Strategies (Discussion)

Vice Chair Colson shared a recap of the August Audit and Finance Committee Investment Management Strategy Presentations from First Republic Bank and PFM.

Director Bonilla shared that he believes the ESG overlay is appropriate and that \$60,000 per year is appropriate to send the message that we are supporting the mission with our invested dollars.

13. Approval of a Resolution Delegating Authority to Chief Executive Officer to Execute Power Purchase and Sale Agreement for Renewable Supply with Renewable America, LLC and any Necessary Ancillary Documents with a Power Delivery Term of 20 Years Starting at the Commercial Operation Date on or about December 1, 2023, in an Amount Not to Exceed \$12,700,000 (Action)

Peter Levitt, Programs Manager for Distributed Energy Resources, gave a presentation covering the Disadvantaged Communities Green Tariff (DAC-GT) program including a program overview, a recap of California Public Utility Commission (CPUC) programs that Peninsula Clean Energy is administering, a timeline and evaluation of Dos Palos Clean Power, and a review of the contract structure.

Director Emeritus Gupta asked if the discount customers who are enrolled in this benefit will be calculated on their solar generated bill or the non-solar generation rate. Peter explained that the community solar program allows customers to subscribe to the solar array remotely and receive the discount on all the kilowatt hours that Peninsula Clean Energy serves them. Director Emeritus Gupta asked for clarification on the rates. Peter explained that the 20% discount applies to customer's current bills.

Chair DeGolia asked for clarification on the phrase "energy only". Peter explained that some of the power plants offer not only energy but also power capacity in the form of Resource Adequacy or a similar product.

MOTION: Director Bonilla moved, seconded by Director Medina to approve a Resolution Delegating Authority to Chief Executive Officer to Execute Power Purchase and Sale Agreement for Renewable Supply with Renewable America, LLC and any Necessary Ancillary Documents with a Power Delivery Term of 20 Years Starting at the Commercial Operation Date on or about December 1, 2023, in an Amount Not to Exceed \$12,700,000.

MOTION PASSED: 14-0 (Absent: San Mateo County, San Mateo County, Belmont, Colma, Los Banos, Millbrae, Redwood City, South San Francisco, Woodside)

JURISDICTION	BOARD MEMBER	YES	NO	ABSTAIN	ABSENT
San Mateo County	Director Pine				X
San Mateo County	Director Slocum				X
Atherton	Director DeGolia	X			
Belmont	Director Mates				X
Brisbane	Director Mackin	X			
Burlingame	Director Colson	X			
Colma	Director Gonzalez				X
Daly City	Director Daus-Magbual	X			
East Palo Alto	Director Romero	X			
Foster City	Director Hindi	X			
Half Moon Bay	Director Rarback	X			
Hillsborough	Director May	X			
Los Banos	Director Faria				X
Menlo Park	Director Nash	X			
Millbrae	Director Fung				X
Pacifica	Director Bigstyk	X			
Portola Valley	Director Aalfs	X			
Redwood City	Director Hale				X
San Bruno	Director Medina	X			
San Carlos	Director Parmer-Lohan	X			
San Mateo	Director Bonilla	X			

South San Francisco	Director Coleman				X
Woodside	Director Wall				X
	Totals	14			9

14. Approval of two Amendments to Long-term Power Purchase Agreements:
- Third Amendment to Chaparral Solar, LLC Power Purchase and Sale Agreement (Action)
 - ~~Second Amendment to Arica Solar, LLC Power Purchase and Sale Agreement (Action)~~ (Continued to a future meeting)

Chelsea Keys, Interim Director of Power Resources, gave a presentation covering the Power Purchase Agreement (PPA) with Chaparral Solar + Storage Project including background on the project, challenges and disruptions in the energy market, solar tariffs, impacts to market, the California Public Utilities Commission (CPUC) Mid-term reliability decision, and impacts on Chaparral.

Public Comment: Mark Roest, David Mauro asked about the labor agreement for the project.

Chelsea explained that Chaparral is currently being constructed under a Project Labor Agreement.

Director Emeritus Keener shared that the Procurement Subcommittee was briefed on the amendments to the PPA and that there was consensus it was beneficial for Peninsula Clean Energy to make the changes in the contract rather than to drop the contract.

Director Aalfs added that this project is meeting both Peninsula Clean Energy's short and long-term goals and recommends approving this change.

MOTION: Director Romero moved, seconded by Director Bonilla to Approve a Resolution Delegating Authority to the Chief Executive Officer to Execute Amendments to the following Power Purchase and Sale Agreement (PPA): Third amendment to Chaparral Solar, LLC, Solar + Storage PPA.

MOTION PASSED: 14-0 (Absent: San Mateo County, San Mateo County Belmont, Colma, Los Banos, Millbrae, Redwood City, South San Francisco, Woodside)

JURISDICTION	BOARD MEMBER	YES	NO	ABSTAIN	ABSENT
San Mateo County	Director Pine				X
San Mateo County	Director Slocum				X
Atherton	Director DeGolia	X			
Belmont	Director Mates				X
Brisbane	Director Mackin	X			
Burlingame	Director Colson	X			
Colma	Director Gonzalez				X
Daly City	Director Daus-Magbual	X			
East Palo Alto	Director Romero	X			
Foster City	Director Hindi	X			
Half Moon Bay	Director Rarback	X			
Hillsborough	Director May	X			
Los Banos	Director Faria				X
Menlo Park	Director Nash	X			

Millbrae	Director Fung				X
Pacifica	Director Bigstyk	X			
Portola Valley	Director Aalfs	X			
Redwood City	Director Hale				X
San Bruno	Director Medina	X			
San Carlos	Director Parmer-Lohan	X			
San Mateo	Director Bonilla	X			
South San Francisco	Director Coleman				X
Woodside	Director Wall				X
	Totals	14			9

15. Approval of a Resolution Delegating Authority to Chief Executive Officer to Execute Power Purchase and Sale Agreement for Renewable Supply with Buena Vista Energy, LLC, And Any Necessary Ancillary Documents with a Power Delivery Term of 5 Years Beginning on January 1, 2023, in an Amount Not to Exceed \$37 Million (Action)

Chelsea Keys, Interim Director of Power Resources, gave a presentation on a Power Purchase Agreement (PPA) for Buena Vista Wind including background on the project, a project overview, contract structure, information on the Developer, Leeward, generation profile, and project benefits.

Public Comment: Mark Roest

MOTION: Director Bigstyk moved, seconded by Director Mackin to Approve a Resolution Delegating Authority to Chief Executive Officer to Execute Power Purchase and Sale Agreement for Renewable Supply with Buena Vista Energy, LLC, and any necessary ancillary documents with a Power Delivery Term of 5 years starting on January 1, 2023, in an amount not to exceed \$37 million.

MOTION PASSED: 14-0 (Absent: San Mateo County, San Mateo County, Belmont, Colma, Los Banos, Millbrae, Redwood City, South San Francisco, Woodside)

JURISDICTION	BOARD MEMBER	YES	NO	ABSTAIN	ABSENT
San Mateo County	Director Pine				X
San Mateo County	Director Slocum				X
Atherton	Director DeGolia	X			
Belmont	Director Mates				X
Brisbane	Director Mackin	X			
Burlingame	Director Colson	X			
Colma	Director Gonzalez				X
Daly City	Director Daus-Magbual	X			
East Palo Alto	Director Romero	X			
Foster City	Director Hindi	X			
Half Moon Bay	Director Rarback	X			
Hillsborough	Director May	X			
Los Banos	Director Faria				X
Menlo Park	Director Nash	X			
Millbrae	Director Fung				X
Pacifica	Director Bigstyk	X			

Portola Valley	Director Aalfs	X			
Redwood City	Director Hale				X
San Bruno	Director Medina	X			
San Carlos	Director Parmer-Lohan	X			
San Mateo	Director Bonilla	X			
South San Francisco	Director Coleman				X
Woodside	Director Wall				X
	Totals	14			9

16. Approval of Increased Budget Flexibility in Community Energy Programs (Action)

Rafael Reyes, Director of Energy Programs, gave a presentation on increased budget flexibility in Community Energy Programs including current practice, challenges, the proposed new practice, and legacy budget approvals.

Director Bigstyk asked how the Board will be made aware of the effect the budget shift has. Rafael explained that changes would be reported out.

Director Mackin shared that she would like to see this item return with caps or limits to ensure that one program isn't drained of funds at the expense of another.

Chair DeGolia shared that there is Board judgement around quantitative and qualitative importance of different programs which lends to putting more money into one program than another and he would hate to see a couple million dollars moved into a program that is doing well but isn't as much of a priority.

Vice Chair Colson asked if there was an operational point that brought this item to the Board such as a timing issue. Rafael explained that timing is a factor and that there have been challenges with the Electric Vehicle (EV) charging program. There are changes forthcoming to the EV program, and it is becoming clear that due to challenges in this program and others, budget is being undershot. Rafael shared that the Home Upgrade Program is another example with more potential if more resources were applied there. Rafael explained that the goal is to look at the priorities the Board has set and find the best ways to meet them within the fiscal year and the budget available.

Vice Chair Colson offered a 10-20 percent cap for budget movement. Rafael shared that this would be helpful.

Director Aalfs shared that if an amendment was made in the budget, it would be reported quickly and in annual budget process and that he is comfortable as proposed.

Director Bonilla shared that he sees an issues with percentages and would prefer to see a dollar limit with requirement to report at next board meeting.

Chair DeGolia asked if this was an urgent matter. Rafael explained that this is not necessarily time sensitive. Jan Pepper, Chief Executive Officer, suggested the best course of action is to take this Agenda Item back and return with a revised proposal to the Board. Vice Chair Colson suggested bringing this to the Executive Committee before bringing this to the full Board.

Public Comment: Jeremy Sarnecky

17. Board Members' Reports

Director Bonilla spoke at the Youth Climate Rally alongside Senator Josh Becker, Assemblymember Kevin Mullins, Council Member Michael Brownrigg and others and the rally was very receptive.

Director Hindi shared that Foster City is moving on Reach Codes and outreaching to a consultant with a study. He instructed staff to reach out to Peninsula Clean Energy for assistance moving forward.

ADJOURNMENT

Meeting was adjourned at 8:23 p.m.



PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence

DATE: September 16, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCEA) Board of Directors
FROM: Jan Pepper, Chief Executive Officer
SUBJECT: CEO Report

REPORT

Staff Recruitments

We are currently recruiting for the following open positions. The job descriptions can be found on the website:

[Director of Power Resources](#)
[Strategic Accounts Manager](#)

Presentations

I am continuing to make presentations on what's happening at Peninsula Clean Energy to various city councils:

- On September 13, I made a presentation to the Millbrae City Council.

On September 16, Sara Maatta is representing Peninsula Clean Energy on a discussion panel about our 100% renewables 24/7 by 2025 goal at the Renewable Energy Markets conference in Minneapolis.

September Heat Storm

We all experienced a major heat storm last week with high temperatures over several consecutive days all over the State. A new peak load record for the CAISO (the California Independent System Operator) was set on Tuesday of 52,061 MW, breaking the previous record set in 2006. The energy grid was stressed to the limit, but thanks to extensive energy conservation across all sectors, the CAISO did not need to call for rotating outages. Huge thank you's to our jurisdictions who were able to reduce their load and utilize back-up generators as requested by the Governor's office. We will be following up with all of you to quantify the energy savings that you provided and reporting this out through CalCCA to the Governor's office and other state agencies. We are aware that

some localized outages did occur due to weaknesses in PG&E's distribution system. Our team has published a list of [questions and answers about power outages](#). These may be useful to have at hand in the event that you receive questions from members of your communities in the event power outages occur.

Diablo Canyon Discussions

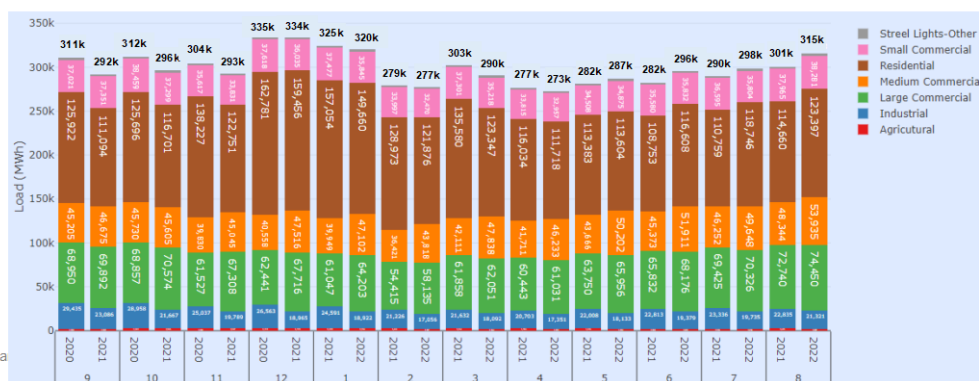
At the end of the legislative session, both the California State Assembly and Senate passed SB 846 to extend the life of the Diablo Canyon Power Plant. The Governor has signed the bill. More details can be found in the Legislative Update memo.

Impact of COVID-19 on PCE Load

Attached to this report are summary graphs of the impact of COVID-19 on Peninsula Clean Energy's load. The first graph, "Monthly Load", shows the change in load on a monthly basis from September 2020 through August 2022. Monthly load is continuing to increase. We saw a 5% increase in PCE's overall load in June 2022 compared to June 2021, a 2% increase in PCE's load in July 2022 compared to July 2021, and a 5% increase in PCE's load in August 2022 compared to August 2021. Also continuing the same pattern as reported last month, the second graph, "Monthly Load Changes by Customer Class", shows that industrial and residential load was lower in January-April 2022 compared to the same months in 2021. Industrial load has continued to stay lower from May through August 2022 compared to those same months in 2021. Residential load continues to show an increase since June 2022 through August 2022 compared to last year. Commercial load was higher in January-August 2022 compared to January-July 2021. The third graph, "Load Shapes (PCE)", shows the change overall in our load on an hourly basis. August 2022 load was higher than the comparable 2020-2021 loads in all hours. Thank you to Mehdi Shahriari on our Power Resources team for compiling these graphs.

Monthly Load

- 4% decrease in PCE's load in September-December 2021 compared to September-December 2020.
- 2% decrease in PCE's load in January-April 2022 compared to January-April 2021.
- 2% increase in PCE's load in May 2022 compared to May 2021.
- 5% increase in PCE's load in June 2022 compared to June 2021.
- 2% increase in PCE's load in July 2022 compared to July 2021.
- 5% increase in PCE's load in August 2022 compared to August 2021.



2

Monthly Load Changes by Customer Class

- In September-December 2021, Residential and Industrial load was significantly lower compared to same months in 2020, mainly due to the heatwaves that we experienced in 2020.
- In January-April of 2022, Industrial and Residential load was lower compared to same months in 2021. Commercial load was higher in January-April 2022 compared to January-April 2021.
- In May 2022, Industrial load was lower compared to May 2021. Commercial load was higher in May 2022 compared to May 2021.
- In June-August 2022, Industrial load was lower compared to June-August 2021. Commercial and Residential load was higher in June-August 2022 compared to June-August 2021.

Agricultural	4%	0%	6%	0%	-5%	-7%	-7%	-12%	-15%	-5%	-6%	-15%
Industrial	-22%	-25%	-21%	-29%	-23%	-20%	-16%	-16%	-18%	-15%	-15%	-7%
Small Commercial	1%	-3%	-5%	-4%	-4%	-4%	-6%	-3%	1%	1%	-2%	1%
Medium Commercial	3%	0%	13%	17%	18%	20%	14%	11%	15%	14%	7%	12%
Large Commercial	1%	2%	9%	8%	5%	7%	0%	1%	3%	4%	1%	2%
Residential	-12%	-7%	-11%	-2%	-5%	-6%	-9%	-4%	0%	7%	7%	8%
Street Lights-Other	-3%	-4%	-4%	-5%	-5%	-4%	-5%	-5%	-2%	1%	5%	3%
PCE	-6%	-5%	-4%	0%	-1%	-1%	-4%	-1%	2%	5%	3%	5%
Month	9	10	11	12	1	2	3	4	5	6	7	8

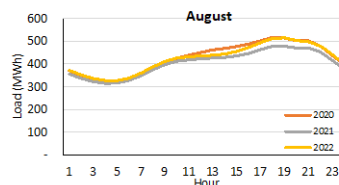
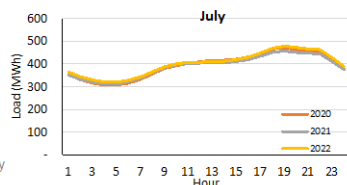
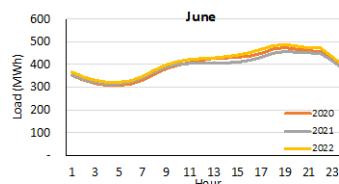
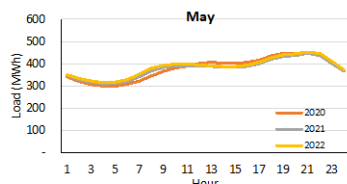
Peninsula Clean Energy

* For months 9-12, the heatmap shows how much load in 2021 was lower/higher compared to same month in 2020. For months 1-8, the heatmap shows how much load in 2022 was lower/higher compared to same month in 2021.

3

Load Shapes (PCE)

- May: 2022 Load was higher than 2020-2021 load in the overnight and morning hours.
- June: 2022 Load was higher than 2020-2021 load in all hours.
- July: 2022 Load was higher than 2020-2021 load in the evening and overnight hours.
- August: 2022 Load was higher than 2021 load in all hours.



Peninsula Clean Energy

4

Reach Codes

Below is a newly formatted table showing the status of Reach Code adoption by Peninsula Clean Energy jurisdictions, including the status for reach codes for New Construction and reach codes for Existing Buildings. San Bruno passed their first reading of new construction reach codes on September 13. Both Atherton and Portola Valley are looking at new construction reach codes for this cycle. And a number of jurisdictions are looking at re-adoption of the new construction reach codes they adopted during the previous round.

	Member Agency	2019 Status	Status: New Construction	Status: Existing Construction
	Atherton		In-progress	
	Belmont	Adopted		
	Brisbane	Adopted	Re-adoption in-progress	Exploring
	Burlingame	Adopted	Re-adoption in-progress	
	Colma	Adopted		
	County of San Mateo	Adopted		
	Daly City	Adopted	Re-adoption in-progress	
	East Palo Alto	Adopted		
	Foster City			
	Half Moon Bay	Adopted		
	Hillsborough	Adopted		
	Menlo Park	Adopted	Re-adoption in-progress	
	Millbrae	Adopted		
	Pacifica	Adopted		
	Portola Valley		In-progress	Exploring
	Redwood City	Adopted	Re-adoption in-progress	
New	San Bruno		Passed first reading 9/13	
	San Carlos	Adopted	Re-adoption in-progress	Exploring
	San Mateo	Adopted	Re-adoption in-progress	Exploring
	South San Francisco	Adopted		
	Woodside			

Other Meetings and Events Attended by CEO

Attended weekly and monthly CalCCA Board and Executive Committee meetings.

Will attend monthly CC Power Board Meeting on September 21



PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence

DATE: September 9, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: Majority Present

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Jan Pepper, Chief Executive Officer, Peninsula Clean Energy Authority
Chelsea Keys, Interim Director of Power Resources

SUBJECT: Approve Amended and Restated Power Purchase and Sale Agreement
with Arica Solar, LLC

RECOMMENDATION:

Approve Resolution Delegating Authority to the Chief Executive Officer to Execute an Amended and Restated Power Purchase and Sale Agreement (A&R PPA) with Arica Solar, LLC, and any necessary ancillary documents.

BACKGROUND:

Per Peninsula Clean Energy's Policy 15, Energy Supply Procurement Authority¹, any amendments to power procurement agreements that were previously approved by the Board require only consultation with the General Counsel and the Board Chair for approval. In the interest of transparency, because this power purchase agreement has a term greater than 5 years, staff is bringing this A&R PPA to the Board for your approval. Developers of renewable resources are facing unprecedented challenges to procure materials to construct new projects and it puts them at risk of meeting their contracted timelines, particularly for resources with online dates between 2022-2024, including:

- A. Ongoing supply chain impacts related to the COVID-19 pandemic
- B. Rising commodity prices for key components to developing renewable and storage resources – which were further exasperated by the Ukraine War and inflation in the United States
- C. Uncertainty around solar tariffs – In April 2022, the United States Department of Commerce started an investigation of alleged circumvention of antidumping and countervailing duties by solar manufacturers in Cambodia, Malaysia, Thailand, and

¹ Full policy is available here: <https://www.peninsulacleanenergy.com/wp-content/uploads/2020/01/PCE-Policy-15-Revised-01-23-20-Procurement-Authority-FINAL.pdf>

Vietnam, where the majority of solar modules constructed in the U.S. arrive from. While President Biden placed a 2-year suspension on enacting new solar tariffs it still begs the question of whether these tariffs could double or possibly triple the current solar tariffs and there's potential for these to be applied retroactively.

- D. Transmission interconnection delays – some developers have to stall their interconnection timelines due to uncertainty around costs and if there will be enough transmission deliverability to qualify the resource for Resource Adequacy

The convergence of these challenges has resulted in supply shortages and exasperated costs for the materials to construct renewable and storage resources, which can further cause developers to delay when projects can start construction or achieve operations.

Further adding to these challenges, there is significant competition to contract for resources that qualify in meeting D21-06-035, the California Public Utilities Commission (CPUC) procurement order adopted June 24, 2021, to ensure mid-term reliability (“MTR”) in the years 2023 to 2026. The agreement with Arica Solar, LLC (Arica) contributes toward Peninsula Clean Energy's MTR requirements.

Due to these various challenges, Peninsula Clean Energy was approached by the developer for Arica asking for changes to particular PPA terms. To reduce the risk of this contract being terminated, Peninsula Clean Energy negotiated an A&R PPA.

On July 21, 2022, staff updated the Board Procurement Subcommittee on the challenges in the industry and the volatility in the energy market. Staff provided updates on the negotiations with Arica with regard to the developers' requests for changes in certain PPA terms.

Summary of Arica Solar plus Storage Project:

Project	Developer	Technology	Location	Expected Start Dates
Arica	Clearway Energy Group	100 MW solar + 50 MW storage (4hr)	Riverside County	04/01/2024

The board approved the Arica solar plus storage PPA on October 26, 2021. The PPA was further amended in March 2022 for administrative language changes. This A&R PPA will replace the PPA approved by the board on October 26, 2021 and will incorporate the administrative changes in the first amendment. It was far easier for Peninsula Clean Energy and the developer to negotiate an A&R PPA rather than a second amendment to the original PPA, even though the majority of the terms in the original PPA remain.

DISCUSSION:

Staff recommends that the Board approve this A&R PPA with the Arica solar plus storage project. PCE staff has conducted extensive analysis on the impacts of this amendment on our power supply portfolio and has determined that these changes are acceptable. Additionally, this project is needed for Peninsula Clean Energy to meet the CPUC's

mandates for Mid-Term Reliability as well as our commitment to bring online new renewable resources to the grid, despite the current challenges.

FISCAL IMPACT:

There is no impact to the prior not to exceed threshold for Arica, adopted by the Board on October 26, 2021.

STRATEGIC PLAN:

The Arica Solar + Storage project supports the following objectives in Peninsula Clean Energy's strategic plan:

- Priority 1: Design a power portfolio that is sourced by 100% renewable energy by 2025 that aligns supply and consumer demand on a 24/7 basis
- Power Resources Goal 1: Secure sufficient, low-cost, clean sources of electricity that achieve Peninsula Clean Energy's priorities while ensuring reliability and meeting regulatory mandates

ATTACHMENTS:

Amended and Restated Power Purchase and Sale Agreement with Arica Solar, LLC (redacted) This item will be released on Monday, September 19, 2022.

RESOLUTION NO. _____

**PENINSULA CLEAN ENERGY AUTHORITY, COUNTY OF SAN MATEO, STATE OF
CALIFORNIA**

* * * * *

**RESOLUTION DELEGATING AUTHORITY TO CHIEF EXECUTIVE OFFICER TO
EXECUTE AN AMENDED AND RESTATED POWER PURCHASE AND SALE
AGREEMENT WITH ARICA SOLAR, LLC FOR A SOLAR PLUS STORAGE
PROJECT AND ANY NECESSARY ANCILLARY DOCUMENTS.**

RESOLVED, by the Peninsula Clean Energy Authority of the County of San Mateo,
State of California, that

WHEREAS, the Peninsula Clean Energy Authority (“Peninsula Clean Energy”) was formed on February 29, 2016; and

WHEREAS, Peninsula Clean Energy is purchasing energy, renewable energy, carbon-free energy, and related products and services (the “Products”) to supply its customers; and

WHEREAS, the Peninsula Clean Energy Board approved the Power Purchase and Sale Agreement (PPA) with Arica Solar, LLC (Arica) on October 26, 2021, for a solar resource paired with storage capacity; and

WHEREAS, Peninsula Clean Energy seeks to execute an Amended and Restated PPA (A&R PPA) with Arica; and

WHEREAS, unprecedented challenges related to supply chain shortages, rising commodity prices, and uncertainty with solar tariffs and transmission have created unforeseen circumstances for renewable developers; and

WHEREAS, consistent with its mission of reducing greenhouse gas emissions by expanding access to sustainable and affordable energy solutions, Peninsula Clean Energy wishes to execute an A&R PPA with Arica; and

WHEREAS, the Arica project helps Peninsula Clean Energy meet its mid-term reliability procurement mandate as set forth in D21-06-035 by the California Public Utilities Commission and is critical for grid reliability; and

WHEREAS, staff is presenting to the Board for its review the A&R PPA with Arica, reference to which should be made for further particulars; and

WHEREAS, the Board wishes to delegate to the Chief Executive Officer authority to execute the A&R PPA and any other ancillary documents required for said purchase of power and storage capacity from Arica; and

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that the Board delegates authority to the Chief Executive Officer to:

Execute the Amended and Restated Power Purchase and Sale Agreement with Arica Solar LLC, for a solar plus storage project and any ancillary documents with terms consistent with those presented, in a form approved by the General Counsel.

* * * * *

AMENDED AND RESTATED POWER PURCHASE AND SALE AGREEMENT

COVER SHEET

Seller: Arica Solar, LLC, a Delaware limited liability company.

Buyer: Peninsula Clean Energy Authority, a California joint powers authority.

Description of Generating Facility and Storage Facility: A separately metered 100 MW portion of an approximately 263 MW solar photovoltaic electric generating facility located in Riverside County, California (as further defined herein, the “**Generating Facility**”), plus a separately metered 200 MWh and 50 MW AC energy storage facility with at least four (4) hours of continuous discharging at the maximum rate of discharge, which is a portion of a larger energy storage facility, located at the same site as the Generating Facility in Riverside County, California (as further defined herein, the “**Storage Facility**”).

Guaranteed Commercial Operation Date: April 1, 2024, as may be extended in accordance with Exhibit B.

Milestones:

Milestone	Completion Date
Site Control	Complete
Procure Major Equipment	Complete
Conditional Use Permit	Complete
Phase II Interconnection Study Results	Complete
Executed Interconnection Agreement	Complete
Financial Close	████████
Expected Construction Start Date	████████
Initial Synchronization	████████
Obtain Full Capacity Deliverability Status	2/1/2024
Expected Commercial Operation Date	4/1/2024

Delivery Term: Seventeen (17) Contract Years from the Commercial Operation Date.

Stub Term: Two (2) Contract Years from the Commercial Operation Date.

Bundled Term: Fifteen (15) Contract Years from the second (2nd) anniversary of the Commercial Operation Date.

Delivery Term Expected Energy:

Contract Year	Expected Energy (MWh)
1	■
2	■
3	■
4	■
5	■
6	■
7	■
8	■
9	■
10	■
11	■
12	■
13	■
14	■
15	■

Contract Year	Expected Energy (MWh)
16	██████
17	██████

Monthly Expected Energy:

Month	Expected Energy (MWh)
January	██████
February	██████
March	██████
April	██████
May	██████
June	██████
July	██████
August	██████
September	██████
October	██████
November	██████
December	██████

Guaranteed Storage Capacity: 50 MW AC at four (4) hours of continuous discharging at the maximum rate of discharge (200 MWh).

Guaranteed PV Capacity: 100 MW AC capacity measured at the Delivery Point.

Guaranteed Interconnection Capacity: 100 MW.

Contract Price:

The “**Renewable Rate**” shall be:

Contract Year	Renewable Rate (\$/MWh)
1 and 2	████
3 through 17	██████

The “**Storage Rate**” shall be as specified below:

Contract Years	Storage Rate (\$/kW-month)
1 and 2	██████████
3 through 17	██████████

Product:

During the Stub Term: Resource Adequacy Benefits.

During the Bundled Term:

- x PV Energy
- x Discharging Energy
- x Green Attributes:
 - x Portfolio Content Category 1
 - ☐ Portfolio Content Category 2
- x Future Environmental Attributes
- x Capacity Attributes
- x Storage Product

Deliverability:

- ☐ Energy Only Status
- X Full Capacity Deliverability Status

a) If Full Capacity Deliverability Status is selected, provide the Expected FCDS Date: February 1, 2024.

b) Guaranteed RA Amount: [REDACTED]

Scheduling Coordinator: Prior to the Bundled Term, Seller or Seller's Agent. During the Bundled Term, Buyer or Buyer's Agent.

Development Security: [REDACTED]
[REDACTED]

Performance Security: [REDACTED]
[REDACTED]

Damage Payment: [REDACTED] [REDACTED]

Notice Addresses:

Seller:

Arica Solar, LLC, c/o Solar Asset Management LLC
4900 Scottsdale Road, Suite 5000
Scottsdale, AZ 85251
Attention: VP Asset Management
Phone No.: [REDACTED]
Email: [REDACTED]

With a copy to:

Arica Solar, LLC, c/o Solar Asset Management LLC
5790 Fleet Street, Suite 200
Carlsbad, CA 92008
Attention: General Counsel
Phone No.: [REDACTED]
Email: [REDACTED]

Scheduling:

Arica Solar, LLC, c/o Solar Asset Management LLC
4900 Scottsdale Road, Suite 5000
Scottsdale, AZ 85251
Attention: VP Asset Management
Phone No.: [REDACTED]
Email: [REDACTED]

Buyer:

Peninsula Clean Energy Authority
2075 Woodside Road
Redwood City, CA 94061
ATTN: Director of Power Resources

Phone No.: 650-260-0005
Email: contracts@peninsulacleanenergy.com

With a copy to:

Peninsula Clean Energy Authority
400 County Center, 6th Floor
Redwood City, CA 94063
Attention: David Silberman, General Counsel
Fax No.: (650) 363-4034
Phone No.: (650) 363-4749
Email: dsilberman@smcgov.org

[Signatures on following page.]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the Amendment Date.

SELLER
Arica Solar, LLC

BUYER
Peninsula Clean Energy Authority

By: _____

By: _____
PCE Executive Officer

Name: _____

Title: _____

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AMENDED AND RESTATED POWER PURCHASE AND SALE AGREEMENT

This Amended and Restated Power Purchase and Sale Agreement (“**Agreement**”) is entered into as of [_____], 2022 (the “**Amendment Date**”), between Seller and Buyer (each also referred to as a “**Party**” and collectively as the “**Parties**”).

RECITALS

WHEREAS, Seller intends to develop, design, construct, own or otherwise have control over, and operate the electric generating and energy storage facility as described in Exhibit A (the “**Facility**”);

WHEREAS, Seller desires to sell, and Buyer desires to purchase, on the terms and conditions set forth in this Agreement, Energy generated by the Facility, Green Attributes related to the generation of such Energy, Capacity Attributes from the Storage Facility, and Storage Product;

WHEREAS, the Parties entered into that certain Power Purchase and Sale Agreement, dated as of October 29, 2021 (the “**Effective Date**”), as amended by that certain Amendment No. 1 to the Power Purchase and Sale Agreement, dated as of March 7, 2021 (collectively, the “**Original Agreement**”); and

WHEREAS, the Parties desire to amend and restate the Original Agreement in its entirety.

NOW THEREFORE, in consideration of the mutual covenants and agreements herein contained, and for other good and valuable consideration, the sufficiency and adequacy of which are hereby acknowledged, the Parties hereby agree to amend and restate the Original Agreement as follows:

ARTICLE 1 DEFINITIONS

1.1 **Contract Definitions.** The following terms, when used herein with initial capitalization, shall have the meanings set forth below:

“**AC**” means alternating current.

“**Accepted Compliance Costs**” has the meaning set forth in Section 3.13.

“**Adjusted Energy Production**” has the meaning set forth in Exhibit F.

“**Affiliate**” means, with respect to any Person, each Person that directly or indirectly Controls, is Controlled by, or is under common Control with such designated Person.

“**Affiliate Manager**” has the meaning set forth in Section 6.3(a).

“**Aggregate Capability Constraint**” has the meaning set forth in the CAISO Tariff.

“Agreement” has the meaning set forth in the Preamble and includes any exhibits, schedules and any written supplements hereto, the Cover Sheet, and any designated collateral, credit support or similar arrangement between the Parties.

“Amendment Date” has the meaning set forth on the Preamble.

“Ancillary Services” means ancillary services as defined in the CAISO Tariff that are associated with the Facility and any related services, and include Frequency Regulation, Frequency Response, Voltage Control, VAR Dispatch, and Power Factor Correction (as each is defined in the CAISO Tariff).

“Automated Dispatch System” or **“ADS”** has the meaning set forth in the CAISO Tariff.

“Availability Incentive Payment” has the meaning set forth in the CAISO Tariff.

“Available Generating Capacity” means the capacity from the Generating Facility, expressed in whole MWs, that is available at a particular time to generate Energy.

“Available Storage Capacity” means the capacity from the Storage Facility, expressed in whole MWs, that is available at a particular time to charge and discharge Energy.

“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 ninety (90) 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.

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

“Bundled Term” shall mean the period of Contract Years specified on the Cover Sheet, beginning on the second (2nd) anniversary of the Commercial Operation Date, unless terminated earlier in accordance with the terms and conditions of this Agreement.

“Business Day” means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday in California. A Business Day begins at 8:00 a.m. and ends at 5:00 p.m. local time for the Party sending a Notice, or payment, or performing a specified action.

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

“Buyer Bid Curtailment” means any curtailment of the Generating Facility arising out of or resulting from the manner in which Buyer bids, offers or schedules the Generating Facility, the Energy or any Products, or in which Buyer fails to do so, where all of the following occurs:

(a) the CAISO provides notice, including through ADS, to a Party or the Scheduling Coordinator for the Generating Facility, requiring the Party to deliver less PV Energy from the

Generating Facility than is reflected in the VER Forecast for the Generating Facility for a period of time;

(b) for the same time period as referenced in (a), Buyer or the SC for the Facility:

(i) did not submit a Self-Schedule or an Energy Supply Bid for the MW subject to the reduction; or

(ii) submitted an Energy Supply Bid and the CAISO notice referenced in (a) is solely a result of CAISO implementing the Energy Supply Bid; or

(iii) submitted a Self-Schedule for less than the full amount of VER Forecast for the Generating Facility; and

(c) no other circumstances exist that constitute a Scheduled Maintenance, Forced Facility Outage, Force Majeure Event and/or a Curtailment Period during the same time period as referenced in (a).

“Buyer Curtailment Order” means (i) the instruction from Buyer to Seller to reduce delivery of PV Energy by the amount, and for the period of time set forth in such order, for reasons unrelated to a Scheduled Maintenance, Forced Facility Outage, Force Majeure Event and/or Curtailment Order, which instruction may be communicated to Seller in writing by electronic notice or other commercially reasonable means [REDACTED]

“Buyer Curtailment Period” means the period of time, as measured using current Settlement Intervals, during which Seller reduces delivery of PV Energy pursuant to or as a result of (i) Buyer Bid Curtailment or (ii) a Buyer Curtailment Order.

“Buyer Default” means a failure by Buyer (or its agents) to perform its obligations hereunder.

“Buyer’s WREGIS Account” has the meaning set forth in Section 4.9(a).

“CA Compliance Action” has the meaning set forth in Section 3.13.

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

“CAISO Approved Facility Meter” means a CAISO approved revenue quality meter or meters, CAISO approved data processing gateway or remote intelligence gateway, telemetering equipment and data acquisition services sufficient for monitoring, recording and reporting, in real time, all Energy delivered by the Facility to the Delivery Point less Electrical Losses and Station Use, in accordance with the CAISO Tariff.

“CAISO Charges Invoice” has the meaning set forth in Section 4.3(d).

“CAISO Grid” has the same meaning as “CAISO Controlled Grid” as defined in the CAISO Tariff.

“CAISO Operating Order” means the “operating order” defined in Section 37.2.1.1 of the CAISO Tariff.

“CAISO Tariff” means the California Independent System Operator Corporation Agreement and Tariff, Business Practice Manuals (BPMs), and Operating Procedures, 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” or **“RPS”** means the renewable energy program and policies established by California State Senate Bills 1038 (2002), 1078 (2002), 107 (2008), X-1 2 (2011), 350 (2015) and 100 (2018) codified in, *inter alia*, California Public Utilities Code Sections 399.11 through 399.31 and California Public Resources Code Sections 25740 through 25751, as such provisions are amended or supplemented from time to time.

“Capacity Attribute” means any current or future defined characteristic, certificate, tag, credit, or accounting construct associated with the amount of power that the Facility can generate and deliver to the CAISO Grid at a particular moment and that can be purchased and sold under CAISO market rules, including Resource Adequacy Benefits. Capacity Attributes shall also include all rights to provide and all benefits related to the provision of Ancillary Services (as defined in the CAISO Tariff).

“Capacity Damages” has the meaning set forth in Exhibit B.

“CEC” means the California Energy Commission, or any successor agency performing similar statutory functions.

“CEC Final Certification and Verification” means that the CEC has certified the Generating Facility as an Eligible Renewable Energy Resource for purposes of the California Renewables Portfolio Standard, meeting all applicable requirements for certified facilities set forth in the *RPS Eligibility Guidebook, Ninth Edition* (or its successor), and that all Energy generated by the Generating Facility qualifies as generation from an Eligible Renewable Energy Resource.

“CEC Precertification” means that the CEC has issued a precertification for the Generating Facility indicating that the planned operations of the Facility would comply with applicable CEC requirements for CEC Final Certification and Verification.

“Change of Control”, in the case of Seller, means any circumstance in which (1) Seller’s Ultimate Parent ceases to own, directly or indirectly through one or more intermediate entities, more than fifty percent (50%) of the outstanding equity interests in Seller, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

██████████ provided that in calculating ownership percentages for all purposes of the foregoing:

(a) any ownership interest in Seller held by its Ultimate Parent indirectly through one or more intermediate entities shall not be counted towards the Ultimate Parent's ownership interest in Seller unless the Ultimate Parent directly or indirectly owns more than fifty percent (50%) of the outstanding equity interests in each such intermediate entity; and

(b) ownership interests in Seller owned directly or indirectly by any Lender (including any tax equity provider) shall be excluded from the total outstanding equity interests in Seller.

"Charging Energy" means all PV Charging Energy and Grid Charging Energy, less Station Use and Electrical Losses, if any, delivered to the Storage Facility pursuant to a Charging Notice, as measured by the Storage Facility Meter. All Charging Energy shall be used solely to charge the Storage Facility, and, during the Recapture Period, all Charging Energy shall be solely PV Charging Energy.

"Charging Notice" means the operating instruction, and any subsequent updates, given by Buyer or the CAISO, directing the Storage Facility to charge at a specific MW rate to a specified Stored Energy Level, provided that (a) any such operating instruction shall be in accordance with Section 4.6 and the Operating Restrictions, and (b) during the Recapture Period only, if, during a period when the Storage Facility is instructed to be charging, the actual power output level of the Generating Facility is less than the power level set forth in an applicable "Charging Notice", such "Charging Notice" shall (for purposes of this Agreement) be deemed to be automatically adjusted to be equal to the actual power level of the Generating Facility. For the avoidance of doubt, any Charging Notice shall not constitute a Buyer Bid Curtailment, Buyer Curtailment Order, or Curtailment Order.

"Co-located Resource" has the meaning set forth in the CAISO Tariff.

"Commercial Operation" has the meaning set forth in Exhibit B.

"Commercial Operation Date" has the meaning set forth in Exhibit B.

"Commercial Operation Delay Damages" means an amount equal to ██████████

"Compliance Actions" has the meaning set forth in Section 3.13.

"Compliance Expenditure Cap" has the meaning set forth in Section 3.13.

"Confidential Information" has the meaning set forth in Section 19.1.

"Construction Start" has the meaning set forth in Exhibit B.

"Construction Start Date" has the meaning set forth in Exhibit B.

“Contract Price” means each of the Renewable Rate and the Storage Rate.

“Contract Term” has the meaning set forth in Section 2.1(a).

“Contract Year” means a period of twelve (12) consecutive months. The first Contract Year shall commence on the Commercial Operation Date, and each subsequent Contract Year shall commence on the anniversary of the Commercial Operation Date.

“Control” (including, with correlative meanings, the terms “Controlled by” and “under common Control with”), as used with respect to any Person, shall mean (a) the direct or indirect right to cast more than fifty percent (50%) of the votes exercisable at an annual general meeting (or its equivalent) of such Person or, if there are no such rights, ownership of more than fifty percent (50%) of the equity or other ownership interest in such Person, or (b) the right to direct the policies or operations of such Person.

“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 this Agreement; and all reasonable attorneys’ fees and expenses incurred by the Non-Defaulting Party in connection with terminating the Agreement.

“Cover Sheet” means the cover sheet to this Agreement.

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

“CPM Soft Offer Cap” has the meaning set forth in the CAISO Tariff.

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

“CPUC System RA Penalty” means the penalties for “System Procurement Deficiency” adopted by the CPUC in its Decision 10-06-036, as may be updated or supplemented from time to time.

“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), 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, in either case by S&P or Moody’s. If ratings by S&P and Moody’s are not equivalent, the lower rating shall apply.

“Curtailment Order” means any of the following:

- a) CAISO orders, directs, alerts, or provides notice to a Party, including a CAISO Operating Order, to curtail Energy deliveries for any reason other than a Buyer Bid Curtailment;
- b) a curtailment ordered by the Participating Transmission Owner or distribution operator (if the Facility is 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, or (ii) any warning, forecast or anticipation of conditions or situations that jeopardize the Participating Transmission Owner's or distribution operator's electric system integrity or the integrity of other systems to which the Participating Transmission Owner is connected;

- c) a curtailment ordered by the Participating Transmission Owner due to scheduled or unscheduled maintenance on the Participating Transmission Owner's transmission facilities that prevents (i) Buyer from receiving or (ii) Seller from delivering Energy to the Delivery Point; or
- d) a curtailment in accordance with Seller's obligations under its Interconnection Agreement with the Participating Transmission Owner or distribution operator.

For the avoidance of doubt, if Buyer or Buyer's SC submitted a Self-Schedule and/or an Energy Supply Bid in its final CAISO market participation in respect of a given time period that clears, in full, the applicable CAISO market for the full amount of Energy forecasted to be produced by or delivered from the Facility for such time period, any notice from the CAISO having the effect of requiring a reduction during the same time period is a Curtailment Order, not a Buyer Bid Curtailment.

"Curtailment Period" means the period of time, as measured using current Settlement Intervals, during which Seller reduces generation from the Facility pursuant to a Curtailment Order.

"Daily Delay Damages" means an amount equal to [REDACTED]

"Damage Payment" means a liquidated damages payment in the amount indicated in the Cover Sheet.

"Day-Ahead Forecast" has the meaning set forth in Section 4.4(c).

"Day-Ahead LMP" means the LMP for the Day-Ahead Market.

"Day-Ahead Market" has the meaning set forth in the CAISO Tariff.

"Day-Ahead Schedule" has the meaning set forth in the CAISO Tariff.

"Deemed Delivered Energy" means the amount of Energy expressed in MWh that the Generating Facility would have produced and delivered to the Storage Facility or the Delivery Point, but that is not produced by the Generating Facility and delivered to the Storage Facility or the Delivery Point during a Buyer Curtailment Period, which amount shall be equal to [REDACTED]

[REDACTED]

“**Defaulting Party**” has the meaning set forth in Section 11.1(a).

“**Deficient Month**” has the meaning set forth in Section 4.9(e).

“**Delivery Point**” means the PNode designated by the CAISO for the Generating Facility and the PNode designated by the CAISO for the Storage Facility, as applicable.

“**Delivery Term**” shall mean the period of Contract Years specified on the Cover Sheet, beginning on the Commercial Operation Date, unless terminated earlier in accordance with the terms and conditions of this Agreement.

“**Development Cure Period**” has the meaning set forth in Exhibit B.

“**Development Security**” means (i) cash or (ii) a Letter of Credit in the amount specified on the Cover Sheet, deposited with Buyer in conformance with Section 8.7.

“**Discharging Energy**” means all Energy delivered to the Delivery Point from the Storage Facility, net of Station Use and Electrical Losses, as measured by the Storage Facility Meter. For the avoidance of doubt, all Discharging Energy will have originally been delivered to the Storage Facility as PV Charging Energy or Grid Charging Energy.

“**Discharging Notice**” means the operating instruction, and any subsequent updates, given by Buyer to Seller, directing the Storage Facility to discharge Discharging Energy at a specific MWh rate to a specified Stored Energy Level, provided that (a) any such operating instruction or updates shall be in accordance with Section 4.6 and the Operating Restrictions, and (b) if, during a period when the Storage Facility is instructed by Buyer’s SC or the CAISO to be discharging, the sum of PV Energy and Discharging Energy would exceed the Interconnection Capacity Limit, such “Discharging Notice” shall (for purposes of this Agreement) be deemed to be automatically adjusted to reduce the amount of Discharging Energy so that the sum of Discharging Energy and PV Energy does not exceed the Interconnection Capacity Limit, until such time as Buyer issues a further modified Discharging Notice. For the avoidance of doubt any Discharging Notice shall not constitute a Buyer Bid Curtailment, Buyer Curtailment Order, or Curtailment Order.

“**Early Termination Date**” has the meaning set forth in Section 11.2(a).

“**Effective Date**” has the meaning set forth on the Recitals.

“**Electrical Losses**” means all transmission or transformation losses between the Facility and the Delivery Point, including losses associated with (i) delivery of PV Energy to the Delivery Point, (ii) delivery of Charging Energy to the Storage Facility, and (iii) delivery of Discharging Energy to the Delivery Point.

“Eligible Intermittent Resources Protocol” or **“EIRP”** has the meaning set forth in the CAISO Tariff.

“Eligible Renewable Energy Resource” has the meaning set forth in California Public Utilities Code Section 399.12(e) and California Public Resources Code Section 25741(a), as either code provision is amended or supplemented from time to time.

“Energy” means metered electrical energy measured in MWh.

“Energy Supply Bid” has the meaning set forth in the CAISO Tariff.

“Event of Default” has the meaning set forth in Section 11.1.

“Excess MWh” has the meaning set forth in Section 3.3(c).

“Excused Event” has the meaning set forth in Exhibit L.

“Excused Hours” has the meaning set forth in Exhibit L.

“Expected Commercial Operation Date” has the meaning set forth on the Cover Sheet.

“Expected Construction Start Date” has the meaning set forth on the Cover Sheet.

“Expected Energy” has the meaning set forth in Section 4.8.

“Expected FCDS Date” means the date set forth in the deliverability section of the Cover Sheet which is the date the Storage Facility is expected to achieve Full Capacity Deliverability Status.

“Facility” means the Generating Facility and the Storage Facility, as described more fully in Exhibit A attached hereto.

“Facility Energy” means the sum of PV Energy and Discharging Energy during any Settlement Interval or Settlement Period, as measured by the CAISO Approved Facility Meter.

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

“Flexible Capacity” has the meaning set forth in the CAISO Tariff.

“Flexible Resource Adequacy Benefits” means the attributes, however defined, of a resource that can be used to satisfy the flexible resource adequacy obligations of a load serving entity, including Flexible Capacity.

“FMM Schedule” has the meaning set forth in the CAISO Tariff.

“Force Majeure Event” has the meaning set forth in Section 10.1(a).

“Forced Facility Outage” means an unexpected failure of one or more components of the Facility or any outage on the Transmission System that prevents Seller from generating or delivering power to the Delivery Point or providing Storage Product and that is not the result of a Force Majeure Event.

“Forward Certificate Transfers” has the meaning set forth in the WREGIS Operating Rules.

“Full Capacity Deliverability Status” has the meaning set forth in the CAISO Tariff.

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

“Future Environmental Attributes” shall mean any and all emissions, air quality or other environmental attributes (other than Green Attributes or Renewable Energy Incentives) under the RPS regulations and/or under any and all other international, federal, regional, state or other law, rule, regulation, bylaw, treaty or other intergovernmental compact, decision, administrative decision, program (including any voluntary compliance or membership program), competitive market or business method (including all credits, certificates, benefits, and emission measurements, reductions, offsets and allowances related thereto) that are attributable, now, or in the future, to the generation of electrical energy by the Facility. Future Environmental Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Facility, (ii) investment or production tax credits associated with the construction or operation of the Facility and other financial incentives in the form of credits, reductions, or allowances associated with the Facility 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 Facility for compliance with local, state, or federal operating and/or air quality permits.

“GA Compliance Action” has the meaning set forth in Section 3.13.

“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 Contract Term, determined in a commercially reasonable manner. Factors used in determining the economic benefit to a Party may include, without limitation, reference to information supplied by one or more third parties, which shall exclude Affiliates of the Non-Defaulting Party, 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, comparable transactions, forward price curves based on economic analysis of the relevant markets, settlement prices for comparable transactions at liquid trading hubs (e.g., NP-15), all of which should be calculated for the remaining Contract Term, and includes the value of Green Attributes and Capacity Attributes.

“Generating Facility” means the separately metered 100 MW portion of the photovoltaic generating facility described on the Cover Sheet and in Exhibit A, located at the Site and including mechanical equipment and associated facilities and equipment required to deliver PV Energy to the Delivery Point or to the Storage Facility, including Seller’s rights and interests in Shared

Facilities; provided that the “Generating Facility” does not include the Storage Facility or the portions of Shared Facilities other than Seller’s rights and interests thereto.

“Generating Facility Meter” means the CAISO approved revenue quality meter or meters (with a 0.3 accuracy class), along with a compatible data processing gateway or remote intelligence gateway, telemetering equipment, and data acquisition services sufficient for monitoring, recording and reporting, in real time, the amount of PV Energy generated by the Generating Facility and calculated as delivered to Buyer at (i) the Delivery Point or (ii) the Storage Facility as PV Charging Energy. For clarity, the Facility may contain multiple measurement devices and calculations that will make up the Generating Facility Meter, and, unless otherwise indicated, references to the Generating Facility Meter shall mean all such measurement devices and calculations and the aggregated data of all such measurement devices and calculations, taken together.

“Governmental Authority” means any federal, state, provincial, local or municipal government, any political subdivision thereof or any other governmental, congressional or parliamentary, regulatory, or judicial instrumentality, authority, body, agency, department, bureau, or entity with authority to bind a Party at law, including CAISO; *provided, however*, that “Governmental Authority” shall not in any event include any Party.

“Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Facility, and its displacement of conventional Energy generation. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emissions 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; (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. 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 Facility, (ii) investment or production tax credits associated with the construction or operation of the Facility and other financial incentives in the form of credits, reductions, or allowances associated with the Facility 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 Facility for compliance with local, state, or federal operating and/or air quality permits. If the Facility is a biomass or landfill gas 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 Facility.

“Green Tag Reporting Rights” means the right of a purchaser of renewable energy to report ownership of accumulated “green tags” in compliance with and to the extent permitted by

applicable Law and include, without limitation, rights under Section 1605(b) of the Energy Policy Act of 1992, and any present or future federal, state or local certification program or emissions trading program, including pursuant to the WREGIS Operating Rules.

“Grid Charging Energy” means Charging Energy supplied from the CAISO Grid.

“Guaranteed Commercial Operation Date” has the meaning set forth in Exhibit B.

“Guaranteed Construction Start Date” has the meaning set forth in Exhibit B.

“Guaranteed Energy Production” has the meaning set forth in Section 4.8.

“Guaranteed Interconnection Capacity” means the interconnection rights provided under the Interconnection Agreement in the amount set forth on the Cover Sheet.

“Guaranteed PV Capacity” means the amount set forth on the Cover Sheet, as may be adjusted pursuant to Exhibit B.

“Guaranteed RA Amount” has the meaning set forth on the Cover Sheet.

“Guaranteed Round Trip Efficiency” has the meaning set forth in Exhibit P.

“Guaranteed Storage Availability” has the meaning set forth in Section 4.12(a).

“Guaranteed Storage Capacity” has the meaning set forth on the Cover Sheet, as may be adjusted pursuant to Exhibit B.

“Guarantor” means, with respect to Seller, [REDACTED]
[REDACTED]
[REDACTED] or (b) any other Person in Buyer’s sole and reasonable discretion.

“Guaranty” means a guaranty from a Guarantor provided for the benefit of Buyer substantially in the form attached as Exhibit Q or in such other form as is reasonably acceptable to Buyer.

“Hybrid Resource” has the meaning set forth in the CAISO Tariff.

“Imbalance Energy” means the amount of Energy, in any given Settlement Period or Settlement Interval, by which the amount of Facility Energy deviates from the amount of Scheduled Energy.

“Indemnified Party” has the meaning set forth in Section 17.1(a).

“Indemnifying Party” has the meaning set forth in Section 17.1(a).

“Initial Synchronization” means the initial delivery of Energy from the Facility to the interconnection point specified in the Interconnection Agreement.

“Installed PV Capacity” means the actual generating capacity of the Facility, measured at the Facility PNode and adjusted for ambient conditions on the date of the performance test, not to exceed the Guaranteed PV Capacity, as evidenced by a certificate substantially in the form attached as Exhibit I-2 hereto provided by Seller to Buyer.

“Installed Storage Capacity” means the maximum dependable operating capability of the Storage Facility to discharge electric energy for four (4) consecutive hours at the maximum discharge rate (up to but not in excess of the Guaranteed Storage Capacity), as measured in MW(ac) at the Delivery Point, that achieves Commercial Operation, as evidenced by a certificate substantially in the form attached as Exhibit I-2 hereto provided by Seller to Buyer.

“Inter-SC Trade” or **“IST”** has the meaning set forth in the CAISO Tariff.

“Interconnection Agreement” means the interconnection agreement entered into by Seller pursuant to which the Facility will be interconnected with the Transmission System, and pursuant to which Seller’s Interconnection Facilities and any other Interconnection Facilities will be constructed, operated and maintained during the Contract Term.

“Interconnection Capacity Limit” means the maximum instantaneous amount of Energy that is permitted to be delivered to the Delivery Point.

“Interconnection Facilities” means the interconnection facilities, control and protective devices and metering facilities required to connect the Facility with the Transmission System (or PTO’s distribution system, as applicable) in accordance with the Interconnection Agreement.

“Interest Rate” has the meaning set forth in Section 8.2.

“Internal Revenue Service Requirements” means those requirements set forth in Sections 45 or 48 of the Internal Revenue Code and associated regulations promulgated by the Internal Revenue Service that pertain to the eligibility of energy property to qualify for the federal production tax credit or investment tax credit, and any successor provision or technology-neutral clean electricity production tax credit or investment tax credit for which the Facility or any portion thereof qualifies under any section of the Internal Revenue Code.

“Joint Powers Act” means the Joint Exercise of Powers Act of the State of California (Government Code Section 6500 et seq.).

“Joint Powers Agreement” means that certain Joint Powers Agreement dated February 29, 2016 under which Buyer is organized as a Joint Powers Authority in accordance with the Joint Powers Act.

“kWh” means kilowatt-hour measured in alternating current, unless expressly stated in terms of direct current.

“Law” means any applicable law, statute, rule, regulation, decision, writ, order, decree or judgment, permit or any interpretation thereof, promulgated or issued by a Governmental Authority, and includes the CAISO Tariff.

“Lender” means, collectively, (A) in the case of Seller, any Person (i) providing senior or subordinated construction, interim, back leverage or long-term debt, equity or tax equity financing or refinancing for or in connection with the development, construction, purchase, installation or operation of the Facility, whether that financing or refinancing takes the form of private debt, equity, public debt or any other form (including financing or refinancing provided to a member or other direct or indirect owner of Seller), including any equity or tax equity investor directly or indirectly providing financing or refinancing for the Facility or purchasing equity ownership interests of Seller and/or its Affiliates, and any trustee or agent acting on their behalf, (ii) providing interest rate or commodity protection under an agreement hedging or otherwise mitigating the cost of any of the foregoing obligations, (iii) participating in a lease financing (including a sale leaseback or leveraged leasing structure) with respect to the Facility, and/or [REDACTED]

[REDACTED] (B) in the case of Buyer, any Person (i) providing senior or subordinated short-term or long-term debt or equity financing or refinancing for or in connection with the business or operations of Buyer, whether that financing or refinancing takes the form of private debt, equity, public debt or any other form, and any trustee or agent acting on their behalf, and/or (ii) providing interest rate or commodity protection under an agreement hedging or otherwise mitigating the cost of any of the foregoing obligations.

“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 a form (a) substantially similar to the letter of credit set forth in Exhibit K or (b) otherwise reasonably acceptable to Buyer.

“Local Capacity Area Resource Adequacy Benefits” means the attributes, however defined, of a Local Capacity Area Resource that can be used to satisfy the local resource adequacy obligations of a load serving entity, expressed in kW.

“Local Capacity Area Resources” has the meaning set forth in the CAISO Tariff.

“Locational Marginal Price” or **“LMP”** 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 termination of this Agreement for the remaining Contract Term, determined in a commercially reasonable manner. Factors used in determining economic loss to a Party may include, without limitation, reference to information supplied by one or more third parties, which shall exclude Affiliates of the Non-Defaulting Party, 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, 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 Contract Term and must include the value of Green Attributes, Capacity Attributes, and Renewable Energy Incentives.

“Lost Output” has the meaning set forth in Exhibit F.

“Main Power Transformer” means the Facility’s main step-up transformer as depicted on the one-line diagram set forth in Exhibit A.

“Milestones” means the development activities for significant permitting, interconnection, financing and construction milestones set forth in the Cover Sheet.

“Minimum Round Trip Efficiency” has the meaning set forth in Exhibit P.

“Monthly Storage Availability” has the meaning set forth in Exhibit L.

“Moody’s” means Moody’s Investors Service, Inc., or its successor.

“MW” means megawatts measured in alternating current, unless expressly stated in terms of direct current.

“MWh” means megawatt-hour measured in alternating current, unless expressly stated in terms of direct current.

“Negative LMP” means, in any Settlement Period or Settlement Interval, the LMP in the Real-Time Market is less than zero dollars (\$0).

“Negative LMP Costs” has the meaning set forth in Section 3.3(c).

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

“Non-Availability Charge” has the meaning set forth in the CAISO Tariff.

“Non-Defaulting Party” has the meaning set forth in Section 11.2.

“Notice” shall, unless otherwise specified in this 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).

“Operating Restrictions” means the requirements and limitations set forth on Exhibit N.

“Original Agreement” has the meaning set forth on the Recitals.

“Other Facility(ies)” means the electric generating or energy storage facility(ies), other than the Facility, utilizing any facilities shared with the Facility to enable delivery of energy from each such other generating or storage facility to the Delivery Point, together with all materials, equipment systems, structures, features and improvements necessary to produce electric energy at each such other generating or storage facility, but (i) with respect to the Shared Facilities, excluding Seller’s interests therein and (ii) excluding the real property on which each such other generating or storage facility is, or will be located, land rights and interests in land.

“Participating Transmission Owner” or **“PTO”** means an entity that owns, operates and maintains transmission or distribution lines and associated facilities and/or has entitlements to use certain transmission or distribution lines and associated facilities where the Facility is

interconnected. For purposes of this Agreement, the Participating Transmission Owner is the Southern California Edison Company.

“Party” has the meaning set forth in the Preamble.

“Performance Measurement Period” has the meaning set forth in Section 4.8.

“Performance Security” means (i) cash, (ii) a Letter of Credit, or (iii) a Guaranty, in the amount specified on the Cover Sheet, deposited with Buyer in conformance with Section 8.8.

“Performance Security End Date” has the meaning set forth in Section 8.8.

“Person” means any individual, sole proprietorship, corporation, limited liability company, limited or general partnership, joint venture, association, joint-stock company, trust, incorporated organization, institution, public benefit corporation, unincorporated organization, government entity or other entity.

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

“Portfolio Content Category” means PCC1, PCC2 or PCC3, as applicable.

“Portfolio Content Category 1” or **“PCC1”** means any Renewable Energy Credit associated with the generation of electricity from an Eligible Renewable Energy Resource consisting of the portfolio content set forth in California Public Utilities Code Section 399.16(b)(1), as may be amended from time to time or as further defined or supplemented by Law.

“Portfolio Content Category 2” or **“PCC2”** means any Renewable Energy Credit associated with the generation of electricity from an Eligible Renewable Energy Resource consisting of the portfolio content set forth in California Public Utilities Code Section 399.16(b)(2), as may be amended from time to time or as further defined or supplemented by Law.

“Portfolio Content Category 3” or **“PCC3”** means any Renewable Energy Credit associated with the generation of electricity from an Eligible Renewable Energy Resource consisting of the portfolio content set forth in California Public Utilities Code Section 399.16(b)(3), as may be amended from time to time or as further defined or supplemented by Law.

“Primary Availability” has the meaning set forth in Exhibit L.

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

“Progress Report” means a progress report including the items set forth in Exhibit G.

“Project” means the Generating Facility.

“Prudent Operating Practice” means the practices, methods and standards of professional care, skill and diligence engaged in or approved by a significant portion of the electric power industry in the Western United States for facilities of similar size, type, and design, that, in the exercise of reasonable judgment, in light of the facts known at the time, would have been expected to accomplish results consistent with Law, reliability, safety, environmental protection, applicable codes, and standards of economy and expedition. Prudent Operating Practices are not necessarily defined as the optimal standard practice method or act to the exclusion of others, but rather refer to a range of actions reasonable under the circumstances.

“PV Charging Energy” means Charging Energy that is supplied from the Generating Facility.

“PV Energy” means all Energy produced by the Generating Facility, as measured by the Generating Facility Meter after adjustment to exclude (a) all Electrical Losses, and (b) all Energy that serves Station Use or is stored in the Storage Facility to serve Station Use.

“Qualified Transferee” means an entity that (a) has a [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] (b) is not a public utility regulated by the CPUC or an Affiliate thereof, and (c) has, or retains to operate the Facility a Person that has, at least two (2) years of experience operating at two (2) or more electricity generating facilities of the same technology and with at least as much generating capacity as the Facility.

“RA Deficiency Amount” means the liquidated damages payment that Seller shall pay to Buyer for an applicable RA Shortfall Month as calculated in accordance with Section 3.9(b).

“RA Guarantee Date” means the Commercial Operation Date.

“RA Plan” means the RA plan, or similar or successor filing, that a Scheduling Coordinator representing resources providing Resource Adequacy Benefits submits to the CAISO or other applicable Governmental Authority pursuant to applicable Laws in order for the Resource Adequacy Benefits, including any Local Capacity Area Resource Adequacy Benefits and Flexible Resource Adequacy Benefits, to count towards a load serving entity’s resource adequacy obligations.

“RA Shortfall” means the difference, expressed in kW, of (i) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

“RA Shortfall Month” means the applicable calendar month following the RA Guarantee Date during which Seller fails to provide System Resource Adequacy Benefits in an amount equal to or greater than the Guaranteed RA Amount as required hereunder for purposes of calculating an RA Deficiency Amount under Section 3.9(b).

“RA Substitute Capacity” has the meaning set forth in the CAISO Tariff.

“Real-Time LMP” means the LMP for the Real-Time Market.

“Real-Time Market” has the meaning set forth in the CAISO Tariff.

“Recapture Period” means the period ending on the [REDACTED]

“Remedial Action Plan” has the meaning set forth in Section 2.4.

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

“Renewable Energy Incentives” means: (a) all federal, state, or local Tax credits or other Tax benefits associated with the construction, ownership, or production of electricity from the Facility (including credits under Sections 38, 45, 45Y, 46, 48 and 48E of the Internal Revenue Code of 1986, as amended); (b) any federal, state, or local grants, subsidies or other like benefits relating in any way to the construction, ownership or operation of the Facility, including a cash grant available under Section 1603 of Division B of the American Recovery and Reinvestment Act of 2009, provided in lieu of federal Tax credits (such as a direct payment or consideration received for an allowable transfer of such credit) or any similar or substitute payment available under subsequently enacted federal legislation; and (c) any other form of incentive relating in any way to the construction, ownership or operation of the Facility that are not a Green Attribute or a Future Environmental Attribute.

“Renewable Energy Incentives Baseline” has the meaning set forth in Section 3.5(b).

“Renewable Rate” has the meaning set forth on the Cover Sheet, as may be adjusted by Section 3.3.

“Replacement Green Attributes” has the meaning set forth in Exhibit F.

“Replacement RA” means System Resource Adequacy Benefits, if any, equivalent to those that would have been provided by the Storage Facility with respect to the applicable month in which an RA Deficiency Amount is due to Buyer. Replacement RA shall not be provided from any generating facility or unit that utilizes coal or coal materials as a source of fuel.

“Resource Adequacy Benefits” means the rights and privileges attached to the Facility that satisfy any entity’s resource adequacy obligations, as those obligations are set forth in CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 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, 14-06-050, 15-06-063, 16-06-045, 17-06-027, 19-10-021, and any subsequent CPUC ruling or decision or by any other entity including CAISO, and shall include System Resource Adequacy Benefits, Flexible Resource Adequacy Benefits and Local Capacity Area Resource Adequacy Benefits associated with the Facility.

“Resource ID” has the meaning set forth in the CAISO Tariff.

“Round Trip Efficiency” has the meaning set forth in Exhibit P.

“Round Trip Efficiency Adjustment” has the meaning set forth in Exhibit P.

“S&P” means the Standard & Poor’s Financial Services, LLC (a subsidiary of The McGraw-Hill Companies, Inc.) or its successor.

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

“Scheduled Energy” means the PV Energy, Charging Energy, and/or Discharging Energy reflected in a final Day-Ahead Schedule, FMM Schedule, and/or any other financially binding Schedule, market instruction or dispatch for the Facility for a given period of time.

“Scheduled Maintenance” means any planned outage or scheduled maintenance of all or a portion of the Facility by Seller, planned or scheduled in accordance with Section 6.1.

“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.

“Secondary Availability” has the meaning set forth in Exhibit L.

“Security Interest” has the meaning set forth in Section 8.9.

“Self-Schedule” has the meaning set forth in the CAISO Tariff.

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

“Seller’s WREGIS Account” has the meaning set forth in Section 4.9(a).

“Settlement Amount” means the Non-Defaulting Party’s Costs and Losses, on the one hand, netted against its Gains, on the other. If the Non-Defaulting Party’s Costs and Losses exceed its Gains, then the Settlement Amount shall be an amount owing to the Non-Defaulting Party. If the Non-Defaulting Party’s Gains exceed its Costs and Losses, then the Settlement Amount shall be zero dollars (\$0).

“Settlement Interval” has the meaning set forth in the CAISO Tariff.

“Settlement Period” has the meaning set forth in the CAISO Tariff, which as of the Amendment Date is the period beginning at the start of the hour and ending at the end of the hour.

“Shared Facilities” means the gen-tie lines, transformers, substations, or other equipment, permits, contract rights, and other assets and property (real or personal), in each case, as necessary to enable delivery of energy from Seller’s Facility (which is excluded from Shared Facilities) to the Delivery Point, that are used in common with Other Facilities, as applicable.

“Shared Facilities Agreement” has the meaning set forth in Section 6.3(a).

“Shared Facilities Counterparty” means any counterparty to a Shared Facilities Agreement with Seller.

“Showing Deadline” means the initial deadline that a Scheduling Coordinator must meet to submit its RA Plan, as established by CAISO or any other Governmental Authority. For illustrative purposes only, the CAISO monthly Showing Deadline is approximately 45 days prior to the month for which the RA has been shown.

“Site” means the real property on which the Facility is or will be located, as further described in Exhibit A, and as shall be updated by Seller at the time Seller provides an executed Construction Start Date Certificate to Buyer, in substantially the form of the Form of Construction Start Date Certificate in Exhibit J.

“Site Control” means that Seller: (a) owns or has the option to purchase the Site; (b) is the lessee or has the option to lease the Site; or (c) is the holder of an easement or an option for an easement, right-of-way grant, or similar instrument with respect to the Site.

“Station Use” has the meaning given in the tariff of the retail provider of energy for the Facility and reflects (a) the electric energy that is used within the Facility (including to power the lights, motors, control systems, thermal regulation equipment and other electrical loads) and that is necessary for operation of the Facility; and (b) the electric energy that is consumed within the Facility’s electric energy distribution system as losses (other than any losses that are Electrical Losses).

“Storage Availability Adjustment” has the meaning set forth in Exhibit L.

“Storage Capacity” means the maximum dependable operating capability of the Storage Facility (expressed in MW AC) to discharge electric energy at the maximum discharge rate that can be sustained for four (4) consecutive hours, as the same is to be established as of the Commercial Operation Date and adjusted from time to time pursuant to Exhibit M to reflect the results of the most recently performed Storage Capacity Test; provided that the Storage Capacity shall not at any time exceed the lesser of (a) the Guaranteed Storage Capacity, and (b) the Storage Facility’s then current PMax in the Storage Facility’s CAISO’s Master Data File and Resource Data Template (or successor data systems).

“Storage Capacity Payment” has the meaning set forth in Section 3.3(d).

“Storage Capacity Test” or **“SCT”** means any test or retest of the capacity of the Storage Facility conducted in accordance with the testing procedures, requirements and protocols set forth in Exhibit M.

“Storage Facility” means the energy storage facility described on the Cover Sheet and in Exhibit A (including the operational requirements of the energy storage facility), located at the Site and including mechanical equipment and associated facilities and equipment and Seller’s rights and interests in Shared Facilities required to deliver the Storage Product, but excluding any portions of Shared Facilities other than Seller’s rights and interests thereto.

“Storage Facility Meter” means the CAISO approved bi-directional revenue quality meter or meters (with a 0.3 accuracy class), along with a compatible data processing gateway or remote intelligence gateway, telemetering equipment and data acquisition services sufficient for monitoring, recording and reporting, in real time, the amount of (i) PV Charging Energy, (ii) Grid

Charging Energy, (iii) Discharging Energy and (iv) Energy that serves Station Use. For clarity, the Facility may include multiple measurement devices and calculations that will make up the Storage Facility Meter, and, unless otherwise indicated, references to the Storage Facility Meter shall mean all such measurement devices and calculations and the aggregated data of all such measurement devices and calculations, taken together.

“Storage Product” means (a) the ability of the Storage Facility to accept and store Charging Energy and to deliver Discharging Energy in accordance with the terms of this Agreement, (b) Capacity Attributes, if any, (c) Storage Capacity, and (d) Ancillary Services (as defined in the CAISO Tariff), if any, in each case arising from or relating to the Storage Facility.

“Storage Rate” has the meaning set forth on the Cover Sheet.

“Stored Energy” means the electric energy in the Storage Facility available to be discharged as Discharging Energy.

“Stored Energy Level” means, at a particular time, the amount of electric energy in the Storage Facility available to be discharged as Discharging Energy, expressed in MWh.

“Stub Term” shall mean the period of Contract Years specified on the Cover Sheet, beginning on the Commercial Operation Date and ending on the second (2nd) anniversary of the Commercial Operation Date, unless terminated earlier in accordance with the terms and conditions of this Agreement.

“Supplementary Storage Capacity Test Protocol” has the meaning set forth in Exhibit M.

“Supply Plan” has the meaning set forth in the CAISO Tariff.

“System Emergency” means any condition that: (a) requires, as determined and declared by CAISO or the PTO, automatic or immediate action to (i) prevent or limit harm to or loss of life or property, (ii) prevent loss of transmission facilities or generation supply in the immediate vicinity of the Facility, or (iii) preserve Transmission System reliability, and (b) directly affects the ability of any Party to perform under any term or condition in this Agreement, in whole or in part.

“System Resource Adequacy Benefits” means the attributes, however defined, of a resource that can be used to satisfy the resource adequacy obligations of a load serving entity, other than Flexible Resource Adequacy Benefits and Local Capacity Area Resource Adequacy Benefits, expressed in kW.

“Tangible Net Worth” means the tangible assets (for example, not including intangibles such as goodwill and rights to patents or royalties) that remain after deducting liabilities as determined in accordance with generally accepted accounting principles.

“Tax” or **“Taxes”** means all U.S. federal, state and local and any foreign taxes, levies, assessments, surcharges, duties and other fees and charges of any nature imposed by a Governmental Authority, whether currently in effect or adopted during the Contract Term,

including ad valorem, excise, franchise, gross receipts, import/export, license, property, sales and use, stamp, transfer, payroll, unemployment, income, and any and all items of withholding, deficiency, penalty, additions, interest or assessment related thereto.

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

“Termination Payment” has the meaning set forth in Section 11.3.

“Test Energy” means the Energy delivered (a) commencing on the later of (i) the first date that the CAISO informs Seller in writing that Seller may deliver Energy from the Facility to the CAISO and (ii) the first date that the PTO informs Seller in writing that Seller has conditional or temporary permission to parallel and (b) ending upon the occurrence of the Commercial Operation Date.

“Transmission System” means the transmission facilities operated by the CAISO, now or hereafter in existence, which provide energy transmission service downstream from the Delivery Point.

“Ultimate Parent” means [REDACTED]

“Variable Energy Resource Forecast” or **“VER Forecast”** means, for a given period, the final forecast of the Energy to be produced by the Facility prepared by the CAISO in accordance with the Eligible Intermittent Resources Protocol.

“WECC” means the Western Electricity Coordinating Council or its successor.

“WREGIS” means the Western Renewable Energy Generation Information System or any successor renewable energy tracking program.

“WREGIS Certificate Deficit” has the meaning set forth in Section 4.9(e).

“WREGIS Certificates” has the same meaning as “Certificate” as defined by WREGIS in the WREGIS Operating Rules and are designated as eligible for complying with the California Renewables Portfolio Standard.

“WREGIS Operating Rules” means those operating rules and requirements adopted by WREGIS as of December 2010, as subsequently amended, supplemented or replaced (in whole or in part) from time to time.

1.2 **Rules of Interpretation**. In this Agreement, except as expressly stated otherwise or unless the context otherwise requires:

(a) headings and the rendering of text in bold and italics are for convenience and reference purposes only and do not affect the meaning or interpretation of this Agreement;

(b) words importing the singular include the plural and vice versa and the masculine, feminine and neuter genders include all genders;

(c) the words “hereof”, “herein”, and “hereunder” and words of similar import shall refer to this Agreement as a whole and not to any particular provision of this Agreement;

(d) a reference to an Article, Section, paragraph, clause, Party, or Exhibit is a reference to that Section, paragraph, clause of, or that Party or Exhibit to, this Agreement unless otherwise specified;

(e) a reference to a document or agreement, including this Agreement shall mean such document, agreement or this Agreement including any amendment or supplement to, or replacement, novation or modification of this Agreement, but disregarding any amendment, supplement, replacement, novation or modification made in breach of such document, agreement or this Agreement;

(f) a reference to a Person includes that Person’s successors and permitted assigns;

(g) the term “including” means “including without limitation” and any list of examples following such term shall in no way restrict or limit the generality of the word or provision in respect of which such examples are provided;

(h) references to any statute, code or statutory provision are to be construed as a reference to the same as it may have been, or may from time to time be, amended, modified or reenacted, and include references to all bylaws, instruments, orders and regulations for the time being made thereunder or deriving validity therefrom unless the context otherwise requires;

(i) in the event of a conflict, a mathematical formula or other precise description of a concept or a term shall prevail over words providing a more general description of a concept or a term;

(j) references to any amount of money shall mean a reference to the amount in United States Dollars, and references to a LMP shall mean the LMP at the Delivery Point unless expressly provided otherwise;

(k) the expression “and/or” when used as a conjunction shall connote “any or all of”;

(l) words, phrases or expressions not otherwise defined herein that (i) have a generally accepted meaning in Prudent Operating Practice shall have such meaning in this Agreement or (ii) do not have well known and generally accepted meaning in Prudent Operating Practice but that have well known and generally accepted technical or trade meanings, shall have such recognized meanings; and

(m) each Party acknowledges that it was represented by counsel in connection with this Agreement and that it or its counsel reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement.

ARTICLE 2 TERM; CONDITIONS PRECEDENT

2.1 **Contract Term.**

(a) The term of this Agreement shall commence on the Effective Date and shall remain in full force and effect until the conclusion of the Delivery Term, subject to any early termination provisions set forth herein ("**Contract Term**").

(b) Applicable provisions of this Agreement shall continue in effect after termination, including early termination, to the extent necessary to enforce or complete the duties, obligations or responsibilities of the Parties arising prior to termination. The confidentiality obligations of the Parties under Article 19 shall remain in full force and effect for two (2) years following the termination of this Agreement, and all indemnity and audit rights shall remain in full force and effect for one (1) year following the termination of this Agreement.

2.2 **Conditions Precedent.** The Delivery Term shall not commence until Seller completes each of the following conditions:

(a) Seller shall have installed and commissioned generating equipment with a nameplate capacity of no less than [REDACTED] of the Guaranteed PV Capacity;

(b) Seller shall have installed and commissioned storage equipment with a capacity of no less than [REDACTED] of the Guaranteed Storage Capacity;

(c) Seller shall have delivered to Buyer certificates from a licensed professional engineer substantially in the form of Exhibits I-1 and I-2;

(d) A Participating Generator Agreement and a Meter Service Agreement between Seller and CAISO shall have been executed and delivered and be in full force and effect, and a copy of each such agreement delivered to Buyer;

(e) An Interconnection Agreement between Seller and the PTO shall have been executed and delivered and be in full force and effect and a copy of the Interconnection Agreement, including all modifications and amendments thereto, delivered to Buyer;

(f) Seller shall have delivered to Buyer a copy of all environmental impact reports, studies or assessments prepared by or obtained by Seller or its Affiliates, the conditional use permit or other principal land use approval for the Facility, and a certificate signed by an authorized representative of Seller stating that Seller is in compliance with the requirements of the conditional use permit or other principal land use approval;

(g) Seller has received CEC Precertification;

(h) Seller (with the reasonable participation of Buyer) shall have completed all applicable WREGIS registration requirements, including the completion and submittal of all applicable registration forms and supporting documentation, which may include applicable interconnection agreements, informational surveys related to the Facility, QRE service

agreements, and other appropriate documentation required to effect Facility registration with WREGIS and to enable Renewable Energy Credit transfers related to the Facility within the WREGIS system;

(i) Seller shall have caused the Generating Facility and the Storage Facility to be included in the Full Network Model and has ability to offer Bids into CAISO Day-Ahead Markets and Real-Time Markets in respect of each of the Generating Facility and the Storage Facility;

(j) Seller shall have completed all necessary steps to provide Ancillary Services from the Facility, including completing the certification and testing requirements in Section 8.3.4 and Appendix K of the CAISO Tariff with respect to the provision of Ancillary Services;

(k) Seller has delivered to Buyer, the most recent version of (i) any solar resource report prepared by a third party consultant, and (ii) any report by an independent engineer in connection with the financing of the construction or permanent operation of the Facility,

██
██

(l) Seller has delivered the Performance Security to Buyer; and

(m) Seller has paid Buyer for all Daily Delay Damages and Commercial Operation Delay Damages owing under this Agreement, if any.

2.3 **Progress Reports.** The Parties agree time is of the essence in regards to the Agreement. Within fifteen (15) days after the close of (i) each calendar quarter from the first calendar quarter following the Effective Date until the Construction Start Date, and (ii) each calendar month from the first calendar month following the Construction Start Date until the Commercial Operation Date, Seller shall provide to Buyer a 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 form of the Progress Report is set forth in Exhibit G. Seller shall also provide Buyer with any reasonably requested documentation (subject to reasonable confidentiality restrictions) directly related to the achievement of Milestones within ten (10) Business Days of receipt of such request by Seller.

2.4 **Remedial Action Plan.** If Seller misses ██████████ or more Milestones or misses any one (1) by more than ██████████ Seller shall submit to Buyer, within ten (10) Business Days of such third missed Milestone completion date (or the ninetieth (90th) day after the missed Milestone completion date, as applicable), a remedial action plan ("**Remedial Action Plan**"), which will describe in detail any delays (actual or anticipated) beyond the scheduled Milestone dates, including the cause of the delay (e.g., governmental approvals, financing, property acquisition, design activities, equipment procurement, project construction, interconnection, or any other factor), and Seller's detailed description of its proposed course of action to achieve the missed Milestones and all subsequent Milestones by the Guaranteed Commercial Operation Date; provided, that delivery of any Remedial Action Plan shall not relieve Seller of its obligation to provide Remedial Action Plans with respect to any subsequent Milestones and to achieve the

Guaranteed Commercial Operation Date in accordance with the terms of this Agreement. Subject to the provisions of Exhibit B and Section 11.1(b)(ii), so long as Seller complies with its obligations under this Section 2.4, then Seller shall not be considered in default of its obligations under this Agreement as a result of missing such Milestone(s).

2.5 **Facility Configuration.** The Parties agree that the Facility configuration will be as Co-located Resources with separate CAISO Resource IDs and separate CAISO approved revenue quality meters for each of the Storage Facility and Generating Facility. Seller shall design and configure the Facility metering and equipment (although not necessarily the software associated therewith) to accommodate being able to function in a Co-located Resource or Hybrid Resource configuration using the best available information at the time of meter installation. Not more than once per Contract Year during the Bundled Term, Buyer may request that Seller convert the Storage Facility from a Co-located Resource to a Hybrid Resource (or, if previously converted to a Hybrid Resource, back to a Co-located Resource). Upon such request, Seller shall determine in its commercially reasonable discretion, taking into account any operational or design limitations of the Facility and any CAISO-approved process for conversion of a Co-Located Resource to a Hybrid Resource or vice versa, whether such a conversion is possible and, if so, the anticipated costs associated with such a conversion. Seller shall provide an estimate of such costs and expenses, including lost revenue, and the associated scope of work, if such a conversion is possible, for Buyer's review within thirty (30) days after Buyer's request for the conversion. If Buyer agrees to be responsible for the reasonably incurred and documented costs and expenses associated with the identified scope of work, Seller shall request that CAISO convert the Storage Facility from the configuration then in effect to the other configuration. Buyer shall reimburse Seller for its reasonably incurred and documented costs and expenses associated with the identified scope of work, including lost revenue, to effectuate the conversion and the Parties shall cooperate in good faith to amend this Agreement to accommodate such conversion while maintaining the expected economic benefit to Seller arising out of this Agreement. Once Buyer approves the costs and expenses for reimbursement, the conversion shall be completed within the timeline in the CAISO's administrative process. In addition to the other limitations specified in this Section 2.5, if such request or such conversion of the Storage Facility from a storage facility co-located with solar to a hybrid solar and storage facility is not permitted by CAISO or any Governmental Authority, or reasonably could be expected to have an adverse impact on the expected economic benefit to Seller arising out of this Agreement, including any physical modification of the Facility, that is not compensated for by Buyer, Seller shall provide notice of the same to Buyer with a reasonably detailed explanation and Seller shall not be required to effectuate the conversion.

2.6 **CPUC Mid-Term Reliability Requirements.** Seller acknowledges that Buyer intends to use this Agreement to comply with mandatory procurement obligations for incremental zero-emissions capacity pursuant to CPUC D.21-06-035, OP 6. In accordance with such requirements, Seller represents that the Facility shall meet the following requirements, subject to the terms of this Agreement:

- (a) The Facility shall emit zero-emissions;
- (b) The Facility shall be comprised of a generation resource paired with storage;

and

(c) The Facility shall be designed to be capable of delivering, every day, year-round, at least five (5) MWh of energy per every MW of incremental capacity claimed by Buyer during the 5 p.m. to 10 p.m. period (the beginning of hour ending 1800 and the end of hour ending 2200), Pacific Time. The annual probability of exceedance (P50) for the Facility's output during this 5 p.m. to 10 p.m. time period is greater than or equal to 1,825 MWh for every MW of incremental capacity claimed by Buyer during this time period. During the Stub Term, Seller shall charge the Storage Facility prior to 5 p.m. each day, year round, [REDACTED]

[REDACTED]. During the Stub Term, Seller shall offer for sale in CAISO's energy markets, to extent that energy is available in the Storage Facility and/or from the Generating Facility, every day, year round, [REDACTED]

[REDACTED]. During the Bundled Term, Seller shall charge and discharge the Storage Facility, and the energy available from the Generating Facility and the Storage Facility shall be offered into CAISO's energy markets, at Buyer's discretion in accordance with and subject to the terms of this Agreement.

ARTICLE 3 PURCHASE AND SALE

3.1 **Sale of Product.** Subject to the terms and conditions of this Agreement, during the Stub Term, Seller shall sell and deliver to Buyer, and Buyer shall purchase and receive from Seller at the Storage Rate, all of the Resource Adequacy Benefits produced by the Storage Facility. Subject to the terms and conditions of this Agreement, during the Bundled Term, Seller shall sell and deliver to Buyer, and Buyer shall purchase and receive from Seller at the Contract Price, all of the Product produced by the Facility. Buyer shall re-sell all of the Energy purchased hereunder (other than Charging Energy), and may, at its sole discretion, re-sell or use for another purpose all or a portion of the remainder of the Product, provided that such resale or use for another purpose will not relieve Buyer of any of its obligations under this Agreement. Except for Deemed Delivered Energy, Buyer has no obligation to pay Seller for any Product that is not delivered to the Delivery Point as a result of any circumstance, including an outage of the Facility, a Force Majeure Event, or a Curtailment Order. In no event shall Seller have the right to procure any element of the Product from sources other than the Facility for sale or delivery to Buyer under this Agreement, except with respect to Replacement RA under Section 3.9.

3.2 **Sale of Green Attributes.** Seller shall sell and deliver to Buyer, and Buyer shall purchase and receive from Seller, all of the Green Attributes produced by the Facility during the Bundled Term.

3.3 **Compensation.** Buyer shall compensate Seller for the Product in accordance with this Section 3.3.

[REDACTED]

(b) During the Bundled Term, if, at any point in any Contract Year, the amount of PV Energy [REDACTED]

(c) During the Bundled Term, if during any Settlement Interval, Seller delivers PV Energy in excess of the product of the Installed PV Capacity and the duration of the Settlement Interval, expressed in hours (“**Excess MWh**”), then the price applicable to all such Excess MWh in such Settlement Interval shall be zero dollars (\$0), and if there is a Negative LMP during such Settlement Interval, Seller shall pay to Buyer an amount equal to the absolute value of the Negative LMP times the number of such Excess MWh (“**Negative LMP Costs**”).

(d) [REDACTED]

3.4 **Imbalance Energy.**

(a) Buyer and Seller recognize that from time to time the amount of Facility Energy will deviate from the amount of Scheduled Energy. Buyer and Seller shall cooperate to minimize charges and imbalances associated with Imbalance Energy to the extent possible. Subject to Section 3.4(b), to the extent there are such deviations during the Bundled Term, any CAISO costs or revenues assessed as a result of such Imbalance Energy shall be solely for the account of Buyer.

(b) During the Bundled Term, if Seller is not in compliance with EIRP or Sections 4.3, 4.4(c), 4.4(d), 4.5, 4.6, or 4.11, or if Imbalance Energy results from any outage or reduction in the availability of the Facility that is not communicated to Buyer at least one hour prior to the deadline to submit Schedules to CAISO, then Seller will be responsible for and shall pay directly or promptly reimburse Buyer (and Buyer may offset amounts owed to Seller) for the aggregate Imbalance Energy charges assessed, net of the aggregate Imbalance Energy revenues earned, during such period of noncompliance and reasonably attributable to such noncompliance within the applicable Contract Year. At Buyer’s request, Seller will cooperate with Buyer to develop a written administrative protocol to effectuate the Parties’ agreement with respect to

Imbalance Energy and scheduling.

3.5 **Ownership of Renewable Energy Incentives.**

(a) Subject to Section 3.5(b), Seller shall have all right, title and interest in and to all Renewable Energy Incentives. Buyer acknowledges that any Renewable Energy Incentives belong to Seller. If any Renewable Energy Incentives, or values representing the same, are initially credited or paid to Buyer, Buyer shall cause such Renewable Energy Incentives or values relating to same to be assigned or transferred to Seller without delay. Buyer shall reasonably cooperate with Seller, at Seller's sole expense, in Seller's efforts to meet the requirements for any certification, registration, or reporting program relating to Renewable Energy Incentives. [REDACTED]

(b) The Parties acknowledge and agree that as of the Amendment Date, Seller contemplates receiving Renewable Energy Incentives (i) with respect to the Generating Facility, in an amount equal to either [REDACTED] for which the Generating Facility would qualify under Section 48 or Section 48E of the Internal Revenue Code, or [REDACTED] Section 45(b)(2) of the Internal Revenue Code for which the Generating Facility would qualify, and (ii) with respect to the Storage Facility, [REDACTED] federal investment tax credit for which the Storage Facility would qualify under Section 48 of the Internal Revenue Code (collectively, the "**Renewable Energy Incentives Baseline**"). To the extent Seller, or Seller's Affiliates, Lenders or investors, are able to claim, qualify or receive Renewable Energy Incentives in an amount greater than the Renewable Energy Incentives Baseline, as determined by Seller in its commercially reasonable discretion, [REDACTED]

[REDACTED] To the extent additional benefits are available in an amount greater than the Renewable Energy Incentives Baseline, the Parties shall mutually agree how to effectuate the foregoing, either through an adjustment to the Contract Price or a one-time payment to Buyer. Upon receipt of any Renewable Energy Incentives above the Renewable Energy Incentives Baseline, Seller shall provide notice thereof to Buyer, including the additional benefits Buyer is entitled to pursuant to the foregoing.

3.6 **Future Environmental Attributes.**

(a) The Parties acknowledge and agree that as of the Effective Date, Future Environmental Attributes may be created by a Governmental Authority through Laws enacted after the Effective Date. Buyer shall have the right to obtain such Future Environmental Attributes without any adjustment to the Contract Price paid by Buyer under this Agreement. Subject to Section 3.13, Seller shall take all reasonable actions necessary to realize the full value of such

Future Environmental Attributes for the benefit of Buyer, and shall cooperate with Buyer in Buyer's efforts to do the same.

(b) If Buyer elects to receive Future Environmental Attributes pursuant to Section 3.6(a), the Parties agree to negotiate in good faith with respect to the development of further agreements and documentation necessary to effectuate the transfer of such Future Environmental Attributes, including agreement with respect to (i) appropriate transfer, delivery and risk of loss mechanisms, and (ii) appropriate allocation of any incremental expenses incurred by Seller associated with providing such Future Environmental Attributes as set forth above; *provided*, that the Parties acknowledge and agree that such terms are not intended to alter the other material terms of this Agreement.

3.7 **Test Energy.** If and to the extent the Facility generates Test Energy, all such Test Energy, and any corresponding Green Attributes, Capacity Attributes, or revenues associated therewith, shall be for Seller's account.

3.8 **Capacity Attributes.** Seller shall request Full Capacity Deliverability Status in connection with the Storage Facility in the CAISO generator interconnection process. As between Buyer and Seller, Seller shall be responsible for the cost and installation of any Network Upgrades associated with obtaining such Full Capacity Deliverability Status.

(a) Subject to Section 3.13, Seller grants, pledges, assigns and otherwise commits to Buyer (i) during the Stub Term, all of the Resource Adequacy Benefits from the Facility and (ii) during the Bundled Term, all of the Capacity Attributes from the Facility.

(b) Subject to Section 3.13, Seller shall use commercially reasonable efforts to maintain eligibility for Full Capacity Deliverability Status for the Storage Facility from the CAISO and shall perform all actions necessary to ensure that the Storage Facility qualifies to provide Resource Adequacy Benefits to Seller. Throughout the Delivery Term, subject to Section 3.13, Seller hereby covenants and agrees to transfer all Resource Adequacy Benefits to Buyer from the Storage Facility.

(c) Subject to Section 3.13, Seller shall take all commercially reasonable actions, including complying with all applicable registration and reporting requirements, and execute any and all documents or instruments necessary to enable Buyer to use all of the Capacity Attributes committed by Seller to Buyer pursuant to this Agreement.

(d) For the duration of the Delivery Term, Seller shall maintain an interconnection capacity under its Interconnection Agreement of at least the amount of the Guaranteed Interconnection Capacity.

(e) If, as a result of Scheduled Maintenance or otherwise, CAISO requires RA Substitute Capacity in connection with Seller's provision of Resource Adequacy Benefits to Buyer from the Storage Facility, Seller shall provide such RA Substitute Capacity in accordance with applicable CAISO requirements. Seller acknowledges and agrees that any failure by Seller to provide such RA Substitute Capacity may result in CAISO rejecting or cancelling Scheduled Maintenance or other outage of the Storage Facility. Buyer shall notify Seller within two (2) Business Days after becoming aware of an obligation by Seller to provide RA Substitute Capacity

and shall use commercially reasonable efforts to notify Seller before submitting its Supply Plan. Upon request by Seller, Buyer shall use commercially reasonable efforts to secure, on Seller's behalf, RA Substitute Capacity; provided that Seller shall reimburse Buyer for all out-of-pocket costs, including broker and outside counsel costs, associated with such RA Substitute Capacity. If Seller declines to provide RA Substitute Capacity, and notifies Buyer to that effect no less than five (5) Business Days before the applicable Showing Deadline, then Buyer will not include the Storage Facility (or, if applicable, the portion of the Storage Facility) in its Supply Plan for the Facility and Seller's sole liability will be payment of the RA Deficiency Amount for such RA Shortfall pursuant to Section 3.9.

3.9 Resource Adequacy Failure.

(a) RA Deficiency Determination. Notwithstanding Seller's obligations set forth in Section 4.3 or anything to the contrary herein, the Parties acknowledge and agree that if Seller has indicated that the Storage Facility will have Full Capacity Deliverability Status on the Cover Sheet, but has failed to obtain such status for the Storage Facility by the RA Guarantee Date, or if Seller otherwise fails to provide System Resource Adequacy Benefits in an amount equal to or greater than the Guaranteed RA Amount as required hereunder, then Seller shall pay to Buyer the RA Deficiency Amount for each RA Shortfall Month as liquidated damages due to Buyer or provide Replacement RA for the Capacity Attributes that Seller failed to convey to Buyer.

(b) RA Deficiency Amount Calculation. For each RA Shortfall Month, Seller shall pay to Buyer an amount (the "**RA Deficiency Amount**") equal to [REDACTED]

[REDACTED] *provided* that Seller may, as an alternative to paying RA Deficiency Amounts, provide Replacement RA up to the RA Shortfall, provided that any Replacement RA capacity is (A) communicated by Seller to Buyer with Replacement RA product information in a written notice substantially in the form of Exhibit R at least seventy-five (75) days before the applicable CPUC operating month and (B) is delivered to Buyer at least ten (10) Business Days before the CPUC and CAISO Showing Deadline for the operating month for the purpose of annual and monthly RA Plan reporting.

3.10 CEC Certification and Verification. Subject to Section 3.13, Seller shall take all necessary steps including, but not limited to, making or supporting timely filings with the CEC to obtain and maintain CEC Precertification and CEC Final Certification and Verification for the Facility. Seller shall obtain CEC Precertification by the Commercial Operation Date. Within thirty (30) days after the Commercial Operation Date, Seller shall apply with the CEC for CEC Final Certification and Verification. By the start of the Bundled Term, Seller shall, subject to Section 3.13, obtain and maintain throughout the remainder of the Bundled Term the CEC Final

Certification and Verification. Seller must promptly notify Buyer and the CEC of any changes to the information included in Seller's application for CEC Precertification or CEC Final Certification and Verification for the Facility. If Seller has not obtained CEC Final Certification and Verification by the start of the Bundled Term, then an Event of Default shall occur, Buyer shall have all remedies available under this Agreement, including under Section 11.2.

3.11 **Eligibility**. 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.

3.12 **California Renewables Portfolio Standard**. Subject to Section 3.13, Seller shall also take all other actions necessary to ensure that the Energy produced from the Generating Facility is tracked for purposes of satisfying the California Renewables Portfolio Standard requirements, as may be amended or supplemented by California statute or by the CPUC or CEC from time to time.

3.13 **Compliance Expenditure Cap**. If a change in Laws occurring after the Effective Date has increased Seller's cost above the cost that could reasonably have been contemplated as of the Effective Date with respect to obtaining, maintaining, conveying or effectuating Buyer's use of (as applicable) any Green Attributes (any action required to be taken by Seller to comply with such change in Law, a "**GA Compliance Action**") or Capacity Attributes (any action required to be taken by Seller to comply with such change in Law, a "**CA Compliance Action**", which together with GA Compliance Actions is a "**Compliance Action**"), then the Parties agree that the maximum aggregate amount of costs and expenses Seller shall be required to bear during the Delivery Term to comply with (i) all such GA Compliance Actions shall be capped at [REDACTED] and (ii) all such CA Compliance Actions shall be capped [REDACTED] ("**Compliance Expenditure Cap**").

If Seller reasonably anticipates the need to incur out-of-pocket expenses in excess of the Compliance Expenditure Cap in order to take any Compliance Action, Seller shall provide Notice to Buyer of such anticipated out-of-pocket expenses.

Buyer will have sixty (60) days to evaluate such Notice (during which time period Seller is not obligated to take any Compliance Actions described in the Notice) and shall, within such time, either (1) agree to reimburse Seller for all of the costs that exceed the Compliance Expenditure Cap (such Buyer-agreed upon costs, the "**Accepted Compliance Costs**"), or (2) waive Seller's obligation to take such Compliance Actions, or any part thereof for which Buyer has not agreed to reimburse Seller. If Buyer does not respond to a Notice given by Seller under this Section 3.13 within sixty (60) days after Buyer's receipt of same, Buyer shall be deemed to have waived its rights to require Seller to take the Compliance Actions that are the subject of the Notice, and Seller

shall have no further obligation to take, and no liability for any failure to take, these Compliance Actions for the remainder of the Contract Term.

If Buyer agrees to reimburse Seller for the Accepted Compliance Costs, then Seller shall take such Compliance Actions covered by the Accepted Compliance Costs as agreed upon by the Parties and Buyer shall reimburse Seller for Seller's actual costs to effect the Compliance Actions, not to exceed the Accepted Compliance Costs, within sixty (60) days from the time that Buyer receives an invoice and reasonable documentation of such costs from Seller.

[REDACTED]

3.14 **Guaranteed Interconnection Capacity.** Seller shall enable the Aggregate Capability Constraint and sub-Aggregate Capability Constraints with CAISO so as to ensure that the Buyer has the exclusive right to use the Guaranteed Interconnection Capacity during the Bundled Term.

3.15 **Project Configuration and Grid Charging.** After the Recapture Period, if Buyer elects to provide Charging Energy from a source other than the Generating Facility, including Grid Charging Energy, (i) Buyer will be responsible for the costs of Energy relating to the charging of the Storage Facility from a source other than the Generating Facility (not including any Imbalance Energy costs for which Seller is otherwise responsible) and (ii) PV Energy delivered by Seller to the Delivery Point will be fully paid for by Buyer (unless Buyer is otherwise not required to pay for such PV Energy hereunder).

3.16 The term "commercially reasonable efforts" as used in Section 3.11 means efforts consistent with and subject to Section 3.13.

ARTICLE 4 OBLIGATIONS AND DELIVERIES

4.1 Delivery.

(a) **Energy.** Subject to the terms and conditions of this Agreement, Seller shall make available and Buyer shall accept at the Delivery Point all Product. Each Party shall perform all obligations under this Agreement, including all generation, scheduling, and transmission services, in compliance with (i) the CAISO Tariff, (ii) WECC scheduling practices, and (iii) Prudent Operating Practice.

(b) Green Attributes. During the Bundled Term, Seller hereby provides and conveys all Green Attributes associated with the Facility as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Facility, and Seller agrees during the Bundled Term to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Facility. Seller shall, at Buyer's request and at Seller's sole expense, take all actions and execute all documents or instruments necessary to ensure that the Facility is certified in the Center for Resource Energy Solutions Green-e certification program, or successor program.

(c) Station Use. Seller may serve Station Use from Energy produced by the Facility only to the extent permissible in accordance with the CAISO Tariff and subject to the following requirements and restrictions:

(i) Seller shall not bill Buyer and Buyer will not pay Seller for any Energy that serves Station Use, and Seller shall bear all costs associated with Energy that serves Station Use, including (A) any Energy produced by the Generating Facility that serves Station Use; (B) any Stored Energy or Energy discharged from the Storage Facility that serves Station Use during periods when such service is permissible in accordance with the CAISO Tariff; and/or (C) any CAISO costs or Imbalance Energy costs incurred to serve Station Use;

(ii) Seller shall be responsible for the accurate metering and accounting for Energy used to serve Station Use to ensure that records and invoices to Buyer are accurate and do not improperly bill Buyer for Energy that serves Station Use;

(iii) Seller shall ensure that any use of Stored Energy or Energy discharged from the Storage Facility to serve Station Use complies with and does not interfere with or impair Buyer's or the CAISO's dispatch of or schedule for the Facility, and if Seller fails to comply with such requirements, then, without prejudice to Buyer's other rights and remedies hereunder, Seller shall reimburse Buyer for (A) any charges, costs, and penalties imposed by the CAISO for the Storage Facility's failure to comply with dispatch instructions, the CAISO schedule, or any CAISO requirements; and (B) any loss of revenue if the CAISO adjusts dispatch instructions due to the use of Stored Energy or Energy discharged from the Storage Facility to serve Station Use, in each case only to the extent imposed or incurred as a direct result of Seller's use of Stored Energy or Energy discharged from the Storage Facility to serve Station Use;

(iv) Any use of Energy generated by the Generating Facility, Energy discharged from the Storage Facility or Stored Energy for Station Use shall not (A) reduce Seller's obligations to achieve the Guaranteed Storage Availability and Guaranteed Round Trip Efficiency, or (B) count toward limits specified in the Operating Restrictions; and

(v) Seller shall provide to Buyer upon Buyer's request all records and data, including detailed meter, charging, discharging, and state of charge data, that may be necessary or useful for Buyer to verify that service of Station Use occurred in compliance with this Section 4.1(c), and to calculate and verify the accuracy of invoices and amounts required to be reimbursed hereunder.

4.2 **Title and Risk of Loss.**

(a) Energy. Title to and risk of loss related to the Facility Energy shall pass and transfer from Seller to Buyer at the Delivery Point. Title to and risk of loss related to the Grid Charging Energy, if any, shall pass and transfer from Buyer to Seller at the Storage Facility Meter.

(b) Green Attributes. Title to and risk of loss related to the Green Attributes shall pass and transfer from Seller to Buyer upon the transfer of such Green Attributes in accordance with WREGIS.

4.3 Scheduling Coordinator Responsibilities.

(a) Scheduling Coordinator for the Facility. Upon initial synchronization of the Facility to the CAISO Grid, Seller shall be the Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with the CAISO for the Facility. Upon commencement of the Bundled Term, Buyer shall be the Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with the CAISO for the Facility for both the delivery and the receipt of the Product at the Delivery Point. At least thirty (30) days prior to the commencement of the Bundled Term, (i) 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 Facility effective as of the commencement of the Bundled Term, and (ii) Buyer shall, and shall cause its designee to, take all actions and execute and deliver to Seller and the CAISO all documents necessary to authorize or designate Buyer or its designee as the Scheduling Coordinator for the Facility effective as of the commencement of the Bundled Term. On and after commencement of the Bundled Term, Seller shall not authorize or designate any other party to act as Scheduling Coordinator for the Facility, 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 SC for the Facility) shall submit Schedules to the CAISO in accordance with this Agreement and the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, fifteen-minute market or real time basis, as determined by Buyer. In the event that Buyer is not, as of the commencement of the Bundled Term, the Scheduling Coordinator for the Facility: (i) Seller (or its SC) shall continue to perform Scheduling Coordinator responsibilities for the Facility until Buyer becomes the Scheduling Coordinator for the Facility; (ii) Seller (or its SC) shall submit Bids into the CAISO markets in respect of the Facility as directed by Buyer from time to time; and (iii) Seller shall pass through to Buyer all CAISO revenues and costs in respect of the Facility, except for those CAISO revenues and costs that are to remain with Seller as provided in Sections 3.4(b), 3.7 and 4.3(c).

(b) Notices. During the Bundled Term, 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 Facility's status, including, but not limited to, all outage requests, Forced Facility Outages, Forced Facility Outage reports, clearance requests, or must offer waiver forms. 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.

(c) CAISO Costs and Revenues. Except as otherwise set forth below and in

Section 3.4(b) and Section 3.7, during the Bundled Term, Buyer (as Scheduling Coordinator for the Facility) shall be responsible for CAISO costs (including penalties, Imbalance Energy costs or revenues, and other charges) and shall be entitled to all CAISO revenues (including credits, Imbalance Energy revenues or costs, 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 Facility. Seller shall be responsible for all CAISO penalties or fees resulting from any failure by Seller to abide by the CAISO Tariff or this Agreement (except to the extent such non-compliance is caused by Buyer's failure to perform its duties as Scheduling Coordinator for the Facility). 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 are the responsibility of the Seller and for Seller's account. In addition, if during the Bundled 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 Facility or to Buyer as Scheduling Coordinator due to failure by Seller to abide by the outage notification requirements set forth in this Agreement, the cost of the sanctions or penalties shall be the Seller's responsibility.

(d) CAISO Settlements. During the Bundled Term, Buyer (as Seller's SC) shall be responsible for all settlement functions with the CAISO related to the Facility. 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, including Section 3.4(b). 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. Buyer will review, validate, and if requested by Seller under Section 4.3(e) below, dispute any charges that are the responsibility of Seller in a timely manner and consistent with Buyer's existing settlement processes for charges that are Buyer's responsibilities. Subject to Seller's right to dispute and to have Buyer pursue the dispute of any such invoices, Seller shall pay the amount of CAISO Charges Invoices within ten (10) 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.

(e) Dispute Costs. During the Bundled Term, Buyer (as Seller's SC) may be required by Seller to dispute CAISO settlements in respect of the Facility. Seller agrees to pay Buyer's costs and expenses (including reasonable attorneys' fees) associated with its involvement with such CAISO disputes to the extent they relate to CAISO charges payable by Seller with respect to the Facility that Seller has directed Buyer to dispute.

(f) 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 Facility as of 11:59 p.m. on such expiration date.

(g) Master Data File and Resource Data Template. During the Bundled Term,

Seller shall provide the data to Buyer and Buyer's designated Scheduling Coordinator that is required for the CAISO's Master Data File and Resource Data Template (or successor data systems) for the Facility consistent with this Agreement. Except to the extent required to comply with Law or the CAISO Tariff, neither Party shall change such data without the other Party's prior written consent, not to be unreasonably withheld.

(h) NERC Reliability Standards. During the Bundled Term, Buyer (as Scheduling Coordinator) shall cooperate reasonably with Seller to the extent necessary to enable Seller to comply, and for Seller to demonstrate Seller's compliance with, NERC reliability standards. This cooperation shall include the provision of information in Buyer's possession that Buyer (as Scheduling Coordinator) has provided to the CAISO related to the Facility or actions taken by Buyer (as Scheduling Coordinator) related to Seller's compliance with NERC reliability standards.

4.4 **Forecasting**. Seller shall provide the forecasts described below. Seller's Available Generating Capacity forecasts shall include availability and updated status of key equipment for the Generating Facility. Seller shall use commercially reasonable efforts to forecast the Available Generating Capacity and expected Energy of the Generating Facility and Available Storage Capacity of the Storage Facility accurately and to transmit such information in a format reasonably acceptable to Buyer (or Buyer's designee).

(a) Annual Forecast of Expected PV Energy. No less than ninety (90) days before (i) the first day of the first Contract Year of the Bundled Term and (ii) the beginning of each calendar year for every subsequent Contract Year during the Bundled Term, Seller shall provide a non-binding forecast of each month's average-day expected PV Energy, by hour, for the following calendar year in a form reasonably acceptable to Buyer.

(b) Monthly Forecast of Available Capacity. No less than ten (10) Business Days before the beginning of each month during the Bundled Term, Seller shall provide to Buyer and Buyer's designee (if applicable) a non-binding forecast of the hourly Available Generating Capacity and Available Storage Capacity in each case for each day of the following month in a form reasonably acceptable to Buyer.

(c) Daily Forecast of Available Capacity. By 5:30 AM Pacific Prevailing Time on the Business Day immediately preceding the date of delivery for each day during the Bundled Term, Seller shall provide Buyer with a non-binding forecast of the Available Generating Capacity (or if requested by Buyer, the expected PV Energy) and Available Storage Capacity for each hour of the immediately succeeding day ("**Day-Ahead Forecast**"). A Day-Ahead Forecast provided in a day prior to any non-Business Day(s) shall include non-binding forecasts 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 the Available Generating Capacity (or if requested by Buyer, the expected PV Energy) and Available Storage Capacity.

(d) Real-Time Available Capacity. During the Bundled Term, Seller shall notify Buyer of any changes in Available Generating Capacity and/or Available Storage Capacity of one (1) MW or more, whether due to Forced Facility Outage, Force Majeure Event or other cause, as soon as reasonably possible, but no later than one (1) hour prior to the deadline for

submitting Schedules to the CAISO in accordance with the rules for participation in the Real-Time Market. If the Available Generating Capacity and/or Available Storage Capacity changes by at least one (1) MW as of a time that is less than one (1) hour prior to the Real-Time Market deadline, but before such deadline, then Seller must notify Buyer as soon as reasonably possible. Such Notices shall contain information regarding the beginning date and time of the event resulting in the change in Available Generating Capacity and/or Available Storage Capacity, as applicable, the expected end date and time of such event, the expected Available Generating Capacity and/or Available Storage Capacity, as applicable, in MW, and any other information required by the CAISO or reasonably requested by Buyer. With respect to any Forced Facility Outage, Seller shall use commercially reasonable efforts to notify Buyer of such outage within ten (10) minutes of the commencement of the Forced Facility Outage. Seller shall inform Buyer of any developments that will affect either the duration of such outage or the availability of the Facility during or after the end of such outage. These notices and changes to Available Generating Capacity and/or Available Storage Capacity shall be communicated in a method acceptable to Buyer; provided that Buyer specifies the method no later than sixty (60) days prior to the effective date of such requirement. In the event Buyer fails to provide Notice of an acceptable method for communications under this Section 4.4(d), then Seller shall send such communications by telephone and e-mail to Buyer.

(e) Hybrid Resource Forecast Requirements. During the Bundled Term, in the event that the Storage Facility and the Generating Facility are in Hybrid Resource configuration, Seller shall use commercially reasonable efforts to provide such information as is needed by Buyer or the CAISO to fully make use of Hybrid Resource functionality, or as is otherwise reasonably requested by Buyer.

4.5 Dispatch Down/Curtailment.

(a) General. During the Bundled Term, Seller agrees to reduce the Generating Facility's generation by the amount and for the period set forth in any Curtailment Order, Buyer Curtailment Order, or notice received from CAISO in respect of a Buyer Bid Curtailment; provided that Seller is not required to reduce such amount to the extent such reduction or any such Buyer Curtailment Order or notice is inconsistent with the limitations of the Facility set out in the Operating Restrictions. Buyer has no obligation to purchase or pay for any Product delivered in violation of any Curtailment Order, Buyer Curtailment Order, or notice received from CAISO in respect of a Buyer Bid Curtailment, or for any Product that could not be delivered to the Delivery Point due to a Force Majeure Event.

(b) Buyer Curtailment. During the Bundled Term, Buyer shall have the right to order Seller to curtail deliveries of PV Energy or Discharging Energy to the Delivery Point through Buyer Curtailment Orders pursuant to a Dispatch Notice delivered to Seller, which also shall be deemed to terminate any outstanding Discharging Notices. Buyer shall pay Seller for all Deemed Delivered Energy in excess of the first [REDACTED] MWh of Deemed Delivered Energy in each Contract Year associated with all Buyer Curtailment Periods in an amount equal to (i) the Deemed Delivered Energy multiplied by the Renewable Rate (subject to the provisions of Section 3.3(b)) plus (ii) (A) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

providing Charging Notices to Seller electronically, provided that Buyer's right to issue Charging Notices is subject to the requirements and limitations set forth in this Agreement, including Operating Restrictions, and the forecasted availability of PV Charging Energy. Each Charging Notice issued in accordance with this Agreement will be effective unless and until Buyer modifies such Charging Notice by providing Seller with an updated Charging Notice.

(d) Seller shall not charge the Storage Facility during the Bundled Term other than pursuant to a valid Charging Notice or in connection with a Storage Capacity Test (for which Seller may request a Charging Notice from Buyer), or pursuant to a notice from CAISO, the PTO, or any other Governmental Authority. If, during the Bundled Term, Seller (i) charges the Storage Facility to a Stored Energy Level greater than the Stored Energy Level provided for in the Charging Notice (except as permitted in the first sentence of this Section 4.6(d)), or (ii) charges the Storage Facility in violation of the first or second sentence of Section 4.6(b), then, in addition to any other costs and charges for which Seller is responsible, including Imbalance Energy costs and other amounts specified in Section 4.3(c), and without limiting any of Buyer's other rights under this Agreement:

(i) Seller shall be responsible for all Energy costs associated with such charging of the Storage Facility;

(ii) Buyer shall not be required to pay for the charging of such Energy (i.e., Charging Energy) (including PV Energy if used as Charging Energy);

(iii) the Monthly Storage Availability calculation shall be affected to the extent specified in Exhibit L.

(e) Subject to compliance with the CAISO Tariff, other applicable Laws and the Operating Restrictions, during the Bundled Term, Buyer will have the right to discharge the Storage Facility seven (7) days per week and twenty-four (24) hours per day (including holidays), by providing Discharging Notices to Seller electronically and subject to the requirements and limitations set forth in this Agreement, including the Operating Restrictions. Each Discharging Notice issued in accordance with this Agreement will be effective unless and until Buyer modifies such Discharging Notice by providing Seller with an updated Discharging Notice.

(f) Seller shall not discharge the Storage Facility during the Bundled Term other than pursuant to a valid Discharging Notice or in connection with a Storage Capacity Test (for which Seller may request a Charging Notice from Buyer), or pursuant to a notice from CAISO, the PTO, or any other Governmental Authority. Discharging for Station Use may occur only as specified in Section 4.1(c). In the case of a Storage Capacity Test during the Bundled Term, Buyer shall pay for costs associated with the Charging Energy (including PV Charging Energy at the Renewable Rate, if applicable) and may retain any revenue from the discharge of such Energy (adjusted for efficiency losses) pursuant to a valid Discharging Notice. If, during the Bundled Term, Seller (i) discharges the Storage Facility to a Stored Energy Level less than the Stored Energy Level provided for in the Discharging Notice (except as permitted in the first or second sentence of this Section 4.6(f)), or (ii) discharges the Storage Facility in violation of the first or second sentence of this Section 4.6(f), then, in addition to any other costs and charges for which Seller is responsible, including Imbalance Energy costs and other amounts specified in Section

4.3(c), and without limiting any of Buyer's other rights under this Agreement:

(i) Buyer shall retain any positive revenues received from CAISO or otherwise associated with such discharge;

(ii) Seller shall be responsible for and reimburse Buyer for all Energy costs associated with charging the Storage Facility to the Stored Energy Level specified by Buyer before the discharge; and

(iii) the Monthly Storage Availability calculation shall be affected to the extent specified in Exhibit L.

(g) Notwithstanding anything in this Agreement to the contrary, during any Settlement Interval, Curtailment Orders, Buyer Curtailment Orders, and Buyer Bid Curtailments applicable to such Settlement Interval shall have priority over any Discharging Notices applicable to such Settlement Interval (but not over Charging Notices which are consistent with such Curtailment Orders, Buyer Curtailment Orders, or Buyer Bid Curtailments), and Seller shall have no liability for violation of this Section 4.6 or any Discharging Notice if and to the extent such violation is caused by Seller's compliance with any Curtailment Order, Buyer Curtailment Order, Buyer Bid Curtailment, or other instruction or direction from a Governmental Authority or the PTO unless caused by Seller's fault or negligence. Buyer shall have the right, but not the obligation, to provide Seller with updated Charging Notices and Discharging Notices during any Buyer Curtailment Order, Buyer Bid Curtailment, or Curtailment Order consistent with the Operating Restrictions.

(h) Notwithstanding any other provision of this Agreement, but subject to Section 3.5(a), during the Recapture Period:

(i) the Storage Facility shall only be charged using PV Charging Energy and shall not be charged using any Grid Charging Energy; provided, that if CAISO requires Seller to charge the Storage Facility using Grid Charging Energy, Seller shall comply with such CAISO requirements and Buyer will not be liable for any damages, costs, or losses, including as it relates to the loss of tax or other financial benefits or incentives arising therefrom;

(ii) Buyer shall not instruct Seller to charge the Storage Facility using Grid Charging Energy unless, in Buyer's role as Scheduling Coordinator for the Facility, as required by CAISO. Seller shall not be required to comply with any instruction, order, Charging Notice, or other communication requesting or requiring the Storage Facility to be charged from any source other than the Generating Facility, unless required by CAISO, and the Parties shall cooperate to address and resolve any of the foregoing to be consistent with this Section 4.6(h);

(iii) Seller shall be responsible for designing, constructing, operating, and maintaining the Facility in a manner that both complies with this Section 4.6(h) and includes the physical components that will accommodate a future Buyer request to charge the Storage Facility with Grid Charging Energy after the Recapture Period; and

(iv) During the Bundled Term, Buyer, in its role as Scheduling Coordinator, shall use commercially reasonable efforts and cooperate with Seller to prevent a CAISO-directed order to use Grid Charging Energy during the Recapture Period.

4.7 **Reduction in Delivery Obligation.** For the avoidance of doubt, and in no way limiting Section 3.1 or Exhibit F:

(a) **Facility Maintenance.** Seller shall be permitted to reduce deliveries of Product during any period of and to the extent required by Scheduled Maintenance on the Facility previously agreed to between Buyer and Seller.

(b) **Forced Facility Outage.** Seller shall be permitted to reduce deliveries of Product during and to the extent required by any Forced Facility Outage. Seller shall provide Buyer with Notice and expected duration and extent (if known) of any Forced Facility Outage.

(c) **System Emergencies and other Interconnection Events.** Seller shall be permitted to reduce deliveries of Product during any period of and to the extent required by System Emergency, Buyer Curtailment Period, or upon Notice of a Curtailment Order, or pursuant to the terms of the Interconnection Agreement or applicable tariff. In the event of a System Emergency, anticipated System Emergency, or other event or circumstance in which CAISO determines that there is or may be an imminent need for Energy supplies on the CAISO Grid, Seller shall use reasonable efforts to make the Product fully available, including by cancelling or deferring any Facility maintenance.

(d) **Force Majeure Event.** Seller shall be permitted to reduce deliveries of Product during and to the extent required by any Force Majeure Event.

(e) **Health and Safety.** Seller shall be permitted to reduce deliveries of Product as necessary to maintain health and safety pursuant to Section 6.2.

4.8 **Expected Energy and Guaranteed Energy Production.** The quantity of PV Energy that Seller expects to be able to deliver to Buyer at the Delivery Point or the Storage Facility during each Contract Year of the Bundled Term is set forth on the Cover Sheet (“**Expected Energy**”). Seller shall be required to deliver to Buyer at the Delivery Point or the Storage Facility an amount of PV Energy, not including any Excess MWh, equal to no less than the Guaranteed Energy Production (as defined below) in any period of two (2) consecutive Contract Years during the Bundled Term (“**Performance Measurement Period**”). “**Guaranteed Energy Production**” means an amount of PV Energy, as measured in MWh, equal to [REDACTED] for the two (2) Contract Years constituting such Performance Measurement Period. Seller shall be excused from achieving the Guaranteed Energy Production during any Performance Measurement Period only to the extent that Seller was unable to deliver PV Energy as a result of any Force Majeure Events, Buyer Default, Curtailment Periods and Buyer Curtailment Periods; to effectuate the foregoing excuse, Seller shall be deemed to have delivered to Buyer (1) the Deemed Delivered Energy in respect of Buyer Curtailment Periods, and (2) an amount of Energy determined in accordance with Exhibit F in respect of Lost Output. In addition, for purposes of determining whether Seller has achieved the Guaranteed Energy Production, Seller shall be deemed to have delivered to Buyer, in the first Contract Year of each Performance

Measurement Period following a Performance Measurement Period as to which Seller has paid damages calculated in accordance with Exhibit F, the Energy in the amount equal to the greater of the amount of PV Energy actually delivered in such Contract Year, less Excess MWh, [REDACTED] of the Expected Energy for such Contract Year. If Seller fails to achieve the Guaranteed Energy Production amount in any Performance Measurement Period, Seller shall pay Buyer damages calculated in accordance with Exhibit F.

4.9 **WREGIS**. Seller shall, at its sole expense, but subject to Section 3.13, take all actions and execute all documents or instruments necessary to ensure that all WREGIS Certificates associated with all Renewable Energy Credits corresponding to all PV Energy are issued and tracked for purposes of satisfying the requirements of the California Renewables Portfolio Standard and, during the Bundled Term, for Buyer's sole benefit. During the Bundled Term, Seller shall transfer the Renewable Energy Credits to Buyer. Seller shall comply with all Laws, including the WREGIS Operating Rules, regarding the certification, issuance, and transfer of such WREGIS Certificates to Buyer, and Buyer shall be given sole title to all such WREGIS Certificates. In addition:

(a) Prior to the Commercial Operation Date, Seller shall register the Facility with WREGIS and establish an account with WREGIS ("**Seller's WREGIS Account**"), which Seller shall maintain until the end of the Delivery Term. Seller shall transfer the WREGIS Certificates using "**Forward Certificate Transfers**" (as described in the WREGIS Operating Rules) from Seller's WREGIS Account to the WREGIS account(s) of Buyer or the accounts of a designee that Buyer identifies by Notice to Seller ("**Buyer's WREGIS Account**"). Seller shall be responsible for all expenses associated with registering the Facility with WREGIS, establishing and maintaining Seller's WREGIS Account, paying WREGIS Certificate issuance and transfer fees, and transferring WREGIS Certificates from Seller's WREGIS Account to Buyer's WREGIS Account. Buyer shall be responsible for establishing and maintaining Buyer's WREGIS Account and all expenses associated therewith.

(b) Seller shall cause itself or its agent to be designated as the "Qualified Reporting Entity" (as that term is defined by WREGIS) for the Facility. Seller shall cause Forward Certificate Transfers to occur on a monthly basis in accordance with the certification procedure established by the WREGIS Operating Rules. Since WREGIS Certificates will only be created for whole MWh amounts of Energy generated, any fractional MWh amounts (i.e., kWh) will be carried forward until sufficient generation is accumulated for creation of a WREGIS Certificate.

(c) Seller shall, at its sole expense, ensure that the WREGIS Certificates for a given calendar month correspond with the PV Energy for such calendar month as evidenced by the Generating Facility's metered data.

(d) Due to the ninety (90) day delay in the creation of WREGIS Certificates relative to the timing of invoice payment under Section 8.2, Buyer shall make an invoice payment for a given month in accordance with Section 8.2 before the WREGIS Certificates for such month are formally transferred to Buyer in accordance with the WREGIS Operating Rules and this Section 4.9. Notwithstanding this delay, Buyer shall have all right and title to all such WREGIS Certificates upon payment to Seller in accordance with Section 8.2.

(e) A “**WREGIS Certificate Deficit**” means any deficit or shortfall in WREGIS Certificates issued to Buyer for a calendar month during the Bundled Term as compared to the PV Energy, either delivered (i) to the Delivery Point or (ii) to the Storage Facility as PV Charging Energy, for the same calendar month (“**Deficient Month**”). If any WREGIS Certificate Deficit occurs, then the amount of PV Energy in the Deficient Month shall be reduced by the amount of the WREGIS Certificate Deficit for purposes of calculating Buyer’s payment to Seller under Article 8 and the Guaranteed Energy Production for the applicable Performance Measurement Period; *provided* that the foregoing reduction shall not apply to the extent the WREGIS Certificate Deficit was caused by the fault or negligence of Buyer; *provided, further*, however, that Buyer shall pay Seller for any PV Energy that is delivered by Seller without corresponding WREGIS Certificates at a price equal to the lesser of (i) the Renewable Rate, or (ii) the Day-Ahead LMP; *provided, further*, that such adjustment shall not apply to the extent that Seller resolves the WREGIS Certificate Deficit such that the amount of the WREGIS Certificates matches the amount of PV Energy within ninety (90) days after the Deficient Month (i) upon a schedule reasonably acceptable to Buyer, and (ii) provided that such deliveries do not impose additional costs upon Buyer for which Seller has not reimbursed Buyer. Without limiting Seller’s obligations under this Section 4.9, if a WREGIS Certificate Deficit is caused solely by an error or omission of WREGIS, the Parties shall cooperate in good faith to cause WREGIS to correct its error or omission. Seller shall use commercially reasonable efforts to rectify any WREGIS Certificate Deficit as expeditiously as possible.

(f) If WREGIS changes the WREGIS Operating Rules after the Effective Date or applies the WREGIS Operating Rules in a manner inconsistent with this Section 4.9 after the Effective Date, the Parties promptly shall modify this Section 4.9 as reasonably required to cause and enable Seller to, during the Bundled Term, transfer to Buyer’s WREGIS Account a quantity of WREGIS Certificates for each given calendar month that corresponds to the PV Energy in the same calendar month. For the avoidance of doubt, this Section 4.9(f) shall apply to any change or clarification to the WREGIS Operating Rules after the Effective Date that requires any round trip efficiency losses, or losses associated with Buyer’s decision to issue a Charging Notice, to reduce the total amount of WREGIS Certificates available to be created by the Facility.

(g) STC REC-2. Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract.

(h) STC REC-1. Transfer of Renewable Energy Credits. 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 California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission 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.

4.10 **Financial Statements.** If requested by Buyer, Seller shall deliver to Buyer (a) within one hundred twenty (120) days following the end of each fiscal year, a copy of Seller’s, or

Seller's Guarantor's if a Guaranty is being provided pursuant to the terms of this Agreement, annual report containing audited consolidated financial statements for such fiscal year, if available, and if not available within such one hundred twenty (120) days, no later than one hundred eighty (180) days after the end of such fiscal year (or, in the case of Seller, if Seller does not prepare audited financial statements, unaudited consolidated financial statements for such fiscal year if otherwise available) and (b) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Seller's, or Seller's Guarantor's if a Guaranty is being provided pursuant to the terms of this Agreement, quarterly report containing unaudited consolidated financial statements for such fiscal quarter, if available, and if not available within such sixty (60) days, no later than one hundred twenty (120) days after the end of such fiscal quarters.

4.11 Access to Data and Installation and Maintenance of Weather Station.

(a) Seller hereby agrees to provide all meter data to Buyer in a form reasonably acceptable to Buyer, and consents to Buyer obtaining from CAISO the CAISO meter data directly relating to the Facility and all inspection, testing and calibration data and reports. Seller and Buyer, or Buyer's Scheduling Coordinator, shall cooperate to allow both Parties to retrieve the meter reads from the CAISO Market Results Interface-Settlements (MRI-S) web and/or directly from the CAISO meter(s) at the Facility.

(b) Seller shall comply with all applicable obligations for Variable Energy Resources under the CAISO Tariff and the EIRP, including providing appropriate operational data and meteorological data, and will fully cooperate with Buyer, Buyer's SC, and CAISO, in providing all data, information, and authorizations required thereunder. Seller shall provide to Buyer all such data required to be submitted to CAISO at the same time as it is required to be submitted to CAISO.

(c) Seller agrees and acknowledges that Buyer may seek and obtain from third parties, including from the Participating Transmission Owner, any information relevant to its duties as Scheduling Coordinator and that Buyer, as Scheduling Coordinator, requires timely and accurate information concerning the Facility and its potential output in order to meet its obligations to provide accurate forecasts of output. Seller shall execute within a commercially reasonable timeframe upon request such instruments as are reasonable and necessary to enable Buyer to obtain from third parties, including the Participating Transmission Owner, information concerning Seller and the Facility that may be necessary or useful to Buyer in furtherance of Buyer's duties as Scheduling Coordinator for the Facility.

(d) No later than ninety (90) days before the start of the Bundled Term, Seller shall use commercially reasonable efforts to provide, to the extent available, six (6) months of recorded meteorological data to Buyer, in a form reasonably acceptable to Buyer, from a weather station at the Site. Such weather station shall provide, via remote access to Buyer, all data relating to elevation, latitude and longitude of the weather station, and any other data reasonably requested by Buyer to the extent available.

4.12 Storage Availability and Efficiency. The provisions of this Section 4.12 apply during the Bundled Term.

(a) **Storage Availability.** During the Bundled Term, the Storage Facility shall maintain a Monthly Storage Availability (calculated in accordance with Exhibit L) during each month of no less than [REDACTED] (the “**Guaranteed Storage Availability**”). If, in any month after the commencement of the Bundled Term, the Monthly Storage Availability is less than the Guaranteed Storage Availability, then, except as provided in Section 11.1(b)(vi), Buyer’s sole and exclusive remedy for such shortfall shall be the application of the Storage Availability Adjustment to reduce the Storage Capacity Payment due for the Storage Product as provided in Section 3.3(d).

(b) **Round Trip Efficiency.** During the Bundled Term, the Storage Facility shall maintain a Round Trip Efficiency (calculated in accordance with Exhibit P) during each month of no less than the Guaranteed Round Trip Efficiency. If, in any month during the Bundled Term, the Round Trip Efficiency is less than the Guaranteed Round Trip Efficiency, then, except as provided in Section 11.1(b)(vii), Buyer’s sole and exclusive remedy (and Seller’s sole and exclusive liability) for such shortfall shall be the adjustment of the monthly Storage Capacity Payment for the Storage Product as provided in Section 3.3(d).

4.13 **Storage Capacity Tests.**

(a) Prior to the Commercial Operation Date, Seller shall schedule and complete a Storage Capacity Test in accordance with Exhibit M. Thereafter, Seller and Buyer shall have the right to conduct additional Storage Capacity Tests in accordance with Exhibit M.

(b) Buyer shall have the right to send one or more representatives to witness all Storage Capacity Tests. Buyer shall be responsible for all costs, expenses and fees payable or reimbursable to its representatives witnessing any Storage Capacity Test.

(c) Following each Storage Capacity Test, Seller shall submit a testing report in accordance with Exhibit M. If the actual capacity determined pursuant to a Storage Capacity Test deviates from the then current Storage Capacity, then the actual capacity determined pursuant to a Storage Capacity Test (up to, but not in excess of, the Guaranteed Storage Capacity) shall become the new Storage Capacity, effective as of the first day of the month following the completion of the Storage Capacity Test, for all purposes under this Agreement, including compensation under Section 3.3(d) until the next such Storage Capacity Test.

4.14 **Storage Facility Modifications.** Seller shall not modify or supplement all or any part of the Storage Facility without Buyer’s prior written consent, which consent shall be not be unreasonably withheld, conditioned or delayed; provided that Seller may, without Buyer’s consent, conduct the foregoing only to the extent they are routine maintenance, augmentation, improvement, replacements, or repairs undertaken in accordance with Prudent Operating Practice that do not change the Storage Facility’s ability to meet the performance specifications of this Agreement or the Operating Requirements and do not have any impact on Buyer’s ability to receive Product from the Facility or charge or discharge the Storage Facility in the manner provided for in this Agreement; provided further that Seller shall provide Buyer with prior written notice of any augmentation of the Storage Facility or replacement of any inverter comprising or involving [REDACTED] or more of the Installed Storage Capacity.

4.15 **Ancillary Services.** Seller shall maintain compliance with the applicable certification and testing requirements in Section 8.3.4 and Appendix K of the CAISO Tariff and otherwise maintain the ability to provide Ancillary Services.

4.16 **Workforce Agreement.** The Parties acknowledge that in connection with Buyer's energy procurement efforts, including entering into this Agreement, Buyer is committed to creating community benefits, which includes engaging a skilled and trained workforce and targeted hires. Accordingly, prior to the Guaranteed Construction Start Date, Seller shall ensure that work performed in connection with construction of the Facility will be conducted using a project labor agreement, or similar agreement, providing for terms and conditions of employment with applicable labor organizations, and shall remain compliant with such agreement in accordance with the terms thereof.

ARTICLE 5 TAXES

5.1 **Allocation of Taxes and Charges.** Seller shall pay or cause to be paid all Taxes on or with respect to the Facility or on or with respect to the sale and making available of Product to Buyer, that are imposed on Product prior to delivery or making available to Buyer, including on Energy prior to the Delivery Point. Buyer shall pay or cause to be paid all Taxes on or with respect to the delivery to and purchase by Buyer of Product that are imposed on Product at and from the Delivery Point (other than withholding or other Taxes imposed on Seller's income, revenue, receipts or employees). If a Party is required to remit or pay Taxes that are the other Party's responsibility hereunder, such Party shall promptly pay the Taxes due and then seek and receive reimbursement from the other for such Taxes. In the event any sale of Energy or other Product hereunder is exempt from or not subject to any particular Tax, Buyer shall provide Seller with all necessary documentation within thirty (30) days after the Amendment Date to evidence such exemption or exclusion. If Buyer does not provide such documentation, then Buyer shall indemnify, defend, and hold Seller harmless from any liability with respect to Taxes from which Buyer claims it is exempt.

5.2 **Cooperation.** Each Party shall use reasonable efforts to implement the provisions of and administer this Agreement in accordance with the intent of the Parties to minimize all Taxes, so long as no Party is materially adversely affected by such efforts. The Parties shall cooperate to minimize Tax exposure; *provided, however*, that neither Party shall be obligated to incur any financial or operational burden to reduce Taxes for which the other Party is responsible hereunder without receiving due compensation therefor from the other Party. All Energy delivered by Seller to Buyer hereunder shall be a sale made at wholesale, with Buyer reselling such Energy.

5.3 **Ownership.** Seller shall be the owner of the Facility for federal income tax purposes and, as such, Seller (or its Affiliates or Lenders) shall be entitled to all depreciation deductions associated with the Facility and to any and all Renewable Energy Incentives or other tax benefits associated with the Facility, including any such tax credits or tax benefits under the Internal Revenue Code of 1986, as amended. The Parties intend this Agreement to be a "service contract" within the meaning of Section 7701(e)(3) of the Internal Revenue Code of 1986, as amended. The Parties will not take the position on any tax return or in any other filings suggesting that it is anything other than a purchase of the Product from the Seller or that this agreement is

anything other than a “service contract” within the meaning of Section 7701(e)(3) of the Internal Revenue Code of 1986, as amended.

ARTICLE 6

MAINTENANCE OF THE FACILITY

6.1 **Maintenance of the Facility.** Seller shall comply with Law and Prudent Operating Practice relating to the operation and maintenance of the Facility and the generation and sale of Product.

(a) Seller shall arrange for any non-emergency maintenance that reduces the Available Generating Capacity and/or Available Storage Capacity of the Facility by more than ■■■■■ to occur only between October 1 and May 31 of each year, unless (i) such outage is required to avoid damage to the Facility, (ii) such maintenance is necessary to maintain equipment warranties and cannot be scheduled outside months of June through September or (iii) the Parties agree otherwise in writing. Seller shall provide Buyer with its schedule of Scheduled Maintenance no later than October 1 prior to each calendar year. Seller shall use commercially reasonable efforts to accommodate reasonable requests of Buyer with respect to adjusting the timing of Scheduled Maintenance. Seller may modify its schedule of Scheduled Maintenance upon reasonable advance notice to Buyer, subject to reasonable requests of Buyer and consistent with Section 4.4 and this Section 6.1.

(b) Seller shall use commercially reasonable efforts to schedule maintenance outages (i) within a single month, rather than across multiple months, (ii) during periods in which CAISO does not require resource substitution or replacement, and (iii) otherwise in a manner to avoid reductions in the Resource Adequacy Benefits available from the Facility to Buyer.

6.2 **Maintenance of Health and Safety.** Seller shall take reasonable safety precautions with respect to the operation, maintenance, repair and replacement of the Facility. If Seller becomes aware of any circumstances relating to the Facility that create an imminent risk of damage or injury to any Person or any Person’s property, Seller shall take prompt, reasonable action to prevent such damage or injury and shall give Buyer’s emergency contact identified on Exhibit D Notice of such condition. Such action may include disconnecting and removing all or a portion of the Facility, or suspending the supply of Energy to Buyer.

6.3 **Shared Facilities.**

(a) Seller shall obtain and maintain throughout the Delivery Term any and all interconnection and transmission service rights and permits required to effect delivery of all Facility Energy to the Delivery Point. During the Delivery Term, the Interconnection Agreement shall provide for sufficient interconnection capacity to ensure that at all times there is available or allocable solely to the Facility interconnection capacity that is no less than the Guaranteed PV Capacity. The Parties acknowledge that the Facility may deliver Energy through Shared Facilities and that ownership and use of any Shared Facilities may be subject to a co-tenancy or similar sharing agreement (collectively, “**Shared Facilities Agreement(s)**”), under which Shared Facilities Agreements an Affiliate of Seller may act as a manager on behalf of Seller (“**Affiliate Manager**”). If there are Shared Facilities, Seller shall ensure that, during the startup period of the

Facility and throughout the Delivery Term, Seller shall have sufficient interconnection capacity and rights under or through the Interconnection Agreement and the Shared Facilities Agreements, if any, to interconnect the Facility with the CAISO Grid and fulfill its obligations under this Agreement. In connection with the Interconnection Agreement and the Shared Facilities Agreements, if any, the following shall apply:

(i) The Shared Facilities Agreements (if any) shall provide that:

(A) the Affiliate Manager and any Shared Facilities Counterparty shall fully indemnify Seller for any liability arising out of its respective acts or omissions in regards to its respective performance obligations under the Shared Facilities Agreement in which such party is a counterparty with Seller,

(B) Seller shall have the right to correct, remedy, mitigate, or otherwise cure any omission, failure, breach or default by the Affiliate Manager or any Shared Facilities Counterparty that would negatively impact Seller's obligations under this Agreement or under any Shared Facilities Agreement in which Seller is a counterparty, and

(C) any instruction from the CAISO or the Participating Transmission Owner to curtail energy deliveries in a manner that does not specify the curtailment levels applicable to the Facility or any Other Facility(ies) shall be allocated between the Facility and any Other Facility(ies) that have achieved commercial operation on a pro rata basis based upon their respective energy delivery forecasts for the applicable period, except (A) when such pro rata allocation would be in violation of the applicable curtailment instruction, or (B) to the extent that the need for the curtailment can be attributed to the Facility or any Other Facility.

(ii) Seller shall, or shall cause any Shared Facilities Counterparty to, apply for and expeditiously seek FERC's acceptance of any Shared Facilities Agreement(s), if required.

(iii) Except with respect to an assignment or collateral assignment of the Interconnection Agreement, Shared Facilities or Shared Facilities Agreement(s) to a Person to which this Agreement is assigned pursuant to Article 14 or Article 15, Seller shall not assign or transfer Seller's rights or obligations under the Interconnection Agreement or any Shared Facilities Agreement that would limit or otherwise adversely affect the Guaranteed Interconnection Capacity or that would otherwise impact Seller's ability to satisfy its obligations under this Agreement, to any Person without the prior written consent of Buyer, which consent shall not be unreasonably withheld; provided that consent to an assignment of this Agreement to a Person shall also be deemed a consent to the assignment or other transfer by Seller of its interest in the Shared Facilities to such Person.

(b) As between Buyer and Seller under this Agreement, Seller shall be responsible for all costs and charges directly caused by, associated with, or allocated to Seller, any Shared Facilities Counterparty or the Affiliate Manager under the Shared Facilities Agreement, if any, and the CAISO Tariff, in connection with the interconnection of the Facility to the Participating Transmission Owner's electric system and transmission of electric energy from the

Facility to the Participating Transmission Owner's electric system.

(c) Seller shall, as counterparty to the Interconnection Agreement, or shall cause any Shared Facilities Counterparty, as applicable, to comply with the CAISO Tariff, including securing and maintaining in full force and effect all required CAISO agreements, certifications and approvals, and ensuring that the Aggregate Capability Constraint is in effect.

ARTICLE 7 METERING

7.1 Metering.

(a) Subject to Section 7.1(b) (with respect to the entirety of the following Section 7.1(a)), the Facility shall have separate CAISO Resource IDs for each of the Generating Facility and the Storage Facility. Seller shall measure the following using CAISO-approved meters and CAISO-approved methodologies: the amount of Facility Energy produced by the Facility; the amount of PV Energy produced by the Generating Facility; the amount of Charging Energy and Discharging Energy; and the amount of Grid Charging Energy. The CAISO Approved Facility Meter shall be installed on the low side of the Seller's transformer and maintained at Seller's cost. The meters shall be kept under seal, such seals to be broken only when the meters are to be tested, adjusted, modified or relocated. In the event that Seller breaks a seal, Seller shall notify Buyer as soon as practicable. In addition, Seller hereby agrees to provide all meter data to Buyer in a form reasonably acceptable to Buyer, and consents to Buyer obtaining from CAISO the CAISO meter data applicable to each of the Generating Facility, the Storage Facility, and the Facility and all inspection, testing and calibration data and reports. Seller and Buyer shall cooperate to allow both Parties to retrieve the meter reads from the CAISO Operational Meter Analysis and Reporting (OMAR) web and/or directly from the CAISO meter(s) at the Facility.

(b) The foregoing Section 7.1(a) is based on the Parties' mutual understanding as of the Effective Date that (i) the CAISO requires the configuration of the Facility to include as the sole meters for the Facility, the Generating Facility Meter and the Storage Facility Meter, (ii) the CAISO requires the Generating Facility Meter and the Storage Facility Meter to be programmed for Electrical Losses as set forth in the definition of Electrical Losses in this Agreement, and (iii) the automatic adjustments to Charging Notices and Discharging Notices as set forth in the definitions of Charging Notice and Discharging Notice in this Agreement will not result in Buyer (as the Scheduling Coordinator) violating, or incurring any costs, penalties, or charges under, the CAISO Tariff. If any of the foregoing mutual understandings in (i), (ii), or (iii) between the Parties become incorrect during the Delivery Term, the Parties shall cooperate in good faith to make any amendments and modifications to the Facility and this Agreement as are reasonably necessary to conform this Agreement to the CAISO Tariff and avoid, to the maximum extent practicable, any CAISO charges, costs, or penalties that may be imposed on either Party due to non-conformance with the CAISO Tariff, such agreement not to be unreasonably delayed, conditioned, or withheld. In the case of preceding clause (iii), until the Parties agree on an alternative approach, Seller shall be responsible for all CAISO costs, penalties, and charges that result from Seller's compliance with the automatic adjustments of Charging Notices and Discharging Notices as set forth in the definitions of Charging Notice and Discharging Notice in this Agreement, and in connection with any automatic adjustment to a Discharging Notice set forth

in the definition of Discharging Notice, if any such automatic adjustment is prohibited by CAISO, then Seller shall instead reduce deliveries of PV Energy to the Delivery Point as necessary to avoid exceeding the Interconnection Capacity Limit and such reductions shall be treated as Lost Output.

7.2 **Meter Verification.** If Seller has reason to believe there may be a meter malfunction, Seller may test the meter. Annually, upon Buyer's reasonable request, Seller shall test the meter. The tests shall be conducted by independent third parties qualified to conduct such tests. Buyer shall be notified seven (7) days in advance of such tests and have a right to be present during such tests. If a meter is inaccurate it shall be promptly repaired or replaced. If a meter is inaccurate by more than one percent (1%) and it is not known when the meter inaccuracy commenced (if such evidence exists such date will be used to adjust prior invoices), then the invoices covering the period of time since the last meter test shall be adjusted for the amount of the inaccuracy on the assumption that the inaccuracy persisted during one-half of such period.

ARTICLE 8 INVOICING AND PAYMENT; CREDIT

8.1 **Invoicing.** Seller shall deliver an invoice to Buyer for Product no later than ten (10) days after the end of the prior monthly billing period. Each invoice shall provide Buyer (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation of Product by the Generating Facility and the Storage Facility for any Settlement Period during the preceding month, the amount of Product in MWh produced by the Facility as read by the Generating Facility Meter, Storage Facility Meter, and CAISO Approved Facility Meter, the amount of Replacement RA delivered to Buyer, the calculation of Deemed Delivered Energy and Adjusted Energy Production, and the Renewable Rate applicable to such Product; (b) records and calculations sufficient to show the calculation of the Storage Capacity Payment, including calculations of any applicable Storage Availability Adjustment and Round Trip Efficiency Adjustment; and (c) access to any records, including invoices or settlement data from the CAISO, necessary to verify the accuracy of any amount. Invoices shall be in a format specified by Buyer, covering the services provided in the preceding month determined in accordance with the applicable provisions of this Agreement. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8.2 **Payment.** Buyer shall make payment to Seller for Product by wire transfer or ACH payment to the bank account provided on each monthly invoice. Buyer shall pay undisputed invoice amounts within twenty-five (25) days after receipt of the invoice. If such due date falls on a weekend or legal holiday, such due date shall be the next Business Day. Payments made after the due date will be considered late and will bear interest on the unpaid balance. If the amount due is not paid on or before the due date or if any other payment that is due and owing from one Party to another is not paid on or before its applicable due date, a late payment charge shall be applied to the unpaid balance and shall be added to the next billing statement. Such late payment charge shall be calculated based on an annual interest rate equal to the prime rate published on the date of the invoice in The Wall Street Journal (or, if The Wall Street Journal is not published on that day, the next succeeding date of publication), plus two percent (2%) (the "**Interest Rate**"). If the due

date occurs on a day that is not a Business Day, the late payment charge shall begin to accrue on the next succeeding Business Day.

8.3 **Books and Records.** To facilitate payment and verification, each Party shall maintain all books and records necessary for billing and payments, including copies of all invoices under this Agreement, for a period of at least two (2) years or as otherwise required by Law. Either Party, upon fifteen (15) days written Notice to the other Party, shall be granted reasonable access to the accounting books and records within the possession or control of the other Party pertaining to all invoices generated pursuant to this Agreement.

8.4 **Payment Adjustments; Billing Errors.** Payment adjustments shall be made if Buyer or Seller discovers there have been good faith inaccuracies in invoicing that are not otherwise disputed under Section 8.5, an adjustment to an amount previously invoiced or paid is required due to a correction of data by the CAISO, or there is determined to have been a meter inaccuracy sufficient to require a payment adjustment. If the required adjustment is in favor of Buyer, Buyer's next monthly payment shall be credited in an amount equal to the adjustment. If the required adjustment is in favor of Seller, Seller shall add the adjustment amount to Buyer's next monthly invoice. Adjustments in favor of either Buyer or Seller shall bear interest, until settled in full, in accordance with Section 8.2, accruing from the date on which the adjusted amount should have been due. Except for adjustments required due to a correction of data by the CAISO, any adjustment described in this Section 8.4 is waived if Notice of the adjustment is not provided within twelve (12) months after the invoice is rendered or subsequently adjusted.

8.5 **Billing Disputes.** 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 five (5) Business Days of such resolution along with interest accrued at the Interest 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 8.5 within twelve (12) months after the invoice is rendered or subsequently adjusted, except to the extent any misinformation was from a party other than the Party seeking the adjustment and such 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.

8.6 **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 Exhibits B and F, 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.

8.7 **Seller's Development Security.** To secure Seller's obligations under this Agreement, including the obligations of Seller to pay liquidated damages to Buyer as provided in this Agreement, Seller shall deliver Development Security to Buyer in the amount of [REDACTED] after the Amendment Date. Buyer will have the right to draw upon the Development Security if Seller fails to pay liquidated damages owed to Buyer pursuant to Exhibit B to this Agreement, or if Seller fails to pay a Damage Payment or Termination Payment owed to Buyer pursuant to Section 11.2. Seller shall maintain the Development Security in full force and effect and Seller shall replenish the Development Security in the event Buyer collects or draws down any portion of the Development Security for any reason permitted under this Agreement other than to satisfy a Damage Payment or a Termination Payment. Following the earlier of (i) Seller's delivery of the Performance Security, or (ii) sixty (60) days after termination of this Agreement, Buyer shall promptly return the Development Security to Seller, less the amounts drawn in accordance with this Agreement. If the Development Security is a Letter of Credit and the issuer of such Letter of Credit (i) fails to maintain the minimum Credit Rating specified in the definition of Letter of Credit, (ii) indicates its intent not to renew such Letter of Credit and such Letter of Credit expires prior to the Commercial Operation Date, or (iii) fails to honor Buyer's properly documented request to draw on such Letter of Credit by such issuer, Seller shall have five (5) Business Days to either post cash or deliver a substitute Letter of Credit that meets the requirements set forth in the definition of Development Security.

8.8 **Seller's Performance Security.** To secure its obligations under this Agreement, Seller shall deliver Performance Security to Buyer on or before the Commercial Operation Date, in the amount of [REDACTED]. [REDACTED]. [REDACTED]. [REDACTED]. Seller shall maintain the Performance Security in full force and effect and Seller shall replenish the Performance Security up to the amount required hereunder (including Performance Security provided in the form of a Guaranty) in the event Buyer collects or draws down any portion of the Performance Security for any reason permitted under this Agreement other than to satisfy a Termination Payment. Seller shall maintain the Performance Security in full force and effect until the date on which the following have occurred ("**Performance Security End Date**"):

- (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).

Following the occurrence of the Performance Security End Date, Buyer shall promptly return to Seller the unused portion of the Performance Security. If the Performance Security is a Letter of Credit and the issuer of such Letter of Credit (i) fails to maintain the minimum Credit Rating set forth in the definition of Letter of Credit, (ii) indicates its intent not to renew such Letter of Credit and such Letter of Credit expires prior to the Performance Security End Date, or (iii) fails to honor Buyer's properly documented request to draw on such Letter of Credit by such issuer, Seller shall have five (5) Business Days to either post cash or deliver a substitute Letter of Credit that meets the requirements set forth in the definition of Performance Security. Provided that no Event of Default has occurred and is continuing with respect to Seller, Seller may replace or change the form of Performance Security to another form of Performance

Security from time to time upon reasonable prior written notice to Buyer.

8.9 **First Priority Security Interest in Cash or Cash Equivalent Collateral.** To secure its obligations under this Agreement, and until released as provided herein, Seller hereby grants to Buyer a present and continuing first-priority security interest (“**Security Interest**”) in, and lien on (and right to net against), and assignment of the Development Security, Performance Security, any other cash collateral and cash equivalent collateral posted pursuant to Sections 8.7 and 8.8 and any and all interest thereon or proceeds resulting therefrom or from the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of Buyer, and Seller agrees to take all action as Buyer reasonably requires in order to perfect Buyer’s Security Interest in, and lien on (and right to net against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof.

Upon or any time after the occurrence of an Event of Default caused by Seller, an Early Termination Date resulting from an Event of Default caused by Seller, or an occasion provided for in this Agreement where Buyer is authorized to retain all or a portion of the Development Security or Performance Security, Buyer may do any one or more of the following (in each case subject to the final sentence of this Section 8.9):

- (a) Exercise any of its rights and remedies with respect to the Development Security and Performance Security, including any such rights and remedies under Law then in effect;
- (b) Draw on any outstanding Letter of Credit issued for its benefit and retain any cash held by Buyer as Development Security or Performance Security; and
- (c) Liquidate all Development Security or Performance Security (as applicable) 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 Seller’s obligations under this Agreement (Seller remains liable for any amounts owing to Buyer after such application), subject to Buyer’s obligation to return any surplus proceeds remaining after these obligations are satisfied in full.

ARTICLE 9 NOTICES

9.1 **Addresses for the Delivery of Notices.** Any Notice required, permitted, or contemplated hereunder shall be in writing, shall be addressed to the Party to be notified at the address set forth on the Cover Sheet or at such other address or addresses as a Party may designate for itself from time to time by Notice hereunder.

9.2 **Acceptable Means of Delivering Notice.** Each Notice required, permitted, or contemplated hereunder shall be deemed to have been validly served, given or delivered as follows: (a) if sent by United States mail with proper first class postage prepaid, three (3) Business Days following the date of the postmark on the envelope in which such Notice was deposited in

the United States mail; (b) if sent by a regularly scheduled overnight delivery carrier with delivery fees either prepaid or an arrangement with such carrier made for the payment of such fees, the next Business Day after the same is delivered by the sending Party to such carrier; (c) if sent by electronic communication (including electronic mail, facsimile, or other electronic means) and if concurrently with the transmittal of such electronic communication the sending Party provides a copy of such electronic Notice by hand delivery or express courier, at the time indicated by the time stamp upon delivery; or (d) if delivered in person, upon receipt by the receiving Party. Notwithstanding the foregoing, Notices of outages or other scheduling or dispatch information or requests, may be sent by electronic communication and shall be considered delivered upon successful completion of such transmission.

ARTICLE 10 FORCE MAJEURE

10.1 Definition.

(a) “**Force Majeure Event**” means any act or event that delays or prevents a Party from timely performing all or a portion of its obligations under this Agreement or from complying with all or a portion of the conditions under this Agreement if such act or event, despite the exercise of reasonable efforts, cannot be avoided by and is beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance, or noncompliance.

(b) Without limiting the generality of the foregoing, so long as the following events, despite the exercise of reasonable efforts, cannot be avoided by, and are beyond the reasonable control (whether direct or indirect) of and without the fault or negligence of the Party relying thereon as justification for such delay, nonperformance or noncompliance, a Force Majeure Event may include an act of God or the elements, such as flooding, lightning, hurricanes, tornadoes, or ice storms; explosion; fire; volcanic eruption; flood; epidemic, or pandemic, including new governmental restrictions that have not previously been imposed related to the disease designated COVID-19 or the related virus designated SARS-CoV-2 or any mutations thereof; landslide; mudslide; sabotage; terrorism; earthquake; or other cataclysmic events; an act of public enemy; war; blockade; civil insurrection; riot; civil disturbance; or strikes or other labor difficulties caused or suffered by a Party or any third party except as set forth below.

(c) Notwithstanding the foregoing, the term “**Force Majeure Event**” does not include (i) economic conditions that render a Party’s performance of this Agreement at the Contract Price unprofitable or otherwise uneconomic (including Buyer’s ability to buy Energy at a lower price, or Seller’s ability to sell Energy at a higher price, than the Contract Price); (ii) Seller’s inability to obtain permits or approvals of any type for the construction, operation, or maintenance of the Facility; (iii) the inability of a Party to make payments when due under this Agreement, unless the cause of such inability is an event that would otherwise constitute a Force Majeure Event as described above that disables physical or electronic facilities necessary to transfer funds to the payee Party; (iv) a Curtailment Period, except to the extent such Curtailment Period is caused by a Force Majeure Event; (v) Seller’s inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Facility except to the extent such inability is caused by a Force Majeure Event; (vi) a strike, work stoppage or labor dispute limited

only to any one or more of Seller, Seller's Affiliates, Seller's contractors, their subcontractors thereof or any other third party employed by Seller to work on the Facility; (vii) any equipment failure except if such equipment failure is caused by a Force Majeure Event; (viii) variations in weather, including wind, rain and insolation, within one in fifty (1 in 50) year occurrence; or (ix) Seller's inability to achieve Construction Start of the Facility following the Guaranteed Construction Start Date or achieve Commercial Operation following the Guaranteed Commercial Operation Date; it being understood and agreed, for the avoidance of doubt, that the occurrence of a Force Majeure Event may give rise to a Development Cure Period.

10.2 **No Liability If a Force Majeure Event Occurs**. Neither Seller nor Buyer shall be liable to the other Party in the event it is prevented from performing its obligations hereunder in whole or in part due to a Force Majeure Event. Buyer shall not be obligated to pay for any Product that Seller was not able to deliver as a result of Force Majeure Event. The Party rendered unable to fulfill any obligation by reason of a Force Majeure Event shall take reasonable actions necessary to remove such inability with due speed and diligence. Nothing herein shall be construed as permitting that Party to continue to fail to perform after said cause has been removed. The obligation to use due speed and diligence shall not be interpreted to require resolution of labor disputes by acceding to demands of the opposition when such course is inadvisable in the discretion of the Party having such difficulty. Neither Party shall be considered in breach or default of this Agreement if and to the extent that any failure or delay in the Party's performance of one or more of its obligations hereunder is caused by a Force Majeure Event. The occurrence and continuation of a Force Majeure Event shall not suspend or excuse the obligation of a Party to make any payments due hereunder.

10.3 **Notice**. In the event of any delay or nonperformance resulting from a Force Majeure Event, the Party suffering the Force Majeure Event shall (a) as soon as practicable, notify the other Party in writing of the nature, cause, estimated date of commencement thereof, and the anticipated extent of any delay or interruption in performance, and (b) notify the other Party in writing of the cessation or termination of such Force Majeure Event, all as known or estimated in good faith by the affected Party; *provided, however*, that a Party's failure to give timely Notice shall not affect such Party's ability to assert that a Force Majeure Event has occurred unless the delay in giving Notice materially prejudices the other Party.

10.4 **Termination Following Force Majeure Event**. If a Force Majeure Event has occurred that has caused either Party to be wholly or partially unable to perform its obligations hereunder, and has continued for a consecutive twelve (12) month period, then the non-claiming Party may terminate this Agreement upon written Notice to the other Party with respect to the Facility experiencing the Force Majeure Event. Upon any such termination, neither Party shall have any liability to the other, save and except for those obligations specified in Section 2.1(b), and Buyer shall promptly return to Seller any Development Security or Performance Security then held by Buyer.

ARTICLE 11

DEFAULTS; REMEDIES; TERMINATION

11.1 **Events of Default**. An "**Event of Default**" shall mean,

(a) with respect to a Party (the “**Defaulting 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 such failure is not remedied within thirty (30) days after Notice thereof;

(iv) such Party becomes Bankrupt;

(v) such Party assigns this Agreement or any of its rights hereunder other than in compliance with Articles 14 or 15, as applicable; or

(vi) 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 or discharged by the Facility;

(ii) the failure by Seller to achieve the Construction Start Date within [REDACTED] after the Guaranteed Construction Start Date or to achieve Commercial Operation within [REDACTED] after the Guaranteed Commercial Operation Date;

(iii) the failure by Seller to timely obtain CEC Final Certification and Verification in accordance with Section 3.10;

(iv) if, in the first six (6) months or the second six (6) months of the first Contract Year of the Bundled Term, the Adjusted Energy Production amount is not at least [REDACTED] of the Expected Energy amount for such Contract Year, and Seller fails to demonstrate to Buyer’s reasonable satisfaction, within ten (10) Business Days after Notice from Buyer, a legitimate reason for the failure to meet the [REDACTED];

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(ix) failure by Seller to satisfy the collateral requirements pursuant to Sections 8.7 or 8.8, including the failure to replenish the Development Security or Performance Security amount in accordance with this Agreement in the event Buyer draws against either for any reason other than to satisfy a Damage Payment or a Termination Payment, if such failure is not remedied within five (5) Business Days after Notice thereof;

(x) if at any time Seller owns, operates or manages any equipment, facility, property or other asset, other than the Facility or the solar energy generating facilities and storage facilities located adjacent to the Facility and interconnected at the same location as the Facility (or assets reasonably related to the development, financing, ownership or operation thereof), or engages in any business or activity other than the development, financing, ownership or operation of the Facility or such other solar energy generating facilities and storage facilities;

(xi) 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 (1) cash, (2) a substitute Letter of Credit from a different issuer meeting the criteria set forth in the definition of Letter of Credit, or (3) a replacement Guaranty from the Guarantor, solely with respect to the Performance Security, 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.

(xii) with respect to any Guaranty provided by Seller for the benefit of Buyer, the failure by Seller to provide for the benefit of Buyer either (1) cash or (2) a replacement Letter of Credit from an 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) if any representation or warranty made by Seller’s Guarantor in connection with this Agreement 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;

(B) the failure of the Seller’s Guarantor to make any payment required or to perform any other material covenant or obligation in any Guaranty;

(C) Seller’s Guarantor becomes Bankrupt;

(D) the failure of Seller’s Guaranty to be in full force and effect (other than in accordance with its terms) prior to the indefeasible satisfaction of all obligations of Seller hereunder; or

(E) Seller's Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of the Guaranty.

11.2 **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 following rights:

(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 (the "**Terminated Transaction**") and ends the Delivery Term effective as of the Early Termination Date;

(b) to accelerate all amounts owing between the Parties, and to collect as liquidated damages (i) the Damage Payment (in the case of an Event of Default by Seller under Section 11.1(b)(ii)) or (ii) the Termination Payment calculated in accordance with Section 11.3 below (in the case of any other Event of Default by either Party);

(c) to withhold any payments due to the Defaulting Party under this Agreement;

(d) to suspend performance; and/or

(e) 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;

provided, that payment by the Defaulting Party of the Damage Payment or Termination Payment, as applicable, shall constitute liquidated damages and the Non-Defaulting Party's sole and exclusive remedy for any Terminated Transaction and the Event of Default related thereto.

11.3 **Termination Payment.** The Termination Payment ("**Termination Payment**") for a Terminated Transaction shall be the Settlement Amount plus any or all other amounts due to or from the Non-Defaulting Party netted into a single amount. If the Non-Defaulting Party's aggregate Gains exceed its aggregate Losses and Costs, if any, resulting from the termination of this Agreement, the net Settlement Amount 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.

11.4 **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 or from 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 or from the Non-Defaulting Party, as applicable, within ten (10) Business Days after such Notice is effective.

11.5 **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 16.

11.6 **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 11 shall be cumulative and in addition to the rights of the Parties otherwise provided in this Agreement.

11.7 **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.

ARTICLE 12

LIMITATION OF LIABILITY AND EXCLUSION OF WARRANTIES.

12.1 **No Consequential Damages.** EXCEPT TO THE EXTENT PART OF AN EXPRESS REMEDY, INDEMNITY PROVISION, OR MEASURE OF DAMAGES HEREIN, NEITHER PARTY SHALL BE LIABLE TO THE OTHER OR ITS INDEMNIFIED PERSONS FOR ANY SPECIAL, PUNITIVE, EXEMPLARY, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR LOSSES OR DAMAGES FOR LOST REVENUE OR LOST PROFITS, WHETHER FORESEEABLE OR NOT, ARISING OUT OF, OR IN CONNECTION WITH THIS AGREEMENT, BY STATUTE, IN TORT OR CONTRACT.

12.2 **Waiver and Exclusion of Other Damages.** EXCEPT AS EXPRESSLY 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. ALL LIMITATIONS OF LIABILITY CONTAINED IN THIS AGREEMENT, INCLUDING, WITHOUT LIMITATION, THOSE PERTAINING TO SELLER'S LIMITATION OF LIABILITY AND THE PARTIES' WAIVER OF CONSEQUENTIAL DAMAGES, SHALL APPLY EVEN IF THE REMEDIES FOR BREACH

OF WARRANTY PROVIDED IN THIS AGREEMENT ARE DEEMED TO “FAIL OF THEIR ESSENTIAL PURPOSE” OR ARE OTHERWISE HELD TO BE INVALID OR UNENFORCEABLE.

FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS AND EXCLUSIVE 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.

IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN, THE OBLIGOR’S LIABILITY SHALL BE LIMITED TO DIRECT DAMAGES ONLY. THE VALUE OF ANY TAX BENEFITS, DETERMINED ON AN AFTER-TAX BASIS, LOST DUE TO BUYER’S DEFAULT (WHICH SELLER HAS NOT BEEN ABLE TO MITIGATE AFTER USE OF REASONABLE EFFORTS) AND AMOUNTS DUE IN CONNECTION WITH THE RECAPTURE OF ANY RENEWABLE ENERGY INCENTIVES, IF ANY, SHALL BE DEEMED TO BE DIRECT DAMAGES.

TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, INCLUDING THE DAMAGE PAYMENT UNDER SECTION 11.2 AND THE TERMINATION PAYMENT UNDER SECTION 11.3, AND AS PROVIDED IN EXHIBIT B AND EXHIBIT F, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, THAT OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT, AND THAT THE LIQUIDATED DAMAGES CONSTITUTE A REASONABLE APPROXIMATION OF THE ANTICIPATED HARM OR LOSS, AND (UNLESS EXPRESSLY STATED TO THE CONTRARY) AN EXCLUSIVE REMEDY. 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. THE PARTIES HEREBY WAIVE ANY RIGHT TO CONTEST SUCH PAYMENTS AS AN UNREASONABLE PENALTY.

ARTICLE 13

REPRESENTATIONS AND WARRANTIES; AUTHORITY

13.1 **Seller’s Representations and Warranties.** As of the Amendment Date, Seller represents and warrants as follows:

(a) Seller is a limited liability company, duly organized, validly existing and in good standing under the laws of the State of Delaware, and is qualified to conduct business in each jurisdiction where the failure to so qualify would have a material adverse effect on the business or financial condition of Seller.

(b) Seller has the power and authority to enter into and perform this Agreement and is not prohibited from entering into this Agreement or discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement, except

where such failure does not have a material adverse effect on Seller's performance under this Agreement. The execution, delivery and performance of this Agreement by Seller has been duly authorized by all necessary limited liability company action on the part of Seller and does not and will not require the consent of any trustee or holder of any indebtedness or other obligation of Seller or any other party to any other agreement with Seller.

(c) The execution and delivery of this Agreement, consummation of the transactions contemplated herein, and fulfillment of and compliance by Seller with the provisions of this Agreement will not conflict with or constitute a breach of or a default under any Law presently in effect having applicability to Seller, subject to any permits that have not yet been obtained by Seller, the documents of formation of Seller or any outstanding trust indenture, deed of trust, mortgage, loan agreement or other evidence of indebtedness or any other agreement or instrument to which Seller is a party or by which any of its property is bound.

(d) This Agreement has been duly executed and delivered by Seller. This Agreement is a legal, valid and binding obligation of Seller enforceable in accordance with its terms, except as limited by Laws of general applicability limiting the enforcement of creditors' rights or by the exercise of judicial discretion in accordance with general principles of equity.

(e) The Facility is located in the State of California.

13.2 **Buyer's Representations and Warranties.** As of the Amendment Date, Buyer represents and warrants as follows:

(a) Buyer is a joint powers authority and a validly existing community choice aggregator, duly organized, validly existing and in good standing under the laws of the State of California and the rules, regulations and orders of the California Public Utilities Commission, and is qualified to conduct business in each jurisdiction of the Joint Powers Agreement members. All persons making up the governing body of Buyer are the elected or appointed incumbents in their positions and hold their positions in good standing in accordance with the Joint Powers Agreement and other Law.

(b) Buyer has the power and authority to enter into and perform this Agreement and is not prohibited from entering into this Agreement or discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement, except where such failure does not have a material adverse effect on Buyer's performance under this Agreement. The execution, delivery and performance of this Agreement by Buyer has been duly authorized by all necessary action on the part of Buyer and does not and will not require the consent of any trustee or holder of any indebtedness or other obligation of Buyer or any other party to any other agreement with Buyer.

(c) The execution and delivery of this Agreement, consummation of the transactions contemplated herein, and fulfillment of and compliance by Buyer with the provisions of this Agreement will not conflict with or constitute a breach of or a default under any Law presently in effect having applicability to Buyer, including but not limited to community choice aggregation, the Joint Powers Act, competitive bidding, public notice, open meetings, election, referendum, or prior appropriation requirements, the documents of formation of Buyer or any

outstanding trust indenture, deed of trust, mortgage, loan agreement or other evidence of indebtedness or any other agreement or instrument to which Buyer is a party or by which any of its property is bound.

(d) This Agreement has been duly executed and delivered by Buyer. This Agreement is a legal, valid and binding obligation of Buyer enforceable in accordance with its terms, except as limited by Laws of general applicability limiting the enforcement of creditors' rights or by the exercise of judicial discretion in accordance with general principles of equity.

(e) Buyer warrants and covenants that with respect to its contractual obligations under this Agreement, it will not claim immunity on the grounds of sovereignty or similar grounds with respect to itself or its revenues or assets from (1) suit, (2) jurisdiction of court, (3) relief by way of injunction, order for specific performance or recovery of property, (4) attachment of assets, or (5) execution or enforcement of any judgment.

(f) Buyer is a "local public entity" as defined in Section 900.4 of the Government Code of the State of California.

13.3 **General Covenants.** Each Party covenants that commencing on the Amendment Date and continuing throughout the Contract Term:

(a) It shall continue to be duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation and to be qualified to conduct business in each jurisdiction where the failure to so qualify would have a material adverse effect on its business or financial condition;

(b) It shall maintain (or obtain from time to time as required) all regulatory authorizations necessary for it to legally perform its obligations under this Agreement; and

(c) It shall perform its obligations under this Agreement in compliance with all terms and conditions in its governing documents and any contracts to which it is a party and in material compliance with any Law.

ARTICLE 14 ASSIGNMENT

14.1 **General Prohibition on Assignments.** Except as provided below and in Article 15, neither Seller nor Buyer may voluntarily assign its rights nor delegate its duties under this Agreement, or any part of such rights or duties, without the written consent of the other Party. Neither Seller nor Buyer shall unreasonably withhold, condition or delay any requested consent to an assignment. Any assignment or delegation made without written consent or in violation of the conditions to assignment set out below shall be null and void.

14.2 **Permitted Assignment; Change of Control of Seller.**

(a) **Permitted Assignment of Seller.** Seller may, without the prior written consent of Buyer, transfer or assign this Agreement to: (i) an Affiliate of Seller; [REDACTED]

_____ (iii) subject to Section 15.1, a Lender as collateral. With respect to any assignment of this Agreement by Seller under this Section 14.2(a), Seller shall provide to Buyer a written agreement signed by the Person to which Seller wishes to assign its interests that (A) provides that such Person will assume all of Seller's obligations and liabilities under this Agreement upon such transfer or assignment, and (B) in the case of an assignment under Section 14.2(a)(ii) hereof, certifies that such Person meets the definition of a Qualified Transferee.

(b) **Change of Control of Seller.** Any Change of Control of Seller (whether voluntary or by operation of Law) shall be deemed an assignment under this Article 14 and will require the prior written consent of Buyer, which consent shall not be unreasonably withheld, conditioned or delayed; *provided*, that _____

_____ shall, in each case, not be a Change of Control hereunder. Seller shall give Buyer written notice of any proposed assignment or Change of Control no less than five (5) Business Days before its occurrence.

14.3 **Permitted Assignment; Change of Control of Buyer.** Buyer may assign its interests in this Agreement to an Affiliate of Buyer or to any entity that has acquired all or substantially all of Buyer's assets or business, whether by merger, acquisition or otherwise without Seller's prior written consent, *provided*, that in each of the foregoing situations, the assignee (a) has a Credit Rating of Baa2 or higher by Moody's or BBB or higher by S&P, and (b) is a community choice aggregator or publicly-owned electric utility with retail customers located in the state of California; *provided, further*, that in each such case, no fewer than fifteen (15) Business Days before such assignment Buyer (x) notifies Seller of such assignment and (y) provides to Seller a written agreement signed by the Person to which Buyer wishes to assign its interests stating that such Person agrees to assume all of Buyer's obligations and liabilities under this Agreement and under any consent to assignment and other documents previously entered into by Seller as described in Section 15.2(b). Any assignment by Buyer, its successors or assigns under this Section 14.3 shall be of no force and effect unless and until such Notice and agreement by the assignee have been received and accepted by Seller.

ARTICLE 15 LENDER ACCOMMODATIONS

15.1 **Granting of Lender Interest.** Notwithstanding Section 14.2, either Party may, without the consent of the other Party, grant an interest (by way of collateral assignment, or as security, beneficially or otherwise) in its rights and/or obligations under this Agreement to any Lender. Each Party's obligations under this Agreement shall continue in their entirety in full force and effect. Promptly after granting such interest, the granting Party shall notify the other Party in writing of the name, address, and telephone and facsimile numbers of any Lender to which the granting Party's interest under this Agreement has been assigned. Such Notice shall include the names of the Lenders to whom all written and telephonic communications may be addressed. After giving the other Party such initial Notice, the granting Party shall promptly give the other Party Notice of any change in the information provided in the initial Notice or any revised Notice.

15.2 **Rights of Lender.** If a Party grants an interest under this Agreement as permitted by Section 15.1, the following provisions shall apply:

(a) Lender shall have the right, but not the obligation, to perform any act required to be performed by the granting Party under this Agreement to prevent or cure a default by the granting Party in accordance with Section 11.2 and such act performed by Lender shall be as effective to prevent or cure a default as if done by the granting Party.

(b) The other Party shall cooperate with the granting Party or any Lender to execute or arrange for the delivery of certificates, consents, opinions, estoppels, direct agreements, amendments and other documents reasonably requested by the granting Party or Lender in order to consummate any financing or refinancing and shall enter into reasonable agreements with such Lender that provide that the non-granting Party recognizes the Lender's security interest and such other provisions as may be reasonably requested by the granting Party or any such Lender; *provided*, however, that all costs and expenses (including reasonable attorney's fees) incurred by the non-granting Party in connection therewith shall be borne by the granting Party, and that the non-granting Party shall have no obligation to modify this Agreement.

(c) Each Party agrees that no Lender shall be obligated to perform any obligation or be deemed to incur any liability or obligation provided in this Agreement on the part of the granting Party or shall have any obligation or liability to the other Party with respect to this Agreement except to the extent any Lender has expressly assumed the obligations of the granting Party hereunder; *provided* that the non-granting Party shall nevertheless be entitled to exercise all of its rights hereunder in the event that the granting Party or Lender fails to perform the granting Party's obligations under this Agreement.

15.3 **Cure Rights of Lender.** The non-granting Party shall provide Notice of the occurrence of any Event of Default described in Sections 11.1 or 11.2 hereof to any Lender, and such Party shall accept a cure performed by any Lender and shall negotiate in good faith with any Lender as to the cure period(s) that will be allowed for any Lender to cure any granting Party Event of Default hereunder. The non-granting Party shall accept a cure performed by any Lender so long as the cure is accomplished within the applicable cure period so agreed to between the non-granting Party and any Lender. Notwithstanding any such action by any Lender, the granting Party shall not be released and discharged from and shall remain liable for any and all obligations to the non-granting Party arising or accruing hereunder. The cure rights of Lender may be documented in the certificates, consents, opinions, estoppels, direct agreements, amendments and other documents reasonably requested by the granting Party pursuant to Section 15.2(b).

ARTICLE 16 DISPUTE RESOLUTION

16.1 **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.

16.2 **Dispute Resolution.** In the event of any dispute arising under this Agreement, within ten (10) days following the receipt of a written Notice from either Party identifying such dispute, the Parties shall meet, negotiate and attempt, in good faith, to resolve the dispute quickly, informally and inexpensively. If the Parties are unable to resolve a dispute arising hereunder within the earlier of either thirty (30) days of initiating such discussions, or within forty (40) days after Notice of the dispute, either Party may seek any and all remedies available to it at Law or in equity, subject to the limitations set forth in this Agreement.

16.3 **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. .

16.4 **Venue.** The Parties agree that any litigation arising with respect to this Agreement is to be venued in the Superior Court for the county of San Mateo, California.

ARTICLE 17 INDEMNIFICATION

17.1 Indemnification.

(a) Each Party (the "**Indemnifying Party**") agrees to indemnify, defend and hold harmless the other Party and its Affiliates, directors, officers, employees and agents (collectively, the "**Indemnified Party**") from and against all third-party claims, demands, losses, liabilities, penalties, and expenses (including reasonable attorneys' fees) for personal injury or death to Persons and damage to the property of any third party to the extent arising out of, resulting from, or caused by the violation of Law or the negligent or willful misconduct of the Indemnifying Party, its Affiliates, its directors, officers, employees, or agents.

(b) Nothing in this Section 17.1 shall enlarge or relieve Seller or Buyer of any liability to the other for any breach of this Agreement. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

17.2 **Claims.** Promptly after receipt by a Party of any claim or Notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article 17 may apply, the Indemnified Party shall notify the Indemnifying Party in writing of such fact. The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, *provided, however,* that if the defendants in any such action include both the Indemnified Party and the Indemnifying Party and the Indemnified Party shall have reasonably concluded that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense, unless a liability insurer is willing to pay such costs. If the Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may at the expense of the Indemnifying Party contest,

settle, or pay such claim, *provided* that settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or warrants settlement. Except as otherwise provided in this Article 17, in the event that a Party is obligated to indemnify and hold the other Party and its successors and assigns harmless under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's damages net of any insurance proceeds received by the Indemnified Party following a reasonable effort by the Indemnified Party to obtain such insurance proceeds.

ARTICLE 18 INSURANCE

18.1 Insurance.

(a) General Liability. Seller shall maintain, or cause to be maintained at its sole expense, (i) commercial general liability insurance, including products and completed operations and personal injury insurance, in a minimum amount of [REDACTED] per occurrence, and an annual aggregate of not less than [REDACTED] endorsed to provide contractual liability in said amount, specifically covering Seller's obligations under this Agreement and naming Buyer as an additional insured; and (ii) an umbrella and/or excess insurance policy in a minimum limit of liability of [REDACTED]. Defense costs shall be provided as an additional benefit and not included within the limits of liability. Such insurance shall contain standard cross-liability and severability of interest provisions.

(b) Employer's Liability Insurance. Employers' Liability insurance shall not be less than [REDACTED] for injury or death occurring as a result of each accident. With regard to bodily injury by disease, the [REDACTED] policy limit will apply to each employee.

(c) Workers Compensation Insurance. Seller, if it has employees, shall also maintain at all times during the Contract Term workers' compensation and employers' liability insurance coverage in accordance with applicable requirements of Law.

(d) Business Auto Insurance. Seller shall maintain at all times during the Contract Term business auto insurance for bodily injury and property damage with limits of [REDACTED]. Such insurance shall cover liability arising out of Seller's use of all owned (if any), non-owned and hired vehicles, including trailers or semi-trailers in the performance of the Agreement.

(e) Construction All-Risk Insurance. For new facilities or existing facilities that are to be re-powered before Commercial Operation, Seller shall maintain or cause to be maintained during the construction or re-powering of the Facility prior to the Commercial Operation Date, construction all-risk form property insurance covering the Facility during such construction periods, and naming the Seller (and Lender if any) as the loss payee.

(f) Contractor Insurance. Seller shall require all of its subcontractors to carry: (i) comprehensive general liability insurance; (ii) workers' compensation insurance and employers' liability coverage in accordance with applicable requirements of Law; and (iii)

business auto insurance for bodily injury and property damage, in each case, with limits determined to be appropriate by Seller. All subcontractors shall name Seller as an additional insured to insurance carried pursuant to clauses (f)(i) and (f)(iii). All subcontractors shall provide a primary endorsement and a waiver of subrogation to Seller for the required coverage pursuant to this Section 18.1(f).

(g) Evidence of Insurance. Within ten (10) days after execution of the Agreement and upon annual renewal thereafter, Seller shall deliver to Buyer certificates of insurance evidencing such coverage. These certificates shall specify that Buyer shall be given at least thirty (30) days prior Notice by Seller in the event of any cancellation or termination of coverage. Such insurance shall be primary coverage without right of contribution from any insurance of Buyer. Any other insurance maintained by Seller is for the exclusive benefit of Seller and shall not in any manner inure to the benefit of Buyer. Seller shall also comply with all insurance requirements by any renewable energy or other incentive program administrator or any other applicable authority.

(h) Failure to Comply with Insurance Requirements. If Seller fails to secure and/or pay the premiums for any of the policies of insurance required herein, or fails to maintain such insurance, upon sixty (60) days written notice to Seller of noncompliance, Buyer may, in addition to any other rights it may have under this Agreement or at Law or in equity, secure such policy or policies of insurance for the account of Seller and charge Seller for the premiums paid therefor, or withhold the amount thereof from sums otherwise due from Buyer to Seller. Neither the Buyer's rights to secure such policy or policies nor the securing thereof by Buyer shall constitute an undertaking by Buyer on behalf of or for the benefit of Seller or others to determine or warrant that such policies are in effect.

ARTICLE 19

CONFIDENTIAL INFORMATION

19.1 Definition of Confidential Information. The following constitutes "**Confidential Information**," whether oral or written, and whether delivered by Seller to Buyer or by Buyer to Seller: (a) proposals and negotiations of the Parties in the negotiation of this Agreement; (b) the terms and conditions of this Agreement; and (c) information that either Seller or Buyer stamps or otherwise identifies as "confidential" or "proprietary" or words of similar import before disclosing it to the other. Confidential Information does not include (i) information that was publicly available at the time of the disclosure, other than as a result of a disclosure in breach of this Agreement; (ii) information that becomes publicly available through no fault of the recipient; (iii) information that was rightfully in the possession of the recipient (without confidential or proprietary restriction) at the time of delivery or that becomes available to the recipient from a source not subject to any restriction against disclosing such information to the recipient; and (iv) information that the recipient independently developed without a violation of this Agreement.

19.2 Duty to Maintain Confidentiality. The Party receiving Confidential Information shall treat it as confidential, and shall adopt reasonable information security measures to maintain its confidentiality, employing the higher of (a) the standard of care that the receiving Party uses to preserve its own confidential information, or (b) a standard of care reasonably tailored to prevent unauthorized use or disclosure of such Confidential Information. Confidential Information may be

disclosed by the recipient if and to the extent such disclosure is required (a) by Law, (b) pursuant to an order of a court or (c) in order to enforce this Agreement. The Party that originally discloses Confidential Information may use such information for its own purposes, and may publicly disclose such information at its own discretion. Notwithstanding the foregoing, Seller acknowledges that Buyer is required to make portions of this Agreement available to the public in connection with the process of seeking approval from its board of directors for execution of this Agreement. Buyer may, in its discretion, redact certain terms of this Agreement as part of any such public disclosure, and will use reasonable efforts to consult with Seller prior to any such public disclosure. Seller further acknowledges that Buyer is a public agency subject to the requirements of the California Public Records Act (Cal. Gov. Code section 6250 et seq.). Upon request or demand from any third person not a Party to this Agreement for production, inspection and/or copying of this Agreement or other Confidential Information provided by Seller to Buyer, Buyer shall, to the extent permissible, notify Seller in writing in advance of any disclosure that the request or demand has been made; provided that, upon the advice of its counsel that disclosure is required, Buyer may disclose this Agreement or any other requested Confidential Information, whether or not advance written notice to Seller has been provided. Seller shall be solely responsible for taking whatever steps it deems necessary to protect Confidential Information that is the subject of any Public Records Act request submitted by a third person to Buyer.

19.3 **Irreparable Injury; Remedies.** Buyer and Seller each agree that disclosing Confidential Information of the other in violation of the terms of this Article 19 may cause irreparable harm, and that the harmed Party may seek any and all remedies available to it at Law or in equity, including injunctive relief and/or notwithstanding Section 12.2, consequential damages.

19.4 **Disclosure to Lender.** Notwithstanding anything to the contrary in this Article 19, Confidential Information may be disclosed by Seller to any potential Lender or any of its agents, consultants or trustees so long as the Person to whom Confidential Information is disclosed agrees in writing to be bound by the confidentiality provisions of this Article 19 to the same extent as if it were a Party.

19.5 **Disclosure to Credit Rating Agency.** Notwithstanding anything to the contrary in this Article 19, Confidential Information may be disclosed by either Party to any nationally recognized credit rating agency (e.g., Moody's Investors Service, Standard & Poor's, or Fitch Ratings) in connection with the issuance of a credit rating for that Party or its Affiliates, provided that any such credit rating agency agrees in writing to maintain the confidentiality of such Confidential Information.

19.6 **Public Statements.** Neither Party shall issue (or cause its Affiliates to issue) a press release regarding the transactions contemplated by this Agreement unless both Parties have agreed upon the contents of any such press release.

ARTICLE 20 MISCELLANEOUS

20.1 **Entire Agreement; Integration; Exhibits.** This Agreement, together with the Cover Sheet and Exhibits attached hereto constitutes the entire agreement and understanding between Seller and Buyer with respect to the subject matter hereof and supersedes all prior

agreements relating to the subject matter hereof, which are of no further force or effect. The Exhibits attached hereto are integral parts hereof and are made a part of this Agreement by reference. The headings used herein are for convenience and reference purposes only. In the event of a conflict between the provisions of this Agreement and those of the Cover Sheet or any Exhibit, the provisions of first the Cover Sheet, and then this Agreement shall prevail, and such Exhibit shall be corrected accordingly. 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.

20.2 **Amendments.** This Agreement may only be amended, modified or supplemented by an instrument in writing executed by duly authorized representatives of Seller and Buyer; *provided*, that, for the avoidance of doubt, this Agreement may not be amended by electronic mail communications.

20.3 **No Waiver.** Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default.

20.4 **No Agency, Partnership, Joint Venture or Lease.** Seller and the agents and employees of Seller shall, in the performance of this Agreement, act in an independent capacity and not as officers or employees or agents of Buyer. Under this Agreement, Seller and Buyer intend to act as energy seller and energy purchaser, respectively, and do not intend to be treated as, and shall not act as, partners in, co-venturers in or lessor/lessee with respect to the Facility or any business related to the Facility. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement).

20.5 **Severability.** In the event that any provision of this Agreement is unenforceable or held to be unenforceable, the Parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby. The Parties shall, however, use their best endeavors to agree on the replacement of the void, illegal or unenforceable provision(s) with legally acceptable clauses which correspond as closely as possible to the sense and purpose of the affected provision and this Agreement as a whole.

20.6 **Mobile-Sierra.** Notwithstanding any other provision of this Agreement, neither Party shall seek, nor shall they support any third party 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 written 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” standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

20.7 **Counterparts.** This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument and each of which shall be deemed an original.

20.8 **Facsimile or Electronic Delivery.** This Agreement may be duly executed and delivered by a Party by execution and facsimile or electronic format (including portable document format (.pdf)) delivery of the signature page of a counterpart to the other Party, and, if delivery is made by facsimile or other electronic format, the executing Party shall promptly deliver, via overnight delivery, a complete original counterpart that it has executed to the other Party, but this Agreement shall be binding on and enforceable against the executing Party whether or not it delivers such original counterpart.

20.9 **Binding Effect.** This Agreement shall inure to the benefit of and be binding upon the Parties and their respective successors and permitted assigns.

20.10 **No Recourse to Members of Buyer.** Buyer is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) pursuant to its Joint Powers Agreement and is a public entity separate from its constituent members. Buyer shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement. Seller shall have no rights and shall not make any claims, take any actions or assert any remedies against any of Buyer's constituent members, or the employees, directors, officers, consultants or advisors of Buyer or its constituent members, in connection with this Agreement.

20.11 **Change in Electric Market Design.** If a change in the CAISO Tariff renders this Agreement or any provisions hereof incapable of being performed or administered, then any Party may request that Buyer and Seller enter into negotiations to make the minimum changes to this Agreement necessary to make this Agreement capable of being performed and administered, while attempting to preserve to the maximum extent possible the benefits, burdens, and obligations set forth in this Agreement as of the Effective Date. If a change to any Law occurs after the Effective Date, including any rule or requirement of WREGIS, that impacts the number or quality of Resource Adequacy Benefits or Green Attributes (including Renewable Energy Credits) available to Buyer from the Facility, then Buyer may request that Buyer and Seller enter into negotiations to make the minimum changes to this Agreement necessary to preserve to the maximum extent possible the benefits, burdens, and obligations set forth in this Agreement as of the Effective Date, it being understood that (i) Buyer is to receive the maximum amount of Resource Adequacy Benefits and Green Attributes available from the Facility and (ii) Seller's ongoing compliance costs associated with the provision of Resource Adequacy Benefits and Green Attributes available from the Facility, among other things, are subject to the Compliance Expenditure Cap. Upon delivery of such a request, Buyer and Seller shall engage in such negotiations in good faith. If Buyer and Seller are unable, within sixty (60) days after delivery of such request, to agree upon changes to this Agreement or to resolve issues relating to changes to this Agreement, then any Party may submit issues pertaining to changes to this Agreement to the dispute resolution process set forth in Article 16. Notwithstanding the foregoing, (i) a change in cost shall not in and of itself be deemed to render this Agreement or any of the provisions hereof incapable of being performed or administered, or constitute, or form the basis of, a Force Majeure Event, and (ii) this Agreement shall remain in full force and effect, subject to any necessary changes, if any, agreed to by the Parties or determined through dispute resolution.

EXHIBIT A

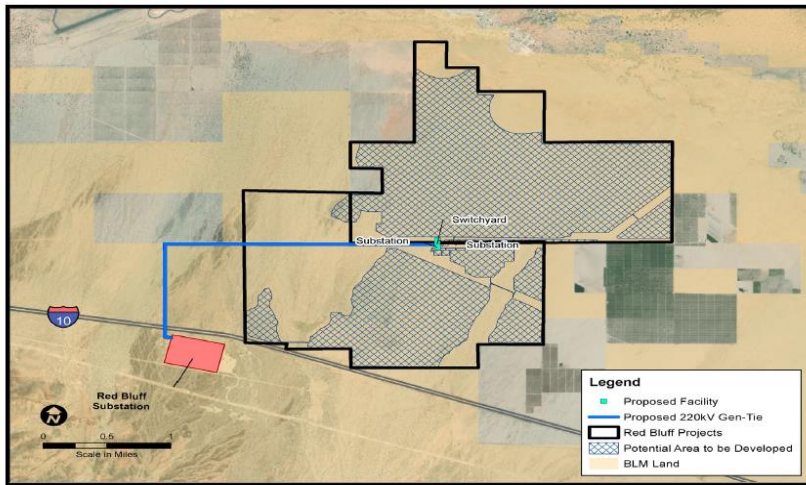
DESCRIPTION OF THE FACILITY

Facility Name: Arica Project

Site Name: Arica Project

Latitude and Longitude: 33.698958, -115.312892

Site Map:



Site includes all or some of the following APNs:

810110014
811160006
811160014
811190010
811190011
811190012
811190015
811190016
811211001
811211002
811212001
811222001
811231006

811190017

County: Riverside County, California

Guaranteed PV Capacity: 100 MW AC (net, at the Delivery Point)

Guaranteed Storage Capacity: 50 MW AC (net, at the Delivery Point)

Maximum Stored Energy Level at COD (MWh): 200 MWh

Maximum Charging Capacity at COD: 50 MW

Maximum Discharging Capacity at COD: 50 MW

Guaranteed Efficiency Rate: See Exhibit P

Ramp Rate: See Exhibit N

Generation Technology: [REDACTED]

Storage Technology: Lithium-ion battery

PNode/Delivery Point: The PNode designated by CAISO for each of the Generating Facility and Storage Facility at the Red Bluff 230 kV substation.

Point of Interconnection: SCE Red Bluff 230 kV

CAISO Queue Number: Q1302

One-Line Diagram: See Exhibit O.

Additional Information: n/a

EXHIBIT B

FACILITY CONSTRUCTION AND COMMERCIAL OPERATION

1. Construction of the Facility.

- a. Seller shall cause construction to begin on the Facility by the Expected Construction Start Date (as such date may be extended by the Development Cure Period, the “**Guaranteed Construction Start Date**”). Seller shall demonstrate the beginning of construction through execution of Seller’s engineering, procurement and construction contract, issuance of a notice to proceed under such contract, mobilization to Site by Seller and/or its designees, and the physical movement of soil at the Site (“**Construction Start**”). On the date of the beginning of construction (the “**Construction Start Date**”), Seller shall deliver to Buyer a certificate substantially in the form attached as Exhibit J hereto.

- b. If Construction Start is not achieved by the Guaranteed Construction Start Date, Seller shall pay Daily Delay Damages to Buyer on account of such delay. Daily Delay Damages shall be payable for each day for which Construction Start has not begun by the Guaranteed Construction Start Date. Daily Delay Damages shall be payable to Buyer by Seller [REDACTED]

[REDACTED] On or before the tenth (10th) day of each month, Buyer shall invoice Seller for Daily Delay Damages, if any, accrued during the prior month and, within ten (10) Business Days following Seller’s receipt of such invoice, Seller shall pay Buyer the amount of the Daily Delay Damages set forth in such invoice. Daily Delay Damages shall be refundable to Seller pursuant to Section 2(b) of this Exhibit B. The Parties agree that Buyer’s receipt of Daily Delay Damages shall be Buyer’s sole and exclusive remedy for the [REDACTED] of the delay in achieving the Construction Start Date on or before the Guaranteed Construction Start Date, but shall (x) not be construed as Buyer’s declaration that an Event of Default has occurred under any provision of Section 11.1 and (y) not limit Buyer’s right to declare an Event of Default pursuant to Section 11.1(b)(ii) and receive a Termination Payment or Damage Payment, as applicable, upon exercise of Buyer’s rights pursuant to Section 11.2.

2. Commercial Operation of the Facility. “**Commercial Operation**” means the condition existing when (i) Seller has fulfilled all of the conditions precedent in Section 2.2 of the Agreement and (ii) Seller has provided Notice to Buyer that Commercial Operation has been achieved and specifying the “placed in service” date per Internal Revenue Service Requirements of the Facility. The “**Commercial Operation Date**” shall be the later of (x) sixty (60) days prior to the Expected Commercial Operation Date or (y) the date on which Commercial Operation is achieved.

- a. Seller shall cause Commercial Operation for the Facility to occur by the Expected Commercial Operation Date (as such date may be extended on a day-for-day basis by the Development Cure Period (defined below), the “**Guaranteed Commercial**”

Operation Date”). Seller shall notify Buyer that it intends to achieve Commercial Operation at least sixty (60) days before the anticipated Commercial Operation Date. If Seller is able to achieve Commercial Operation more than sixty (60) days prior to the Expected Commercial Operation Date, Seller may provide Buyer notice of the date on which Commercial Operation will occur at least sixty (60) days in advance of the such date, and Buyer will, by the later of ten (10) Business Days following Seller’s notice or sixty (60) days in advance of the date upon which Commercial Operation will occur, either (i) permit Commercial Operation to occur and commence the Delivery Term hereunder or (ii) delay the commencement of the Delivery Term until the Expected Commercial Operation Date (in which case, Commercial Operation shall be deemed to have not occurred until, at the earliest, the Expected Commercial Operation Date), permit Seller to sell any Product from the Facility prior to the Expected Commercial Operation Date to third parties, and waive or amend any other provisions of this Agreement reasonably requested by Seller to effectuate the foregoing; *provided*, that, if Buyer selects option (ii), Seller shall operate the Facility in accordance with Prudent Operating Practice and Operating Restrictions and ensure that it is fully able to comply with its obligations herein commencing on the Expected Commercial Operation Date.

- b. If Seller achieves Commercial Operation by the Guaranteed Commercial Operation Date, all Daily Delay Damages paid by Seller shall be refunded to Seller. Seller shall include the request for refund of the Daily Delay Damages with the first invoice to Buyer after the Commercial Operation Date.
- c. If Seller does not achieve Commercial Operation by the Guaranteed Commercial Operation Date, Buyer shall retain Daily Delay Damages, as applicable, and Seller shall pay Commercial Operation Delay Damages to Buyer for each day after the Guaranteed Commercial Operation Date until the Commercial Operation Date. Commercial Operation Delay Damages shall be payable to Buyer by Seller until the Commercial Operation Date. On or before the tenth (10th) day of each month, Buyer shall invoice Seller for Commercial Operation Delay Damages, if any, accrued during the prior month. The Parties agree that Buyer’s retention of Daily Delay Damages and receipt of Commercial Operation Delay Damages shall be Buyer’s sole and exclusive remedy for the [REDACTED] of delay in achieving the Commercial Operation Date on or before the Guaranteed Commercial Operation Date, but shall (x) not be construed as Buyer’s declaration that an Event of Default has occurred under any provision of Section 11.1 and (y) not limit Buyer’s right to declare an Event of Default under Section 11.1(b)(ii) and receive a Damage Payment upon exercise of Buyer’s default right pursuant to Section 11.2.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

- 3. **Termination for Failure to Timely Achieve Construction Start or Commercial Operation.** If the Facility has not achieved Construction Start within [REDACTED] [REDACTED] after the Guaranteed Construction Start Date or Commercial Operation within

██████████ after the Guaranteed Commercial Operation Date, Buyer may elect to terminate this Agreement pursuant to Sections 11.1(b)(ii) and 11.2(a), which termination shall become effective as provided in Section 11.2(a).

4. **Extension of the Guaranteed Dates.** The Guaranteed Construction Start Date and the Guaranteed Commercial Operation Date shall be extended on a day-for-day basis (the “**Development Cure Period**”) for the duration of each of the following delays:
 - a. a Force Majeure Event occurs; or
 - b. Buyer has not made all necessary arrangements to receive the Energy at the Delivery Point by the Guaranteed Commercial Operation Date.

Notwithstanding anything in this Agreement to the contrary, the cumulative extensions granted under the Development Cure Period (other than the extensions granted pursuant to clause 4(b) above) shall not exceed ██████████; provided, that the cumulative extensions granted under the Development Cure Period may extend to ██████████, solely to the extent due to a Force Majeure Event related to new governmental restrictions that have not previously been imposed related to COVID-19, and no extension shall be given if the delay was the result of Seller’s failure to take all commercially reasonable actions to meet its requirements and deadlines. Upon request from Buyer, Seller shall provide documentation demonstrating to Buyer’s reasonable satisfaction that the delays described above did not result from Seller’s actions or failure to take commercially reasonable actions.

5. **Failure to Reach Guaranteed PV Capacity or Guaranteed Storage Capacity.** If, at the start of the Bundled Term, the Installed PV Capacity is at least ██████████ of the Guaranteed PV Capacity but less than the Guaranteed PV Capacity, or the Installed Storage Capacity is at least ██████████ of the Guaranteed Storage Capacity but less than the Guaranteed Storage Capacity, Seller shall pay “**Capacity Damages**” to Buyer, in an amount equal to ██████████
██████████
██████████
██████████ and other applicable portions of the Agreement shall be reduced based on the ratio of the Installed PV Capacity as of such date to the original Guaranteed PV Capacity or the Installed Storage Capacity as of such date to the original Guaranteed Storage Capacity, as applicable.
6. **Buyer’s Right to Draw on Development Security.** If Seller fails to timely pay any Daily Delay Damages or Commercial Operation Delay Damages, Buyer may draw upon the Development Security to satisfy Seller’s payment obligation thereof, and Seller shall replenish the Development Security to its full amount within five (5) Business Days after such draw.

EXHIBIT C
RESERVED

EXHIBIT D

EMERGENCY CONTACT INFORMATION

BUYER:

Peninsula Clean Energy Authority
2075 Woodside Road
Redwood City, CA 94061
Attn: Director of Power Resources

Phone No.: 650-260-0005
Email: contracts@peninsulacleanenergy.com

SELLER:

Arica Solar, LLC, c/o Solar Asset Management LLC
4900 Scottsdale Road, Suite 5000
Scottsdale, AZ 85251
Attention: VP Asset Management

Phone No.: [REDACTED]

Email: [REDACTED]

EXHIBIT E

[Reserved]

EXHIBIT F

GUARANTEED ENERGY PRODUCTION DAMAGES CALCULATION

In accordance with Section 4.8, if Seller fails to achieve the Guaranteed Energy Production during any Performance Measurement Period, a liquidated damages payment shall be due from Seller to Buyer, calculated as follows:

$$[(A - B) * (C - D)]$$

where:

A = the Guaranteed Energy Production amount for the Performance Measurement Period, in MWh

B = the Adjusted Energy Production amount for the Performance Measurement Period, in MWh

C = [REDACTED]

D = the Renewable Rate, in \$/MWh

No payment shall be due if the calculation of (A - B) or (C - D) yields a negative number.

Within sixty (60) days after each Performance Measurement Period, Buyer will send Seller Notice of the amount of damages owing, if any, which shall be payable to Buyer before the later of (a) thirty (30) days of such Notice and (b) ninety (90) days after each Performance Measurement Period.

Additional Definitions:

“**Adjusted Energy Production**” shall mean the sum of the following: PV Energy + Deemed Delivered Energy + Lost Output – Excess MWh.

“**Lost Output**” means the sum of PV Energy in MWh that would have been generated and delivered, but was not, on account of Force Majeure Event, Buyer Default, or Curtailment Order. The additional MWh shall be calculated using an equation provided by Seller, as approved by Buyer in its reasonable discretion, to reflect the potential generation of the Generating Facility as a function of Available Generating Capacity, solar insolation and panel temperature, and using relevant Facility availability, weather, historical and other pertinent data for the period of time during the period in which the Force Majeure Event, Buyer Default, or Curtailment Order occurred.

[REDACTED]

EXHIBIT G

PROGRESS REPORTING FORM

Within fifteen (15) days after the close of (i) each calendar quarter from the first calendar quarter following the Effective Date until the Construction Start Date, and (ii) each calendar month from the first calendar month following the Construction Start Date until the Commercial Operation Date, Seller shall provide to Buyer a written Progress Report in the form specified below.

Each Progress Report must include the following items:

1. Executive summary.
2. Facility description.
3. Site plan of the Facility.
4. Description of any material planned changes to the Facility or the Site.
5. Gantt chart schedule showing progress on achieving each of the Milestones.
6. Summary of activities during the previous calendar quarter or month, as applicable, including any OSHA labor hour reports.
7. Forecast of activities scheduled for the current calendar quarter.
8. Written description about the progress relative to Seller's Milestones, including whether Seller has met or is on target to meet the Milestones.
9. List of issues that are likely to potentially affect Seller's Milestones.
10. A status report of start-up activities including a forecast of activities ongoing and after start-up, a report on Facility performance including performance projections for the next twelve (12) months.
11. Progress and schedule of all major agreements, contracts, permits, approvals, technical studies, financing agreements and major equipment purchase orders showing the start dates, completion dates, and completion percentages.
12. Pictures, in sufficient quantity and of appropriate detail, in order to document construction and startup progress of the Facility, the interconnection into the Transmission System and all other interconnection utility services.
13. Any other documentation reasonably requested by Buyer.

EXHIBIT H
RESERVED

EXHIBIT I-1

FORM OF COMMERCIAL OPERATION DATE CERTIFICATE

This certification (“**Certification**”) of Commercial Operation is delivered by [*licensed professional engineer*] (“**Engineer**”) to Peninsula Clean Energy Authority (“**Buyer**”) in accordance with the terms of that certain Amended and Restated Power Purchase and Sale Agreement dated [____], 2022 (“**Agreement**”), by and between Arica Solar, LLC and Buyer. All capitalized terms used in this Certification but not otherwise defined herein shall have the respective meanings assigned to such terms in the Agreement.

Engineer hereby certifies and represents to Buyer the following:

- (1) Seller has installed generating equipment with a nameplate capacity of no less than [REDACTED] of the Guaranteed PV Capacity.
- (2) Seller has installed and commissioned storage equipment with a capacity of at [REDACTED] of the Guaranteed Storage Capacity in accordance with Exhibit M of the Agreement.
- (3) The Storage Facility is capable of receiving Charging Energy from the Generating Facility and delivering Discharging Energy to the Delivery Point and commissioning of equipment at the Storage Facility has been completed in accordance with the manufacturer’s specifications.
- (4) The Generating Facility’s testing included a performance test demonstrating peak electrical output of no less than [REDACTED] of the Guaranteed PV Capacity at the Delivery Point, as adjusted for ambient conditions on the date of the Facility testing.
- (5) Authorization to parallel the Facility was obtained by the Participating Transmission Owner, [*Name of Participating Transmission Owner as appropriate*] on ____ [DATE] ____.
- (6) The Participating Transmission Owner or distribution provider has provided documentation supporting full unrestricted release for Commercial Operation by [*Name of Participating Transmission Owner as appropriate*] on ____ [DATE] ____.
- (7) The CAISO has provided notification supporting the Facility’s Commercial Operation, inclusion in the Full Network Model and authorization to provide Ancillary Services, all in accordance with the CAISO tariff on ____ [DATE] ____.

EXECUTED by [LICENSED PROFESSIONAL ENGINEER]

this _____ day of _____, 20__.

[LICENSED PROFESSIONAL ENGINEER]

By: _____

Its: _____

Date: _____

EXHIBIT I-2

FORM OF INSTALLED CAPACITY CERTIFICATE

This Certification of Installed Capacity (“**Certification**”) is delivered by [*licensed professional engineer*] (“**Engineer**”) to PENINSULA CLEAN ENERGY AUTHORITY (“**Buyer**”) in accordance with the terms of that certain Amended and Restated Power Purchase and Sale Agreement dated [____], 2022 (“**Agreement**”), by and between ARICA SOLAR, LLC and Buyer. All capitalized terms used in this Certification but not otherwise defined herein shall have the respective meanings assigned to such terms in the Agreement.

The initial Generating Facility performance test under Seller’s engineering, procurement and construction contract or primary solar module supply agreement for the Generating Facility demonstrated peak Generating Facility electrical output of __MW AC at the Delivery Point, as adjusted for ambient conditions on the date of the performance test (“**Installed PV Capacity**”).

The initial Storage Facility performance test under Seller’s engineering, procurement and construction contract or primary energy storage system supply agreement for the Storage Facility demonstrated peak Storage Facility electrical output of __MW AC at the Delivery Point (“**Installed Storage Capacity**”).

EXECUTED by [LICENSED PROFESSIONAL ENGINEER]

this _____ day of _____, 20__.

[LICENSED PROFESSIONAL ENGINEER]

By: _____

Its: _____

Date: _____

EXHIBIT J

FORM OF CONSTRUCTION START DATE CERTIFICATE

This certification (“**Certification**”) of the Construction Start Date is delivered by ARICA SOLAR, LLC (“**Seller**”) to PENINSULA CLEAN ENERGY AUTHORITY (“**Buyer**”) in accordance with the terms of that certain Amended and Restated Power Purchase and Sale Agreement dated [____], 2022 (“**Agreement**”), by and between Seller and Buyer. All capitalized terms used in this Certification but not otherwise defined herein shall have the respective meanings assigned to such terms in the Agreement.

Seller hereby certifies and represents to Buyer the following:

1. the engineering, procurement and construction contract related to the Facility was executed on _____;
2. the [limited] notice to proceed with the construction of the Facility was issued on _____ (attached);
3. the Construction Start Date has occurred;
4. the precise Site on which the Facility is located is, which must be within the boundaries of the _____ previously _____ identified _____ Site:

(such description shall amend the description of the Site in Exhibit A).

IN WITNESS WHEREOF, the undersigned has executed this Certification on behalf of Seller as of the ____ day of _____.

ARICA SOLAR, LLC

By: _____

Its: _____

Date: _____

EXHIBIT K

FORM OF LETTER OF CREDIT

[Issuing Bank Letterhead and Address]

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [XXXXXXXX]

Date:

Bank Ref.:

Amount: US\$[XXXXXXXX]

Expiry Date:

Beneficiary:

Peninsula Clean Energy Authority

[Address]

Ladies and Gentlemen:

On behalf of [XXXXXXXX] ("Applicant"), we, [insert bank name and address] ("Issuer") hereby issue our Irrevocable Standby Letter of Credit No. [XXXXXXXX] (the "Letter of Credit") in favor of Peninsula Clean Energy Authority, Address_____, for an amount not to exceed the aggregate sum of U.S. \$[XXXXXXXX] (United States Dollars [XXXXXXXX] and 00/100), pursuant to that certain [Agreement] dated as of _____ (the "Agreement") between Applicant and Beneficiary. This Letter of Credit shall become effective immediately and shall have an initial expiry date of _____, 201_ subject to the automatic extension provisions herein.

Funds under this Letter of Credit are available to you against your draft(s) drawn on us at sight, mentioning thereon our Letter of Credit No. [XXXXXXXX] accompanied by your dated statement purportedly signed by your duly authorized representative, in the form attached hereto as Exhibit A, containing one of the two alternative paragraphs set forth in paragraph 2 therein.

We hereby agree with the Beneficiary that all drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored upon presentation to the Issuer in person, by courier or by fax at [insert bank address]. Payment shall be made by Issuer in U.S. dollars with Issuer's own immediately available funds.

The document(s) required may also be presented by fax at facsimile no. (xxx) xxx-xxx on or before the expiry date (as may be extended below) on this Letter of Credit in accordance with the terms and conditions of this Letter of Credit. No mail confirmation is necessary and the facsimile transmission will constitute the operative drawing documents without the need of originally signed

documents.

Partial draws are permitted under this Letter of Credit.

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 for such date, unless at least ninety (90) days prior to any such expiry date we have sent to you written notice by overnight courier service that we elect not to permit this Letter of Credit to be so extended, in which case it will expire on its then current expiry date. No presentation made under this Letter of Credit after such expiry date will be honored.

Notwithstanding any reference in this Letter of Credit to any other documents, instruments or agreements, this Letter of Credit contains the entire agreement between Beneficiary and Issuer relating to the obligations of Issuer hereunder.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision) International Chamber of Commerce Publication No. 600 (the "UCP"), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to 36 of the UCP, in which case the terms of this Letter of Credit shall govern. In the event of an act of God, riot, civil commotion, insurrection, war or any other cause beyond Issuer's control (as defined in Article 36 of the UCP) that interrupts Issuer's business and causes the place for presentation of the Letter of Credit to be closed for business on the last day for presentation, the expiry date of the Letter of Credit will be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

Please address all correspondence regarding this Letter of Credit to the attention of the Letter of Credit Department at **[insert bank address information]**, referring specifically to Issuer's Letter of Credit No. **[XXXXXXXX]**. For telephone assistance, please contact Issuer's Standby Letter of Credit Department at **[XXX-XXX-XXXX]** and have this Letter of Credit available.

[Bank Name]

[Insert officer name]

[Insert officer title]

DRAW REQUEST SHOULD BE ON BENEFICIARY'S LETTERHEAD

Drawing Certificate

[Insert Bank Name and Address]

Ladies and Gentlemen:

The undersigned, a duly authorized representative of Peninsula Clean Energy Authority, Address _____ as beneficiary (the "Beneficiary") of the Irrevocable Letter of Credit No. **[XXXXXXXX]** (the "Letter of Credit") issued by **[insert bank name]** (the "Bank") by order of **[XXXXXXXX]** (the "Applicant"), hereby certifies to the Bank as follows:

1. Applicant and Beneficiary are party to that certain Agreement dated as of **[XXXXXXXX]** (the "Agreement").
2. Beneficiary is making a drawing under this Letter of Credit in the amount of U.S. \$_____.

or

Beneficiary is making a drawing under this Letter of Credit in the amount of U.S. \$_____, which equals the full available amount under the Letter of Credit, because the Bank has provided notice of its intent to not extend the expiry date of the Letter of Credit and Applicant failed to provide acceptable replacement security to Beneficiary at least thirty (30) days prior to the expiry date of the Letter of Credit.

3. The undersigned is a duly authorized representative of Peninsula Clean Energy Authority and is authorized to execute and deliver this Drawing Certificate on behalf of Beneficiary.

You are hereby directed to make payment of the requested amount to Peninsula Clean Energy Authority by wire transfer in immediately available funds to the following account:

[Specify account information]

Peninsula Clean Energy Authority

Name and Title of Authorized Representative

Date_____

EXHIBIT L

MONTHLY STORAGE AVAILABILITY

1. Monthly Storage Availability.

(a) For each monthly period after the commencement of the Bundled Term, Seller shall calculate the “Monthly Storage Availability” using the formula set forth below:

Monthly Storage Availability (%) =

$$\frac{MONTHLYHRS_m - PRIMARY UNAVAILHRS_m - SECONDARY UNAVAILHRS_m}{MONTHLYHRS_m}$$

where:

m = relevant monthly period for which availability is calculated;

MONTHLYHRS_m = the total number of hours for the monthly period;

PRIMARY UNAVAILHRS_m = the sum of the following without duplication:
(i) the total number of hours in the monthly period during which the Storage Facility was unavailable to be dispatched, in whole or in part, to deliver Storage Product for any reason; (ii) the total number of hours in the monthly period during which the Storage Facility failed to comply with a valid Charging Notice or Discharging Notice that complies with this Agreement, including any such failure to charge or discharge at the times, in the quantities, and at the levels specified in such Charging Notice or Discharging Notice; and (iii) the total number of hours in the monthly period during which the Storage Facility was charged or discharged other than pursuant to a valid Charging Notice or Discharging Notice that complies with this Agreement, or pursuant to a notice from the CAISO, any PTO, or any other Governmental Authority; provided that it shall not include any hours that are **SECONDARY UNAVAILHRS_m** or in which the Storage Facility was unavailable (on a prorated basis) to deliver the Storage Product as a result of an Excused Event. Any unavailability of the Storage Facility for less than a full hour will count as an equivalent percentage of the applicable hour(s) for this calculation. For the avoidance of doubt when determining partial compliance with respect to this **PRIMARY UNAVAILHRS_m** calculation: partial availability in part (i) will result in prorated unavailability hours based on the portion of the hour during which the Storage Facility was not available for dispatch, partial compliance in any hour for part (ii) will result in prorated unavailability hours based on the portion of the hour during which the Storage Facility failed to comply, and partial compliance in any hour for part (iii) will result in prorated unavailability hours based on the portion of the hour during which the Storage Facility was charged or discharged without a valid notice.

SECONDARY UNAVAILHRS_m = the total number of hours in the monthly period that would be **PRIMARY UNAVAILHRS_m** but that are caused by Force

Majeure Events or Curtailment Orders not attributable to Seller's fault or negligence. Partial SECONDARY UNAVAILHRSm shall be prorated in the same manner as PRIMARY UNAVAILHRSm.

"Excused Event" means any period of time during which the Storage Facility was unavailable (on a prorated basis) to deliver Storage Product as a result of (i) limitations contained in the Operating Restrictions, (ii) an annual Storage Capacity Test or measurement of Round Trip Efficiency (as described in Exhibit P) or a Storage Capacity Test performed at Buyer's request, or (iii) Scheduled Maintenance not to exceed [REDACTED] in any given Contract Year. For the avoidance of doubt, all hours of unavailability of the Storage Facility attributable to an Excused Event are removed for purposes of the calculation of Monthly Storage Availability.

"Primary Availability" shall be a percentage equal to, for a monthly period, one hundred percent (100%) minus the quotient of PRIMARY UNAVAILHRSm divided by MONTHLYHRSm, each as used in the Monthly Storage Availability calculation above.

"Secondary Availability" shall be a percentage equal to, for a monthly period, one hundred percent (100%) minus the quotient of SECONDARY UNAVAILHRSm divided by MONTHLYHRSm, each as used in the Monthly Storage Availability calculation above.

2. **Storage Availability Adjustment.** The **"Storage Availability Adjustment"** shall be calculated as follows and applied to the Storage Capacity Payment due for the next month after the end of the monthly period for which the Monthly Storage Availability is calculated.

(a) If the Monthly Storage Availability is greater than or equal to the Guaranteed Storage Availability, then:

Storage Availability Adjustment = 100% (expressed as a decimal)

(b) If (i) the Monthly Storage Availability is less than the Guaranteed Storage Availability and (ii) the Primary Availability is greater than or equal to the Guaranteed Storage Availability, then:

Storage Availability Adjustment = [REDACTED]
[REDACTED]

provided, that if the criteria in the preceding clauses (i) and (ii) are true and the Monthly Storage Availability is less than [REDACTED] then the Storage Availability Adjustment will be equal the Monthly Storage Availability.

(c) If (i) the Monthly Storage Availability is less than the Guaranteed Storage Availability and (ii) the Primary Availability is less than the Guaranteed Storage Availability but greater than or equal to [REDACTED] then:

Storage Availability Adjustment = [Redacted] Storage Availability) x 2] + (100% - Secondary Availability) (expressed as a decimal)

(d) If (i) the Monthly Storage Availability is less than the Guaranteed Storage Availability, and (ii) the Primary Availability is less than [Redacted] then:

Storage Availability Adjustment = 0

EXHIBIT M

STORAGE CAPACITY TESTS

Storage Capacity Test Notice and Frequency

A. Commercial Operation Date Storage Capacity Test. Upon no less than ten (10) Business Days' Notice to Buyer, Seller shall schedule and complete a Storage Capacity Test prior to the Commercial Operation Date. Such initial Storage Capacity Test shall be performed in accordance with this Exhibit M and shall establish the initial Storage Capacity hereunder based on the actual capacity of the Storage Facility determined by such Storage Capacity Test.

B. Subsequent Storage Capacity Tests. Following the Commercial Operation Date, but not more than once per Contract Year, upon no less than ten (10) Business Days' Notice to Seller, Buyer shall have the right to require Seller to schedule and complete a Storage Capacity Test and to update the Storage Facility's PMax and other relevant information and values in the CAISO's Master Data File and Resource Data Template (or successor data systems). In addition, Buyer shall have the right to require a retest of the most recent Storage Capacity Test (and to update the Storage Facility's PMax and other relevant information and values as specified above) at any time upon no less than five (5) Business Days prior written Notice to Seller if Buyer provides data with such Notice reasonably indicating that the Storage Capacity has varied materially from the results of the most recent Storage Capacity Test or any other guaranteed operational characteristics are not being met. Seller shall have the right to perform a Storage Capacity Test or run a retest of any Storage Capacity Test at any time during any Contract Year upon five (5) Business Days' prior written Notice to Buyer (or any shorter period reasonably acceptable to Buyer consistent with Prudent Operating Practice).

C. Test Results and Re-Setting of Storage Capacity. No later than five (5) days following any Storage Capacity Test, Seller shall submit a testing report detailing results and findings of the test. The report shall include meter readings and plant log sheets verifying the operating conditions and output of the Storage Facility. In accordance with Section 4.13(c) of this Agreement and Part II(I) below, the actual capacity determined pursuant to a Storage Capacity Test (up to, but not in excess of, the Guaranteed Storage Capacity, as such Guaranteed Storage Capacity may have been adjusted (if at all) pursuant to Exhibit B) shall become the new Storage Capacity, effective as of the first day of the month following completion of the Storage Capacity Test for calculating the payment for the Storage Product and all other purposes under this Agreement.

Storage Capacity Test Procedures

PART I. GENERAL.

Each Storage Capacity Test (including the initial Storage Capacity Test, each subsequent Storage Capacity Test, and all re-tests thereof permitted under paragraph B above) shall be conducted in accordance with Prudent Operating Practices and the provisions of this Exhibit M. For ease of reference, a Storage Capacity Test is sometimes referred to in this Exhibit M as a "**SCT**". Buyer or its representative may be present for the SCT and may, for informational purposes only, use its own metering equipment (at Buyer's sole cost).

PART II. REQUIREMENTS APPLICABLE TO ALL STORAGE CAPACITY TESTS.

A. Test Elements. Each SCT shall include the following test elements:

- Electrical output at Maximum Discharging Capacity at the Storage Facility Meter and concurrently at the CAISO Approved Facility Meter (MW);
- Electrical input at Maximum Charging Capacity at the Storage Facility Meter (MW);
- Amount of time between the Storage Facility's electrical output going from 0 to Maximum Discharging Capacity;
- Amount of time between the Storage Facility's electrical input going from 0 to Maximum Charging Capacity;
- Amount of energy required to go from 0% Stored Energy Level to 100% Stored Energy Level charging at a rate equal to the Maximum Charging Capacity.

B. Parameters. During each SCT, the following parameters shall be measured and recorded simultaneously for the Storage Facility, at ten (10) minute intervals:

- (1) Time;
- (2) Charging Energy;
- (3) Discharging Energy;
- (4) Stored Energy Level (MWh);
- (5) Station Use.

C. Site Conditions. During each SCT, the following conditions at the Site shall be measured and recorded simultaneously at thirty (30) minute intervals:

- (1) Relative humidity (%);
- (2) Barometric pressure (inches Hg) near the horizontal centerline of the Storage Facility; and
- (3) Ambient air temperature (°F).

D. Test Showing. Each SCT must demonstrate that the Storage Facility:

- (1) successfully started;

- (2) operated for at least four (4) consecutive hours at Maximum Discharging Capacity;
- (3) operated for at least four (4) consecutive hours at Maximum Charging Capacity;
- (4) is able to ramp upward and downward at the contract Ramp Rate;
- (5) has a Storage Capacity of an amount that is, at least, equal to the Maximum Stored Energy Level (as defined in Exhibit A); and
- (6) is able to deliver Discharging Energy to the Delivery Point as measured by the CAISO Approved Facility Meter for four (4) consecutive hours at a rate equal to the Maximum Discharging Capacity.

E. Test Conditions.

- (i) General. At all times during a SCT, the Storage Facility shall be operated in compliance with Prudent Operating Practices and all operating protocols recommended, required or established by the manufacturer for operation at Maximum Discharging Capacity and Maximum Charging Capacity.
- (ii) Abnormal Conditions. If abnormal operating conditions that prevent the recordation of any required parameter occur during a SCT (including a level of irradiance that does not permit the Generating Facility to produce sufficient Charging Energy), Seller may postpone or reschedule all or part of such SCT in accordance with Part II.F below.
- (iii) Instrumentation and Metering. Seller shall provide all instrumentation, metering and data collection equipment required to perform the SCT. The instrumentation, metering and data collection equipment electrical meters shall be calibrated in accordance with Prudent Operating Practice.
- (iv) Ambient Temperature. For tests requested by Buyer (and not for any CAISO-initiated test, which shall occur when directed by CAISO), the average ambient temperature, based on an aggregate of 1-minute resolution data collected throughout the SCT, must be within the range of 8 – 33 degrees Celsius.

F. Incomplete Test. If any SCT is not completed in accordance herewith, Buyer may in its sole discretion: (i) accept the results up to the time the SCT stopped; (ii) require that the portion of the SCT not completed, be completed within a reasonable specified time period; or (iii) require that the SCT be entirely repeated. Notwithstanding the above, if Seller is unable to complete a SCT due to a Force Majeure Event or the actions or inactions of Buyer or the CAISO or the PTO, Seller shall be permitted to reconduct such SCT on dates and at times reasonably acceptable to the Parties.

G. Final Report. Within fifteen (15) Business Days after the completion of any SCT, Seller shall prepare and submit to Buyer a written report of the results of the SCT, which report shall include:

- (1) a record of the personnel present during the SCT that served in an operating, testing, monitoring or other such participatory role;
- (2) the measured data for each parameter set forth in Part II.A through C, including copies of the raw data taken during the test;
- (3) the level of Installed Storage Capacity, charging capacity, discharging capacity, charging ramp rate, discharging ramp rate, and Stored Energy Level determined by the SCT, including supporting calculations; and
- (4) Seller's statement of either Seller's acceptance of the SCT or Seller's rejection of the SCT results and reason(s) therefor.

Within ten (10) Business Days after receipt of such report, Buyer shall notify Seller in writing of either Buyer's acceptance of the SCT results or Buyer's rejection of the SCT and reason(s) therefor.

If either Party rejects the results of any SCT, such SCT shall be repeated in accordance with Part II.F.

H. Supplementary Storage Capacity Test Protocol. No later than sixty (60) days prior to commencing Facility construction, Seller shall deliver to Buyer for its review and approval (such approval not to be unreasonably delayed or withheld) a supplement to this Exhibit M with additional and supplementary details, procedures and requirements applicable to Storage Capacity Tests based on the then current design of the Facility ("**Supplementary Storage Capacity Test Protocol**"). Thereafter, from time to time, Seller may deliver to Buyer for its review and approval (such approval not to be unreasonably delayed or withheld) any Seller recommended updates to the then current Supplementary Storage Capacity Test Protocol. The initial Supplementary Storage Capacity Test Protocol (and each update thereto), once approved by Buyer, shall be deemed an amendment to this Exhibit M.

I. Adjustment to Storage Capacity. The total amount of Discharging Energy delivered to the Delivery Point (expressed in MWh AC) during each of the first four hours of discharge (up to, but not in excess of, the product of (i) the Guaranteed Storage Capacity, as such Guaranteed Storage Capacity may have been adjusted (if at all) under this Agreement, multiplied by (ii) 4 hours) shall be divided by four hours to determine the Storage Capacity, which shall be expressed in MW AC, and shall be the new Storage Capacity in accordance with Section 4.13(c) of this Agreement.

J.

[REDACTED]

[REDACTED]

EXHIBIT N

OPERATING RESTRICTIONS

Maximum Cycle Limits: Number of times Buyer may fully charge and discharge the Storage Facility. A full charge will be deemed to have occurred when the cumulative amount of energy added to the Storage Facility over the course of a calendar year equals the Maximum Stored Energy Level. This could occur in one continuous charge or over multiple charges, even if some energy is discharged in between. The inverse is true for a full discharge.

Annual: 365 cycles

Ramp Rates: Dmin to Dmax: up to 100%/s

Cmin to Cmax: up to 100%/s

Dmax to Dmin: up to 100%/s

Cmax to Cmin: up to 100%/s

Frequency ramp rate: 100% MW/Hz

Regulation ramp rate: 0-50 MW/min

System Response Time: Idle to Dmax: <1s

Idle to Cmax: <1s

Dmax to Cmax: <1s

Cmax to Dmax: <1s

Dmin to Cmin: <1s

Cmin to Dmin: <1s

Other Operating Limits: The average resting state of charge per Contract Year must be below REDACTED

Maximum Stored Energy Level:	200 MWh, number in MWh representing maximum amount of energy that may be charged to the Storage Facility
Minimum Stored Energy Level:	0 MWh, number in MWh representing the lowest level to which the Storage Facility may be discharged
Maximum Charging Capacity:	50 MW, number in MW representing the highest level to which the Storage Facility may be charged
Minimum Charging Capacity:	0.1 MW, number in MW representing the lowest level at which the Storage Facility may be charged
Maximum Discharging Capacity:	50 MW, number in MW representing the highest level at which the Storage Facility may be discharged
Minimum Discharging Capacity:	0.1 MW, number in MW representing the lowest level at which the Storage Facility may be discharged
Maximum State of Charge (SOC) during Charging:	100%
Minimum State of Charge (SOC) during Discharging:	0%
Ramp Rate:	Between 85 and 200 MW/minute
Daily Dispatch Limits	<p>Charging: 2 per day Discharging: 2 per day Partial Charging/Discharging: Maximum number of partial discharging per day defined by $\text{Sum}[\text{DoD1}, \text{DoD2}, \dots] \leq 2 \times \text{full discharged capacity}$. Maximum Number of partial charging per day defined by “$\text{Sum}[\text{HoC1}, \text{HoC2}, \dots] \leq 2 \times \text{full charged capacity}$.” DoD = depth of discharge of a partial discharging cycle HoC = is the height of charge of a partial charging cycle. For purposes of illustration only, if Storage Facility is 100 MWh, per formula above the limitation would be 200 MWh of discharge per day, meaning Buyer could perform 10 partial discharging cycles of 20 MWh each, i.e. of 20% DoD. The concept is mirrored for instances of partial charging cycles.</p>
Maximum Time at Minimum Storage Level:	Storage Facility to be idle at minimum storage level (0%) for maximum of [REDACTED] consecutively throughout the Delivery Term.

EXHIBIT O

METERING DIAGRAM

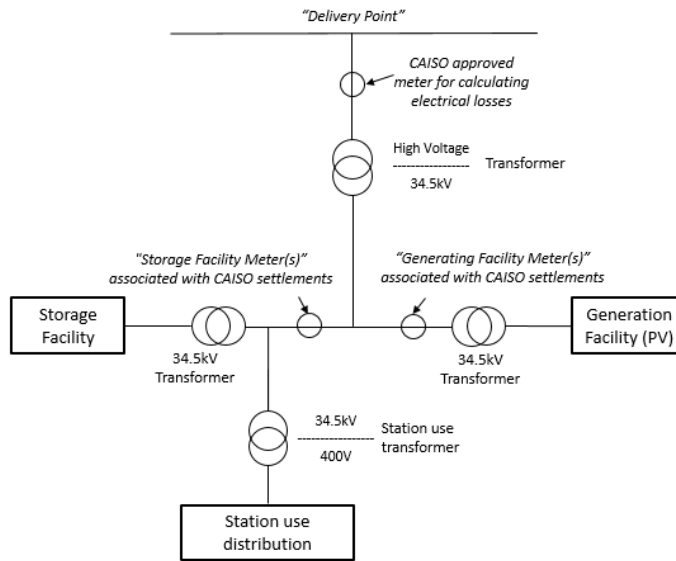


EXHIBIT P

ROUND TRIP EFFICIENCY

“**Round Trip Efficiency**” is defined as the amount of Energy discharged by the Storage Facility relative to the amount of Charging Energy, measured or calculated as of the most recently completed Storage Capacity Test outlined in Exhibit M at the medium voltage bus by the physical meter installed in the Storage Facility (as depicted in Exhibit O), calculated as shown below:

$$\text{Round Trip Efficiency (RTE)} = \frac{\text{Discharging Energy (MWh)}}{\text{Charging Energy (MWh)}}$$

Uncertainties and test tolerance of 0.5% will be applied to the calculation of the Round Trip Efficiency. For purposes of testing the Round Trip Efficiency, the Charging Energy and Discharging Energy shall be measured at the medium voltage bus by the physical meter installed in the Storage Facility. For the avoidance of doubt, Station Use is netted from Discharging Energy and Charging Energy when determining Round Trip Efficiency and for all other purposes in this Agreement.

The monthly Storage Capacity Payment under Section 3.3(d) shall be adjusted by the Round Trip Efficiency Adjustment, expressed as a decimal, based on the Guaranteed Round Trip Efficiency, as follows:

The “**Round Trip Efficiency Adjustment**” or “ RTE_{Adj} ” for each month is given by:

If $RTE \geq RTE_M$, then $RTE_{Adj} = 100\%$

If $RTE < RTE_M$ and $RTE \geq RTE_G$, then $RTE_{Adj} =$ [REDACTED]

If $RTE < RTE_G$, then $RTE_{Adj} = 0\%$

where:

RTE = the Round Trip Efficiency as determined by the most recently completed Storage Capacity Test.

RTE_M = the Minimum Round Trip Efficiency

RTE_G = the Guaranteed Round Trip Efficiency

The “**Minimum Round Trip Efficiency**” shall be, with respect to each Contract Year during the Bundled Term, as set forth in the table below:

Contract Year	Minimum Round Trip Efficiency
1	[REDACTED]
2	[REDACTED]
3	[REDACTED]

Contract Year	Minimum Round Trip Efficiency
4	██████
5	██████
6	██████
7	██████
8	██████
9	██████
10	██████
11	██████
12	██████
13	██████
14	██████
15	██████
16	██████
17	██████

The “**Guaranteed Round Trip Efficiency**” shall be, with respect to each Contract Year during the Bundled Term, ██████████

EXHIBIT Q
FORM OF GUARANTY

[REDACTED]

[REDACTED]	[REDACTED]
	[REDACTED] [REDACTED]
[REDACTED]	[REDACTED] [REDACTED]
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EXHIBIT R

FORM OF REPLACEMENT RA NOTICE

This Replacement RA Notice (this “**Notice**”) is delivered by Arica Solar, LLC, a Delaware limited liability company (“**Seller**”) to Peninsula Clean Energy Authority, a California joint powers authority (“**Buyer**”) in accordance with the terms of that certain Amended and Restated Power Purchase and Sale Agreement dated [_____], 2022 (“**Agreement**”), by and between Seller and Buyer. All capitalized terms used in this Notice but not otherwise defined herein shall have the respective meanings assigned to such terms in the Agreement.

Pursuant to Section 3.9(b) of the Agreement, Seller hereby provides the below Replacement RA product information (to be repeated for each unit if more than one):

Name	
Location	
CAISO Resource ID	
Unit SCID	
Resource Type	
Point of Interconnection with the CAISO Controlled Grid (“substation or transmission line”)	
Path 26 (North or South)	
LCR Area (if any)	
Deliverability restrictions, if any, as described in most recent CAISO deliverability assessment	
Run Hour Restrictions	
Deliverability Period	
Prorated Percentage of Unit Factor	
Prorated Percentage of Unit Flexible Factor	
Resource Category (MCC Bucket e.g., 1, 2, 3, or 4)	
Flexible Capacity Category (e.g., 1, 2, 3, or N/A)	

Month	Unit CAISO NQC (MW)	Unit CAISO EFC (MW)	Unit Contract Quantity (MW)	Unit EFC Contract Quantity (MW)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

ARICA SOLAR, LLC

By: _____

Its: _____

Date: _____

Whereas, the following definitions apply to the terms in the above Replacement RA product information:

“CPUC RA Filing Guide” means the Filing Guide for System, Local and Flexible Resource Adequacy (RA) Compliance Filings published annually by the CPUC.

“Deliverability Period” means the period in which the unit has rights to deliver energy to the CAISO Grid.

“Flexible Capacity Category” means the category of Effective Flexible Capacity, as described in the CPUC RA Filing Guide, applicable to the unit.

“LCR Area (if any)” means the Local Capacity Requirement area, as used in the CPUC RA Filing Guide, applicable to the unit, if any.

“Prorated Percentage of Unit Factor” means the percentage of the Unit CAISO NQC that is designated as Unit Contract Quantity.

“Prorated Percentage of Unit Flexible Factor” means the percentage of Unit CAISO EFC that is designated as Unit EFC Contract Quantity.

“Resource Category” means the Maximum Cumulative Capacity category, as described in the CPUC RA Filing Guide, applicable to the unit.

“Resource Type” means the type of generating or storage resource.

“Run Hour Restrictions” means any restrictions on the ability of the unit to run during any hours of the day.

“Unit CAISO EFC” means the unit’s Effective Flexible Capacity, as described in the CPUC RA Filing Guide, as determined by CPUC and CAISO.

“Unit CAISO NQC” means the NQC for the unit, as determined by CPUC and CAISO.

“Unit Contract Quantity” means the amount of Resource Adequacy Benefits to be provided to Buyer from the unit in the form of Replacement RA, not to exceed the Guaranteed RA Amount.

“Unit EFC Contract Quantity” means the amount of Flexible Resource Adequacy Benefits to be provided to Buyer from the unit in the form of Replacement RA, not to exceed the Guaranteed RA Amount.

“Unit SCID” means the unit’s “Scheduling Coordinator ID Code”, as defined in the CAISO Tariff.

**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: September 15, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCE) Board of Directors

FROM: Jan Pepper, Chief Executive Officer
Shawn Marshall, Chief Operating Officer

SUBJECT: Annual Strategic Plan Update

SUMMARY:

The Peninsula Clean Energy 2020-2025 Strategic Plan was adopted by the Board in April 2020. At the September 2020 and 2021 Board retreats, staff presented a dashboard and metrics for future reporting on strategic plan progress and the Board discussed the proposed approach. A six-month strategic plan status update was also presented to the Executive Committee in April 2022. The third annual strategic plan update is presented at this year's Board Retreat to reflect the progress on the strategic plan since its adoption. Staff looks forward to the Board's feedback and direction on any changes or refinements that we should consider in 2023 and beyond.

BACKGROUND:

At the April 23, 2020 Board meeting, the Board adopted the Peninsula Clean Energy 2020-2025 Strategic Plan. The strategic plan was the result of a process that included a Board Retreat in January 2020 whereby the Board adopted the mission, vision, and updated organizational priorities for PCE. This was followed by a senior staff retreat in February 2020 to review the results of the Board retreat and to develop strategic goals, objectives, and key tactics for each departmental area in support of the mission, vision, and identified organizational priorities.

At the April 2022 PCE Executive Committee, PCE staff presented a semi-annual update of strategic plan progress. At this year's 2022 PCE Board retreat, PCE staff will present its third annual update of strategic plan progress. The following pages describe the strategic plan organizational mission, vision, organizational priorities, strategic goals, and departmental objectives and key tactics. This is followed by the Strategic Plan dashboards and a detailed discussion of key 2022 accomplishments, challenges and 2023 priorities. A few material changes were made since last September's annual update including:

1. Moved 100% GHG-free decarbonization target from 2045 to 2035 and narrowed the focus to personal vehicle transportation and small residential/building electrification
2. Addition of a separate dashboard and discussion section for Account Services, which had previously been embedded within Marketing and Community Relations
3. Updated 2025 targets for Community Energy Programs to reflect current and more realistic market conditions going forward

4. Reorganization of Power Resources Objectives

PENINSULA CLEAN ENERGY 2020-2025 STRATEGIC PLAN

Our Mission

To reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions

Our Vision

A sustainable world with clean energy for everyone

Organizational Priorities

Priority One:

Design a power portfolio that is sourced by 100% carbon-free* energy by 2025 that aligns supply and consumer demand on a 24 x 7 basis

(* Carbon-Free = California RPS-Eligible Renewable Energy, excluding biomass, that can be scheduled by PCE on an hourly basis)

Priority Two:

Contribute to Peninsula Clean Energy member jurisdictions reaching the state's goal to be 100% greenhouse gas-free for transportation and building electrification by 2035

Strategic Goals 2020 - 2025

Power Resources:

Goal 1 - Secure sufficient, low-cost, clean sources of electricity that achieve Peninsula Clean Energy's priorities while ensuring reliability and meeting regulatory mandates

Public Policy:

Goal 2 - Strongly advocate for public policies that support Peninsula Clean Energy's Organizational Priorities

Community Energy Programs:

Goal 3 - Implement robust energy programs that reduce greenhouse gas emissions, align energy supply and demand, and provide benefits across the community

Marketing, Community Relations, and Account Services:

Goal 4 - Develop a strong brand reputation that drives participation in Peninsula Clean Energy's programs and ensures customer satisfaction and retention

Financial Stewardship:

Goal 5 - Employ sound fiscal strategies to promote long-term organizational sustainability

Organizational Excellence:

Goal 6 - Ensure organizational excellence by adhering to sustainable business practices and fostering a workplace culture of innovation, diversity, transparency, and integrity

Objectives and Key Tactics by Functional Area

Power Resources

Note: For the Power Resources area, the objectives were updated and reorganized at the April 2022 semi-annual Strategic Plan update.

Goal 1 - Secure sufficient, low-cost, clean sources of electricity that achieve Peninsula Clean Energy's priorities while ensuring reliability and meeting regulatory mandates

Objective A: Planning

Develop strategies to achieve a reliable power portfolio to meet 100% renewable on a 24 x 7 basis for 2025 and beyond

Key Tactics:

1. 24/7 Strategy: Develop strategy to achieve 100% 24/7 goal
2. Risk management: Continuously refine Peninsula Clean Energy's risk management strategy to manage power supply resources and minimize risk to financial and rate objectives
3. Load and generation forecasting: Improve load and generation forecasting accuracy by leveraging historical data and sophisticated analytical tools
4. Budgeting: Continue to develop processes to support an accurate and efficient process for budgeting the cost of energy
5. Credit strategies: Develop strategies and processes for evaluating counterparty credit to minimize risk
6. Portfolio Management: Plan portfolio to meet risk, cost, and reliability objectives

Objective B: Procurement

Procure power resources to meet regulatory mandates and internal priorities at affordable cost

Key Tactics:

1. Request For Offers (RFOs): Conduct at least annual RFOs to solicit market-wide feedback on pricing and availability of products
2. Resource Adequacy: Procure resource adequacy annually to meet year ahead and month ahead requirements
3. Hedge: Conduct regular hedge solicitations to manage Peninsula Clean Energy's exposure to market prices
4. CCA Collaboration: Collaborate with other CCAs for better pricing, access to different types of products, create efficiencies and share best practices
5. Bilateral Negotiations: Engage in bilateral negotiations to secure best pricing or access to opportunities that were not presented through an RFO process
6. Portfolio Balancing: Balance portfolio to better meet internal targets and decrease over-procurement

Objective C: Operations

Manage power portfolio to ensure performance consistent with contractual requirements, regulatory compliance, and internal strategies

Key Tactics:

1. Contract management: Develop and implement systems and processes to manage contracts to ensure PCE and its counterparties are meeting obligations

2. Regulatory Compliance: Ensure all requirements are submitted accurately and on time
3. Cost of Energy: Maintain actual cost of energy consistent with budgeted cost of energy
4. Scheduling: Work with scheduling coordinator agent to manage Peninsula Clean Energy's CAISO activity to minimize cost and risk consistent with risk management policies
5. Credit management: Implement strategies and processes to minimize Peninsula Clean Energy's counterparty credit risk
6. Data management: Continue to identify strategies for managing and utilizing data associated with energy portfolio

Objective D: Innovation & Market Development

Provide a model of leadership for procuring energy resources for a clean energy future

Key Tactics:

1. New technologies: Support development and piloting of new technologies to accelerate transition to decarbonized future
2. Geographic expansion: Support organizational goal to expand geography by identifying risks and opportunities from a power procurement perspective
3. Reg and leg processes: Work with regulatory and legislative teams to provide procurement perspective on regulatory proceedings or proposed legislation
4. Environmental impacts of projects / technologies: Continue to identify opportunities to decrease the environmental impact of power production
5. Innovative contracting structures: Evaluate contractual structures for accelerating transition to clean energy future, reducing cost of energy and minimizing risk
6. Support for programs team: Provide power resources support to energy programs to maintain consistent and efficient operations across the organization

Public Policy

Goal 2 - Strongly advocate for public policies that advance Peninsula Clean Energy's Organizational Priorities.

Objective A: Regulatory

Educate and engage policymakers to develop policies that support Peninsula Clean Energy's organizational priorities

Key Tactics:

1. Identify and participate in key dockets before state regulatory bodies to establish policies that support regulatory objectives directly and through collaboration with CalCCA and other CCAs
2. Identify and pursue opportunities for access to state and federal funding that may amplify our agency's programmatic successes (relevant to transportation electrification, building electrification, and increasing affordable access to renewable energy)
3. Identify opportunities for and engage in thought-leadership to guide the ongoing transformation of the electricity market structure (relevant to Centralized Procurement Entities (CPE), Provider of Last Resort (PoLR), Integrated Resources Planning (IRP), Resource Adequacy (RA), etc.)
4. Continue the pursuit of Power Charge Indifference Adjustment (PCIA) policy reform to reduce the forward cost burdens for ratepayers
5. Develop coalitions with a wide variety of stakeholders to increase successful outcomes
6. Conduct outreach and engagement of key regulators and staff

Objective B: Legislative

Engage state legislators to pass legislation that advances Peninsula Clean Energy's organizational priorities and defeat legislation that would hinder Peninsula Clean Energy's organizational priorities and operations.

Key Tactics:

1. Deploy an annual legislative plan that identifies legislative opportunities to advance organizational objectives and mitigate threats to CCA
2. Identify and pursue legislative opportunities for inclusion of CCAs in access to state and federal funding that may amplify our agency's programmatic successes (relevant to transportation electrification, building electrification, and increasing affordable access to renewable energy)
3. Continue the pursuit of Power Charge Indifference Adjustment (PCIA) legislative policy reform to reduce the forward cost burdens for ratepayers
4. Cultivate and maintain relationships with key legislative committees and staff and allies to amplify opportunities for success
5. Implement a grassroots outreach plan that increases in-person engagement of state lawmakers with Peninsula Clean Energy Board Members, staff, supporters, and allies.
6. Strengthen Peninsula Clean Energy's relationships and support with elected officials and key staff in the communities we service.

Objective C: Growth of Community Energy and CCAs

Take a leadership position in supporting the growth of community energy and CCAs in California

Key Tactics:

1. Explore opportunities to implement CCA in other areas of the state, including where Peninsula Clean Energy has utility scale generation, and assist with CCA expansion where opportunities are present
2. Provide knowledge and policy development expertise to help shape the State's future energy framework through development of position papers, speaking engagements and webinars
3. Be an active participant in the State's review of the grid system

Community Energy Programs

Goal 3 - Implement robust energy programs that reduce greenhouse gas emissions, align energy supply and demand, and provide benefits across the community.

Objective A: Signature Programs

Develop market momentum for electric transportation and initiate the transition to clean energy buildings

Key Tactics:

1. Drive personal electrified transportation towards majority adoption
2. Bolster electrification of fleets and shared transportation
3. Ensure nearly all new construction is all-electric and EV ready, and support development of building codes for existing building electrification
4. Establish preference for all-electric building design and appliance replacement among consumers and building stakeholders
5. Support local government initiatives to advance decarbonization

Objective B: Distributed Energy Resources

Support strategic decarbonization and local power development

Key Tactics:

1. Create minimum of 20 MW of new local renewable power sources in PCE service territory by 2025
2. Support distributed energy resources to lower costs, support reliability, and advance distributed and grid decarbonization
3. Foster resilience
4. Develop more robust demand management program(s) to be responsive to State reliability goals and to shed load during extreme heat events

Objective C: Community Benefits

Deliver tangible benefits throughout our diverse communities

Key Tactics:

1. Invest in programs that benefit underserved communities
2. Develop programs that support the satisfaction and retention of residential and key commercial accounts
3. Support workforce development programs in the County
4. Ensure programs are broadly deployed across the County

Objective D: Innovation and Scale

Leverage leadership, innovation, and regulatory action for scaled impact

Key Tactics:

1. Identify, pilot, and develop innovative solutions for decarbonization
2. Identify policy priorities and funding channels to accelerate programs and support regulatory team to secure them
3. Partner with others including CCAs to share lessons learned and cultivate a leadership profile

Marketing, Community Relations and Account Services

Goal 4 - Develop a strong brand reputation that drives participation in Peninsula Clean Energy's programs and ensures customer satisfaction and retention

Objective A: Brand Reputation

Elevate Peninsula Clean Energy's brand reputation as a trusted leader in the community and the industry

Key Tactics:

1. Position leadership as experts on CCAs and the industry
2. Cultivate relationships with industry media and influencers
3. Tell the story of Peninsula Clean Energy through diverse channels
4. Engage community through participation in local events
5. Identify and address gaps between perception and desired brand identity
6. Translate policy issues into consumer-friendly communication

Objective B: Engagement

Educate and engage stakeholders in order to gather input, inspire action, and drive program participation

Key Tactics:

1. Foster relationships with community-based, faith-based, and non-profit organizations
2. Continue to support schools-based literacy programs focused on energy
3. Enhance relationships with municipal and county staff and elected officials
4. Support the Citizen Advisory Committee (CAC)
5. Provide inspirational and informative content that spurs action to reduce emissions
6. Promote programs and services, community energy programs and premium energy services
7. Develop an end-of-life transition plan for ECO100

Objective C: Customer Care/Account Services

Ensure high customer retention and satisfaction

Key Tactics:

1. Assess needs and attitudes of all customer segments to support the development of and communication about programs and services
2. Continually strive to offer competitive and affordable rates
3. Monitor customer satisfaction through periodic surveys
4. Educate and engage Key Account customers in order to develop relationships, assess needs, and drive program participation
5. Improve access to customer data and analytics
6. Build and maintain strong partner relationships

Financial Stewardship

Goal 5 - Employ sound financial practices and strategies to promote long-term fiscal and organizational sustainability

Objective A: Fiscal Health

Strengthen and maintain Peninsula Clean Energy's fiscal health

Key Tactics:

1. Maintain and improve current investment grade ratings
2. Implement robust financial management of invested cash to achieve a reasonable return while ensuring safety as the first priority

Objective B: Financial Controls and Management

Implement financial controls and policies that meet or exceed best practices for leading not-for-profit organizations

Key Tactics:

1. Engage external experts to review internal financial controls and conduct annual audit
2. Enhance and document policies and procedures to ensure accurate, transparent financial reporting
3. Improve internal budgeting process and enhance reporting for departmental expense monitoring and control

Objective C: Financial Stability

Practice strategies to ensure long-term financial sustainability

Key Tactics:

1. Develop a robust financial forecasting model that continually monitors and analyzes pricing and other key indicators
2. Maintain unrestricted financial reserves of at least 180 days cash to mitigate unexpected power cost fluctuations and economic downturns

Organizational Excellence

Goal 6 - Ensure organizational excellence by adhering to sustainable business practices and fostering a workplace culture of innovation, diversity, transparency, and integrity

Objective A: Culture and People

Foster a workplace culture that attracts and develops exceptional and diverse talent and values all people

Key Tactics:

1. Hire an HR Manager
2. Develop an annual staffing plan that addresses resource needs and fills resource gaps
3. Provide training and professional development opportunities that build new skills and abilities
4. Ensure our recruitment processes are designed to attract high caliber and diverse applicants
5. Maintain and assess employee benefits and incentives to ensure that the organization is competitive and attractive in the marketplace
6. Foster regular team building and social opportunities
7. Ensure that all policies, procedures, and practices reflect a high level of integrity
8. Promote a reasonable level of transparency

Objective B: Innovation

Foster a culture of innovation to yield solutions that accelerate our mission

Key Tactics:

1. Hire a dedicated person to lead innovation efforts
2. Explore new financial and program models
3. Assess opportunities to reinvest in innovative technologies that advance the mission
4. Collaborate with other CCAs to find solutions and methods to evolve and drive innovation
5. Share best practices and discoveries via tool kits, webinars, whitepapers, and case studies
6. Network with regional leaders to leverage the innovation culture in Silicon Valley
7. Explore innovative rate designs to advance organizational goals

Objective C: Data and Technology

Increase data analytics capability to enable energy-related analyses, program impact measures, & consumer insights for continuous improvement

Key Tactics:

1. Increase data analytics capability to enable energy-related analyses, program impact measures, & consumer insights for continuous improvement
2. Create an executive dashboard with key organizational metrics to guide strategic and operational decision-making
3. Implement systems and procedures to ensure data privacy, security, and integrity
4. Implement scalable systems that maximize advances in IT
5. Provide ongoing technology and training for staff, and equip them with appropriate tools

Objective D: External Vendor Policies

Implement vendor policies that embrace diversity and inclusion and that optimize engagement results

Key Tactics:

1. Develop methods to ensure adherence to the organization's *Inclusive and Sustainable Workforce Policy*
2. Develop methods to ensure adherence to the organization's *Ethical Vendor Standards*
3. Cultivate and strengthen productive relationships with external partners to increase organizational efficiencies

Objective E: Governance

Follow best practices for governance and succession to engage and develop qualified, diverse Board Members and Citizens Advisory Committee Members

Key Tactics:

1. Create and implement a robust orientation program for new Board Members and Citizens Advisory Committee (CAC) Members
2. Increase Board Alternate engagement
3. Provide relevant information and analysis to allow the Board to execute data-driven decision making
4. Leverage Board and CAC Members to support awareness of the organization
5. Periodically review Board structure

STRATEGIC PLAN DASHBOARDS, 2022 PERFORMANCE AND CHALLENGES, AND 2023 KEY PRIORITIES

The Strategic Plan Dashboard was created as a “quick view” of departmental performance against established 2025 targets. It includes the overall organizational priorities and key metrics by department, some of which are reported by fiscal year and some by calendar year. There are eight dashboards representing all the major functional areas of the agency and the strategic plan. These include:

- Organizational Priorities
- Power Resources
- Public Policy (regulatory and legislative)
- Community Energy Programs
- Marketing and Community Relations
- Account Services
- Financial Stewardship
- Organizational Excellence

Each dashboard metric has a baseline from which we are starting. Each metric also has a 2025 target. If the metric is being measured on a calendar year basis, the report out at this year’s Board Retreat (September 2022) is the measure of that metric as of the end of calendar year 2021 (December 31, 2021). If the metric is being measured on a fiscal year basis, the report out at this year’s Board retreat (September 2022) is the measure of that metric as of the end of fiscal year 2022 (June 30, 2022).

The tables below show each component of the dashboard, including the 2019 baseline (for calendar year) or 2020 baseline (for fiscal year). Some metrics are quantitative, and others are qualitative, depending on the functional area being measured. As noted above, the dashboards for this 2022 Strategic Plan update are now color coded with green representing ‘on target’ to meet the 2025 target, yellow representing that ‘challenges exist’ to meet the 2025 target, and red representing that the target is ‘at risk’ of not being met by 2025.

Organizational Priorities

Organizational Priorities					
Key Performance Indicators (Measured on CY)					
	2019 Baseline	2020	2021	2022*	2025 Target
100% Renewable Energy 24/7	47.0%	47.0%	49.2%	53.6%	100%
2035 Decarbonization (MT GHG reduced)	3,800	14,300	23,100	26,600	See Below**

*Estimated for 2022

**Peninsula Clean Energy has a 2035 decarbonization target only. Total San Mateo County emissions inventoried in 2019 were 4.1 million MT GHG of which 3.2 million MT GHG are in buildings and transportation. Decarbonization figures for each year are the estimated reductions resulting from PCE programs through that year.

On target

Challenges exist

At risk

Definitions

- **2025 100% RE 24/7 (%):** Average hourly renewable penetration – average % of load served by renewables in each hour of the year.
- **2035 Decarbonization (MT GHG reduced):** Emissions reductions resulting from actions implemented each year and prior years including both transportation (EVs added, EV charging, EV-ready reach codes, etc.) and buildings (heat pump water heaters, and all-electric reach codes, etc.)

Further information regarding Organizational Priorities and their 2022 Accomplishments, Challenges and 2023 Priorities are included in the sections that follow below.

Power Resources

	Key Performance Indicators (Measured on CY)				
	2019 Baseline	2020	2021	2022 YTD	2025 Target
EcoPlus Annual Renewable Content (%)	52%	51.7%	49.2%	53.4%	100%
EcoPlus Emissions Factor (lbs. / MWh)	102	13	5	9	16
Eco100 Annual Renewable Content (%)	100%	100%	100%	100%	100%
Eco100 Emissions Factor (lbs. / MWh)	0	0	0	0	0
New Peninsula Clean Energy Capacity Statewide (% of load served by new resources)	0	16%	24%	25%	50%

Definitions

- **Renewable Content (%):** ECOplus renewable energy content as reported through CEC Power Source Disclosure reporting. Increase organically each year as additional renewable projects are added to the portfolio.
- **Emissions Factor (lbs. / MWh):** Greenhouse gas emissions per MWh of load (Starting in 2020, as reported through CEC Power Source Disclosure reporting).
 - There was a significant decrease in emissions factor from 2019 to 2021. There are a couple factors driving this:
 - We were targeting a higher percent of GHG-free power for 2020 we stepped up from 90% in 2019 to 95% in 2020, to 100% in 2021.
 - Our load in 2020 was lower than forecast due to Covid-19. We generally aim to execute contracts for 100% of our expected need prior to the start of the year. With the lower load, the result was that we were slightly over-procured.
 - 2020 was the first year where we were required to use the CEC's methodology for calculating our emissions factor. The CEC methodology had slightly different assumptions from the methodology used in 2019.
- **New Peninsula Clean Energy Capacity Statewide (% of load served by new resources):** Percent of load served by newly constructed resources (i.e. Wright).
 - **Interim targets** - increase by 10% each year to reach 50% by 2025
 - **2020:** 10%
 - **2021:** 20%
 - **2022:** 30%
 - **2023:** 40%
 - **2024:** 45%
 - **2025:** 50%

Key Accomplishments – FY 2022

1. Published 24/7 White Paper (Part 1)

This white paper was published in December 2021. This paper introduced Peninsula Clean Energy's vision for 24/7 renewable energy, our progress to date, and at a high level, how we are planning to achieve it by 2025.

2. Progressing our 24/7 strategy and finalized model

Finalized our 24/7 resource selection model and used this model to evaluate different scenarios to achieve our 24/7 goal. Created recommendation to implement an affordable time-coincident renewable energy strategy that will result in benefits to society by reducing emissions and improving grid impacts.

3. Executed Power Purchase Agreements with the following:

Project	Capacity	Term
Chaparral Solar + Storage PPA	102 MW solar + 52 MW/208 MWh storage	15 years
Arica Solar + Storage PPA	100 MW solar + 50 MW/200 MWh storage	15 years
Gonzaga Ridge Wind Farm	76.35 MW	15 years
Geysers Geothermal	35 MW	10 years
Second Imperial Geothermal (Heber 2)	26 MW	15 years

In addition, Peninsula Clean Energy became a participating member in receiving deliveries from the following resources contracted by California Community Power (CC Power) which is a Joint Powers Agency comprised of ten California Community Choice Aggregators (CCAs). These projects contribute toward meeting Peninsula Clean Energy's mid-term reliability requirements.

Project	Capacity	Term	PCE share of capacity
Tumbleweed Long-duration storage	69 MW/552 MWh storage	15 years	19.69%
Fish Lake Geothermal	13 MW	20 years	17.8%
Ormat Geothermal Portfolio	64-125 MW	20 years	17.1%

Challenges in FY 2022

In the last year, market conditions for developers of new renewable resources have changed dramatically. This is true for resources that Peninsula Clean Energy signed Power Purchase Agreements for in late 2021 and for any new resources proposed or being negotiated by Peninsula Clean Energy. Renewable developers are facing unprecedented challenges to procure materials to construct new projects and it puts them at risk of meeting their contracted timelines, particularly for resources with online dates between 2022-2024, including:

1. Ongoing supply chain impacts related to the COVID-19 pandemic
2. Rising commodity prices for key components to developing renewable and storage resources – which were further exasperated by the Ukraine War and inflation in the United States
3. Uncertainty around solar tariffs – In April 2022, the United States Department of Commerce started an investigation of alleged circumvention of antidumping and countervailing duties by solar manufacturers in Cambodia, Malaysia, Thailand, and

Vietnam, where the majority of solar modules used in the U.S. come from. While President Biden placed a 2-year suspension on enacting new solar tariffs, it still begs the question as to whether these tariffs could double or possibly triple the current solar tariffs; of note, there's potential for these tariffs to be applied retroactively.

4. Transmission interconnection delays – some developers have to stall their interconnection timelines due to uncertainty around costs and if there will be enough transmission deliverability to qualify the resource for CA Resource Adequacy.

The convergence of these challenges has resulted in supply shortages and exasperated costs for the materials to construct renewable and storage resources, which can further cause developers to delay the start of construction or operations. Further adding to these challenges, there is significant competition to contract for resources that qualify in meeting D21-06-035, the California Public Utilities Commission (CPUC) procurement order adopted June 24, 2021, to ensure mid-term reliability (“MTR”) in the years 2023 to 2026. This decision directs load serving entities (LSEs) to collectively procure 11,500 MW of new resources between 2023 to 2026 to meet mid-term grid reliability needs.

Due to these various challenges, two developers for solar + storage projects that executed PPAs with Peninsula Clean Energy in late 2021 came back and asked for changes to particular PPA terms. On July 21, 2022, staff updated the Board Procurement Subcommittee on the challenges in the industry, the volatility in the energy market, and updates on the negotiations with regard to the developers' requests for changes to certain PPA terms. To reduce the risk of this contract being terminated, Peninsula Clean Energy has negotiated amendments to these PPAs and sought and received approval to execute one of these amendments by the Peninsula Clean Energy Board on August 25, 2022.

Key Priorities – FY 2023

1. **Publish 24/7 White Paper (Part 2)**

To demonstrate how time-coincident procurement can be achieved practically and cost effectively while providing benefits to society by decreasing emissions and improving grid impacts. This paper will identify the resource portfolio, costs, grid emissions, and grid impacts for different time-coincident scenarios, and will identify the path that PCE will be following. In addition, this paper accompanies the public release of our open-source modeling tool, called MATCH, which we hope will be used by other electricity providers to advance their own progress toward procuring time-coincident renewable energy.

2. **Meet regulatory compliance requirements for renewable energy and resource adequacy**

Ensure all requirements are submitted accurately and on time. Major regulatory compliance actions for FY 2023 include CPUC's Integrated Resource Plan (IRP), Power Disclosure Report, RPS Procurement Plan, RPS Compliance Report, and continued regulatory compliance with Mid-Term Reliability (MTR) Requirements. Major Resource Adequacy (RA) filings include the Year-Ahead Supply Plan, CPE Showings, and Month-Ahead RA Filings.

3. **Negotiate and execute contracts to meet PCE's current load, to build the necessary 24/7 portfolio, and to meet CPUC Mid-Term Reliability obligations**

Peninsula Clean Energy will issue additional Requests for Proposals (RFPs) for energy

hedge products, and short- mid- and long-term contracts for renewable and storage resources, both on our own and in concert with other CCAs and CC Power to meet our load and our strategic objectives.

Public Policy

Key Performance Indicators (Measured on FY)				
	2020 Baseline	2021	2022	2025 Target
PCIA Containment	Low	Low	Challenges	See Below
Legislative Impact	Medium	Medium	Challenges	See Below
Regulatory Impact	High	High	On Target	See Below
Coalition Building	Low	Medium	On Target	See Below
Fostering CCA Growth	Medium	Medium	On Target/Challenges	See Below

Regarding 2025 Targets

1. PCIA Containment: PCE staff interprets this goal as an objective to minimize PCIA-related costs applicable to PCE customers by 2025. With that said, PCIA costs applicable to PCE's customers will remain long past 2025 and are expected to persist into the 2040s.
2. Legislative Impact: PCE staff interprets this goal as having a high level of influence with our local representatives and CalCCA's legislative efforts, such that our efforts result in overall positive legislative outcomes in Sacramento.
3. Regulatory Impact: PCE staff interprets this goal as taking the steps necessary to enable the organizations programmatic and procurement objectives by 2025.
4. Coalition Building: PCE staff interprets this goal as having strong local, state, and regional relationships to leverage our knowledge and influence towards positive outcomes.
5. Fostering CCA Growth: PCE staff recognizes that CCA growth has slowed in recent years. We believe this goal should be revisited.

Definitions

- **PCIA Containment:** Qualitative assessment based on participation of regulatory team in PCIA related CPUC dockets.
- **Legislative Impact:** Qualitative assessment based on participation of legislative team in legislative hearings, coalitions, and other activities.
- **Regulatory Impact:** Qualitative assessment based on participation of regulatory team in advancing PCE's regulatory objectives and priorities within CalCCA and at relevant regulatory agencies.
- **Coalition Building:** Qualitative assessment based on regulatory and legislative teams' engagement with and formation of coalitions to achieve success in all areas of our work.
- **Fostering CCA Growth:** Qualitative assessment based on participation of regulatory team in supporting expansion CCAs and assessment of regulatory team in thought leadership.

Key Accomplishments – FY 2022

1. **Power Charge Indifference Adjustment (PCIA) Containment**
PCIA rate impacts of PCE's operations have dramatically lowered relative to the prior fiscal year due to elevated oil and gas prices. The Commission continues to evaluate additional refinements to the PCIA benchmark calculations including the introduction of a market valuation for greenhouse gas-free electricity, which remains absent from the methodology.

Despite the recent actions to extend the operational life of the Diablo Canyon nuclear power plant, its costs will still leave the PCIA portfolio in 2024/25 as per the prior intended retirement dates. The removal of Diablo Canyon's costs should provide further downward pressure on PCIA costs from that point forward.

2. **Regulatory Impact**

Beyond the PCIA, PCE's regulatory staff continues performing in its thought leadership role for programmatic and procurement-related proceedings. For example, the team was instrumental in refining the 24-hour slice Resource Adequacy (RA) reform proposal that was ultimately adopted by the Commission on June 23, 2022.

We continue to navigate the procedural complexities that come with implementing the Commission's disadvantaged communities' green tariff and community solar (DAC-GT/CS) programs, including successfully negotiating the transfer of program capacity from PG&E to PCE to allow for a smooth enrollment of the Los Banos community in April 2022. We continue to lead engagement in the Commission's transportation electrification (TE) and building decarbonization proceedings as well.

The team guided the agency through the Commission's "election to administer" to unlock access to non-generation rate revenues to fund PCE's FLEXmarket Program. The Commission approved this request on May 6, 2022. During the first half of FY22, we also organized "meet and greet" sessions with all five CPUC commissioners and four of the five CEC commissioners to heighten their awareness of PCE and the important work that is being done here.

3. **Legislative Impact**

Issues of importance to Peninsula Clean Energy continued to receive support from local legislators. Our representatives in Washington, at the urging of Peninsula Clean Energy, cast votes in support of the Inflation Reduction Act, the most significant federal legislation on climate matters in recent history. Our State legislative delegation took leadership positions on climate bills and supported CalCCA's initiatives.

4. **Fostering CCA Growth**

Local support for Peninsula Clean Energy and the successful enrollment in Los Banos served to further bolster our ability to influence legislation, as we developed working relationships with local officials and legislators from the Central Valley.

Challenges in FY 2022

1. Continued precautions due to the COVID-19 pandemic made 2022 a challenging year for policy advocacy. Most of our advocacy work is being done remotely through teleconference, phone, and written formats. Key industry gatherings like conferences have been sparse. However, by the end of the legislative session we were able to meet in-person with key staff on issues of importance and we provided lead testimony at two legislative committee hearings. There has been a recent uptick in conferences and other in-person gatherings, providing opportunities for our advocacy work.
2. Global supply-chain delays have also colored the outlook of policymakers and the State's regulatory agencies as project development delays have become more common and industry costs are rising. As such, the State has focused heavily on matters relating to electricity reliability (*e.g. RA and Integrated Resource Planning*) and policy considerations

around some programmatic matters like Transportation Electrification have slow down. These shifts have limited the opportunities for our staff to advance some of the agency's programmatic priorities through policymaking.

Key Priorities – FY 2023

1. PCIA Containment

PCE staff will continue to assist the CalCCA trade organization in exploring opportunities for further reform of PCIA that will lead to lower costs for our agency's customers. Further reform to the benchmark methodology, early retirements of key resources, and potential exemptions for certain customer segments could lead to this outcome.

2. Regulatory Impact

Due to the very high volume of recent State and Federal legislative actions that impact the electricity sector, the next year of regulatory advocacy will likely be heavily focused on sorting through these changes and advocating for improved implementation of these new programs and funds. PCE staff will continue to pursue opportunities for programmatic funding outside of our generation revenues. PCE staff will also strive to influence the continued refinement to procurement-related proceedings so they do not obstruct our agency's own ambitious procurement objectives.

3. Legislative Impact

Sacramento will welcome an exceptionally large freshman class of legislators in 2023, including at least one new member of the Assembly to represent portions of San Mateo County and one new Assembly member to represent Los Banos. In addition, San Mateo County and Los Banos will have new representation in the House of Representatives. There will also be a significant number of newly elected local elected officials. We look forward to building strong working relationships with the new elected officials and their staff members as we continue to strengthen our existing relationships in Sacramento and Washington.

4. Fostering CCA Growth

The successful enrollment in Los Banos positions us well as we work to further foster CCA growth, especially in Merced County.

Community Energy Programs

Key Performance Indicators (Measured on CY)					
	2019 Baseline	2020	2021	2022 (6mo)	2025 Target (revised)
Transportation: GHG Reductions (MT)	2,000	8,200	14,800	17,800	83,000 (was 120,000)
Buildings: GHG Reductions (MT)	1,800	6,100	8,300	8,800	9,800 (was 12,100)
EV charging ports installed (#)	0	13	146	241	3,500 (was 6,200)
Electric appliances installed (#)	0	0	187	297	1,800 (was 2,800)
Local Resources (MW)	0	1.47	4.26	5.54	20
Funds for Low Income	11%	47%	19%	24%	20%

1. All figures cumulative except Funds for Low Income
 2. Overall County GHGs when last inventoried in 2019 were 4,100,000 MT
 3. GHG measures reflect projected future average annual reductions of actions taken that year (ex: adopted reach codes, charging installed, EVs acquired, etc.)
 4. 2019, 2020, 2021 years updated to reflect additional EV reach code impacts for commercial sites
 5. Charging and appliance outpace peer agencies but lower than desired
 6. Revised 2025 targets reflect actual trajectory

EV Charging ports in pipeline: over 3,000

Definitions

- **Transportation: GHG Reductions (MT):** The average annual GHG reductions in metric tons from all transportation measures including EVs and ebikes added, EV chargers, EV chargers from reach codes, and ridehailing.
- **Buildings: GHG Reductions (MT):** The average annual GHG reductions in metric tons from all building measures including reach codes, electric appliances installed, and recycled appliances.
- **EV Charging ports installed:** Cumulative and [annual] total EV charging stations deployed.
- **Electric appliances installed:** Cumulative and [annual] total electric appliances deployed.
- **Local Resources:** Megawatts of new distributed generation, both solar and storage systems including residential and commercial programs
- **Funds for Low Income:** Percentage of budget in the fiscal year targeting low-income, and underserved communities.

Key Accomplishments – CY22 first half of Calendar Year

1. **EV Charging.** This program completed its first full year in 2021 and developed a robust pipeline of projects (over 3,000 ports in pipeline). Cumulative installations of 241 ports are below expectations but outperformed peer agencies (Sonoma Clean Power: 68 ports over 28 months; Silicon Valley Clean Energy: 58 ports to date). Staff implemented major program changes in August 2022 to improve program performance (see Challenges section below).
2. **Reach Codes** – Three (3) additional cities adopted new construction reach codes in the first half of 2022 bringing the total to 16 communities in San Mateo County. New model codes were developed for the 2022 adoption cycle, including existing building options.

Peninsula Clean Energy cities/county account for over half of the local reach codes in California across the joint Peninsula Clean Energy and Silicon Valley Clean Energy service territories. Our early success in this area substantially influenced the State's codes and other regions. PCE's GHG reductions to date largely reflect the success of our reach code efforts.

3. **Buildings** - The appliance incentives (only heat pump water heater incentives in 2021 and to-date in 2022) outperformed the Bay Area average – PCE provided 30-40% of new heat pump water heaters in our nine-county region but the original target of installing 2,800 units by 2025 is overly optimistic due to supply chain and market challenges of the last few years. All four (4) Harvest Thermal technology pilot sites were installed and are collecting data.
4. **Distributed Energy Resources** – Successfully launched the Disadvantaged Community Green Tariff program. We also completed our first Government Solar solicitation for over 2 MW across 13 member agencies. Contracting has begun, including development of innovative business model that may be replicated for our small residential sector.
5. **2035 Decarbonization Plan** – Completed analysis and plan for maximizing decarbonization potential by 2035. Detail on this item will be discussed at the 2022 Board Retreat.
6. **Vehicles** – PCE's ride-hailing pilot deployed 100 EVs, with strong performance to date, averaging 120 miles per day. Our E-bikes program deployed 275 e-bikes to low-income residents across our entire service territory. Incentives were increased for used EVs to account for major increases in costs, and 57 used EVs were provided incentives, most of them for low-income customers.

Challenges

1. **Pandemic/Supply Chain** – 2021 and 2022 were extremely challenging years to operate incentive programs. Serious impacts from interrelated pandemic, inflation, workforce, partner, and supply chain issues hindered our progress. Most programs under-performed against targets that were developed in early 2020, before the pandemic's range of market impacts was fully understood.
2. **PG&E Timelines** - Sites submitting for PG&E service upgrades are taking 7-8 months from project request to design, and another 3 months to implement. PG&E service delays are beginning to affect EV charging especially but also building electrification.
3. **Building Electrification Awareness & Motivation** – Awareness and motivation to shift toward full building electrification are very low. Ongoing operating costs and incentives and assistance to date have been insufficient to drive volume at desired levels.
4. **EV Charging** – Very significant impacts due to rising costs as a result of supply chain issues, insufficient responsiveness of contractors, and non-performance of a vendor partner administering a portion of PCE funds under the state CALeVIP program. Program changes that were implemented in August include increased incentives, increased flexibility to select contractor, and PCE assuming responsibility for incentive administration that was to have been disbursed through CALeVIP.
5. **Government Solar** - Progress towards the Local Power goal is slow but poised to accelerate. Peninsula Clean Energy is now contracting for installation of 2 MW of local solar plus additional storage in the Local Government Solar program, and a second-round recruitment scheduled to begin soon is projected to be significantly larger.
6. **Program Targets** – 2025 Targets established in 2020 are not reachable for EV charging and electric appliances due to challenging market conditions (many pandemic related) and optimistic forecasts. Program staff is recommending reduced 2025 targets to reflect

current market realities and achievable targets. Specifically, EV charging ports and electric appliances installed target was revised from 6,200 charging ports to 3,500 and the 2025 appliances target is reduced from 2,800 to 1,800. These new numbers remain aggressive but plausible given program changes implemented in EV Ready and planned for Building programs. GHG impacts were adjusted to match the updated targets.

Key Priorities – CY 2023

1. **EV Charging** - Execution on program ramp-up with a higher number of installations
2. **Buildings** - Major updates to our buildings program in two phases:
 - a) In October 2022, increasing incentives and flexibility, adding space heating and cooling to appliance upgrades, and adding Zero Percent Loan (on-bill finance) option;
 - b) 2023 updates will also include expanding program “one-stop-shopping” opportunities including a technical support hotline and various turnkey options.
3. **Existing and New Building Reach Codes** - Support local governments in implementing existing building reach codes and new construction codes.
4. **Distributed Resources** - Installing and expanding solar + storage projects through our Local Government Solar program, and deploying first “virtual power plant” programs through FLEXmarket and EV Managed Charging.

Marketing and Community Relations

Key Performance Indicators (Measured on FY)				
	2020 Baseline	2021	2022	2025 Target
Participation Rate (as of FY end) ¹	97%	97%	97%	97%
PCE Aided Awareness	34%	31% ²	39% ⁴	60%
PCE Favorability ³	63%	61% ²	57% ⁴	80%
Residential & SMB Engagement ¹	Med/Low	Med/Low	Med/Low	High
1. Shared responsibility with Account Services team 2. Given sample size in 2021, this is statistically equivalent to the 2020 baseline 3. Of those who are aware of Peninsula Clean Energy 4. Statistically different from 2020 baseline				<div>On target</div> <div>Challenges exist</div> <div>At risk</div>

Definitions

- **Participation Rate (as of FY end):** Percentage of eligible electricity accounts in our service territory that receive electricity generation from Peninsula Clean Energy.
- **Peninsula Clean Energy Aided Awareness:** Measured by annual survey, in the second half of the FY, of representative sample of residents in our service territory (including customers and non-customers in the County of San Mateo and the City of Los Banos). Aided awareness of Peninsula Clean Energy (respondents recognize from a list) as an electricity provider for the service territory.
- **Peninsula Clean Energy Favorability:** Of those respondents to the annual survey (see above) who are aware (aided) of Peninsula Clean Energy, the percentage who have a “favorable” or “somewhat favorable” opinion of Peninsula Clean Energy.
- **Residential and Small & Medium Business (SMB) Engagement:** Based on scoring rubric of residential and small business customers who participate in high-, medium- and low-engagement Peninsula Clean Energy activities/programs.

Key Accomplishments – FY 2022

1. **Los Banos enrollment** – strong participation rate (~95%), far exceeding our enrollment minimum target of 85% and strong awareness of our lower cost messaging among those who are aware of Peninsula Clean Energy
2. **Electrification awareness program** – The second year of the All-Electric awards program was strong, with 15 eligible applicants, a returning panel of expert jurors on the Award Selection Committee and excellent video content of winners. Two well-attended webinars were held: “Learn to Love Induction Cooking” a cooking show format demonstrating the benefits of induction cooking and “Wired & Inspired” featuring the residential award winners, BayREN and an electrification contractor. A Home Electrification playlist was launched in our YouTube channel.
3. **Electrification Campaign** – message testing research was completed and planning for a robust persuasion campaign is well underway
4. **Outreach Grantee program** – continues strong with good execution by partners to their scopes of work. Peninsula Clean Energy staff supports grantees efforts through, among

other things, bimonthly meetings with all grantees and provision of media kits with text and image content. Staff has facilitated fruitful relationships among the grantees.

5. **Program launches and ongoing promotion** – During FY22, we launched the Home Upgrade Program, two rounds of E-bikes for Everyone rebate program, and Data Connect and continued promoting the Used EV rebates and HPWH. Paid search ads for Used EV rebates have been particularly effective in driving visits to our website rebate pages.
6. **Improved tactical marketing metrics** – In addition to the increase in awareness noted in the dashboard above, we saw an 8% increase in website visitors year over year. Email open rates increased in the second half of the fiscal year to 49-55% compared to 38-40% in the first half of the FY.
7. **Informative content on power sources** – Power FAQs were developed and published coincident with the contributed article published in *The Almanac* “We have enough clean power for aggressive, affordable building electrification in Menlo Park” ghostwritten under CEO Jan Pepper’s byline. Article was edited for re-use in *The Athertonian*’s Earth Day edition.
8. **Strong media relations results** – There was a marked increase in unsolicited queries by the media and expanded staff engagement as spokespersons, including four Programs staff and one Procurement staff in addition to continued interview opportunities for CEO Jan Pepper. Sixteen press releases were issued and coverage of Peninsula Clean Energy appeared in many of our target media.
9. **Speaking opportunities about 24/7 100% renewables** – CEO Jan Pepper spoke on this topic at numerous conferences and webinars, including CalCCA, Climate Center, ASES Solar 2022, Cal Clean Energy Summit and Silicon Valley Leadership Group’s Energy and Sustainability Summit as well as two World Resources Institute panels.

Challenges in FY 2022

1. **Customer Awareness.** Key challenges include the need to continue to significantly increase the awareness of Peninsula Clean Energy through increased investment in owned, earned and paid media and community relations. Customers who are aware of Peninsula Clean Energy tend to view the agency favorably. This serves to lift the positive perception and create more trust and credibility in our messaging as we call our community to take action to reduce GHGs by participating in the myriad of programs we offer.
2. **Los Banos Customization.** Continuing to customize our work for Los Banos is another key challenge that affects messaging especially when program design is different for Los Banos than the rest of the territory. Examples include programs that rely upon partners that exist in San Mateo County (e.g. BayREN, San Mateo County Office of Education and a variety of community-based organizations) but that do not exist in parallel for the City of Los Banos.
3. **Reaching Diverse Communities.** We are always striving to reach diverse communities by engaging with community-based organizations that serve hard-to-reach constituencies, particularly those groups that have limited English proficiency. A challenge going forward will be to ensure that we translate more of our key communications to languages such as Spanish and Chinese.
4. **Making the Case for Electrification.** Conveying the benefits of building electrification presents greater challenges than describing the benefits of transportation electrification. Particularly challenging is making a case for cost savings. The operating cost savings for some home equipment is both difficult to estimate and relatively small, even though the upfront cost differential between gas and electric appliances is becoming more favorable through incentives and scale.

Key Priorities – FY 2023

1. **Program Launch** of Zero Percent Financing and expanded appliance rebates. This is likely to be the most significant program launch of the fiscal year. Marketing launch activities include major updates to the home electrification section of the website, outreach through owned (email), paid (ads, social media boosts), and earned media (PR) as well as outreach via outreach grantees, other community partners and advocates, and through city/county communications channels. Specialized content, including videos, interactive graphics, and media toolkits will be developed and shared with our grantees, partners, and other advocates.
2. **Electrification campaign** – This campaign will activate our new messaging, intended to persuade customers to voluntarily electrify their lives (residences and transportation). The campaign will emphasize the health, safety and environmental benefits of electrification and will form the umbrella under which we promote individual programs and incentives. The campaign is a key component of our 2035 decarbonization initiative.
3. **Outreach Grant Program** – We will launch another round of this highly successful program of providing grants to local community-based organizations that reach out to diverse, hard-to-reach segments of our population. Leveraging trusted relationships with their constituencies, they help decipher utility bills, help residents avoid PG&E disconnection, educate residents and influencers about electrification, and promote Peninsula Clean Energy programs. Grantees complete their grants by December and a new round of grants begins in January.
4. **Schools programs** – Schools programs are being refined and reshaped to include a greater emphasis on energy education, career technical education and school decarbonization.
5. **Los Banos community engagement** – Our associate manager of community relations based in Los Banos will continue to engage with the residents, businesses, elected officials and local media to deepen our relationships and ensure continued positive perceptions and high participation rates.
6. **All-Electric Awards Program** – The third annual All-Electric Awards program, which recognizes leadership in residential and commercial electrification, kicks off in the second fiscal quarter. The awards selection committee, comprised of a stellar group of building electrification experts, will make the award selections in the third quarter. Award presentations follow in the fourth fiscal quarter.

Account Services

Key Performance Indicators (Measured on FY)				
	2020 Baseline	2021	2022	2025 Target
Participation Rate (as of FY end) ¹	97%	97%	97%	97%
Customer Data Access & Analytics ²	Low	N/A	Low/Med	High
External Partner Relations	Med/High	High	High	High
Key Account Engagement ³	Low	Low	Med/Low	High
Residential & SMB Engagement ¹	Med/Low	Med/Low	Med/Low	High
1. Shared responsibility with Marketing and Community Relations 2. Launched DataConnect platform for Key Accounts in early 2022 3. Key Account Engagement growth was impacted significantly due to COVID restrictions and uncertainty				On target
				Challenges exist
				At risk

Definitions

- **Participation Rate (as of FY end):** Percentage of eligible electricity accounts in our service territory that receive electricity generation from Peninsula Clean Energy.
- **Customer Data Access & Analytics:** Increase customer access to their energy data through both PCE analytics and reporting and third-party tools like Data Connect.
- **External Partner Relations:** Build and maintain strong relationships with critical operational partners like PG&E, Calpine and the broader CalCCA community.
- **Key Account Engagement:** Based on scoring rubric of strategic accounts who participate in high-, medium- and low-engagement Peninsula Clean Energy activities/programs.
- **Residential and Small & Medium Business (SMB) Engagement:** Based on scoring rubric of residential and small business customers who participate in high-, medium- and low-engagement Peninsula Clean Energy activities/programs.

Key Accomplishments – FY 2022

1. **Launched Data Connect platform-** Data Connect is a platform that focuses on allowing large commercial customers to access data to better manage their energy use. Data Connect allows customers easy and secure access to their own energy data, as well as the ability to share that data with authorized third-party program providers. The data includes both Peninsula Clean Energy and PG&E historical energy use and billing for all accounts, along with the ability to set up ongoing monitoring of meter data. Large commercial customers are able to access their own energy data to better manage energy use and residential customers are able to authorize data sharing with approved third-party energy management providers or vendors
2. **TOU-C transition for San Mateo County-** In September 2021, PCE executed a successful E1 to TOU-C transition for residential customers in partnership with PG&E with over 70% of eligible customers electing to move to Time of Use rates. This was the culmination of over 3 years of planning and coordination between PG&E and the nor-Cal CCA's.

3. **Extended COVID pro-rata payment split with PG&E-** PCE staff led the effort with CalCCA BillingOps Committee to negotiate an extension of the pro-rata customer payment waterfall for an additional 2 years (COVID payment plan duration) to ensure CCA's continue to receive a proportional amount of utility payments even from customers with large past due-balances.
4. **Successful CAPP 1.0 Application for COVID debt relief-**Recaptured \$1.8M in COVID debt relief for PCE customers from the California Arrearage Payment Program (CAPP). This was an approximately 8-month project that involved intense coordination with PG&E, Calpine and CSD (California Department of Community Services and Development) to retrieve our proportional share of the \$1B in funds available for COVID related utility arrearages.
5. **Implemented DAC-GT (Green Access) billing functions-**Worked closely with PCE Regulatory and Programs teams and our billing agent, Calpine Energy Solutions, to launch our DAC-GT program to provide additional 20% discount for enrolled customers receiving 100% solar energy from our community solar projects. Also coordinated transfer of existing PG&E DAC-GT customers to PCE service.
6. **Los Banos Enrollment planning and coordination-** PCE hired an internal Los Banos 'project manager' with regards to planning and coordination of the April launch of service to Los Banos customers. This was PCE's first expansion into a new service territory since launching service in San Mateo County in 2016. Los Banos participation rate is currently standing at 95%.

Challenges in FY 2022

1. **COVID Revenue Recovery** - COVID uncertainty continued to create challenges in FY 22 for the Account Services team. Arrearage relief programs like CAPP came down from the State Legislature, which provided some much-needed debt forgiveness for many customers who had accumulated large utility balances during COVID lockdowns. The money we received on behalf of our customers was very much welcomed, but there was significant administrative lift involved in coordinating between State offices distributing the funds, PG&E who administered a bulk of the money on our behalf and our back-end data management provider Calpine who validated the debts. With regards to outreach and development of our strategic accounts, large customers for the most part remained in a state of flux with most companies still remaining mostly virtual.
2. **Opening of Direct Access Waitlist** - Another challenge we faced as a lagging COVID impact was the unexpected re-opening of the Direct Access (DA) list to waitlist commercial customers as the PG&E Direct Access program appeared to develop some capacity headroom to invite new customers off of the waitlist. The 12-month rolling average of energy usage from the C&I customers dropped significantly due to the 2020 shutdowns, but that load drop didn't 'show-up' in the DA program reporting until late Summer of 2021. For the first time in DA program history, a significant number of waitlist customers were awarded spots. Peninsula Clean Energy ended up having several large customers accept their Direct Access allocations, which was disappointing. However, because of this lottery process, it is not expected that there will be any new Direct Access allocations available in the future unless the State Legislature decides to vote to expand the program again.

Key Priorities – FY 2023

1. **Focus on re-engaging with our Strategic Accounts** - We have exciting developments coming out from the Programs team, like the recently re-vamped EV Ready program and the soon to launch FLEXMarket program as well as additional features to the Data Connect platform that will be very interesting for many customers. Engagement with our

largest customers and bringing them along our broader decarbonization journey is a key component of achieving PCE's short- and long-term strategic goals.

2. **Maximize enrollment participation from Los Banos** - We are still enrolling small batches of NEM customers through the end of CY22. We would like to keep our overall participation rate, once we complete enrollment, between 90-95% for Los Banos.
3. **Prepare for NEM 3.0** - A final decision on NEM 3.0 is expected within the next few months from the CPUC and may dramatically change the landscape for retail solar customers. Thousands of legacy solar customers in our service territory will be transitioning to this new NEM arrangement over the next few years, and we have to be prepared to help them understand what this change means and how PCE continues to support its NEM customers.
4. **Increase Data Connect functionality and adoption** - Customer gas data will soon be available through the Data Connect portal allowing customers to receive ALL of their energy data in one place. We would like to expand rollout beyond our very largest customers to give all our customers access to their data.

Financial Stewardship

Key Performance Indicators (Measured on FY)				
	2020 Baseline	2021	2022 ¹	2025 Target
Days Cash On Hand (Unrestricted)	238	257	201	231
Credit Rating (Fitch/Moody)	BBB+/Baa2	same	BBB+/Baa2 POS	single "A" level
Change in Net Position (\$000s)	\$48,900	-\$8,216	-\$12,976	positive
Investment Performance (FRB/PFM)		2%	-4.4%/-4.7% ²	TBD
Average Cost of Energy (\$/MWh)	\$61.92	\$59.04	\$62.75	\$62.73
1. Key Performance Indicator results for FY 2021-2022 are based on un-audited financial results – final results may change slightly with publication of final audited financials.			On target	
2. Investment Performance results reported for each portfolio manager's holdings in FY 2021-22 where previous results			Challenges exist	
			At risk	

Definitions

- **Days Cash on Hand (Unrestricted):** Cash balance that is unencumbered by bank or loan covenants and reduced by Board-approved future fiscal year community program commitments. As measured by the number of days of cash on hand at any given point. Board policy is a minimum of 180 days.
- **Credit Rating:** Public assessment by independent rating agencies measured by maintenance of investment grade ratings.
- **Change in Net Position:** Annual measurement of Total Revenues minus Total expenses plus/minus the change in Non-Operating Income/Expenses.
- **Investment Portfolio Performance:** Metric and performance criteria not yet defined.
- **Average Cost of Energy:** Quantitative assessment measured by Total Cost of Energy divided by Base Load (as publicly reported).

Key Accomplishments – FY 2022

1. **Credit Rating** - Peninsula Clean Energy has maintained a Baa2 rating with Moody's Investors Service since initial rating assignment in May 2019. In July of 2022, Moody's assigned a Positive Outlook on the current rating highlighting specific financial and credit factors that could lead to an upgrade of the current rating. Some of these factors which fall more squarely in PCE's control of financial management include the growing of net position and internal liquidity.
2. **Financial Performance** - The change in Net Position at fiscal year-end was -\$12.9 million, better than initial budget of -\$18.7 million. The better than budget performance resulting in a stronger net position by year-end was due to prudent management of financial resources, including cost containment in an extremely volatile energy market environment as well as conservative revenue budget projections.

Challenges in FY 2022

1. **Expenditures** - consistent with prior challenges described in the Power Supply section, rising commodity prices pressured PCE to contain power supply expenditure cost

increases which were further exacerbated by exogenous events including the Ukraine War and US inflationary growth.

2. **Revenue projections** - uncertainty of “new normal” post-COVID pandemic load recoveries as well as timing and magnitude of PG&E rate changes, including PCIA rates and trajectories pose challenges to accurate revenue projections. These challenges are addressed via prudent and conservative financial assumptions when budgets are formulated.

Key Priorities – FY 2023

1. **Continue prudent and strong financial management** with close tracking and reporting of revenues and expenditures to again produce better than budget financial results by year end.
2. **Continue to advocate for Peninsula Clean Energy ratings upgrades** through the sharing of pertinent financial information and updates to the credit rating agencies. Additionally, keeping rating agencies informed of salient PCE financial and operating updates and overall CCA market developments.
3. **Conduct Cost of Service Study** to better understand the costs to serve our customers and to consider modifying our rate structure to align with the cost to serve.

Organizational Excellence

	Key Performance Indicators (Measured on FY)			
	2020 Baseline	2021	2022	2025 Target
Staff Satisfaction	High	High	On Target	See Below
Innovation Impact	High	High	On Target	See Below
Technology & Systems	High	Med-High	On Target	See Below
Organizational Policies*	High	High	On Target	See Below
Governance	High	High	Challenges	See Below

* For external vendors and partners
[Insert Footnotes]

Regarding 2025 Targets

1. **Staff Satisfaction:** PCE staff interprets this goal based on yearly surveys, assessment of employee satisfaction; evaluation of professional development and training efforts; evaluation of competitive benefits.
2. **Innovation Impact:** PCE staff interprets this goal as the assessment of the quality of technology, program design, and policy innovation developed by the organization and its impact towards the organization's goals and the clean energy industry.
3. **Technology & Systems:** PCE staff interprets this goal as the assessment of quality and completeness of systems to support the organization's work including for business processes, energy-related analysis, program impact evaluation and customer insights; evaluation of systems and practices that ensure data accuracy/privacy and security.
4. **Organizational Policies:** PCE staff interprets this goal as the assessment of progress toward implementation of key policies such as the Sustainable Workforce and Ethical Vendor Standards policies.
5. **Governance:** PCE staff interprets this goal as facilitating the succession process, providing high quality orientation materials, and eliciting broad support of the organization by new Board Members, Alternates, and Citizen Advisory Committee Members; incorporating DEAI policy when completed.

Definitions

- **Staff Satisfaction:** Based on annual surveys, assessment of employee satisfaction; evaluation of professional development and training efforts; evaluation of competitive benefits

Key Accomplishments - FY 2022

1. Hired first-ever Chief Operating Officer, Shawn Marshall, in May 2022
2. Hired new Chief Financial Officer, Kristina Cordero in July 2022
3. Growing several Peninsula Clean Energy departments, by both adding staff headcount and backfilling positions in the Energy Programs, Power Resources, and Regulatory Teams in response to operational demands
4. Initiated second annual staff satisfaction survey conducted by a third party, results are forthcoming
5. In addition, it is worth noting that after June 2022, we hired a Director of Human Resources, Cora Dino, who started in mid-August 2022
6. Conducted the first ever Diversity, Equity, Accessibility, and Inclusion (DEAI) survey and conducted DEAI interviews. The internal version of this survey surveyed all staff, contractors, and some former staff to identify areas of strength and opportunities for growth on a range of DEAI subject areas including employee training, hiring practices,

procedures/programs, psychological safety, workplace environment, equitable career advancement opportunities, and experiences with discrimination, inequities, and inappropriate behavior among others. Interviews with staff were conducted to delve deeper into these subject areas and to suggest areas for improvement

7. Started development of Diversity, Equity, Accessibility, and Inclusion policy and action plan to create and implement DEAI practices throughout the organization
8. Following staff surveys and following many recommendations from the Remote Work Staff Subcommittee, created a remote first work policy and remote working best practices
9. Completed employee handbook updates including remote work policy
10. Held all-staff in-person outdoor meetings in March 2022 and July 2022 which were opportunities for some staff to meet for the first time, collaborate on the strategic plan, and brainstorm together while providing a team building atmosphere.
11. Reformed Staff Social Committee to find ways to information-share across teams. Successful events have included Monthly Friday Check-ins and Regional Lunches where staff who lived near each other met up for the lunch hour

Challenges in FY 2022

1. Limited HR support due to use of outsourced Human Resources contractor

Key Priorities - FY 2023

1. Continue to fill open positions with high-caliber, qualified and diverse talent including Director of Power Resources, Strategic Accounts Manager, and Director of Innovation
 2. Establish and formalize the Human Resources function under new Director of Human Resources
 3. Implement DEAI Policy and Action Plan as it pertains to HR/personnel practices/procedures and programs
 4. Incorporate DEAI updates into Employee Handbook and Strategic Plan
 5. Conduct DEAI Staff Training
 6. Provide training and professional development opportunities for all staff to strengthen retention and build new skills
 7. Continue quarterly in-person all-staff meetings and include other team building opportunities to foster team connections and collaboration
- **Innovation Impact:** Assessment of the quality of technology, program design, and policy innovation developed by the organization and its impact towards the organization's goals and the clean energy industry.

Key Accomplishments - FY 2022

1. Published "Our Path to 24/7 Renewable Power by 2025", which is Part 1 of the White Paper on this industry-leading procurement goal, in December 2021
2. Installed four Harvest Thermal combined heat pump water and space heaters as pilot program and started with data collection
3. Launched comprehensive Diversity, Equity, Accessibility, and Inclusion (DEAI) effort to develop an equity policy and action plan. Extensive survey of external and internal stakeholders was conducted in early 2022 and work will continue throughout 2022

Challenges in FY 2022

1. Delay in bringing on Director of Innovation.
2. Less ability to network with industry innovators due to cancelled in-person conferences.

Key Priorities - FY 2023

1. Publish Part 2 of 24/7 100% Renewable Energy by 2025 White Paper
 2. Release MATCH model (24/7 deterministic model)
- **Organizational Policies:** Assessment of progress toward implementation of key policies such as the Sustainable Workforce and Ethical Vendor Standards policies.

Key Accomplishments - FY 2022

1. FY 2022 Accomplishments Had third-party Diversity, Equity, Accessibility, and Inclusion (DEAI) consultant conduct an initial review of our Policy #9 Ethical Vendor Standards and Policy #10 Inclusive and Sustainable Workforce, edits under development to align with DEAI procurement goals
2. Had DEAI consultant conduct a legislative and regulatory review of Proposition 209, Senate Bill 255, and General Order 156 (the CPUC's Supplier Diversity program), to see how Peninsula Clean Energy could improve its supplier diversity with Proposition 209 limitations in mind
3. Conducted the first ever Diversity, Equity, Accessibility, and Inclusion survey of all internal (staff, contractors, former staff), and external (Board Members, Citizen Advisory Members, City staff, outreach grantees, program participants, other community groups) stakeholders. Conducted interviews with select internal and external stakeholders. Survey and interviews had questions regarding procurement policies and practices. Results from this needs assessment determined Peninsula Clean Energy could consider ways to better promote diversity and involvement of women and minority owned businesses in our supply chain
4. Initiated development of a DEAI policy and action plan that will touch on the area of procurement policies/supplier diversity

Challenges in FY 2022

1. Improving supplier diversity in our supply chain continues to be challenging due to limited opportunities for spending outside of power procurement (which accounts for over 90% of our spending)

Key Priorities - FY 2023

1. Consider implementing suggested changes to Policies #9 and #10 as recommended by our DEAI consultant to align with DEAI goals
 2. Implement recommendations from DEAI legislative and regulatory review to improve supplier diversity performance, including more robust outreach methods to ensure diverse business participation, better tracking of diverse prime and subcontractor spending, and modification of procurement document language to encourage diverse businesses to submit bids/proposals
 3. Finish development and approve/adopt DEAI Policy and Action Plan that touches on the topic area of supplier diversity, among other areas
- **Technology & Systems:** Assessment of quality and completeness of systems to support the organization's work including for business processes, energy-related analysis, program impact evaluation, and customer insights; evaluation of systems and practices that ensure data integrity, privacy, and security.

Key Accomplishments - FY 2022

1. Data
 - a. Added 10+ new data sources to the data warehouse
 - b. Completed 20+ program analysis projects with Data Studio dashboard reports
 - c. Designed EV analysis model with machine learning
 - d. Developed and refined address-matching algorithm
 - e. Built and enhanced cloud function analysis scripts and automations
 - f. Improved error monitoring and handling
2. Information Technology (IT)
 - a. Enhanced hybrid meeting capabilities in the office by upgrading AV equipment
 - b. Box folder migration implementation to organize and set up the PCE Box folder structure for security policy application
 - c. Developed standardizations and protocols in IT management
 - d. Improved the new hire onboarding process on the IT side

Challenges in FY 2022

1. Data
 - a. Procuring and cleaning new data sets
 - b. Balancing between data projects and managing IT requirements
2. Information Technology
 - a. Lack of resources (people) to address IT support for all staff, and fully create and implement IT security policies and compliance goals

Key Priorities - FY 2023

1. Data
 - a. Further iterate on data analytics capabilities to enable load forecasting insights, energy-related analyses, and program impact measures
 - b. Enhance the data warehouse platform to make it more robust
 2. Information Technology
 - a. Defining the value-add for in-house IT in order scale accordingly as PCE grows
 - b. Being proactive about PCE systems to ensure data privacy, security, and integrity
- **Governance:** Facilitating the succession process, providing high quality orientation materials, and eliciting broad support of the organization by new Board Members, Alternates, and Citizen Advisory Committee Members; incorporating DEAI policy when completed.

Key Accomplishments - FY 2022

1. Conducted the first ever Diversity, Equity, Accessibility, and Inclusion (DEAI) survey and conducted DEAI interviews as part of a DEAI needs assessment for the organization. For the external version of this survey, we surveyed Board Members and Citizen Advisory Committee (CAC) Members on a range of DEAI subject areas including employee and representative training, hiring practices, equity fluent leadership, procurement policies and practices, accessibility of services and programs, customer service, community outreach, and experiences with discrimination, inequities, and inappropriate behavior. Interviews with Board and CAC Members were conducted to delve deeper into these subject areas and to suggest areas for improvement. A recommendation that came from this needs assessment is the need for DEAI training for all Board and CAC Members
2. Higher overall attendance at Board of Directors, Executive Committee and Audit and Finance Committee meetings due to remote Brown Act body meetings

3. Board Alternate engagement has been positive through increased meeting attendance as well as in conversations between Peninsula Clean Energy and each jurisdiction
4. Hired new Board Clerk

Challenges in FY 2022

1. Understanding pain points in administrative processes for Board Members and working on solutions and best practices in a remote setting

Key Priorities - FY 2023

1. Conduct DEAI training for Board and CAC Members
2. Updates to Board Member and Board Alternate orientation experience including updated video orientations, Form 700 completion via NetFile, Swearing-In, Contact Information
3. Update to Agenda Management software

2020-2025 STRATEGIC PLAN NEXT STEPS

In the spring of 2023, Staff will conduct a mid-year review with the Executive Committee of the Strategic Plan goals and objectives to ensure that the goals and objectives remain both fresh and relevant, especially since the Plan was developed and adopted in 2020, prior to the pandemic and recent supply chain issues. Please note that staff does not anticipate significant changes to Peninsula Clean Energy's overarching goals, but rather modest updates and updated metrics to more accurately reflect and guide our work through 2025.



PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence

DATE: September 15, 2022

BOARD MEETING DATE: September 22, 2022

SPECIAL NOTICE/HEARING: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Jan Pepper, Chief Executive Officer
Mehdi Shahriari, Senior Renewable Energy Analyst
Sara Maatta, Senior Renewable Energy and Compliance Analyst
Greg Miller, Intern

SUBJECT: Update and Discussion on 100% Renewable on 24/7 Basis by 2025

BACKGROUND:

In 2017 Peninsula Clean Energy set an ambitious goal to deliver 100% time-coincident renewable energy to its customers by 2025. During the last two years staff have developed and leveraged a new 24/7 clean energy procurement modeling tool that is helping Peninsula Clean Energy understand the best path to achieving this goal.

In December 2021, Peninsula Clean Energy published our [White Paper Part I](#) on this topic, explaining our vision for our 24/7 renewable energy goal. While our first paper explored our general strategy and approach, the results of extensive portfolio modeling including the costs of different scenarios will be presented to the Board of Directors at the Board Retreat on September 22. We plan to publish our approach and findings in the White Paper Part II in the coming months. We will also be releasing our modeling tool so that other California CCAs, clean energy buyers, and load serving entities will join Peninsula Clean Energy in pursuing 100% clean energy, around the clock.

SUMMARY:

Peninsula Clean Energy's Staff developed a new modeling tool to identify the lowest-cost portfolio of contracted renewable energy and energy storage resources that could match our customer demand on a 24/7 basis. Staff performed scenario sensitivity analysis to understand the effects of factors, such as available renewable resources, and overall market conditions, on the cost and feasibility of developing 24/7 portfolios. In addition, staff used an existing software platform to perform stochastic analysis of potential 24/7 portfolios.

Results from our modeling will be provided at the Board Retreat including the impact of a 24/7 portfolio on reducing emissions, providing grid benefits, and the impact on costs and affordability under a variety of market conditions. At the Board Retreat, we will review our analysis, and recommend a planning target for time-coincident renewable energy that provides the most benefits to our customers at a competitive cost.

DISCUSSION:

Staff developed a new modeling tool to identify the lowest-cost portfolio of contracted renewable energy and energy storage resources that could match supply and demand on an hourly basis. This new model, which we are calling the MATCH (Matching Around-the-Clock Hourly energy) model, is based on the software architecture of an existing, open-source power system planning model called SWITCH¹, but has been substantially redesigned to meet the needs of modeling time-coincident renewable power portfolios for entities like Peninsula Clean Energy. The MATCH model is a portfolio and dispatch optimization model, which includes several customized features that allows users to identify an optimal portfolio to meet multiple types of clean energy procurement goals, including annual procurement targets, and time-coincident targets (such as 24/7 hourly matching of supply and demand).

Staff ran different scenarios in MATCH to help us understand different questions about how to define our 24/7 goal, how our goal performs compared to other types of procurement goals, and what types of resources should be used to meet our goal. The main scenarios that were considered are: 1) existing portfolio of executed contracts, 2) 100% annual renewable procurement, and 3) hourly renewable procurement at 90%, 95%, 99%, and 100% goal of matching hourly supply and demand. Specifically, we sought to answer:

- What incremental resources should be added to our portfolio to meet our procurement targets?
- How expensive are various time-coincident goals that could be pursued, and how do the emissions and grid impacts compare to a standard 100% annual renewable goal?
- What are the hardest hours to serve with time-coincident procurement?

One of the limitations of the MATCH model is that it is deterministic, meaning that each scenario only has one set of inputs and one set of results. Deterministic models do not represent future uncertainty very well. Thus, after initial MATCH analysis, outputs from MATCH were used as inputs into Ascend Analytics' PowerSimm software, which is a stochastic analysis tool. Stochastic models have multiple sets of inputs that are created based on variability around future prices, weather patterns, and the associated impacts to load and generation. As a result, a stochastic model can provide a range of likely outcomes that can be used to quantify the risk associated with time-coincident renewable energy procurement. The expectation is that the portfolio's performance per the stochastic analysis will better reflect what the real-life operations will achieve. This additional stochastic analysis will help to answer questions such as:

¹ SWITCH is available here: <https://switch-model.org/>

- How will the real-time operation of the portfolio compare to the planning targets?
- How sensitive are the results to market conditions (which are always changing)?

In our analysis, we evaluated the additional capacity required to achieve this renewable procurement goal, including time-coincident goals. We considered intermittent renewable resources such as wind and solar, energy storage resources, and firm resources such as geothermal or shaped products. In the future, as emerging technologies become more widely available and at lower costs, we expect more emerging technologies (such as offshore wind) to play a role in our portfolio. We evaluated the portfolio structure across a range of market conditions.

We evaluated the cost and the risk of the portfolios. We also evaluated the uncertainty around the ability to resell excess Renewable Energy Certificates (RECs) and Resource Adequacy (RA). In addition, we evaluated the affordability of the portfolios by comparing the operating expenses to our expected operating incomes.

We evaluated the ability of time-coincident procurement to reduce the grid emissions by adding new clean resources to the grid that displace energy generation by fossil fuel resources. We also evaluated the incremental cost to reduce emissions, and how that changes under different clean energy procurement goals.

Finally, we evaluated the portfolios for impacts to the grid as a whole, by analyzing the impact to the California Independent System Operator (CAISO) System's net peak and max three-hour ramp.

The modeling results, financial results, and recommendations on next steps will be presented to the Board of Directors during the Strategic Retreat on September 22, 2022.

STRATEGIC PLAN:

Our 24/7 Renewable Strategy supports the following objectives in Peninsula Clean Energy's strategic plan:

- Organizational Priority 1: By 2025, deliver 100% renewable energy each and every hour of day
- Power Resources Goal 1: Secure sufficient, low-cost, clean sources of electricity that achieve Peninsula Clean Energy's priorities while ensuring reliability and meeting regulatory mandates



**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: Sept. 12, 2022
BOARD MEETING DATE: Sept. 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Rafael Reyes, Director of Energy Programs

SUBJECT: Community Energy Programs – 2035 Decarbonization Feasibility and Plan

SUMMARY

In September 2021, the Board adopted a new target supporting the region in reaching 100% decarbonization in buildings and transportation by 2035 and directed staff to analyze the feasibility of that target and return with an assessment and plan. The project was implemented in phases over the last 12 months and focused on where Peninsula Clean Energy could best target its efforts. Each element was vetted by an external advisory committee of leading experts and regular briefings were provided to the Board's 2035 Decarbonization subcommittee.

A detailed analysis has been completed which assesses current market conditions, funding and financing availability as currently known, the impact of current rate structures, and policy status. The analysis concludes that it is technically possible for Peninsula Clean Energy to deliver significant emissions reductions within a scope that our Agency is well positioned to affect. However, achieving 100% GHG reduction by 2035 in PCE's service territory is infeasible in the current environment. Please note that only data from San Mateo County was included in this first analysis; Los Banos data will be incorporated as it becomes available, but we do not anticipate that it will materially change our scope or anticipated actions on behalf of all customers.

Beyond our core focus on clean energy procurement, the scope that Peninsula Clean Energy is best positioned to affect is in the areas of transportation and buildings, specifically personal vehicles and "small residential" (single-family and small multi-family residential units). Within that scope and within the 2035 timeframe, our analysis indicates the technical potential for:

- Private Vehicles: 50-60% vehicles electrified, 70-80% EV charging need installed (not fast chargers)

- Small Residential: 25-35% of existing small homes and small multi-family electrified

The above projections leverage an extensive set of local, state and regional partnerships for scalability, assume stable external funds, aggressive use of finance, and moderate Peninsula Clean Energy budget growth. High electric rates are identified as the top barrier to decarbonization although additional risks exist for achieving these outcomes as well.

Further detail on the 2035 decarbonization plan process, analysis and conclusions are discussed below. The comprehensive set of analysis slides are posted on the Peninsula Clean Energy website with the Board packet.

DETAIL

Peninsula Clean Energy's mission is to reduce greenhouse gas (GHG) emissions in its service territory and it aims to support this mission, in part, through investment in local community programs. In September 2018, the Board approved the Peninsula Clean Energy Program Roadmap which identified programs for 2019 and beyond to reduce GHGs in the service territory. In 2018 the Board also adopted a target of supporting comprehensive decarbonization by 2045. In September 2021, the Board adopted a new target supporting the region in reaching 100% decarbonization in buildings and transportation by 2035, and directed staff to analyze the feasibility of that target and return with an assessment and plan.

Objectives and Limitations

The plan objectives include:

1. Define market conditions projected in the 2035 timeframe
2. Determine costs of decarbonization within target segments
3. Specify investment strategy – Peninsula Clean Energy, non-Peninsula Clean Energy, and credit/finance
4. Specify marketing and policy needs
5. Produce concrete program roadmap to implement and achieve maximum decarbonization by 2035

The project includes an in-depth analysis of the emissions sources in San Mateo County, including building and vehicle types, demographic data, installation costs, and other details. At the time of the analysis, these data were not available in specific detail for Los Banos; therefore, Los Banos data will be incorporated at a later point as it becomes available.

The feasibility assessment and strategy for maximum decarbonization is based on credible forecasted resources. Where additional resources may be required beyond what is in the current field of view, these are identified as needs to address.

Process

The project was and continues to be undertaken over 4 major phases, each focused on a distinct set of deliverables. Summary and conclusion information were shared at the end of each phase with a distinguished Advisory Committee and Board Subcommittee for feedback and further direction.

Phase 1:

1. Identifying the Scope
2. Market Conditions and Business-As-Usual Forecast

Phase 2:

3. Segments and Costs
4. Finance Options

Phase 3:

5. Financial Strategy
6. Policy Needs
7. Program Concepts
8. Scaling & Partnership Strategy

Phase 4: Following the September Board Retreat

9. Marketing Plan
10. Metrics
11. Programs Roadmap

2035 Board Subcommittee members included:

- Rick Degolia
- Jeff Aalfs
- Dave Pine
- Laura Parmer-Lohan

Advisory Committee members included:

- Adrienne Etherton Sustainability Manager, City of Brisbane
- Andrea Chow Sustainability Analyst, City of San Mateo
- Cisco Devries CEO, OhmConnect
- Diane Bailey Executive Director, Menlo Spark
- James Russell Energy Transition Director, CLEAResult
- Jeff Aalfs Board of Directors, Peninsula Clean Energy
- Jeff Byron Former CEC Commissioner
- Joshua Pierce EVP, Richard Heath and Associates
- Justin Zuganis Director of Decarbonization and Grid Innovation Programs, Silicon Valley Clean Energy
- Loren McDonald EV Industry Analyst, EVAdoption.com
- Mary Ann Piette Division Director, Lawrence Berkeley National Lab
- Matt Golden CEO, Recurve
- Nancy Ryan Former CPUC Commissioner
- Pierre Del Forge Clean Buildings Director, NRDC

- Laura Feinstein Sustainability Policy Director, SPUR
- Ortensia Lopez Executive Director, El Concilio
- Zach Franklin Chief Strategy Officer, GRID Alternatives

Scope

Overall GHG emissions in San Mateo are approximately 4,100,000 metric tons per year as reported by the San Mateo County Office of Sustainability. Nearly 50% GHGs are from transportation and nearly 30% from building methane emissions. These are the largest emissions sectors of GHG sources within San Mateo County. Please note this does not include sources such as air or maritime travel which are external to our service territory, nor embodied carbon measures.

Peninsula Clean Energy defined its Primary Scope as the GHG sources that the agency is well positioned to affect, segments where Peninsula Clean Energy's expertise and reach are especially well suited to deliver meaningful impact. For each sector the Primary Scope is as follows:

Transportation

- Private passenger, local government and small commercial fleets
- Ride-hailing, alternative mobility

Buildings

- Residential (single family & small multifamily)
- Office, small commercial

These sectors account for 65% of the emissions in the County. These Primary Scope areas are those where Peninsula Clean Energy will bring its resources to bear, including innovating on methods and marketing; encouraging supportive policies; leveraging state, federal and regional incentives; partnering with other organizations; applying Peninsula Clean Energy funds; and facilitating finance. Segments outside of the Primary Scope may receive some limited support from Peninsula Clean Energy, but other organizations at the state, local and regional level are playing significant roles in those segments, and are expected to lead decarbonization in those segments not within Peninsula Clean Energy's scope. These include segments such as heavy-duty vehicles and existing large multifamily housing methane, both of which are substantially smaller segments, highly technical, and best served by other parties. In some of these sectors, Peninsula Clean Energy may assist customers in utilizing existing resources from these other organizations, which is how the Local Government Fleet Program is structured. Note that most new construction in the service territory is addressed by Peninsula Clean Energy and local governments through the highly successful Reach Code effort.

Areas where Peninsula Clean Energy will not engage include non-energy emissions sources and strategies (eg. composting, land-use), those where PCE has no direct influence (eg. direct access), as well as embodied emissions, and adaptation and restoration.

Market Conditions, Segments and Costs

The analysis portions of the project included two deliverables: a) Market Conditions, and b) Segments and Costs. The Market Conditions analysis reviewed the macroeconomic conditions, technology developments, utility rates, and expected policy supports.

Peninsula Clean Energy's service territory is characterized by very high property costs, which is financially challenging for a large portion of the population. Worker shortages are anticipated in many fields according to economic projections. And electric utility rates are high, resulting in a little economic value for building electrification.

Transportation

There are approximately 540,000 personal vehicles in San Mateo County. With new electric SUV and truck models coming to market, electric vehicle adoption is now very high: 50% of new vehicle purchases are battery-electric or plug-in hybrid vehicles. The market momentum is high for EVs in the new car market, but EV adoption in the much larger used car market (total annual used vehicles sales are approximately 60,000 or about 2x the volume of new vehicle sales) is expected to be slow. Furthermore, the used car market is likely to experience ongoing supply constraints for EVs, putting upward pressure on prices. The Federal used EV incentives will play an important role in making EVs more accessible when they become available at point of sale in 2024. EV charging is especially challenging for multi-family properties. In the absence of action by PCE, the "business-as-usual" projection by 2035 is 300,000 to 375,000 EVs on the road (50-60% of total) and 30,000-35,000 charging ports (30-35% of projected need as estimated by the California Energy Commission).

Additional conclusions from the Segmentation and Costs analysis for Transportation:

- Young fleet: Our vehicles are younger than national average (San Mateo County has twice the national average for new vehicles purchased) and appear to turn over faster
- Vehicle prices: New car prices in SMC track with national average
- Vehicle Age & Income Correlate: Vehicle age and income are highly correlated (areas where average car age is 10+ years old have avg. income of <\$100k, very low income)
- EVs and Income Correlate: EV adoption and income are highly correlated
- Minimum Charging at MUDs: Virtually none exist currently, reach codes to be a material contributor but substantial gap remains

Buildings

There are approximately 200,000 residences in San Mateo County that are single-family or small multi-family. Electrification of the building sector is much earlier in its market development than EVs and much more policy driven. Voluntary adoption is likely to be modest even with state incentive funds. The reach codes and proposed policies by the Bay Area Air Quality Management District (BAAQMD) and California Air Resources Board (CARB) will be high impact. New technologies such as "plug-and-play" 120-volt water heaters and space conditioning systems should play a significant role in lowering

installation costs. However, by 2035, PCE expects to be ~ 60% short of 2035 goals for electrification without intervention.

Additional conclusions from the Segmentation and Costs analysis for Buildings:

- Older small-residential dominant: Small residential represents most of the building stock (>70%), and these tend to have more gas appliances
- Methane gas equipment predominates: Most homes have methane water heaters (98%) and gas furnaces (68%). Electric dryers and stoves are common.
- Space heating is the biggest installation expense: At \$20k, electrifying space heating is a significant cost.
- Total capital required: Estimated ~\$3-5B need to fully electrify small residential (though in-kind replacement costs would be 30% or more of that total cost)
- Low-income segment challenge: High percentage of small residential units (~20%) owned by very low-income residents creates a challenge to self-fund electrification. Very low-income is defined as earning less than 50% Area Median Income (AMI.) AMI in SM County is \$149,600.

Financial Tools

A key component to the financial strategy is engaging and coordinating all resources available including:

- State and Federal incentives, grants, loans and credit enhancements
- Grid service value streams such as demand response
- Public and private credit instruments
- PCE leverage including incentives, balance sheet credit, and credit ratings

Due to the scale of the capital requirements for electrification, finance tools will require greater attention than has been given to date. Currently, there is a robust set of credit options for credit-worthy customers. These include options such as home equity lines of credit and unsecured loans for residential customers or Property Assessed Clean Energy (PACE) for commercial customers. In addition, non-debt finance options exist for commercial customers such as power purchase agreements (PPA) for energy generation and efficiency purchase agreements (ESA) for other energy upgrades. These are forms of project finance that are “off-balance sheet” meaning they are not forms of debt but rather operating expenses. This type of project finance structure can provide options for customers not able to take on debt.

For residential customers, while there are many finance options for credit-worthy middle- and upper-income residents, there are many low-income residents who are not credit-worthy and/or unable to bear added debt or costs. One possible option for electrification of these homes may be for Peninsula Clean Energy to capitalize such projects with a third-party credit or bond to fully fund such upgrades, applying no debt to the customer and little or no added cost, but then pay off the credit over time. This would be in a manner similar to a PPA. This concept, a form of “aggregate project finance” is being explored as an option to address the very low-income segment.

Scaling & Partnerships

Partnerships and scalability are central to the plan. The objective is to facilitate market transformation by building scale, which lowers costs, thereby facilitating further scaling. Peninsula Clean Energy already partners extensively with numerous public agencies, non-profits, and private companies to advance its programs including coordinating incentives and technical assistance, fostering innovative technologies, and leveraging a variety of resources. In numerous areas, Peninsula Clean Energy operates to “gap fill” or defers to others to lead, in accordance with where PCE is best positioned to add value without duplicating efforts. One area in particular for further development lies in partnerships for credit and finance as noted above.

Among Peninsula Clean Energy’s partnerships is one under development with the County Office of Sustainability (OOS) and the City/County Association of Governments of San Mateo County (CCAG). CCAG is developing a Carbon Neutrality Action Plan and Peninsula Clean Energy’s decarbonization plan would serve as an element. The objectives include coordination across the agencies for policy advocacy, pursuing state and federal funding, coordination on communications, development of standardized metrics & timelines, sharing analysis and equity strategy, and coordinated implementation.

Peninsula Clean Energy’s particularly unique role lies in fostering the early market in buildings and transportation electrification, fostering the supply chains and workforce, and replicating methods, tools and technologies. Peninsula Clean Energy has been especially engaged in a leadership role leading collaboration with other CCAs to replicate promising programs and strategies. Initial successes in replicating efforts are as follows:

- **Building Codes**
 - Local codes: 16 local adopters
 - State codes: Single-family electrification, multi-family EV ready with power mgmt., low-power
 - Replicated: SVCE, EBCE, Clean Power Alliance, San Luis Obispo
- **EV Charging methods**
 - Power Management/Level 1: Adopted by CEC, PG&E, AQMD, SVCE, MCE
 - Advance design and technical assistance: CLEAResult with SVCE, EBCE, Palo Alto
- **Other Programs**
 - Government Solar: EBCE, CalChoice, Prime
 - Portable batteries (MCE)
 - Residential solar + storage (SVCE, EBCE)
 - Ebikes (SCP)
 - Fleets (SVCE, 3CE)
 - On-Bill Finance (SCP)
 - New EV Dealer Incentive (SCP)
 - Low Income Turnkey (EBCE)
 - Heat Pump Water Heaters (CPSF, EBCE, MCE, SCP, SVCE)

Financial Strategy

The financial strategy of the plan identifies all the available resources and likely prospective policy measures to determine what the potential is for electrification in the target segments.

The resources, identified above in the Financial Tools section, are deployed in the plan according to a set of general funding principles as follows:

1. Leverage **market forces, innovation and policy** support for cost-effective GHG reduction measures
2. Provide **higher incentives early**, better than cost parity where possible, then reduce incentives as market matures and costs decline
3. Offer **more support to those with less** capacity to bear costs
4. Mobilize traditional and innovative **finance solutions for scale**
5. Where practical, leverage other/existing programs and **fill gaps**
6. Target and fund programs to **enable key policy** adoption for required action and market transformation

The Financial Strategy is based on current costs and constant dollars and assume that current funding levels in State and Federal programs remain constant in the buildings and transportation sectors with renewed funding if the funding will expire in the 2024-2035 timeframe. It also assumes that local agencies will adopt increasingly stringent existing building codes, BAAQMD will adopt emissions controls that effectively ban gas water heaters and furnaces beginning in 2027, and CARB adopts a full gas appliance ban by 2030. These policies are instrumental in driving building electrification action. In addition, the CARB 2035 ban on sale of gas cars is assumed to proceed and moderate PCE budget growth of 3.5 to 5% is included beginning with the Board approved FY26 forecasted budget.

Overall, the analysis indicates the total resources available are approximately:

- **Buildings:** \$1 to \$1.3 billion, providing for upgrades to 25 to 35% of small residential units
 - This includes customer costs of \$600 to \$700 million. The customer cost is consistent with funds that would be spent for “like-for-like” gas equipment replacements. It also includes prospective “aggregate project finance” facilitated by Peninsula Clean Energy for very low-income homes.
 - The volume for upgrades is driven by reach code and regulatory requirements.
- **Transportation:** \$700-875 million for vehicles and \$130-160 million for EV charging.

- Vehicle investment is focused on low-income used EVs and e-bikes. Used EVs do not change the total number electrified but the low-income focus ensures access is more equitable. 50 to 60% vehicles would be electrified in total.
- EV charging would be focused on multi-family charging but also public and workplace. Approximately 70 to 80% of EV charging need would be satisfied as based on CEC projections. Fast charging is not included.
- Load shaping value is especially significant for transportation.

Additional detail will be provided at the meeting.

Program Concepts

A summary of the programs proposed under this plan are as follows and build upon many of the programs we have in place today:

Buildings

1. Flexible Incentives

- All measures, including rewiring and panels
- Broader building segments
- Integrated load shaping & solar+storage options

2. High touch support

- Advanced “right-sizing” design
- Technical assistance “hotline” and turnkey installation option
- Procurement aggregation to lower costs
- Greater contractor support

3. Links to Finance

- Specific linkages by customer segment

Reach Codes

1. Continue to Support New Construction

- Re-adopt and increase jurisdictions
- Remove exemptions and expand building types
- Progressive increase in EV charging capacity as needed

2. Support Existing Building Policy

- Adopt no-cost and low-cost measures first
- Adopt new measures as programs and funding become available
- Increase city count over time

3. Build Programs to Support Policy

- To support local reach code adoption
- To support BAAQMD goals
- Work with state and federal agencies to leverage funding streams

Transportation

1. Vehicle Incentives

- Low-income used EV incentives with technical assistance
- Integrated load shaping
- 2. **EV Charging**
 - Technical assistance and incentives for multi-family and public agency parking, “right-sizing” design
 - Incentives in other market segments taper over time
 - Integration with single-family home whole-home solutions (and vehicle-to-home resiliency as appropriate)
 - Contractor training for grid & load management solutions
- 3. **Fleets & Alternative Mobility**
 - Local government and small commercial fleet incentives and technical assistance
 - E-bikes and, until state EV requirements come into effect, ride-hailing

Peninsula Clean Energy as Conduit to Capital

1. **On-bill finance (OBF) from Peninsula Clean Energy**
 - Limited scale 0% interest credit for any customer
 - Could expand to include third-party capital
2. **Provide customer information on third-party finance**
 - Guidance on consumer credit, including point of sale
3. **Advocate for state credit enhancements**
 - Foster credit enhancements to lower credit cost
4. **Aggregate residential project finance (under study)**
 - Adapted from Government Solar
 - Target lowest income customers without capacity for debt or added cost
 - PCE fully funds installations using external capital, repays capital under long term plan
 - Customers assume no debt or added expense

Note that many of the program elements are specifically designed to address underserved community needs. This includes our emphasis on low-income residents for EV and e-bike incentives. In addition, multifamily EV charging frequently benefits low-income residents as low-income residents frequently live in multifamily residences, particularly as renters. Transportation is the segment in which electrification provides significant economic benefit. In Buildings, the programs will include “sliding-scale” support (as reflected in the Financial Strategy Principles) and that includes comprehensive installation support for very low-income residents through the technical assistance, turnkey installation, and project finance.

Policy Needs

The decarbonization effort will be heavily influenced by local, regional and state policies. The following represents the set of policies likely to be significant in advancing Peninsula Clean Energy’s objectives.

Of particular note is the importance of sustaining, and preferably increasing state investment in decarbonization, even accounting for the recently adopted federal Inflation

Reduction Act. Improving the economics of building electrification is also of very high priority, and rate design is especially critical. Implementation of policies such as marginal rates for incremental electrification may be especially valuable.

Objective	Target
Overall	
Influence rates to improve economics	Lowering T&D rates incl. exploring: <ul style="list-style-type: none"> Marginal rates for incremental electrification load
Buildings	
Phase out gas appliances	Local code requirements (new & existing) State code requirements (new & existing) AQMD NG standard CARB ban on NG appliances
Ensure availability of scaled finance	Capitalization of statewide low-cost finance facility Tariff On-Bill
Improve economics	State incentive support (continue & expand)
Transportation	
Phase out of gas vehicles	New gas car ban by 2035 CARB (-done-) Model credits - Increased EV model availability, esp. low MSRP Used EV incentive program (done) Used car buybacks, early retirements
Improve economics	State incentive support (continue & expand)
Charging access	State/local codes (new & existing) Increased state support (all charging)

Objective	Target
Workforce	
Increase trained workforce	Increase diversity and underserved community training for building and transportation electrification
Transition legacy sectors	Support retraining programs
Grid	
Grid readiness	Resiliency for electric-only homes, V2B Distribution interconnection timelines BTM resources compensation, load shaping, dispatchability
Gas System	
Reduce investment in gas infrastructure Gas legacy cost management	Limit expansion and minimize continued investment Shift capital from gas grid to electric grid Oppose gas cost-shift to electric ratepayers Oppose enhancements & requirements, esp ratepayer funding

Next Steps

A summary of the analysis conclusions and proposed plan will be presented to the Board at its September Board meeting. Based on direction received, the plan will be further developed and refined for subsequent delivery to the Board in the first quarter of 2023.

The final elements of the plan will include:

1. Program roadmap: providing detail and timeframes for program elements of the plan
2. Marketing plan: providing messaging and communications strategy
3. Partners: Identification of key partners and partnering strategy
4. Policy platform: integrating decarbonization policy needs into Peninsula Clean Energy's policy platform
5. Metrics: key metrics for tracking progress (potentially enhancing the existing Strategic Plan Dashboard)

The comprehensive set of analysis slides are posted on the Peninsula Clean Energy website with the Board packet.



**PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence**

DATE: September 15, 2022

BOARD MEETING DATE: September 22, 2022

SPECIAL NOTICE/HEARING: None

VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: KJ Janowski, Director of Marketing and Community Relations &
Leslie Brown, Director of Account Services

SUBJECT: Update on Marketing, Outreach Activities, and Account Services

BACKGROUND

The Marketing, Community Relations, and Account Services Teams are responsible for enhancing Peninsula Clean Energy's brand reputation, educating and engaging customers, driving participation in programs, and ensuring customer satisfaction and retention. Tactics include community outreach, content creation and storytelling through owned (e.g. online, social media), earned (e.g. public relations), and paid media (advertising), school engagement programs, and customer care.

DISCUSSION

The following is an update of activities that are currently underway. See "Strategic Plan" section below for how these activities support Peninsula Clean Energy's strategic plan objectives.

Social Media Policy

Peninsula Clean Energy's Social Media Policy has been approved and posted as Policy 21 in the [Key Documents](#) section of the website and is now linked in the profile or description of Peninsula Clean Energy in each of our social media channels. It is also included in the Key Documents section of our website as Policy 21.

Heat Pump Water Heater (HPWH) Incentive Program

Marketing is supporting the program goal to install 200 heat pump water heaters in the first two years. Marketing efforts have been measured based upon visits to our HPWH incentive pages. In the last 30 days, 1283 users visited the page.

Electrification Messaging and Campaign Support of Decarbonization

Marketing is developing new messaging centered on encouraging electrification. Messaging is being refined for a campaign that is planned to start this fall. The campaign will support our organizational priority to contribute to our community reaching a goal of 100% greenhouse gas-free for buildings and transportation by 2035.

Electric Vehicle (EV) Campaign

A search advertising campaign addressing barriers and benefits of electric vehicles has been underway since November 2021. In August, the campaign achieved about 39,000 impressions and brought about 1,770 visits to our EV web pages. Results in September so far are showing an average cost-per-click of \$1.74.

Refrigerator and air conditioner recycling program

Although one of our smaller programs, the recycling of these appliances returns high environmental benefits per dollar spent. We recently brought the marketing for this program in-house and have reduced the cost per lead from \$20 to about \$9, further improving the cost-effectiveness of this program.

Green Homes Tour

Peninsula Clean Energy is sponsoring a "[Green and Electrified Home Tour](#)" organized by Project Green Home and the Campaign for Fossil Free Buildings in Silicon Valley. The tour will take place on Saturday, September 24 from 10:00 am to 4:00 pm.

Outreach Grants

We have launched another round of this highly successful program of providing grants to local community-based non-profit organizations that reach out to diverse and hard-to-reach segments of our population. Leveraging trusted relationships with their constituencies, they help decipher utility bills, help residents avoid PG&E disconnection, educate residents and influencers about electrification, and promote Peninsula Clean Energy programs. Grants will be awarded in amounts up to \$45,000 per project for work to be completed within one year. The request for proposals was released on September 12 and the due date for responses is October 17. The grant period is the 2023 calendar year.

Los Banos Update

Our local Los Banos representative Sandra Benetti continues providing information and answering customer questions. She is tabling twice monthly on bill pay dates at Los Banos City Hall and participating in community events, including the September 17 Chamber of Commerce Fall Street Fair. Sandra and Jan Pepper met with representatives from new local papers, *The Westside Express* and *Los Banos Enterprise*. A bylined article, "Los Banos residents can now receive cleaner electricity for less" by Sandra and quoting Jan was published in *Los Banos Enterprise* on August 12.

News & Media

On August 17, we announced the naming of Kristina Alagar Cordero as CFO. "[Peninsula Clean Energy Names New Chief Financial Officer.](#)"

On September 14, we issued a [press release](#) on the Green Access program, which saves eligible income-qualified customers 20% on their bills and has already saved Peninsula Clean Energy customers a total of \$191,000.

Full coverage of Peninsula Clean Energy in the news can be found on our [News & Media](#) webpage.

ENROLLMENT UPDATE

ECO100 Statistics (since August report)

Total ECO100 accounts at end of August:	6,371
ECO100 accounts added in : August:	90
ECO100 accounts dropped in August:	26
Total ECO100 accounts at the end of July:	6,307

Enrollment Statistics

Opt-outs during the month of August were 238, which is 75 more than the previous month of July (163). This includes 192 opt outs in our new service territory of Los Banos during the month of August and 46 from San Mateo County during this month. In September, there have been an additional 24 opt outs from Los Banos and 4 opt outs from San Mateo County as of September 9th, 2022. Total participation rate across all of San Mateo County as of September 9th was 96.90%.

In addition to the County of San Mateo, there are a total of 15 ECO100 cities. The ECO100 towns and cities as of September 9th, 2022, include: Atherton, Belmont, Brisbane, Burlingame, Colma, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Portola Valley, Redwood City, San Carlos, San Mateo, and Woodside.

The opt-up rates below include municipal accounts, which may noticeably increase the rate in smaller jurisdictions.

Active Accounts as of September 9th								
TOT	RES Count	COM Count	Active Count	Eligible Count	Participation Percent	ECO100 Count	ECO100 Percent	
ATHERTON INC	2403	226	2629	2718	97%	59	2%	
BELMONT INC	10740	906	11646	11977	97%	171	1%	
BRISBANE INC	1975	495	2470	2537	97%	88	4%	
BURLINGAME INC	13420	1954	15374	15778	97%	347	2%	
COLMA INC	580	290	870	881	99%	32	4%	
DALY CITY INC	30986	1958	32944	34110	97%	108	0%	
EAST PALO ALTO INC	7127	436	7563	7939	95%	25	0%	
FOSTER CITY INC	13660	849	14509	14844	98%	331	2%	
HALF MOON BAY INC	4196	628	4824	4980	97%	114	2%	
HILLSBOROUGH INC	3802	143	3945	4064	97%	71	2%	
LOS BANOS INC	12094	1284	13378	15266	88%	3	0%	
MENLO PARK INC	14051	1687	15738	16072	98%	508	3%	
MILLBRAE INC	8590	641	9231	9548	97%	110	1%	
PACIFICA INC	13999	853	14852	15439	96%	176	1%	
PORTOLA VALLEY INC	1462	130	1592	1690	94%	1493	94%	
REDWOOD CITY INC	31343	3280	34623	35551	97%	713	2%	
SAN BRUNO INC	14795	1061	15856	16526	96%	92	1%	
SAN CARLOS INC	12211	2072	14283	14693	97%	332	2%	
SAN MATEO INC	39750	3859	43609	44864	97%	681	2%	
SO SAN FRANCISCO INC	21404	3088	24492	25471	96%	118	0%	
UNINC SAN MATEO CO	20846	2971	23817	24650	97%	643	3%	
WOODSIDE INC	2009	219	2228	2280	98%	65	3%	

Table reflects data as of September 9th, 2022

In the above table, the participation rate for the City of Los Banos is at 88%. This number is artificially low due to us conducting a rolling enrollment for our NEM customers in Los Banos. Approximately 1176 Los Banos NEM customers have yet to be enrolled in Peninsula Clean Energy service. They will be enrolled monthly on their true-up month with PG&E from September through December. These accounts are included in the Eligible Count column but are not currently active Peninsula Clean Energy customers, and are therefore not included in the Active Count column. The opt-out rate from Los Banos customers who received enrollment notices is currently at 5.0%.

Los Banos Enrollment Notices

The first set of Los Banos enrollment notices was mailed to customers February 14th, 2022, and the second set of enrollment notices was mailed March 8th, 2022. Four sets of enrollment notices are required to be mailed to our future customers in the City of Los Banos; two must be sent pre-enrollment (60 days before and 30 days before), and the other two must be sent post-enrollment (30 days after and 60 days after). Peninsula Clean Energy staff created separate pre-enrollment notices for standard customers, NEM customers, and DAC-GT customers in the City of Los Banos. Our standard welcome postcard will be used as the two required post-enrollment notices.

STRATEGIC PLAN

This section describes how the above Marketing and Community Care activities and enrollment statistics relate to the overall goal and objectives laid out in the strategic plan.

The table indicates which objectives and particular Key Tactics are supported by each of the Items/Projects discussed in this memo. The strategic goal for Marketing and Customer Care is: Develop a strong brand reputation that drives participation in Peninsula Clean Energy's programs and ensures customer satisfaction and retention.

Item/Project	Objective A: Elevate Peninsula Clean Energy's brand reputation as a trusted leader in the community and the industry	Objective B: Educate and engage stakeholders in order to gather input, inspire action and drive program participation	Objective C: Ensure high customer satisfaction and retention
Social Media Policy	KT3 Tell the story of Peninsula Clean Energy through diverse channels		
HPWH Incentive		KT6: Promote programs and services, including community energy programs and premium energy services	
Electrification Messaging Project		KT5: Provide inspirational, informative content that spurs action to reduce emissions.	
EV Campaign		KT6 (see above)	
Building Electrification Awareness Program		KT6 (see above)	
Los Banos UpdateE-bikes for Everyone	KT4: Engage community through participation in local events	KT6 (see above)	
CAC RecruitmentLos Banos Update	KT4: Engage community through participation in local events	KT4: Support the Citizens Advisory Committee	
News and Media AnnouncementsCAC Recruitment	KT1: Position leadership as experts on CCAs and the industry KT2: Cultivate		

	relationships with industry media and influencers KT3 (see above)		
ECO100 and Enrollment Statistics News and Media Announcements	KT1: Position leadership as experts on CCAs and the industry KT2: Cultivate relationships with industry media and influencers KT3 (see above)		Reports on main objective C
ECO100 and Enrollment Statistics			Reports on main objective C

* "KT" refers to Key Tactic

PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence

DATE: September 12, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCE) Board of Directors

FROM: Jeremy Waen, Director of Regulatory Policy
Doug Karpa, Senior Regulatory Analyst
Matthew Rutherford, Senior Regulatory Analyst

SUBJECT: Update Regarding Regulatory Policy Activities

SUMMARY

Over the last month the Regulatory Policy team continues to be busy. Jeremy has focused his time across supporting organizational needs and hiring for his department's new Regulatory Compliance Analyst position. Doug has been particularly heavily focused on work to reform the California Public Utilities Commission's (CPUC) Resource Adequacy construct. Matthew has continued his work in supporting PCE's programmatic efforts through Transportation Electrification, Building Decarbonization, Resiliency, Supplier Diversity, and DAC-Green Tariff matters.

DEEPER DIVE

Welcome to Zsuzsanna Klara, PCE's new Regulatory Compliance Analyst!

As discussed in the prior month's memo, Zsuzsanna Klara has joined PCE's Regulatory Policy team as our new Regulatory Compliance Analyst. Zsuzsanna comes to us by way of Meta (formerly known as Facebook), and prior to that position she served as legal counsel for the Hungarian Energy and Public Utilities Regulatory Authority (the Hungarian analog to the CPUC). She also recently completed her master's in law in global business law at University of Washington. We are quite excited to have her on our team!

DAC-GT/CSGT Programs

The Joint CCAs engaged in the proceeding to review and modify the DAC-GT and CSGT programs (Programs) continue to wait for the CPUC to schedule a Pre-hearing Conference (PHC). The Administrative Law Judge will issue an order following the PHC with which they will establish the scope for the proceeding.

On a parallel track, on September 8, 2022, the CPUC issued a draft resolution approving two petitions for modification (PFMs) that were filed by CCAs that are Program Administrators (PAs) of their own DAC-GT and CSGT programs. The PFMs were both related to the application of the CalEnviroScreen tool (CES) to determine the eligibility of both potential project sites and customers for participating in the programs. The CES uses data to classify certain census tracts as Disadvantaged Communities (DACs) based on measured economic and pollution burdens. CES is updated every 3 years with the most recent data available and the current Program rules require that PAs update their eligibility criteria for new customers and new project sites accordingly.

The PFMs requested that when CES is updated, that PAs be allowed to consider the new DACs additive to the program eligibility rules, rather than replacing the prior DACs. This would allow PAs more consistency in the administration of their programs and acknowledges that current DAC census tracts will continue to face pollution burdens and economic hardships, even if the related data improves slightly over a 3-year period. For PCE, this will expand the list of census tracts whose residents will be eligible to participate in the program. The Commission has the draft resolution related to these two PFMs slated as part of the consent agenda for its September 15, 2022, voting meeting.

(Public Policy Objective A, Key Tactic 1, Key Tactic 2, and Key Tactic 3)

Integrated Resource Planning & Resource Adequacy

The Resource Adequacy (RA) proceeding is moving to a phase of development of the details of the 24-hour resource adequacy construct, including resource counting rules, load profile assignment, compliance templates and CAISO processes. To date, the Working Group has taken up resource counting, compliance methodologies (such as master databases of generators and load forecasting data templates) and counting of hybrid resources. A final proposal should be developed by Q4 2022.

In addition, the CPUC recently requested data from all LSEs regarding their energy hedging practices. It remains to be seen whether and how the Commission may leverage this data to inform its future RA policy. Lastly, the final procurement totals from the Central Procurement Entity (CPE), operated by PG&E, illustrate a dramatic failure to meet its obligations for Local RA procurement for years 2023, 2024, and 2025 with shortfalls of thousands of megawatts in each month. How exactly the Commission will address its CPE market failure remains to be determined as well. In the meantime, this poorly enacted CPE structure is elevating market prices for all ratepayers. Dr. Karpa remains engaged in seeking favorable resolutions of these questions.

On September 8, 2022, Energy Division of the CPUC released a staff report with several options for enforcing procurement requirements. This program would obviate the need for further procurement orders and appears to be primarily focused on meeting reliability and GHG performance metrics, rather than directing specific procurement, although a final decision will not likely be issued before Q1 of 2023. Beyond that, the IRP process continues to be focused on filings and new modeling for the 2022 cycle, including with new templates and requirements being released this month ahead of our filing this fall.

(Public Policy Objective A, Key Tactic 1, and Key Tactic 2; Public Policy Objective C, Key Tactic 3)

Stakeholder Outreach

Dr. Karpa hosted the regular monthly call with staff from CCAs and environmental and environmental justice stakeholders on September 2, 2022, to discuss challenges in Building electrification.

(Public Policy Objective A, Key Tactic 2)

FISCAL IMPACT

Not applicable.

**PENINSULA CLEAN ENERGY AUTHORITY
Board Correspondence**

DATE: September 9, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Marc Hershman, Director of Government Affairs

SUBJECT: Update on Peninsula Clean Energy's Legislative Activities

SACRAMENTO SUMMARY:

The Legislature adjourned for the year on August 31. For climate issues the weeks preceding adjournment were among the busiest and most consequential in recent history.

As we saw in 2021, supplemental budget bills and additional measures providing policy guidance to the budget act – known as trailer bills - continued to be negotiated by the Legislature and the Administration into the final days of the 2022 session.

Peninsula Clean Energy had sent correspondences to our state legislators in support of funding for building decarbonization programs. Copies of those letters were included with the August Legislative Update.

With just 3 days remaining in the legislative session, a supplemental budget bill, **AB 179** (Ting), and 11 trailer bills including an Energy Trailer Bill and Resources Trailer bill, **AB 209** (Ting) and **AB 211** (Ting), respectively, were introduced and passed.

Highlights in the budget bills include an \$859 million energy package that provides, among other spending, \$162 million to support the Equitable Building Decarbonization program of which \$50 million is allocated for the TECH initiative, \$235 million to support zero emission vehicles and infrastructure and \$45 million for offshore wind infrastructure, and \$100 million to support the industrial Grid Support and Decarbonization Program at the California Energy Commission. These funds are in addition to the approximately \$1.3 billion for zero-emission vehicles and \$2.2 billion for energy reserves that were funded in the budget passed in June.

In early August, notably with only weeks remaining in the 2022 session, the governor set forth what he called his 2022 climate legislative proposals. With only days remaining in the legislative session, each of the governor's proposals found a legislative vehicle:

Governor Newsom's 6 Proposals and their eventual legislative vehicles:

- **AB 2133** (Quirk) – would require the California Air Resources Board to ensure that GHG emissions were reduced to at least 55% below their 1990 level by 2030 (an increase from the previous target of 40%).
- **AB 1279** (Muratsuchi) – codifies a prior Executive Order and declares it the state's policy to achieve net-zero GHG emissions by 2045, with at least an 85% reduction in GHG emissions and to achieve and maintain net zero GHG emissions thereafter.
- **SB 1137** (Gonzalez) – establishes a 3,200-foot setback requirement between new oil wells and places where people live or work, including schools.
- **SB 1020** (Laird) – sets interim clean energy targets of 90% by 2035 and 95% by 2040.
- **SB 905** (Caballero & Skinner) – established a framework for capture, utilization, and storage of compressed carbon dioxide (carbon capture and storage).
- **SB 846** (Dodd) – authorizes the extension of the Diablo Canyon Nuclear Power Plant for an additional 5 years. It also authorizes a loan of \$1.4 billion from the state to PG&E to keep Diablo Canyon operating, with \$600 appropriated immediately. The bill includes an expedited process for relicensing the facility and includes specific collections from PG&E and other electric ratepayers.

In response to the Governor's proposals (and before the proposals were committed to writing in the form of legislation), the Assembly floated a counterproposal whose main focus was to oppose the Governor's attempt to extend Diablo Canyon. Among the bullet points in the Assembly effort were two particularly troublesome clauses: one which would specify the CPUC's authority and responsibility to have load serving entities procure power for other load serving entities that are deficient in meeting their new resource procurement targets; and, a second clause that would limit the ability of a load serving entity to increase its load or customer base if the entity has been cited/fined for failing to meet electric reliability requirements (Resource Adequacy Violations).

Peninsula Clean Energy met with local legislators' staff members and energy committee staff to share our concerns with these proposals. Our efforts and those of other CCAs were successful and the troublesome proposals were abandoned for the time-being. It is not clear whether legislation will be introduced in 2023 to address these issues.

Receiving far and away the most attention of the Governor's bills was the legislation to extend the life of the Diablo Canyon Nuclear Power Plant. The effort to extend Diablo

Canyon highlighted an estimated 1.8 GW energy shortfall by 2025. The costs associated with the extension are unknown, as are power prices. However, any costs associated with the extension will be borne by all California ratepayers, although the increase for PG&E ratepayers will be twice the amount paid by others in the state.

When the proposal was initially discussed concern was expressed regarding the size of the benefit that would be realized by PG&E shareholders. Others emphasized the need to accelerate the development of renewable energy resources and storage.

Cited as a reason to act at this time was the desire to get the process moving so that the proper approvals could be in place by 2025, when Diablo Canyon is scheduled to be fully decommissioned, and the availability of federal funding which had to be applied for by a September 6 deadline.

Opponents expressed concern that there have not been sufficient studies of the need for extending Diablo Canyon and that the draft proposal would override environmental protection laws. Further argument was made that there is insufficient time to undertake environmental and other analysis before the 2025 decommissioning deadline and it was pointed out that there would be a high cost to ratepayers and taxpayers and a substantial benefit to PG&E and its shareholders.

To secure votes from wary legislators, and in response to the Assembly's counterproposal, **SB 846** requires \$1 billion be allocated over the next three fiscal years (\$100 million in FY 23-24, \$400 million in FY 24-25, and \$500 million in FY 25-26) to support a Clean Energy Reliability Investment Plan to be developed by the CEC. The investment plan will propose funding that support programs and projects that accelerate the deployment of clean energy resources, support demand response, assist ratepayers, and increase energy reliability.

Ultimately, all the Governor's climate legislative proposals, including the reauthorization of Diablo Canyon, passed both houses of the Legislature with the exception of **AB 2133**, which passed in the Senate but failed in the Assembly.

Another bill of great interest to Peninsula Clean Energy is **SB 1158 (Becker)**. **SB 1158** would mandate the hourly reporting of GHG intensity of load serving entities like Peninsula Clean Energy. It would also require the LSE to report the GHG profile of its Resource Adequacy portfolios.

Peninsula Clean Energy supported **SB 1158** and the bill's goal of improving transparency of LSE progress in meeting its GHG reduction goals, noting that it reflects our organizations 24/7 goals.

Peninsula Clean Energy weighed in with support for **SB 1158** when it was heard and passed in the Senate Committee on Energy, Utilities and Communications and we provided lead testimony at hearings before the Assembly Committee on Utilities and Energy and again when the bill was heard by the Assembly Committee on Natural

Resources. **SB 1158** passed both the Senate and the Assembly and now sits on the governor's desk awaiting his consideration. Peninsula Clean Energy has submitted a letter to the governor asking him to favorably consider and sign **SB 1158** into law. A copy of that letter is included with this report.

Governor Newsom has until September 30 to consider each of the bills passed by the Legislature.



San Mateo County | Atherton | Belmont | Brisbane | Burlingame | Colma | Daly City | East Palo Alto | Foster City
Half Moon Bay | Hillsborough | Los Banos | Millbrae | Menlo Park | Pacifica | Portola Valley | Redwood City | San Bruno |
San Carlos San Mateo | South San Francisco | Woodside

September 7, 2022

The Honorable Gavin Newsom
Governor of California
1021 O St., Ste. 9000
Sacramento, CA 95814

Re: SB 1158 (Becker) – SUPPORT

Dear Governor Newsom,

On behalf of Peninsula Clean Energy Authority, a community choice aggregator (CCA) serving roughly 800,000 Californians in San Mateo County and Los Banos in Merced County, I write to express our strong support for SB 1158 (Becker) and respectfully request you sign SB 1158, a bill that seeks to modernize the collection and reporting of greenhouse gas emissions data associated with electricity delivered to Californians.

Peninsula Clean Energy is a not-for-profit joint powers authority. We deliver 50% renewable and 100 percent carbon-free electricity to all of our customers. Also, we develop and administer local programs to expand electric vehicle adoption for all residents in our service area, improve and advance the resiliency of the local electricity sector, and enhance the communities we serve by reinvesting our revenues in those communities.

California's current regulatory standards for procuring and reporting clean electricity, such as the Renewables Portfolio Standard and Power Source Disclosure program, are tracked on an annual basis. This reporting system does not account for whether contracted generators produce electricity at the same time a load-serving entity's (LSE's) customers use it. At certain hours, an LSE's contracts may generate less clean energy than its customers are using. During those times, an LSE must rely on generic grid electricity (most of which in California comes from methane gas power plants) to make up the difference. In other hours, an LSE's contracts may generate more clean energy than its customers use, and the LSE can "credit" this excess clean generation to the hours when it relies on fossil-based grid energy and net out the grid energy use on an annual basis. While the excess renewable generation contributes to the grid and in some hours generally displaced fossil fuel generation, it continues to send a demand signal for fossil-based energy in those hours when the clean energy contracts do not match the timing of the LSE's customers' energy demand.

Peninsula Clean Energy has taken a leadership position among LSEs and set a goal to deliver 100% renewable energy on a 24/7 basis by 2025. Our goal is to match our renewable energy supply with our load every hour of every day to reduce our demand signal for fossil fuels from the grid. Accordingly, a 24/7 renewable energy approach, which matches renewable energy supply with demand on an hour-by-hour basis, is critically important for the success of our state to achieve our decarbonization goals. Our success in reaching this goal will enable California to help eliminate the demand signal for fossil-based electricity from the grid. Fossil-based generators will run less frequently and become less economical to operate, ultimately helping to expedite the retirement of these polluting resources. The 24/7

procurement approach also helps address the state's grid reliability needs, helping to ensure that there is enough renewable capacity on the grid when it is needed, and helping to address the state's renewable integration challenges characterized by the "duck curve."

The transition to 24/7 procurement is challenging. This is why SB 1158 is vitally important and why we support the bill. It takes a sensible approach by requiring LSEs to report, beginning January 1, 2026, an analysis of an LSE's sources of electricity used to serve loss-adjusted load for each hour during the previous calendar year and the greenhouse gas emissions associated with each of those sources of electricity. This information will enable the state to better understand the greenhouse gas emissions associated with the electricity sector and help move us toward a 24/7 clean and renewable energy system. In addition, the bill requires the CEC to develop rules and guidance for LSEs to report in this fashion. SB 1158 also requires the furnishing of data by electricity suppliers in an hour-by-hour manner so that LSEs can meet the reporting requirements proposed by the bill.

We are proud to support SB 1158 and we thank Senator Becker for bringing forward this important measure. We respectfully request you sign SB 1158 at your earliest convenience.

Sincerely,

Janis C. Pepper

Jan Pepper, CEO

cc: The Honorable Josh Becker

**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: Sept. 17, 2022

BOARD MEETING DATE: Sept. 22, 2022

SPECIAL NOTICE/HEARING: None

VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Jan Pepper, Chief Executive Officer, Peninsula Clean Energy
Rafael Reyes, Director of Energy Programs

SUBJECT: Community Programs Report

SUMMARY

The following programs are in progress, and detailed information is provided below:

1. Building and EV Reach Codes
2. Buildings Programs
 - 2.1. Appliance Rebates and On-Bill Financing
 - 2.2. Low-Income Home Upgrades & Electrification
 - 2.3. Building Pilots
 - 2.4. Refrigerator Recycling
3. Distributed Energy Programs
 - 3.1. Local Government Solar
 - 3.2. Power On Peninsula – Homeowner
 - 3.3. FLEXmarket
 - 3.4. Community Solar, DAC-GT
4. Transportation Programs
 - 4.1. “EV Ready” Charging Incentive
 - 4.2. Used EV Rebate
 - 4.3. EV Ride & Drives/EV Rental Rebate
 - 4.4. E-Bikes for Everyone Rebate
 - 4.5. Municipal Fleets
 - 4.6. Transportation Pilots
5. 2035 Decarbonization Feasibility and Plan

DETAIL

1. Building and EV Reach Codes

Background: In 2018 the Board approved a building “reach code” initiative to support local governments in adopting enhancements to the building code for low-carbon and EV ready buildings. The initiative is a joint project with Silicon Valley Clean Energy (SVCE)

and East Bay Community Energy (EBCE). The program includes small grants to municipalities, technical assistance, and tools, including model codes developed with significant community input. The tools and model code language are available on the project website (www.BayAreaReachCodes.org).

In addition, in January 2020 the Board approved an extension of the reach code technical assistance plus additional elements – Education and training for developers and contractors, and consumer education program on the benefits of all-electric buildings. This technical assistance is publicly available at www.AllElectricDesign.org. In December 2020, the Board approved to extend the contract with TRC Engineers include technical assistance for developing policy for existing buildings. In February 2022 the Board extended the initiative for another two years.

SVCE and Joint Venture Silicon Valley are planning a webinar in September specifically for local elected officials on new and existing building Reach Codes. San Mateo elected officials will be invited to attend.

Model Code Summary

- New construction building electrification codes require all-electric and include a menu of exceptions for cities to choose from
- New construction EV codes are the same as last cycle for most building types, requiring more access than the state code. Multi-family buildings are required to provide at least one level 2 charging access point for every dwelling unit. 15% must be Level 2 charging stations. 85% can be low-power Level 2 EV ready.
- Existing building model codes provide a full menu of options for cities to choose from, including: end of flow requirements, time-of-replacement mandates, time of sale disclosure requirements, and a requirement to upgrade existing EV-capable circuits to EV-ready by a time-certain deadline.

Status:

- **New Construction Codes:** Draft new and existing model codes are available.
- **Existing Building Decarbonization:** Existing building model codes are posted online. During a poll at a City Staff workshop, 64% of respondents stated that they were interested in exploring an existing building reach code.
- **City Progress:** Most cities with reach codes from the prior cycle have begun the renewal process. The following cities are currently advancing code updates:
 - New construction: County of San Mateo, Atherton, , Belmont, Brisbane, Burlingame, Colma, Daly City, Half Moon Bay, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, , San Bruno, San Carlos and City of San Mateo.
 - Existing buildings: Portola Valley, City of San Mateo, Brisbane, Menlo Park (slated for next year.)

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 3: Ensure nearly all new construction is all-electric and EV ready
- Key Tactic 4: Establish preference for all-electric building design and appliance replacement among consumers and building stakeholders

2. Buildings Programs

2.1. Appliance Rebates and Financing

Background: In May 2020, the Board approved a 4-year, \$6.1 million for electrifying existing buildings. This included \$2.8 million for implementing an appliance rebate program. Peninsula Clean Energy successfully launched the heat pump water heater rebates on January 01, 2021 for San Mateo County residents. Peninsula Clean Energy rebates are offered in partnership with BayREN's Home+ program. BayREN offers a rebate of \$1,000 and Peninsula Clean Energy offers an additional rebate of \$1,000 for methane gas to heat pump water heater (HPWH) or \$500 for electric resistance to HPWH. Peninsula Clean Energy also offers a \$1,000 bonus rebate for CARE/FERA customers and rebate up to \$1,500 for electrical panel upgrades that might be needed to accommodate the HPWH. Additionally, in August 2021, the Board approved an On-Bill Financing program with \$1.0 million in loan capital (treated as a balance sheet asset and not part of the annual budget). The program will offer qualified residential customers a 0% interest loan up to \$10,000 to fund the cost of eligible electrification and complementary electrical and energy efficiency upgrades. The program is expected to be launched in October 2022.

Status: The Appliance Rebate Program, initially focused on HPWH rebates was launched on January 01, 2021 and as of September 7, 2022 has issued 278 HPWH rebates, which amounts to \$396,000 or 14% of the total program budget. Overall, the Peninsula Clean Energy program accounts for approximately 32% of the HPWHs installed across the 9-county Bay Area since 2019. Currently 7 San Mateo County contractors and 25 contractors outside the county are enrolled in the program. Peninsula Clean Energy has been promoting the incentive through digital ads, email outreach and other channels. The TECH program that had been providing HPWH, heat pump HVAC, and panel upgrade incentives throughout 2022 ran out of funding in PG&E service territory as of May 12, 2022. Peninsula Clean Energy and BayREN still offer incentives for customers installing HPWH for a total of \$2,000. Additional incentives are available for income-qualified customers and electrical panel upgrades.

Peninsula Clean Energy will be rolling out modifications and enhancements to the appliance rebates program in October 2022. Those include:

1. **Increase HPWH rebate:** currently, residents in San Mateo County making the switch from a methane gas water heater to a HPWH are eligible for \$2,000 in rebates (\$1,000 from Peninsula Clean Energy and \$1,000 from BayREN). In Los

Banos, residents are only eligible for Peninsula Clean Energy's incentives. Before the statewide TECH program ran out of funding, the combined rebates in both territories were between \$3,100 - \$3,800. Based on Peninsula Clean Energy and BayREN data on water heater installations in San Mateo County and the Bay Area, the median installed cost (equipment + labor) of a HPWH is \$6,000 and \$2,000 for a methane gas tank water heater. With the objective of reaching cost parity, Peninsula Clean Energy rebate will increase its HPWH rebate to \$3,000, making the total available \$4,000 when factoring in the BayREN rebate. Los Banos is not in BayREN territory so not eligible for BayREN incentives. Peninsula Clean Energy is studying whether the total incentives for Los Banos could be made equivalent to those available in San Mateo County

2. **Add heat pump heating ventilation and air conditioning (HP HVAC) rebate:** Peninsula Clean Energy has not offered a HP HVAC rebate to date. Before it ran out of funding, TECH offered a \$3,000 rebate. Based on BayREN and TECH data, the median installed cost (equipment + labor) of a HP HVAC system is \$19,000. Based on our research, this is \$500-3,000 more expensive than adding or replacing air conditioning in the same home. Peninsula Clean Energy plans to add a \$3,500 rebate for HP HVAC installations. This will provide support important for proposed existing building electrification codes being considered by multiple cities, which requires new or replaced air conditioners to be heat pumps capable of heating and cooling.
3. **Simplify electrical panel rebates:** currently, Peninsula Clean Energy panel upgrade rebates are as follows: \$750 for subpanel upgrade or addition, \$750 for main panel upgrade up to 200 amps, or \$1,500 for main panel upgrade up to 100 amps. This nuanced rebate structure is a common point of confusion for contractors. With the objective of simplifying the structure, the rebate will be \$1,500 irrespective of type. Before it ran out of funding, TECH offered an additional \$1,300 rebate making the total combined amount to \$2,800. Based on data from Peninsula Clean Energy HPWH projects with panel upgrades, the average cost of a panel upgrade is \$3,700.
4. **Run a temporary marketing bonus:** in 2021, Peninsula Clean Energy ran time limited "bonus" rebates for projects that were completed before a certain date (September 30th). This bonus, paired with a robust marketing campaign, was very effective in driving volume. In the month the bonus expired, the number of installations doubled from that of the previous rate. A new marketing bonus of \$500 for both HPWH and HP HVAC installs will again be put in place to drive volume and motivation for customer action.
5. **Offer rebates to all customers irrespective of contractor used:** currently, in San Mateo County, the program is fully integrated with the BayREN Home+ program, meaning customers can only access they Peninsula Clean Energy rebates if they work with a BayREN-approved contractor. The program was set up this way to streamline the application experience by allowing contractors to submit a single application (through BayREN) on behalf of the customer to get the rebates from both programs. Since BayREN does not operate in Los Banos a separate

rebate application, directly through Peninsula Clean Energy, was created for Los Banos residents. This means in Los Banos, residents are able to work with any contractor or even install the equipment themselves, and still be able to access the Peninsula Clean Energy rebate. Peninsula Clean Energy plans to make this option available to San Mateo County residents as well so they will be able to access the rebates if working with a non-BayREN-approved contractor or installing it themselves. City permits for the installed equipment will be required as part of the application process. The integrated BayREN process will remain, however, as it will continue to be the most streamlined way for customers to access all rebates available through a single application and make use of the experienced electrification contractors who are BayREN-approved.

The cost of electrifying water heating and space heating are higher than doing a gas-to-gas replacement. Incentive support is important to reduce customer costs enabling existing building reach code policy adoption without undue burden to residents. Staff is making these modifications to A) bring fuel switching/electrification to at least cost parity with gas replacements, B) backstop the loss of TECH incentives, and C) support the adoption of existing building reach codes.

Lastly, Peninsula Clean Energy will launch the Zero Percent Financing program (i.e. On-Bill Financing) concurrently with the Appliance Rebates Program modifications and enhancements noted above as the two programs are highly interconnected. Customers will be able to get rebates and finance the net project cost through this program.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 4: Establish preference for all-electric building design and appliance replacement among consumers and building stakeholders

2.2. (Low-Income) Home Upgrade Program

Background: In May 2020, the Board approved \$2 million for implementing a turn-key low-income home upgrade program to offer minor home repair, energy efficiency, and electrification measures to income-qualified homeowners at no cost to them. The measures implemented in each home will vary depending on the home's needs but will include at least one electrification measure such as installing a HPWH or replacing a gas stove with an electric induction stove. The contract with the administration and implementation firm, Richard Heath & Associates (RHA), was executed after being approved by the Board in the March 2021 meeting.

Status: The program was announced on September 28, 2021. The below table summarizes the program's status as of August 31, 2022.

Stage/category	#s as of August 31, 2022
Leads	515
Reached	351
Pre-assessments	251
Enrolled	197
Ineligible	
Installations in progress	21
Fully complete	61

The following table summarizes the number of electrification measures implemented on the fully complete homes.

Measure	Count
Heat pump water heater	28
Induction cooktop/range	15
Electric dryer	18
Central or mini split eat pump (HVAC)	3
Window or wall mounted heat pump (HVAC)	7
Portable heat pump (HVAC)	16

Strategic Plan:

Goal 3 – Community Energy Programs

Objective B: Community Benefits: Deliver tangible benefits throughout our diverse communities

- Key Tactic 1: Invest in programs that benefit underserved communities
- Key Tactic 3: Support workforce development programs in the County

2.3. Building Pilots

Background: In May 2020, The Board approved \$300,000 for piloting a new innovative technology from Harvest Thermal Inc., a Bay Area-based startup, that combines residential space and water heating into a unified heat pump electric system with a single water storage tank. Through this project, this technology will be installed in 3-5 homes within the San Mateo County to assess its performance and demonstrate its effectiveness for emission reductions.

Status: The home recruitment process began in late April 2021 and the project received 290 applications. Homes were selected based on technical criteria (home characteristics, energy usage patterns, and technical feasible of the upgrade within budget). The four pilot homes are located in Daly City, South San Francisco, Redwood City, and Menlo Park. As of September 7, 2022, all four homes have had their system installed. The

consulting firm TRC has been contracted to provide independent measurement and verification services for the project and have begun collecting data on the homes installed. A final report is anticipated in the summer of 2023 after a year a data has been collected and analyzed. Lastly, the Technical Advisory Committee (TAC) had its third meeting on August 31, 2022, following the second meeting on June 2, 2022 and first meeting on September 30, 2021. The objective of the TAC is to review and provided feedback on the project. TAC members include former building officials, former contractor, city commissioner, peer CCA program managers, CPUC staff, CAC member and Board member Jeff Aalfs. Senator Josh Becker toured a Harvest Thermal home and Home Upgrade home on July 20th with PCE staff in attendance.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective C: Innovation and Scale: Leverage leadership, innovation, and regulatory action for scaled impact

- Key Tactic 1: Identify, pilot, and develop innovative solutions for decarbonization

2.4. Refrigerator Recycling

Background: In April 2019, Peninsula Clean Energy launched a small turnkey refrigerator recycling program with a budget of \$75,000 as part of the Community Pilots program. The program administrator, ARCA Recycling, manages orders intake, pick up scheduling, and rebate processing. The objective of the program is to capture high impact greenhouse gas gases from old appliances by facilitating proper recycling of the appliance's refrigerants and foaming agents for insulation (which also continue refrigerants). The initial program budget was exhausted in May but in June 2022, following Board approval, staff executed a contract amendment to continue, and expand the program with an additional budget of \$200,000 over three years (FY23-FY25). The contract amendment includes adding more appliance types (air conditioning units, and allowing non-working units to be eligible) and allowing for bulk pickups from apartment complexes and waste distribution centers.

Status: Since inception in April 2019, the recycling program has recycled 398 refrigerators and freezers resulting in 750 MTCO₂e in greenhouse gas reduction.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 4: Establish preference for all-electric building design and appliance replacement among consumers and building stakeholders

3. Distributed Energy Programs

Peninsula Clean Energy has Board-approved strategies for the promotion of 20 MW of new distributed energy resources in San Mateo County and is advancing distributed energy resources to provide resilience, lower decarbonization costs, provide load shaping to support our strategic goal for 24/7 renewables. The projects described below are efforts towards meeting both of these goals.

3.1. Local Government Solar Program

Background: The Local Government Solar program is aimed at aggregating local government facilities into a group procurement of solar and optionally storage systems. Peninsula Clean Energy provides no-cost site assessments and preliminary designs as well as manages the procurement process. Participating sites have systems installed as part of power purchase agreements directly with Peninsula Clean Energy. As part of the pilot phase, in October 2020, the Board approved a Solar Site Evaluation Services contract with McCalmont Engineering for Solar site evaluation and designs for County and municipal facilities identified as candidates for solar-only or solar + storage resilience projects. In March 2022, the board approved up to \$8 million in capital for system installations to be repaid over 20 years and \$600,000 for technical assistance on the second round of the aggregated solar program. Peninsula Clean Energy developed a portfolio of 15 sites in 13 cities for a total portfolio size of approximately 2 MW of solar. Battery storage will be explored for 4 of the 15 sites. City council commitments for the projects were secured from all 13 cities. A Request for Proposals for equipment was conducted and closed in August.

Status:

Peninsula Clean Energy has completed its RFP evaluation process and identified a strong candidate to be the Engineering, Procurement, and Construction (EPC) contractor to deploy the solar and battery storage projects. Staff is currently working with the legal counsel and the contractor on an agreement

The recent passage of the Inflation Reduction Act (IRA) provides for qualifying tax-exempt entities to receive the Investment Tax Credit (ITC) directly (Direct Pay). Previously, partnership with a Tax Equity firm would have been required to monetize and share in the ITC. Staff has been doing due diligence on this new legislation and the potential for Peninsula Clean Energy to pursue the Direct Pay option, which could potentially result in a lower PPA rate for participating facilities.

3.2. Power On Peninsula – Homeowner

Background: Power on Peninsula – Homeowner is a solar+storage energy resiliency program run by Peninsula Clean Energy in partnership with Sunrun. This program provides energy storage systems paired with solar power to single family and multifamily Peninsula Clean Energy customers. Customers who sign up for this program receive an incentive up to \$500. At Peninsula Clean Energy’s direction, Sunrun will dispatch the stored energy during evening hours when renewable generation on the California grid is low. This will also help Peninsula Clean Energy to reduce its peak load and thereby reduce our resource adequacy requirements.

Status: The program has commenced dispatching customer batteries in the evening to help reduce Peninsula Clean Energy’s net peak. Sunrun is continuing to enroll new customers throughout 2022. The program is being impacted by supply chain issues including contractor, materials, and product supply and cost. Sunrun has significantly increased effective dispatch of battery systems as part of the Peninsula Clean Energy Load Modification agreement and this dispatch has been very supportive of state needs during recent statewide Flex Alerts.

3.3. FLEXmarket

Background: In November 2021 the Board approved a program plan for the establishment of an innovative “virtual power plant” using what is known as FLEXmarket. FLEXmarket is a market-based program structure that provides incentives to program “aggregators” to implement programs for energy efficiency and load shaping. The novel elements of the structure include a “pay-for-performance” approach which only provides incentives on confirmed performance using meter data. This novel structure was innovated by MCE and is also being implemented by East Bay Community Energy and Sonoma Clean Power. In addition, the program plan was developed for submission to the CPUC to allow Peninsula Clean Energy to run the program with fully reimbursed funding through the CPUC. Peninsula Clean Energy’s billing data services provider Calpine has entered into a strategic partnership with the firm Recurve to provide FLEXmarket services through a streamlined structure.

Status: Peninsula Clean Energy’s proposed FLEXmarket program was approved by the CPUC on May 5th and the Board approved the contract with Calpine to implement the program in June. In September, Peninsula Clean Energy and Calpine signed the Second Amendment to the Master Services Agreement to enable the development and launch of the FLEXmarket program. In response to CAISO’s Flex Alert days, and the Governor’s emergency declaration connected to the extreme weather events, Peninsula Clean Energy and Calpine organized a demand response event on September 8, 2022. The results of this demand response event are still being analyzed.

Strategic Plan:

- Distributed Energy Resources: Support strategic decarbonization and local power

- Key Tactic 1: Create minimum of 20 MW of new local renewable power sources in PCE service territory by 2025
- Key Tactic 2: Support distributed energy resources to lower costs, support reliability, and advance distributed and grid decarbonization
- Key Tactic 3: Foster Resilience

3.4. Community Solar, DAC-GT

Background: The Disadvantaged Communities Green Tariff program (“DAC-GT”) and associated Community Solar Green Tariff (“CSGT”) are community solar programs developed by the California Public Utilities Commission (CPUC) to enable DAC residents to participate in renewable energy projects, and to promote development of renewable projects in DACs. Participating customers will receive a 20% discount on their full electric bill (PG&E and Peninsula Clean Energy charges). Peninsula Clean Energy administers these programs on behalf of its customers.

Peninsula Clean Energy began enrolling DAC-GT customers in San Mateo County in January 2022 and customers in Los Banos in April 2022. Those customers are currently served by an interim resource procured from Marin Clean Energy pending Peninsula Clean Energy’s procurement of a new renewable resource for the program.

Per the CPUC DAC program guidelines, Peninsula Clean Energy is authorized to procure up to 3MW of solar capacity. Until a new solar resource is procured, Peninsula Clean Energy will serve customers from MCE’s interim resource. Peninsula Clean Energy executed a PPA with Marin Clean Energy for its existing Goose Lake Solar project, which meets DAC program guidelines, to provide for its DAC customers until a permanent resource is procured.

Status: Peninsula Clean Energy ran an RFP for new renewable resources sited in qualifying DACs in November 2021. Seven DAC-GT projects were offered from four bidders. No CSGT offers were received. Peninsula Clean Energy selected the Dos Palos Clean Power project from this solicitation, and, following Board approval in August 2022, signed a PPA for that resource with Renewable America, LLC. The Dos Palos Clean Power project is a 3MW solar resource located in Dos Palos, CA, approximately 15 miles southeast of the City of Los Banos. The Dos Palos solar resource has a Commercial Operation Date of August 1, 2023.

4. Transportation Programs

4.1. Used EV Rebate Program

Background: Launched in March 2019, the Used EV Rebate Program (formerly referred to as “DriveForward Electric”) provided an incentive up to \$4,000 for the purchase of used plug-in hybrid electric vehicles (PHEVs) and full battery electric vehicles (BEVs) to income-qualified San Mateo County residents (those making 400% of the Federal Poverty

Level or less). The incentives may be combined with other state-funded income-qualified EV incentive programs. In October 2020, the Board approved expanding the program to offer used EV incentives to all San Mateo County and Los Banos residents, while maintaining the increased incentives for income-qualified residents. In February 2021, Peninsula Clean Energy executed a competitively bid contract with GRID Alternatives (“GRID”) to administer the expanded program. The ‘old’ program incentivized 105 rebates from March 2019 through August 2021. In August 2021, the program was officially re-launched. In March 2022, staff made modifications to the program to adjust to market conditions (i.e. high used vehicle prices). Modifications included raising the eligible vehicle price cap from \$25,000 to \$35,000 and increasing the rebate amount for income-qualified residents by \$2,000 taking the maximum rebate amount to \$6,000.

Status: Since the re-launch of the program in August 2021 and as of September 7, 2022, 109 rebates have been provided under the new program and 200+ customers are actively in the pipeline (customers must apply prior to purchase). Since the increased incentives were put in place in March, the program has a substantial increase in applications, doubling the pace from prior months.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 1: Drive personal electrified transportation to majority adoption

Objective B: Community Benefits: Deliver tangible benefits throughout our diverse communities

- Key Tactic 1: Invest in programs that benefit underserved communities

4.2. “EV Ready” Charging Incentive Program

Background: In December 2018 the Board approved \$16 million over four years for EV charging infrastructure incentives (\$12 million), technical assistance (\$2 million), workforce development (\$1 million), and administrative costs (\$1 million). Subsequent to authorization of funding, Peninsula Clean Energy successfully applied to the California Energy Commission (CEC) for the CEC to invest an additional \$12 million in San Mateo County for EV charging infrastructure. Of Peninsula Clean Energy’s \$12 million in incentives, \$8 million was previously administered through the CEC’s California Electric Vehicle Incentive Project (CALeVIP) and \$4 million under a dedicated, complementary Peninsula Clean Energy incentive fund. The dedicated Peninsula Clean Energy incentives address Level 1 charging, assigned parking in multi-family dwellings, affordable housing new construction, public agency new construction, and charging for resiliency purposes. In August, Peninsula Clean Energy elected to directly administer the

not yet approved pool of funds that were previously administered through CALeVIP, worth approximately \$4 million, further described below.

Status: The program is being significantly impacted by supply chain issues including contractor scheduling materials, and product supply and cost. This is resulting in installation delays. Peninsula Clean Energy engaged directly with participating contractors to understand installation delay issues and IBEW 617 to explore solutions. Peninsula Clean Energy's technical assistance and outreach is ongoing. Current outreach is focused on small to medium apartments in San Mateo County (~3,000 buildings). In addition, the Center for Sustainable Energy (CSE), which manages the CALeVIP component of the program for the CEC and Peninsula Clean Energy has had ongoing and serious delays in the program, greatly hampering the ability to install charging stations. To address these issues, Peninsula Clean Energy has now completed implementing changes to the EV Ready program to expedite installations. These include providing customers with greater flexibility in selecting contractors, adjusted incentive levels to account for rising costs, and direct management of all Level 2 projects not already approved by the Center for Sustainable Energy in the CALeVIP program (worth approximately \$4 million in funding). The CALeVIP projects were notified in late August and are in the process of transferring to PCE direct management.

The program changes were implemented, beginning on August 17, and projects that were in the CALeVIP pipeline were asked to reapply for incentives directly with Peninsula Clean Energy. Peninsula Clean Energy also provided outreach to public agencies and other stakeholders to encourage new sites to apply for these incentives. Since the changes were implemented:

- 29 applications received, representing ~\$1.4m in incentives and ~400 ports (143 L1, 213 L2 chargers, 20 L2 outlets, and 13 make ready)
- 13 public agency applications received. Notably, 8 new incentives applications received for Belmont-Redwood Shores School District.
- 15 new sites have enrolled in technical assistance (11 multi-family housing sites including 1 Affordable Housing site and 4 public agency sites, including 3 Ravenswood School District sites and a large project at Menlo Park City Hall)

Summary of program metrics is outlined in the table below:

	Sites/ Applications	Ports	Incentive Amount
# of sites in Technical Assistance	151	1,600+	-
# of site evaluations approved by PCE	103	2,217	-
# of funding applications received in Peninsula Clean Energy incentive program	72	953	\$3,017,500
# of funding applications approved in Peninsula Clean Energy incentive program	42	580	\$1,717,000

# of CALeVIP applications approved in Year 1*	52	785	
Total # of ports installed	12	274	\$791,000

*Includes DCFC and L2 ports: 250 DCFC, 535 L2 ports

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 1: Drive personal electrified transportation to majority adoption
- Key Tactic 5: Support local government initiatives to advance decarbonization

Objective B: Community Benefits: Deliver tangible benefits throughout our diverse communities

- Key Tactic 3: Support workforce development programs in the County

4.3. E-Bikes for Everyone Rebate Program

Background: The Board initially approved the income-qualified E-Bikes Rebate program in July 2020 with a budget of \$300,000, approved an increase of an additional \$300,000 in December 2022, and approved a further increase of \$150,000 in August 2022, bringing the total program budget to \$750,000. The first phase of the program launched in May 2021 and sold out immediately and provided 275 rebates. The second phase is currently underway and will provide up to 470 rebates, including the additional funding approved by the Board of Directors in August to cover the waitlist. The program is available to residents with low to moderate incomes. Silicon Valley Bicycle Coalition is under contract to Peninsula Clean Energy as an outreach and promotional partner and local bike shops are under contract to provide the rebate as a point-of-sale discount to customers. Enrolled bike shops include Summit Bicycles, Mike's Bikes, Sports Basement, Chain Reaction, Woodside Bike Shop, and E-Bix Annex.

Status: The second round of the program is currently underway. 235+ e-bikes have been purchased. The new round utilizes more targeted outreach with community partners and a lottery method for awarding incentives rather than the first-come, first-served method used in the previous round.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation, and initiate the transition to clean energy buildings

- Key Tactic 1: Drive personal electrified transportation to majority adoption

Objective B: Community Benefits: Deliver tangible benefits throughout our diverse communities

- Key Tactic 1: Invest in programs that benefit underserved communities

4.4. Municipal Fleet Program

Background: The Board approved the Municipal Fleet Program in November 2020. This program will run for three years with a total budget of \$900,000 and is comprised of three components to help local agencies begin their fleet electrification efforts: hands-on technical assistance and resources, gap funding, and a vehicle to building resiliency demonstration that will assess the costs and benefits of utilizing fleet EVs as backup power resources for agencies in grid failures and other emergencies. In August 2022, the Board of Directors approved a contract with Optony to assist in administration of this program.

Status: The program is expected to become available in fall 2022. A workshop will be held in the fall to promote the program and recruit local agency fleet managers.

Strategic Plan:

Goal 3 – Community Energy Programs

Objective A: Decarbonization Programs: Develop market momentum for electric transportation and initiate the transition to clean energy buildings

- Key Tactic 2: Bolster electrification of fleets and shared transportation
- Key Tactic 5: Support local government initiatives to advance decarbonization

Objective C: Innovation and Scale: Leverage leadership, innovation, and regulatory action for scaled impact

- Key Tactic 1: Identify, pilot, and develop innovative solutions for decarbonization

4.5. Transportation Pilots

Ride-Hail Electrification Pilot

Background: This pilot, approved by the Board in March 2020, is Peninsula Clean Energy's first program for the electrification of new mobility options. The project partners with Lyft and FlexDrive, its rental-car partner, to test strategies that encourage the adoption of all-electric vehicles in ride-hailing applications with up to 100 EVs. Because ride-hail vehicles drive much higher than average miles per year, each vehicle in this electrification pilot is expected to save over 2,000 gallons of gas and 20 tons of greenhouse gas emissions per year.

Status: The 100 EV fleet has been put into service by Lyft and Peninsula Clean Energy is monitoring progress. 175+ unique drivers have already rented them, with each rental averaging over two months. 1.5 million+ all electric miles have been driven so far with an average of 120 miles/day per vehicle, comparable to gas counterparts. Vehicles include a customer-facing placard that informs riders about the pilot and directs them to

the PCE website for more information.

EV Managed Charging Pilot

Background: Peninsula Clean Energy aims to facilitate EV charging that avoids expensive and polluting evening hours through “managed charging” systems. This work is in the second phase of a pilot. In 2020, Peninsula Clean Energy ran a proof-of-concept pilot for EV managed charging with startup FlexCharging to test timing of EV charging through vehicle-based telematics. This was a limited pilot with approximately 10 vehicles. The system utilizes existing Connected Car Apps and allows Peninsula Clean Energy to manage EV charging via algorithms as a non-hardware-based approach to shift more charging to occur during off-peak hours. The pilot is moving to Phase 2 intended for a larger set of 1,000 to 2,000 vehicles. In October of 2021, the Board approved a contract up to \$220,000 with the University of California, Davis’ Davis Energy Economics Program (DEEP) to develop and advise on an incentive structure experiment that will be used to inform the Peninsula Clean Energy managed charging program design. This collaboration has been ongoing.

Status: Staff released an RFP for the telematics-based platform for the Phase 2 pilot and are currently finalizing contract negotiations. The contract for the recommended winner will be brought to the Board for approval shortly. A Technical Advisory Committee, consisting of staff from CEC, CPUC, CCAs, and NGOs, is also informing the pilot and held its first meeting mid-February. The pilot is temporarily delayed to allow staff to focus on EV charging program modifications and relaunch, though the contract is expected to be brought to the Board in the fall with a launch in early 2023.

Strategic Plan:

Goal 3 – Community Energy Programs

Community Benefits: Deliver tangible benefits throughout our diverse communities
Key Tactic 1: Invest in programs that benefit underserved communities

Innovation and Scale: Leverage leadership, innovation and regulatory action for scaled impact

Key Tactic 1. Identify, pilot, and develop innovative solutions for decarbonization
Pilot and scale EV load shaping programs to ensure that 50% of energy for EV charging takes places in non-peak hours

5. 2035 Decarbonization Feasibility and Plan

Background: In September 2021 the Board adopted a resolution accelerating its goal of reaching carbon neutrality from 2045 to 2035 as follows “Direct Peninsula Clean Energy to adopt a goal of 100% greenhouse gas free by 2035 and direct staff to return with a plan for achieving that goal.” A Board sub-committee was established including Chair DeGolia

and directors Pine, Aalfs, Nash, Parmer-Lohan to oversee the project. The schedule is as follows:

- Q1:** Schedule, scope, market conditions analysis
- Q2:** Segments, costs, and finance options
- Q3:** PCE investment, finance, marketing, roadmap
- Sept. Retreat:** Present draft analysis & plan
- Q4:** Confirm and align budget forecast and finalize plan

Status: See separate memo in the packet.

Strategic Plan:

Goal 3 – Community Energy Programs

Decarbonization Programs: Develop market momentum for electric transportation and initiate the transition to clean energy buildings

Innovation and Scale: Leverage leadership, innovation and regulatory action for scaled impact

Key Tactic 1. Identify, pilot, and develop innovative solutions for decarbonization
Develop strategy for supporting decarbonization by 2035 (updated 2022)

**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: September 9, 2022
BOARD MEETING DATE: September 22, 2022
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors
FROM: Jan Pepper, Chief Executive Officer
SUBJECT: Energy Supply Procurement Report – September 2022

BACKGROUND

This memo summarizes energy procurement agreements entered into by the Chief Executive Officer since the last regular Board meeting in August. This summary is provided to the Board for information purposes only.

DISCUSSION

Execution Month	Purpose	Counterparty	Term
July	Amendment to EEI Agreement	Geysers Power Company, LLC	N/A
September	Agreement to Enable Future Purchases, Sales and Exchanges of Power	Bonneville Power Administration	N/A
September	Amendment #2 of PPA	Chaparral Solar, LLC	N/A

In January 2020, the Board approved the following Policy Number 15 – Energy Supply Procurement Authority.

Policy: “Energy Procurement” shall mean all contracting for energy and energy-related products for PCE, including but not limited to products related to electricity, capacity, energy efficiency, distributed energy resources, demand response, and storage. In Energy Procurement, Peninsula Clean Energy Authority will procure according to the following guidelines:

1) Short-Term Agreements:

- a. Chief Executive Officer has authority to approve Energy Procurement contracts with terms of twelve (12) months or less, in addition to contracts for Resource Adequacy that meet the specifications in section (b) and in Table 1 below.
- b. Chief Executive Officer has authority to approve Energy Procurement contracts for Resource Adequacy that meet PCE’s three (3) year forward

capacity obligations measured in MW, which are set annually by the California Public Utilities Commission and the California Independent System Operator for compliance requirements.

Table 1:

Product	Year-Ahead Compliance Obligation	Term Limit
Local Resource Adequacy	In years 1 & 2, must demonstrate capacity to meet 100% of monthly local obligation for years 1 and 2 and 50% of monthly local obligation for year 3 by November 31 st of the prior year	Up to 36 months
System Resource Adequacy	In year 1, must demonstrate capacity to meet 90% of system obligation for summer months (May – September) by November 31 st of the prior year	Up to 12 months
Flexible Resource Adequacy	In year 1, must demonstrate capacity to meet 90% of monthly flexible obligation by November 31 st of the prior year	Up to 12 months

- c. Chief Financial Officer has authority to approve any contract for Resource Adequacy with a term of twelve (12) months or less if the CEO is unavailable and with prior written approval from the CEO.
 - d. The CEO shall report all such agreements to the PCE board monthly.
- 2) **Medium-Term Agreements:** Chief Executive Officer, in consultation with the General Counsel, the Board Chair, and other members of the Board as CEO deems necessary, has the authority to approve Energy Procurement contracts with terms greater than twelve (12) months but not more than five (5) years, in addition to Resource Adequacy contracts as specified in Table 1 above. The CEO shall report all such agreements to the PCE board monthly.
 - 3) **Intermediate and Long-Term Agreements:** Approval by the PCE Board is required before the CEO enters into Energy Procurement contracts with terms greater than five (5) years.
 - 4) **Amendments to Agreements:** Chief Executive Officer, in consultation with the General Counsel and the Board Chair, or Board Vice Chair in the event that the Board Chair is unavailable, has authority to execute amendments to Energy Procurement contracts that were previously approved by the Board.

STRATEGIC PLAN

The contracts executed in November support the Power Resources Objective A for Low Cost and Stable Power: Develop and implement power supply strategies to procure low-cost, reliable power.

COMMONLY USED ACRONYMS AND KEY TERMS

AB xx – Assembly Bill xx
ALJ – Administrative Law Judge
AMP- Arrears Management Plans
AQM – Air Quality Management
BAAQMD – Bay Area Air Quality Management District
BLPTA – Buyer Liability Pass Through Agreement
CAC – Citizens Advisory Committee
CAISO – California Independent System Operator
CalCCA – California Community Choice Association
CAM – Cost Allocation Mechanism
CAP – Climate Action Plan
CAPP – California Arrearage Payment Program
CARB – California Air Resources Board, or California ARB
CARE- California Alternative Rates for Energy Program
CBA – California Balancing Authority
3CE- Central Coast Community Energy (Formerly Monterey Bay Community Power-MBCP)
CCA – Community Choice Aggregation (aka Community Choice Programs (CCP) or
CCE – Community Choice Energy (CCE)
CCP – Community Choice Programs
CEC – California Energy Commission
CPP- Critical Peak Pricing
CPSF – Clean Power San Francisco
CPUC – California Public Utility Commission (Regulator for state utilities) (Also PUC)
CSD – California Department of Community Services and Development
CSGT - Community Solar Green Tariff
DA – Direct Access
DAC-GT - Disadvantaged Communities Green Tariff
DER – Distributed Energy Resources
DG – Distributed Generation
DOE – Department of Energy
DR – Demand Response
DRP – Demand Response Provider
DRP/IDER – Distribution Resources Planning / Integrated Distributed Energy Resources
EBCE – East Bay Community Energy
ECOplus – PCE’s default electricity product, 50% renewable and 50% carbon-free (in 2021)
ECO100 – PCE’s 100% renewable energy product
EDR – Economic Development Rate
EE – Energy Efficiency
EEI – Edison Electric Institute; Standard contract to procure energy & RA
EIR – Environmental Impact Report
ELCC – Effective Load Carrying Capability
ESP – Electric Service Provider

ESS – Energy Storage Systems
 ESSA – Energy Storage Services Agreement
 ERRA – Energy Resource Recovery Account
 EV – Electric Vehicle
 EVSE – Electric Vehicle Supply Equipment (Charging Station)
 FERA- Family Electric Rate Assistance Program
 FERC – Federal Energy Regulatory Commission
 FFS – Franchise Fee Surcharge
 GHG – Greenhouse gas
 GHG-Free – Greenhouse gas free
 GTSR – Green Tariff Shared Renewables
 GWh – Gigawatt Hours (Energy) = 1000 MWh
 IDER – Integrated Distributed Energy Resources
 IOU – Investor-Owned Utility (e.g. PG&E, SCE, SDG&E)
 IRP – Integrated Resource Plan
 IVR – Interactive Voice Response
 ITC – Investment Tax Credit (it's a solar tax credit)
 JCC – Joint Cost Comparison
 JPA – Joint Powers Authority
 JRC – Joint Rate Comparison
 JRM – Joint Rate Mailer
 kW – kilowatt (Power)
 kWh – Kilowatt-hour (Energy)
 LDS – Long Duration Storage
 LDES – Long Duration Energy Storage
 LIHEAP- Low Income Home Energy Assistance Program
 Load Shaping – changing when grid energy is used
 LSE – Load Serving Entity
 MCE – Marin Clean Energy
 Methane Gas - formerly known as 'natural gas'
 Microgrid – building or community energy system
 MW – Megawatt (Power) = 1000 kW
 MWh – Megawatt-hour (Energy) = 1000 kWh
 MUD – Multi-unit Dwelling
 NBCs – non-bypassable charges
 NEM – Net Energy Metering
 NERC – North American Electric Reliability Corporation
 NDA – Non-Disclosure Agreement
 NG – Natural Gas
 OBF – On-bill Financing
 OBR – On-bill Repayment
 OES – Office of Emergency Services
 OIR – Order Instituting Rulemaking
 PACE – Property Assessed Clean Energy
 PCC – Portfolio Content Category (aka “buckets”) – categories for RPS compliance
 PCC1 – Portfolio Content Category 1 REC (also called bucket 1 REC)
 PCC2 – Portfolio Content Category 2 REC (also called bucket 2 REC)
 PCC3 – Portfolio Content Category 3 REC (also called bucket 3 REC or unbundled REC)

PCE – Peninsula Clean Energy Authority
PCIA – Power Charge Indifference Adjustment
PCL – Power Content Label
PLA – Project Labor Agreement
POU – Publicly Owned Utility
PPA – Power Purchase Agreement
PPSA – Project Participation Share Agreement (CC Power)
PSPS – Public Safety Power Shutoff
PV – Photovoltaics (solar panels)
RA – Resource Adequacy
RE – Renewable Energy
REC – Renewable Energy Credit/Certificate
RICAPS - Regionally Integrated Climate Action Planning Suite
RPS – California Renewable Portfolio Standard
SB xx – Senate Bill xx
SCP – Sonoma Clean Power
SJCE – San Jose Clean Energy
SJVAPCD - San Joaquin Valley Air Pollution Control District
SMD – Share My Data, interval meter data
SQMD – Settlement Quality Meter Data
SVCE – Silicon Valley Clean Energy
TEF – Transportation Electrification Framework (CPUC Proceeding)
TNCs – Transportation Network Companies (ridesharing companies)
TOB – Tariff on Bill
TOU RATES – Time of Use Rates
VGI – Vehicle-Grid Integration
V2G – Vehicle-to-Grid
VPP – Virtual Power Plant
WECC – Western Energy Coordinating Council
WREGIS – Western Renewable Energy Generation Information System
WSPP – Western Systems Power Pool; standard contract to procure energy and RA