Regular Meeting of the Valley Clean Energy Alliance
Board of Directors
Thursday, February 10, 2022 at 5 p.m.
Via Video/Teleconference

Pursuant to Assembly Bill 361 (AB 361), legislative bodies may meet remotely without listing the location of each remote attendee, posting agendas at each remote location, or allowing the public to access each location, with the adoption of certain findings. The Board of Directors found that the local health official recommended measures to promote social distancing and authorized the continuation of remote meetings for the foreseeable future. Any interested member of the public who wishes to listen in should join this meeting via teleconferencing as set forth below.

Please note that the numerical order of items is for convenience of reference. Items may be taken out of order on the request of any Board member with the concurrence of the Board. Staff recommendations are advisory to the Board. The Board may take any action it deems appropriate on any item on the agenda even if it varies from the staff recommendation.

Members of the public who wish to listen to the Board of Director's meeting may do so with the video/teleconferencing call-in number and meeting ID code. Video/teleconference information below to join meeting:

Join meeting via Zoom:

a. **From a PC, Mac, iPad, iPhone, or Android device with high-speed internet. (If your device does not have audio, please also join by phone.)**
   https://us02web.zoom.us/j/89556391876
   Meeting ID: 895 5639 1876

b. **By phone**
   One tap mobile:
   +1-669-900-9128,, 89556391876# US
   +1-253-215-8782,, 89556391876# US

   Dial:
   +1-669-900-9128 US
   +1-253-215-8782 US
   Meeting ID: 895 5639 1876

Public comments may be submitted electronically or during the meeting. Instructions on how to submit your public comments can be found in the PUBLIC PARTICIPATION note at the end of this agenda.

Board Members: Jesse Loren, (Chair/City of Winters), Tom Stallard (Vice Chair/City Woodland), Don Saylor (Yolo County), Dan Carson (City of Davis), Wade Cowan (City of Winters), Mayra Vega (City of Woodland), Gary Sandy (Yolo County), and Lucas Frerichs (City of Davis)

5:00 p.m. Call to Order

1. **Welcome**
2. **Public Comment:** This item is reserved for persons wishing to address the Board on any VCE-related matters that are not otherwise on this meeting agenda or are listed on the Consent portion of the agenda. Public comments on matters listed on the agenda shall be heard at the time the matter is called. As with all public comment, members of the public who wish to address the Board are customarily limited to two minutes per speaker, electronically submitted comments should be limited to approximately 300 words. Comments that are longer than 300 words will only be read for two minutes. All electronically submitted comments, whether read in their entirety or not, will be posted to the VCE website within 24 hours of the conclusion of the meeting. See below under **PUBLIC PARTICIPATION** on how to provide your public comment.

CONSENT AGENDA

3. **Renew authorization of remote public meetings as authorized by Assembly Bill 361.**
4. **Approve January 27, 2022 Board special meeting Minutes.**
5. **Receive 2022 Long Range Calendar.**
6. **Receive Financial Update – December 31, 2021 (unaudited) financial statements.**
7. **Receive February 4, 2022 Regulatory update provided by Keyes & Fox.**
8. **Receive February 2, 2022 Customer Enrollment update.**
9. **Receive Community Advisory Committee January 20, 2022 meeting summary.**
10. **SACOG Grant – Electrify Yolo Project update.**
11. **Time of Use (TOU) Rate Transition update.**
12. **Update on customer program development.**

REGULAR AGENDA

13. **Receive Carbon Neutral by 2030 Draft Report. (Information/Discussion)**
14. **Approve participation in and authorize the Interim General Manager to execute documents associated with VCE participating in the CC Power long duration storage project: Tumbleweed.**
15. **Approve 2022 Customer rates.**
16. **Approve 2022 Operating Budget.**
17. **Approve Line of Credit Agreement with the County of Yolo.**
18. **VCE Three-Year Strategic Plan Annual update. (Informational)**
19. **Board Member and Staff Announcements:** Action items and reports from members of the Board, including announcements, AB1234 reporting of meetings attended by Board Members of VCEA expense, questions to be referred to staff, future agenda items, and reports on meetings and information which would be of interest to the Board or the public.
20. **Adjournment:** The next regular meeting is scheduled for March 10, 2022 at 5 p.m. via video/teleconference.

CLOSED SESSION

Public comment on the closed session item only will be read at this time.

21. **Public Conference with Labor Negotiators Pursuant to Government Code Section 54957.6**

    Agency-designated Negotiators: Don Saylor (VCE Board), Jesse Loren (VCE Board), Eric May (VCE Legal Counsel)

    Unrepresented Employees: Executive Officer

PUBLIC PARTICIPATION INSTRUCTIONS FOR VALLEY CLEAN ENERGY BOARD OF DIRECTORS SPECIAL MEETING ON THURSDAY, FEBRUARY 10, 2022 AT 5:00 P.M.:

PUBLIC PARTICIPATION. Public participation for this meeting will be done electronically via e-mail ***and*** during the meeting as described below.

Public participation via e-mail: If you have anything that you wish to be distributed to the Board and included in the official record, please e-mail it to VCE staff at Meetings@ValleyCleanEnergy.org. If information is received by 3:00 p.m. on the day of the Board meeting it will be e-mailed to the Board members and other staff prior to the meeting. If it is received after 3:00 p.m. the information will be distributed after the meeting, but within 24 hours of the conclusion of the meeting.

Verbal public participation during the meeting: If participating during the meeting, there are two (2) ways for the public to provide verbal comments:

1) If you are attending by computer, activate the "participants" icon at the bottom of your screen, then raise your hand (hand clap icon) under "reactions".
2) If you are attending by phone only, you will need to press *9 to raise your hand. When called upon, please press *6 to unmute your microphone.

VCE staff will acknowledge that you have a public comment to make during the item and will call upon you to make your verbal comment.

Public Comments: If you wish to make a public comment at this meeting, please e-mail your public comment to Meetings@ValleyCleanEnergy.org or notifying the host as described above. Written public comments that do not exceed 300 words will be read by the VCE Board Clerk, or other assigned VCE staff, to the Committee and the public during the meeting subject to the usual time limit for public comments [two (2) minutes]. General written public comments will be read during Item 3, Public Comment. Written public comment on individual agenda items should include the item number in the "Subject" line for the e-mail and the Clerk will read the comment during the item. Items read cannot exceed 300 words or approximately two (2) minutes in length. All written comments received will be posted to the VCE website. E-mail comments received after the item is called will be distributed to the Board and posted on the VCE website so long as they are received by the end of the meeting.

Public records that relate to any item on the open session agenda for a regular or special Board meeting are available for public review on the VCE website. Records that are distributed to the Board by VCE staff less than 72 hours prior to the meeting will be posted to the VCE website at the same time they are distributed to all members, or a majority of the members of the Board. Questions regarding VCE public records related to the meeting should be directed to Board Clerk Alisa Lembke at (530) 446-2750 or Alisa.Lembke@ValleyCleanEnergy.org. The Valley Clean Energy website is located at: https://valleycleanenergy.org/board-meetings/.

Accommodations for Persons with disabilities. 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 Alisa Lembke, VCE Board Clerk/Administrative Analyst, as soon as possible and preferably at least two (2) working days before the meeting at (530) 446-2754 or Alisa.Lembke@ValleyCleanEnergy.org.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report - Item 3

TO: Board of Directors

FROM: Mitch Sears, Interim General Manager
Alisa Lembke, Board Clerk/Administrative Analyst

SUBJECT: Renew Authorization to continue Remote Public Meetings as authorized by Assembly Bill 361

DATE: February 10, 2022

Recommendation

VCE Board renew authorization for remote (video/teleconference) meetings, including any standing or future committee(s) meetings and Community Advisory Committee meetings, by finding:

1. Pursuant to Assembly Bill 361 (AB 361), that, (a) the COVID-19 pandemic state of emergency is ongoing, and (b) local officials continue to recommend measures to promote social distancing.

Background/Summary of AB 361

Pursuant to Government Code Section 54953(b)(3) legislative bodies may meet by "teleconference" only if the agenda lists each location a member remotely accesses a meeting from, the agenda is posted at all remote locations, and the public may access any of the remote locations. Additionally, a quorum of the legislative body must be within the legislative body's jurisdiction.

Due to the COVID-19 pandemic, the Governor issued Executive Order N-29-20, suspending certain sections of the Brown Act. Pursuant to the Executive Order, legislative bodies no longer needed to list the location of each remote attendee, post agendas at each remote locations, or allow the public to access each location. Further, a quorum of the legislative body does not need to be within the legislative body's jurisdiction. After several extensions, Executive Order N-29-20 expired on September 30, 2021.

On September 16, 2021, the Governor signed AB 361, which kept some of the provisions of Executive Order N-29-20. Pursuant to Government Code Section 54953(e), legislative bodies may meet remotely and do not need to list the location of each remote attendee, post agendas at each remote locations, or allow the public to access each location.

However, legislative bodies must first find: (1) the legislative body is meeting during a state of emergency and determine by majority vote that meeting in person would present an imminent risk to the health or safety of attendees; or (2) state or local health officials impose or recommend social distancing measures.

On July 29, 2021, the County Health Officer issued the attached Amended Order for Wearing of Face Coverings in Workplaces and Public Settings. Page 3, Section 7 of the Amended Order states that all persons should wear well-fitted face coverings and practice physical distancing. Further, on September 22, 2021, the Health Officer issued the attached memorandum, recommending that all Brown Act bodies continue to meet remotely.

Government Code Section 54953(e)(1). The legislative body must make the required findings every 30 days, until the end of the state of emergency or recommended or required social distancing. Government Code Section 54953(e)(3). On January 1, 2024, Government Code Section 54953(e) is repealed.

Due to the rise in COVID-19 cases caused by the Delta Variant, on July 29, 2021, the Yolo County Health Officer issued an Amended Order for the Wearing of Face Coverings in Workplaces and Public Settings a recommendation that all Brown Act bodies meet remotely. The Amended Order requires the use of face coverings indoors and states that all persons should continue to protect themselves and others by physical distancing (see Page 3, Section 7). Further, on October 20, 2021 the Health Officer issued a memorandum to the Yolo County Board of Supervisors, reaffirmed their September 22, 2021 memorandum to continue to recommend meetings be held remotely whenever possible.

On January 11, 2022, the Board of Supervisors renewed authorization to continue remote public meetings, pursuant to Assembly Bill 361 and consistent with the attached memorandum from the Yolo County Health Officer dated January 4, 2022, wherein it states the Public Health Officer will continue to evaluate their recommendation and will communicate when there is no longer such a recommendation with respect to meetings for public bodies.

On January 27, 2022, the Board made findings pursuant to AB 361 in order to continue with remote meetings. The highly contagious Omicron Variant continues to spread quickly in Yolo County and the nation, requiring the implementation of additional safety measures and precautions with respect to in-person meetings and social distancing. Therefore, it is recommended that the Board renew authorization for remote (video/teleconference) meetings, including any standing or future committee(s) meetings and Community Advisory Committee meetings.

Staff will continue to monitor the situation as part of our emergency operations efforts and will return to the Board every thirty (30) days or as needed with additional recommendations related to the conduct of public meetings.

Attachments:

1. Yolo County Health Officer memorandum dated 1/4/22 to Board of Supervisors

COUNTY OF YOLO

Health and Human Services Agency

Karen Larsen, ***LMFT***
Director

Aimee Sisson, MD, MPH
Health Officer

MAILING ADDRESS
137 N. Cottonwood Street • Woodland, CA 95695
www.yolocounty.org

Date: January 4, 2022

To: All Yolo County Boards and Commissions

From: Dr. Aimee Sisson, Health Officer

Subject: Remote Public Meetings

On September 22, October 20, and November 20, 2021, I issued memoranda recommending remote meetings. The case rate in Yolo County has increased significantly since the November 20 memorandum, and the current case rate represents high community transmission. In the context of high community transmission, I recommend meetings be held remotely whenever possible. I am re-issuing the earlier memorandum with updated COVID-19 case rate data.

In light of the ongoing public health emergency related to COVID-19 and the high level of community transmission of the virus that causes COVID-19, the Yolo County Public Health Officer recommends that public bodies continue to meet remotely to the extent possible. Board and Commissions can utilize the provisions of newly enacted AB 361 to maintain remote meetings under the Ralph M. Brown Act and similar laws.

Among other reasons, the grounds for the remote meeting recommendation include:

- The continued threat of COVID-19 to the community. As of January 4, 2022, the case rate is 32.3 cases per 100,000 residents per day. This case rate is considered “High” under the Centers for Disease Control and Prevention’s (CDC) framework for assessing community COVID-19 transmission; and

- The unique characteristics of public governmental meetings, including the increased mixing associated with bringing together people from across the community, the need to enable those who are immunocompromised or unvaccinated to be able to safely continue to fully participate in public governmental meetings, and the challenges of ensuring compliance with safety requirements and recommendations at such meetings.

Meetings that cannot feasibly be held virtually should be held outdoors when possible, or indoors only in small groups with face coverings, maximal physical distance between participants, use of a portable HEPA filter (unless comparable filtration is provided through facility HVAC systems), and shortened meeting times.

This recommendation is based upon current conditions and available protective measures. The Public Health Officer will continue to evaluate this recommendation on an ongoing basis and will communicate when there is no longer such a recommendation with respect to meetings for public bodies.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 4

TO: Board of Directors

FROM: Alisa Lembke, Board Clerk / Administrative Analyst

SUBJECT: Approval of Minutes from special January 27, 2022 meeting

DATE: February 10, 2022

RECOMMENDATION

Receive, review and approve the attached January 27, 2022 special meeting Minutes.

MINUTES OF THE VALLEY CLEAN ENERGY ALLIANCE
BOARD OF DIRECTORS SPECIAL MEETING
THURSDAY, JANUARY 27, 2022

The Board of Directors of the Valley Clean Energy Alliance duly noticed their special meeting scheduled for Thursday, January 27, 2022 at 5:00 p.m., to be held via Zoom webinar. Chair Carson established that there was a quorum present and began the meeting at 5:02 p.m.

Board Members Present:	Dan Carson, Jesse Loren, Don Saylor, Gary Sandy, Wade Cowan, Lucas Frerichs
Members Absent:	Mayra Vega, Tom Stallard

Welcome	Chair Carson welcomed everyone.
Election of Officers for 2022	Director Lucas Frerichs nominated Jesse Loren to serve as the 2022 Chair of the VCE Board, seconded by Director Wade Cowan. Motion passed with Directors Mayra Vega and Tom Stallard absent. Motion made by Director Don Saylor nominating Mayra Vega as 2022 Vice Chair, seconded by Director Lucas Frerichs. After a brief discussion, motion was withdrawn. Chair Jesse Loren nominated Tom Stallard to serve as the 2022 Vice Chair of the VCE Board, seconded by Director Dan Carson. Motion passed with Directors Mayra Vega and Tom Stallard absent. Chair Jesse Loren read an honorary proclamation recognizing Dan Carson for his service as Chair.
Public Comment – General and Consent	Chair Loren opened the floor for public comment for items not listed on the agenda and items listed on the Consent Agenda. Gerry Braun provided a verbal public comment on the California Public Utilities Commission (CPUC) considering proposed changes on the utility rates that apply to roof top solar equipment owners. Mr. Braun encourages VCE to do the same as the City Davis Council did on offering thoughtful and measurable input on the proposed changes and he asks that VCE do more. He encourages VCE to have active engagement with the retail solar industry and VCE's customers.

Board Clerk informed those present that there were no written comments.

Approval of Consent Agenda (Resolutions 2022-001 through 2022-004)

Motion made by Director Lucas Frerichs to approve the consent agenda, seconded by Director Wade Cowan. Motion passed with Directors Vega and Stallard absent. The following items were approved, ratified, and/or received:

3. continue remote public meetings as authorized by Assembly Bill 361;
4. November 10, 2021 Board special meeting Minutes;
5. 2022 Long Range Calendar;
6. A) Financial Updates – October 31, 2021 and B) November 30, 2021 financials (unaudited) financial statements;
7. Legislative update;
8. January 19, 2022 Regulatory update provided by Keyes & Fox;
9. January 19, 2022 Customer Enrollment update;
10. Community Advisory Committee November 18, 2021 and December 16, 2021 meeting summaries;
11. Community Advisory Committee 2021 Year End Report;
12. Amendment 26 to the Sacramento Municipal Utilities District Task Order 2 to implement VCE 2022 rate configuration (Resolution 2022-001);
13. copy of signed Amendment 3 to Jim Parks Consulting agreement extending term through June 30, 2022;
14. Near-term Procurement Directives and Delegations for 2022 Power Procurement Activities (Resolution 2022-002);
15. extension of credit agreement to February 28, 2022 with River City Bank (Resolution 2022-003);
16. 2022 Legislative Platform;
17. support of Senate Bill 833 (Dodd) Community Energy Resilience Act of 2022;
18. temporary use of up to $200,000 of the program reserve fund to initiate the Ag FIT (Flexible Irrigation Technology) dynamic pricing pilot; and,
19. GHG Free Attributes for 2022 accepting large hydro and rejecting nuclear (Resolution 2022-004).

Item 21: Receive Marketing and Outreach 2021

Interim General Manager Mitch Sears introduced this item. VCE Staff Rebecca Boyles provided a slide presentation summarizing marketing and outreach efforts in 2021.

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year-in review presentation. (Informational)	The Board discussed: the need for targeted and specific outreach efforts to customers for each of VCE's jurisdictions; increased engagement on social media to build brand awareness and opt ups, including efforts to have each jurisdiction opt up their (building) accounts. There were no written or verbal public comments.
Item 22: Overview of 2022 draft budget and customer rates.	Mr. Sears provided an update on the California Public Utilities Commission (CPUC) filing process and the revised timeline for a decision on Power Charge Indifference Adjustment (PCIA) and PG&E rates. CPUC will be making a decision at their Commission meeting scheduled for February 10th, the same day as the Board's next regular meeting. Mr. Sears reviewed the background, 2022 customer rate and budget scenarios, Community Advisory Committee's January 20, 2022 updated recommendation on this item, and next steps. The Board briefly discussed: impacts to customers, rate structure clarification, timing of re-evaluation of rates, rebates, and programs, and outreach efforts to customers explaining increases. There were no verbal or written public comments.
Item 23: Board Member and Staff Announcements	Director Saylor provided the status on Yolo County's SACOG projects and informed those present that contracts were signed for three (3) Yolo County buildings where electric vehicle charging stations will be installed. Director Carson informed those present that the Davis City Council in response to local comments received, adopted a resolution asking that the proposed decision on Net Energy Metering (NEM) 3.0 be put on hold as more information and analysis is needed. Director Saylor informed those present that Yolo County sent a letter also asking that the proposed decision on NEM 3.0 be placed on hold. Chair Loren informed those present that the City of Winters installed electric vehicle (EV) charging stations with assistance from the SACOG grant. In addition, the city passed ordinances limiting the time an EV owner could use the charger. Lastly, she noted that users of the EV chargers are paying for the electric at the site.

	Mr. Sears informed those present that Staff have been discussing and analyzing potential impacts to customers of NEM 3.0. Staff will continue to analyze impacts to VCE's customers. Mr. Sears informed those present that next week he will be attending the groundbreaking at the Aquamarine site, of which VCE has contracted for 50 Megawatts of energy. Mr. Sears thanked VCE Staff Rebecca Boyles and Sierra Huffman for all of their work on the AgFIT program.
Adjournment	Chair Loren announced that the Board's next regular meeting is scheduled for Thursday, February 10, 2022 at 5 p.m. She announced that the Board will convene into Closed Session and that it is anticipated there will be nothing to report out of closed session. Chair Loren adjourned the regular Board meeting at 6:32 p.m. to go into Closed Session.
CLOSED SESSION: Public Employee Performance Evaluation (Gov. Code Section 54957)	The Board entered into Closed Session at 6:35 p.m. Closed session ended at 7:14 p.m.

Alisa M. Lembke
VCEA Board Secretary

VALLEY CLEAN ENERGY ALLIANCE

Staff Report - Item 5

TO: Board of Directors

FROM: Alisa Lembke, Board Clerk/Administrative Analyst

SUBJECT: Board and Community Advisory Committee 2022 Long-Range Calendar

DATE: February 10, 2022

Recommendation

Receive and file the 2022 Board and Community Advisory Committee long-range calendar listing proposed meeting topics.

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2022 Meeting Dates and ***Proposed*** Topics – Board and Community Advisory Committee

MEETING DATE		TOPICS	ACTION
~~January 13, 2022~~ **Special Meeting scheduled for January 27, 2022**	**Board** ~~WOODLAND~~	• Election of Officers for 2022 (Annual) • Near-term Procurement Directives and Delegations for 2022 Power Procurement Activities • Calendar Year Budget and 2022 VCE customer rates • GHG Free Attributes • 2022 Legislative Platform • Receive CAC 2021 Calendar Year End Report (Annual) • 2021 Year End Review: Customer Care and Marketing	• Action • Action • Action • Action • Action • Informational • Informational
~~January 27, 2022~~ January 20, 2022	**Advisory Committee** ~~WOODLAND~~	• Formation of CAC Task Groups • Update on 2022 Power Charge Indifference Adjustment (PCIA) and Rates • Update on customer program development • CC Power long duration storage (placeholder) • Draft Collections Policy • Draft Carbon Neutral report	• Action • Informational • Informational • Action: Recommendation to Board • Informational/Discussion • Discussion
February 10, 2022	**Board** ~~DAVIS~~	• CC Power long duration storage (placeholder) • Update on customer program development • Update on 2022 PCIA and Rates • Update on Time of Use (TOU) (placeholder) • Update on SACOG Grant – Electrify Yolo (placeholder) • Strategic Plan Update (Annual) • Carbon Neutral Report	• Action • Informational • Informational • Informational • Informational • Informational • Informational/Discussion
February 24, 2022	**Advisory Committee** ~~DAVIS~~	• Update on SACOG Grant – Electrify Yolo (placeholder) • 2022 Task Groups Tasks/Charge (Annual) • Update on Time of Use (TOU) (placeholder) • Power Procurement / Renewable Portfolio Standard Update	• Informational • Discussion/Action • Informational • Informational

		• Presentment of customer program concept • Draft Collection Policy	• Action: Recommendation to Board • Action: Recommendation to Board
March 10, 2022	**Board** ~~WOODLAND~~	• Receive Enterprise Risk Management Report (Bi-Annual) • Collections Policy • Presentment of customer program concept • Time of Use (TOU) (placeholder)	• Informational • Discussion/Action • Action • Discussion/Action
March 24, 2022	**Advisory Committee** ~~WOODLAND~~	• Update on Time of Use (TOU) (placeholder) • Update on customer program concept • Review of Forecasting (load) (placeholder)	• Informational • Informational • Informational/Discussion
April 14, 2022	**Board** DAVIS	• 7/1/21 thru 12/31/21 Audited Financial Statements (James Marta & Co.)	• Action
April 28, 2022	**Advisory Committee** DAVIS	• 2022 and 2023 Power Content Update • Quarterly Strategic Plan update • Presentment of customer program concept • Review of Forecasting (PCIA and PG&E rates) (placeholder)	• Informational • Informational • Action: Recommendation to Board • Information
May 12, 2022	**Board** WOODLAND	• Update on SACOG Grant – Electrify Yolo (placeholder) • Presentment of customer program concept	• Informational • Action
May 26, 2022	**Advisory Committee** WOODLAND	• Power Planning 2023 / Renewable Content • Update 3-Year Programs Plan • Net Energy Metering (NEM) 3.0 (placeholder) • Update on SACOG Grant – Electrify Yolo (placeholder) • Mid-year rates review – feasibility of allocation of funds to other areas (placeholder)	• Discussion/Action • Informational • Informational • Informational • Informational/Discussion
June 9, 2022	**Board** DAVIS	• Re/Appointment of Members to Community Advisory Committee (Annual) • Extension of Waiver of Opt-Out Fees for one year (Annual) • Update 3-Year Programs Plan	• Action • Action • Informational

June 23, 2022	**Advisory Committee** DAVIS	• Prioritizing types of energy (placeholder) • Net Energy Metering (NEM) 3.0 Update (placeholder)	• Discussion/Action • Informational
July 14, 2022	**Board** WOODLAND	• Net Energy Metering (NEM) 3.0 Update (placeholder)	• Informational
July 28, 2022	**Advisory Committee** WOODLAND	• Power Procurement / Renewable Portfolio Standard update • Legislative Bills update	• Informational • Informational
August 11, 2022	**Board** DAVIS	•	•
August 25, 2022	**Advisory Committee** DAVIS	•	•
September 8, 2022	**Board** WOODLAND	• Update on SACOG Grant – Electrify Yolo (placeholder) • 2022 Operating Budget / RPS update • Certification of Standard and UltraGreen Products (Annual) • Enterprise Risk Management Report (Bi-Annual)	• Informational • Informational • Action • Informational
September 22, 2022	**Advisory Committee** WOODLAND	• Legislative End of Session Update • Update on SACOG Grant – Electrify Yolo (placeholder) • Update on Customer Dividend and Programs Allocation • 2023 Operating Budget	• Informational • Informational • Informational • Informational
October 13, 2022	**Board** DAVIS	• Update on 2023 draft Operating Budget • Customer Dividend and Programs Allocation report	• Informational • Action
October 27, 2022	**Advisory Committee** DAVIS	• Update on Power Content Label Customer Mailer • Review Draft Committee Evaluation of Calendar Year End (Annual) • Strategic Plan update	• Informational • Informational / Discussion • Informational
November 10, 2022	**Board** WOODLAND	• Certification of Power Content Label (Annual) • Preliminary 2023 Operating Budget (Annual)	• Action • Informational

November 17, 2022 (rescheduled November 24th meeting due to the Thanksgiving holiday)	**Advisory Committee** WOODLAND	• Finalize Committee Evaluation of Calendar Year End (Annual) • Review draft revised Procurement Guide (placeholder)(Annual) • FY22/23 Operating Budget / RPS update • Power Procurement / Renewable Portfolio Standard Update • Review CAC Charge (tentative) (Annual)	• Discussion/Action • Action: Recommendation to Board • Informational • Informational • Discussion / Action
December 8, 2022	**Board** DAVIS	• Approve 2023 Operating Budget (Annual) • Receive Enterprise Risk Management Report (Annual) • Approve revised Procurement Guide (placeholder)(Annual) • Enterprise Risk Management Report (Annual) • FY22/23 Operating Budget / RPS update • Update on SACOG Grant – Electrify Yolo (placeholder) • Receive CAC 2022 Calendar Year End Report (Annual) • Election of Officers for 2023 (Annual)	• Action • Informational • Action • Informational • Informational • Informational • Informational • Nominations
December 15, 2022 (rescheduled December 22nd meeting due to the Christmas holiday)	**Advisory Committee** DAVIS	• 2023 CAC Task Group(s) formation (Annual) • Election of Officers for 2023 (Annual) • Revise CAC Charge (tentative) (Annual) • Update on SACOG Grant – Electrify Yolo (placeholder)	• Discussion/Action • Nominations • Discussion / Action • Informational
January 12, 2023	**Board** WOODLAND	• Oaths of Office for Board Members (Annual if new Members) • Approve Updated CAC Charge (tentative) (Annual) • Update on Customer Rate/Policy Structure Implementation	• Action • Action • Informational
January 26, 2023	**Advisory Committee** WOODLAND	• Update on Customer Rate/Policy Structure Implementation • Power Procurement / Renewable Portfolio Standard Update • Strategic Plan update	• Informational • Informational • Informational

Note: CalCCA Annual Meeting typically scheduled in November

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 6

TO: Board of Directors

FROM: Mitch Sears, Interim General Manager
Edward Burnham, Finance and Operations Director

SUBJECT: Financial Update – December 1, 2021 (unaudited) financial statements (with comparative year to date information) and Actual vs. Budget year to date ending December 31, 2021

DATE: February 10, 2022

RECOMMENDATION:
Accept the following Financial Statements (unaudited) for the period of December 1, 2021 to December 31, 2021 (with comparative year to date information) and Actual vs. Budget year to date ending December 31, 2021.

BACKGROUND & DISCUSSION:
The attached financial statements are prepared in a form to satisfy the debt covenants with River City Bank pursuant to the Line of Credit and are required to be prepared monthly.

The Financial Statements include the following reports:

- Statement of Net Position
- Statement of Revenues, Expenditures and Changes in Net Position
- Statement of Cash Flows

In addition, Staff is reporting the Actual vs. Budget variances year to date ending December 31, 2021.

<u>Financial Statements for the period December 1, 2021 – December 31, 2021</u>
In the Statement of Net Position, VCEA, as of December 31, 2021, has a total of $3,990,009 in its checking, money market and lockbox accounts, $1,100,000 restricted assets for the Debt Service Reserve account, $1,989,603 restricted assets related to supplier deposits, and $2,461,158 restricted assets for the Power Purchases Reserve account. VCE has incurred obligations from Member agencies and owes as of December 31, 2021, $117,945. VCE member obligations are incurred monthly due to staffing, accounting, and legal services.

The term loan with River City Bank includes a current portion of $1,153,026. On December 31, 2021, VCE's net position is $9,749,097.

In the Statement of Revenues, Expenditures, and Changes in Net Position, VCEA recorded $4,195,092 of revenue (net of allowance for doubtful accounts), of which $3,808,159 was billed in December and $1,768,193 represent estimated unbilled revenue. The cost of the electricity for the December revenue totaled $4,458,815. For December, VCEA's gross margin was approximate -23.78% and net loss totaled ($1,158,362). The year-to-date change in net position was ($2,732,293).

In the Statement of Cash Flows, VCEA cash flows from operations were ($450,670) due to December cash receipts of revenues being less than the monthly cash operating expenses.

<u>Actual vs. Budget Variances for the year to date ending December 31, 2021</u>
Below are the financial statement line items with variances >$50,000 and 5%

- Electric Revenue - $4,939,612 and 20% – variance is due to load being more favorable year-to-date than planned, the continued COVID and recessionary impacts, and the weather has been warmer than forecast, and rate adjustment starting November 1, 2021.
- Purchased Power - $2,689,275 and 10% – variance is due to load being more favorable year-to-date than planned, the COVID and recessionary impacts, and the weather has been warmer than forecast, and rising power costs.
- Program Costs – ($67,500) and (100%) – favorable variance to budget is due to not having utilized budgeted annual program costs expected in later periods.
- Contingency – ($67,867) and (100%) – favorable variance to budget is due to not having a need yet to utilize the contingency funds set aside in the budget.

Attachments:

1) Financial Statements (Unaudited) December 1, 2021 to December 31, 2021 (with comparative year to date information.)
2) Actual vs. Budget for the year to date ending December 31, 2021

VALLEY CLEAN ENERGY ALLIANCE

FINANCIAL STATEMENTS

(UNAUDITED)

FOR THE PERIOD OF DECEMBER 1 TO DECEMBER 31, 2021

PREPARED ON FEBRUARY 2, 2022

VALLEY CLEAN ENERGY ALLIANCE
STATEMENT OF NET POSITION
DECEMBER 31, 2021
(UNAUDITED)

ASSETS		
Current assets:		
Cash and cash equivalents	$	3,990,009
Accounts receivable, net of allowance		7,129,816
Accrued revenue		1,768,193
Prepaid expenses		885,230
Other current assets and deposits		1,998,276
Total current assets		15,771,524
Restricted assets:		
Debt service reserve fund		1,100,000
Power purchase reserve fund		2,461,158
Total restricted assets		3,561,158
Noncurrent assets:		
Other noncurrent assets and deposits		
Total noncurrent assets		-
TOTAL ASSETS	$	19,332,682
LIABILITIES		
Current liabilities:		
Accounts payable	$	529,237
Accrued payroll		63,909
Interest payable		2,786
Due to member agencies		117,945
Accrued cost of electricity		5,332,169
Other accrued liabilities		285,750
Security deposits - energy supplies		1,980,000
User taxes and energy surcharges		118,763
Limited Term Loan		1,153,026
Total current liabilities		9,583,585
Noncurrent liabilities		
Term Loan- RCB		
Total noncurrent liabilities		-
TOTAL LIABILITIES	$	9,583,585
NET POSITION		
Restricted		
Local Programs Reserve		224,500
Restricted		3,561,158
Unrestricted		5,963,439
TOTAL NET POSITION	$	9,749,097

VALLEY CLEAN ENERGY ALLIANCE
STATEMENT OF REVENUES, EXPENDITURES AND
CHANGES IN NET POSITION
FOR THE PERIOD OF DECEMBE 1, 2021 TO DECEMBER 31, 2021
(WITH COMPARATIVE YEAR TO DATE INFORMATION)
(UNAUDITED)

	FOR THE PERIOD ENDING DECEMBER 31, 2021	YEAR TO DATE
OPERATING REVENUE		
Electricity sales, net	$ 3,616,867	$ 29,676,961
TOTAL OPERATING REVENUES	3,616,867	29,676,961
OPERATING EXPENSES		
Cost of electricity	4,458,815	30,132,779
Contract services	195,280	1,383,829
Staff compensation	94,690	537,689
General, administration, and other	24,224	341,143
TOTAL OPERATING EXPENSES	4,773,009	32,395,440
TOTAL OPERATING INCOME (LOSS)	(1,156,142)	(2,718,479)
NONOPERATING REVENUES (EXPENSES)		
Other Revenue		
Interest income	1,325	8,731
Interest and related expenses	(3,545)	(22,545)
TOTAL NONOPERATING REVENUES (EXPENSES)	(2,220)	(13,814)
CHANGE IN NET POSITION	(1,158,362)	(2,732,293)
Net position at beginning of period	10,907,459	12,481,390
Net position at end of period	$ 9,749,097	$ 9,749,097

VALLEY CLEAN ENERGY ALLIANCE
STATEMENTS OF CASH FLOWS
FOR THE PERIOD OF DECEMBER 1 TO DECEMBER 31, 2021
(WITH YEAR TO DATE INFORMATION)
(UNAUDITED)

	FOR THE PERIOD ENDING DECEMBER 31, 2021	YEAR TO DATE
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from electricity sales	$ 4,195,092	$ 31,566,898
Receipts for security deposits with energy suppliers	-	-
Payments to purchase electricity	(3,880,924)	(31,379,421)
Payments for contract services, general, and adminstration	(671,295)	(3,251,148)
Payments for staff compensation	(84,870)	(517,485)
Other cash payments	(8,673)	(11,393)
Net cash provided (used) by operating activities	(450,670)	(3,592,549)
CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES		
Principal payments of Debt	(32,943)	(197,661)
Interest and related expenses	(3,528)	(23,018)
Net cash provided (used) by non-capital financing activities	(36,471)	(220,679)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest income	1,325	8,731
Net cash provided (used) by investing activities	1,325	8,731
NET CHANGE IN CASH AND CASH EQUIVALENTS	(485,816)	(3,804,497)
Cash and cash equivalents at beginning of period	8,036,983	11,355,664
Cash and cash equivalents at end of period	$ 7,551,167	$ 7,551,167
Cash and cash equivalents included in:		
Cash and cash equivalents	3,990,009	3,990,009
Restricted assets	3,561,158	3,561,158
Cash and cash equivalents at end of period	$ 7,551,167	$ 7,551,167

VALLEY CLEAN ENERGY ALLIANCE
STATEMENTS OF CASH FLOWS
FOR THE PERIOD OF DECEMBER 1 TO DECEMBER 31, 2021
(WITH YEAR TO DATE INFORMATION)
(UNAUDITED)

	FOR THE PERIOD ENDING DECEMBER 31, 2021	YEAR TO DATE
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Operating Income (Loss)	$ (1,156,142)	$ (2,718,479)
(Increase) decrease in net accounts receivable	304,244.41	674,395.41
(Increase) decrease in accrued revenue	257,252	1,167,097.74
(Increase) decrease in prepaid expenses	(317,970)	(870,087.00)
(Increase) decrease in inventory - renewable energy credits	-	-
(Increase) decrease in other assets and deposits	(8,673)	(11,393.00)
Increase (decrease) in accounts payable	(33,210)	45,276.00
Increase (decrease) in accrued payroll	9,820	20,204.00
Increase (decrease) in due to member agencies	20,963	(5,461.00)
Increase (decrease) in accrued cost of electricity	577,891	(1,246,642.00)
Increase (decrease) in other accrued liabilities	(121,574)	(695,904.00)
Increase (decrease)security deposits with energy suppliers	-	-
Increase (decrease) in user taxes and energy surcharges	16,729	48,443.90
Net cash provided (used) by operating activities	$ (450,670)	$ (3,592,549)

VALLEY CLEAN ENERGY
ACTUAL VS. BUDGET FYE 12-31-21 (6 Month)
FOR THE YEAR TO DATE ENDING 12/31/21

GL#	Description	12/31/2021 YTD FY2022 Actuals	12/31/2021 YTD FY2022 Budget	YTD Variance	% over/-under
301.00	Electric Revenue	29,676,961	24,737,349	4,939,612	20%
311.00	Interest Revenues	8,731	28,200	(19,469)	-69%
415.00	Purchased Power	30,132,779	27,443,504	2,689,275	10%
	Labor & Benefits	537,689	579,577	(41,888)	-7%
451.10	Salaries & Wages/Benefits	454,502	488,740	(34,237)	-7%
451.20	Contract Labor	-	23,302	(23,302)	-100%
453.41	Human Resources & Payroll	83,187	67,536	15,651	23%
	Office Supplies & Other Expenses	101,938	94,224	7,714	8%
452.10	Technology Costs	15,652	17,016	(1,365)	-8%
452.15	Office Supplies	1,547	1,152	395	34%
452.25	Travel	-	3,048	(3,048)	-100%
452.30	CalCCA Dues	56,075	62,107	(6,033)	-10%
	CC Power	28,440	10,000	18,440	184%
452.35	Memberships	224	900	(676)	-75%
	Contractual Services	1,296,794	1,368,998	(72,204)	-5%
453.10	Other Contract Services	-	12,000	(12,000)	-100%
453.15	Don Dame	5,155	5,000	155	3%
453.20	SMUD - Credit Support	328,787	329,976	(1,189)	0%
453.21	SMUD - Wholesale Energy Services	293,922	292,986	936	0%
453.22	SMUD - Call Center	396,310	393,733	2,577	1%
453.23	SMUD - Operating Services	59,236	30,000	29,236	97%
453.24	Commercial Legal Support	-	-	-	100%
453.25	Legal General Counsel	46,299	75,645	(29,346)	-39%
453.36	Regulatory Counsel	79,726	97,330	(17,604)	-18%
453.37	Joint CCA Regulatory counsel	602	15,759	(15,158)	-96%
453.38	Legislative - (Lobbyist)	35,000	30,000	5,000	17%
453.40	Accounting Services	4,458	12,608	(8,150)	-65%
453.41	Financial Consultant	-	12,500	(12,500)	-100%
453.42	Audit Fees	47,300	61,462	(14,162)	-23%
453.60	PG&E Acquisition Consulting	-	-	-	100%
	Marketing	78,849	117,079	(38,230)	-33%
459.05	Marketing Collateral	78,299	113,940	(35,641)	-31%
459.15	Community Engagement Activities & Sponsorship	550	3,139	(2,589)	-82%
	Programs	-	67,500	(67,500)	-100%
	Program Costs	-	67,500	(67,500)	-100%
	Rents & Leases	7,950	12,060	(4,110)	-34%
457.10	Hunt Boyer Mansion	7,950	12,060	(4,110)	-34%
	Other A&G	236,718	204,145	32,574	16%
459.08	Development - New Members	-	12,000	(12,000)	-100%
459.09	Strategic Plan Implementation	62,261	37,500	24,761	66%
459.10	PG&E Data Fees	133,451	150,149	(16,698)	-11%
459.20	Insurance	9,201	3,865	5,335	138%
459.70	Banking Fees	31,806	630	31,176	4946%
463.10	Miscellaneous Operating Expenses	2,722	3,221	(500)	0%
463.99	Contingency	-	67,867	(67,867)	-100%
	TOTAL OPERATING EXPENSES	32,395,440	29,958,174	2,437,266	8%
481.10	Interest on RCB loan	22,545	23,019	(473)	-2%
	NET INCOME	(2,732,293)	(5,215,643)	2,483,350	-48%

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 7

To: Board of Directors

From: Mitch Sears, Interim General Manager

Subject: Regulatory Monitoring Report – Keyes & Fox

Date: February 10, 2022

Please find attached Keyes & Fox's January 2022 Regulatory Memorandum dated February 4, 2022, an informational summary of the key California regulatory and compliance-related updates from the California Public Utilities Commission (CPUC).

Attachment: Keyes & Fox Regulatory Memorandum dated February 4, 2022.

KEYES&FOX LLP

Valley Clean Energy Alliance

Regulatory Monitoring Report

To: Valley Clean Energy Alliance ("VCE") Board of Directors

From: Sheridan Pauker, Partner, Keyes & Fox LLP
Tim Lindl, Partner, Keyes & Fox LLP
Ben Inskeep, Principal Analyst, EQ Research, LLC

Subject: Regulatory Update

Date: February 4, 2022

Summary

Keyes & Fox LLP and EQ Research, LLC, are pleased to provide VCE's Board of Directors with this monthly informational memo describing key California regulatory and compliance-related updates from the California Public Utilities Commission (CPUC). A Glossary of Acronyms used is provided at the end of this memo.

In summary, this month's report includes regulatory updates on the following priority issues:

- **Ensuring Summer 2021 Reliability:** VCE submitted Advice Letter 11-E on January 5, 2022, detailing information on its implementation of its agricultural irrigation pumping dynamic rates pilot. On January 25, 2022, PG&E filed a protest of VCE's AL 11-E, to which VCE replied on January 31, 2022. On January 31, 2022, VCE, Polaris and TeMix filed a Petition for Modification of D.21-12-015 to authorize a VCE administrative budget for the pilot.
- **IRP Rulemaking:** On January 27, 2022, the CPUC decided to hold until its February 10, 2022, meeting a vote on the Proposed Decision adopting a 2021 Preferred System Plan. The PD, if approved, would certify VCE's 2020 IRP, finding numerous sections were "exemplary." On February 1, 2022, VCE and other LSEs submitted compliance filings updating the CPUC on their incremental procurement.
- **PG&E 2022 ERRA Forecast:** The ALJ issued a Proposed Decision. Parties filed comments on the PD on January 31, 2022, and reply comments on February 3, 2022.
- **RPS Rulemaking:** The CPUC approved D.22-01-025, fining Gexa Energy $352,500 for non-compliance with mandatory reporting requirements of its RPS contracts standard terms and conditions.
- **PG&E's Phase 2 GRC:** On January 14, 2022, a group of parties filed a Settlement Agreement resolving all issues included within the scope related to program and rate design issues for Stage 1 Real-Time Pricing (RTP) Pilots. On January 18, 2022, PG&E filed several motions, including requesting (1) that its Marginal Generation Capacity Cost (MGCC) Study be filed on the same date in this docket as it is required, which was granted by the ALJ in the form of an 8-week extension, and (2) that it be allowed to supplement its testimony in this proceeding with a Declaration on costs, which was also granted. PG&E and CLECA filed a Motion requesting the CPUC to establish a separate expedited schedule to allow a final decision adopting the Joint Stipulation (or otherwise resolving the single carryover issue of material fact about the MGCC

Property Tax Adder) by March 17, 2022. Parties responded to the Motion on February 1, 2022. In addition, an evidentiary hearing on RTP issues was held January 26, 2022, during which a representative from each of the Settling Parties participated in a Settlement Panel.

- **PG&E's Phase 1 GRC:** No updates this month. On November 5, 2021, PG&E filed a motion requesting modifications to the procedural schedule.
- **RA Rulemaking (2023-2024):** On January 19, 2022, the final workshop to develop PG&E's Slice-of-Day proposal and related RA program structural reform was held. On January 21, 2022, parties filed Phase 2 proposals. The Local Capacity Requirement (LCR) Working Group held a meeting on February 2, 2022.
- **PG&E's 2019 ERRA Compliance:** On January 18, 2022, the CCA Parties and TURN filed Phase 2 testimony.
- **PCIA Rulemaking:** On January 27, 2022, the CPUC approved D.22-01-023 targeting improvements to the process of establishing the PCIA in ERRA proceedings.
- **Provider of Last Resort Rulemaking:** A January 27, 2022, email to parties tentatively rescheduled the date of the second workshop to March 7, 2022.
- **2022-2023 Wildfire Fund Nonbypassable Charge Rulemaking:** No updates this month. The CPUC issued D.21-12-006 adopting a Wildfire Fund NBC of $0.00652/kWh for January 1, 2022, through December 31, 2022.
- **Utility Safety Culture Assessments**: No updates this month. On December 29, 2021, parties filed reply comments regarding the preliminary scope and schedule provided in the Order Instituting Rulemaking for this rulemaking to develop and adopt IOU safety culture assessments under SB 901.
- **PG&E's 2020 ERRA Compliance:** No updates this month. On October 15, 2021, parties filed a Settlement Agreement resolving disputed issues in this proceeding.
- **Investigation into PG&E's Organization, Culture and Governance:** No updates this month.
- **PG&E Regionalization Plan**: No updates this month. On September 10, 2021, Parties, including VCE, filed comments on the August 31, 2021, motion for approval of settlement agreements, followed by reply comments on September 17, 2021.
- **Direct Access Rulemaking**: No updates this month. In August, CalCCA filed a response to a July application for rehearing filed by a coalition of parties supporting expansion of Direct Access, who challenged a June CPUC decision that recommended against any re-opening of Direct Access. This proceeding is otherwise closed.
- **RA Rulemaking (2021-2022):** No updates this month. On October 11, 2021, parties filed responses to OhmConnect's Petition for Modification of D.20-06-031, to which OhmConnect responded on October 25, 2021. The October 11, 2021, Order Instituting Rulemaking in the RA Rulemaking (2023-2024) closed this proceeding, except to resolve OhmConnect's Petition for Modification.
- **RA Rulemaking (2019-2020):** No updates this month. Two applications for rehearing remain the only outstanding items to be addressed in this proceeding, which is now closed.

Ensuring Summer 2021 Reliability

VCE submitted Advice Letter 11-E on January 5, 2022, detailing information on its implementation of its pilot. On January 25, 2022, PG&E filed a protest of VCE's AL 11-E, to which VCE replied on January 31, 2022. On January 31, 2022, VCE, Polaris and TeMix filed a Petition for Modification of D.21-12-015 to authorize a VCE administrative budget for the pilot, along with a motion to shorten time for comments.

KEYES&FOX LLP

- **Background**: CAISO experienced rolling blackouts (Stage 3 Emergency) on August 14, 2020, and August 15, 2020, when a heatwave struck the Western U.S. and there was insufficient available supply to meet high demand. The OIR was issued to ensure reliable electric service in the event that an extreme heat storm occurs in the summer of 2021.

  D.21-03-056 instituted modifications to the planning reserve margin (PRM), effectively increasing the PRM beginning summer 2021 from 15% to 17.5%. For 2021, this results in a minimum target of incremental procurement of 450 MW for PG&E, 450 MW for SCE, and 100 MW for SDG&E. The net costs associated with this incremental procurement would be shared by all customers (including CCA customers) in each IOU's service territory. It also authorized the IOUs to implement a Flex Alert paid media campaign program to encourage ratepayers to voluntarily reduce demand during moments of a stressed grid, adopts modifications and expansions to the Critical Peak Pricing (CPP) program, and established an emergency load reduction program.

  D.21-12-015 approved VCE's dynamic rate pilot for three years (2022-2024) and directed that it start no later than May 1, 2022. VCE's pilot will test whether agricultural irrigation pumping customers, which consume on average 18% of VCE's total annual load, can shift load to more optimal times of the day, thereby saving money, reducing burden to the grid and reducing GHG impacts. Customers participating in VCE's dynamic rate pilot will receive a "shadow bill." PG&E may bill participating customers based on existing tariffs, but the shadow bill will show the customer savings under the pilot dynamic rate, and VCE will pay customers for the difference between the shadow bill and the existing tariff. The pilot scale will be limited to 5 MW of peak load. PG&E will provide funds to or reimburse VCE for crediting any savings realized by the customers with respect to the delivery component of the VCE dynamic rate pilot in the customers' shadow bills. D.21-12-015 authorized new funding to PG&E of $3.25 million for the administration and execution of the three-year pilot.

  D.21-12-015 also creates an additional procurement mandate of 2,000 MW-3,000 MW for 2023, allocated exclusively to the three large IOUs (900 MW-1,350 MW each for PG&E and SCE, and 200 MW-300 MW for SDG&E). It requires all incremental resources procured as a result of this proceeding to be available during the net peak. It adopted numerous additional demand-side and supply-side changes aimed at ensuring sufficient resource availability to meet the summer net peak load.

- **Details**: VCE's AL 11-E provided information on the implementation of its Agricultural Pumping Dynamic Rate Pilot as required by D.21-12-015. PG&E filed a protest of AL 11-E asserting that the following requirements applied to the pilot:

  - A Request for Proposals process for the independent evaluator of the pilot.
  - Third-party data security review of VCE and its contractors' systems.
  - A services-style contract between PG&E and VCE in order for VCE to have access to pilot funding authorized in D.21-12-015 for payment of customer pumping automation technology, payment of VCE's vendors and payment of VCE's administrative expenses.
  - VCE reporting to the Energy Division.
  - PG&E has the responsibility to develop the distribution rate component in the pilot.

  VCE filed a reply to VCE on January 31, 2022, asserting, among other points, that a services contract between VCE and PG&E is inappropriate and that additional reporting is duplicative.

  VCE, Polaris and TeMix filed a Petition for Modification of D.21-12-015 to increase the budget for this Pilot to ensure that the total budget covers VCE's administrative costs. VCE, Polaris and TeMix also filed a Motion to Shorten Time for comments on the PFM as well as on the Commission's proposed decision resolving the PFM.

- **Analysis**: PG&E was resistant to the authorization of VCE's pilot in its comments to the Commission, and its actions since the pilot was approved have had the impact of delaying pilot implementation. VCE is seeking approval of its advice letter and petition for modification to facilitate implementation of the pilot.

- **Next Steps**: The proceeding is now closed. PG&E must submit its Tier 2 Advice Letter (in coordination with VCE) on February 4, 2022. VCE must start its pilot by May 1, 2022.
- **Additional Information**: VCE Reply to PG&E Protest of VCE AL 11-E (January 31, 2022); VCE, TeMix and Polaris Petition for Modification (January 31, 2022); Motion to Shorten Time (January 31, 2022); PG&E Protest of VCE AL 11-E (January 25, 2021); D.21-12-069 correcting errors in D.21-12-014 (December 27, 2021); D.21-12-015 (December 6, 2021); D.21-09-045 denying rehearing of D.21-03-056 (September 23, 2021); D.21-06-027 (approved June 24, 2021); Order denying applications for rehearing (May 20, 2021); D.21-03-056 (March 25, 2021); D.21-02-028 directing IOUs to seek additional capacity for summer 2021 (February 17, 2021); Scoping Memo and Ruling (December 21, 2020); Order Instituting Rulemaking (November 20, 2020); Docket No. R.20-11-003.

IRP Rulemaking

On January 27, 2022, the CPUC decided to hold until its February 10, 2022, meeting a vote on the Proposed Decision issued on December 22, 2021 adopting a 2021 Preferred System Plan. The PD, if approved, would certify VCE's 2020 IRP, finding numerous sections were "exemplary." On February 1, 2022, VCE and other LSEs submitted compliance filings updating the CPUC on their incremental procurement.

- **Background**: On September 1, 2020, LSEs including VCE filed their 2020 IRPs, which included updates on each LSE's progress towards completing additional system RA procurement ordered for the 2021-2023 years under D.19-11-016.

  The September 24, 2020 Scoping Memo and Ruling clarified that the issues planned to be resolved in this proceeding are organized into the following tracks: General IRP oversight issues, procurement track, Preferred System Portfolio development, the Transmission Planning Process, and Reference System Portfolio Development.

  D.20-12-044 established a backstop procurement process that would apply to LSEs that did not opt-out of self-procuring their capacity obligations under D.19-11-016. It requires LSEs to file bi-annual (due February 1 and August 1) updates on their procurement progress relative to the contractual and procurement milestones defined in the decision. After review of the compliance filings, CPUC Staff will bring a Resolution before the Commission specifying the amount of backstop procurement required for a particular IOU on behalf of each LSE for each procurement tranche (2021, 2022, and 2023).

  D.21-06-035 established a new procurement mandate of 11,500 MW of additional zero-emitting or RPS-eligible net qualifying capacity to be procured by 2026 by LSEs through long-term (10 or more years) contracts. It ordered that the resources from Diablo Canyon be replaced with at least 2,500 MW of zero-emitting resources. In addition, it specifies that 2,000 MW of the procurement mandate required for 2026 must be "long-lead-time" (LLT) resources, with half coming from long-duration storage and the other half from zero-emitting resources with an 80% or greater capacity factor, with the Decision pointing to geothermal and biomass as the resources best-suited to meet this category. VCE is permitted to use resources that were not online or in-development and contracted and approved by its Board as of June 30, 2020 to count towards its procurement requirements (i.e., contracts approved by the VCE Board and executed after June 30, 2020, can count towards VCE's procurement mandates). LSEs will ***not*** be given the option to opt out up front from providing their proportional share of the capacity required by D.21-06-035. The February 1, 2023 compliance filing will be the first check on the status of LLT resource procurement. VCE's new obligations and a description of the specific resource requirements for each subcategory of procurement are detailed in the following table. **VCE's obligations** are 8 MW by 2023, 23 MW by 2024, 6 MW by 2025, 4 MW of long-duration storage and 4 MW of zero-emitting resources by 2026. In addition, 10 MW out of its 2023-2025 procurement requirements must be met through zero-emitting generating capacity that is available 5-10pm daily.

A pending December 2021 CCA motion for clarification pertains to cost recovery of resources under D.19-11-016, which imposed a 3,300 MW procurement of system RA. Cost recovery and other issues, including RA credits, were to be addressed by a modified Cost Allocation Mechanism (mCAM) that was to be developed by the Commission later in time, but a decision on the mCAM has not yet been issued. Accordingly, the CCAs requested that the CPUC issue an order providing further clarification and interim guidance regarding recently departing load customers.

- **Details**: The PD adopts a 2021 PSP, which is a statewide resource portfolio that meets a statewide 38 MMT GHG target for the electric sector in 2030. It is derived from an aggregation of individual LSE IRPs with adjustments to extend the timeframe beyond 2030 to 2032 for transmission planning purposes and to add the resources required in D.21-06-035 for mid-term reliability (MTR) purposes. The decision recommends that CAISO use the 38 MMT PSP portfolio as both the reliability base case and the policy-driven base case for study in its 2022-2023 Transmission Planning Process. It also directs staff to work with the CEC and CAISO to develop a policy-driven sensitivity case designed to test the transmission buildout necessary for a 30 MMT core portfolio with high electrification.

  The PD would result in VCE's 2020 IRP being certified by the CPUC (in contrast to 24 other LSEs that have to file supplemental information). It calls VCE's IRP "exemplary" with respect to the following sections: preferred conforming portfolios, focus on DACs, cost and rate analysis, hydro generation risk management, and long-duration storage development. The PD also maintains a two-year IRP planning cycle (vs. a 3-year cycle) and establishes a September 1, 2022 deadline for the next round of LSE IRPs.

  The PD recommends the adoption of the 38 MMT "Core Portfolio" updated with the 2020 IEPR managed mid-demand forecast and High EV penetration assumption, which results in the following new resource build by 2032, by technology: Gas: 0 MW; Biomass: 134 MW; Geothermal: 1,160 MW; Wind: 3,531 MW; Wind (New Transmission): 1,500 MW; Offshore Wind: 1,708 MW; Utility-Scale Solar: 17,506 MW; Battery Storage: 13,571 MW; Pumped (long-duration) Storage: 1,000 MW; Load Shed DR: 441 MW.

- **Analysis**: The PD would certify VCE's 2020 IRP. It would also adopt a PSP that accelerates the build-out of clean energy resources by adopting a more aggressive GHG reduction target for the electricity sector over the coming decade (i.e., the 38 MMT instead of the 46 MMT used in the 2020 IRP). The PSP is comprised entirely of renewable energy, energy storage, and demand response resources, with no new gas. The PD would extend the due date of VCE's next IRP by four months to September 1, 2022.

- **Next Steps**: The schedule is as follows:
  - <u>VCE's Next IRP Due Date:</u> September 1, 2022 (if the pending PD is adopted)
  - <u>Procurement track:</u> The PD declines to adopt additional procurement requirements. VCE's next compliance filing for its Mid-Term Reliability procurement demonstration is due February 1, 2022.
  - <u>General IRP oversight issues:</u> The PD would maintain the two-year IRP cycle.
  - <u>Preferred System Portfolio Development:</u> The PD may be heard, at the earliest, at the CPUC's February 10, 2022, business meeting.

- **Additional Information**: Proposed Decision adopting 2021 Preferred System Plan (December 22, 2021); CCA Motion for Clarification (December 13, 2021); D.21-06-035 establishing a 11,500 MW by 2026 procurement mandate (June 24, 2021); D.21-02-028 recommending portfolios for CAISO's 2021-2022 TPP (February 17, 2021); D.20-12-044 establishing a backstop procurement process (December 22, 2020); Scoping Memo and Ruling (September 24, 2020); Resolution E-5080 (August 7, 2020); Order Instituting Rulemaking (May 14, 2020); Docket No. R.20-05-003.

PG&E 2022 ERRA Forecast

On January 24, 2022, the ALJ issued a Proposed Decision. Parties filed comments on January 31, 2022, and reply comments on February 3, 2022.

- **Background**: Energy Resource and Recovery Account (ERRA) forecast proceedings establish the amount of the PCIA and other non-bypassable charges for the following year, as well as fuel and purchased power costs associated with serving bundled customers that utilities may recover in rates.

  On June 1, 2021, PG&E filed its 2022 ERRA Forecast application, requesting a 2022 ERRA forecast revenue requirement for ratesetting purposes of $4.736 billion. After accounting for $2.479 billion of Utility Owned Generation (UOG)-Related Costs and amounts related to capped 2020 departing load PCIA rates addressed in D.20-12-038, PG&E is requesting a revenue requirement request in this application of $2.263 billion.

  PG&E's Fourth Supplemental Testimony included both an "October Update" and a "December Update." A group of CCA parties recommended in comments that the CPUC adopt the proposed forecasted revenue requirements and associated rates from the December Update and requested the rates be implemented by February 1, 2022. The CCA parties said that adopting the December update would reduce likely volatility between 2022 and 2023 rates and that adoption of an October Update would clearly violate State law and Commission precedent. The CCAs noted that PG&E's forecasted costs to serve load in 2022 are 66.5% higher than in 2021.

  CalCCA and the Joint CCAs support a 12-month amortization of the revenue requirements presented in the December Update, rather than the 18-month or 24-month scenarios presented by PG&E in its Fifth Supplemental Testimony in late December. PG&E and DACC also support the 12-month amortization, and Public Advocates Office does not oppose it. In contrast, the California Large Energy Consumers Association, Agricultural Energy Consumers Association, and California Farm Bureau Federation advocate for a 24-month amortization period.

- **Details**: The PD would approve a 2022 forecast of electric sales and energy procurement revenue requirements of $2.4 billion. It would find the December Update, updated again with the actual year end ERRA-main account balance provides the most accurate forecast for 2022 revenue requirements, and approve the 12-month amortization that was supported by CCAs. Under the December Update adopted in the PD, **the 2022 total PCIA rate for 2017-vintaged customers (i.e., most VCE customers) would fall 59% relative to 2021 to $0.02061/kWh for residential customers and to $0.01980/kWh on a system-average basis.** The PD would also agree with the Joint CCAs and DACC that all customers who were financially responsible for the ERRA-PCIA Financing Subaccount (ERRA-PFS) balance should be entitled to the appropriate credit and direct PG&E to transfer the $95 million ERRA-PFS credit for 2022 to the 2020 vintage subaccount. The PD would approve a request by CCAs and direct PG&E to include the confidential workpapers supporting the PCIA rates from the prior year's ERRA Forecast proceeding as part of the Master Data Request it will provide in each subsequent ERRA Forecast proceeding. The PD would deny without prejudice the CCA's request to direct PG&E to provide data demonstrating its future role as a CPE in future ERRA forecast proceedings.

- **Analysis**: The PD results in a 59% reduction to VCE's PCIA rates in 2022 compared to 2021. While the PCIA rate will fall substantially in 2022 for VCE customers, the non-RPS benchmarks that contributed to the reduction in the PCIA in 2022 could result in the opposite effect in 2023. That is, the same high benchmarks that helped reduce the 2022 year's forecast case may be too high compared to next year's actuals, which would create large PABA undercollection balances for 2023 rates. The change in the PCIA rate from the December Update will help mitigate such a swing in rates in 2023. The PD would also improve transparency by approving the CCAs' request for PG&E to provide confidential workpapers supporting the PCIA rates from the prior year's ERRA Forecast proceeding as part of the Master Data Request it will provide in each subsequent ERRA Forecast proceeding.

- **Next Steps**: The final decision can be adopted on February 10, 2022.
- **Additional Information**: Proposed Decision (January 24, 2022); Ruling modifying procedural schedule (January 14, 2022); Ruling directing PG&E to provide amortization scenarios (December 17, 2021); Scoping Memo and Ruling (August 11, 2021); Notice of Prehearing Conference (July 15, 2021); Application (June 1, 2021); Docket No. A.21-06-001.

RPS Rulemaking

On January 27, 2022, the CPUC approved D.22-01-025, fining Gexa Energy $352,500 for non-compliance with mandatory reporting requirements of its RPS contracts standard terms and conditions.

- **Background**: This proceeding addresses ongoing RPS issues. VCE submitted its Final 2020 RPS Procurement Plan on February 19, 2021, its Draft 2021 RPS Procurement Plan on July 1, 2021, and its 2020 RPS Compliance Report on August 2, 2021.

  D.22-01-004 directed VCE to include in its Final 2021 RPS Procurement Plan due February 17, 2022, a discussion "explain[ing] how mid-term reliability procurement obligations impact RPS compliance requirements and how they are included in the quantitative assessment" and update its Project Development Status section to provide additional narrative description of project status. In addition to receiving praise for its sections on portfolio diversity and reliability, VCE is identified as falling under the category of having its current contracts forecasted to meet its 65% long-term contract requirement in contrast to numerous other CCAs and ESPs. D.22-01-004 declined a request by CCAs to allow party comments early in the process on the timing and structure of RPS Procurement Plan filings, finding that the CPUC "do[es] not expect any substantial new filing requirements" and that the requirements have been well established by now. D.22-01-004 also approved a request by several CCAs and directed Energy Division to set a process whereby they inform a retail seller that its Final RPS Plan met the expectations of the Commission.

  A pending Joint Motion by IOUs requests that the CPUC (1) expand the scope of this proceeding to address whether RECs retain their original PCC classification upon allocation under the Voluntary Allocation process; (2) issue guidance on the issue of the PCC classification of allocated RECs before LSEs are required to decide whether to accept allocations on May 1, 2022; and (3) clarify that pro forma Allocation Contracts will be reviewed in early 2022 via Tier 2 advice letter and that only Allocation Contracts materially deviating from the pro forma would be subject to further review through a Tier 1 Advice Letter.
- **Details**: In D.22-01-025, the CPUC found that Gexa, an ESP that is currently not serving any load, met its procurement quantity requirement for the Compliance Period 2014-2016 and retired sufficient RECs. However, by excluding non-modifiable standard terms and conditions, it found Gexa was out of compliance with the requirement to include the nonmodifiable standard terms and conditions in its contract. Gexa retroactively added the non-modifiable and the modifiable standard terms and conditions to its contract after the Compliance Period had closed. Accordingly, the CPUC imposed a fine for the period that the REC Agreement underlying Gexa's Compliance Report was out of compliance with the applicable RPS program rules. The decision assessed a penalty of $352,500.
- **Analysis**: D.22-01-025 provides another example of how the CPUC has strictly interpreted regulatory compliance requirements and issued sizeable penalties in cases of non-compliance.
- **Next Steps**: VCE's Final 2021 RPS Procurement Plan is due February 17, 2022. R.18-07-003 is expected to close in September 2022, with a new proceeding to be opened to address RPS issues going forward.
- **Additional Information**: D.22-01-025 fining Gexa for RPS non-compliance (approved at January 27, 2022, meeting); D.22-01-004 on draft 2021 RPS Procurement Plans (January 18, 2022); D.21-12-032 modifying the ReMAT tariff (December 16, 2021); D.21-11-029 amending RPS

confidentiality rules (November 19, 2021); Petition for Modification of D.20-10-005 on ReMAT pricing (October 8, 2021); Ruling aligning IOU RPS Procurement Plan requirements with PCIA decision (May 26, 2021); Ruling establishing issues and schedule for 2021 RPS Procurement Plans (March 30, 2021); D.21-01-005 directing retail sellers to file final 2020 RPS Procurement Plans (January 20, 2021); Ruling on Staff proposal aligning RPS/IRP filings (September 18, 2020); Scoping Ruling (November 9, 2018); Docket No. R.18-07-003.

PG&E's Phase 2 GRC

On January 14, 2022, a group of parties filed a Settlement Agreement resolving all of the issues included within the scope related to program and rate design issues for Stage 1 Real-Time Pricing (RTP) Pilots. On January 18, 2022, PG&E filed several motions, including requesting (1) that its Marginal Generation Capacity Cost (MGCC) Study be filed on the same date in this docket as it is required, which was granted by the ALJ in the form of an 8-week extension, and (2) that it be allowed to supplement its testimony in this proceeding with a Declaration on costs, which was also granted. On January 21, 2022, PG&E and CLECA filed a Motion requesting the CPUC to establish a separate expedited schedule to allow a final decision adopting the Joint Stipulation (or otherwise resolving the single carryover issue of material fact about the MGCC Property Tax Adder) by March 17, 2022. Parties responded to the Motion on February 1, 2022. In addition, an evidentiary hearing on RTP issues was held January 26, 2022, during which a representative from each of the Settling Parties participated in a Settlement Panel.

- **Background**: PG&E's 2020 Phase 2 General Rate Case (GRC) addresses marginal cost, revenue allocation and rate design issues covering the next three years. D.21-11-016 largely adopted PG&E's proposed marginal costs and methodologies for deriving them but adopted marginal connection equipment costs proposed by the Agricultural Energy Consumers Association and marginal transmission capacity costs proposed by the Solar Energy Industries Association. It also adopted, without modification, several uncontested settlements on rate design issues (residential rate design settlement; settlement on streetlight rate design issues; Economic Development Rate (EDR) settlement; agricultural rate design; C&I rate design) and revenue allocation.

  With respect to CCA issues, the adopted EDR settlement noted that PG&E and the Joint CCAs agreed to create a collaborative process "to identify and vet EDR applicants that will make it easier for CCAs to provide a generation rate reduction to CCA customers who qualify for PG&E's EDR." D.21-11-016 also approved the agricultural rate design settlement that proposed that the unbundling of the PCIA from the generation component of bundled rates be designed as a flat PCIA rate, not differentiated by season or TOU period, consistent with the PCIA rate design for DA and CCA customers. The PCIA rate for bundled customers will use the most recent vintage of the PCIA rate. Finally, D.21-11-016 approved the revenue allocation settlement, including its proposal that before allocating generation revenue, instead of including the PCIA revenue in the overall generation revenue requirement, PCIA revenue will be removed from each customer class's revenue at present rates based on the most recent vintage PCIA rates. Then, PG&E will use the adopted allocation for generation to allocate the PCIA revenue requirement to customer classes.

- **Details**: The Settlement Agreement includes the following terms of the Stage 1 RTP pilot:
  - Eligibility: PG&E's bundled customers who are eligible for the B-20, B-6 and E-ELEC rates may participate on an opt-in basis. CCAs will need to affirmatively decide to participate in the Stage 1 Pilots for their customers to be eligible. PG&E agrees to work with its twelve CCAs to seek agreement from one or two of them to participate in the Stage 1 Pilots, if possible.
  - Duration: Stage 1 Pilots shall have a duration of 24 months, subject to potential extension.
  - Enrollment: PG&E will make its best efforts to program and make available for enrollment the three Stage 1 RTP rates by October 1, 2023.

- Pricing: The RTP element of the Stage 1 Pilot RTP rates will replace the generation component of the customer's otherwise applicable rate schedule. The remaining transmission, distribution, Public Purpose Program and other charges and taxes remain the same as the otherwise applicable underlying rate. The generation component to be used in the Stage 1 Pilots' RTP rates will include: (1) a Marginal Energy Charge, (2) a Marginal Generation Capacity Cost, and (3) a Revenue Neutral Adder (designed to make the forecasted annual generation revenue collected under the three Stage 1 Pilot RTP rates revenue neutral to the base schedule). Residential customers would have 1 year bill protection. There would be a limited amount of participation incentives as well.

All development, implementation and operating costs for the Stage 1 Pilots, as well as for the separate Customer Research Study for residential, agricultural, and small commercial customers, will be recovered in distribution rates from all customers.

PG&E/CLECA filed a Motion requesting to establish a separate expedited schedule to allow a final decision adopting the Joint Stipulation (or otherwise resolving the single carryover issue of material fact about the MGCC Property Tax Adder) by March 17, 2022. The ALJ issued a Ruling on January 25, 2022, directing parties to respond by February 1, 2022.

PG&E filed several motions on January 18, 2022. In the first Motion, PG&E requested the Marginal Generation Capacity Cost (MGCC) Study be filed on the same date in this docket as it is required to be filed in A.20-10-011, the proceeding for the real-time commercial electric vehicle rate (DAHRTPCEV). PG&E further requested an ALJ Ruling setting dates for MGCC related testimony and hearings for this proceeding on a combined basis with the same issues in the DAHRTP-CEV case. A January 25, 2022, email from PG&E indicated that the ALJ approved an 8-week extension. In the second Motion, PG&E requested to supplement its testimony in this proceeding with the Declaration on costs for the Residential Stage 1 RTP pilot.

- **Analysis**: This phase of the proceeding could impact real-time pricing rate design issues for PG&E customers. If the settlement agreement is adopted, VCE could elect to allow its customers to participate in the Stage 1 RTP pilot. The Settlement Agreement provides that cost recovery of development, implementation and operating costs for the Stage 1 Pilots, as well as for the separate Customer Research Study, would be recovered in distribution rates that both bundled PG&E and VCE customers pay.
- **Next Steps**: The proceeding remains open to address RTP issues. PG&E/CLECA reply comments are due February 7, 2022. PG&E's MGCC Study is due March 15, 2022., followed by opening briefs in February 2022, reply briefs in March 2022, a proposed decision in June 2022, and a decision in July 2022.
- **Additional Information**: Ruling on timing to respond to PG&E/CLECA Motion (January 25, 2022); Motion by PG&E/CLECA to establish a separate expedited schedule (January 21, 2022); PG&E Motion on MGCC Study (January 18, 2022); PG&E Motion (January 18, 2022); Motion to Adopt Settlement Agreement (January 18, 2022); D.21-11-016 on revenue allocation and rate design (November 19, 2021); Amended Scoping Memo and Ruling (August 25, 2021); Ruling bifurcating RTP issues into separate track (February 2, 2021); D.20-09-021 on EUS budget (September 28, 2020); Exhibit (PG&E-5) (May 15, 2020); Scoping Memo and Ruling (February 10, 2020); Application, Exhibit (PG&E-1): Overview and Policy, Exhibit (PG&E-2): Cost of Service, Exhibit (PG&E-3): Revenue Allocation, Rate Design and Rate Programs, and Exhibit (PG&E-4): Appendices (November 22, 2019); Docket No. A.19-11-019.

PG&E Phase 1 GRC

No updates this month. On November 5, 2021, PG&E filed a motion requesting modifications to the procedural schedule.

- **Background**: Phase 1 GRC applications cover the revenue requirement, including the functionalization of costs into categories such as electric distribution or generation, which impact which customers (bundled, unbundled, or both) pay for the costs through rates. Phase 2 GRC applications cover cost allocation (i.e., assigning costs to customer classes, such as Residential) and rate design issues. PG&E proposes to have a second and third track of this Phase 1 GRC to request reasonableness review of certain memorandum and balancing account costs to be recorded in 2021 and 2022. PG&E will file its next Phase 2 GRC application by September 30, 2021.

On August 25, 2021, the CPUC Executive Director granted PG&E's request to delay filing its next Phase 2 GRC application until September 30, 2024.

In their protest of PG&E's application, the Joint CCA parties identified the following list of preliminary issues they plan to examine or address in this proceeding:

- **Compliance with the Commission's Cost Allocation Directives in D.20-12-005** (PG&E's most recently decided Phase 1 GRC decision), including PG&E's cost functionalization methodology, wildfire costs, and allocation of Customer Care costs.
- **Reinvestments in and Recovery of Legacy Owned Generation Costs**, including solar contract renewals or the decommissioning of legacy owned assets, which impact Joint CCAs' customers through the PCIA and related vintaging of costs.
- **Other Issues that May Require Further Investigation and Analysis**, including how costs related to PSPS Events should be tracked and allocated; whether and how any funds that PG&E receives as credits (such as Department of Energy settlement funds) should be allocated to departing load customers; and how PG&E's regionalization proposal impacts its relationship and dealings with CCAs and their customers.

The October 1, 2021, Scoping Memo and Ruling divided the proceeding into two tracks. Track 1 will address the majority of matters, including PG&E's requested revenue requirement together with safety and environmental and social justice issues. Track 2 will address the narrower matters of the reasonableness of the 2019-2021 actual costs recorded in the named memorandum accounts and balancing accounts and, to the extent relevant, also address safety and environmental and social justice. In addition to establishing the scope and schedule of the proceeding, the Scoping Memo and Ruling directed PG&E to serve testimony to seek approval for any revisions to the forecasted expenditures for its 10,000-mile undergrounding proposal that fall within the timeframe covered by this proceeding. In addition, in an effort to further explore the available affordability metrics based on a motion by TURN, the Scoping Memo and Ruling directed PG&E to work with Energy Division to prepare an analysis, due one month before intervenor testimony is due. However, TURN's motion requesting a Ruling requiring PG&E to supplement its proposal with an alternative spending plan that limits the growth in proposed spending by the rate of inflation was denied.

- **Details**: PG&E's pending November 5, 2021, Motion requests extending the turn-around time for filing rebuttal testimony from 30 days to 45 days; delaying the start of evidentiary hearings by three weeks to accommodate the proposed rebuttal testimony timeline; and requested an earlier resolution that Q4 2022 as indicated in the Scoping Memo and Ruling of PG&E's July 16, 2021 Motion for a January 1, 2023 effective date for its 2023 revenue requirement.
- **Analysis**: This proceeding will set the revenue requirement, and thereby ultimately impact PG&E's rates, for 2023-2026. It will establish how the revenue requirement components will be functionalized, which impact whether the ultimately approved costs will be borne by PG&E bundled customers, unbundled customers like VCE customers, or both. It will also address numerous other issues raised in PG&E's application that could impact rates, policies, and programs implemented by PG&E.
- **Next Steps**: The next steps in Track 1 are public participation hearings in January/February 2022, a PG&E status report in February 2022 regarding changes to its cost forecast for wildfire programs, a PG&E affordability metrics report at least one month before intervenor testimony, PG&E testimony on its 2021 recorded expenditures by March 22, 2022, and intervenor testimony on April 29, 2022. Proposed and final decisions are anticipated in Q2 2023.

In Track 2, public participation hearings are scheduled for November 2022, and intervenor testimony is due November 14, 2022. A proposed decision is anticipated in Q2 2023, and a final decision is anticipated in Q3 2023.

- **Additional Information**: Ruling denying PG&E Motion to submit supplemental testimony (November 12, 2021); Motion of PG&E to modify procedural schedule (November 5, 2021); Scoping Memo and Ruling (October 1, 2021); PG&E Application (June 30, 2021); Docket No. A.21-06-021.

RA Rulemaking (2023-2024)

On January 19, 2022, the final workshop to develop PG&E's Slice-of-Day proposal and related RA program structural reform was held. On January 21, 2022, parties filed Phase 2 proposals. The Local Capacity Requirement (LCR) Working Group held a meeting on February 2, 2022.

- **Background**: In Track 3B.2 of the 2021-2022 RA Rulemaking (R.19-11-009), D.21-07-014 rejected CalCCA/SCE's proposal for restructuring the RA program, and instead found that PG&E's "slice-of-day" proposal best addresses the identified principles and the concerns with the current RA framework and if is further developed, is best positioned to be implemented in 2023 for the 2024 compliance year. Therefore, it directed parties to collaborate to develop a final restructuring proposal based on PG&E's slice-of-day proposal through a series of workshops. The PG&E Slice of Day Framework will establish RA requirements based on a "slice-of-day" framework, which seeks to ensure load will be met in all hours of the day, not just during gross peak demand hours. The proposal also attempted to ensure there is sufficient energy on the system to charge energy storage resources. The proposed framework would establish RA requirements for multiple slices-of-day across seasons and would establish a counting methodology to reflect an individual resource's ability to produce energy during each respective slice (e.g., six four-hour periods of the day).

  The OIR establishes two tracks to this rulemaking. First, the ongoing major RA structural reforms being considered through a workshop process based on PG&E's "slice-of-day" proposal (previously referred to as "Track 3B.2" in the R.19-11-009 RA rulemaking), is now the "Reform Track" in this rulemaking. All other issues relating to RA procurement obligations and program implementation details will be separated into an "Implementation Track." The Implementation Track will address Local RA requirements for 2023-2026, Flexible RA requirements for 2023-2024, potential modifications to the Central Procurement Entity structure and process, potential modifications to the Planning Reserve Margin, potential modifications to Qualifying Capacity Counting Conventions and Effective Load Carrying Capability (i.e., how different types of resources are counted and credited for RA compliance), and refinements to the RA program.

  The CPUC authorized the creation of a BTM Counting Convention Working Group in D.21-06-029, which was the RA decision that adopted local capacity obligations for 2022-2024, flexible capacity obligations for 2022, and refinements to the RA program. The final product of the working group will be a report that covers both a set of eight issues identified by the CPUC and explicit proposals.

- **Details**: The Scoping Memo and Ruling divided the proceeding into an Implementation Track and Reform Track. The Reform Track encompasses consideration of a final proposed framework and the Workshop Report to be submitted into the RA proceeding in February 2022 now that workshops to develop this proposal have been completed. The Implementation Track is sub-divided into Phases 1, 2, and 3:
  - Phase 1 of the Implementation Track will consider critical modifications to the CPE structure. Phase 1 is expected to conclude by March 2022.
  - Phase 2 consists of the Commission's consideration of flexible capacity requirements for the following year, local capacity requirements for the next three years, and the highest priority refinements to the RA program, which include: Modifications to the Planning

Reserve Margin Qualifying Capacity Counting Conventions, which among other proposals will consider the Energy Division's biennial update to the Effective Load Carrying Capability values for wind and solar resources, including the development of regional values for wind resources. Phase 2 proposals were submitted in January 2022 and this phase is expected to conclude in June 2022. Neither CalCCA nor any CCAs individually filed a Phase 2 proposal.

  - Phase 3 will consider the 2024 program year requirements for flexible RA, and the 2024-2026 local RA requirements. Other modifications and refinements to the RA program, as identified in proposals by parties or by Energy Division may also be considered. Phase 3 is expected to conclude by June 2023.

- **Analysis**: This proceeding will determine VCE's RA obligations and applicable RA rules for the 2023-2024 compliance periods. It will also be the forum for determining major RA structural reforms, such as those being discussed related to PG&E's "slice-of-day" proposal. The workshop process on PG&E's Slice of Day proposal could result in major changes to the RA program structure beginning in the 2024 RA compliance year. The new structure would seek to ensure load (including energy storage charging) will be met in all hours of the day, not just during gross peak demand hours and would move RA from a monthly compliance obligation to a seasonal obligation. The details of the framework would be further fleshed out through the workshop process and need to be approved by the CPUC in 2022.

- **Next Steps**: The procedural schedule for the ongoing tracks and working groups are as follows:

  Phase 1

  - Proposed Decision: February 2022
  - Final Decision: March 2022

  Phase 2

  - Energy Division's loss of load expectation (LOLE) study and proposal: February 1, 2022
  - Workshop on proposals: February 4, 2022
  - Comments on workshop/proposals: February 14, 2022
  - Reply comments on workshop/proposals: February 24, 2022
  - Proposed Decision: May 2022
  - Final Decision: June 2022

  Reform Track

  - Informal comments: February 4, 2022
  - Workshop report: February 2022

  BTM Counting Convention Working Group meeting dates (9am-1pm): February 8, 2022; February 22, 2022.

- **Additional Information**: Ruling modifying procedural schedule (December 10, 2022); Scoping Memo and Ruling (December 2, 2021); Order Instituting Rulemaking (October 11, 2021); Docket No. R.21-10-002.

PG&E's 2019 ERRA Compliance

On January 18, 2022, intervenors filed Phase 2 testimony.

- **Background**: Phase 1 has been resolved. The September 7, 2021, Ruling consolidated the Phase 2 ERRA compliance proceedings of PG&E, SCE, and SDG&E. The issues scoped for Phase 2 are:

  - What is the appropriate methodology for calculating a utility's unrealized volumetric sales and unrealized revenues resulting from PSPS events in any given record year? Based on this methodology, what are the utilities' (PG&E, SCE, and SDG&E) unrealized volumetric sales and unrealized revenues resulting from 2019 PSPS events?

- Whether it is appropriate for the utilities to return the revenue requirement equal to the unrealized volumetric sales and unrealized revenue resulting from the PSPS events in 2019.

At the October 26, 2021, workshop hosted by Energy Division, the IOUs (PG&E, SCE, and SDG&E) made a joint presentation of their proposal for a methodology to calculate the revenue requirement of the estimated unrealized volumetric sales and unrealized revenue resulting from PSPS events. The Joint IOUs' testimony provided additional information on the common methodology for calculating the potential unrealized sales that may result from a PSPS event to be used in a potential rate disallowance, which relies on the energy-related portion of the CPUC-jurisdictional distribution charge for this purpose. CCA representatives pushed back at the October 26, 2021, workshop that the IOUs had not considered unrealized revenues from utility-owned generation that had not been bid into the CAISO market. The ALJ requested the CCAs make a motion to clarify whether that issue is in scope in the proceeding.

Accordingly, the Joint CCAs filed a motion on November 4, 2021, requesting the CPUC clarify the scope of issues in this proceeding. The November 12, 2021, Ruling clarified the CPUC's intent to consider a range of PSPS methodologies, which may be proposed by both the IOUs and other parties. It provided that parties may conduct additional discovery to support their proposal of a reasonable alternative PSPS methodology. The CPUC will consider a PSPS methodology that includes unrealized generation-related volumetric sales and revenues, along with the joint IOU proposal and potentially other PSPS methodologies

Details: According to the Joint IOUs' proposal, only energy-related distribution rates would be used to determine the unrealized revenue from end-use customers de-energized during PSPS events, ignoring several additional retail rates and other sources of revenue that are reduced by PSPS events.

The CCA Parties' testimony identified all retail rate components that should be considered to provide a full accounting of the unrealized retail revenue during PSPS events. The testimony also describes how, absent a ratemaking remedy, the IOUs will fully recover their authorized revenue requirement from all customers, including those receiving no electricity service during PSPS events, through pre-established balancing account mechanisms. The CCA Parties also explain the potential impact of PSPS events on wholesale generation revenue and the need to account any such reductions if generation resources are forced offline due to PSPS events.

The CCA Parties recommend the following:

1. The calculation of unrealized retail revenue during PSPS events should include additional CPUC-jurisdictional rate components tied to balancing accounts that record IOU costs incurred despite lost sales to end use customers.
2. Each IOU should make a full accounting of the balancing accounts implicated by the total unrealized retail revenue.
3. Unrealized wholesale generation revenue should be quantified if utility-owned generation resources, or contracts with take-or-pay provisions, are forced out of service due to a PSPS event.
4. Each IOU should record adjusting entries to affected balancing accounts, equal to the unrealized retail and wholesale generation revenue as applicable, to comply with the Commission's directive to "forgo collection in rates from customers of all authorized revenue requirement equal to estimated unrealized volumetric sales and unrealized revenue resulting from PSPS events."

TURN also filed testimony recommending that all revenue requirements from retail sales be disallowed.

- **Analysis**: Phase 2 of the proceeding is assessing whether PG&E should be required to return its revenue requirement associated with unrealized sales associated with its 2019 PSPS events, and the methodology and inputs for calculating such disallowance. VCE's customers could benefit from such a CPUC-determined disallowance, e.g., via a bill credit or reduced PG&E charges. The November 12, 2021, Ruling clarified that CCAs may dispute the Joint IOUs' unrealized revenue methodology and conduct discovery and propose alternative methodologies, such as those that would fairly consider unrealized revenues from utility-owned generation that had not been bid into the CAISO market unlike the Joint IOUs' proposal.
- **Next Steps**: IOU rebuttal testimony is due February 15, 2022, and a Joint Case Management Statement is due February 25, 2021.
- **Additional Information**: Order Denying Rehearing of D.21-07-018 and PG&E's application for rehearing of D.21-07-013 (December 3, 2021); Ruling consolidating ERRA compliance proceedings (September 7, 2021); PG&E Application for Rehearing of D.21-07-013 (August 16, 2021); D.21-07-013 resolving Phase 1 (July 16, 2021); Joint Motion to Adopt Settlement Agreement (October 22, 2020); Amended Scoping Memo and Ruling (August 14, 2020); Scoping Memo and Ruling (June 19, 2020); PG&E's Application and Testimony (February 28, 2020); Docket No. A.20-02-009.

PCIA Rulemaking

On January 27, 2022, the CPUC approved D.22-01-023 targeting improvements to the process of establishing the PCIA in ERRA proceedings.

- **Background**: D.18-10-019 was issued on October 19, 2018, in Phase 1 of this proceeding and left the current PCIA in place, maintained the current brown power index, and adopted revised inputs to the benchmarks used to calculate the PCIA for energy RPS-eligible resources and resource adequacy capacity. Phase 2 relied primarily on a working group process to further develop a number of PCIA-related proposals. Three workgroups examined three issues: (1) issues with the highest priority: Benchmark True-Up and Other Benchmarking Issues; (2) issues to be resolved in early 2020: Prepayment; and (3) issues to be resolved by mid-2020: Portfolio Optimization and Cost Reduction, Allocation and Auction.

  D.20-08-004, in response to the recommendations of Working Group 2, (1) adopted the consensus framework of PCIA prepayment agreements; (2) adopted the consensus guiding principles, except for one principle regarding partial payments; (3) adopted evaluation criteria for prepayment agreements; (4) did not adopt any proposed prepayment concepts; and (5) clarified that risk should be incorporated into the prepayment calculations by using mutually acceptable terms and conditions that adequately mitigate the risks identified by Working Group Two.

  The Phase 2 Decision, D.21-05-030, addressed the recommendations of PCIA Working Group 3 and removed the cap and trigger for PCIA rate increases, authorized new Voluntary Allocation, Market Offer, and Request for Information processes for RPS contracts subject to the PCIA, and approved a process for increasing transparency of IOU RA resources. However, it did not provide unbundled customers proportional access to system and flexible RA products through the RA voluntary allocation and market offer process proposed by PCIA Working Group 3. Likewise, it declined to provide unbundled customers any access to GHG-Free energy on a permanent basis.

  The CCA Parties' Application for Rehearing of D.21-05-030 challenges the Decision's rejection of the RA voluntary allocation and market offer and GHG-free energy allocation. It argues that D.21-05-030 violates Public Utilities Code Section 366.2(g), which guarantees CCA customers the full benefit of the resources for which they bear cost responsibility through the PCIA charge. While CCA customers pay for the RA and GHG-Free products in the PCIA portfolio, the Phase 2 Decision, provides only bundled customers preferential access to RA products and no access to GHG-Free energy on a long-term basis. The CCA Parties argue that since D.21-05-030 effectively requires unbundled customers to pay equally for benefits only bundled customers receive, the Phase 2 Decision also violates the Section 365.2 prohibition against cost-shifting among unbundled and bundled customers.

A Staff Proposal on which the August Ruling requested comments would move the Market Price Benchmark calculation date up by one month – from November 1 to October 1 – to allow for a "normal" proceeding schedule and enable flexibility in addressing last- minute issues. Staff's analysis found that the effects of changes in the forecast RPS and RA adders on PCIA rates are relatively small and concluded that the largest driver of changes to PCIA rates would be the energy index.

- **Details**: D.22-01-023 modifies the PCIA market price benchmark release date to October 1 and the deadline for ERRA forecast applications to May 15 to enable the Commission to timely issue decisions on ERRA forecast applications. It adopted party proposals to establish a policy for disposition of the year-end balance in the ERRA account and to modify the calculation of the ERRA trigger point and threshold. It also adopted party proposals to support efficient party access to ERRA forecast proceeding data.

  The PD would keep the proceeding open to consider additional Phase 2 issues, including:

  - Whether greenhouse gas-free resources are under-valued in the PCIA, and if so, whether to adopt an adder or allocation mechanism.
  - Whether to adopt a new method to include long-term fixed-price transactions in calculating the Renewables Portfolio Standard adder.
  - Whether to modify the calculation of the PCIA energy index market price benchmark.
  - Whether to provide CCAs with access to confidential, market sensitive ERRA monthly reports information for the non-proceeding purpose of creating PCIA rate forecasts.
- **Analysis**: D.22-01-023 makes improvements to the annual ERRA process and CCA access to pertinent IOU data.
- **Next Steps**: D.21-05-030 identified the following next steps:
  - **February 2022**: After approval of the joint methodology advice letter, IOUs will inform LSEs of their potential Voluntary Allocation shares.
  - **May 2022**: IOUs and LSEs complete the process of determining interest in Allocation elections.
  - **June 2022**: Each IOU confirms Voluntary Allocations and propose Market Offers in their 2022 RPS Procurement Plans. LSEs request approval for Voluntary Allocations in their 2022 RPS Procurement Plans.
- **Additional Information**: D.22-01-023 on Phase 2 (approved January 27, 2021); Ruling requesting comments on PCIA forecasting data access (November 5, 2021); Ruling requesting comments (September 17, 2021); CalCCA Application for Rehearing of D.21-05-030 (June 23, 20210: D.21-05-030 on PCIA Cap and Portfolio Optimization (May 24, 2021); D.21-03-051 granting petition to modify D.17-08-026 (March 26, 2021); Amended Scoping Memo and Ruling (December 16, 2020); Joint IOUs PFM of D.18-10-019 (August 7, 2020); D.20-08-004 on Working Group 2 PCIA Prepayment (August 6, 2020); D.20-06-032 denying PFM of D.18-07-009 (July 3, 2020); D.20-03-019 on departing load forecast and presentation of the PCIA (April 6, 2020); D.20-01-030 denying rehearing of D.18-10-019 as modified (January 21, 2020); D.19-10-001 (October 17, 2019); D.18-10-019 Track 2 Decisions adopting the Alternate Proposed Decision (October 19, 2018); D.18-09-013 Track 1 Decision approving PG&E Settlement Agreement (September 20, 2018); Docket No. R.17-06-026.

Provider of Last Resort Rulemaking

A January 27, 2022, email to parties tentatively rescheduled the date of the second workshop to March 7, 2022.

- **Background**: A POLR is the utility or other entity that has the obligation to serve all customers (e.g., PG&E is currently the POLR in VCE's territory). In 2019 the Legislature passed SB 520, which defined POLR for the first time in statute, confirmed that each IOU is the POLR in its service territory, and directed the Commission to establish a framework to allow other entities to apply and become the POLR for a specific area (a “Designated POLR”). This rulemaking will implement SB 520.

  The Scoping Memo and Ruling describes the issues that are within scope in the proceeding and the procedural schedule going forward, although most of the procedural dates currently lack specificity. Phase 1 of this OIR will address POLR service requirements, cost recovery, and options to maintain GHG emission reductions in the event of an unplanned customer migration to the POLR. Phase 2 will build on the Phase 1 decision to set the requirements and application process for other non-IOU entities (i.e., a CCA, Energy Service Provider, or third-party) to be designated as the POLR in place of an existing POLR. Phase 3 will address specific outstanding issues not resolved in Phase 1 and 2 of this proceeding.

  On December 17, 2021, parties filed comments in response to the November 23, 2021, ALJ Ruling posing questions addressing: (1) clarity and content of the Workshop 1 notes filed by CalCCA on November 5, 2021, and (2) questions on Workshop 1 and what changes if any are recommended to adequately meet POLR requirements. CalCCA comments included the following recommendations:

  - POLR service should be limited to 60 days to allow returned customers to transition from the returning LSE to the customer’s chosen LSE, consistent with the existing “safe harbor” provision for DA switching.
  - Given the limited term and scope of service and the need to avoid unnecessary costs, the POLR should not engage in advance procurement or hedging.
  - RPS and IRP responsibility for returned customers should shift directly from the returning LSE to the customer’s new LSE, with a waiver of these obligations for the POLR consistent with the existing waiver for RA obligations adopted in D.20-06-031.
  - The CPUC should compare Reentry Fees and actual costs for Western Community Energy’s customer return to determine whether the current formulation provides sufficient precision to ensure a reasonable outcome.
  - A POLR right of first refusal of procurement contracts held by the returning LSE raises legal and commercial issues and should not be considered.
  - To minimize the risk of LSE default by newly launched CCA, Implementation Plan requirements should be modified to incorporate a milestone procedure to be administered by the CCA’s governing board, quarterly updates to Energy Division on the status of milestone achievement, transparency through the use of a publicly available information portal available, and feasibility studies provided to the local governing board built on transparent and standardized referents.
  - Financial service requirements (FSR) should vary with the financial health of an LSE, limiting FSRs for LSEs maintaining investment-grade credit ratings and LSEs voluntarily providing limited metrics to the CPUC for review; all other LSEs should bear responsibility for the currently formulated FSR.

- **Details**: A forthcoming ruling will provide additional details on comment and reply comment deadlines, as well as a workshop agenda for the March 7, 2022 workshop.

- **Analysis**: This proceeding could impact VCE in several ways. First, in establishing rules for existing POLRs, it will address POLR service requirements, cost allocation, and cost recovery issues should a CCA or other LSE discontinue supplying customers resulting in the need for the

POLR to step in to serve those customers. Second, in setting the requirements and application process for another entity to be designated as the POLR, it could create a pathway for a CCA or other retail provider to elect to become a POLR for its service area. The preliminary questions (Appendix B to the OIR) suggest these issues will include examining topics such as CCA financial security requirements, portfolio risk and hedging, CCA deregistration, CCA mergers, and CCA insolvency.

- **Next Steps**: A second workshop in Phase 1 has been tentatively rescheduled for March 7, 2022. A forthcoming ruling will provide an updated schedule for comments and reply comments
- **Additional Information**: Ruling setting second workshop and comment period (December 31, 2021); Ruling requesting comments (November 23, 2021); Golden State Power Cooperative Motion to remove cooperatives as respondents (October 28, 2021); Scoping Memo and Ruling (September 16, 2021); Ruling scheduling prehearing conference (April 30, 2021); Order Instituting Rulemaking (March 25, 2021); Docket No. R.21-03-011.

2022-2023 Wildfire Fund Nonbypassable Charge Rulemaking

No updates this month. On December 6, 2021, the CPUC issued D.21-12-006 adopting a Wildfire Fund NBC of $0.00652/kWh for January 1, 2022, through December 31, 2022.

- **Background**: This rulemaking continues to implement AB 1054, which extended a non-bypassable charge on ratepayers to fund the Wildfire Fund. The CPUC issued D.20-12-024 in December 2020 that continues the Wildfire Non-Bypassable Charge (NBC) amount of $0.00580/kWh for January 1, 2021, through December 31, 2021. The NBC amount of 2022 and 2023 will be established in this proceeding.
- **Details**: The 2022 Wildfire Fund Non-Bypassable Charge is $0.00652/kWh, up from $0.0058/kWh in 2021. The reason for this increase is that the Department of Water Resources demonstrated a collection shortfall of $13.0 million for 2021 and $85.0 million for 2020 (due largely to a lag in initiating and remitting IOU collections for the Wildfire Fund NBC to DWR at the outset of the Wildfire Fund NBC's existence). Therefore, because of this total $98.0 million under-collection in 2020 and 2021, the 2022 Wildfire Fund NBC is obliged to collect both this 2020-2021 shortfall and the 2022's necessary revenue requirement of $902.4 million.
- **Analysis**: VCE customers will pay the 2022 and 2023 Wildfire Fund Non-Bypassable Charge amounts established in this proceeding. The charge for 2022 is increasing due to an under-collection of the revenue requirement in 2021 that has been added to the revenue requirement for 2022.
- **Next Steps**: The Department of Water Resources will issue a notice in September 2022 identifying the amount they calculate will need to be the 2023 Wildfire Fund Non-Bypassable Charge.
- **Additional Information**: D.21-12-006 on Wildfire NBC for 2022 (December 6, 2021); Ruling requesting comments on 2022 Wildfire Fund NBC (September 8, 2021): Scoping Memo and Ruling (June 8, 2021); Order Instituting Rulemaking (March 10, 2021); Docket No. R.21-03-001.

Utility Safety Culture Assessments

No updates this month. On December 29, 2021, parties filed reply comments regarding the preliminary scope and schedule provided in the Order Instituting Rulemaking for this rulemaking to develop and adopt IOU safety culture assessments under SB 901.

- **Background**: IOU safety culture assessments are required as part of AB 1054 and SB 901. AB 1054 directed the CPUC's Wildfire Safety Division, now the Office of Energy Infrastructure Safety, to conduct annual safety culture assessments of each electrical corporation, the first of which will be published in fall 2021. The AB 1054 assessments are specific to wildfire safety efforts and include a workforce survey, organizational self-assessment, supporting documentation, and interviews. SB 901 directs the CPUC to establish a safety culture assessment for each electrical corporation, conducted by an independent third-party evaluator. SB 901 requires that the CPUC set a schedule for each assessment, including updates to the assessment, at least every five years, and prohibit the electrical corporations from seeking reimbursement for the costs of the safety culture assessments from ratepayers. This rulemaking implements SB 901.

- **Details**: This proceeding will implement the statutory requirements of SB 901 relating to the Commission's assessment of safety culture for regulated utilities. It will examine what methodologies should be employed in the safety culture assessments to ensure results are comparable across IOUs and can measure changes in IOU safety culture over time. It will also consider adopting the process and framework to oversee safety culture assessments of gas utilities and gas storage operators, in addition to electrical corporations as required by SB 901. It will consider requiring that IOUs implement specific safety management practices to improve safety culture through adoption of a Safety Management System standard, consider adopting a maturity model to use in safety culture assessments, and determine accountability metrics.

  No CCA parties filed comments or reply comments on the Order Instituting Rulemaking.

- **Analysis**: This rulemaking will assess the safety culture of PG&E and other IOUs in California. While its direct focus is on IOUs like PG&E, it could impact VCE and its customers to the extent it influences PG&E's safety culture and contributes to the safety of VCE customers, as well as the rates VCE customers pay to PG&E to mitigate or address safety issues (e.g., wildfires caused by PG&E transmission equipment; explosions from PG&E natural gas infrastructure, etc.).

- **Next Steps**: A prehearing conference is expected to be held, followed by the issuance of a Scoping Memo and Ruling that will identify the issues in scope in this proceeding and the procedural schedule.

- **Additional Information**: Order Instituting Rulemaking (October 7, 2021); Docket No. R.21-10-001.

PG&E 2020 ERRA Compliance

No updates this month. On October 15, 2021, parties filed a Settlement Agreement resolving disputed issues in this proceeding.

- **Background**: The annual ERRA Compliance proceeding reviews the utility's compliance with CPUC-approved standards for generation-procurement and cost recovery activity occurring in the preceding year, such as energy resource contract administration, least-cost dispatch, fuel procurement, and balancing account entries.

  PG&E is requesting that the CPUC find it complied with its Bundled Procurement Plan (BPP) in the areas of fuel procurement, administration of power purchase contracts, greenhouse gas compliance instrument procurement, resource adequacy sales, and least-cost dispatch of electric generation resources for the 2020 calendar year. It also seeks a CPUC finding that it managed its utility-owned generation (UOG) facilities reasonably, although it recommends that CPUC review of outages at Diablo Canyon Power Plant related to the Unit 2 main generator be delayed to the 2021 ERRA Compliance review. Of significance to the PCIA, PG&E is requesting the CPUC find that entries in its Portfolio Allocation Balancing Account (PABA), which trues up the above-market forecast of generation resources recovered through the PCIA with actual recorded costs and revenues, are accurate.

  PG&E's procurement costs recorded across the portfolio were $158.8 million higher than forecasted, allegedly due to higher-than-forecast RPS-eligible contracts, as offset by higher than forecast retained RPS and retained RA, as well as lower than forecast fuel costs for UOG facilities. Activity recorded in the PABA includes the following categories: Revenues from Customers, RPS Activity, RA Activity, Adopted UOG Revenue Requirements, CAISO Related Charges and Revenues, Fuel Costs, Contract Costs, GHG Costs, and Miscellaneous Costs.

PG&E has redacted as confidential its 2020 actual and forecast costs for these categories, so it is unclear from the public filing what the magnitude is regarding the difference between actual and forecast costs for each category.

The Scoping Memo and Ruling specifies the proceeding will be divided into two phases. Phase 1 will address whether PG&E (1) prudently administered and managed Utility-Owned Generation facilities and QF and non-QF contracts, (2) achieved least-cost dispatch of energy resources, (3) had reasonable, accurate, and appropriate ERRA and PABA entries, and (4) administered RA procurement and sales consistent with its Bundled Procurement Plan, among other issues. Phase 2 issues may be amended based on the outcome of Phase 2 of PG&E's 2019 ERRA compliance proceeding. The tentative list of issues include whether sales forecasting methods for adjusting revenue requirement under current decoupling policy should be adjusted to account for power not sold or purchased during a Public Safety Power Shutoff (PSPS) event in 2020, whether it is appropriate for PG&E to return the revenue requirement equal to the estimated unrealized volumetric sales and unrealized revenue resulting from the PSPS events in 2020, and the appropriate methodology for calculating PG&E's unrealized volumetric sales and unrealized revenues resulting from 2020 PSPS events.

In testimony, Joint CCAs recommended a number of accounting adjustments that would reduce PUBA balances by more than $14.3 million. They also recommend the CPUC acknowledge that PG&E's internal audit of its PABA concluded that the processes and controls governing PABA accounting are "Not Adequate," and that PG&E remedy the identified deficiencies. Furthermore, they recommend that the CPUC clarify that future procurement expenses incurred by PG&E acting as the Central Procurement Entity will be reviewable in ERRA Compliance proceedings, and that PG&E should demonstrate the effect of such procurement, if any, on the PABA and ERRA balancing accounts.

PG&E agreed in rebuttal testimony that the accounting for PCIA costs attributed to customers taking service on the GTSR tariff should be adjusted to correctly credit PABA for the 2019 and 2020 record periods, reducing the PABA balance by approximately $5 million. PG&E also agreed to present testimony in its 2021 ERRA Compliance proceeding addressing actions taken in response to the Internal Audit findings that PABA accounting process and controls were inadequate.

- **Details**: In the Settlement Agreement, PG&E agreed with the Joint CCAs' position to a disallowance of $247,500 associated with CAISO penalties for load meter data errors, late submission of Resource Adequacy and Supply Plans and missed deadlines for grid modeling data or telemetry communication for PG&E's utility owned generation and that any future sanctions for missed deadlines for grid modeling data or telemetry communication for PG&E's utility-owned generation will not be recovered from customers. Joint CCAs agreed that CAISO sanctions associated with Power Purchase Agreements (contracted generation) were caused by the counterparty and passed through to the counterparty and should not be disallowed.

  PG&E agreed that entries to the PABA for costs associated with the Green Tariff Shared Renewables program should be reduced by $5 million for 2019 and 2020, as Joint CCAs had argued.

  PG&E also agreed that certain issues should be in the scope of future ERRA proceedings, resolving the Joint CCA concern regarding its ability to review PG&E's accounting with respect to transactions with the CPE in future ERRA Compliance proceedings.

  Finally, PG&E agreed to transfer from PABA to ERRA 2014 and 2017 Diablo Canyon Seismic Studies Balancing Account recorded costs, whereas the 2018 costs were retained in the PABA, which resolved the Joint CCAs concerns about that cost recovery.

- **Analysis**: This proceeding addresses PG&E's balancing accounts, including the PABA, providing a venue for a detailed review of the billed revenues and net CAISO revenues PG&E recorded during 2020. It also determines whether PG&E managed its portfolio of contracts and UOG in a reasonable manner. Both issues could impact the level of the PCIA in 2022 and 2023.

- **Next Steps**: A PD is anticipated for Q1 2022.
- **Additional Information**: Joint Motion for Adoption of Settlement Agreement (October 15, 2021); Scoping Memo and Ruling (June 21, 2021); Application (March 1, 2021); Docket No. A.21-03-008.

Investigation into PG&E's Organization, Culture and Governance (Safety OII)

No updates this month.

- **Background**: On December 21, 2018, the CPUC issued a Scoping Memo opening the next phase of an ongoing investigation into whether PG&E's organizational culture and governance prioritize safety. This current phase of the proceeding is considering alternatives to current management and operational structures for providing electric and natural gas in Northern California.

  A July 2020 ALJ Ruling described the issues that are potentially still in scope for this proceeding, which include a broad array of issues identified in the December 21, 2018 Scoping Memo, as modified by D.20-05-053 approving PG&E's reorganization plan, plus the ongoing work of NorthStar, the consultant monitoring PG&E. However, the Ruling observed that "it is not clear as a practical matter how many of those issues can be or should be addressed at this time," given PG&E is now implementing its reorganization plan and has filed its application for regional restructuring. Party comments did not explicitly raise the issue of CCA proposals to purchase PG&E electric distribution assets.

  A September 4, 2020 Ruling determined that I.15-08-019 will remain open as a vehicle to monitor the progress of PG&E in improving its safety culture, and to address any relevant issues that arise, with the consultant NorthStar continuing in its monitoring role of PG&E. The Ruling declined to close the proceeding but also declined to move forward with CCAs' consideration of whether PG&E's holding company structure should be revoked and whether PG&E should be a "wires-only company," as well as developing a plan for service if PG&E's CPCN is revoked in the future.

  In April 2021, the CPUC issued Resolution M-4852, placing PG&E into the first of six steps of the Enhanced Oversight and Enforcement process. This six-step process could ultimately result in a revocation of PG&E's certificate of public convenience and necessity if it fails to take sufficient corrective actions. Resolution M-4852 found that PG&E made insufficient progress toward approved safety or risk-driven investments and is not sufficiently prioritizing its Enhanced Vegetation Management (EVM) based on risk. It found that PG&E is not doing the majority of EVM work – or even a significant portion of work – on the highest risk lines.

  On August 18, 2021, CPUC President Batjer sent a letter to PG&E stating that she has directed CPUC staff to investigate whether to advance PG&E further within the Enhanced Oversight and Enforcement process. President Batjer's letter to PG&E identified "a pattern of self-reported missed inspections and other self-reported safety incidents," concluding that "this pattern of deficiencies warrants the fact-finding review." PG&E self-reported missed inspections of hydroelectric substations, distribution poles, and transmission lines. PG&E also reported missing internal targets for enhanced vegetation management and failing to identify dry rot in distribution poles treated with Cellon coating. Many of these issues occurred in High Fire Threat District areas.

  On October 25, 2021, President Batjer sent a letter to PG&E asserting that PG&E's "execution and communication of its wildfire mitigation device setting known as Fast Trip has been extremely concerning and requires immediate action to better support customers in the event of an outage." It finds that since PG&E initiated the Fast Trip setting practice on 11,500 miles of lines in High Fire Threat Districts in late July, it has caused over 500 unplanned power outages impacting over 560,000 customers. It goes on to say that these Fast Trip-caused outages occur with no notice and can last hours or days. The letter goes on to outline near-term and ongoing transparency and accountability actions, as well as cost tracking

- **Details**: No updates.
- **Analysis**: The August 18, 2021, and October 25, 2021, CPUC letters to PG&E indicate the CPUC has significant concerns with PG&E's outages related to both PSPS events and its implementation of Fast Trip. Unlike a PSPS event, by definition, Fast Trip settings do not allow for advance notice to customers of an outage.
- **Next Steps**: The proceeding remains open, but there is no procedural schedule at this time.
- **Additional Information**: Letter from President Batjer to PG&E on Fast Trip issues (October 25, 2021); Letter from President Batjer to PG&E (August 18, 2021); Resolution M-4852 (April 15, 2021); Letter from President Batjer to PG&E (November 24, 2020); Ruling updating case status (September 4, 2020); Ruling on case status (July 15, 2020); Ruling on proposals to improve PG&E safety culture (June 18, 2019); D.19-06-008 directing PG&E to report on safety experience and qualifications of board members (June 18, 2019); Scoping Memo (December 21, 2018); Docket No. I.15-08-019.

PG&E Regionalization Plan

No updates this month. On September 10, 2021, Parties, including VCE, filed comments on the August 31, 2021, motion for approval of settlement agreements, followed by reply comments on September 17, 2021.

- **Background**: In D.20-05-051 approving PG&E's reorganization following bankruptcy, PG&E was directed to file a regionalization proposal (Docket No.19-09-016). On June 30, 2020, PG&E filed its regionalization proposal, which describes how it plans to reorganize operations into new regions. PG&E proposes to divide its service area into five new regions. PG&E will appoint a Regional Vice President by June 2021 to lead each region, along with Regional Safety Directors to lead its safety efforts in each region. The new regions would include five functional groups that report to the Regional Vice President encompassing various functions including: (1) Customer Field Operations, (2) Local Electric Maintenance and Construction, (3) Local Gas M&C, (4) Regional Planning and Coordination, and (5) Community and Customer Engagement. Other functions will remain centralized, such as electric and gas operations, risk management, enterprise health and safety, the majority of existing Customer Care and regulatory and external affairs, supply, power generation, human resources, finance, and general counsel.

  In August 2020, parties filed protests and responses to PG&E's application. Of note, South San Joaquin Irrigation District filed a Protest arguing that PG&E's regionalization effort should not create a moratorium or interfere with municipalization efforts. In addition, five CCAs filed responses or protests to PG&E's application, with MCE and EBCE filing protests and City of San Jose, City and County of San Francisco, and Pioneer Community Energy filing responses.

  In February 2021, PG&E submitted its updated regionalization proposal ("Updated Proposal"). In response to feedback, PG&E modified its five regions (renamed North Coast, North Valley & Sierra, Bay Area, South Bay & Central Coast, and Central Valley), <u>including moving Yolo County from Region 1 to Region 2 (North Valley & Sierra), where it would be grouped with the following counties: Colusa, El Dorado, Glenn, Lassen, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Solano, Sutter, Tehama, and Yuba</u>. PG&E also provided more information on the new leadership positions that it is creating and its "Lean Operating System" implementation.

  Currently, PG&E is in Phase 1 of 3 of its regionalization plan, which is focused on refining regional boundaries, establishing roles and governance for regional leadership, and recruiting and hiring for those positions. In Phase 2 (second half of 2021 through 2022), PG&E will establish and implement the regional boundaries and provide the resources and staffing to support it. In Phase 3 (2023 and after), PG&E will continue to reassess, refine and collaborate with other functional groups to improve efficiencies, safety, reliability and customer service.

On August 31, 2021, PG&E, the California Farm Bureau Federation, the California Large Energy Consumers Association, the Center for Accessible Technology, the Coalition of California Utility Employees, the Public Advocates Office at the California Public Utilities Commission ("Cal Advocates"), the Small Business Utility Advocates, and William B. Abrams filed a motion for approval of their settlement agreement ("Multi-Party Settlement Agreement). A separate settlement agreement is between the South San Joaquin Irrigation District and PG&E. The Multi-Party Settlement Agreement includes a framework within which PG&E will facilitate a stakeholder engagement process for parties to the Multi-Party Settlement Agreement to provide updates and a non-binding forum for input for stakeholders. The proposed settlement would restrict participation in the Regionalization Stakeholder Group to parties or others who agree to the scope, procedures and protocols of the Regionalization Stakeholder group as outlined in the settlement. PG&E will host two public workshops in 2022 and for each year until the completion of Phase III or its regionalization implementation to provide updates to the public about its regionalization implementation progress.

In the separate PG&E/SSJID Settlement Agreement, PG&E clarified and confirmed that its implementation of regionalization as managed by its Regionalization Program Management Office will not include any work to oppose SSJID's municipalization efforts. However, SSJID also acknowledged that PG&E may continue to respond to SSJID's municipalization efforts in other forums and proceedings separate from the regionalization proceeding and/or implementation of the Updated Regionalization Proposal.

- **Details**: VCE filed comments on the settlement jointly with Pioneer Community Energy that were critical of PG&E's Updated Proposal and the settlement. VCE and Pioneer recommended that the CPUC reject the settlement and require changes to PG&E's Updated Proposal, including alignment with the boundaries of regional councils of governments ("COGs") and requirements to coordinate with COGs, the development of metrics to measure PG&E's progress on key safety and customer relations issues, greater coordination between PG&E and CCAs, and improvements to the Regionalization Stakeholder Group to expand its access and efficacy.
- **Analysis**: The implications of PG&E's regionalization plan on CCA operations, customers, and costs are largely unclear based on the information presented in PG&E's application and updated application. PG&E's regionalization plan could impact PG&E's responsiveness and management of local government relations and local and regional issues, such as safety, that directly impact VCE customers. It could also impact municipalization efforts, although the pending SSJID settlement agreement stated that PG&E's regionalization efforts will not be in opposition to SSJID's municipalization. As part of Region 2, VCE would be grouped with several northern counties in central and eastern California.
- **Next Steps**: A Proposed Decision will be issued next. In light of CPUC President Batjer's departure, it appears that issuance of a Proposed Decision has been delayed.
- **Additional Information**: Joint Motion for approval of Settlement Agreements (August 31, 2021); Ruling granting schedule modification (August 20, 2021); Ruling denying evidentiary hearing (July 28, 2021); PG&E Joint Case Management Statement (July 20, 2021); Amended Scoping Memo and Ruling (June 29, 2021); PG&E Updated Regionalization Proposal (February 26, 2021); Ruling modifying procedural schedule (December 23, 2020); Scoping Memo and Ruling (October 2, 2020); Application (June 30, 2020); A.20-06-011.

Direct Access Rulemaking

No updates this month. On August 13, 2021, CalCCA filed a response to a July application for rehearing filed by a coalition of parties supporting expansion of Direct Access, who challenged a June CPUC decision that recommended against any re-opening of Direct Access. This proceeding is otherwise closed.

- **Background**: In Phase 1 of this proceeding, the CPUC allocated the additional 4,000 GWh of Direct Access load to non-residential customers required by SB 237 (2018, Hertzberg) among the three IOU territories with implementation to begin January 1, 2021.

  In Phase 2, the CPUC issued D.21-06-033 recommending against any further Direct Access expansion at this time based primarily on a concern that doing so "would present an unacceptable risk to the state's long-term reliability goals." It observed that after considering recent reliability events (i.e., the summer 2020 heat storm and resulting rolling blackouts in California and February 2021 outage event and skyrocketing electricity prices in Texas) and IRP forecasts for additional generation, expanded direct access would result in further system fragmentation that raises serious electric system reliability concerns. Further portions of the Decision:

  - Observed that Direct Access providers do not have a track record of relying on long-term contracts to meet their energy needs, which could impede the development of new, needed resources.
  - Noted that allowing expansion could undermine the long-term contracts that LSEs such as CCAs have already entered (i.e., due to load migration) and make it difficult for them to enter new contracts.
  - Stated that currently, the CPUC is not able to ensure that Direct Access expansion would not increase GHG emissions and other pollutants when compared to retaining the current cap, as Direct Access providers have historically relied primarily on unspecified power and lead to a net decline in clean energy procurement.

- **Details**: In their July Application for Rehearing, parties including the Alliance for Retail Energy Markets and the Direct Access Customer Coalition argued that:

  - The CPUC broke the law and abused its discretion when it disregarded the express duties imposed on it by SB 237.
  - D.21-06-033 ignored the substantial evidence in the record as it pertains to: (1) concerns about electric service provider (ESP) procurement performance and (2) the alleged threat to reliability posed by load migration due to an expansion of Direct Access is inaccurate and discriminatory.
  - D.21-06-033 discriminates against non-residential customers and the ESPs that wish to serve them, thereby violating the dormant Commerce Clause of the US Constitution.
  - D.21-06-033 relied on "misrepresentations of facts and speculations."

  CalCCA's August response argued that:

  - The CPUC's interpretation of the statute was consistent with its plain language and legislative history.
  - The Decision is supported by the findings required by statute and is also adequately supported by findings based on the entire administrative record.
  - The dormant Commerce Clause argument fails because the Decision applies equally to both in-state and out-of-state ESPs, and therefore does not unfairly discriminate against out-of-state interests.
  - The argument that the Decision discriminates against both ESPs and their customers and therefore violates their Equal Protection rights fails the "rational basis" test in that the Decision is based on the findings regarding electric grid reliability and environmental concerns.

- **Analysis**: This proceeding determined the CPUC's recommendations to the Legislature regarding the potential future expansion of DA in California. D.21-06-033 recommending against expansion of Direct Access at this time could reduce the risk of load migration from CCAs (or IOUs) to ESPs.

- **Next Steps**: The only remaining item to be addressed in this proceeding is the Application for Rehearing filed by direct access advocates.
- **Additional Information**: CalCCA Response to Application for Rehearing (August 13, 2021); Application for Rehearing of D.21-06-033 (July 29, 2021); D.21-06-033 recommending against direct access expansion (approved June 24, 2021); Ruling and Staff Report (September 28, 2020); Amended Scoping Memo and Ruling adding issues and a schedule for Phase 2 (December 19, 2019); Docket No. R.19-03-009; *see also* SB 237.

RA Rulemaking (2021-2022)

No updates this month. On October 11, 2021, parties filed responses to OhmConnect's Petition for Modification of D.20-06-031, to which OhmConnect responded on October 25, 2021. The October 11, 2021, Order Instituting Rulemaking in the successor RA rulemaking, R.21-10-002, closed this proceeding, except to resolve OhmConnect's Petition for Modification.

- **Background**: This proceeding is divided into 4 tracks, with the focus in 2021 being on Tracks 3 and 4, described in more detail below. Going forward, a workshop process will be used to generate an RA restructuring proposal in Q1 2022, with the goal of implementing more substantial program changes in 2023 for the 2024 RA compliance year.

  Track 3A (completed): D.20-12-006, issued December 2020, addressed the issues of the financial credit mechanism and competitive neutrality rules for the CPEs. It approved CalCCA's proposed "Option 2," with modifications, which allows the CPE to evaluate the shown resource alongside bid resources to assess the effectiveness of the portfolio. The financial credit mechanism will apply only to new preferred or energy storage resources (i.e., non-fossil-based resources) with a contract executed on or after June 17, 2020. It also adopted PG&E's competitive neutrality proposal for PG&E's service territory. Finally, D.20-12-006 found that the Local Capacity Requirements Working Group should continue to discuss recommendations and develop solutions for consideration in CAISO's 2022 LCR process.

  Track 3B.1 and Track 4 (completed): D.21-06-029, issued June 2021, adopted local capacity requirements for 2022-2024, flexible capacity requirements for 2022, and refinements to the RA program. It adopted a series of changes to the Maximum Cumulative Capacity (MCC) buckets, which function as limits on the amount of RA that may be procured from resources with different characteristics. It required resources in all MCC buckets to have availability on Saturday for the 2022 RA compliance year. This had the effect of modifying the DR and Categories 1 and 2 buckets to add Saturday. DR contracts with an execution date prior to the effective date of D.21-06-029 will be grandfathered and not subject to the new Saturday availability requirement. It also revised the Category 1 availability criteria (4 consecutive hours of availability from 4-9 p.m. from May-September) to increase the monthly minimum availability from 40 hours to 100 hours (and 96 hours for February) and to require year-round availability. D.21-06-029 requested that the CEC launch a stakeholder working group process as part of the 2021 IEPR and make recommendations on several topics intended to support a comprehensive and consistent DR measurement and verification strategy, to be considered for implementation during the 2023 RA compliance year. Finally, D.21-06-029 added a new RA deficiencies penalty structure to the current penalty structure, layering on a penalty multiplier for repeat RA deficiencies based on a point system beginning in the 2022 RA compliance year.

  Track 3B.2 (Ongoing, now in R.21-10-002): D.21-07-014 rejected CalCCA/SCE's proposal for restructuring the RA program, and instead found that PG&E's "slice-of-day" proposal best addresses the identified principles and the concerns with the current RA framework and if is further developed, is best positioned to be implemented in 2023 for the 2024 compliance year. Therefore, it directed parties to collaborate to develop a final restructuring proposal based on PG&E's slice-of-day proposal through a series of workshops. The PG&E Slice of Day Framework will establish RA requirements based on a "slice-of-day" framework, which seeks to ensure load will be met in all hours of the day, not just during gross peak demand hours. The proposal also attempted to ensure there is sufficient energy on the system to charge energy storage resources. The proposed framework would establish RA requirements for multiple slices-of-day across seasons and would establish a counting methodology to reflect an individual resource's ability to produce energy during each respective slice (e.g., six four-hour periods of the day).

- **Details**: OhmConnect's Petition for Modification of D.20-06-031 requested that the CPUC raise the demand response Maximum Cumulative Capacity limit of 8.3% to 11.3%. OhmConnect says that the change is needed to create the room for growth envisioned in D.20-06-031 and meet the requirements of the Governor's Emergency Proclamation ordering state energy agencies to expedite and expand DR programs to reduce the likelihood of future rotating power outages.

  A group of CCAs (RCEA, San Diego Community Power, and San José Clean Energy) and EBCE filed responses in support of OhmConnect's Petition for Modification. The group of CCAs said a higher cap would enable more flexibility for them in meeting their RA requirements, and help California meet system reliability needs. EBCE's reasons for supporting the petition were provided in a confidential attachment to its response.

- **Analysis**: If OhmConnect's Petition for Modification is granted, it would allow LSEs like VCE to procure a higher percentage of demand response resources to meet its RA obligations than it is currently allowed under the RA compliance rules.

- **Next Steps**: A proposed decision addressing OhmConnect, Inc.'s petition for modification and closing this proceeding is expected to be issued next.

- **Additional Information**: OhmConnect's Petition for Modification (September 9, 2021); D.21-07-014 on restructuring the RA program with PG&E Slice of Day proposal (July 16, 2021); D.21-06-029 adopting local capacity obligations for 2022-2024, flexible capacity obligations for 2022, and refinements to the RA program (approved June 24, 2021); 2019 Resource Adequacy Report (March 19, 2021); Scoping Memo and Ruling for Track 3B and Track 4 (December 11, 2020); D.20-12-006 on Track 3.A issues (December 4, 2020); D.20-06-031 on local and flexible RA requirements and RA program refinements (June 30, 2020); Order Instituting Rulemaking (November 13, 2019); Docket No. R.19-11-009.

RA Rulemaking (2019-2020)

No updates this month. Two applications for rehearing remain the only outstanding items to be addressed in this proceeding, which is now closed.

- **Background**: This proceeding had three tracks, which have now concluded. Track 1 addressed 2019 local and flexible RA capacity obligations and several near-term refinements to the RA program. D.19-10-020 purported to affirm existing RA rules regarding imports, but adopted a distinction in the import RA compliance requirements for resource-specific and non-resource specific contracts and required, for the first time, that non-resource-specific resources self-schedule (i.e., bid as a price taker) in the CAISO energy market.

  In Track 2, the CPUC previously adopted multi-year Local RA requirements and initially declined to adopt a central buyer mechanism (D.19-02-022 issued March 4, 2019).

  The second Track 2 Decision, D.20-06-002, adopted implementation details for the central procurement of multi-year local RA procurement to begin for the 2023 compliance year in the PG&E and SCE (but not SDG&E) distribution service areas, including identifying PG&E and SCE as the central procurement entities for their respective distribution service areas and adopting a hybrid central procurement framework. The Decision rejected a settlement agreement between CalCCA and seven other parties that would have created a residual central buyer structure (and did not specify the identity of the central buyer) and a multi-year requirements for system and flexible RA. Under D.20-06-002, if an LSE procures its own local resource, it may (1) sell the capacity to the CPE, (2) utilize the resource for its own system and flexible RA needs (but not for local RA), or (3) voluntarily show the resource to meet its own system and flexible RA needs, and reduce the amount of local RA the CPE will need to procure for the amount of time the LSE has agreed to show the resource. Under option (3), by showing the resource to the CPE, the LSE does not receive one-for-one credit for shown local resources. A competitive solicitation (RFO) process will be used by the CPEs to procure RA products. Costs incurred by the CPE will be allocated ex post based on load share, using the CAM mechanism. D.20-06-002 also established a Working Group (co-led by CalCCA) to address: (a) the development of an local capacity requirements reduction crediting mechanism, (b) existing local capacity resource contracts (including gas), and (c) incorporating qualitative and possible quantitative criteria into the RFO evaluation process to ensure that gas resources are not selected based only on modest cost differences.

In Track 3, D.19-06-026 adopted CAISO's recommended 2020-2022 Local Capacity Requirements and CAISO's 2020 Flexible Capacity Requirements and made no changes to the System capacity requirements. It established an IOU load data sharing requirement, whereby each non-IOU LSE (e.g., CCAs) will annually request data by January 15 and the IOU will be required to provide it by March 1. It also adopted a "Binding Load Forecast" process such that an LSE's initial load forecast (with CEC load migration and plausibility adjustments based on certain threshold amounts and revisions taken into account) becoming a binding obligation of that LSE, regardless of additional changes in an LSE's implementation to new customers.

On October 30, 2019, CalCCA filed a PFM of D.19-06-026, seeking the creation of an RA waiver process in 2020 for system and flexible RA obligations.

Details: The only two remaining items to be addressed in this proceeding are two applications for rehearing filed by Western Power Trading Forum (WPTF). First, on July 17, 2020, WPTF filed an Application for Rehearing of D.20-06-002, the Track 2 Decision creating a multi-year central procurement regime for local RA capacity. It requested rehearing and reconsideration of the rejected settlement agreement between WPTF, CalCCA, and other parties, arguing that D.20-06-002 will discourage the procurement of local resources by individual LSEs, discriminates against natural gas resources while increasing the need for CAISO backstop procurement, may undermine reliability by making it more difficult to integrate renewables with the larger western grid, and creates a "sale for resale" procurement construct that could place it under FERC's jurisdiction as a wholesale, rather than a retail, transaction.

Second, on August 5, 2020, WPTF filed an Application for Rehearing of D.20-06-028 with respect to the self-scheduling requirements for non-resource specific RA imports.

- **Analysis**: D.20-06-002 established a central procurement entity and mostly resolved the central buyer issues, although several details are being refined through a Working Group. Moving to a central procurement entity beginning for the 2023 RA compliance year will impact VCE's local RA procurement and compliance, including affecting VCE's three-year local RA requirements as part of the transition to the central procurement framework. Eventually, it will eliminate the need for monthly local RA showings and associated penalties and/or waiver requests from individual LSEs, but it also eliminates VCE's autonomy with regard to local RA procurement and places it in the hands of PG&E.

  The Track 1 Decision on RA imports most directly impacted LSEs relying on RA imports to meet their RA obligations by increasing the difficulty of procuring such RA in the future.

- **Next Steps**: The only issues remaining to be addressed in this proceeding are WPTF's Applications for Rehearing. Remaining RA issues will be addressed in the successor RA rulemaking, R.19-11-009.

- **Additional Information**: D.20-09-003 denying PFMs filed by PG&E, CalCCA, and Joint Parties (September 16, 2020); WPTF's Application for Rehearing of D.20-06-028 (August 5, 2020); WPTF's Application for Rehearing of D.20-06-002 (July 17, 2020); D.20-06-028 on Track 1 RA Imports (approved June 25, 2020); D.20-06-002 establishing a central procurement mechanisms for local RA (June 17, 2020); D.20-03-016 granting limited rehearing of D.19-10-021 (March 12, 2020); D.20-01-004 on qualifying capacity value of hybrid resources (January 17, 2020); D.19-12-064 granting motion for stay of D.19-10-021 (December 23, 2019); D.19-10-021 affirming RA import rules (October 17, 2019); D.19-06-026 adopting local and flexible capacity requirements (July 5, 2019); Docket No. R.17-09-020.

Glossary of Acronyms

AB	Assembly Bill
AET	Annual Electric True-up
ALJ	Administrative Law Judge
BioMAT	Bioenergy Market Adjusting Tariff
BTM	Behind the Meter
CAISO	California Independent System Operator
CAM	Cost Allocation Mechanism
CARB	California Air Resources Board
CEC	California Energy Commission
CPE	Central Procurement Entity
CPUC	California Public Utilities Commission
CPCN	Certificate of Public Convenience and Necessity
CTC	Competition Transition Charge
DA	Direct Access
DWR	California Department of Water Resources
ELCC	Effective Load Carrying Capacity
ERRA	Energy Resource and Recovery Account
EUS	Essential Usage Study
GRC	General Rate Case
IEPR	Integrated Energy Policy Report
IFOM	In Front of the Meter
IRP	Integrated Resource Plan
IOU	Investor-Owned Utility
ITC	Investment Tax Credit
LSE	Load-Serving Entity
MCC	Maximum Cumulative Capacity
OII	Order Instituting Investigation
OIR	Order Instituting Rulemaking
PABA	Portfolio Allocation Balancing Account
PD	Proposed Decision
PG&E	Pacific Gas & Electric
PFM	Petition for Modification
PCIA	Power Charge Indifference Adjustment

KEYES&FOX LLP

POLR	Provider of Last Resort
PSPS	Public Safety Power Shutoff
PUBA	PCIA Undercollection Balancing Account
PURPA	Public Utility Regulatory Policies Act of 1978 (federal)
QC	Qualifying Capacity
QF	Qualifying Facility under PURPA
RA	Resource Adequacy
RDW	Rate Design Window
ReMAT	Renewable Market Adjusting Tariff
RPS	Renewables Portfolio Standard
SCE	Southern California Edison
SED	Safety and Enforcement Division (CPUC)
SDG&E	San Diego Gas & Electric
TCJA	Tax Cuts and Jobs Act of 2017
TOU	Time of Use
TURN	The Utility Reform Network
UOG	Utility-Owned Generation
WMP	Wildfire Mitigation Plan
WSD	Wildfire Safety Division (CPUC)

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 8

TO: Board of Directors

FROM: Rebecca Boyles, Director of Customer Care & Marketing

SUBJECT: Customer Enrollment Update (Information)

DATE: February 10, 2022

RECOMMENDATION

Receive and review the attached Customer Enrollment update as of February 2, 2022.

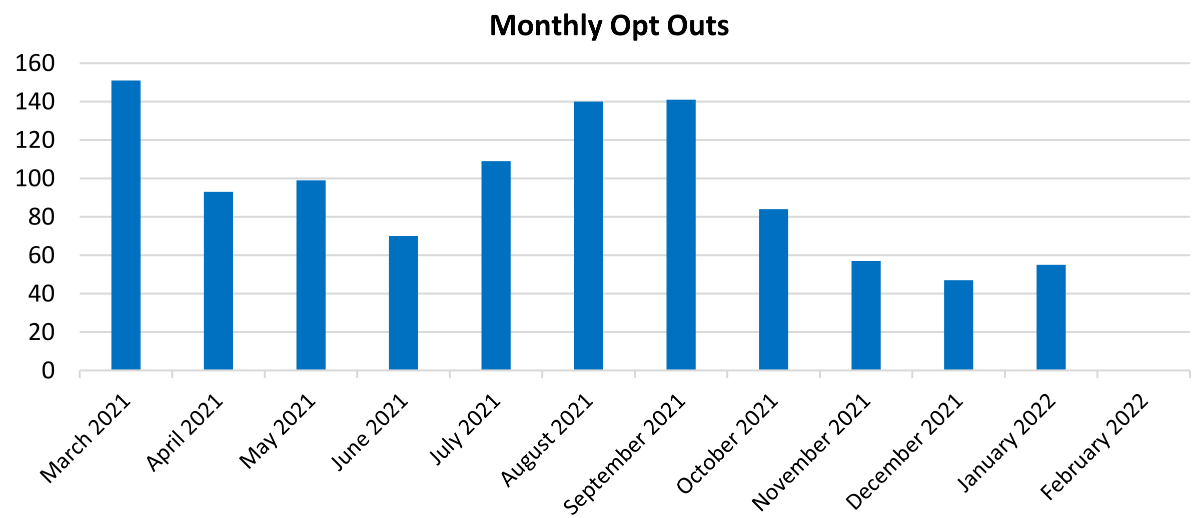
Item 8 - Enrollment Update

	Davis	Woodland	Winters	Yolo Co	Total	Residential	Commercial	Industrial	Ag	NEM	Non-NEM
VCEA customers	28,079	20,514	2,542	10,768	61,903	53,864	6,087	7	1,857	10,844	51,059
Eligible customers	29,372	23,552	2,853	12,321	68,098	59,163	6,692	7	2,132	12,004	56,094
Participation Rate	96%	87%	89%	87%	91%	91%	91%	100%	87%	90%	91%

All Winters customers are now enrolled and are included in this table.

% of Load Opted Out

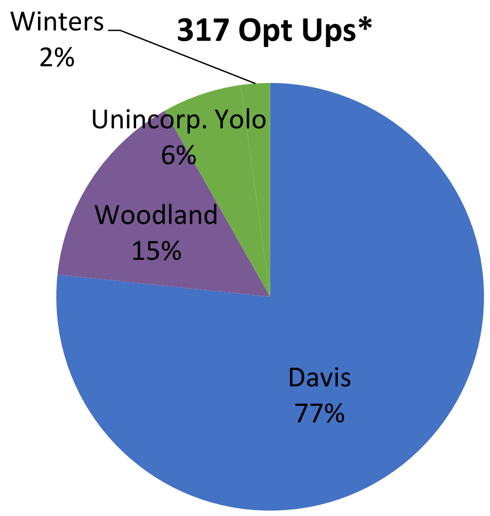
Residential	Commercial	Industrial	Ag	Total
10%	9%	0%	13%	10%

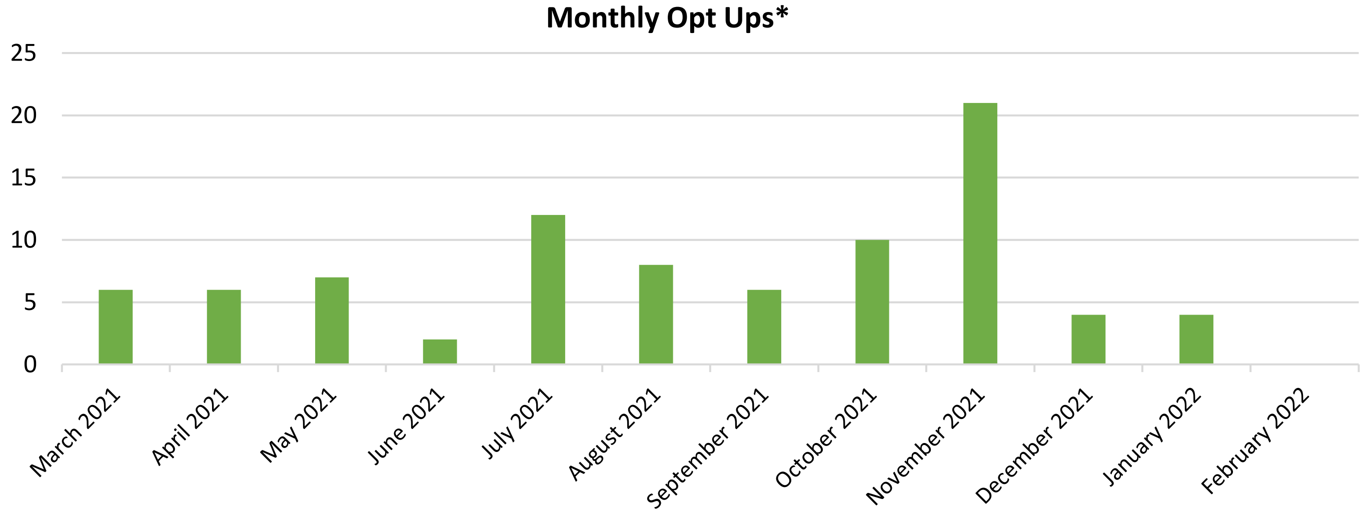


Status Date: 02/2/22

VALLEY CLEAN ENERGY

Item 8 - Enrollment Update



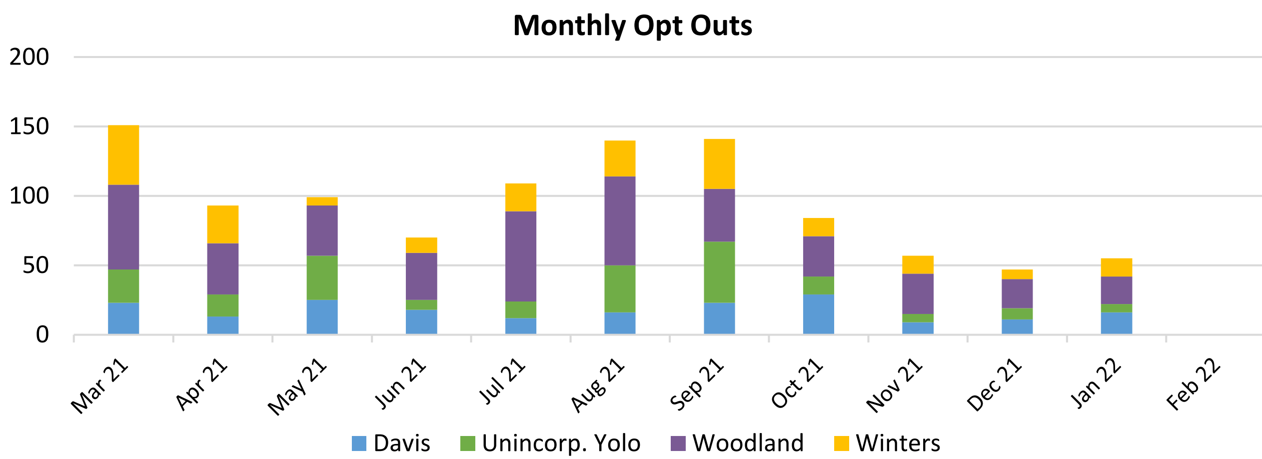


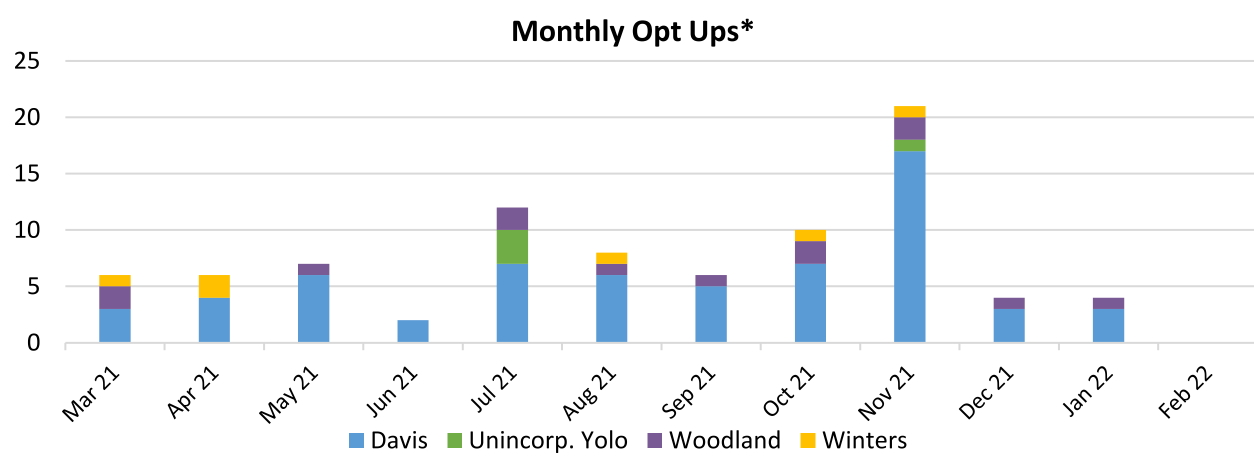
* The numbers in the pie chart represent opt ups for customers who are currently enrolled. The numbers in the bar graph represent opt up actions taken regardless of current enrollment status.

Status Date: 02/2/22

VALLEY CLEAN ENERGY

Item 8 - Enrollment Update





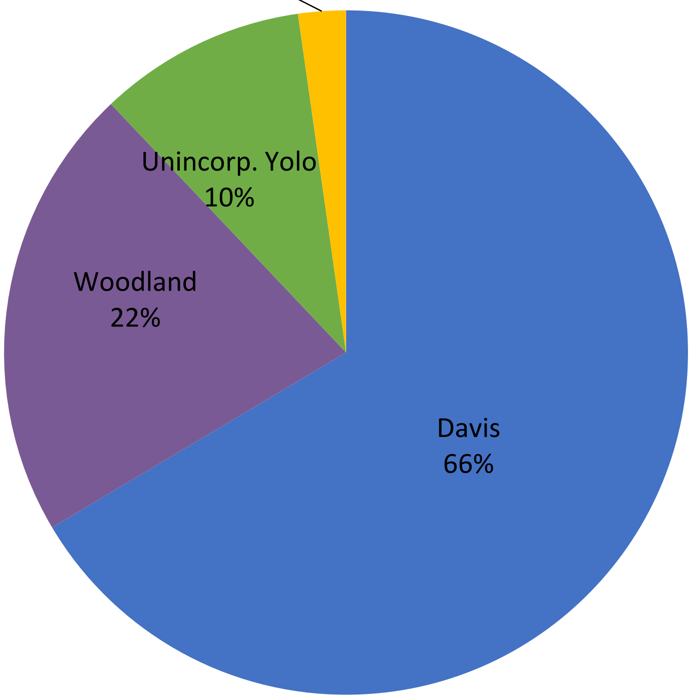
* These numbers represent all opt up actions ever taken regardless of current customer enrollment status.

Status Date: 02/2/22

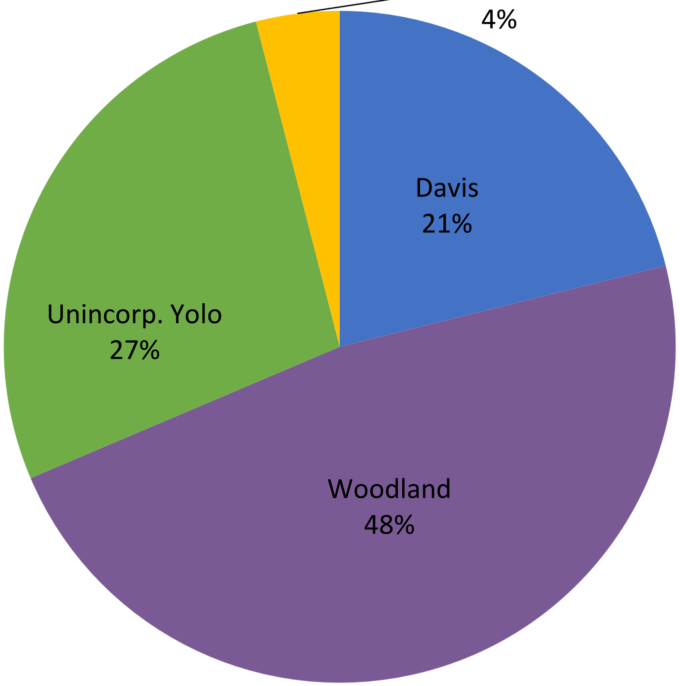
VALLEY CLEAN ENERGY

Item 8 - Enrollment Update

489 Opt Ups*



10588 Opt Outs



* These numbers represent all opt up actions ever taken regardless of current customer enrollment status.

Status Date: 02/2/22

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 9

TO:	Board of Directors
FROM:	Alisa Lembke, Board Clerk / Administrative Analyst
SUBJECT:	Community Advisory Committee January 20, 2022 Meeting Summary
DATE:	February 10, 2022

This report summarizes the Community Advisory Committee's meeting held via Zoom webinar on Thursday, January 20, 2022.

A. **Considered Cost-based Customer Rates – 2022 Customer Rates.** The CAC received an update on the CPUC filing process and the revised timeline for a decision on PCIA and PG&E rates. The CAC received 2022 financial forecast update, budget scenarios based on anticipated PCIA and PG&E rates, reserves target, and rates implementation procedure. Staff provided a copy of the CAC's November 10th recommendation to the Board on rates and presented staff's updated recommendation based on the most recent PCIA and PG&E information collected in the past several months. Staff recommended that the CAC amend their November 10th recommendation. The CAC discussed rate stability, forecasting of revenue and costs, impacts such as hedging on forecasting, Dividend policy consideration, programs, renewable energy, potential impacts of NEM 3.0 on rates, improving forecasting for cost-based rate setting/assessment. After the discussion, the CAC recommended (8-0-0) that the Board:

1. Adopt customer rates for 2022 to match PG&E 2022 generation rates for all customer classes to cover VCE's FY 2022 budget expenditures and to achieve between 80-90 days cash reserves by the end of 2022;

2. Provide a 2.5% rate credit for CARE and FERA customers in 2022;

3. Conduct a mid-year rates review in Q2 2022 to assess rates forecast and determine the feasibility of:
    a. allocating additional funds for 2022 clean energy content procurement,
    b. allocating additional funds to program implementation,
    c. providing additional rate credits for all customer classes during peak summer months in 2022.

B. **Draft VCE Carbon Neutral by 2030 report.** Staff reminded the CAC that at their December meeting, highlights of the carbon neutral report were provided. The draft report presented at this meeting is the draft report and includes "sensitivities" and input from the Carbon Neutral Task Group. Staff are seeking the CAC's comments, prior to the final draft being presented to the Board at their February meeting. Comments were provided on: building electrification and electric vehicles impacting forecasting and future load scenarios, the idea of looking at the whole system rather than specifically at procurement, ways to meet the need and how to meet the need, looking at the impacts of residential and commercial building, including rooftop solar, growth of construction impacting the need for electricity, and the need to consider reorganizing the report to make its findings and recommendations easier to identify. Staff asked that any additional comments and suggestions be sent to Staff Gordon Samuels.

California Community Power JPA ("CC Power") long duration energy storage project: Tumbleweed. Staff presented an overview of the Tumbleweed long duration energy storage project that CC Power is considering. After a brief discussion, the CAC recommended that VCE participate in the California Community Power (CC Power) Tumbleweed Energy Storage Project (8-0-0).

C. **Update on customer program development.** Staff provided an overview of various customer programs that are under development: Heat Pump Pilot Program, Electric Vehicle Rebates Pilot, AgFIT (Agricultural Flexible Irrigation Technology), and Net Energy Metering (NEM) 3.0.

D. **Formation of 2022 Task Groups and consideration of Task Group "charges".** The CAC discussed the formation of task groups. Whether a Rates Task Group will be needed in 2022 was discussed and it was determined that at this point in time, there is no need for it. Instead, when input is needed by Staff and/or the Board, an ad hoc group could be formed to address specific tasks. After a thorough discussion, three (3) task groups were formed: Leg/Reg, Outreach, and Programs (8-0-0). The draft "charges" presented at this meeting for the Leg/Reg, Outreach and Programs Task Groups were approved (8-0-0). CAC members expressed their interests in serving on the 3 task groups. Lastly, it was agreed that there should be a discussion scheduled for the CAC's February meeting on the best way to approach the topic of resiliency and hold off on forming a task group until discussed.

E. **Reviewed and discussed draft Collections Policy.** Staff introduced a draft Collections Policy and reviewed VCE's collection approach and customer service focus. The CAC made suggestions, which will be considered by Staff for a revised draft policy. A revised draft policy will be brought to the CAC at their February meeting when Staff will seek the CAC's recommendation to the Board to adopt the policy.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report - Item 10

TO: Board of Directors

FROM: Mitch Sears, Interim General Manager
Rebecca Boyles, Director of Customer Care and Marketing

SUBJECT: SACOG Grant - Electrify Yolo Project Update

DATE: February 10, 2022

REQUESTED ACTION
Informational item. The purpose of this report is to give an update on the status of the Electrify Yolo (SACOG grant) project.

BACKGROUND
In December 2018, the Sacramento Area Council of Governments (SACOG) authorized the award of a Green Region grant in the amount of $2,912,000, representing the regional “Electrify Yolo” project, with the purpose of installing publicly accessible electric vehicle (EV) charging stations. Originally, only VCE and the City of Davis were involved, and Woodland, Winters and unincorporated Yolo County joined the project prior to submitting the grant application in August 2018. The City of Davis distributed funds to each entity once the Memoranda of Understanding (MOUs) were approved by each jurisdiction. All projects are to be finished by December 31, 2023.

UPDATE
As shown in the attached progress reports each jurisdiction is making progress toward meeting its obligations under the grant. All MOUs were signed (Davis, VCE/Winters, Woodland, unincorporated Yolo County) as of April 2021, and some EV charger installation projects have begun. Staff does note that EV charger installations have been subject to some delays, including impacts from the COVID-19 pandemic and staffing shortages. The City of Woodland is experiencing delays in project implementation due to staffing constraints and was not able to provide a written update as of the writing of this report but anticipates being able to complete the project on time.

VCE Staff is working with each jurisdiction to design banners to be hung at each charging station with logos of all project partners, as well as permanent aluminum signs. Temporary banners will inform members of the public that there will be EV chargers coming soon in that location and aim to increase the public’s brand association with VCE and electric vehicles. Banners have been hung in Winters at the Community Center charging stations, as well as a permanent aluminum sign.

ATTACHMENTS:

1. **VCE SACOG Progress Report Davis – February 2022**
2. **VCE SACOG Progress Report Winters - February 2022**
3. **VCE SACOG Progress Report Yolo - February 2022**

VALLEY CLEAN ENERGY

SACOG GRANT

PROGRESS REPORT – CITY OF DAVIS FEBRUARY 2022

1. Project Summary
   The City of Davis was apportioned $1,912,000 of the total award ($2,912,000) to perform the following:
   - *Site, design, permit, construct and install Level 2 Chargers in the project area (3 minimum)*
   - *Site, design, permit, construct and install DC Fast Chargers (Level 3) in downtown area within ½ to 5 miles of major freeway corridors (2 minimum)*
   - *Purchase Mobile Chargers of the type similar to 'EV ARC' solar standalone charging stations (2 minimum)*
   - *Purchase or lease electric vehicle(s) to transport 8 or more people (one minimum)*

   In discussion of the project, the City has divided the effort into "Phase 1" - the minimum action needed to meet the requirements of the grant award, and "Phase 2" for funds that may remain after the miniumums are met, to determine locations for installations based on the siting criteria discussed and approved during "Phase 1" efforts.

2. Project Manager
   Stan Gryzcko, Director, Public Works Utilities and Operations

3. Site (s) Description
   At this time, locations have been discussed internally and presented to the City's Natural Resources Commission, however locations have not been formally approved. The following have been discussed:

Location	Existing	Proposed
City Hall	Two dumb pedestal mount Clipper Creek	Two smart dual-port Level 2 stations and one DCFC
4th & G Garage	Two dumb pedestal mount Clipper Creek	Two smart dual-port Level 2 stations (wall mount)
E Street Parking Lot	Two dumb pedestal mount Clipper Creek	Two smart dual-port Level 2 stations or one quad-port station
Amtrak	Two dumb pedestal mount charging stations	One dual-port DCFC
Olive Drive	Configured for a DCFC	One dual-port DCFC, potentially a high-speed 150kW charger

4. Description of any material planned changes to the Project.
   N/A at this time - of note the City staffperson previously assigned to this project has left City employment and there is a recruitment underway at this time.

VALLEY CLEAN ENERGY

SACOG GRANT

PROGRESS REPORT – CITY OF DAVIS FEBRUARY 2022

5. Table schedule showing progress on achieving each of the Milestones
   See below.

6. Summary of activities during the previous calendar quarter or month.
   The draft recommendations for siting the chargers and the types of chargers to install from the City's consultant on this project was presented by staff and the consultant to the Natural Resources Commission in November 2021. The team received substantive feedback from the Commission, and are preparing responses to the questions, along with the consultant continuing to work on the lifecycle cost analysis for staff review.

7. Forecast of activities scheduled for the current calendar quarter
   Once the City has the lifecycle cost analysis and recommendations on the installation and management of chargers, staff will return to the Natural Resources Commission with the recommended locations & methods of installation/management, and answers to the Commission questions from November. Discussion from the NRC, along with any support or alternative suggestions then be presented to City Council to begin the implementation portion of the Phase 1 project, with an outline of the recommended process for Phase 2.

8. Written descriptions about the progress relative to Milestones, including whether the milestone has been met or is on target to meet the Milestones
   For the purposes of this report, we will not include milestones, other than the first milestone of completing the feasilibity study. Once the City has made a determination on how best to move forward with installation/purchase of the required chargers/vehicle, additional milestones will be added to show progress towards those actions.

9. List of issues that are reasonably likely to affect Milestones
   We have run into some issues with PG&E in getting electrical connection information. We also have a shortage of staffing resources with current vacancies. Depending on the outcome of upcoming recrutiments, we may have some additional resourcing necessary to keep the project moving forward.

10. A status report of activities, including a forecast of ongoing activities, information on project performance, and projections for the next twelve (12) months.
    In the next year, staff expects completion of the site location report, construction of Phase I installations, completion of Phase II siting (which is partially encompassed in the site location report for Phase I), and prep for construction of Phase II installations.

VALLEY CLEAN ENERGY

SACOG GRANT

PROGRESS REPORT – CITY OF DAVIS FEBRUARY 2022

11. Progress and schedule of all material agreements, contracts, permits, approvals, technical studies, financing agreements, and purchase orders showing the start dates, completion dates, and completion percentages.
For the purposes of this portion of the effort, we have a contract with our consultant to complete this Phase 1 study. There are no other responsive documents to this request at this time.

Dashboard

TABLE 1

Milestone Description	Status	% Completion	Estimated Completion Date	Notes
Feasibility Report and Lifecycle Cost Analysis	Initial draft reviewed by Natural Resources Commission, internal work continues, City awaiting final report draft	80%		

LINKED: **Natural Resources Commission Meeting Documents**

- Staff Report

- Frontier Energy Draft Report

To Valley Clean Energy,

Please let this letter serve as our February 2022 progress report. The City of Winters is currently working on the project with the contractor Ample Electric. City Staff posted this project on the city website for proposals, contacted four different contractors through email and phone and had just one response which was Ample Electric. Currently the City has spent $79,500 of funds toward the project. (Invoices attached) As of today, all four chargers have been received. The City has decided to go with Blink chargers. Our project consists of two separate locations for the charging stations. One location is the Winters Community Center parking lot located at 201 Railroad Ave, Winters Ca. This location has two Level 2 double chargers replacing existing chargers. The second location is the City parking lot at the corner of First St and Abbey St. This location is a new parking lot that will have one level 2 double charger and one 50kw level 1 fast charger. The progress at this location is being delayed by a Rule 20A project in the alley next to the parking lot that will supply the power for the electricity to the car charging stations. This project is scheduled to be completed by May 2022. Once the power source has been installed with the Rule 20A project we will immediately install the chargers.

Thank you,
Eric Lucero
City of Winters

318 First Street
Winters, CA 95694
Phone.530.795.4910
Fax. 530.795.4935

1. Project Summary - Install car charging stations at Community Center and City parking lot.
2. Project Manager – Eric Lucero
3. Site (s) Description – Winter Community Center and city parking lot at First and Abbey.
4. Site information (Maps, Pictures, Etc.)
5. Description of any material planned changes to the Project. - None
6. Table schedule showing progress on achieving each of the Milestones. – See below
7. Summary of activities during the previous calendar quarter or month. - No activities this quarter
8. Forecast of activities scheduled for the current calendar quarter. - No activities planned
9. Written descriptions about the progress relative to Milestones, including whether the milestone has been met or is on target to meet the Milestones – see Attachment C
10. List of issues that are reasonably likely to affect Milestones. – PG&E Rule 20A utilitiy project

Dashboard

Site Selection	Contract Award	Permits	Installation	Testing	Go Live
Completed	Completed	Completed	In Progress	50%	50%

TABLE 1

Milestone Description	Status	% Completion	Estimated Completion Date	Notes
Community Center charging stations are complete and in operation	Complete	100%	9-23-2021	Chargers have been in operation since September
First & Abbey Street charging stations are on hold waiting for PG&E Rule 20A project to underground power.	On Hold	10%	6-21-2022	Chargers and materials have been purchased

318 First Street
Winters, CA 95694
Phone.530.795.4910
Fax. 530.795.4935

Overview of Charger Locations

Winters Community Center Operational Chargers

318 First Street
Winters, CA 95694
Phone.530.795.4910
Fax. 530.795.4935

Photo of 1st & Abbey Parking Lot Charger Locations

VALLEY CLEAN ENERGY

SACOG GRANT

PROGRESS REPORT – YOLO COUNTY FEBRUARY 2022

1. Project Summary
   Install EV charging stations throught Yolo County that are accessible to the pubic
2. Project Manager
   Mike Martinez, IT & Projects Manager, County Of Yolo General Services Department
3. Site (s) Description
   Various County owned properties in the cities of Woodland, Davis, and Winters
   Site 1: 137 N Cottonwood St, Woodland, California 95695 Bauer Building 2-Dual Charging Stations
   Site 2: 25 N. Cottonwood Street Woodland, CA 95695 Gonzalez Building 2-Dual Charging Stations
   Site 3: 315 E 14th St, Davis, CA 95616 Mary L. Stephens Davis Branch Library 1-Dual Charging Station

4. Site information (Maps, Pictures, Etc.) Attached EV Project Location Map.PDF

5. Summary of activities during the previous calendar quarter or month.
   Negoitiated and finalized procurement and contracts for installation and of EV Charging stations for 3 sites.
6. Forecast of activities scheduled for the current calendar quarter
   Site visits for preliminary design and drawings. Start permitting process
7. List of issues that are reasonably likely to affect Milestones
   Design and permitting issues may cause delays

Dashboard

Site Selection	Contract Award	Permits	Installation	Testing	Go Live
Completed	Completed – for 3 sites	IN PROGRESS			

DASHBOARD KEY

Completed	IN PROGRESS	DELAYED	ON HOLD

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 11

To: Board of Directors

From: Mitch Sears, Interim General Manager
Rebecca Boyles, Director of Customer Care and Marketing
Sierra Huffman, Program and Community Engagement Analyst

Subject: Time-of-Use (TOU) Rate Transition Update

Date: February 10, 2022

RECOMMENDATION
None requested. Informational item.

BACKGROUND
Since April of 2021, VCE's residential customers have been transitioning from flat, tiered rates to time-of-use (TOU) rates. TOU rates are designed to better reflect the wholesale energy market and grid conditions, with elevated prices when energy is in high demand and lower prices when solar and wind energy is plentiful. TOU rates encourage customers to use energy during daylight hours or overnight, when energy is both cleaner and more abundant.

VCE's residential TOU transition began with NEM customers in March 2021, and the remainder of eligible customers will be transitioned in April 2022. These customers have received co-branded PG&E and VCE notifications, one of which details a customer's projected financial impact on the rate, including information on how the customer can decline the transition if they choose. As of 2/1/2022, about 12,500 customers are projected to be included in the April transition. While 44,000+ VCE customers are still on a non-TOU rate, there are factors that make them ineligible for the transition: medical baseline, <12 months of usage data, or enrollment/eligibility for CARE/FERA in a hot climate zone. Customers can decline the transition to stay on their current rate plan at any time.

Since nearly 12,500 individuals or about 20% of VCE's residential customers will be moved to ETOU-C, VCE staff is analyzing the impacts of providing Bill Protection for newly transitioning TOU customers. PG&E is providing Bill Protection that requires that the customer stay on the TOU rate for 12 months. After 12 months on the TOU rate, customers are credited back any additional money they spent on the TOU plan compared to E1.

If implemented by VCE, Bill Protection implementation would be done by SMUD. If VCE follows PG&E's approach to Bill Protection, SMUD would verify a VCE customers' transition, confirm they stayed on the rate for 12 months, and calculate and apply the bill credits.

Financial Impact: Estimates are being updated from the previous analysis (2019) and will be provided at the March Board meeting. Analyses will consider: the cost of implementing Bill Protection, benefiters/non-benefiters on the TOU rates, and potential revenue impacts of the transition.

CONCLUSION

Next steps for TOU and Bill Protection include an updated financial analysis, along with clarifying the options for Bill Protection consideration at the March Board meeting.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 12

To: Board of Directors

From: Mitch Sears, Interim General Manager
Rebecca Boyles, Director of Customer Care and Marketing
Sierra Huffman, Program and Community Engagement Analyst

Subject: Update on Customer Program Development: Heat Pump Pilot Program

Date: February 10, 2022

RECOMMENDATION
None requested. Informational item.

BACKGROUND
Mid-2021, VCE began developing a Heat Pump Pilot Program within the context of a growing trend in home electrification programs available throughout the state. The shift in focus from traditional HVAC systems to Heat Pumps, alongside the availability of generous rebates for customers, motivated VCE to explore the most appropriate role its programs could fulfill. VCE is working to create a program that complements existing rebates and incentives. From initial research and engagement, a key unfulfilled need could be providing Marketing, Education and Outreach (ME+O) to contractors, customers, and other key stakeholders such as realtors and HVAC manufacturers.

Staff believes that the emphasis on ME+O for the initial phase of this pilot is the best way to provide value while learning more about the intricacies of the heat pump landscape. After the conclusion of the initial ME+O phase, staff (with the assistance of the Programs Task Group, or PTG) will determine whether VCE can add value by designing and launching a complementary heat pump rebate pilot phase.

VCE's heat pump pilot will focus on Dual Fuel Heat Pumps (DFHP), as they are less expensive to install, highly efficient, and lead to the near elimination of greenhouse gas emissions from furnaces. A dual-fuel system is a type of heating, ventilation and air conditioning (HVAC) system that can switch between an electric heat pump and a gas furnace to maximize comfort and energy efficiency (i.e. the gas furnace is actually more efficient at space heating than the electric heat pump in very low temperatures).

Staff found that although large rebates are available to customers for the installation of heat pumps, few contractors based in Yolo County are currently certified to provide them. VCE staff connected with Franklin Energy, the implementers of the Comfortable Home Rebates (CHR) and

Energy Solutions, the managers of TECH Clean California (TECH), to facilitate working together to engage local contractors. This pilot could provide support to Yolo County-based contractors in becoming certified to provide rebates through both CHR and TECH. Staff could provide contractors with program application assistance, as well as provide program clarity by developing web materials, and hosting webinars/in-person meetings.

VCE's heat pump program could engage customers by hosting webinars/in-person workshops and connecting with customers through collateral such as web materials, social media, and printed information. Webinars/in-person workshops (similar to CoolDavis' "Make a Plan for a Clean Energy Home" workshop in which VCE participated in fall 2021) give customers the opportunity to connect with contractors and ask them questions, as well as cover topics on owning and operating a heat pump. Collateral would explain the benefits of heat pumps such as lowering gas bills, reducing greenhouse gas emissions, and improved indoor air quality. Subjects such as duct installation, building envelope, and heat pump best practices could be addressed to ensure negligible rises in a customer's electricity bills and boost customer satisfaction.

The next steps in this pilot program's development are to complete a Preliminary Program Design/Implementation Form and present the Form to the CAC before requesting a recommendation for adoption to VCE's Board.

Financial Impact: Staff projects that this pilot program phase could be efficiently run with a budget of no more than $15,000. The funds would primarily go toward collateral development and printing, and potentially for consultant support to help with paperwork and application assistance.

CONCLUSION

Staff is requesting that the Board provide feedback on this informational item should they choose to.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 13

TO: Board of Directors

FROM: Gordon Samuel, Assistant General Manager & Director of Power Services

SUBJECT: Carbon Neutral by 2030 (CNx2030) Draft Report

DATE: February 10, 2022

Recommendations

1. Receive and provide feedback on the Carbon Neutral by 2030 Final Report.
2. Direct staff to re-assess VCE's policy of 80% renewable by 2030 and consider increasing this goal.
3. Direct staff to return with recommendation(s) related to the Carbon Neutral Report in Q3 2022.

Background

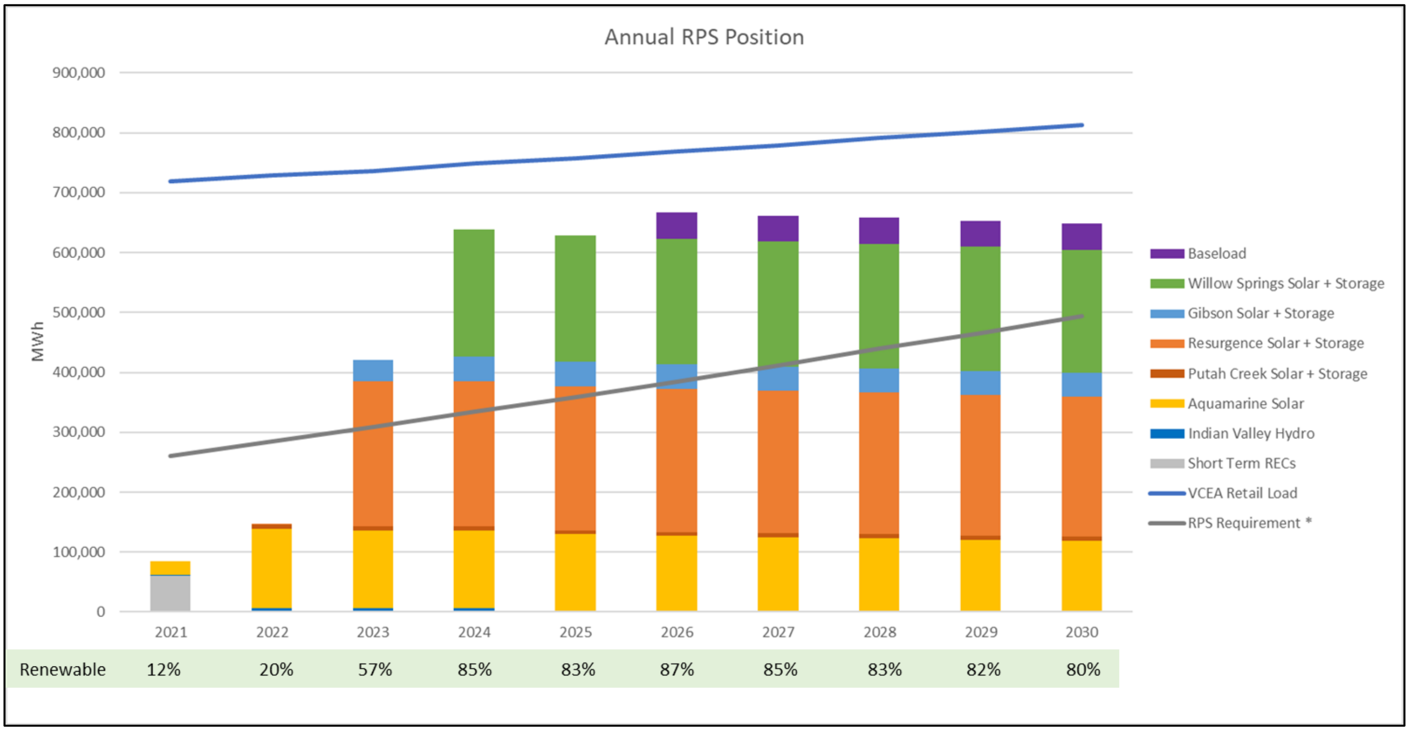
In October 2020, the Board approved VCE's 2021-2023 Strategic Plan which contains goals related to VCE's power resource portfolio as well as decarbonization. The Community Advisory Committee (CAC) formed task groups at the January 2021 meeting and approved the task group "charge" at the February meeting. The initial task group – carbon neutral and decarbonization task group – has been meeting bi-weekly since March. It became apparent very early in the meetings that addressing the carbon neutral topic (specifically Goal 2, Objective 2.5) was going to be more than enough to focus on for 2021 and decided to postpone the decarbonization work (Goal 4) until 2022.

The task group's "charge" stated that the task group assist staff and consultants in evaluating feasibility and creating a road map for both carbon-neutral and carbon-free-hour-by-hour power by 2030. In order to complete this work an outside consultant was selected from an April 30, 2021 request for proposals (RFP) seeking qualified consultants to explore the feasibility, cost and benefit of pursuing a 100% carbon free portfolio. The consultant, Energeia, was selected to perform the study. The contract with the consultant was approved by the Board on July 8, 2021. Interim updates were provided to the CAC (late August 2021) and to the Board (September 2021).

VCE Current Renewable Portfolio Trajectory

For reference, staff is including VCE's current renewable portfolio and trajectory out to 2030 which illustrates the resources that will achieve VCE's current goal of 80% renewable by 2030.

Figure 1 - VCE Current Renewable Portfolio Trajectory (*currently in compliance period 4 – '21-'24)



Analysis

The primary purpose of producing the CNx2030 report effort is to understand what the future resource portfolio would consist of in order to be 100% carbon neutral as well as the be 100% renewable 24x7 (that is, every hour of every day meet VCE's demand with renewable resources). The figures below provide a potential outcome from the draft report to achieve either of these goals.

Figure 2 below show a 100% carbon neutral portfolio meeting VCE's annual demand. That is, over the course of a year the resources generate at least an annual amount that meets or exceeds VCE's annual demand. In this scenario the timing of the resource's generation does not have to match the load.

Figure 2 – 100% Carbon Neutral Portfolio

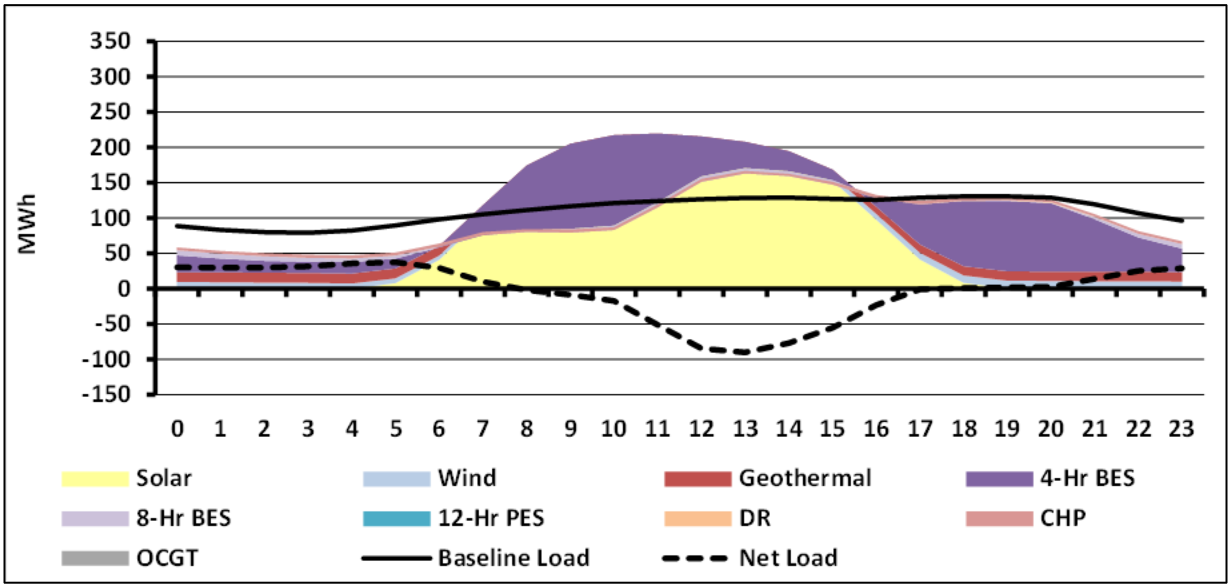
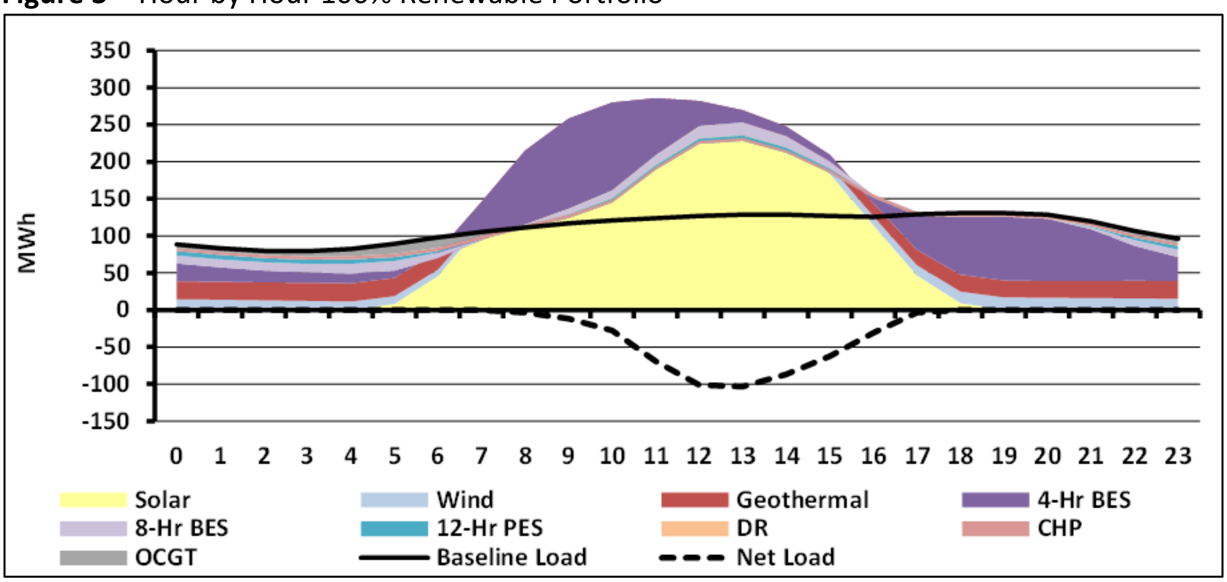


Figure 3 below is an hour by hour 100% renewable portfolio for VCE. This portfolio meets or exceeds VCE's load every hour of the year. At a minimum the resource's generation needs to match or exceed the load.

Figure 3 – Hour by Hour 100% Renewable Portfolio



VCE has a stated goal of being 80% renewable by 2030. Either of the portfolios studied exceeds VCE's current commitment. Resources exist that can satisfy either situation, but there is a significant cost difference between the two sample portfolios. Table 1 below outlines the incremental (additional) resources needed – resources above what VCE has contracted for or will be contracting for in the near future to satisfy regulatory mandates from CPUC Proceeding D.21-06-035 (Mid-Term Reliability). The carbon neutral portfolio is approximately 1/3rd the cost of the hour-by-hour portfolio ($17M/yr vs $47m/yr). This would be in addition to the approximate $50-$60M/yr VCE spends on the current power portfolio.

Table 1 – MW Needed for Hour-by-Hour and Carbon Neutral Portfolios

Scenarios	Solar	Wind	Geothermal	Small Hydro	Large Hydro	4-Hour Battery Energy Storage	8-Hour Battery Energy Storage	12-Hour PES	OCGT
hr x hr	0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.7	112.3
Carbon Neutral (net)	0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
Difference	**0**	**13.2**	**11.3**	**0**	**0**	**-57.7**	**57.7**	**10.7**	**112.3**

Above table represents the incremental Mega Watts (MW) needed to satisfy the hour by hour (HBH) or the carbon neutral (CN) portfolios.

Sensitivity Analysis

Energeia conducted a sensitivity analysis addressing three risk factors: drought impacts, electric vehicle (EV) penetration, and building electrification (BE). The drought impacts can vary year to year but in severe drought the impact on VCE's annual load can be nearly 10%. EV penetration and BE will be increasing and developing forecasts that accurately reflect this growth will be important in VCE's long range load forecasts. It is not unreasonable to assume a 6% and approximately 20% increase in annual load by 2030 from EV and BE, respectively.

Discussion

At this time, staff is not recommending any policy adjustments. This information, combined with the final report, will act as a foundation that will be used for future discussions with the Board and CAC to formulate a new policy that can be presented to the Board in Q3 2022.

Attachment

1. Carbon Free Portfolio RFP
2. 100% Carbon Free Portfolio Study (Final)

Valley Clean Energy Alliance
604 2nd Street, Davis, California 95616
Phone: (530) 446-2750

REQUEST FOR PROPOSALS FOR 100% CARBON FREE PORTFOLIO STUDY

<u>PROPOSALS ARE DUE:</u>
Friday, May 21, 2021 BY 4:00 P.M. (Pacific Daylight Time)
Proposals must be e-mailed in PDF form to Gordon.Samuel@ValleyCleanEnergy.org

Valley Clean Energy Alliance is a Joint Powers Authority consisting of the Cities of Davis, Woodland, and Winters and the County of Yolo.

Scope of Services

100% CARBON FREE PORTFOLIO STUDY

I. INTRODUCTION

Valley Clean Energy is seeking a qualified consultant (Contractor) to explore the feasibility, cost and benefit of pursuing a 100% carbon free portfolio. This 100% carbon free portfolio will be developed as an option to be considered as part of VCE's Strategic Plan and in VCE's upcoming Integrated Resource Plan (IRP). It is intended that all elements of the generation portfolio will be renewable and/or carbon free as defined below.

II. BACKGROUND

2.1 Valley Clean Energy Alliance or Valley Clean Energy (VCE), is a joint powers authority providing a state-authorized Community Choice Energy (CCE) program. Participating VCE governments include the City of Davis, the City of Woodland, the City of Winters and the unincorporated areas of Yolo County. PG&E continues to deliver the electricity procured by VCE and to perform billing, metering, and other electric distribution utility functions and services. Customers within the participating jurisdictions have the choice not to participate in the VCE program.

2.2 Since VCE started serving load in June 2018, VCE has added resources under long term contracts and is gradually building up a portfolio of short and long term assets in line with its vision and the demand of its customers. To date, VCE has relied mainly on market purchases of energy, Resource Adequacy (RA), and Renewable Energy Credits (RECs) in order to serve its electric demand and meet regulatory requirements with respect to resource adequacy and renewable energy. Starting in 2021 VCE will increasingly meet electric demand with resources under long term contracts. VCE has contracted for 50 MW of new solar resource (PV – photovoltaic) located in Kings County, CA and a 3 MW PV + 3 MW storage (BESS – battery energy storage system) project in Yolo County, CA to come online before the end of 2021. In 2022, two additional solar + storage power purchase agreements (PPAs) have been executed (90 MW PV + 75 MW BESS in San Bernardino County, CA and 20 MW PV + 6.5 MW BESS in Yolo County, CA). Finally, two other long-term RA capacity contracts have been executed - 7 MW of demand response beginning in the Summer 2021 and another 2.5 MW of stand-alone battery storage by Summer 2022.

III. DETAILED SCOPE OF WORK

The scope of work for this project includes the following:

- Develop a 100% renewable portfolio study report
  - Net zero and 24x7 by 2030
- Develop a 100% carbon free portfolio study report
  - Net zero and 24x7 by 2030
- Use production cost model to simulate generation of existing and future resources

o Develop lowest cost resource mix at different renewable/carbon free penetrations levels

- Perform risk analysis of the scenarios/contingencies
  - o Contractor invited to present scenarios/contingencies to consider
- Provide industry trends for renewable resources, large hydro, storage, etc.

3.1 Renewable Electricity – includes “biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current”, [(Public Resources Code § 25741), Renewables Portfolio Standard (RPS). (Public Utilities Code § 399.11 et seq.)] Renewable electricity is assumed to be free of GHG emissions.

3.2 Carbon Free Electricity – Any electricity that meets the definition of renewable electricity above plus other sources considered zero emission. These zero emission sources now in California include existing large hydro (greater than 30 MW) and existing nuclear. New technologies not now included in the zero-emission category can be added in the future. Carbon Free power uses no fossil fuel generation. See https://focus.senate.ca.gov/sb100/faqs for FAQs on existing large hydro and existing nuclear and their inclusion in SB 100. The percent of the power that must meet RPS is governed by SB 100 (De Leon, 2018) and shall be equal to or greater than 60% for 2030 and beyond. By 2045 all electricity in California is to be Carbon Free.

3.3 Hour by Hour // 24/7 – The Carbon Content of the Electricity provided is analyzed on an hour by hour basis. And for our purposes is either Renewable or Carbon Free Electricity each and every hour of the day.

3.4 Carbon Neutrality – The net carbon content of the electricity is analyzed over a period of time (usually a year) and the net carbon content is zero. During this period both sources that emit carbon and those that do not can be used, but the net carbon emissions are zero. Net zero can be achieved if zero carbon electricity is overproduced at certain times and that excess zero carbon electricity is demonstrated through available data to displace carbon emitting electricity on the grid at that time. If enough zero carbon electricity is overproduced, the net carbon emissions can be zero.

- This area purposely left blank -

POWER SOURCE			
	RENEWABLE	R/HBH	R/CN
	CARBON-FREE	CF HBH	CF/CN
		HOUR BY HOUR	**CARBON NEUTRAL**

ANAYLYSIS TIME FRAME

“R/HBH/CF/CN”: Renewable /Hour by hour/Carbon free/Carbon neutral

IV. PROFESSIONAL SERVICES

The following tasks and are incorporated into the Scope of Work.

4.1 Project Tasks

Contractor shall prepare and provide the following:

4.2 Portfolio Study Reports

The Portfolio Study Report (Report) shall describe at a high level the method used to perform the work. The fundamental algorithmic assumptions and approach must however be logical, consistent and explained in narrative form. The inputs used by the Contractor should align with the inputs provided by VCE. Reports and supporting documents shall be provided in .pdf, WORD, Excel or other commonly used formats.

Potential resources that could be included in the portfolios

- Solar (Front of meter, FOM/Behind the meter, BTM)
- Wind
- Hydro
- Pump Storage

- Geothermal
- Biomass
- Battery Storage (FOM/BTM)
- Nuclear
- Energy Efficiency
- Demand Response
- Demand Management

4.3 Scenario Scope

The Contractor must use a production cost model to simulate the generation of existing and future resources. The results for each scenario must be summarized in the Report to at least include the following: costs, generation of each resource (GWh), market purchases (GWh), demand response deployment, behind the meter deployments, nameplate capacity of new resources, battery configurations (capacity and duration), imports, amount of local generation and CO2 equivalent tons.

The Contractor shall propose and discuss with VCE any viable scenarios based on Contractor’s experience and expertise. These proposed scenario submittals will be reviewed by VCE. Each scenario shall include all costs on an annual basis for PPA energy costs, transmission or other delivery costs, fuel costs and any fixed and variable O&M. Contractor shall complete a quantitative evaluation for each scenario. Each scenario, unless otherwise noted, shall be modeled on an hourly basis. The Loss of Load Expectation (LOLE) for each scenario should not exceed one (1) day in ten (10) years.

4.4 Model VCE reference case. Align with the assumptions made for the reference case and identify any differences.

Contractor will solve for the mix of renewable or carbon free resources that results in the lowest cost plan. All loads will be served by assets procured by VCE. VCE will not rely on spot energy purchased from outside resources.

4.5 Risk Analysis

Attempting to achieve a 100% carbon free portfolio entails risks and unknowns, some of which VCE is able to anticipate, and others that may not be obvious. This section lists some of the potential risks that VCE has so far identified. The Contractor shall explain the risk and mitigation for each concern listed below.

It is also anticipated that the list below is likely incomplete, and for that reason the Contractor is expected to address and explain in the Report any additional risks and mitigations that it may be aware of or discover during the course of the study.

4.5.1 Particular attention shall be paid to the capacity and duration of output of any energy storage facilities proposed. There is some concern for instance, that solar sources of supply may not be available or adequate for extended times, during some winter peak conditions. The storage must be capable of covering the deficit.

4.5.2 If large amounts of storage are necessary through the variability of renewable sources, how will it be ensured that storage can be kept sufficiently charged using only the renewables? Would access to a greater amount of renewables, either from the grid or locally connected, be required to charge the storage and maintain a 100% renewable posture? What would be the estimated cost?

For instance, if renewable resources are installed or purchased only in quantities sufficient to serve VCE's peak load, when and how often would it be assumed those resources could be successfully diverted to keep the storage charged to acceptable levels? Would it be necessary to purchase more renewables strictly to serve storage?

4.5.3 There could be a risk in purchasing access to renewables or carbon free in quantities sufficient to ensure the ability to reliably serve load for the full 8760 hours of the year. The risk is having significant excess energy at certain times of the year or day. What would be the best strategy for dealing with this issue? Exporting to the grid? Curtailing the renewable/carbon free energy?

The Contractor shall identify in each scenario evaluated the magnitude in MWs and the risk in annual hours of having significant excess energy.

4.5.4 How will demand response programs be deployed? What is the magnitude, duration (per day/per year), and time of day that these programs are expected to be implemented?

4.6 Discussion of possible future industry trends in renewable resources, carbon free resources and storage

Contractor shall also gather input on trends and emerging technologies that could reach maturity by 2030, and which could help in achieving the 100% renewable or carbon free goal.

The Contractor shall provide in the Report a separate discussion of what is considered to be emerging and future trends in renewable energy, carbon free energy, storage and other potential technologies that could aid in achieving a goal of 100% carbon free portfolio. The discussion should include future factors such as, but not limited to, pricing, capacity factor, efficiency, new inverter technology, operating capabilities, and whatever else the Contractor may consider to be relevant.

The Contractor shall provide in support of this discussion of future trends a survey or summary of pertinent industry sources, referenced as appropriate.

V. PROPOSER MINIMUM QUALIFICATIONS

The proposals submitted in response to this Request for Proposals shall be evaluated for award based on the following criteria and weighting.

Item	Criteria Description	Weighting
	Experience and Qualifications 1. Experience of firm 2. Resumes of staff designated to support this scope 3. CCA/Public Power/Energy experience	**45%**
	Compliance with VCE Sample Contract	**10%**
	Price	**45%**
	Total	**100%**

5.1 Proposal Submittal Requirements

1. Ten pages maximum submitted electronically. Executive Summary with brief description of company including Firm or individual name and contact information, including e-mail and website addresses, year organized, principals with the firm, types of work performed, number of employees.
2. Resumes of key staff that would work on VCE projects.
3. Information on any previous experience or services provided, including CCA experience.
4. Other factors or special considerations you feel would influence the selection of your proposal.
5. List of references and contact information.

5.2 Miscellaneous

1. Additional Information

Scope of Services may be revised upon mutual agreement between the Contractor and VCE.

2. Ownership of Work Products

All notes, documents, and final products in all native formats (e.g., Word, Excel, PowerPoint, databases, handwritten notes) produced in the performance of this agreement shall be the property of VCE and shall not be shared with other entities without permission from VCE staff.

3. Request for Proposal Schedule
VCE anticipates that the process for selection of Carbon Free Portfolio Study and awarding the contract will be according to the following tentative schedule.

5.3 Schedule

Milestone Description	Date
Issue RFP	4/30/2021
Return NDA	5/12/2021
Responses due	5/21/2021
Consultant selection	6/17/2021
Study work	Q3 2021
Final report complete	Q4 2021

5.4 Instructions to Proposers

1. **Time and Manner of Submission**
   The Proposal shall be submitted electronically to and received by VCE's office no later than 4:00 p.m. (PDT) on Friday, May 21, 2021.

   Submit to:
   Gordon Samuel, Assistant General Manager
   Email: gordon.samuel@ValleyCleanEnergy.org

   - Each proposal shall include the full business legal name, DBA, and address and shall be signed by an authorized official of the company. The name of each person signing the proposal shall be typed or printed below the signature.
   - All proposals submitted become the property of VCE.

2. **Explanations to Proposers**
   All requests, questions or other communications regarding this RFP shall be made in writing to VCE via email. **Address all communications to Gordon Samuel (gordon.samuel@valleycleanenergy.org)**. To ensure that written requests are received and answered in a timely manner, email correspondence is required.

   VCE will not be bound by any oral interpretation of the Request for Proposal, which may be made by any of its representatives or employees, unless such interpretations are subsequently issued in the form of an addendum to this Request for Proposal.

3. **Withdrawal or Modification of Proposals**
   Proposals may be modified or withdrawn only by an electronic request received by VCE prior to the Request for Proposal due date.

4. Revisions and Supplements

Addenda: If it becomes necessary to revise or supplement any part of this Request for Proposal an addendum will be provided.

5. Proposal Evaluation and Selection Process

The proposals submitted shall be evaluated for award based on the criteria described in the “Proposal Evaluation Criteria” section of this Request for Proposal.

VCE may request additional information from any or all Proposers after the initial evaluation of the proposals to clarify terms and conditions.

Based on VCE's review of the proposals received, a “short listed” group of Proposers may be selected. The “short listed’ firms may be required to make verbal presentations of their qualification to VCE. If a presentation is determined to be required, the presentation will be considered in the overall technical rating.

The contract will be awarded to the best-qualified Proposer, after price and other factors have been considered, provided that the proposal is reasonable and is in the best interests of VCE to accept it.

The right is reserved, as the interest of VCE may require, to reject any or all proposals and to waive any irregularity in the proposals received.

Within fourteen (14) calendar days after notice of award, the successful Proposer shall deliver to VCE the required insurance certificates as per section 3.10 of the sample contract and the signed copies of the contract. The contract forms will be forwarded to the Proposer with the award notification.

6. Duration of Contract

This contract shall be for one year, subject to approval by VCE's Board of Directors of the corresponding annual budget, unless otherwise mutually agreed upon in writing.

The Budget is subject to the approval of VCE's Board of Directors.

7. Qualifications of Proposers

VCE expressly reserves the right to reject any proposal if it determines that the business and technical organization, financial and other resources, or experience of the Proposer, compared to the work proposed justifies such rejection.

8. Proposal Preparation Costs

The costs of developing proposals are entirely the responsibility of the Proposer and shall not be charged in any manner to VCE.

9. Conflicts

If conflicts exist between the contract and the other elements of this Request for Proposal, the contract prevails. If conflict exists within the contract itself, the Terms and Conditions govern, followed by Scope of Services. If conflict exists between the contract and applicable Federal or State law, rule, regulation, order, or code; the law, rule, regulation, order, or code shall control. Varying levels of control between the Terms and Conditions, drawings and documents, laws, rules, regulations, orders, or codes are not deemed conflicts, and the most stringent requirement(s) shall control.

10. Manner and Time of Payment

At completion of the scope, Contractor shall submit an invoice for the lump sum of the work performed.

11. Subcontractors

The Proposers must describe in their proposals the areas that they anticipate subcontracting to specialty firms. Identify the firms and describe how Proposer will manage these subcontracts.

Contractor will pay subcontractors in a timely manner.

Nothing contained in the Contract shall create any contractual relation between any subcontractor and VCE.

12. Notice Related to Proprietary/Confidential Data

Proposers are advised that the California Public Records Act (the "Act", Government Code §§ 6250 et seq.) provides that any person may inspect or be provided a copy of any identifiable public record or document that is not exempted from disclosure by the express provisions of the Act. Each Proposer shall clearly identify any information within its submission that it intends to ask VCE to withhold as exempt under the Act. Any information contained in a Proposer's submission which the Proposer believes qualifies for exemption from public disclosure as "proprietary" or "confidential" must be identified as such at the time of first submission of the Proposer's response to this RFP. A failure to identify information contained in a Proposer's submission to this RFP as "proprietary" or "confidential" shall constitute a waiver of Proposer's right to object to the release of such information upon request under the Act. VCE favors full and open disclosure of all such records. VCE will not expend public funds defending claims for access to, inspection of, or to be provided copies of any such records.

13. Contract

VCE's standard contract is included as Attachment A - *Sample* Contract of this Request for Proposal. VCE may reject proposals that contain exceptions to the Terms and Conditions included in the sample contract.

5.5 Performance Requirements

Performance Requirements/Acceptance Criteria

a. All Milestones shall be completed in accordance with approved schedule.

b. Deliverable items must be complete, legible, comprehensible, and satisfy all requirements set forth in the scope of work.

5.6 Reference Documents

VCE will provide reference documents to aid in the preparation of RFP responses after execution of the non-disclosure agreement (NDA) – a sample NDA is attached as Attachment B.

5.7 Resource and Submittal Requirements

Contractor shall provide all resources required to complete the work described herein, including but not limited to skills, services, supervision, tools, documents, information, labor, materials, equipment, computing capability, transportation, and any other necessary item or expense to fulfill the work requirements.

5.8 Project Cost

Contractor shall provide a not to exceed lump sum price. If VCE modifies the scope and additional study work needs to be performed, Contractor shall provide a change order price before initiating the work.

ATTACHMENT A - *SAMPLE* CONTRACT

A *SAMPLE* CONTRACT IS ATTACHED HERETO.

SAMPLE CONTRACT INTENTIONALLY REMOVED

ATTACHMENT B – SAMPLE NON-DISCLOSURE AGREEMENT

A SAMPLE NON-DISCLOSURE AGREEMENT IS ATTACHED HERETO.

SAMPLE NON-DISCLOSURE AGREEMENT INTENTIONALLY REMOVED energeia-usa.com

100% Carbon Free Portfolio Study

Final Report

Prepared for Valley Clean Energy

7 February 2022

ENERGEIA

Executive Summary

In 2018, the California Governor issued Executive Order B-55-18[1] to Achieve Carbon Neutrality, which set a zero carbon goal by no later than 2045, and negative emissions thereafter, and the State Legislature passed Senate Bill No. 100[2], requiring all electricity consumed in California to be 100% carbon neutral by 2045.

Since then, a growing number of California utilities have set more ambitious targets, including the Sacramento Municipal Utilities District (SMUD), whose Board approved[3] a net zero carbon generation target by 2030, and the Los Angeles Department of Water and Power (LADWP), whose Board approved[4] a net zero target by 2035.

Valley Clean Energy (VCE) is in the process of reviewing its decarbonization pathways and engaged Energeia to analyse the feasibility, costs and benefits of pursuing renewable and carbon-free portfolios on an hour-by-hour and annual carbon neutral basis by 2030 to inform its Strategic Plan and Integrated Resource Plan (IRP).

Scope and Approach

Energeia's approach to delivering the scope of work involved the following main workstreams:

- **Stakeholder Engagement** – Energeia met with VCE throughout the project to discuss the scope and approach for each of the technical workstreams, our initial findings, conclusions and recommendations and to agree material for discussion with the Community Advisory Committee (CAC).
- **Resource Requirements** – Energeia developed an estimate of the annual and hour-by-hour resource gap in 2030 based on VCE's IRP, updated to include newly contracted resources, as well as resources required since then due to changes in regulations.
- **Desktop Review of Technology Options and Costs** – Energeia undertook comprehensive desktop research of technology trends to identify the most relevant zero carbon fuels, generation and storage technologies, which were vetted and validated by VCE and the CAC.
- **Modelling Resource Portfolios** – Energeia configured its zero carbon resource portfolio optimization model with information from VCE's IRP, the results of the technology costs research to identify least cost resource mixes capable of meeting VCE's forecasted 2030 demand under the four scenarios.
- **Risk Assessment and Sensitivity Analysis** – Energeia discussed and agreed key demand and supply risks associated with the four scenarios with VCE and the CAC, and then modelled their potential impact on the portfolio mix and net costs.
- **Implementation Considerations and Pathways** – Based on the results of the portfolio optimization modelling, including the sensitivity analysis, Energeia developed recommendations regarding key implementation considerations and practical pathways for achieving the identified optimized portfolios.

Following completion of each of the above workstreams, Energeia documented the project scope, approach, technical methodologies, results and key recommendations in this report.

VCE's Resource Requirement by Hour in 2030

Figure ES1 shows Energeia's estimate of VCE's average net resource requirements in 2030 by hour and month.[5] VCE demand is expected to be met by existing and planned contracts from 9:00 to 15:00, and additional resources are needed to address the remaining load during other hours of the day, depending on the month.

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[1] State of California (2018), *Executive Order B-55-18 To Achieve Carbon Neutrality*

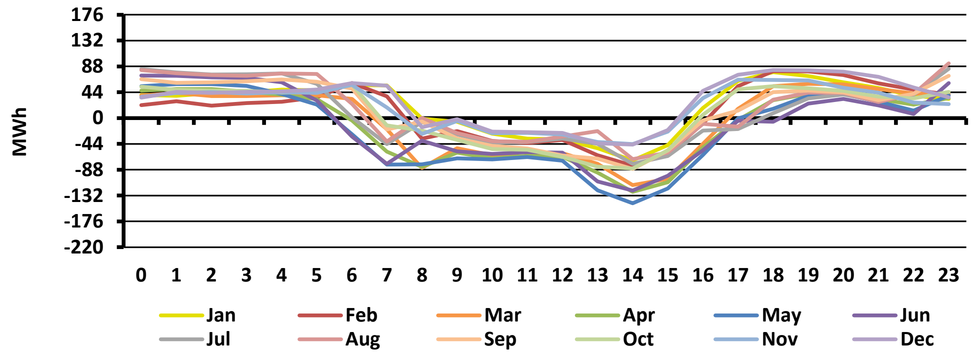
[2] State of California – Legislative Information (2018), *Senate Bill No. 100*

[3] SMUD (2021), *Our 2030 Clean Energy Vision*

[4] Mayor of LA (2021), *Targets – Renewable Energy*

[5] Energeia modelled all hours of the year, i.e. 8,760 hours per year. Hourly average results are shown here as easier to visualize.

Figure ES1 – 2030 Average Hourly Net Requirements by Month



Source: VCE (2020); Note: Hour of the Day (Military Time)

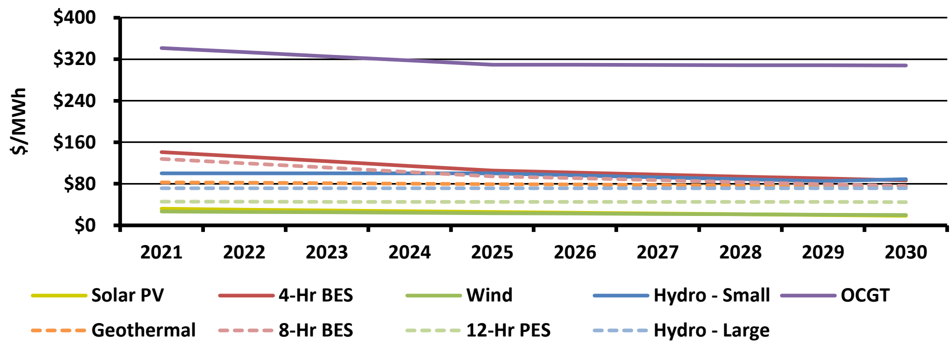
It is important to note that the resource gaps may be met by zero carbon fuelled generation, renewable energy generation and/or storage technologies capable of shifting VCE's excess generation into the periods of deficit.

Future Zero Carbon Resource Options and Costs

Energeia's comprehensive desktop research of zero carbon fuel, renewable and storage technologies identified green hydrogen and renewable natural gas[6] fuelled combustion, solar PV, onshore wind, geothermal, pumped hydro and lithium battery storage as the most prospective resources for 2030 portfolio construction.

Figure ES2 shows Energeia's forecast of levelized cost of resources by type over time, which draws from a range of authoritative public domain sources. Energeia notes that levelized costs can be misleading, as they do not reflect the shape of the renewable energy resource, nor the flexibility value of dispatchable resources.[7]

Figure ES2 – Forecasted Levelized Cost of Energy for Resources Considered in Portfolio Construction ($/MWh)



Source: NREL (2020), EIA (2021), IEA (2010); Note: OCGT = Open Cycle Gas Turbine, PES = Pumped Energy Storage, BES = Battery Energy Storage, gas turbine capacity factor of 50% assumed

Whether or not a given resource forms part of a least cost portfolio of zero carbon resources in 2030 depends on the hour-by-hour resource gap, as well as the relative costs of competing resource options.

Resource Portfolio Optimization

Energeia identified four least cost portfolios to meet the forecast resource gap in 2030, which varied by carbon balancing period and resourcing constraints, per VCE's specifications. The carbon balancing constraints were hour-by-hour (HBH) and (annual) carbon neutral (CN). The resource constraints were Carbon-Free (100% carbon free, incl. large hydro) and Renewable (excludes large hydro).

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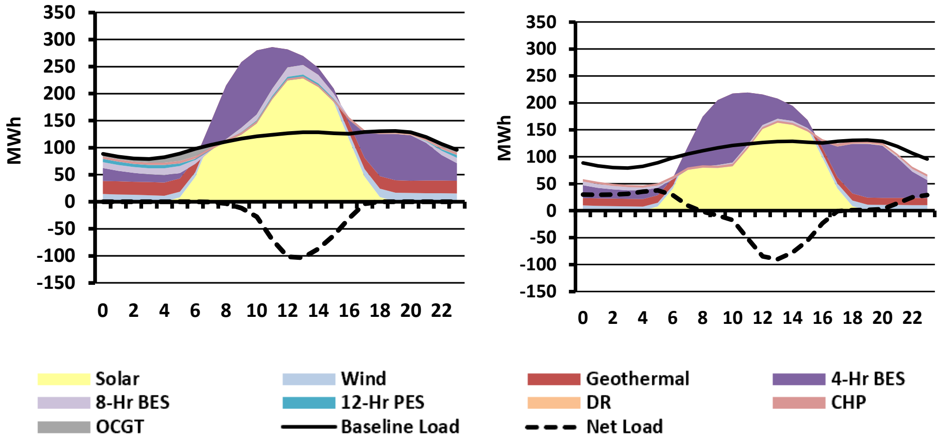
[6] Energeia considered both renewable natural gas and green hydrogen as fuel for thermal generation, but research and analysis revealed green hydrogen will be the lower cost fuel by 2030.

[7] Levelized storage costs are exclusive of energy costs or associated losses, which were included in the portfolio optimization modelling.

Figure ES3 shows the resulting average hourly profiles (including existing and planned resources) for the HBH and CN scenarios against VCE's gross (Baseline) load.[8] The modelling shows the expected least cost approach to meeting HBH and CN average daily demand in 2030 is primarily via solar PV and 4-hour lithium-ion storage, complemented by geothermal, wind and a wider mix of resources to meet demand before 6:00 and after 17:00.[9]

Figure ES3 – 2030 Hour-by-Hour (left) and Carbon Neutral (right) Average Day Profiles



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

The estimated incremental costs of the four portfolios are shown below on an annualized basis by cost category. Resource costs are broken out from CAISO net costs, with HBH scenarios showing a net payment for excess resources and CN scenarios showing a net cost overall.

Table ES1 – Proposed Portfolio Total Costs ($M/Yr)

Scenarios	Power Source	Resources	CAISO	Net
HBH	Carbon Free	$46.5	-$3.9	$42.6
HBH	Renewable	$46.5	-$3.9	$42.6
CN	Carbon Free	$16.5	$0.5	$17.0
CN	Renewable	$16.5	$0.5	$17.0

Source: Energeia research and analysis; Note: RA = Resource Adequacy, AS = Ancillary Services, FRA = Flexible Resource Adequacy

These results show that, given the inputs and assumptions set out above and in the report, the estimated incremental annual cost for VCE to meet demand with zero carbon resources every hour of the day is 250% greater at $42.6m than the cost of being carbon neutral on an annual basis at $17.0m.

Sensitivity and Risk Analysis

Energeia, VCE and the CAC discussed and agreed a wide range of potential risks and issues that could materially impact on VCE's ability to achieve the target resource portfolios at the estimated net cost. These were then refined over the course of multiple discussions into seven key risks, which were then modelled.

The effects of the seven agreed sensitivities on portfolio costs are shown in Figure ES4.

Energeia's analysis found that further constraining the HBH scenario to exclude green hydrogen powered OCGT resources, and to not rely on selling excess energy to the CAISO, increased costs by $13m per year.[10]

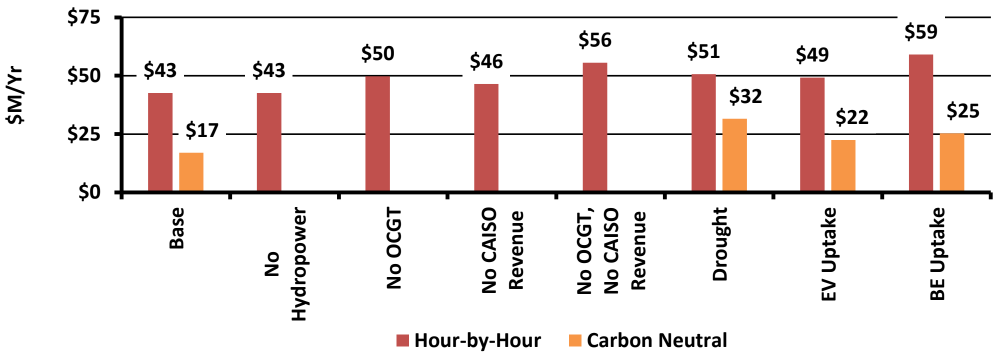
[8] Only two portfolio mixes are shown because large hydro was not part of the most economical resource mix for either scenario.

[9] Energeia notes that other portfolios could be the same or lower cost due to the complexity of this type of portfolio analysis and the limitations of non-linear programming techniques. However, we have tested these results multiple times to help mitigate this risk.

[10] These risk factors do not apply to the CN scenario.

On the demand side, Energeia's modelling found annual HBH costs go up the most due to Building Electrification (BE), while CN costs go up the most as a result of drought. However, each of the demand side risk factors resulted in a significant increase in annual incremental portfolio costs.

Figure ES4 – Hour-by-Hour and Carbon Neutral Net Portfolio Costs



Source: Energeia modelling

Portfolio optimization is a complex interplay of resource costs and shape, and hourly net shortfalls, however, in general these results reflect the relative increase in energy under each of the analyzed demand side risk factors.

Portfolio Implementation Considerations

Based on the results of our least cost portfolio optimization analysis, including assessment of the impact of seven key risk factors, Energeia developed the following key recommendations regarding implementing the identified least cost portfolios:

- **Focus on No Regrets Opportunities** – Resources present in both portfolios, including wind, 4-hour and 8-hour lithium-ion storage could be purchased initially allowing VCE to head in the direction of carbon neutrality under the CN scenario, and potentially change to the HBH scenario in the future.
- **Consider Deferring Lithium-ion Projects** – Lithium-ion battery storage systems are expected to decline significantly over the next decade. VCE should therefore consider delaying storage contracts, and/or requesting that storage embedded in future renewables projects to be built closer to 2030.
- **Benefit from Co-location** – Regarding resource placement, co-locating batteries at solar or wind sites, if possible, may minimize revenue lost to curtailment, which is expected to increase in California over the next 10 years. Battery asset timing should therefore consider curtailment and future cost declines.
- **Address Key Risk Factors** – Developing programs to increase the efficiency of agriculture pumping load, and to increase the flexibility of transportation and building electrification loads, could help reduce the associated impact on portfolio costs.

It is important to evaluate these recommendations over time, as key risk factors could change due to unforeseen changes in policy, regulation, technology, market and industry conditions.

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Disclaimer

While all due care has been taken in the preparation of this report, in reaching its conclusions Energeia has relied upon information and guidance from Valley Clean Energy, and other publicly available information. To the extent these reliances have been made, Energeia does not guarantee nor warrant the accuracy of this report. Furthermore, neither Energeia nor its Directors or employees will accept liability for any losses related to this report arising from these reliances. While this report may be made available to the public, no third party should use or rely on the report for any purpose.

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1. Background

In 2018, the California Governor issued Executive Order B-55-18[11] to Achieve Carbon Neutrality, which set a zero carbon goal by no later than 2045, and negative emissions thereafter, and the State Legislature passed Senate Bill No. 100[12], requiring all electricity consumed in California to be 100% carbon neutral by 2045.

Since then, a growing number of California utilities have set more ambitious targets, including the Sacramento Municipal Utilities District (SMUD), whose Board approved[13] a net zero carbon generation target by 2030, and the Los Angeles Department of Water and Power (LADWP), whose Board approved[14] a net zero target by 2035.

California community choice aggregators (CCAs) are increasingly setting carbon and/or renewable targets above those of state minimum levels, including San Jose Clean Energy's goal of carbon neutrality by 2030, [15] Peninsula Clean Energy's goal of 100% renewable energy on a 24/7 basis by 2025[16] and finally, Marin Clean Energy's goal of 85% renewable by 2029.[17]

Currently, VCE has multiple long-term contracts for solar, storage, geothermal and demand response, which are forecasted to serve approximately 35.8% of VCE's 2030 load, leaving 528 GWh p.a. to be served by CAISO purchases. This is consistent with California state targets for CCAs.

Valley Clean Energy (VCE) is in the process of reviewing its decarbonization pathways and engaged Energeia to analyse the feasibility, costs and benefits of pursuing renewable and carbon-free portfolios on an hour-by-hour and annual carbon neutral basis by 2030 to inform its Strategic Plan and Integrated Resource Plan (IRP).

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[11] State of California (2018), *Executive Order B-55-18 To Achieve Carbon Neutrality*

[12] State of California – Legislative Information (2018), *Senate Bill No. 100*

[13] SMUD (2021), *Our 2030 Clean Energy Vision*

[14] Mayor of LA (2021), *Targets – Renewable Energy*

[15] City of San Jose (2021), *City of San Jose to Pledge Carbon Neutrality by 2030*

[16] Peninsula Clean Energy (2021), *Our Path to 24/7 Renewable Power by 2025*

[17] Marin Clean Energy (2022), *MCE Operational Integrated Resource Plan*

2. Scope and Approach

This section summarizes Energeia's scope of work and the approach adopted to deliver it.

2.1. Scope

Valley Clean Energy engaged Energeia to explore:

- The feasibility, costs and benefits of pursuing renewable or carbon free portfolios under two scenarios, Carbon Neutral (CN) and Hour-by-Hour (HBH), by 2030 and;
- The impact of key risks forecasted to potentially drive increases in portfolio costs.

A diagram of the scenarios assessed is shown in Figure 1.

Figure 1 – Portfolios Assessed in the Following Study

POWER SOURCE

	HOUR BY HOUR	CARBON NEUTRAL
RENEWABLE	R/HBH	R/CN
CARBON-FREE	CF HBH	CF/CN

ANAYLYSIS TIME FRAME

Source: VCE (2021)

The HBH analysis requires VCE's demand to be met by zero carbon generation every hour of the year, while the CN timeframe requires VCE's annual renewable generation to equal VCE's annual demand.

The power source analysis defines renewable electricity to include biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (<= 30 MW), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and carbon free electricity to include any generation source that meets the definition of renewable plus other sources considered zero emission such as large hydro (> 30 MW) and existing nuclear.

Additional refinements to the scope were developed over the course of the engagement in consultation with VCE and the CAC, including the consideration of green hydrogen and renewable natural gas fuelled Combined Cycle Gas Turbines (CCGTs).

2.2. Approach

Energeia's approach to delivering the scope of work involved the following main workstreams:

- **Stakeholder Engagement** – Energeia met with VCE throughout the project to discuss the scope and approach for each of the technical workstreams, our initial findings, conclusions and recommendations and to agree material for discussion with the Community Advisory Committee (CAC).
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Following completion of the above workstreams, Energeia documented the project scope, approach, technical methodologies, results and key recommendations in this report.

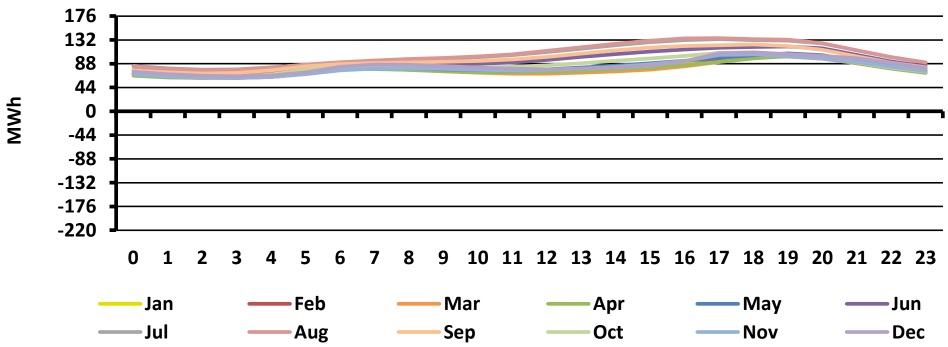
3. VCE's Resource Requirements by Hour in 2030

This section describes the development of the forecast VCE resource requirements by hour in 2030. We developed our estimates by taking VCE's forecast loads from their latest Integrated Resource Plan (IRP), including Behind-the-Meter (BTM) resources, and updated their forecast resources by adding any new resources acquired since the IRP was issued, or planned to be required due to changes in regulations.

3.1. Load Net of Behind-the-Meter Resources

Figure 2 and Figure 3 shows daily averages by month and were generated using VCE's forecast demand net of BTM resources. In 2020, VCE's hourly load varies by 74 MW, with a minimum hourly load of 61 MW in November and a maximum of 135 MW in August. Additionally, a very slight 'duck curve'[18] can be seen peaking around 17:00 during the most sun-intensive months, June through September.

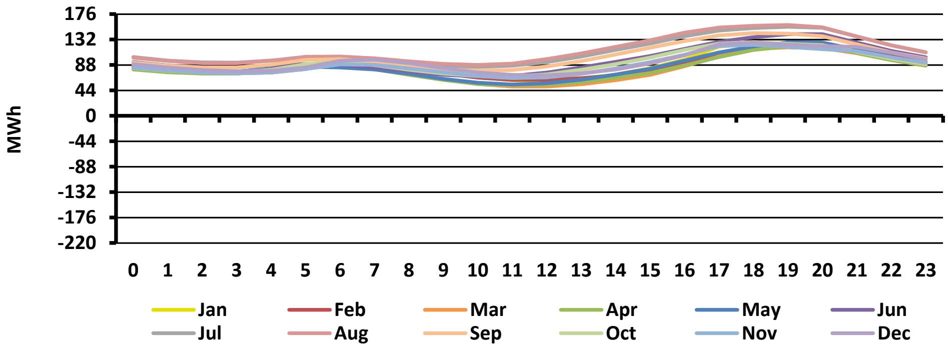
Figure 2 – 2020 Average Load Including DER



Source: VCE (2020)

VCE's forecast hourly demand in 2030 experiences varies by ~106 MW on average, which is 44% greater than the range in 2020. In 2030, the minimum hourly load occurs in March rather than November and is 51 MW, while the maximum hourly load remains in August and increases to 157 MW. An expected increase in BTM solar PV uptake over the next decade drives a more prominent duck curve in all months of 2030.

Figure 3 – 2030 Average Load Including DER



Source: VCE (2020)

Resource generation curves scaled to VCE's existing PPAs were applied to the demand curves shown above to understand the shape of the outstanding load. These resource profiles were taken from VCE's IRP assumptions.

[18] The Duck Curve refers to the impact of solar PV generation on the net load shape, which increasingly looks like a duck in profile.

3.2. Baseline Resource Assumptions

The Power Purchase Agreement (PPA) values presented in *Appendix A – Existing Power Purchase Agreements* were provided by VCE, they include all current PPAs, as well as expected PPAs required to meet changes in regulatory requirements since the IRP was completed, including geothermal and long duration storage portfolio requirements.

VCE currently contracts a total of 401 MW of renewable generation, and its portfolio has the following resources:

- Solar PV, 235 MW
- Hydroelectric, 2.9 MW
- Geothermal, 15 MW
- Combined Heat and Power (CHP), 8 MW
- Short Duration Storage (4-hour), 123 MW
- Long Duration Storage (8-hour) 5 MW, and
- Demand Response, 7 MW.

As a result of changes in portfolio requirements regulated by the California Energy Commission (CEC), VCE is also expecting to need to contract the following additional resources by 2026:

- Long Duration Storage (8-hour) 15 MW, and
- Geothermal, 5 MW.

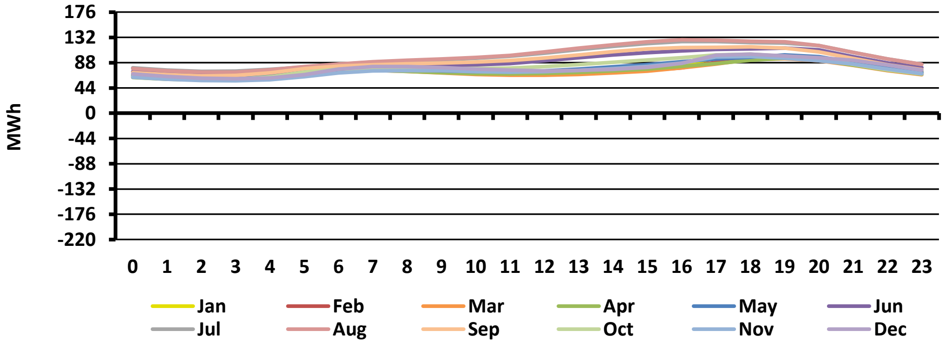
The above resources represent the Baseline resources assumed in place by 2030.

3.3. Hourly Resource Requirements

Resource load shapes provided in VCE's IRP were scaled to their available capacity in a given year to determine net hourly resource requirements. An annual degradation factor of 0.5%[19] and a system round trip efficiency of 86%[2] were assumed when calculating expected battery storage output, and a solar panel annual degradation factor of 0.5%[20] was assumed when calculating expected solar PV output.

Figure 4 shows average net load requirements by hour and month in 2020, which is almost identical to the 2020 average load including DER as the only existing PPA in 2020 provided 2.9 MW of hydroelectric generation.

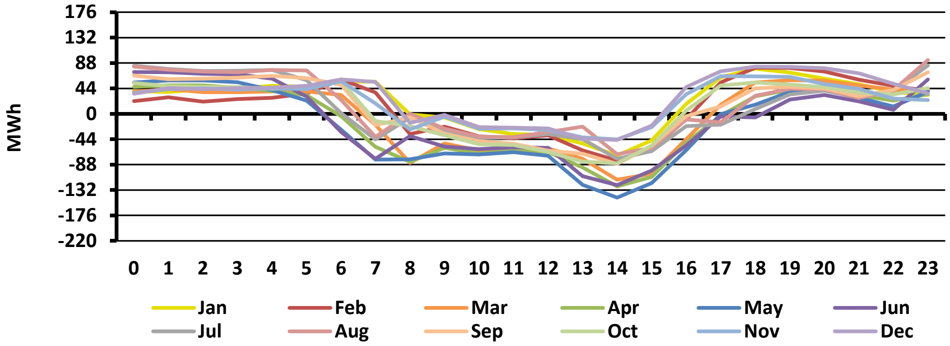
Figure 4 – Average Hourly Net Requirements by Month Including PPAs (2020)



Source: VCE (2020)

VCE's 2030 average net load requirements by hour and month are shown in Figure 5. There is a significant difference in this chart compared to 2030 as nearly all the PPAs listed in will be online in 2030. From 7:00 to 16:00, VCE is forecasted to have excess generation of 50 MWh on average, and during other hours, VCE will need to contract more resources.

Figure 5 – Average Hourly Net Requirements by Month Including PPAs (2030)



Source: VCE (2020)

[19] DOE (2019), *Energy Storage Technology and Cost Characterization Report*

[20] NREL (2018), *STAT FAQs Part 2: Lifetime of PV Panels*

4. Future Resource Costs

Energeia conducted a comprehensive review of zero carbon fuels, renewable generation and storage technology trends to ensure the list of potential resources in VCE's portfolios included the most prospective resources.

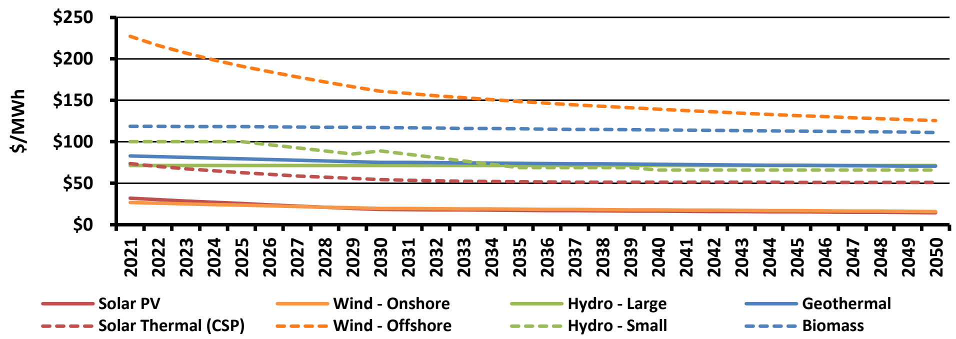
Appendix B – Technology Findings reports the detailed findings from our research, and the following subsections cover the present and forecasted levelized cost of energy (LCOE) values for the key technologies and fuels considered as potential resources for 2030. LCOE values are assumed to include each resource's capital expenditure (capex), fixed operational expenditure (opex), variable opex and fuel cost, if any.

4.1. Key Future Carbon-Free and Renewable Technologies

The LOCE costs presented in Figure 6 are from NREL's 2020 Annual Technology Baseline report. A key trend to highlight is the relatively constant costs for all technologies except for offshore wind. This reflects the trend of falling technology costs to be offset by the development of increasingly lower quality renewable resources.

Of the two solar resources presented, only solar PV was taken forward as a potential resource for VCE's portfolios due to the relative immaturity of solar thermal. Similarly, only onshore wind was considered in portfolio development. Both small and large hydro power technologies were considered in portfolio development, and biomass was not considered due to its relatively higher cost and alternative consideration of zero carbon fuels.

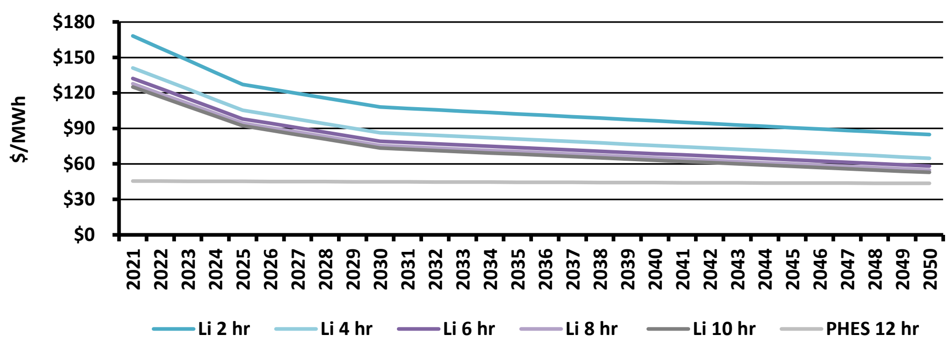
Figure 6 – Forecast Levelized Cost of Renewable Electricity Generation Technology



Source: NREL (2020); Note: CSP = Concentrated Solar Power, Hydro – Large is for hydropower projects > 30 MW and Hydro – Small is for hydropower projects <= 30 MW

NREL forecasted prices for storage technologies are shown in Figure 7 on a Levelized Cost of Storage (LCOS) basis, assuming lifetimes of 10 and 20 years for Li-ion energy storage and pumped energy storage, respectively. Both long and short duration Li-ion energy storage prices are expected to fall by ~50% over the next decade before experiencing a smaller rate of decline while pumped energy storage prices are expected to remain essentially constant through 2050. Both 4-hour (short duration) and 8-hour (long duration) Li-ion battery storage and 12-hour pumped energy storage were considered as potential resources during portfolio construction.

Figure 7 – Forecast Levelized Cost of Storage Technology

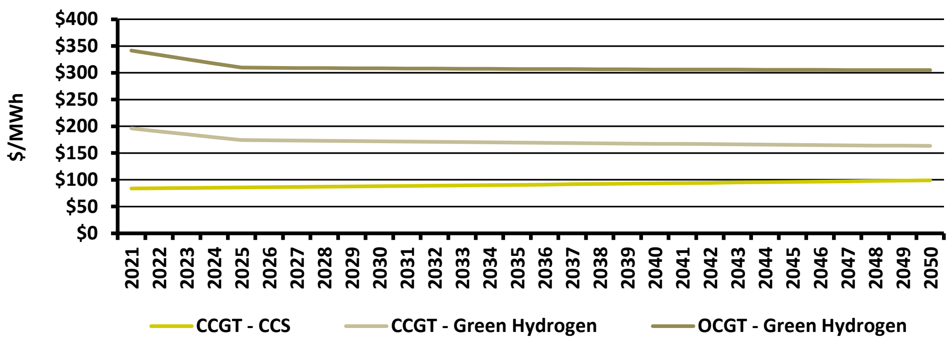


Source: NREL (2020), Energeia modelling; Note: Li = Lithium, PHES = Pumped Hydro Energy Storage

Energeia's forecast LCOE values for the zero carbon thermal technologies presented in Figure 8 were developed using a bottom-up approach. Capex, opex, CCS and fuel prices for combined cycle gas turbines (CCGT) and open cycle gas turbines (OCGT) were gathered from the EIA and IEA sources. Energeia modelled green hydrogen fuel prices on a bottom-up basis using public domain sources for solar PV renewable energy projects, electrolyzer, gas storage and gas transport costs.

Energeia's research and modelling found that LCOEs for zero carbon OCGT and CCGT configurations are expected to fall by 11.2% and 10.3%, respectively, over the 2020 to 2025 period, mainly driven by decline in green hydrogen costs. Post 2025, LCOEs are projected to change only marginally, rate of cost reduction is expected to slow significantly.

Figure 8 – Forecast Levelized Cost of Thermal Electricity Generation Technology Costs



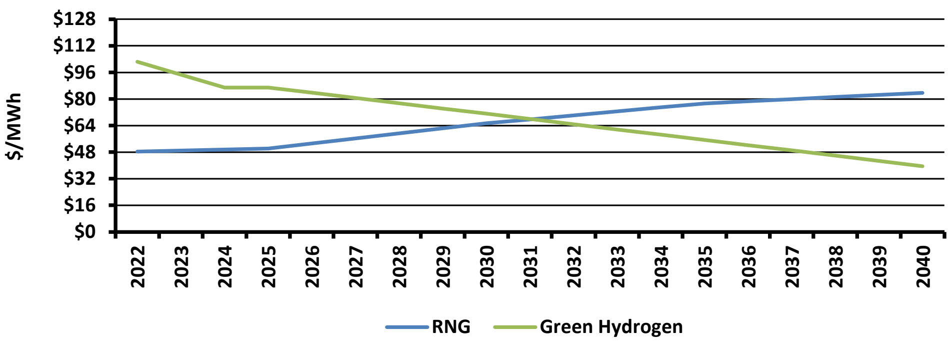
Source: EIA (2021), IEA (2010), Energeia modelling; Note: CCGT = Continuous Cycle Gas Turbine, OCGT = Open Cycle Gas Turbine, CCS = Carbon Capture and Sequestration

Despite having a forecast higher LCOE in 2030, Energeia only included OCGT technology as a potential technology during portfolio construction because combined cycle plants are unlikely to be able to achieve the dispatch levels required to make them economic due to the zero marginal cost of renewable generation. This decision was vetted with VCE and the CAC.

4.2. Zero Carbon Fuel Price Forecasts

Both renewable natural gas (RNG) and green hydrogen were considered as zero carbon fuels for the above thermal electricity generation technology. RNG prices were gathered from the public domain, and Energeia's method for modelling green hydrogen prices was summarised in the preceding section. Green hydrogen was selected because it is forecasted to be the more economical option after 2031, as shown in Figure 9.

Figure 9 – Forecast Renewable Fuel Prices



Source: ICF (2019), Energeia modelling; Note: RNG = Renewable Natural Gas

It is important to note that the above prices are exclusive of any government incentives.

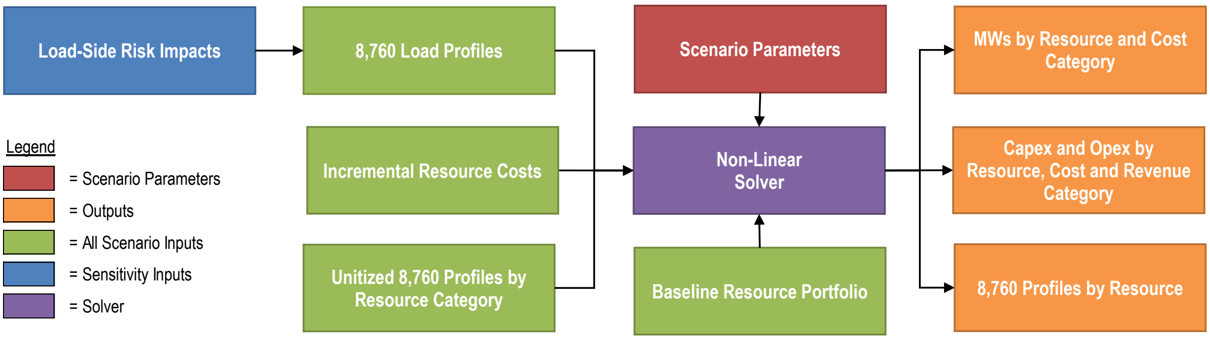
5. Optimized Carbon-Free and Renewable Portfolios

This section discusses the portfolio optimization methodology Energeia used along with optimized portfolio results, including resource mix, costs, revenues and net costs.

5.1. Portfolio Optimization Model

A diagram of the portfolio optimization tool used to determine least cost resource portfolios is shown in Figure 10. Energeia configured the tool by loading in VCE's 2030 hourly demand profiles, 2030 baseline capacity by resource type, 2030 costs by potential resource type, hourly (i.e. '8760') profiles by resource type. The tool was then parameterized for each portfolio scenario, including sensitivity scenarios, and a least cost portfolio mix was identified using a non-linear solver, which ensured the solution met all conditions, including resource adequacy.

Figure 10 – Schematic of Portfolio Optimization Tool



Source: Energeia

The final step was to generate the incremental resource capacities (MWs) by resource type, incremental resource costs by resource type and total 8,760 electricity profiles by resource.

5.2. Least Cost Resource Portfolios

Table 1 shows the results of Energeia's modelling of least cost incremental resource mixes for VCE in 2030 by scenario.

Under both the HBH and CN scenarios, there is no variation between the carbon free and renewable resource mixes as large hydropower (> 30 MW) generation is not included in the least cost solution for either portfolio. Additionally, neither portfolios include additional solar generation, which is not unexpected due to the relatively poor alignment of solar PV generation with forecast resource requirements.

Table 1 – Proposed Resource Capacities (MW)

Scenarios	Power Source	Solar	Wind	Geo thermal	Small Hydro	Large Hydro	4-Hr BES	8-Hr BES	12-Hr PES	OCGT
HBH	Carbon Free	0	39.3	11.3	0	0	42.3	65.4	10.7	112.3
HBH	Renewable	0	39.3	11.3	0	0	42.3	65.4	10.7	112.3
CN	Carbon Free	0	26.1	0	0	0	100.0	7.7	0	0
CN	Renewable	0	26.1	0	0	0	100.0	7.7	0	0

Source: Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

The least cost resource mix for the HBH scenario features wind, geothermal, 4-hour BES, 8-hour BES, 12-Hr PES and green hydrogen fuelled OCGT generation. It should be noted OCGT generation is only used in the HBH scenario to ensure all demand is met on an hourly basis. The modelling shows it is cheaper in this capacity than oversizing renewable energy capacity or investing in additional storage resources.

The least cost CN resource mix is much simpler in composition with only three incremental resource types required: wind, 4-hr BES and 8-hr BES, with 4-hour BES making up almost all of the storage resource. This is also unsurprising given the annual carbon balancing requirement is much less restrictive than the HBH scenario.

5.3. Portfolio Cost by Resource Type

Total estimated annual resource costs by resource category in 2030 are shown in Table 2.

Annual cost calculations used an assumed Weighted Average Cost of Capital (WACC) of 6% and the lifetime of all resources was assumed to be 20 years except for BES resources, which were assumed to have a 10-year lifetime. 8-hr and 4-hr BES resources are the highest cost across both HBH and CN portfolios, which is a reflection of their relative size in MW terms.

Ultimately, Energeia's modelling shows that meeting every hour of demand with renewable generation in 2030 is expected to cost nearly three times more in resources alone than being carbon neutral on an annual basis for VCE. However, it is important to note that costs could turn out to be significantly different to expectations.

Table 2 – Proposed Resource Costs ($M/Yr)

Scenarios	Power Source	Solar	Wind	Geo thermal	Small Hydro	Large Hydro	4-Hr BES	8-Hr BES	12-Hr PES	OCGT	Total $M/Yr
HBH	Carbon Free	$0.00	$3.30	$7.30	$0.00	$0.00	$5.30	$14.40	$3.30	$12.90	$46.50
HBH	Renewable	$0.00	$3.30	$7.30	$0.00	$0.00	$5.30	$14.40	$3.30	$12.90	$46.50
CN	Carbon Free	$0.00	$2.20	$0.00	$0.00	$0.00	$12.70	$1.70	$0.00	$0.00	$16.50
CN	Renewable	$0.00	$2.20	$0.00	$0.00	$0.00	$12.70	$1.70	$0.00	$0.00	$16.50

Source: Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Net portfolio costs, which include resource cost, resource adequacy (RA), ancillary services (AS), flexible resource adequacy (FRA) and CAISO imports/exports are shown in Table 3.

Energeia's portfolio optimization modelling assumed an RA requirement of 115% of peak, an AS requirement of 105% of peak[21] and an FRA requirement[22] of 100% of nameplate solar PV generation.

Under all scenarios, no additional RA, AS, or FRA costs were as incurred, as requirements were able to be met by the portfolio itself. Regarding CAISO import/export costs, the HBH portfolio exported $3.9m of energy, while the CN portfolio incurred $0.5m of net imports, suggesting CAISO energy purchases almost exactly balance energy exports.

Portfolio net costs were $42.6m and $17.0m for the HBH and CN portfolios, respectively.

Table 3 – Proposed Portfolio Total Costs ($M/Yr)

Scenarios	Power Source	Resources	RA/AS/FRA	CAISO	Net
HBH	Carbon Free	$46.50	$0.00	($3.90)	$42.60
HBH	Renewable	$46.50	$0.00	($3.90)	$42.60
CN	Carbon Free	$16.50	$0.00	$0.50	$17.00
CN	Renewable	$16.50	$0.00	$0.50	$17.00

Source: Energeia research and analysis; Note: RA = Resource Adequacy, AS = Ancillary Services, FRA = Flexible Resource Adequacy

5.4. Portfolio Load and Resource Profiles

The following subsection visualize the daily average and peak day (August) hourly load, generation and net load of the proposed HBH and CN portfolios. The graphics include the baseline as well as incremental resources.

[21] This represents a maximum level of regulating capacity, actual AS requirements are likely to be lower throughout the year.

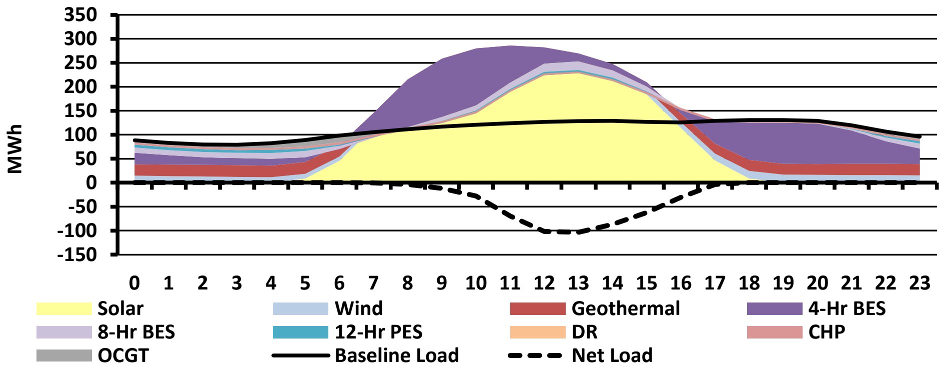
[22] Energeia is anticipating solar PV to drive flexible RA requirements in 2030 based on similar work we have done.

5.4.1. Hour-by-Hour Scenario

The 2030 HBH average day profile shown in Figure 11 shows solar PV generation meets all customer demand from 7:00 to 16:00. In the morning before 7:00, all portfolio resources including storage are used to meet demand with very little OCGT generation, while the evening load is met primarily with 4-hr BES.

The negative Net Load from 9:00 to 17:00, mainly driven by excess solar generation, suggests the average 2030 day has ~45 MWh to export to CAISO. This reflects oversizing of renewable generation resources in order to be able meet demand each hour of the year using zero carbon resources at least cost.

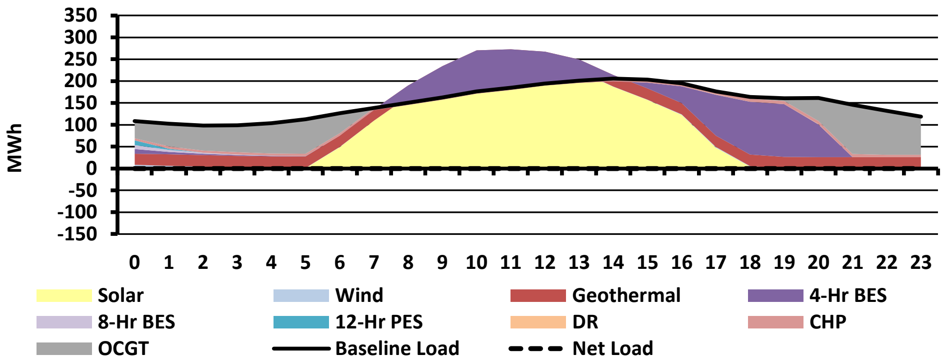
Figure 11 – 2030 Hour-by-Hour Average Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Figure 12 shows the HBH peak day profile, and the key item to note here is net load during every hour is zero due to the assets being sized to meet the peak day. Demand is met primarily with a much smaller range of resources compared to the average day. Only 3.0% of daily average load is met using OCGT generation whereas 21.2% of the peak day base load is met by OCGT generation.

Figure 12 – 2030 Hour-by-Hour Peak Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

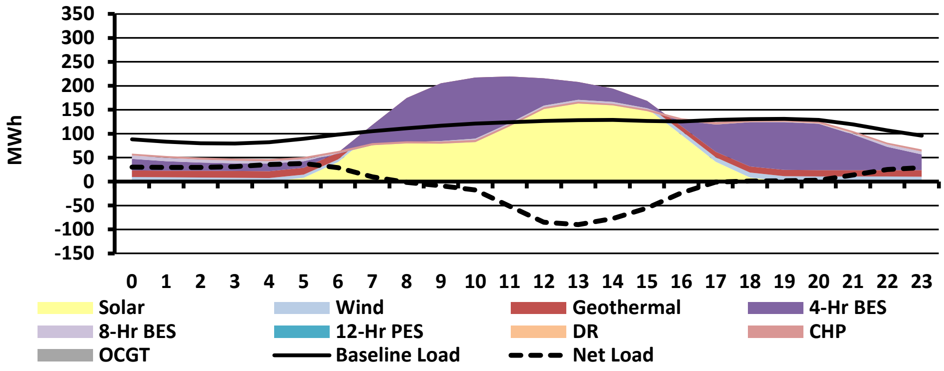
It is worth noting that there is less 8-hour and 12-hour generation during the peak day than on the average day due to the lack of excess solar PV during the days surrounding the peak day.

5.4.2. Carbon Neutral Scenario

The 2030 CN average day profile, displayed in Figure 13, shows the main resources used to meet demand are solar and 4-hr BES, with solar PV meeting 66.8% and 4-hr BES meeting 23.4% of load on average, respectively.

Under the CN scenario, there is no requirement to meet demand with zero carbon generation every hour, and on average VCE will be procuring CAISO resources during the 9pm to 6am period, which can be seen in the gap between the solid baseline load and resource stack. On average, 305 MWh of electricity will need to be procured, amounting to 11.5% of average energy consumption.

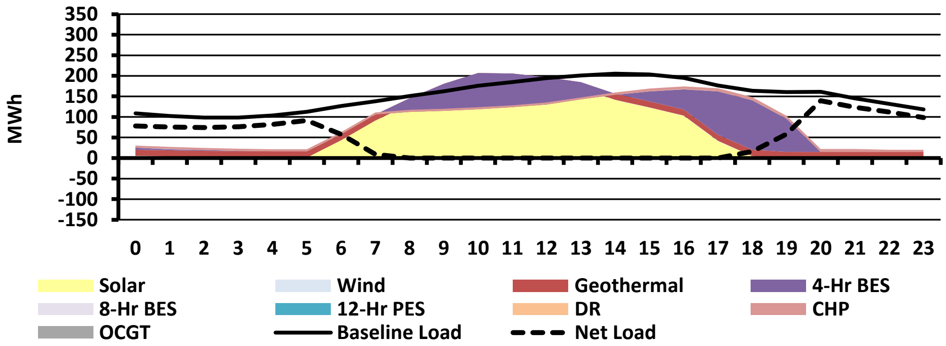
Figure 13 – 2030 Carbon Neutral Average Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

The CN portfolio's peak day profile is also dominated by solar and 4-hr BES as shown in Figure 14. However, the resource gap is significantly higher, with 1.1 GWh or approximately 30.1% of load needing to be procured from CAISO on the peak day.

Figure 14 – 2030 Carbon Neutral Peak Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

The above analysis highlights the large role that CAISO will need to play under the CN scenarios. If other utilities are also planning on meeting their zero carbon targets using CAISO resources, it is likely to impact on the cost of resources, which was out of scope for this study. CAISO resource costs are therefore potentially higher than estimated in this study as a result – depending on the level of CAISO reliance by other jurisdictions in 2030.

6. Risk Analysis

The following section discusses the key risks Energeia assessed as part of this study and estimated their impacts on portfolio net cost. Supply risks included excluding hydropower and green hydrogen availability, and CAISO revenue. Demand side risks included drought and higher than expected EV and BE uptake rates.

6.1. Key Risks

Energeia identified a range of potential risks to the cost and feasibility of the identified least cost resource portfolios, which we then vetted with VCE and the CAC, who also added to the list. A final list of seven key risks were agreed to be taken forward for quantitative analysis based on their expected materiality.

6.1.1. Green Hydrogen Powered OCGTs are Unavailable or Higher Cost

This risk assessment evaluated the HBH portfolio excluding OCGT fuelled by green hydrogen as the technology is still in development stages with Siemens[23] and GE[24] aiming to run their gas turbines on 100% hydrogen by 2030. Thus, there is a possibility this technology may not be available for VCE to incorporate in its 2030 resource portfolios. There is also a risk that the forecast cost of green hydrogen does not decline as anticipated.

6.1.2. CAISO Prices Are Higher and/or Lower than Expected

Both HBH and CN portfolios were assessed assuming that excess generation could not be sold in the CAISO wholesale market. This risk was evaluated due to the potential impact of other Community Choice Aggregators (CCAs), Publiclly Owned Utilities (PONs) and Investor Owned Utilities (IOUs) also trying to sell their excess renewable electricity and buy shortfalls from the market, which is likely to reduce the value of the former and increase the cost of the latter. There is also the risk that VCE stakeholders will require more self-reliance.

6.1.3. Drought Conditions Increase in Frequency and Magnitude

Two potential effects of drought on VCE's portfolio cost and feasibility were raised:

- Limited availability to hydroelectric power generation, and
- increased agriculture load due to pumping ground water to meet irrigation needs.

As Table 2 showed, hydropower is not part of a least cost portfolio under any scenario, and the proposed resource mixes will therefore not be affected by limited availability of hydropower during a drought.

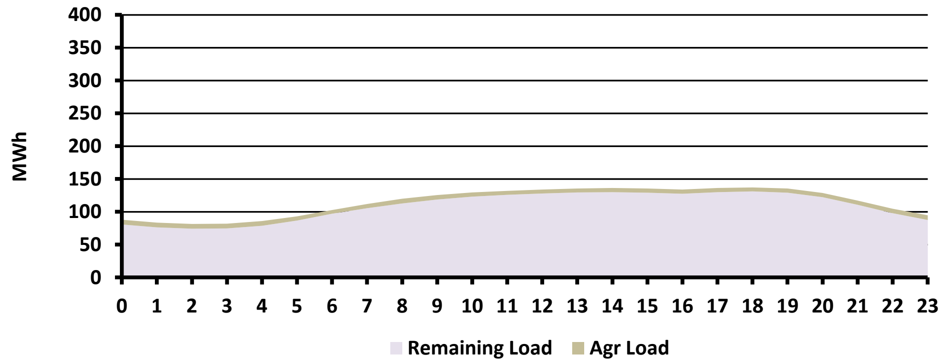
The effect of drought on agriculture load was evaluated using VCE's hourly (8,760) agriculture loads from 2019, 2020 and 2030, where 2019 was used as the baseline year and 2020 was used as the drought year. Energeia developed a forecast 2030 under drought conditions by first calculating growth factors at the hourly level equal to 2020 load / 2019 load, then multiplying the hourly growth factors by VCE's forecasted hourly 2030 load in its IRP. The total additional annual load amounts to 57.4 GWh.

Figure 15 shows, on average, the daily added load from drought would only make up 5.4% of total load or 157 kWh, while Figure 16 shows the additional load would have a very significant impact on the peak day, constituting 58.1% of total load or 3.09 MWh – more than doubling consumption. Additionally, the peak day with added drought load is in May and driven by the high volumes of water required for crop irrigation in the Spring.

[23] Siemens (2021), *Zero Emission Hydrogen Turbine Center*

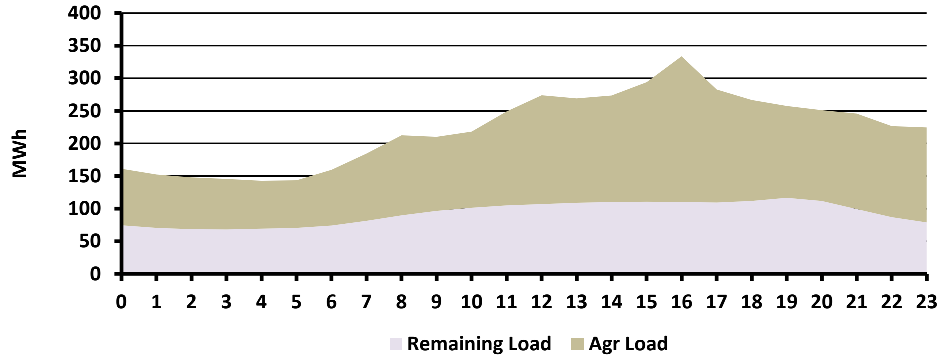
[24] General Electric (2020), *The Power Couple: Renewable + Gas Can Drive Decarbonization with Greater Speed*

Figure 15 – Forecast Added Daily Average Load from Drought (2030)



Source: SMUD (2021), Energeia modelling; Note: Agr = Agriculture

Figure 16 – Forecast Added Peak Day Load from Drought (2030)



Source: SMUD (2021), Energeia modelling; Note: Agr = Agriculture

6.1.4. Higher than Expected Electric Vehicle Uptake

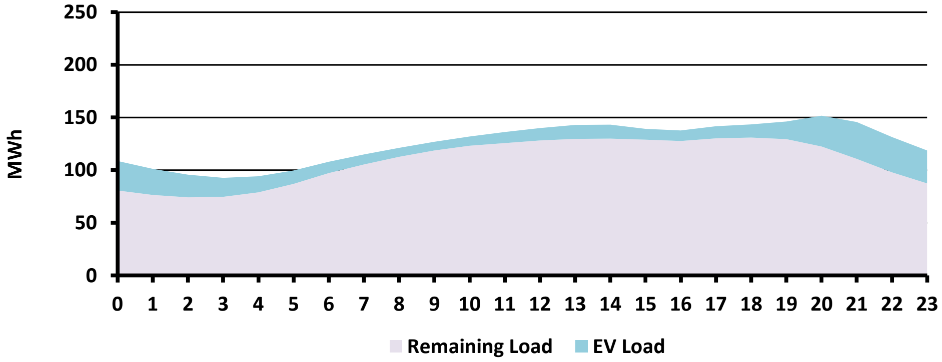
Energeia modelled EV uptake in VCE's service area by configuring its EV uptake model using public domain inputs such as vehicle miles travelled, EV fuel efficiency, EV model availability, current vehicle stock, fuel prices and vehicle tech prices.

Energeia's EV uptake modelling forecast EV stock in 2030 to be 15,423. Assuming an average annual consumption of 2.5 MWh p.a. for passenger and light duty vehicles, Energeia estimate total additional annual load from EVs to be 38.5 GWh in 2030, which was scaled on an hourly basis using the IRP EV load shape.

The resulting average day and peak day load profiles are shown in Figure 17 and Figure 18, respectively. EV loads are not forecasted to change significantly between VCE's peak and average day, as EV load sums to 392 MWh during the peak day and 405 MWh on an average day. Relative to total load, peak day EV load is 9.8% and average day EV load is 13.4% of total energy consumed.

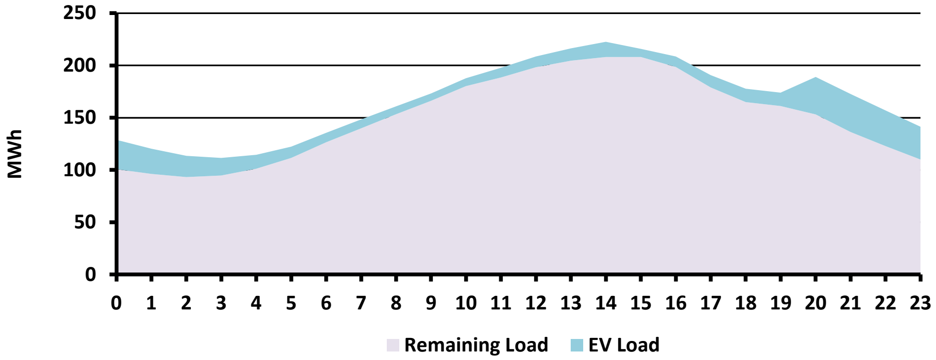
It is worth noting that EV load is not forecast to impact on the timing of the peak day, which remains in August.

Figure 17 – Forecast Added Daily Average Load from EV Adoption (2030)



Source: VCE (2020), Energeia research and modelling

Figure 18 – Forecast Added Peak Day Load from EV Adoption (2030)



Source: VCE (2020), Energeia research and modelling

6.1.5. Higher than Expected Building Electrification Uptake

As all-electric construction becomes common and the potential for a ban on new gas appliances increases, VCE's building electrification uptake is predicted to increase significantly and impact 2030 demand forecasts. Currently, SMUD expect 80% of buildings in its service territory to be all-electric by 2040 and 33 municipalities in California including Davis have introduced building codes requiring or encouraging all-electric construction.[25]

Energeia estimated the potential BE impact on load in 2030 by configuring our building electrification model, which models the impact of space heating, water heating and cooking end uses in residential and non-residential buildings. Appliance lifetimes, energy efficiency and hourly (8760) consumption values used in the analysis reflect the latest available figures in the public domain. Gas appliance market shares were calculated using the updated 2019 Residential Appliance Saturation Study and census data and appliance load shapes are based on US DOE load shape estimates for Sacramento under the 2010 Building Technologies Program.

Energeia's modelling assumed 100% of new customers and end of life replacements to be electric from 2023 onwards. This assumption reflects a scenario whereby new gas appliances are banned from 2023, even on a replacement basis. It is therefore a conservative estimate of the potential impact of building electrification, actual impacts on cost are likely to be lower, and should be assessed in more detail in future work.

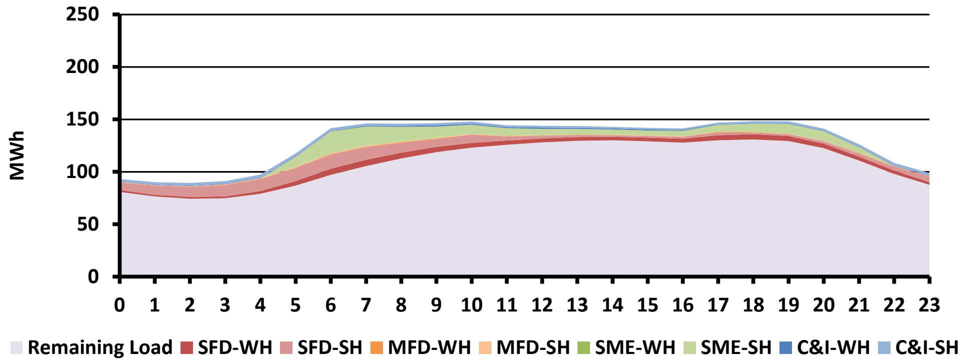
Average daily and peak day building electrification load profiles are show in Figure 19 and Figure 20, respectively.

On average, up to 474.3 MW of demand could added from BE by 2030, which is 15.4% of the total load. During the 2030 peak day, up to 2.7 GWh of additional demand could added from BE, which is 51.9% of the total load.

[25] Green Tech Media (2020), *This California Utility Is Now Measuring Building Electrification in "Avoided Carbon"*

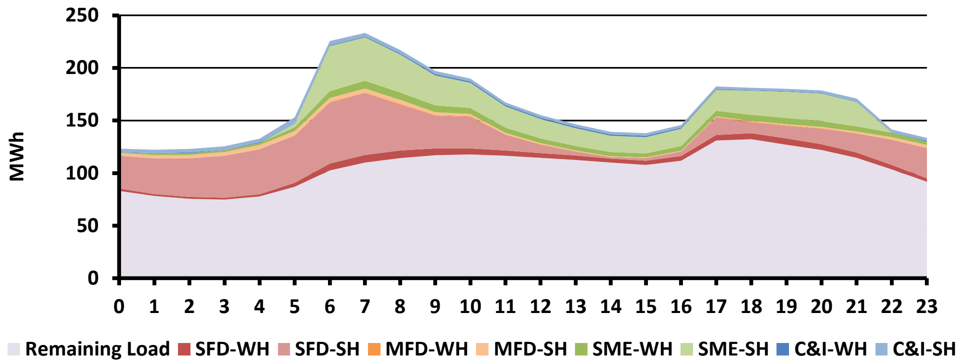
Throughout the entire year, up to 173.1 GWh could be added from BE, with the largest contributions coming from residential and small business space heating.

Figure 19 – Forecast Maximum Potential Daily Average Load from Building Electrification (2030)



Source: US DOE - Open EI (2010), Energeia research and modelling; Note: SFD = Single Family Dwelling, MFD = Multi Family Dwelling, SME = Small and Medium Enterprises, C&I = Commercial and Industrial, SH = Space Heating, WH = Water Heating

Figure 20 – Forecast Maximum Potential Peak Day Load from Building Electrification (2030)



Source: US DOE - Open EI (2010), Energeia research and modelling; Note: SFD = Single Family Dwelling, MFD = Multi Family Dwelling, SME = Small and Medium Enterprises, C&I = Commercial and Industrial, SH = Space Heating, WH = Water Heating

Finally, high levels of BE load on the peak day would significantly change the shape of the curve, giving it a double peak and shifting the annual peak from August in summer to December in winter.

6.2. Portfolio Cost Impacts

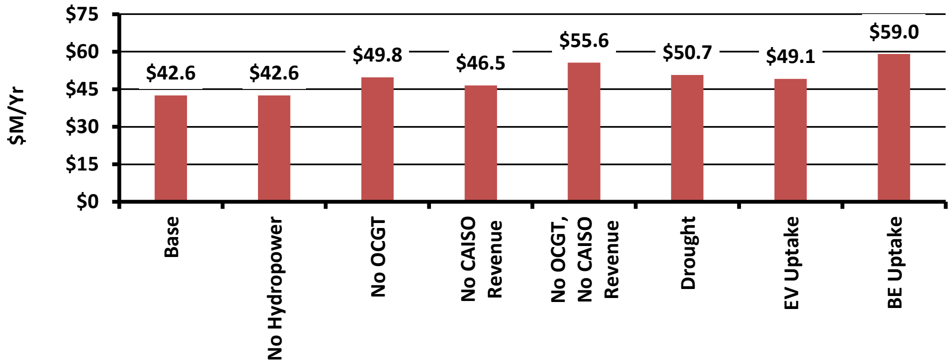
The results of Energeia's modelling of the net portfolio cost of each risk adjusted HBH and CN portfolio are shown Figure 21 and Figure 22, respectively. Detailed views of the associated resource mixes and total costs by portfolio are reported in Appendix C – Detailed Portfolio Results.

Energeia's modelling of key risks found that each risk factor increased annual costs, however the impact depended on the portfolio scenario.

Excluding hydropower from the HBH scenario did not impact costs because the least cost portfolio does not include hydropower. Removing the green hydrogen powered OCGT, on the other hand, increased HBH costs by $7.2m p.a. or 17.0% over the least cost portfolio. Removing CAISO revenue increased costs by $3.9m, or 9.2%. Excluding both CAISO revenue and OCGT generation increased costs by $13m, which is 30.6% higher, but lower than the sum of each risk individually. In terms of demand side risks, drought increased annual costs by $8.1m or 19%, higher EV uptake increased costs by $6.5m or 15% and, finally, higher BE uptake increased costs by $16.4m or 38.4%.

Portfolio optimization of the range of resources considered as part of this study is complex, and it is therefore difficult to pick apart how each demand side risk factor is driving portfolio costs. However, the main driver of HBH cost differentials across demand side risk factors appears to be total annual energy impacts. Changes in system peak demand, or the hourly shape of the impact, appear to exert a lesser impact on portfolios costs.

Figure 21 – Hour-by-Hour Portfolio Cost Impacts



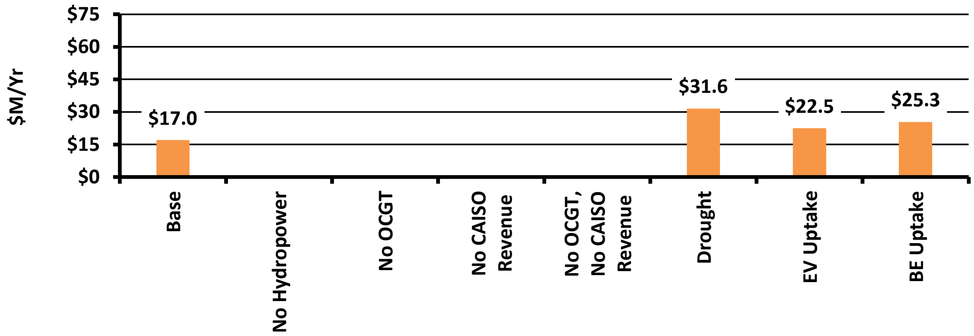
Source: Energeia modelling

The impact of supply side risk factors on CN portfolio costs is nil as the least cost CN portfolio does not include hydropower or OCGT generation. CAISO revenue was not assessed as a risk factor as it was considered a core element of this scenario. Energeia recommends that the risk of CAISO costs being significant different to today's levels be explored in a future piece of work, as we consider it to be potentially material.

Regarding the impact of demand side risks, they range from 32% to 86% higher than the least cost portfolio. The drought-impacted portfolio is the highest cost impact at $14.6 or 86% higher, followed by the BE-impacted portfolio at $8.3m or 49% higher cost. The EV-impacted portfolio was the lowest cost impact at $5.5m or 32% higher than the least cost portfolio.

The impact of risk factors on CN portfolio costs are higher in percentage terms than the impact of risk factors on HBH portfolio costs due to the use of latter's use of excess generation. The CN portfolios also appear to be more sensitive to the impacts of the risk factor on the shape of demand, as drought increases costs more than BE uptake, despite the latter risk factors larger impact on annual energy consumption.

Figure 22 – Carbon Neutral Portfolio Cost Impacts



Source: Energeia modelling

7. Portfolio Implementation Considerations

Based on the results of our least cost portfolio optimization analysis, including assessment of the impact of seven key risk factors, Energeia developed the following key recommendations regarding implementing the identified least cost portfolios:

- **Focus on no regrets opportunities** – Resources present in both portfolios, including wind, 4-hour and 8-hour lithium-ion storage could be purchased initially allowing VCE to head in the direction of carbon neutrality under the CN scenario, and potentially change to the HBH scenario in the future.
- **Consider deferring lithium-ion projects** – Lithium-ion battery storage system costs are expected to decline significantly over the next decade. VCE should therefore consider delaying storage contracts, and/or requesting that storage embedded in future renewables projects to be built closer to 2030.
- **Benefit from co-location** – Regarding resource placement, co-locating batteries at solar or wind sites, if possible, may minimize revenue lost to curtailment, which is expected to increase in California over the next 10 years. Battery asset timing should therefore consider curtailment and future cost declines.
- **Address key risk factors** – Developing risk mitigation programs to increase the efficiency of agriculture pumping load, and to increase the flexibility of transportation and building electrification loads, could help reduce the associated impact on portfolio costs.

It is important to evaluate these recommendations over time, as key risk factors could change due to unforeseen changes in policy, regulation, technology, market and industry conditions.

Appendix A – Existing Power Purchase Agreements

Table A1 lists VCEs current and planned resource contracts.

Table A1 – Valley Clean Energy's Current and Planned Resource Contracts

Name of Counter Party	Project Name	Project Technology	Hydro (MW)	Solar (MW)	Storage (MW)	DR (MW)	Geo-thermal (MW)	VCE Allocation	Project Start Year	Project Start Month	PPA Term (Years)
California Joint Powers Authority	Indian Valley Short Term PPA	Hydroelectric Generation	2.9	0	0	0	0	100%	2020	May	5
Aquamarine Westside LLC	PPA	AC Solar PV	0	50	0	0	0	100%	2021	Oct	15
Putah Creek Solar Farms LLC	Renewable PPA	AC Solar PV	0	3	3 (4-hrs)	0	0	100%	2022(?)	Jan	20
VESI 10 LLC	Tierra Buena Energy Storage	Lithium (RAR Attributes)	0	0	2.5 (4-hrs)	0	0	100%	2022	June	10
Leapfrog Power Inc.	Resource Adequacy Agreement	Demand Response (RAR Attributes)	0	0	0	7	0	100%	2021	June	10
Gibson Renewables LLC	Renewable PPA	Solar PV, Lithium Battery Storage	0	20	6.5 (4-hrs)	0	0	100%	2023	Oct	20
Resurgence Solar I, LLC	Renewable PPA	Solar PV AC Coupled w/ Li-Ion Storage	0	90	75 (4-hrs)	0	0	100%	2023	Jan	20
Willow Springs Solar 3 LLC	Willow Springs Solar 3	Solar + Storage	0	72	36 (4-hrs)	0	0	100%	2024	Jan	15
TBA	TBA	Geothermal	0	0	0	0	15	100%	2026	TBA	20
TBA	TBA	Long-Duration Storage	0		5 (8-hrs)	0	0	100%	2026	TBA	15

Source: VCE (2021)

Appendix B – Technology Findings

The following tables (Table B1 and B2) summarize findings from Energeia's comprehensive desktop research of zero carbon energy generation and storage technologies. Each table provides descriptions, advantages, disadvantages, availability and potential breakthroughs by technology. Capacity factors are reported for generation technologies, and roundtrip losses are reported for storage technologies.

Table B1 – Key Future Zero Carbon Generation Technologies

Name	Category	Capacity Factor	Description	Advantages	Disadvantages	Availability	Potential Breakthroughs
Onshore Wind	Wind	51%	A windmill is used to turn a turbine to generate electricity on land	• Mature technology • Relatively low $/kWh capex • Relatively constant generation	• Community resistance • Limited resource availability	• Commercially available • Limited to areas of high wind resource	• Larger turbines increasing efficiency and reducing costs
Offshore Wind	Wind	40-50%	Floating windmills are used to generate electricity in the ocean	• Mature technology • Relatively low $/kWh capex • Relatively constant generation	• Community resistance • Limited resource availability	• Commercially available • Limited to areas of high wind resource • Limited to coast areas	• Larger turbines increasing efficiency and reducing costs
Single Axis Solar PV	Solar	30-35%	Photovoltaic (PV) panels on a single axis tracking system are used to generate electricity	• Mature technology • Relatively low $/kWh capex	• Strongly seasonal • Limited resource availability	• Commercially available • Limited to areas of high solar resource	• Solar technology increasing efficiency and lowering costs
Concentrated Solar Power (CSP)	Solar	25% or 40% when paired with storage	Mirrors are used to concentrate solar energy on a working fluid, which is used to transfer heat to a steam turbine	• Includes storage • Firm capacity • Relatively low $/kWh	• Strongly seasonal • Limited resource availability • Relatively immature	• Commercially available • Limited to areas of high solar resource • Pilot scale	• High temp steam turbines can reduce costs
Geothermal	Geothermal	72%	Underground geothermal energy is used to drive a steam turbine	• Relatively high capacity factor • Firm capacity • Mature technology	• Limited resource availability • Relatively high $/kWh capex	• Commercially available • Limited to areas of high geothermal resource	
Ocean Tidal	Tidal	20-35%	Tidal energy is used to drive an electric generator	• Predictable resource • Complementary generation profile	• Requires tidal estuary • Relatively expensive per kWh • Immature technology	• Commercially available • Limited to coastal areas • Limited to tidal areas	

Ocean Wave	Wave	25-32%	Wave energy is used to drive an electric generator	• Predictable resource • Complementary generation profile	• Requires coast access • Relatively expensive per kWh • Immature technology	• Commercially available • Limited to coastal areas	
Run-of-River Hydro	Hydropower	40-80%	Water flow is used to drive an electric generator	• Relatively low $/kWh capex • Firm capacity	• Community resistence • Subject to rainfall	• Commercially available • Limited to areas of high hydro potential	
Reservoir Hydro	Hydropower	35-43%	Water is stored in dams and then released to drive an electric generator	• Relatively low $/kWh capex • Includes storage • Firm capacity	• Community resistance • Subject to rainfall • Subject to other uses, e.g. fish	• Commercially available • Limited to areas of high hydro potential	
Waste-to-Energy	Waste	70%	Methane is captured from waste and used to drive a combustion turbine	• Relatively low $/kWh cost • Methane reduction boost • Firm capacity	• Local emissions from combustion	• Commercially available • Limited to areas with significant waste streams	
Biomass	Biomass	50-60%	Methane is captured from biomass or biomass is burned directly to drive a combustion turbine	• Firm capacity	• Local emissions from combustion	• Commercially available • Limited to areas with significant biomass streams	• Improvements in bio-digester technology increases efficiency and reduces cost

Source: Energeia research

Table B2 – Key Future Storage Technologies

Name	Category	Roundtrip Losses	Description	Advantages	Disadvantages	Availability	Potential Breakthroughs
Capacitors	Seconds	5%	Capacitors used to rapidly charge and discharge small amounts of electricity directly	• Fastest response of any technology • Mature technology	• Relatively expensive per kWh • Unable to store significant energy • 10-20% losses per day	• Widely available	
Flywheels	Seconds	5%-50%	Uses a flywheel to rapidly charge and discharge relatively small amounts of electricity using an electric generator	• Relative fast response times • Mature technology	• Relatively large footprint • Relatively expensive per kWh • 20-50% losses over 2 hours	• Widely available	
Battery	Hours	10%	Electrochemical reactions are used to store and discharge electricity directly	• Relatively responsive • Relatively low losses • Mature technology	• Relatively high cost per kWh • Thermal runaway	• Widely available	• Metal air and liquid metal formulations may improve cost effectiveness
Flow	Hours	40%	Stores electricity in two chemicals, which can be stored indefinitely	• No standing losses if turned off • Relatively safe	• Unproven technology • High parasitic losses while on • Relatively high $/kWh	• Commercially available • Pilot scale	
CSP	Hours	1%	Stores energy as heat in working fluid, which is then used to drive a heat recovery-based steam generator	• Very low round trip losses • Can be coupled with CSP • Relatively low $/kWh capex	• Unproven technology • Safety of high operating temp	• Commercially available • Pilot scale	• High temp steam turbine technology could increase efficiency, lower $/kWh
Hydrogen-Compression	Hours	53%	Uses steel or carbon fiber based receiving vessels to store relatively small amounts of hydrogen	• Mature technology • Relatively compact footprint • Relatively low $/kWh capex	• Amount of space required • High round trip losses	• Widely available	• Material science could reduce cost
Hydrogen-Salt Cavern	Weeks	42-55%	Uses air compressors to store large amounts of hydrogen in salt caverns	• Relatively low cost per kWh • Mature technology	• Requires access to a salt cavern • High losses • Relatively slow response	• Limited availability of salt caverns	

Compressed Air Energy Storage (CAES)	Weeks	42-55%	CAES stores electricity in underground formations including salt caverns and an expander to drive a turbine generator	• Relatively low $/kWh capex • Mature technology	• Requires access to a salt cavern • High losses • Relatively slow response	• Limited availability of salt caverns	• Isobaric systems potentially reduce volume by 77%
Hydrogen-Organics	Months	59-89%	Uses chemical processes to store hydrogen, typically as ammonia or methanol	• Mature technology • Relatively high energy density	• Storage of volatile chemicals • Relatively high losses • Relatively high $/kWh	• Widely available	• High potential for cost reduction
Pumped Hydro	Months	80%	Pumps water into reservoirs for later use to drive water turbine generators	• Mature technology • Relatively low $/kWh capex • Relatively low standing losses	• Requires access to reservoir • Scale required • Relatively slow response	• Limited availability of reservoirs	

Source: Energeia research

Appendix C – Detailed Portfolio Results

This appendix contains detailed resource capacities (Table C1), resource costs (Table C2) and total costs (Table C3) for each risk-impacted portfolio Energeia assessed. The grey rows indicate scenarios which were not assessed due to not being feasible given the scenario assumptions.

Table C1 – Resource Capacities by Portfolio (MW)

#	Scenario	Electricity Type	Scenario Summary	Solar	Wind	Geothermal	Small Hydro	Large Hydro	4-Hr	8-Hr	12-Hr	OCGT
Sensitivity												
1	HBH	Carbon Free		0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.6	112.3
2	HBH	Renewable		0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.6	112.3
3	HBH	Carbon Free	No Hydro									
4	HBH	Renewable	No Hydro	0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.6	112.3
5	HBH	Carbon Free	No OCGT	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
6	HBH	Renewable	No OCGT	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
7	HBH	Carbon Free	No CAISO Revenue	0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.6	112.3
8	HBH	Renewable	No CAISO Revenue	0.0	39.3	11.3	0.0	0.0	42.3	65.4	10.6	112.3
9	HBH	Carbon Free	No OCGT, No CAISO Revenue	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
10	HBH	Renewable	No OCGT, No CAISO Revenue	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
11	HBH	Carbon Free	No Hydro, No OCGT									
12	HBH	Renewable	No Hydro, No OCGT	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
13	HBH	Carbon Free	No Hydro, No OCGT, No CAISO Revenue									
14	HBH	Renewable	No Hydro, No OCGT, No CAISO Revenue	0.0	28.4	29.1	0.0	0.0	83.5	74.3	24.2	0.0
15	CN	Carbon Free		0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
16	CN	Renewable		0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
17	CN	Carbon Free	No Hydro									
18	CN	Renewable	No Hydro	0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
19	CN	Carbon Free	No OCGT	0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
20	CN	Renewable	No OCGT	0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
21	CN	Carbon Free	No CAISO Revenue									
22	CN	Renewable	No CAISO Revenue									
23	CN	Carbon Free	No OCGT, No CAISO Revenue									
24	CN	Renewable	No OCGT, No CAISO Revenue									
25	CN	Carbon Free	No Hydro, No OCGT									
26	CN	Renewable	No Hydro, No OCGT	0.0	26.1	0.0	0.0	0.0	100.0	7.7	0.0	0.0
27	CN	Carbon Free	No Hydro, No OCGT, No CAISO Revenue									
28	CN	Renewable	No Hydro, No OCGT, No CAISO Revenue									
Risk												
2	HBH	Renewable	Drought	36.0	72.4	7.2	0.0	0.0	31.1	13.1	12.4	282.9
3	HBH	Renewable	Electric Vehicle Uptake	39.0	71.7	3.3	0.0	0.0	0.0	10.0	7.2	273.5
4	HBH	Renewable	Building Electrification Uptake	0.0	100.0	16.6	0.0	0.0	0.0	0.0	0.0	267.4
6	CN	Renewable	Drought	15.4	5.1	0.0	9.3	0.0	49.2	11.5	15.2	0.0
7	CN	Renewable	Electric Vehicle Uptake	0.0	0.0	2.6	5.3	0.0	12.5	22.0	6.5	0.0
8	CN	Renewable	Building Electrification Uptake	2.3	33.2	0.0	7.4	0.0	14.7	8.1	6.1	0.0

Source: Energeia modelling

Table C2 – Resource Costs by Portfolio ($M/Yr)

#	Scenario	Electricity Type	Scenario Summary	Solar	Wind	Geothermal	Small Hydro	Large Hydro	4-Hr	8-Hr	12-Hr	OCGT
Sensitivity												
1	HBH	Carbon Free		$0.0	$3.3	$7.3	$0.0	$0.0	$5.3	$14.4	$3.3	$12.9
2	HBH	Renewable		$0.0	$3.3	$7.3	$0.0	$0.0	$5.3	$14.4	$3.3	$12.9
3	HBH	Carbon Free	No Hydro									
4	HBH	Renewable	No Hydro	$0.0	$3.3	$7.3	$0.0	$0.0	$5.3	$14.4	$3.3	$12.9
5	HBH	Carbon Free	No OCGT	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
6	HBH	Renewable	No OCGT	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
7	HBH	Carbon Free	No CAISO Revenue	$0.0	$3.3	$7.3	$0.0	$0.0	$5.3	$14.4	$3.3	$12.9
8	HBH	Renewable	No CAISO Revenue	$0.0	$3.3	$7.3	$0.0	$0.0	$5.3	$14.4	$3.3	$12.9
9	HBH	Carbon Free	No OCGT, No CAISO Revenue	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
10	HBH	Renewable	No OCGT, No CAISO Revenue	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
11	HBH	Carbon Free	No Hydro, No OCGT									
12	HBH	Renewable	No Hydro, No OCGT	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
13	HBH	Carbon Free	No Hydro, No OCGT, No CAISO Revenue									
14	HBH	Renewable	No Hydro, No OCGT, No CAISO Revenue	$0.0	$2.4	$18.8	$0.0	$0.0	$10.6	$16.4	$7.5	$0.0
15	CN	Carbon Free		$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
16	CN	Renewable		$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
17	CN	Carbon Free	No Hydro									
18	CN	Renewable	No Hydro	$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
19	CN	Carbon Free	No OCGT	$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
20	CN	Renewable	No OCGT	$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
21	CN	Carbon Free	No CAISO Revenue									
22	CN	Renewable	No CAISO Revenue									
23	CN	Carbon Free	No OCGT, No CAISO Revenue									
24	CN	Renewable	No OCGT, No CAISO Revenue									
25	CN	Carbon Free	No Hydro, No OCGT									
26	CN	Renewable	No Hydro, No OCGT	$0.0	$2.2	$0.0	$0.0	$0.0	$12.7	$1.7	$0.0	$0.0
27	CN	Carbon Free	No Hydro, No OCGT, No CAISO Revenue									
28	CN	Renewable	No Hydro, No OCGT, No CAISO Revenue									
Risk												
2	HBH	Renewable	Drought	$2.4	$6.0	$4.7	$0.0	$0.0	$3.9	$2.9	$3.8	$28.3
3	HBH	Renewable	Electric Vehicle Uptake	$2.6	$5.9	$2.1	$0.0	$0.0	$0.0	$2.2	$2.2	$34.8
4	HBH	Renewable	Building Electrification Uptake	$0.0	$8.3	$10.8	$0.0	$0.0	$0.0	$0.0	$0.0	$38.1
6	CN	Renewable	Drought	$1.0	$0.4	$0.0	$7.9	$0.0	$6.2	$2.5	$4.7	$0.0
7	CN	Renewable	Electric Vehicle Uptake	$0.0	$0.0	$1.7	$4.5	$0.0	$1.6	$4.8	$2.0	$0.0
8	CN	Renewable	Building Electrification Uptake	$0.2	$2.8	$0.0	$6.3	$0.0	$1.9	$1.8	$1.9	$0.0

Source: Energeia modelling

Table C3 – Total Portfolio Costs by Portfolio ($M/Yr)

#	Scenario	Electricity Type	Scenario Summary	Resources	RA/AS/FRA	CAISO	Net Cost
Sensitivity							
1	HBH	Carbon Free		$46.5	$0.0	-$3.9	$42.6
2	HBH	Renewable		$46.5	$0.0	-$3.9	$42.6
3	HBH	Carbon Free	No Hydro				
4	HBH	Renewable	No Hydro	$46.5	$0.0	-$3.9	$42.6
5	HBH	Carbon Free	No OCGT	$55.6	$0.0	-$5.8	$49.8
6	HBH	Renewable	No OCGT	$55.6	$0.0	-$5.8	$49.8
7	HBH	Carbon Free	No CAISO Revenue	$46.5	$0.0	$0.0	$46.5
8	HBH	Renewable	No CAISO Revenue	$46.5	$0.0	$0.0	$46.5
9	HBH	Carbon Free	No OCGT, No CAISO Revenue	$55.6	$0.0	$0.0	$55.6
10	HBH	Renewable	No OCGT, No CAISO Revenue	$55.6	$0.0	$0.0	$55.6
11	HBH	Carbon Free	No Hydro, No OCGT				
12	HBH	Renewable	No Hydro, No OCGT	$55.6	$0.0	-$5.8	$49.8
13	HBH	Carbon Free	No Hydro, No OCGT, No CAISO Revenue				
14	HBH	Renewable	No Hydro, No OCGT, No CAISO Revenue	$55.6	$0.0	$0.0	$55.6
15	CN	Carbon Free		$16.5	$0.0	$0.5	$17.0
16	CN	Renewable		$16.5	$0.0	$0.5	$17.0
17	CN	Carbon Free	No Hydro				
18	CN	Renewable	No Hydro	$16.5	$0.0	$0.5	$17.0
19	CN	Carbon Free	No OCGT	$16.5	$0.0	$0.5	$17.0
20	CN	Renewable	No OCGT	$16.5	$0.0	$0.5	$17.0
21	CN	Carbon Free	No CAISO Revenue				
22	CN	Renewable	No CAISO Revenue				
23	CN	Carbon Free	No OCGT, No CAISO Revenue				
24	CN	Renewable	No OCGT, No CAISO Revenue				
25	CN	Carbon Free	No Hydro, No OCGT				
26	CN	Renewable	No Hydro, No OCGT	$16.5	$0.0	$0.5	$17.0
27	CN	Carbon Free	No Hydro, No OCGT, No CAISO Revenue				
28	CN	Renewable	No Hydro, No OCGT, No CAISO Revenue				
Risk							
2	HBH	Renewable	Drought	$52.0	$0.0	-$5.0	$47.0
3	HBH	Renewable	Electric Vehicle Uptake	$49.9	$0.0	-$4.3	$45.6
4	HBH	Renewable	Building Electrification Uptake	$57.1	$0.0	-$2.4	$54.8
6	CN	Renewable	Drought	$22.8	$0.0	$1.6	$24.4
7	CN	Renewable	Electric Vehicle Uptake	$14.6	$0.0	$2.8	$17.4
8	CN	Renewable	Building Electrification Uptake	$14.7	$0.0	$4.9	$19.6

Source: Energeia modelling

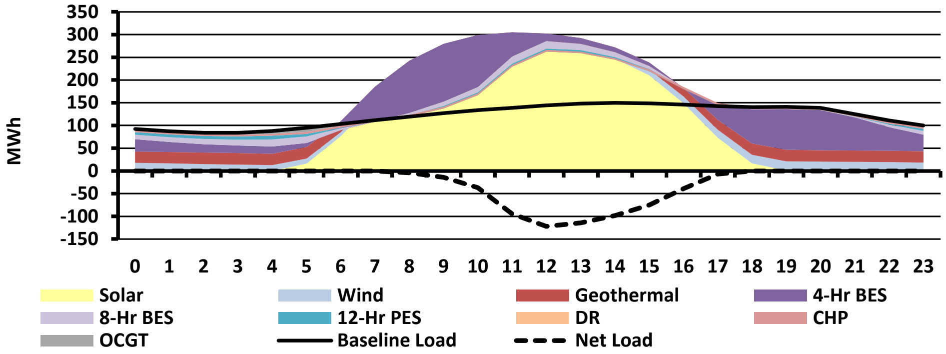
Appendix D – Additional Portfolio Views

This appendix includes additional hourly HBH and CN portfolio profile charts for average summer and winter days and the annual minimum demand day.

Across both scenarios, summer days experiences higher demand on average compared to winter days. All HBH charts show load being met every hour of every day, while the CN charts show gaps between resources and load where CAISO energy must be purchased. Additionally, the HBH minimum day exports almost no excess generation to CAISO, and the CN minimum day does not have any excess generation to export.

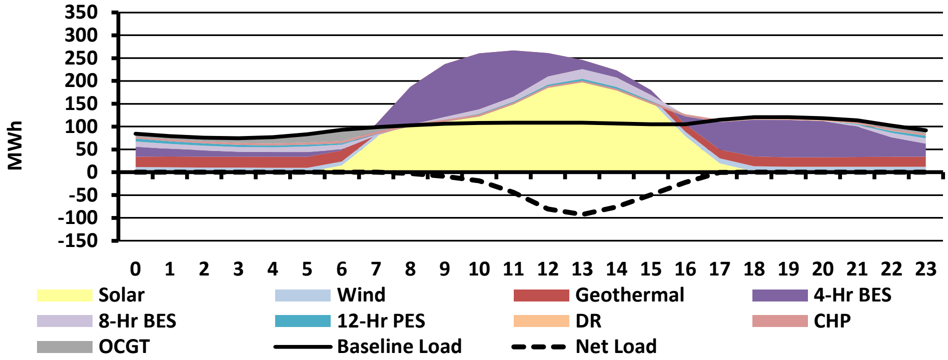
Hour-by-Hour

Figure D1 – 2030 Hour-by-Hour Average Summer Day Profile



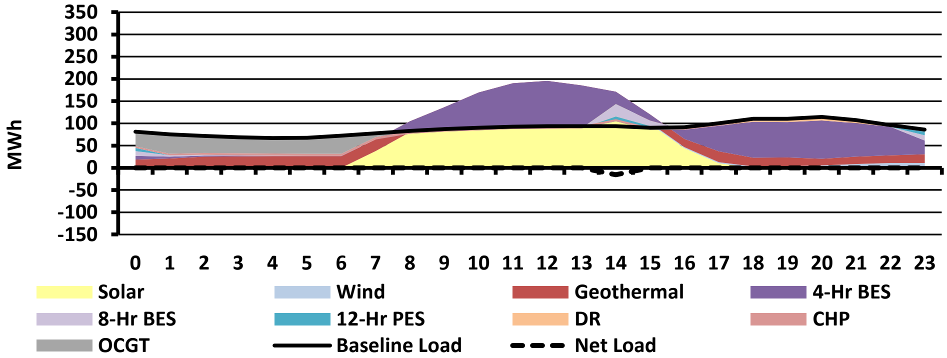
Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Figure D2 – 2030 Hour-by-Hour Average Winter Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

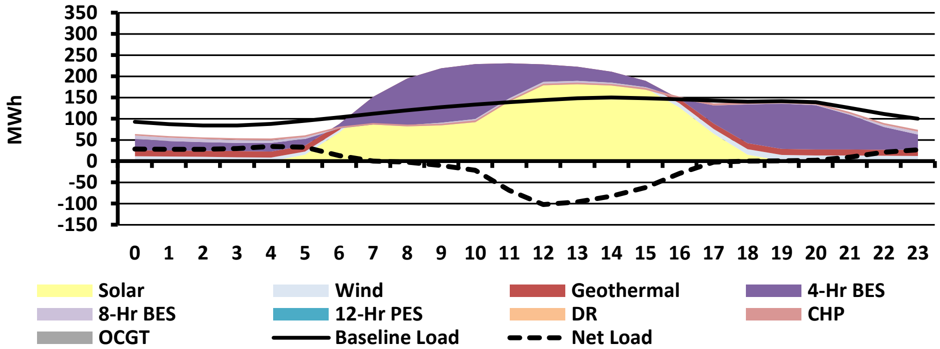
Figure D3 – 2030 Hour-by-Hour Min Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

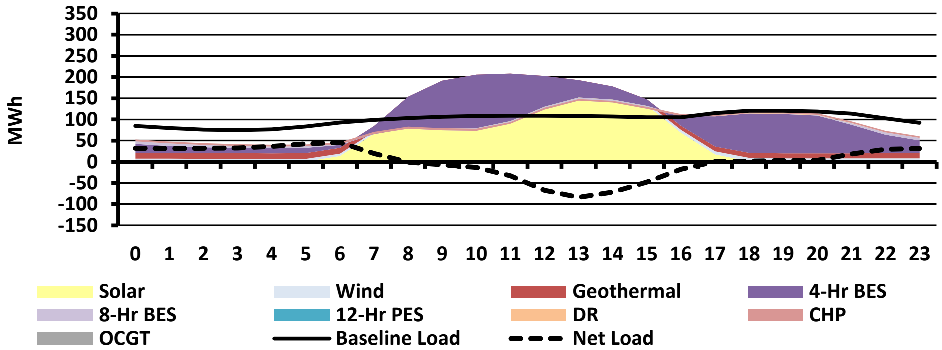
Carbon Neutral

Figure D4 – 2030 Carbon Neutral Average Summer Day Profile



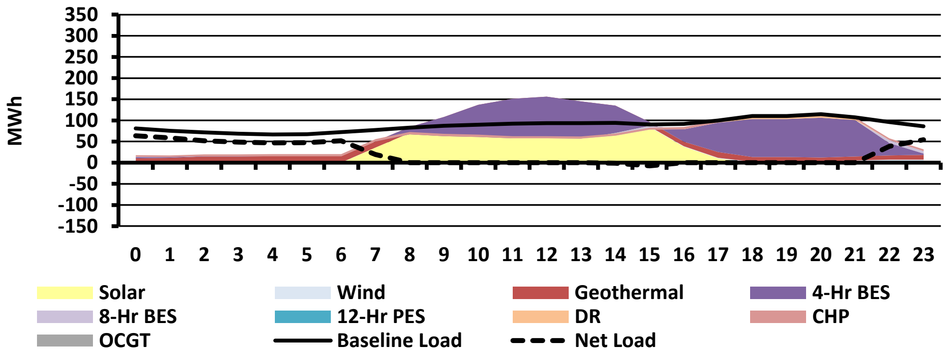
Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Figure D5 – 2030 Carbon Neutral Average Winter Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Figure D6 – 2030 Carbon Neutral Min Day Profile



Source: VCE (2020), Energeia analysis; Note: BES = Battery Energy Storage, PES = Pumped Energy Storage, DR = Demand Response, CHP = Combined Heat and Power, OCGT = Open Cycle Gas Turbine

Appendix E – Bibliography

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Appendix F – About Energeia USA

Energeia USA (Energeia) understands the CCA and utility businesses, and key technical elements required to transform our industry into a clean, sustainable, and still reliable system with affordability as a key objective. We are passionate about helping our clients achieve their 100% carbon free goals.

Energeia was established in 2015 in Davis, CA as the US headquarters of Energeia Pty Ltd, an Australia company founded in 2009. Energeia Pty Ltd has grown since 2009 to become the largest specialist energy consultancy in Australia. Energeia's US ambitions are to establish the best emerging energy focused consultancy in the country in Davis, CA.

Figure D1 – Energeia USA Office in Davis, CA – Same Block as Valley Clean Energy

Energeia specializes in providing advisory, research and analytical tool development services in the following areas:

- Energy system and network planning and optimization
- Cost-of-service and advanced rate / tariff design
- Energy storage, including lithium, pumped hydro, hydrogen and carbon-based
- Electric vehicles and charging infrastructure
- Distributed generation and storage technologies
- Demand management and energy efficiency
- Building electrification
- Hydrogen integration

Energeia delivers its services across three lines of business:

1. **Proprietary research** – We provide in-depth reports on distributed energy resource related markets and technologies of strategic interest, including EVs, solar PV and storage, smart grids, microgrids, energy efficiency and home energy management.
2. **uSim and wSim Utility and Market Simulators** – We have developed industry leading utility simulation software that models customer behaviour, bills, DER adoption, 8760 load profiles, production cost, capacity expansion, rates and financial performance, on an integrated basis.
3. **Professional Services** – We offer tailored services in the areas of rate and incentive design, cost of service analysis, DER and load forecasting, system planning, production cost modelling, and DER technology related strategy and plan development.

We are organized into research, consulting and software development functional units, but there is significant cross-over between the working groups due to the significant quantitative analysis that we perform on behalf of our clients, much of which requires custom tooling.

Proprietary Research Advantage

Through our research capability we are continually monitoring emerging threats and opportunities and assessing their implications. This investment in knowledge ensures that we are able to offer our clients the latest thinking on emerging energy technologies.

Some of our recent reports include:

- Sound and Fury: The Outlook for Storage to 2024
- Brave New World: The Outlook for Smart Meters to 2024
- Awakening: The Outlook for Smart Grid Investment to 2029
- Over the Edge: The Outlook for Embedded Microgrids to 2027
- Off-target: The Residential Energy Efficiency Market to 2020
- Personal Power Stations: Residential micro-CHP Market to 2021

Relevant Experience

Energeia's experience and track record from relevant projects has been summarised below.

Table D1 – Project Descriptions

Client		Project	Relevant Experience
GREEN HYDROGEN COALITION	The Green Hydrogen Coalition	HyDeal LA	HyDeal LA is an initiative to achieve at-scale green hydrogen procurement at $1.50/kg in the Los Angeles Basin by 2030. Energeia is part of a team leading the Industrial Plan and Economics workstream, which will collect data on LA's electricity network, establish demand scenarios and design the first global system designs for the prioritized supply options.
OUC The Reliable One	Orlando Utilities Commission	Battery Valuation and Framework	Energeia developed a production cost and capacity expansion tool to support OUC's evaluation of future battery energy storage projects. We defined the key value streams and methodologies to quantify monetary and non-monetary benefits as they apply to OUC and the Florida Municipal Power Pool (FMPP) and identified the key use cases for battery storage for value stacking.
	Confidential Client	Scenario Based Integrated System Modelling	Energeia modelled a regional power market serving 7 million connections across 5 states over a 20 year period across 10 scenarios. Energeia used its behind-the-meter to transmission system simulator and production cost and capacity expansion software to model the system.
Davis California	The City of Davis	Climate Action and Adaption Plan Analysis	Energeia will be assessing the Davis CAAP through analysis of vehicle and building electrification, rooftop PV and energy efficiency opportunities and the associated costs and benefits. This project will also involve modelling of all connection points and vehicles in Davis.
LA DWP	Los Angeles Department of Water and Power	Distributed Energy Resources Integration Study	Energeia analyzed LADWP's cost-of-service at the system, transmission, 34.5kV and 4.8kV level, and by time period, to identify optimized DER programs, incentives and cost-reflective rate design for delivery of optimized DER adoption patterns and minimization of LADWP's overall cost-of-service and customer electricity costs

Client		Project	Relevant Experience
	Los Angeles Department of Water and Power	Once Through Cooling Reliability Study	Energeia developed specific, reliable, implementable, practical and least cost DER solutions tailored to address LADWP's forecast system constraints expected to arise under a range of alternative 1.5 GW thermal generation plant repowering scenarios, including a no repowering scenario.
	Fresno County Rural Transit Agency	EV Grid Integration Analysis	Energeia assessed and optimized the impact of vehicle electrification including public transit and DER adoption on PG&E's grid. Energeia evaluated different rate configurations against multiple onsite DER solutions to identify the optimal electric fleet charging and load management solution for our client. We also identified least-cost grid upgrade solutions.
	Sacramento Municipal Utilities District	Integrated Distributed Resource Plan	Energeia used its advanced, in-house utility simulator tool, uSim, to determine the distribution system impacts and associated costs and benefits of DERs as envisioned in the Sacramento Municipal Utility District's 2018 Integrated Resources Plan. Energeia also estimated DER values as avoided distribution capital and O&M for distribution.
	Sacramento Municipal Utilities District	Alternative Fuels Assessment	Energeia was engaged to perform an alternative fuels assessment to identify optimal low cost, low carbon fuels for retooling of five aeroderivative LM6000 engines. Energeia performed wheel to well analyses of multiple pathways for renewable gas production and ultimately identified multiple key pathways for SMUD to pursue to decarbonize their peaker plants.
	Placer County	Solar Cost of Service and Net Benefits Analysis	Energeia was engaged to provide an estimate of net benefits from the County's proposed Cincinnati Solar Project. For this project, Energeia will compile metered hourly loads and develop a billing model to produce shadow bills for each meter based on the current rate schedule applying to each meter to identify the net impacts of the proposed investment.
	Roseville Electric Utility	Building Electrification Program Design	Energeia reviewed the state of the art in building electrification and fuel switching program designs and then developed a best practice building electrification program including sales targets, incentive levels, funding sources, budgeting and investment case.
	Roseville Electric Utility	EV Charging Demand Plan	Energeia configured its EV uptake model to forecast EV adoption and charging demand by customer segment and time of day. Energeia also developed a spatial model which indicates charging locations and the utility assets most likely to be impacted by the different kinds of EV charging demand for the City of Roseville. Finally, we identified EV program elements that could help mitigate these impacts, including load management and Vehicle-to-Grid technology.
	Smarter Grid Solutions	Microgrid Market Analysis Study	Energeia was commissioned to perform a comprehensive study of California's microgrid market and microgrid-related legislation to determine the optimal position for SGS to enter the CA market. During this project, Energeia performed extensive desktop research and leveraged both CEC and EIA datasets to deliver a complete, up to date report with data-driven recommendations.
	Australian Solar Research Institute	Concentrated Solar Power Cost Targets	Energeia identified grid-scale storage requirements at different locations in the system over time under a range of future scenarios by updating and configuring its whole-of-system National Electricity Market (NEM) simulation platform to provide estimates of when and where peak to off-peak pricing differentials, and therefore marginal storage opportunities, emerge on a geo-spatial and time-of-day basis.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 14

TO: Board of Directors

FROM: Gordon Samuel, Assistant General Manager & Director of Power Services

SUBJECT: CC Power Tumbleweed Energy Storage Project

DATE: February 10, 2022

Recommendation

1) Authorize the Interim General Manager to execute on behalf of Valley Clean Energy as a member of CC Power the following agreements and any necessary ancillary documents for the Tumbleweed long duration storage project with a delivery term of 15 years starting at the commercial operation date on or about June 1, 2026:
    a. Project Participation Share Agreement between Valley Clean Energy, California Community Power and other participating CCAs
    b. Buyer Liability Pass Through Agreement between Valley Clean Energy, California Community Power and Tumbleweed Energy Storage, LLC.

Background

Joint CCA Request for Information and Offers

In June 2020, Valley Clean Energy along with 10 other CCAs issued a request for information (RFI) from long duration storage (LDS) technology providers and project developers (LDS >=8hrs). The information collected through the RFI was used to develop a request for offers (RFO). This RFO was issued on October 15, 2020, and bids were due on December 1, 2020.

The joint CCAs received a robust response with 51 entities submitting offers representing over 9,000 MW. In collaboration with staff from the participating CCAs, these projects were evaluated through a two round evaluation process. Projects were scored based on value to the CCAs, locational value, development status, project viability and ability to meet resource adequacy requirements, technology viability, project team experience, compliance with workforce policy and environmental impact. The top 17 projects were moved to a second round of evaluation. All 17 projects were sent a follow-up questionnaire on labor, environmental and developer experience. Developers representing non-Li-Ion projects (such as: Emerging technologies defined as non-Li-Ion including 2nd life EV, Gravity, Hydrogen, Liquid Air, Compressed Air, Iron Redox Flow, and Pumped Storage Hydro) were interviewed about their project and technology as well.

Formation of CC Power

In 2020, a group of CCAs came together to discuss forming a joint powers authority (JPA) called California Community Power (CC Power) to leverage their combined buying power to provide cost effective joint services, programs, and procurement of energy resources and products. In February 2021, Valley Clean Energy's Board voted for VCE to become a member of CC Power (topic was presented to the CAC in January 2021). The other CCAs that are members of CC Power include MCE, 3CE, SVCE, SJCE, RCEA, VCE, SCP, EBCE, and CPSF. Once CC Power was formed, CC Power as an organization took over the LDS RFO work that had been underway.

CPUC Mid-Term Reliability Procurement Mandate

On June 24, 2021, the California Public Utilities Commission (CPUC) adopted D.21-06-035. This decision is commonly known as the mid-term reliability (MTR) procurement mandate. It 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. The requirement is measured as net qualifying capacity (NQC) rather than nameplate capacity. The CPUC issued a report identifying what percent of a technology's nameplate capacity would count toward this requirement. This means that each LSE's nameplate capacity is higher than the requirement identified in the decision. The decision requires that contracts have a term of at least 10 years and that resources be zero-emission or eligible under the California renewable portfolio standard (RPS).

Procurement Category	2023	2024	2025	2026	Total
Zero-emissions generation, generation paired with storage, or demand response resources	-	-	2,500	-	2,500
Firm zero-emitting resources	-	-	-	1,000	1,000
Long-duration storage resources	-	-	-	1,000	1,000
Remaining New Capacity Required			-	-	7,000
Total Annual Net Qualifying Capacity (NQC) Requirements	***2,000***	***6,000***	***1,500***	***2,000***	***11,500***

One of the categories identified in the decision was long duration energy storage. Once this decision was issued, the CCAs focused the RFO negotiations to ensure that the identified project and contract terms would allow the project to count toward each of the CCAs obligations under this decision.

The requirements were allocated to each LSE based on load share. Under the decision, VCE was allocated a requirement for 4 MW of LDS NQC, which is approximately equivalent to 5.1 MW of nameplate capacity.

Shortlist and Negotiations
Staff conducted an extensive analysis of projects submitted through the LDS RFO to identify a shortlist of projects. The Tumbleweed project was determined to be in the top tier of projects that would provide the most value to the CCAs. This shortlist was identified in June 2021 and at that time CC Power entered exclusivity with shortlisted projects and began negotiations.

CC Power conducted a solicitation process to identify counsel and a key negotiator to represent CC Power in its negotiations with counterparties identified through the LDS RFO process. CC Power retained Keyes and Fox and Gridwell Consulting to conduct the negotiations.

Representatives from each of the participating CCAs met with the CC Power General Manager and the negotiating team on a weekly basis to receive updates on negotiating status and provide input to the negotiating process.

Overview of Project

Project Name	Tumbleweed Energy Storage, LLC
Technology	Li-Ion Storage
Storage Capacity	69 MW / 552 MWh
Commercial Operation Date	6/1/2026
Developer	REV Renewables, a subsidiary of LS Power
Location	Kern County, CA

The Tumbleweed project is a 69 MW / 552 MWh lithium-ion battery storage facility located near Rosamond, CA in Kern County. The Commercial Operation Date is June 1, 2026. VCE's share of this project is 2.86 MW / 22.88 MWh

The project has an executed interconnection agreement with Full Capacity Deliverability Status (FCDS) for the energy storage component, meaning it will provide resource adequacy attributes in addition to energy benefits. The project will interconnect to SCE's Whirlwind substation. The project is sited in an area with multiple operating solar and wind generation resources. Given the concentration of existing energy resources, Tumbleweed is considered an "in-fill" development. The project is expected to start construction by December 31, 2025.

Under the contract, CC Power will pay for the use of the storage project at a fixed-price rate per kW-month, with no escalation, for the full term of the contract (15 years). CC Power is entitled to all product attributes from the facility, including energy arbitrage, ancillary services, and resource adequacy.

Developer
The project is being developed by REV Renewables, which is a subsidiary of LS Power. LS Power was founded in 1990 and is a development, investment and operating company focused on the power and energy infrastructure sector. LS Power has developed more than 660 miles of high voltage transmission, and developed, constructed, managed, or acquired more than 45,000 MW of power

generation, including utility-scale solar, wind, hydro, natural gas-fired and battery energy storage projects. Additionally, LS Power actively invests in distributed energy resources and other clean energy platforms, such as CPower Energy Management, Endurant Energy, EVgo and Rise Light & Power, as well as renewable fuels.

LS Power formed REV Renewables to accelerate investment in renewable energy and storage technologies. REV owns 1.9 GW of operating energy storage across the U.S. including 600MW of operating battery energy storage. REV has an additional 1.3 GW of battery energy storage in development.

Environmental Review

Each bidder provided a geospatial footprint of their project. During the evaluation period, CC Power studied the geospatial footprint of the project to evaluate whether the project is located in a restricted or high conflict area for renewable energy development. These areas include but are not limited to:

- Protected areas at the federal, state, regional, local level (e.g. County-designated conservation areas, BLM Areas of Critical Environmental Concern, critical habitat for listed species, national, state, county parks, etc.).
- Identified and mapped important habitat and habitat linkages, especially for threatened and endangered species (either state or federally listed).

Further, projects that are located in areas designated for renewable energy development or in areas that are not suitable for other developmental activities, such as EPA re-power sites, receive positive environmental scores.

For this project, the analysis showed that the project was not located in a protected area based on the USGS Protected Areas Database[1] (PAD-US). Additionally, the project is not located in an area not suitable for renewable energy development as identified by the Renewable Energy Transmission Initiative (RETI)[2].

Workforce Requirements

The project has committed that the construction of the project will comply with California prevailing wage requirements and be conducted using a project labor agreement, community workforce agreement, work site agreement, collective bargaining agreement, or other similar agreement providing for terms and conditions of employment with applicable labor organizations.

Participating CCAs

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[1] USGS PAD-US: https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/science/protected-areas

[2] RETI: https://reti.databasin.org/

Seven of the CC Power CCAs are participating in this contract. The CCAs and their shares of the project are identified in the table below. The project's capacity was allocated to the CCAs based on their obligation under the CPUC MTR procurement mandate.

CCA	CPUC Capacity Obligation MW NQC	Entitlement Share	Tumbleweed Allocation (MW)	Tumbleweed Allocation NQC	Credit Rating
CPSF	15.5	16.06%	11.08	8.67	Moody's A2
PCE	19	19.69%	13.59	10.62	Moody's Baa2 Fitch BBB+
RCEA	3.5	3.62%	2.50	1.95	-
SJCE	21.5	22.28%	15.37	12.02	-
SVCE	20.5	21.25%	14.66	11.47	Moody's Baa2 S&P A
SCPA	12.5	12.95%	8.94	6.99	S&P A
VCE	4	4.15%	2.86	2.24	-
Total	**96.5**	**100.00%**	**69.00**	**53.96**	

<u>Contract Structure</u>
VCE will execute the following agreements:

- <u>Project Participation Share Agreement (PPSA):</u> This agreement will be executed by CC Power and each of the participating CCAs. This agreement conveys the project benefits (energy arbitrage, resource adequacy, ancillary services) from CC Power to each of the CCAs. It also details payment timelines from each CCA to CC Power and covers terms and procedures if a CCA does not make payments when due and if a CCA needs to be removed from the contract for non-performance. Under this agreement, each CCA commits to a 25% "step-up" obligation. If one of the participating CCAs defaults and is removed from the agreement, each CCA commits to take additional capacity up to 25% of its initial share. Under this agreement, each CCA also commits to pre-pay three months of expected project payments. This provides a cushion to CC Power to allow it to make payments to the project developer on a timely basis.

- <u>Buyer Liability Pass Through Agreement (BLPTA):</u> This agreement will be executed by VCE, CC Power and Tumbleweed Energy Storage, LLC. The form of this agreement is an appendix to the Energy Storage Services Agreement (ESSA). This agreement is a guaranty by VCE of its share of payment obligations under the ESSA.

- <u>Coordinated Operations Agreement (COA):</u> This agreement will be executed by CC Power and each of the participating CCAs. This agreement details how the CCAs and CC Power will work together to operate the project including hiring a scheduling coordinator and making decisions on charging and discharging the project. This contract will be finalized and executed closer to the start of project operations.

On January 19, 2022, the CC Power Board approved the Tumbleweed ESSA. The ESSA gives CC Power 90 days to secure approval from each of the participating CCAs governing Boards.

Strategic Plan

The Tumbleweed project supports the following objectives in VCE's strategic plan:

Goal 2: Manage power supply resources to consistently exceed California's Renewable Portfolio Standard (RPS) while working toward a resource portfolio that is 100% carbon neutral by 2030

-2.3 Objective: Deploy storage and other strategies to achieve renewable, carbon neutral, resource adequacy, and resiliency objectives.

Discussion/Conclusion

VCE's expected share of the Tumbleweed project is approximately 4% of the project which is equivalent to 2.86 MW nameplate capacity or 2.24 MW NQC. This will satisfy approximately 56% of the LDS mandate assigned to VCE.

Staff is asking the Board to approve VCE's participation in the Tumbleweed project. In addition, each participating CCA is asking its Board for cushion to allow them to proceed with this project in case there are changes in share allocation due to any CCA not receiving their Board's approval (note: VCE will seek approval for up to 5MW). This will also cover situations where there is a step-up event. Staff anticipates that all CCA's will receive approval to participate, but in the event one or more do not, this buffer will help avoid the need to go back to each of the CCA Boards for re-approval.

The Tumbleweed project is the first project for CCAs to procure together through CC Power, and the first LDS project contract to be executed to meet the MTR procurement mandate. CC Power is actively negotiating another LDS project, which will satisfy the remaining MTR need and staff plans to bring that project to the CAC and Board in the very near future.

Attachment

1. Project Participation Share Agreement (PPSA - Draft)
2. Energy Storage Services Agreement (ESSA - redacted)

TUMBLEWEED ENERGY STORAGE

PROJECT PARTICIPATION SHARE AGREEMENT

among

CITY AND COUNTY OF SAN FRANCISCO, ACTING BY AND THROUGH ITS PUBLIC UTILITIES COMMISSION CLEANPOWERSF

and

PENINSULA CLEAN ENERGY

and

REDWOOD COAST ENERGY AUTHORITY

and

CITY OF SAN JOSÉ, ADMINISTRATOR OF SAN JOSÉ CLEAN ENERGY

and

SILICON VALLEY CLEAN ENERGY

and

SONOMA CLEAN POWER

and

VALLEY CLEAN ENERGY

and

CALIFORNIA COMMUNITY POWER

TUMBLEWEED ENERGY STORAGE
PROJECT PARTICIPATION SHARE AGREEMENT

PREAMBLE

This Project Participation Share Agreement ("**Agreement**") is entered into as of _________ (the "**Effective Date**"), by and among the City and County of San Francisco acting by and through its Public Utilities Commission, CleanPowerSF, Peninsula Clean Energy, a California joint powers authority, Redwood Coast Energy Authority, a California joint powers authority, City of San José, a California municipality, Silicon Valley Clean Energy, a California joint powers authority, Sonoma Clean Power, a California joint powers authority, and Valley Clean Energy, a California joint powers authority (each individually a "**Project Participant**" and collectively referred to as the "**Project Participants**") and California Community Power ("CCP"), a California joint powers authority. CCP and the Project Participants are sometimes referred to herein individually as a "**Party**" and jointly as the "**Parties**." All capitalized terms used in this Agreement are used with the meanings ascribed to them in Article 1 to this Agreement.

RECITALS

WHEREAS CCP is a Joint Powers Authority, was formed for the purpose of developing, acquiring, constructing, owning, managing, contracting for, engaging in, or financing electric energy generation and storage projects, and for other purposes; and

WHEREAS, the Project Participants have participated with CCP in the negotiation of an agreement for purchase of the certain energy storage products of Tumbleweed Energy Storage (the "**Project**" as defined in Exhibit A of the ESSA), and CCP is to enter into an Energy Storage Service Agreement ("**ESSA**"), which is incorporated herein by this reference, with Tumbleweed Energy Storage, LLC, a Delaware limited liability company ("**Project Developer**"), providing for purchase of the energy storage products, and associated rights, benefits, and credits from the Project on behalf of the Project Participants.

WHEREAS, pursuant to this Agreement, CCP shall cause to deliver to each Project Participant the Project Participant's associated share of the energy storage products and associated rights, benefits, and credits of the Project.

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 agree to the following:

ARTICLE 1
DEFINITIONS

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

"**AC**" means alternating current.

"**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. For purposes of this definition and the definition of "Permitted Transferee", "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 at least 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 at least 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.

"**Agreement**" has the meaning set forth in the Preamble and any Exhibits, schedules, and any written supplements hereto.

"Amended Annual Budget" means the budget approved by the Project Committee and adopted by the CCP Board pursuant to Section 5.1(c) of this Agreement.

"**Ancillary Services**" means frequency regulation, spinning reserve, non-spinning reserve, regulation up, regulation down, black start, voltage support, and any other ancillary services that the Facility is capable of providing consistent with the Operating Restrictions set forth in Exhibit Q of the ESSA, as each is defined in the CAISO Tariff.

"Annual Budget" means the budget approved by the Project Committee and adopted by the CCP Board pursuant to Section 5.1(c) of this Agreement.

"**Bankrupt**" or "**Bankruptcy**" 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.

"**Billing Statement**" has the meaning set forth in Section 9.2 of this Agreement.

"**Buyer Liability Pass Through Agreement**" **or** "**BLPTA**" means, for each Project Participant, the form set forth in Exhibit L of the ESSA, as executed by such Project Participant, countersigned by CCP, and delivered to the Project Developer.

"**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.

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

"**CAISO Balancing Authority Area**" has the meaning set forth in the CAISO Tariff.

"**CAISO Certification**" means the certification and testing requirements for a storage unit set forth in the CAISO Tariff that are applicable to the Facility, including certification and testing for all Ancillary Services, PMAX, and PMIN associated with such storage units, that are applicable to the Facility.

"**CAISO Grid**" has the same meaning as "CAISO Controlled Grid" as defined in 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) as 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.

"Capital Improvements" means any unit of property, property right, land or land right which is a replacement, repair, addition, improvement or betterment to the Project or any transmission facilities relating to, or for the benefit of, the Project, the betterment of land or land rights or the enlargement or betterment of any such unit of property constituting a part of the Project or related transmission facilities which is (i) consistent with Prudent Utility Practices and determined necessary and/or desirable by the CCP Board or (ii) required by any governmental agency having jurisdiction over the Project.

"CCP Board" means the Board of Directors of California Community Power.

"CCP Manager" means the General Manager of California Community Power.

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

"**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 charge, discharge, and deliver to the Delivery Point at a particular moment and that can be purchased, sold, or conveyed under CAISO or CPUC market rules, including Resource Adequacy Benefits.

"**CEQA**" means the California Environmental Quality Act, as amended or supplemented from time to time.

"Chairperson" has the meaning set forth in Exhibit D.

"**Change of Control**" has the meaning set forth in Section 1.1 of the ESSA.

"**Charging Energy**" means the Energy delivered to the Facility pursuant to a Charging Notice as measured at the Facility Metering Point by the Facility Meter, as such meter readings are adjusted by the CAISO for any applicable Electrical Losses.

"**Charging Notice**" means the operating instruction, and any subsequent updates, given by CCP's SC or the CAISO to Project Developer, directing the Facility to charge at a specific MW rate for a specified period of time or amount of MWh; *provided*, any such operating instruction shall be in accordance with the Operating Restrictions.

"**Commercial Operation**" has the meaning set forth in Section 1.1 of the ESSA.

"**Commercial Operation Date**" or "**COD**" has the meaning set forth in Section 1.1 of the ESSA.

"**Commercial Operation Delay Damages**" has the meaning set forth in Section 1.1 of the ESSA.

"**Communications Protocols**" has the meaning set forth in Section 1.1 of the ESSA.

"**Community Choice Aggregator**" has the meaning set forth in California Public Utilities Code § 331.1.

"**Confidential Information**" has the meaning set forth in Section 18.1 of the ESSA.

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

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

"**Contract Price**" has the meaning set forth on the Cover Sheet of the ESSA.

"**Contract Term**" has the meaning set forth in Section 2.1 of the ESSA.

"**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.

"**Coordinated Operations Agreement**" means the agreement by and among CCP and all Project Participants for purposes of operating the Project.

"**Costs**" means, with respect to a Project Participant assuming all or a portion of a Defaulting Project Participant's Entitlement Share pursuant to the process set forth in Section 12.8(b) or 12.8(c), brokerage fees, commissions and other similar third-party transaction costs and expenses reasonably incurred by such Project Participant in terminating any arrangement pursuant to which it has hedged its obligations; and all reasonable attorneys' fees and expenses incurred by the Project Participant in connection with the Step-Up Allocation.

"**CPUC**" means the California Public Utilities Commission, or successor entity.

"Cured Payment Default" means a Payment Default that has been cured in accordance with Section 12.4 of this Agreement.

"**Daily Delay Damages**" has the meaning set forth in Section 1.1 of the ESSA.

"**Damage Payment**" means the amount to be paid by the ESSA Defaulting Party to the ESSA Non-Defaulting Party after a Terminated Transaction occurring prior to the Commercial Operation Date, in a dollar amount set forth in Section 11.3(a) of the ESSA.

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

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

"Defaulting Project Participant" has the meaning set forth in Section 12.1.

"**Delivery Point**" means the Facility Pnode on the CAISO grid.

"**Delivery Term**" means the period of Contract Years set forth on the Cover Sheet of the ESSA beginning on the Commercial Operation Date, unless terminated earlier in accordance with the terms and conditions of the ESSA.

"Designated Fund" has the meaning set forth in Section 10.5.

"**Development Security**" means (a) cash or (b) a Letter of Credit in the amount set forth on the Cover Sheet of the ESSA.

"**Discharging Energy**" means the Energy delivered from the Facility to the Delivery Point pursuant to a Discharging Notice during any Settlement Interval or Settlement Period, as measured at the Facility Metering Point by the Facility Meter, as such meter readings are adjusted by the CAISO for any applicable Electrical Losses.

"**Discharging Notice**" means the operating instruction, and any subsequent updates, given by CCP's SC or the CAISO to the Facility, directing the Facility to discharge Facility Energy at a specific MW rate for a specified period of time or to an amount of MWh.

"**Effective Date**" has the meaning set forth in the Preamble.

"**Electrical Losses**" means all transmission or transformation losses (a) between the Delivery Point and the Facility Metering Point associated with delivery of Charging Energy, and (b) between the Facility Metering Point and the Delivery Point associated with delivery of Facility Energy.

"**Emission Reduction Credits**" or "**ERCs**" means emission reductions that have been authorized by a local air pollution control district pursuant to California Division 26 Air Resources; Health and Safety Code Sections 40709 and 40709.5, whereby a district has established a system by which all reductions in the emission of air contaminants that are to be used to offset certain future increases in the emission of air contaminants shall be banked prior to use to offset future increases in emissions.

"**Energy**" means electrical energy, measured in kilowatt-hours or Megawatt-hours or multiple units thereof.

"**Energy Management System**" or "**EMS**" means the Facility's energy management system.

"**Energy Storage Service Agreement**" or "**ESSA**" means the agreement between CCP and Project Developer for the purchase of energy storage products of Tumbleweed Energy Storage, executed on _________________.

"**ESSA Defaulting Party**" has the meaning set forth in Section 11.1(a) of the ESSA.

"**ESSA Non-Defaulting Party**" has the meaning set forth in Section 11.2 of the ESSA.

"**Entitlement Share**" means the percentage entitlement of each Project Participant as set forth in Exhibit B of this Agreement (entitled "Schedule of Project Participant Entitlement Shares and Step-Up Allocation Caps") attributable to each such Project Participant, as may be amended pursuant to Section 4.2 or 12.8.

"**Entitlement Share Reduction Amount**" has the meaning set forth in Exhibit C.

"**Entitlement Share Reduction Compensation Amount**" has the meaning set forth in Exhibit C.

"**Entitlement Share Reduction Notice**" has the meaning set forth in Exhibit C.

"**Environmental Attributes**" shall mean any and all attributes under the RPS regulations 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 Facility and its displacement of conventional energy generation.

"**Estimated Monthly Project Cost**" has the meaning set forth in Section 8.1.

"**Event of Default**" has the meaning set forth in Section 11.1 of the ESSA.

"**Expected Commercial Operation Date**" means the date set forth on the Cover Sheet of the ESSA.

"**Facility**" means the energy storage facility described on the Cover Sheet of the ESSA and in Exhibit A of the ESSA, located at the Site and including mechanical equipment and associated facilities and equipment required to deliver Product (but excluding any Shared Facilities), as such storage facility may be expanded or otherwise modified from time to time in accordance with the terms of the ESSA.

"**Facility Energy**" means the Energy delivered from the Facility to the Delivery Point during any Settlement Interval or Settlement Period, as measured at the Facility Metering Point by the Facility Meter, as such meter readings are adjusted by the CAISO for any applicable Electrical Losses or Station Use.

"**Facility Meter**" has the meaning set forth in Section 1.1 of the ESSA.

"**Facility Metering Point**" means the location(s) of the Facility Meter shown in Exhibit R of the ESSA.

"**FERC**" means the Federal Energy Regulatory Commission or any successor government agency.

"**Flexible Capacity**" means, with respect to any particular Showing Month, the number of MWs of Product which are eligible to satisfy Flexible RAR.

"**Flexible RAR**" means the flexible capacity requirements established for load-serving entities by the CAISO pursuant to the CAISO Tariff, the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority.

"**Force Majeure Event**" has the meaning set forth in Section 10.1 of the ESSA.

"**Full Capacity Deliverability Status**" or "**FCDS**" has the meaning set forth in the CAISO Tariff.

"**Full Capacity Deliverability Status Finding**" means a written confirmation from the CAISO that the Facility is eligible for Full Capacity Deliverability Status.

"**Gains**" means, with respect to a Project Participant assuming all or a portion of a Defaulting Project Participant's Entitlement Share pursuant to the process set forth in Section 12.8(b) or 12.8(c), an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from such Step-Up Allocation for the remaining Contract Term of the ESSA, determined in a commercially reasonable manner. Factors used in determining the economic benefit to such Project Participant may include, without limitation, reference to information supplied by one or more third parties, which shall exclude Affiliates of such Project Participant, 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 include the value of Environmental Attributes and Capacity Attributes.

"**GHG Regulations**" means Title 17, Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 10 (Climate Change), Article 5 (Emissions Cap), Sections 95800 to 96023 of the California Code of Regulations, as amended or supplemented from time to time.

"**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*, "Governmental Authority" shall not in any event include any Party, except to the extent that the Party is acting solely in its governmental capacity.

"**Greenhouse Gas**" or "**GHG**" has the meaning set forth in the GHG Regulations or in any other applicable Laws.

"**Guaranteed Commercial Operation Date**" means the date set forth on the Cover Sheet of the ESSA, as such date may be extended pursuant to Exhibit B of the ESSA.

"**Guaranteed Construction Start Date**" means the date set forth on the Cover Sheet of the ESSA, as such date may be extended pursuant to Exhibit B of the ESSA.

"**Installed Capacity**" means the lesser of (a) PMAX, and (b) maximum dependable operating capacity of the Facility to discharge Energy for eight (8) hours of continuous discharge, as measured in MW AC at the Facility Meter Point by the Facility Meter and adjusted for Electrical Losses to the Delivery Point, that achieves Commercial Operation, as evidenced by a certificate substantially in the form attached as Exhibit I of the ESSA, as such capacity may be adjusted pursuant to Section 5 of Exhibit B of the ESSA.

"**Interconnection Agreement**" means the interconnection agreement entered into by Project Developer pursuant to which the Facility will be interconnected with the Transmission System, and pursuant to which Project Developer's Interconnection Facilities and any other Interconnection Facilities will be constructed, operated, and maintained during the ESSA Contract Term.

"**Interconnection Facilities**" means the interconnection facilities, control and protective devices, and metering facilities required to connect the Facility with the Transmission System in accordance with the Interconnection Agreement.

"**Interest Rate**" has the meaning set forth in Section 8.2 of the ESSA.

"**Invoice Amount**" has the meaning set forth in Section 9.2.

"**ITC**" means the investment tax credit established pursuant to Section 48 of the United States Internal Revenue Code of 1986.

"**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 January 29, 2021, as amended from time to time, under which CCP is organized as a Joint Powers Authority in accordance with the Joint Powers Act.

"**kWh**" means a kilowatt-hour measured in alternating current, unless expressly stated in terms of direct current.

"**Late Payment Notice**" means a notice issued by CCP to a Project Participant pursuant to Section 9.7.

"**Late Payment Charge**" has the meaning set forth in Section 9.7.

"**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.

"**Letter(s) of Credit**" has the meaning set forth in Section 1.1 the ESSA.

"**Local Capacity Area Resource**" has the meaning set forth in the CAISO Tariff.

"**Local RAR**" means the local Resource Adequacy Requirements established for load-serving entities by the CAISO pursuant to the CAISO Tariff, the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority. "Local RAR" may also be known as local area reliability, local resource adequacy, local resource adequacy procurement requirements, or local capacity requirements in other regulatory proceedings or legislative actions.

"**Losses**" means, with respect to a Project Participant assuming all or a portion of a Defaulting Project Participant's Entitlement Share pursuant to the process set forth in Section 12.8(b) or 12.8(c), an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from such Step-Up Allocation for the remaining Contract Term of the ESSA, determined in a commercially reasonable manner. Factors used in determining economic loss to such Project Participant may include, without limitation, reference to information supplied by one or more third parties, which shall exclude Affiliates of the Project Participant, 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 of the ESSA and must include the value of Environmental Attributes and Capacity Attributes.

"**Marketable Emission Trading Credits**" means emissions trading credits or units pursuant to the requirements of California Division 26 Air Resources; Health & Safety Code Section 39616 and Section 40440.2 for market-based incentive programs such as the South Coast Air Quality Management District's Regional Clean Air Incentives Market, also known as RECLAIM, and allowances of sulfur dioxide trading credits as required under Title IV of the Federal Clean Air Act (42 U.S.C. § 7651b (a) to (f)).

"**Month**" means a calendar month.

"**Monthly Costs**" has the meaning set forth in Section 9.1.

"**Monthly Capacity Payment**" means the payment required to be made by CCP to Project Developer each month of the Delivery Term as compensation for the Product, as calculated in accordance with Exhibit C of the ESSA.

"**MW**" means megawatts 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.

"**NERC**" means the North American Electric Reliability Corporation.

"**Net Qualifying Capacity**" or "**NQC**" has the meaning set forth in the CAISO Tariff.

"**Non-Defaulting Project Participant**" has the meaning set forth in Section 12.1.

"**Normal Vote**" has the meaning set forth in Exhibit D.

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

"**Operating Account**" means an account established by CCP for each Project Participant pursuant to Section 8.2.

"**Operating Cost**" means the share of the Annual Budget or Amended Annual Budget attributable to the applicable Month for a Billing Statement.

"**Operating Restrictions**" means those restrictions, rules, requirements, and procedures set forth in Exhibit Q of the ESSA.

"**Party**" has the meaning set forth in the Preamble.

"**Payment Default**" has the meaning set forth in Section 12.2.

"**Payment Default Termination Deadline**" has the meaning set forth in Section 12.6.

"**Performance Guarantees**" has the meaning set forth in Section 4.3(b) of the ESSA.

"**Performance Security**" means (i) cash or (ii) a Letter of Credit in the amount set forth on the Cover Sheet of the ESSA.

"**Permitted Transferee**" has the meaning set forth in Section 1.1 of the ESSA.

"**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.

"**PMAX**" means the applicable CAISO-certified maximum operating level of the Facility.

"**PMIN**" means the applicable CAISO-certified minimum operating level of the Facility.

"**PNode**" has the meaning set forth in the CAISO Tariff.

"**Product**" has the meaning set forth in Section 3.1

"**Progress Report**" means a progress report including the items set forth in Exhibit E of the ESSA.

"**Project**" shall be broadly construed to entail the aggregate of rights, liabilities, interests, and obligations of CCP pursuant to the ESSA, including but not limited to all rights, liabilities, interests, and obligations associated with the Product, all rights, liabilities, interests and obligations associated with the Facility, and including all aspects of the operation and administration of the Facility and the ESSA and the rights, liabilities, interests and obligations associated therewith.

"**Project Committee**" means the committee established in accordance with Section6.1.

"**Project Developer**" means Tumbleweed Energy Storage, LLC, a Delaware limited liability company, or assignee as permitted under the ESSA.

"**Project Participants**" means those entities executing this Agreement, as identified in the Preamble, together in each case with each entity's successors or assigns.

"**Project Revenue Rights**" means all rights of a Project Participant under this Agreement to any revenue associated with the Facility Energy or Ancillary Services associated with the Facility.

"**Project Rights**" means all rights and privileges of a Project Participant under this Agreement, including but not limited to its Entitlement Share, its right to receive the Product from the Facility, and its right to vote on Project Committee matters.

"**Project Rights and Obligations**" means the Project Participants' Project Rights and obligations under the terms of this Agreement.

"**Proposed Entitlement Share Reduction Compensation Amount**" has the meaning set forth in Exhibit C.

"**Prudent Operating Practice**" means (a) the applicable practices, methods and acts required by or consistent with applicable Laws and reliability criteria, and otherwise engaged in or approved by a significant portion of the electric industry during the relevant time period with respect to grid-interconnected, utility-scale energy storage facilities in the Western United States, and (b) any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Prudent Operating Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to acceptable practices, methods or acts generally accepted in the industry with respect to grid-interconnected, utility-scale energy storage facilities in the Western United States. Prudent Operating Practice shall include compliance with applicable Laws, applicable safety and reliability criteria, and the applicable criteria, rules and standards promulgated in the National Electric Safety Code and the National Electrical Code, as they may be amended or superseded from time to time, including the criteria, rules, and standards of any successor organizations.

"**Qualifying Capacity**" has the meaning set forth in the CAISO Tariff.

"**RA Compliance Showing**" means the (a) Local RAR compliance or advisory showings (or similar or successor showings), (b) RAR compliance or advisory showings (or similar or successor showings), and (c) Flexible RAR compliance or advisory showings (or similar successor showings), in each case, an entity is required to make to the CAISO pursuant to the CAISO Tariff, to the CPUC (and, to the extent authorized by the CPUC, to the CAISO) pursuant to the Resource Adequacy Rulings, or to any Governmental Authority.

"**RA Deficiency Amount**" has the meaning set forth in Section 1.1 of the ESSA.

"**RA Guarantee Date**" means the date by which the Facility is expected to achieve Full Capacity Deliverability Status, which is the Commercial Operation Date.

"**RA Shortfall Month**" has the meaning set forth in Section 1.1 of the ESSA.

"**Real-Time Market**" has the meaning set forth in the CAISO Tariff.

"**Receiving Party**" has the meaning set forth in Section 18.2 of the ESSA.

"**Reliability Network Upgrades**" has the meaning set forth in the CAISO Tariff.

"**Remedial Action Plan**" has the meaning set forth in Section 2.4 of the ESSA.

"**Replacement RA**" has the meaning set forth in Section 1.1 of the ESSA.

"**Resource Adequacy Benefits**" means the rights and privileges attached to the Facility that satisfy any entity's Resource Adequacy Requirements, as those obligations are set forth in any ruling issue by a Governmental Authority, including the Resource Adequacy Rulings and shall include Flexible Capacity, and any local, zonal or otherwise locational attributes associated with the Facility.

"**Resource Adequacy Requirements**" or "**RAR**" means the resource adequacy requirements applicable to an entity as established by the CAISO pursuant to the CAISO Tariff, by the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority.

"**Resource Adequacy Resource**" has the meaning used in Resource Adequacy Rulings.

"**Resource Adequacy Rulings**" means CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-025, 13-06-024, 14-06-050, 15-06-063, 16-06-045, 17-06-027, 18-06-030, 18-06-031, 19-02-022, 19-06-026, 19-10-021, 20-01-004, 20-03-016, 20-06-002, 20-06-031, 20-06-028, 20-12-006, 21-06-035 and any other existing or subsequent ruling or decision, or any other resource adequacy laws, rules or regulations enacted, adopted or promulgated by any applicable

Governmental Authority, however described, as such decisions, rulings, Laws, rules or regulations may be amended or modified from time-to-time throughout the Contract Term.

"**Schedule**" has the meaning set forth in the CAISO Tariff, and "**Scheduled**" has a corollary meaning.

"**Scheduled Energy**" means the Facility Energy that clears under the applicable CAISO market based on the final Day-Ahead Schedule(s), FMM Schedule(s) (as defined in the CAISO Tariff), and/or any other financially binding Schedule(s), market instruction or dispatch for the Facility for a given period of time implemented in accordance with the CAISO Tariff.

"**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.

"**Scheduling Coordinator Services Agreement**" means the agreement between CCP and a Scheduling Coordinator that was approved by the CCP Board pursuant to Section 5.2(a)(xiii).

"**Settlement Interval**" has the meaning set forth in the CAISO Tariff.

"**Settlement Period**" has the meaning set forth in the CAISO Tariff.

"**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 Facility Energy to the Delivery Point, including the Interconnection Facilities and the Interconnection Agreement itself, if applicable, that are used in common with third parties or by the Project Developer for electric generation or storage facilities owned by Project Developer other than the Facility.

"**Showing Month**" means the calendar month of the Delivery Term, commencing with the Showing Month that contains the RA Guarantee Date, that is the subject of the RA Compliance Showing, as set forth in the Resource Adequacy Rulings and outlined in the CAISO Tariff. For illustrative purposes only, pursuant to the CAISO Tariff and Resource Adequacy Rulings in effect as of the Effective Date, the monthly RA Compliance Showing made in June is for the Showing Month of August.

"**Site**" has the meaning set forth in Section 1.1 of the ESSA, as further described in Exhibit A of the ESSA.

"**Station Use**" means the Energy that is used within the Facility to power the lights, motors, temperature control systems, control systems and other electrical loads that are necessary for operation of the Facility.

"**Step-Up Allocation Cap**" has the meaning set forth in Section 12.8(a).

"**Step-Up Invoice**" means an invoice sent to a Non-Defaulting Project Participant as a result of a Defaulting Project Participant's Payment Default, which invoice shall separately identify any amount owed with respect to the monthly Billing Statement of the Defaulting Project Participant, as the case may be, pursuant to Section 12.7.

“**Step-Up Invoice Amount**” has the meaning set forth in Section 12.7.

“**Step-Up Invoice Amount Cap**” has the meaning set forth in Section 12.7.

“**Step-Up Reserve Account**” has the meaning set forth in Section 12.7(a)(i).

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

“**System Emergency**” means any condition that requires, as determined, and declared by CAISO or the Transmission Provider, 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) to preserve Transmission System reliability.

“**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.

“**Tax Credits**” means any state, local and/or federal production tax credit, depreciation benefit, tax deduction and/or investment tax credit, including the ITC, specific to investments in renewable energy facilities and/or energy storage facilities.

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

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

“**Transmission Provider**” means any 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 for the purpose of transmitting or transporting the Facility Energy from the Delivery Point.

“**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.

“**Unanimous Vote**” has the meaning set forth in Exhibit D.

“**Uncontrollable Forces**” means any Force Majeure event and any cause beyond the control of any Party, which by the exercise of due diligence such Party is unable to prevent or overcome, including but not limited to, failure or refusal of any other Person to comply with then existing contracts, an act of God, fire, flood, explosion, earthquake, strike, sabotage, epidemic or pandemic (excluding impacts of the disease designated COVID-19 or the related virus designated

SARS-CoV-2 impacts actually known by the Party claiming the Force Majeure Event as of the Effective Date), an act of the public enemy (including terrorism), civil or military authority including court orders, injunctions and orders of governmental agencies with proper jurisdiction or the failure of such agencies to act, insurrection or riot, an act of the elements, failure of equipment, a failure of any governmental entity to issue a requested order, licenseor permit, inability of any Party or any Person engaged in work on the Project to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers. Notwithstanding the foregoing, Uncontrollable Forces as defined herein shall also include events of Force Majeure pursuant to the ESSA, as defined therein.

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 Article, 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 terms "include" and "including" mean "include or including (as applicable) 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;

(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;

(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; and

(n) in the event of any conflict or inconsistency between the terms of this Agreement and the terms of the ESSA or the Coordinated Operations Agreement, the terms and provisions of this Agreement shall control.

ARTICLE 2
EFFECTIVE DATE AND TERM

2.1. Term.

(a) The term of this Agreement shall commence on the Effective Date and shall remain in full force and effect until the occurrence of all of the following: (i) the termination of the ESSA and (ii) the termination of the Buyer Liability Pass Through Agreement for all the Project Participants, and (iii) all Parties have met their obligations under this Agreement ("**Term**").

(b) Applicable provisions of this Agreement shall continue in effect after termination to the extent necessary to enforce or complete the duties, obligations or responsibilities of the Parties arising prior to termination. All indemnity and audit rights shall remain in full force and effect for three (3) years following the termination of this Agreement.

ARTICLE 3
AGREEMENT

3.1. Transaction. Subject to the terms and conditions of this Agreement, the Project Participants authorize CCP to purchase all Facility Energy, Capacity Attributes, Ancillary Services, and Environmental Attributes associated with the Facility and any Replacement RA provided pursuant to the ESSA (collectively the "**Product**"), on behalf of the Project Participants. Pursuant to the procedures set forth in the Coordinated Operations Agreement, CCP shall cause Project Developer to deliver each Project Participant's Entitlement Share of the Product to such Project Participant, including but not limited to (i) any revenue associated with the Facility Energy, Capacity Attributes, Ancillary Services, or Environmental Attributes associated with the Facility, and (ii) the Capacity Attributes and Environmental Attributes associated with the Facility or otherwise provided to CCP pursuant to the ESSA. CCP shall administer the ESSA and oversee the operation of the Project. CCP shall not sell, assign, or otherwise transfer any Product, or any portion thereof, to any third party other than to the Project Participants, unless authorized by the Project Participants pursuant to this Agreement.

ARTICLE 4
ENTITLEMENT SHARE

4.1. Initial Entitlement Share. Each Project Participant's initial Entitlement Share as of the Effective Date shall be set forth in Column B of the Table provided in Exhibit B of this Agreement (entitled "Schedule of Project Participant Entitlement Shares and Step-Up Allocation Caps"). Any revisions to the Entitlement Share specified in Exhibit B pursuant to Section 4.2. or Section 12.8 shall be considered an element of the administration of this Agreement and shall not require the consent of the Parties hereto.

4.2. Change of Entitlement Share. Any Project Participant may reduce its Entitlement Share of the Project pursuant to the process set forth in Exhibit C.

4.3. Reduction of Entitlement Share to Zero. If any Project Participant's Entitlement Share is reduced to zero through any process specified in Exhibit C, such Project Participant shall remain a Party to this Agreement and shall be subject to all rights, obligations, and liabilities of this Agreement, including but not limited to any liabilities for Monthly Capacity Payments, Damage Payment or Termination Payment, as applicable, and any other damage payments or reimbursement amounts under the ESSA.

ARTICLE 5
OBLIGATIONS OF CCP; ROLE OF CCP BOARD AND CCP MANAGER

5.1. Obligations of CCP.

(a) CCP shall take such commercially reasonable actions or implement such commercially reasonable measures as may be necessary or desirable for the utilization, maintenance, or preservation of the rights and interests of the Project Participants in the Project including, if appropriate, such enforcement actions or other measures as the Project Committee or CCP Board deems to be in the Project Participants' best interests. To the extent not inconsistent with the ESSA or other applicable agreements, CCP may also be authorized by the Project Participants to assume responsibilities for planning, designing, financing, developing, acquiring, insuring, contracting for, administering, operating, and maintaining the Project to effectuate the conveyance of the Product to Project Participants in accordance with Project Participants' Entitlement Shares.

(b) To the extent such services are available and can be carried forth in accordance with the ESSA, CCP shall also provide such other services, as approved by the Project Committee or CCP Board, as may be deemed necessary to secure the benefits and/or satisfy the obligations associated with the ESSA.

(c) Adoption of Annual Budget. The Annual Budget and any amendments to the Annual Budget shall be prepared and approved in accordance with this Section 5.1(c).

(i) The CCP Manager will prepare and submit to the Project Committee a proposed Annual Budget at least ninety (90) days prior to the beginning of each Contract Year during the term of this Agreement. The proposed Annual Budget shall be based on the prior Contract Year's actual costs and shall include reasonable estimates of the costs CCP expects to incur during the applicable Contract Year in association with the administration of the ESSA, including the cost of insurance coverages that are determined to be attributable to the Project by action of the CCP Board. Upon approval of the proposed Annual Budget by a Normal Vote of the Project Committee, the CCP Manager shall present the proposed Annual Budget to the CCP Board. The CCP Board shall adopt the Annual Budget no later than thirty (30) days prior to the beginning of such Contract Year and shall cause copies of such adopted Annual Budget to be delivered to each Project Participant.

(ii) At any time after the adoption of the Annual Budget for a Contract Year, the CCP Manager may prepare and submit to the Project Committee a proposed Amended Annual Budget for and applicable to the remainder of such Contract Year. The proposal shall (A) explain why an amendment to the Annual Budget is needed, (B) compare estimated costs against actual costs, and (C) describe the events that triggered the need for additional funding. Upon approval of the proposed Amended Annual Budget by a Normal Vote of the Project Committee, the CCP Manager shall present the proposed Amended Annual Budget to the CCP Board. Upon adoption of the Amended Annual Budget by the CCP Board, such Amended Annual Budget shall apply to the remainder of the Contract Year and the CCP Board shall cause copies of such adopted Amended Annual Budget to be delivered to each Project Participant.

(iii) Reports. CCP will prepare and issue to Project Participants the following reports each quarter of a year during the Term:

(A) Financial and operating statement relating to the Project.

(B) Variance report comparing the costs in the Annual Budget versus actual costs, and the status of other cost-related issues with respect to the Project.

(d) Records and Accounts. CCP will keep, or cause to be kept, accurate records and accounts of the Project as well as of the operations relating to the Project, all in a manner similar to accepted accounting methodologies associated with similar projects. All transactions of CCP relating to the Project with respect to each Contract Year shall be subject to an annual audit. Each Project Participant shall have the right at its own expense to examine and copy the records and accounts referred to above on reasonable notice during regular business hours.

(e) Information Sharing. Upon CCP's request, each Project Participant agrees to coordinate with CCP to provide such information, documentation, and certifications that are reasonably necessary for the design, financing, refinancing, development, operation, administration, maintenance, and ongoing activities of the Project, including information required to respond to requests for such information from any federal, state, or local regulatory body or other authority.

(f) Consultants and Advisors Available. CCP shall make available to the Project Committee all consultants and advisors, including financial advisors and legal counsel that are retained by CCP, and such consultants, counsel and advisors shall be authorized to consult with and advise the Project Committee on Project matters. CCP agrees to waive any conflicts of interest or any other applicable professional standards or rules as required by consultants, counsel, and advisors to advise the Project Committee on Project matters.

(g) Deposit of Insurance Proceeds. CCP shall promptly deposit any insurance proceeds received by CCP from any insurance obtained pursuant to this Agreement or otherwise associated with the Project into the Operating Accounts of the Project Participants based on each Project Participants' Entitlement Shares.

(h) Liquidated and Other Damages. Any amounts paid to CCP, or applied against payments otherwise due by CCP pursuant to the ESSA or each Project Participant's respective BLPTA, by the Project Developer shall be deposited on a pro rata share, based on each Project Participant's Entitlement Share into each Project Participant's Operating Account. Liquidated Damages include, but are not limited to Daily Delay Damages, RA Deficiency Amount, Damage Payment, and Termination Payment.

(i) Charging and Discharging Energy. Subject to the direction of the Project Committee, CCP shall reasonably coordinate, schedule, and do all other things necessary or appropriate, except as otherwise prohibited under this Agreement, to provide for the delivery of Charging Energy from the grid to the Point of Delivery to enable CCP to exercise its rights and obligations in connection with Charging Energy in accordance with the requirements of the ESSA. Subject to the direction of the Project Committee, CCP shall reasonably coordinate, schedule, and do all other things necessary or appropriate, except as otherwise prohibited under this Agreement, to provide for the delivery of Discharging Energy from the Point of Delivery to the grid to enable CCP to maximize the value of the ESSA to the Project Participants in accordance with the requirements of the ESSA.

(j) Resale of Product. Any Project Participant may direct CCP to remarket such Project Participant's Entitlement Share of the Product, or such Project Participant's Entitlement Share of any part of the Product. If CCP incurs any expenses associated with the remarketing activities pursuant to this Section 5.1(j), then CCP shall include the total amount of such expenses as a Monthly Cost on the Project Participant's next Billing Statement. Prior to offering the Project Participant's Entitlement Share of the Product, or the Project Participant's Entitlement Share of any part of the Product to any third party, CCP shall first offer the Product or portion of the Product to the other Project Participants. The amount of compensation paid to the selling Project Participant shall be negotiated and agreed to between the selling Project Participant and the purchasing Project Participant or third party. Any payments for any resold Product pursuant to this Section 5.1(j) shall be transmitted directly from the purchasing Project Participant or purchasing third party to the reselling Project Participant. Any such resale to a third party shall not convey any rights or authority over the operation of the Project, and the Project Participant shall not make a representation to the third party that the resale conveys any rights or authority over the operation of the Project.

(k) Uncontrollable Forces. CCP shall not be required to provide, and CCP shall not be liable for failure to provide, the Product, Replacement RA, or other service under this Agreement when such failure, or the cessation or curtailment of, or interference with, the service is caused by Uncontrollable Forces or by the failure of the Project Developer, or its successors or assigns, to obtain any required governmental permits, licenses, or approvals to acquire, administer, or operate the Project; provided, however, that the Project Participants shall not thereby be relieved of their obligations to make payments under this Agreement except to the extent CCP is so relieved pursuant to the ESSA, and provided further that CCP shall pursue all applicable remedies against the Project Developer under the ESSA and distribute any remedies obtained pursuant to Section 5.1(h).

(l) Insurance. Within one hundred and eighty days (180) of the Effective Date of this Agreement, CCP shall secure and maintain, during the Term, insurance coverage as follows:

(i) Commercial General Liability. CCP shall maintain, or cause to be maintained, commercial general liability insurance, including products and completed operations and personal injury insurance, in a minimum amount of One Million Dollars ($1,000,000) per occurrence, and an annual aggregate of not less than Two Million Dollars ($2,000,000), endorsed to provide contractual liability in said amount, specifically covering CCP's obligations under this Agreement and including each Project Participant as an additional insured.

(ii) Employer's Liability Insurance. CCP, if it has employees, shall maintain Employers' Liability insurance with limits of not less than One Million Dollars ($1,000,000.00) for injury or death occurring as a result of each accident. With regard to bodily injury by disease, the One Million Dollar ($1,000,000) policy limit will apply to each employee.

(iii) Workers' Compensation Insurance. CCP, if it has employees, shall also maintain at all times during the Term workers' compensation and employers' liability insurance coverage in accordance with statutory amounts, with employer's liability limits of not less than One Million Dollars ($1,000,000.00) for each accident, injury, or illness; and include a blanket waiver of subrogation.

(iv) Business Auto Insurance. CCP shall maintain at all times during the Term business auto insurance for bodily injury and property damage with limits of One Million Dollars ($1,000,000) per occurrence. Such insurance shall cover liability arising out of CCP's use of all owned (if any), non-owned and hired vehicles, including trailers or semi-trailers in the performance of the Agreement and shall name each Project Participant as an additional insured and contain standard cross-liability and severability of interest provisions.

(v) Public Entity Liability Insurance. CCP shall maintain public entity liability insurance, including public officials' liability insurance, public entity reimbursement insurance, and employment practices liability insurance in an amount not less than One Million Dollars ($1,000,000) per claim, and an annual aggregate of not less than One Million Dollars ($1,000,000) and CCP shall maintain such coverage for at least two (2) years from the termination of this Agreement.

(m) Evidence of Insurance. Within ten (10) days after the deadline for securing insurance coverage specified in Section 5.1(l), and upon annual renewal thereafter, CCP shall deliver to each Project Participant certificates of insurance evidencing such coverage with insurers with ratings comparable to A-VII or higher, and that are authorized to do business in the State of

California, in a form evidencing all coverages set forth above. Such certificates shall specify that each Project Participant shall be given at least thirty (30) days prior Notice by CCP in the event of cancellation or termination of coverage. Such insurance shall be primary coverage without right of contribution from any insurance of each Project Participant. Any other insurance maintained by CCP not associated with this Agreement is for the exclusive benefit of CCP and shall not in any manner inure to the benefit of Project Participants. The general liability, auto liability and worker's compensation policies shall be endorsed with a waiver of subrogation in favor of each Project Participant for all work performed by CCP, its employees, agents and sub-contractors.

5.2. Role of CCP Board.

(a) The rights and obligations of CCP under the ESSA shall be subject to the ultimate control at all times of the CCP Board. The CCP Board, shall have, in addition to the duties and responsibilities set forth elsewhere in this Agreement, the following duties and responsibilities, among others:

(i) Dispute Resolution. The CCP Board shall review, discuss and attempt to resolve any disputes among CCP, any of the Project Participants, and the Project Developer relating to the Project, the operation and management of the Facility, and CCP's rights and interests in the Facility.

(ii) ESSA. The CCP Board shall have the authority to review, modify, and approve, as appropriate, all amendments, modifications, and supplements to the ESSA.

(iii) Capital Improvements. The CCP Board shall review, modify, and approve, if appropriate, all Capital Improvements undertaken with respect to the Project and all financing arrangements for such Capital Improvements. The CCP Board shall approve those budgets or other provisions for the payments associated with the Project and the financing for any development associated with the Project.

(iv) Committees. The CCP Board shall exercise such review, direction, or oversight as may be appropriate with respect to the Project Committee and any other committees established pursuant to this Agreement.

(v) Budgeting. Upon the submission of a proposed Annual Budget or proposed Amended Annual Budget, approved by a Normal Vote of the Project Committee, the CCP Board shall review, modify, and approve each Annual Budget and Amended Annual Budget in accordance with Section 5.1(c) of this Agreement.

(vi) Early Termination of ESSA. The CCP Board shall review, modify, and approve the recommendations of the Project Committee, made pursuant to Section 6.4(b)(ii) of this Agreement, as to an early termination of the ESSA pursuant to Section 11.2 of the ESSA.

(vii) Assignment by Project Developer. The CCP Board shall review, modify, and approve the recommendations of the Project Committee, made pursuant to Section 6.4(b)(iii) of this Agreement, as to any assignment by Project Developer pursuant to Section 14.1 of the ESSA other than any assignment pursuant to Sections 14.2 or 14.3 of the ESSA.

(viii) Buyer Financing Assignment. The CCP Board shall review, modify, and approve the recommendations of the Project Committee, made pursuant to Section 6.4(b)(iv) of this Agreement, as to an assignment by CCP to a financing entity pursuant to Section 14.5 of the ESSA.

(ix) Change of Control. The CCP Board shall review, modify, and approve the recommendations of the Project Committee, made pursuant to Section 6.4(b)(v) of this Agreement, as to any Change of Control requiring CCP's consent, as specified in Section 14.1 of the ESSA.

(x) Supervening Authority of the Board. The CCP Board has complete and plenary supervening power and authority to act upon any matter which is capable of being acted upon by the Project Committee or which is specified as being within the authority of the Project Committee pursuant to the provisions of this Agreement.

(xi) Other Matters. The CCP Board is authorized to perform such other functions and duties, including oversight of those matters and responsibilities addressed by the Project Committee or CCP Manager as may be provided for under this Agreement and under the ESSA, or as may otherwise be appropriate.

(xii) Periodic Audits. The CCP Board or the Project Committee may arrange for the annual audit by certified accountants, selected by the CCP Board and experienced in electric generation or electric utility accounting, of the books and accounting records of CCP, the Project Developer to the extent authorized under the ESSA, and any other counterparty under any agreement to the extent allowable, and such audit shall be completed and submitted to the CCP Board as soon as reasonably practicable after the close of the Contract Year. CCP shall promptly furnish to the Project Participant copies of all audits. No more frequently than once every calendar year, each Project Participant may, at its sole cost and expense, audit, or cause to be audited the books and cost records of CCP, and/or the Project Developer to the extent authorized under the ESSA.

(xiii) Scheduling Coordinator Services Agreement. Upon a recommendation by Normal Vote of the Project Committee pursuant to Section 6.4(b)(vi), the CCP Board shall review, modify, and approve, or delegate the authority to approve, a Scheduling Coordinator Services Agreement or amendment thereto.

(b) Pursuant to Section 5.06 of the Joint Powers Agreement, this Agreement modifies the voting rules of the CCP Board for purposes of approving or acting on any matter identified in this Agreement, as follows:

(i) Quorum. A quorum shall consist of a majority of the CCP Board members that represent Project Participants.

(ii) Voting. Each CCP Board member that represents a Project Participant shall have one vote for any matter identified in this Agreement. Any CCP Board member representing a CCP member that is not a Project Participant shall abstain from voting on any matter identified in this Agreement. A vote of the majority of the CCP Board members representing Project Participants that are in attendance shall be sufficient to constitute action, provided a quorum is established and maintained.

5.3. Role of CCP Manager.

(a) In addition to the duties and responsibilities set forth elsewhere in this Agreement, the CCP Manager is delegated the following authorities and responsibilities:

(i) Request for Tax Documentation. Respond to any requests for tax-related documentation by the Project Developer.

(ii) Request for Financial Statements. Provide the Project Developer with Financial Statements as may be required by the ESSA.

(iii) Request for Information by Project Participant. Respond to any request by a Project Participant for information or documents that are reasonably available to allow the Project Participant to respond to requests for such information from any federal, state, or local regulatory body or other authority.

(iv) Coordinate Response to a Request for Confidential Information. Upon a request or demand by any third person that is not a Party to the ESSA or a Project Participant, for Confidential Information as described in Section 18.2 of the ESSA, the CCP Manager shall notify the Project Developer and coordinate the response of CCP and Project Participants.

(v) Invoices. The CCP Manager shall review each invoice submitted by Project Developer and shall request such other data necessary to support the review of such invoices.

ARTICLE 6
PROJECT COMMITTEE

6.1. Establishment and Authorization of the Project Committee. The Project Committee is hereby established and duly authorized to act on behalf of the Project Participants as provided for in this Section 6 for the purpose of (a) providing coordination among, and information to, the Project Participants and CCP, (b) making any recommendations to the CCP Board regarding the administration of the Project, and (c) execution of the Project Committee responsibilities set forth in Section 6.4.

6.2. Project Committee Membership. The Project Committee shall consist of one representative from each Project Participant. The CCP Manager shall be a non-voting member of the Project Committee. Within thirty (30) days after the Effective Date, each Project Participant shall provide notice to each other of such Project Participant's representative on the Project Committee. Alternate representatives may be appointed by similar written notice to act on the Project Committee, or on any subcommittee established by the Project Committee, in the absence of the regular representative. An alternate representative may attend all meetings of the Project Committee but may vote only if the representative for whom they serve as alternate for is absent.

No Project Participant's representative shall exercise any greater authority than permitted by the Project Participant which they represent.

6.3. Project Committee Operations, Meetings, and Voting. Project Committee operations, meetings, and voting shall be in accordance with the procedures and requirements specified in Exhibit D.

6.4. Project Committee Responsibilities. The Project Committee shall have the following responsibilities:

(a) General Responsibilities of the Project Committee.

(i) Provide a liaison between CCP and the Project Participants with respect to the ongoing administration of the Project.

(ii) Exercise general supervision over any subcommittee established pursuant to Section 6.5.

(iii) Oversee, as appropriate, the completion of any Project design, feasibility, or planning studies or activities.

(iv) Review, discuss, and attempt to resolve any disputes among the Project Participants relating to this Agreement or the ESSA.

(v) Perform such other functions and duties as may be provided for under this Agreement, the ESSA, or as may otherwise be appropriate or beneficial to the Project or the Project Participants.

(b) Recommendations to the CCP Board by a Normal Vote.

(i) Budgeting. Review, modify, and approve by a Normal Vote each proposed Annual Budget and proposed Amended Annual Budget for submission to the CCP Board for final approval.

(ii) Early Termination of ESSA. Review, modify, and approve by a Normal Vote a recommendation to the CCP Board regarding an early termination of the ESSA pursuant to Section 11.2 of the ESSA.

(iii) Assignment by Project Developer. Review, modify, and approve by a Normal Vote a recommendation to the CCP Board regarding any assignment by Project Developer pursuant to Section 14.1 of the ESSA other than any assignment pursuant to Sections 14.2 or 14.3 of the ESSA.

(iv) Buyer Financing Assignment. Review, modify, and approve by a Normal Vote a recommendation to the CCP Board regarding an assignment by CCP to a financing entity pursuant to Section 14.5 of the ESSA.

(v) Change of Control. Review, modify, and approve by a Normal Vote a recommendation to the CCP Board regarding any Change of Control requiring CCP's consent, as specified in Section 14.1 of the ESSA.

(vi) Scheduling Coordinator. Review, modify, and approve by a Normal Vote a recommendation to the CCP Board regarding the selection of a Scheduling Coordinator and the form of the Scheduling Coordinator Services Agreement, including any amendments thereto. Such Scheduling Coordinator Services Agreement shall: (i) require that the scheduling and dispatch of the Project is in accordance with the criteria set forth in Exhibit C of the Coordinated Operations Agreement; (ii) include the Scheduling Coordinator responsibilities specified in Exhibit D of the Coordinated Operations Agreement; and (iii) address requirements relating to CAISO settlements, the Operating Restrictions, and communications and reporting from the Scheduling Coordinator to the Project Participants.

(c) Actions Delegated to the Project Committee by this Agreement Subject to a Unanimous Vote.

(i) Project Design. Review, modify, and approve by a Unanimous Vote any recommendations to the Project Developer on the design of the Project.

(ii) Extension of Guaranteed Construction Start Date and Guaranteed Commercial Operation Date. Review and confirm that requirements of Exhibit B of the ESSA have been satisfied, such that the Guaranteed Construction Start Date and/or Guaranteed Commercial Operation Date has been extended.

(iii) Event of Default. Direct CCP to exercise its rights under the ESSA if an Event of Default has occurred under Section 11.1 of the ESSA or under the Scheduling Coordinator Services Agreement.

(d) Actions Delegated to the Project Committee by this Agreement Subject to a Normal Vote.

(i) Make recommendations to the CCP Manager, the CCP Board, the Project Participants or to the Project Developer, as appropriate, with respect to the development, operation, and ongoing administration of the Project.

(ii) Review, develop, and, if appropriate, modify and approve rules, procedures, and protocols for the administration of the Project, including rules, procedures, and protocols for the management of the costs of the Facility and the scheduling, handling, tagging, dispatching, and crediting of the Product, the handling and crediting of Environmental Attributes associated with the Facility and the control and use of the Facility.

(iii) Review, develop, and, if appropriate, modify rules, procedures, and protocols for the monitoring, inspection, and the exercise of due diligence activities relating to the operation of the Facility.

(iv) Review, and, if appropriate, modify or otherwise act upon, the form or content of any written statistical, administrative, or operational reports, Facility-related data and storage information, technical information, facility reliability data, transmission information, forecasting, scheduling, dispatching, tagging, parking, firming, exchanging, balancing, movement, or other delivery information, and similar information and records, or matters pertaining to the Project which are furnished to the Project Committee by the CCP Manager, the Project Developer, experts, consultants or others.

(v) Review, formulate, and, if appropriate, modify, or otherwise act upon, practices and procedures to be followed by Project Participants for, among other things, the production, scheduling, tagging, transmission, delivery, firming, balancing, exchanging, crediting, tracking, monitoring, remarketing, sale, or disposition of the Product, including the control and use of the Facility, and the supply, scheduling, and use of Charging Energy.

(vi) Review and act upon any matters involving any arrangements and instruments entered into by the Project Developer or any affiliate thereof to, among other things, secure certain performance requirements, including, but not limited to, the ESSA, the Development Security or the Performance Security and any other letter of credit delivered to, or for the benefit of, CCP by the Project Developer and take such actions or make such recommendations as may be appropriate or desirable in connection therewith.

(vii) Review, and, if appropriate, recommend, modify, or approve policies or programs formulated by CCP or Project Developer for determining or estimating storage resources or the values, quantities, volumes, or costs of the Product from the Facility.

(viii) Review, and where appropriate, recommend the implementation of metering technologies and methodologies appropriate for the delivery, accounting for, transferring and crediting of the Product to the Point of Delivery (directly or through the Facility).

(ix) Review, to the extent permitted by this Agreement, the ESSA, or any other relevant agreement relating to the Project, modify and approve or disapprove the specifications, vendors' proposals, bid evaluations, or any other matters with respect to the Facility.

(x) Review and approve any Remedial Action Plan submitted by Project Developer to CCP pursuant to Section 2.4 of the ESSA.

(xi) Review and approve the submission of the written acknowledgement of the Commercial Operation Date in accordance with Section 2.2 of the ESSA.

(xii) Review and approve the return of the Development Security to Project Developer in accordance with Section 8.7 of the ESSA.

(xiii) Review and approve the return of any unused Performance Security to Project Developer in accordance with Section 8.8 of the ESSA.

(xiv) Review Progress Reports provided by Project Developer to CCP pursuant to Section 2.3 of the ESSA and participate in any associated regularly scheduled meetings with Project Developer to discuss construction progress.

(xv) Direct CCP to collect any liquidated damages owed by Project Developer to CCP under the ESSA, and to the extent authorized by ESSA, draw upon the Development Security or Performance Security.

(xvi) Review invoices received by CCP from the Project Developer and, if appropriate, direct CCP to dispute an invoice pursuant to Section 8.5 of the ESSA.

(xvii) Review invoices received by CCP from the Scheduling Coordinator and, if appropriate, direct CCP to collect any damages owed by the Scheduling Coordinator to CCP under the Scheduling Coordinator Services Agreement or to take any action permitted by law to enforce its rights under the Scheduling Coordinator Services Agreement, including but not limited to bringing any suit, action or proceeding at law or in equity as may be necessary or appropriate to recover damages and/or enforce any covenant, agreement, or obligation against the Scheduling Coordinator.

6.5. Subcommittees. The CCP Manager may establish as needed subcommittees including, but not limited to, auditing, legal, financial, engineering, mechanical, weather, geologic, diurnal, barometric, meteorological, operating, insurance, governmental relations, environmental, and public information subcommittees. The authority, membership, and duties of any subcommittee shall be established by the CCP Manager; provided, however, such authority, membership or duties shall not conflict with the provisions of the ESSA or this Agreement.

6.6. Representative's Expenses. Any expenses incurred by any representative of any Project Participant or group of Project Participants serving on the Project Committee or any other committee in connection with their duties on such committee shall be the responsibility of the Project Participant which they represent and shall not be an expense payable under this Agreement.

6.7. Inaction by Committee. It is recognized by CCP and Project Participants that if the Project Committee is unable or fails to agree with respect to any matter or dispute which it is authorized to determine, resolve, approve, disapprove or otherwise act upon after a reasonable opportunity to do so, or within the time specified herein or in the ESSA, then CCP may take such commercially reasonable action as CCP determines is necessary for its timely performance under any requirement pursuant to the ESSA or this Agreement, pending the resolution of any such inability or failure to agree, but nothing herein shall be construed to allow CCP to act in violation of the express terms of the ESSA or this Agreement.

6.8. Delegation. To secure the effective cooperation and interchange of information in a timely manner in connection with various administrative, technical, and other matters which may arise from time to time in connection with administration of the ESSA, in appropriate cases, duties and responsibilities of the CCP Board or the Project Committee, as the case may be under this Section 6, may be delegated to the CCP Manager by the CCP Board upon notice to the Project Participants.

ARTICLE 7
OPERATING COMMITTEE

7.1. Operating Committee. The Operating Committee is established through the Coordinated Operations Agreement, as may be subsequently amended.

7.2. Operating Committee Responsibilities. In addition to any specific roles and responsibilities identified in the Coordinated Operations Agreement, the Project Committee may, through a Normal Vote, assign additional tasks to the Operating Committee as long as such additional tasks are within the scope of the Operating Committee's authority set forth in the Coordinated Operations Agreement.

ARTICLE 8
OPERATING ACCOUNT

8.1. Calculation of Estimated Monthly Project Cost.

(a) No later than one hundred and eighty (180) days after the Effective Date, the CCP Manager shall present to the Project Committee a proposed Estimated Monthly Project Cost, which shall be equal to a forecast of expected Monthly Capacity Payments over an entire Contract Year, divided by twelve (12). The Project Committee shall review, and, if appropriate, recommend, modify, or approve through a Normal Vote, the proposed Estimated Monthly Project Cost.

8.2. Operating Account. CCP shall establish an Operating Account for each Project Participant that is accessible to and can be drawn upon by both CCP and the applicable Project Participant. Such Operating Accounts are for the purpose of providing a reliable source of funds for the payment obligations of the Project and, taking into account the variability of costs associated with the Project for the purpose of providing a reliable payment mechanism to address the ongoing costs associated with the Project.

(a) Operating Account Amount. The Operating Account Amount for each Project Participant shall be an amount equal to the Estimated Monthly Project Cost multiplied by three, the product of which is multiplied by such Project Participant's Entitlement Share ("**Operating Account Amount**").

(b) Initial Funding of Operating Account. By no later than three hundred and sixty-five (365) days after the Effective Date, each Project Participant shall deposit into such Project Participant's Operating Account an amount equal to that Project Participant's Operating Account Amount.

(c) Use of Operating Account. CCP shall draw upon each Project Participant's Operating Account each month in an amount equal to the Monthly Costs multiplied by such Project Participant's Entitlement Share. As required by Section 9.5, each Project Participant must deposit sufficient funds into such Project Participant's Operating Account by the deadline specified in Section 9.5.

(d) Final Distribution of Operating Account. Following the expiration or earlier termination of the ESSA, and upon payment and satisfaction of any and all liabilities and obligations to make payments of the Project Participants under this Agreement and upon satisfaction of all remaining costs and obligations of CCP under the ESSA, any amounts then remaining in any Project Participant's Operating Account shall be paid to the associated Project Participant.

ARTICLE 9
BILLING

9.1. Monthly Costs. The amount of Monthly Costs for a particular Month shall be the sum of the Project Participant's Entitlement Share multiplied by the Monthly Capacity Payments for the Product, as specified in Section 8.2 of the ESSA for such Month and to the extent such payment is made by CCP to the Project Developer, plus the Project Participant's Entitlement Share multiplied by the Operating Cost for such Month and subtracting the Project Participant's Entitlement Share multiplied by the positive revenue associated with the sale of any Facility Energy or Ancillary Services net of any CAISO costs or Scheduling Coordinator costs for such Month, as shown in the following formula:

Monthly Cost = ((Project Participant's Entitlement Share) × (Monthly Capacity Payments)) + ((Project Participant's Entitlement Share) × (Operating Costs)) – ((Project Participant's Entitlement Share) × (revenue from sale of Facility Energy or Ancillary Services, net of any CAISO costs or Scheduling Coordinator costs))

9.2. Billing Statements. By no later than ten (10) calendar days after CCP receives an invoice from Project Developer for the prior Month of each Contract Year pursuant to Section 8.1 of the ESSA, CCP shall issue to each Project Participant a copy of the invoice and a "Billing Statement," which specifies such Project Participant's Monthly Costs, itemized by each part of such Monthly Cost. The amount of Monthly Costs attributable to a Project Participant, and specified in such Billing Statement, shall be the "**Invoice Amount**."

9.3. Disputed Monthly Billing Statement. A Project Participant may dispute, by written Notice to CCP, any portion of any Billing Statement submitted to that Project Participant by CCP pursuant to Section 9.2, provided that the Project Participant shall pay the full amount of the Billing Statement when due. If CCP determines that any portion of the Billing Statement is incorrect, CCP will deposit the difference between such correct amount and such full amount, if any, including interest at the rate received by CCP on any overpayment into the Project Participant's Operating Account. If CCP and a Project Participant disagree regarding the accuracy of a Billing Statement, CCP will give consideration to such dispute and will advise all Project Participants with regard to CCP's position relative thereto within thirty (30) days following receipt of written Notice by Project Participant of such dispute.

9.4. Payment Adjustments; Billing Errors. If CCP or Project Developer determines that a prior invoice or Billing Statement was inaccurate, CCP shall credit against or increase as appropriate each Project Participant's subsequent Monthly Costs according to such adjustment. The accompanying Billing Statement shall describe the cause of such adjustment and the amount of such adjustment.

9.5. Payment of Invoice Amount. Each Project Participant shall deposit the Invoice Amount for the applicable Month into such Project Participant's Operating Account by no later than the twentieth (20^{th}) calendar day of the following Month after the Billing Statement is issued, unless CCP has failed to issue the Billing Statement by the deadline specified in Section 9.2, in which case, each Project Participant shall deposit the Invoice Amount for the applicable Month by no later than thirty (30) days after the date on which CCP issues the Billing Statement to the Project Participant.

9.6. Withdrawal of Invoice Amount from Operating Account. No sooner than five (5) calendar days after CCP issues a Billing Statement to a Project Participant or a Step-Up Invoice to a Project Participant, CCP shall withdraw the Invoice Amount or the Step-Up Invoice Amount from each Project Participant's Operating Account. If the Monthly Cost attributable to such Project Participant is a negative number, CCP shall deposit such funds into the Operating Account of that Project Participant.

9.7. Late Payments.

(a) If any Project Participant fails to deposit the Invoice Amount into the Project Participant's Operating Account by the deadline specified in Section 9.5, then CCP will issue such Project Participant a Late Payment Notice within five (5) days of the deadline specified in Section 9.5 directing the Project Participant to immediately deposit the Invoice Amount into the Project Participant's Operating Account and informing the Project Participant that such Project Participant must pay a charge (**"Late Payment Charge"**). Upon issuing a Late Payment Notice to any Project Participant, CCP shall promptly provide Notice of such occurrence to all other Project Participants.

(b) The Late Payment Charge shall be equal to the Invoice Amount minus any partial payment that was deposited into such Project Participant's Operating Account multiplied by the Interest Rate specified in Section 8.2 of the ESSA for the period from the deadline specified in Section 9.5 until the date on which the Project Participant deposits the Invoice Amount plus the Late Payment Charge into such Project Participant's Operating Account. Upon payment, CCP shall withdraw the full amount of such Late Payment Charge from the Project Participant's Operating Account and deposit any such Late Payment Charge into the Operating Accounts of all other Project Participants on a pro rata share, based on such other Project Participants' Entitlement Shares.

ARTICLE 10
UNCONDITIONAL PAYMENT OBLIGATIONS; AUTHORIZATIONS; CONFLICTS; LITIGATION.

10.1. Unconditional Payment Obligation. Beginning with the earliest of (i) the date CCP is obligated to pay any portion of the costs of the Project, (ii) the date of the COD, or (iii) the date of the first delivery of the Product to Project Participants and continuing through the term of this Agreement, Project Participants shall pay CCP the amounts of Monthly Costs set forth in the Billing Statements submitted by CCP to Project Participants in accordance with the provisions of Section 9, whether or not the Project or any part thereof has been completed, is functioning, producing, operating or operable or its output or the provision of Facility products are suspended, interrupted, interfered with, reduced or curtailed or terminated in whole or in part, and such payments shall not be subject to reduction whether by offset or otherwise and shall not be conditional upon the performance or nonperformance by any party of any agreement for any cause whatsoever, provided that the obligation of Project Participants to pay amounts associated with the Monthly Capacity Payment shall be limited to the amount of Monthly Capacity Payment charged by the Project Developer to CCP and paid by CCP to the Project Developer.

10.2. Authorizations. Each Project Participant hereby represents and warrants that no order, approval, consent, or authorization of any governmental or public agency, authority, or person, is required on the part of such Project Participant for the execution and delivery by the Project Participant, or the performance by the Project Participant of its obligations under this Agreement except for such as have been obtained.

10.3. Conflicts. Each Project Participant represents and warrants to CCP as of the Effective Date that, to the Project Participant's knowledge, the execution and delivery of this Agreement by the Project Participants and the Project Participants' performance hereunder will not constitute a default under any agreement or instrument to which it is a party, or any order, judgment, decree or ruling of any court that is binding on the Project Participant, or a violation of any applicable law of any governmental authority, which default or violation would have a material adverse effect on the financial condition of the Project Participant.

10.4. Litigation. Each Project Participant represents and warrants to CCP that, as of the Effective Date, to the Project Participant's knowledge, except as disclosed, there are no actions, suits or proceedings pending against the Project Participant (service of process on the Project Participant having been made) in any court that questions the validity of the authorization, execution or delivery by the Project Participant of this Agreement, or the enforceability on the Project Participant of this Agreement.

10.5. San José Clean Energy.

(a) The City of San José is a municipal corporation and is precluded under the California State Constitution and applicable law from entering into obligations that financially bind future governing bodies without an appropriation for such obligation, and, therefore, nothing in the Agreement shall constitute an obligation of future legislative bodies of the City of San José to appropriate funds for purposes of the Agreement; provided, however, that the City of San José has created and set aside a designated fund (being the San Jose Energy Operating Fund established pursuant to City of San Jose Municipal Code, Title 4, Part 63, Section 4.80.4050 *et. seq.*) ("**Designated Fund**") for payment of its obligations under this Agreement.

(b) Limited Obligations. The City of San José's payment obligations under this Agreement are special limited obligations of San José Clean Energy payable solely from the Designated Fund and are not a charge upon the revenues or general fund of the City of San José or upon any non- San José Clean Energy moneys or other property of the Community Energy Department or the City of San José.

10.6. Clean Power San Francisco. With regard to Clean Power San Francisco only, (1) obligations under this Agreement are special limited obligations of Clean Power San Francisco payable solely from the revenues of Clean Power San Francisco, and shall not be a charge upon the revenues or general fund of the San Francisco Public Utilities Commission or the City and County of San Francisco or upon any non-Clean Power San Francisco moneys or other property of the San Francisco Public Utilities Commission or the City and County of San Francisco, (2) cannot exceed the amount certified by the San Francisco City Controller for the purpose and period stated in such certification, and (3) absent an authorized emergency per the San Francisco City Charter or Code, no San Francisco City representative is authorized to offer or promise, nor is San

Francisco required to honor, any offered or promised payments under this Agreement for work beyond the agreed upon scope or in excess of the certified maximum amount without the San Francisco City Controller having first certified the additional promised amount.

ARTICLE 11
PROJECT SPECIFIC MATTERS AND PROJECT PARTICIPANTS' RIGHTS AND OBLIGATIONS UNDER THE ESSA.

11.1. CCP Rights and Obligations under the ESSA. Notwithstanding anything to the contrary contained in this Agreement: (i) the obligation of CCP to cause the delivery of the Project Participants' Entitlement Shares of the Product during the Delivery Term of this Agreement is limited to the Product which CCP receives from the Facility (or the Project Developer, as applicable); (ii) the obligation of CCP to pay any amount to Project Participants hereunder or to give credits against amounts due from Project Participants hereunder is limited to amounts CCP receives in connection with the transaction to which the payment or credit relates (or is otherwise available to CCP in connection with this Agreement for which such payment or credit relates); (iii) any purchase costs, operating costs, energy costs (including costs related to Charging Energy), capacity costs, Facility costs, environmental attribute costs, transmission costs, tax costs, insurance costs, indemnifications, other costs or other charges for which CCP is responsible under the ESSA shall be considered purchase costs, operating costs, energy costs, capacity costs, Facility costs, environmental attribute costs, transmission costs, tax costs, insurance costs, indemnifications, other costs or other charges incurred by CCP and payable by Project Participants as provided in this Agreement; (iv) CCP shall carry out its obligations and exercise its rights under the ESSA in a commercially reasonable manner; (v) all remedies provided to CCP pursuant to the ESSA or the Scheduling Coordinator Services Agreement shall be provided to Project Participants in accordance with Section 5.1(h); and (vi) any Force Majeure under the ESSA or other event of force majeure affecting the delivery of Product pursuant to applicable provisions of the ESSA shall be considered an event caused by Uncontrollable Forces affecting CCP with respect to the delivery of the Product hereunder and CCP forwarding to Project Participants notices and information from the Project Developer concerning an event of Force Majeure upon receipt thereof shall be sufficient to constitute a Notice that Uncontrollable Forces have occurred pursuant to Section 5.1 of this Agreement. Any net proceeds received by CCP from the sale of the Product by the Project Developer to any third-party as a result of a Force Majeure event or failure by CCP to accept delivery of Product pursuant to the ESSA and any reimbursement received by CCP for purchase of Replacement RA shall be remitted by CCP to the Project Participants in accordance with their respective Entitlement Shares.

ARTICLE 12
NONPERFORMANCE AND PAYMENT DEFAULT.

12.1. Nonperformance by Project Participants. If a Project Participant fails to perform any covenant, agreement, or obligation under this Agreement or shall cause CCP to be in default with respect to any undertaking entered into for the Project or to be in default under the ESSA ("**Defaulting Project Participant**"), CCP may, in the event the performance of any such obligation remains unsatisfied after thirty (30) days' prior written notice thereof to such Project Participant and a demand to so perform, take any action permitted by law to enforce its rights under this Agreement, including but not limited to termination of such Project Participant's rights under this Agreement including any rights to its Entitlement Share of the Product, and/or bring any suit, action or proceeding at law or in equity as may be necessary or appropriate to recover damages and/or enforce any covenant, agreement or obligation against such Project Participant with regard to its failure to so perform. Any Project Participant that is not the Defaulting Project Participant (**"Non-Defaulting Project Participant"**) may submit Notice directly to the CCP Board, if such Non-Defaulting Project Participant determines that CCP is or may not be fully taking appropriate actions to enforce CCP's rights under this Agreement against a Defaulting Project Participant. The CCP Board shall consider such Notice and direct CCP to take appropriate action, if any.

12.2. Payment Default. If any Project Participant fails to deposit the Invoice Amount into the Project Participant's Operating Account by the deadline specified in Section 9.5, and if such Participant has not deposited the Invoice Amount plus the Late Payment Charge into such Project Participant's Operating Account within ten (10) calendar days of the issuance of the Late Payment Notice to such Project Participant by CCP, then such occurrence shall constitute a "**Payment Default**."

12.3. Payment Default Notice. Upon the occurrence of a Payment Default, CCP shall issue a Notice of Payment Default to the Project Participant notifying such Project Participant that as a result of a Payment Default, it is in default under this Agreement and has assumed the status of a Defaulting Project Participant and that such Defaulting Project Participant's Project Revenue Rights have been suspended and that such Defaulting Project Participant's Project Rights are subject to termination and disposal in accordance with Sections 12.6 and 12.8 of this Agreement. CCP shall provide a copy of such Notice of Default to all other Project Participants within five (5) calendar days after the issuance of the written Notice of Payment Default by CCP to the Defaulting Project Participant.

12.4. Cured Payment Default. If after a Payment Default, the Defaulting Project Participant cures such Payment Default within forty-five (45) calendar days after the issuance of the Late Payment Notice by CCP, the Defaulting Project Participant's Project Revenue Rights shall be reinstated and its Project Rights shall not be subject to termination and disposal as provided for in Sections 12.6 and 12.8. In order to cure a Payment Default, the Defaulting Project Participant must deposit the full amount of any unpaid Invoice Amounts and any associated Late Payment Penalties into its Operating Account.

12.5. Suspension of Project Participant's Project Revenue Rights and Treatment of Capacity Attributes.

(i) Upon the occurrence of a Payment Default, the Defaulting Project Participant's Project Revenue Rights shall be suspended until such time as such Defaulting Project Participant cures the Payment Default pursuant to the requirements of Section 12.4. Any revenue associated with the Facility Energy or Ancillary Services associated with the Facility shall be deposited by CCP into the Step-Up Reserve Account, as specified in Section 12.7.

(ii) For any Month where the funds remaining in a Defaulting Project Participant's Operating Account are sufficient to pay the entire Invoice Amount, CCP shall withdraw the Invoice Amount from such Defaulting Project Participant's Operating Account and shall cause the delivery of the Defaulting Project Participant's Entitlement Share of the Capacity

Attributes and Environmental Attributes associated with the Facility or otherwise provided for pursuant to the ESSA. For any Month where the funds remaining in a Defaulting Project Participant's Operating Account are less than the amount necessary to pay the entire Invoice Amount, CCP shall withdraw all remaining funds from the Defaulting Project Participant's Operating Account, and to the extent reasonably possible, in CCP's sole discretion, CCP shall cause the delivery of a quantity of Capacity Attributes and Environmental Attributes proportionate to the portion of the Invoice Amount that the remaining funds were sufficient to pay for. For any Month where the Defaulting Project Participant's Operating Account has no funds remaining, the Defaulting Project Participant shall have no right to any such Capacity Attributes or Environmental Attributes associated with the Facility or otherwise provided for under the ESSA.

12.6. Termination and Disposal of Project Participant's Project Rights. If a Defaulting Project Participant has not cured a Payment Default within forty-five (45) calendar days after the payment deadline specified in Section 9.5 by CCP ("**Payment Default Termination Deadline**"), then all Project Rights and Obligations pursuant to this Agreement shall be terminated and disposed in accordance with Sections 12.6 and 12.8 of this Agreement; provided, however, that the Defaulting Project Participant shall be liable for all outstanding payment obligations accrued prior to the Payment Default Termination Deadline and shall remain subject to all rights, obligations, and liabilities of this Agreement, including but not limited to any liabilities for Damage Payment or Termination Payment, as applicable, and any other damage payments or reimbursement amounts under the ESSA. CCP shall provide to the Defaulting Project Participant a separate monthly invoice of any such payment obligations of such Defaulting Project Participant. CCP shall immediately notify the other Project Participants of such termination of the Defaulting Project Participant's Project Rights and Obligations.

12.7. Step-Up Invoices.

(a) Upon the occurrence of a Payment Default, CCP shall, concurrently with the Late Payment Notice issued pursuant to Section 9.7(a), issue a Step-Up Invoice to each Non-Defaulting Project Participant that specifies such Non-Defaulting Project Participant's pro rata payment obligation, calculated based on the Entitlement Share of such Non-Defaulting Project Participant, of the amount of the Payment Default for the Defaulting Project Participant (the "**Step-Up Invoice Amount**"); provided, however, that a Non-Defaulting Project Participant's Step-Up Invoice Amount shall not exceed twenty-five percent (25%) of such Non-Defaulting Project Participant's Invoice Amount for the same month for which the Payment Default occurred (the **"Step-Up Invoice Amount Cap"**).

(i) Each Non-Defaulting Project Participant shall deposit the Step-Up Invoice Amount into such Non-Defaulting Project Participant's Operating Account by the later of the twentieth (20th) calendar day of the following Month or thirty (30) days after the date on which CCP issues the Step-Up Invoice to the other Project Participants. No sooner than five (5) calendar days after CCP issues the Step-Up Invoice, CCP may withdraw the amount of the Step-Up Invoice from each Project Participant's Operating Account and deposit such funds in a separate account ("**Step-Up Reserve Account**"), which shall be accessible only by CCP, and which CCP may in its sole discretion draw upon in order to ensure that CCP can meet the payment obligations of the ESSA. CCP first shall withdraw all funds from a Defaulting Project Participant's Operating Account before withdrawing funds from the Step-Up Reserve Account.

(ii) Application of Moneys Received from a Defaulting Project Participant. If a Defaulting Project Participant cures a Payment Default on or before the Payment Default Termination Deadline, any funds remaining in the Step-Up Reserve Account shall be deposited into the Operating Accounts of the other Project Participants on a pro rata share, based on the Entitlement Share of such other Project Participant. If a Defaulting Project Participant fails to cure a Payment Default and the Defaulting Project Participant's Project Rights and Obligations are terminated and disposed of in accordance with Section 12.8, any funds remaining in the Step-Up Reserve Account shall be deposited into the Operating Accounts of the Non-Defaulting Project Participants on a pro rata share, based on the Entitlement Share, subject to the Step-Up Invoice Amount Cap, of such other Project Participant. If any Non-Defaulting Project Participant has not deposited the full amount of its share of the Step-Up Invoice Amount into its Operating Account by the deadline specified in Section 12.7(a)(i), then such occurrence shall be a Late Payment as specified in Section 9.7(a) and is subject to a Late Payment Charge pursuant to Section 9.7(b), and any such Non-Defaulting Project Participant shall not be entitled to its share of any moneys received from the Defaulting Project Participant or any funds remaining in the Step-Up Reserve Account in accordance with this Section 12.7(a)(ii) until such Non-Defaulting Project Participant has deposited the full amount of its Step-Up Invoice Amount and the Late Payment Charge into its Operating Account.

12.8. Step-Up Allocation of Project Participant's Project Rights. In the event that a Defaulting Project Participant's Project Rights are terminated pursuant to Section 12.6, then such Defaulting Project Participant's Entitlement Share shall be allocated to the other Project Participants (**"Step-Up Allocation"**) pursuant to the process set forth in this Section 12.8. If a Project Participant has defaulted in the performance of any of its obligations under its BLPTA, and any applicable cure periods under the BLPTA have expired, the Project Participants shall, to the extent required by each respective Project Participant's BLPTA, utilize the procedures set forth in this Section 12.8 to allocate the Project Rights and Obligations of the Project Participant that has defaulted under the BLPTA to the Project Participants that have not defaulted under the BLPTA, subject to the Step-Up Allocation Cap specified in Section 12.8(a).

(a) Step-Up Allocation Cap. If a Defaulting Project Participant's Entitlement Share is allocated to the Non-Defaulting Project Participants pursuant to this Section 12.8, no individual Non-Defaulting Project Participant shall be obligated to assume an allocation that exceeds that Project Participant's Step-Up Allocation Cap set forth in Column E of the Table in Exhibit B of this Agreement. Each Non-Defaulting Project Participant's initial Step-Up Allocation Cap shall be equal to the Non-Defaulting Project Participant Entitlement Share as of the Effective Date and set forth in Column B of the Table in Exhibit B of this Agreement, multiplied by one hundred and twenty-five percent (125%). If a Project Participant modifies its Entitlement Share pursuant to Section 4.2 of this Agreement, then that Project Participant's Step-Up Allocation Cap shall be equal to the Project Participant's Entitlement Share as modified pursuant to Section 4.2 multiplied by one hundred and twenty-five percent (125%). Upon a modification of a Project Participant's Entitlement Share pursuant to Section 4.2, the CCP Manager shall cause the Step-Up Allocation Cap specified in Column E of the Table in Exhibit B of this Agreement to be modified in accordance with this Section 12.8(a). For avoidance of doubt, if a Project Participant's Entitlement Share is increased pursuant to Section 12.8(b) or (c), then such Project Participant's Step-Up Allocation Cap shall not be modified.

(b) Step-Up Allocation Share. If a Defaulting Project Participant's Project Rights are terminated pursuant to Section 12.6, then such Defaulting Project Participant's Entitlement Share shall be allocated to each Non-Defaulting Project Participant based on such Non-Defaulting Project Participant's pro rata share, calculated based on its Entitlement Share of the entire project minus the Entitlement Share of the Defaulting Project Participant, unless such allocation would cause any individual Non-Defaulting Project Participant to exceed its Step-Up Allocation Cap, in which case Section 12.8(c) shall apply. Upon allocation of a defaulting Project Participant's Entitlement Share pursuant to this Section 12.8(b), the CCP Manager shall cause each affected Project Participant's Entitlement Share specified in Column D of the Table in Exhibit B to be modified in accordance with this Section 12.8.

(c) Voluntary Allocation of Project Rights in Excess of the Step-Up Allocation Caps. If the allocation of a Defaulting Project Participant's Entitlement Share pursuant to Section 12.8(b) would cause any Non-Defaulting Project Participant's Entitlement Share to exceed its Step-Up Allocation Cap, then no allocation shall occur pursuant to Section 12.8(b). In such case, the CCP Manager shall oversee the offering of the total amount of the Defaulting Project Participant's Entitlement Share to the Non-Defaulting Project Participants on a voluntary basis. The initial offering shall be to each Non-Defaulting Project Participant on a pro rata share, based on such Non-Defaulting Project Participant's Entitlement Share. Each Project Participant may accept or reject the portion of the Defaulting Project Participant's Entitlement Share. If any portion of the Defaulting Project Participant's Entitlement Share remains unclaimed after the initial offering, then the remaining portion shall be offered to any Non-Defaulting Project Participant that accepted its full share of the Defaulting Project Participant's Entitlement Share in the initial offering on a pro rata share, based on such Non-Defaulting Project Participant's Entitlement Share as a percentage of the total Entitlement Shares of all Project Participants that are participating in the subsequent round of offerings. The CCP Manager shall conduct subsequent offering rounds until either the total amount of the Defaulting Project Participant's Entitlement Share is accepted by one or more of the Non-Defaulting Project Participants or some portion of the Defaulting Project Participant's Entitlement Share remains, but all Non-Defaulting Project Participants have rejected such remaining amount.

(d) Step-Up Allocation Damage Payment. A Defaulting Project Participant shall owe to each Non-Defaulting Project Participant that assumes any portion of the Defaulting Project Participant's Entitlement Share pursuant to the process set forth in Section 12.8(b) or 12.8(c) a "**Step-Up Allocation Damage Payment**" equal to the Costs and Losses, on the one hand, netted against its Gains, on the other. If the Non-Defaulting Project Participant's Costs and Losses exceed its Gains, then the Step-Up Allocation Damage Payment shall be an amount owing to such Non-Defaulting Project Participant. If the Non-Defaulting Project Participant's Gains exceed its Costs and Losses, then the Step-Up Allocation Damage Payment shall be zero dollars ($0). A Defaulting Project Participant shall not be entitled to any Step-Up Allocation Damage Payment or any other damages otherwise authorized under this Agreement from any other Project Participant. The Step-Up Allocation Damage Payment does not include consequential, incidental, punitive, exemplary, or indirect or business interruption damages. Each Non-Defaulting Project Participant that assumes any portion of the Defaulting Project Participant's Entitlement Share pursuant to the process set forth in Section 12.8(b) or 12.8(c) shall calculate, in a commercially reasonable manner, the Step-Up Allocation Damage Payment for the Defaulting Project Participant's Entitlement Share assumed by the Non-Defaulting Project Participant as of the effective date of such Step-Up

Allocation. 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. If the Defaulting Project Participant disputes the Non-Defaulting Project Participant's calculation of the Step-Up Allocation Damage Payment, in whole or in part, the Defaulting Project Participant shall, within five (5) Business Days of receipt of the Non-Defaulting Project Participant's calculation of the Step-Up Allocation Damage Payment, provide to the Non-Defaulting Project Participant a detailed written explanation of the basis for such dispute. Disputes regarding the Step-Up Allocation Damage Payment shall be determined in accordance with Article 16. Each Party agrees and acknowledges that (i) the actual damages that the other Project Participant would incur in connection with a Step-Up Allocation would be difficult or impossible to predict with certainty, (ii) the Step-Up Allocation Damage Payment described in this Section 12.8(d) is a reasonable and appropriate approximation of such damages, and (iii) the Step-Up Allocation Damage Payment described in this Section 12.8(d) is the exclusive remedy of a Project Participant in connection with a Step-Up Allocation pursuant to the process set forth in Sections 12.8(b) or 12.8(c) against a Defaulting Project Participant but shall not otherwise act to limit any of the Non-Defaulting Project Participant's rights or remedies under this Agreement.

(e) Remarketing of Unclaimed Defaulting Project Participant's Entitlement Share. If after the process set forth in Section 12.8(c), some portion of the Defaulting Project Participant's Entitlement Share remains unclaimed, the CCP Manager, in their discretion or as directed by the Non-Defaulting Project Participants, may take any action to generate revenue from such unclaimed Entitlement Share in order to meet CCP's payment obligation under the ESSA. For avoidance of doubt, the CCP Manager shall not be limited by the requirements of Section 4.2 or 5.1(j) of this Agreement in remarketing or generating revenue base on the unclaimed share.

12.9. Elimination or Reduction of Payment Obligations. Notwithstanding anything to the contrary in this Agreement, upon termination of a Defaulting Project Participant's Project Rights pursuant to Section 12.6 and the disposal of such Defaulting Project Participant's Project Rights and Obligations pursuant to Section 12.8, such Defaulting Project Participant's obligation to make payments under this Agreement (notwithstanding anything to the contrary herein) shall not be eliminated or reduced; provided, however, such payment obligations for the Defaulting Project Participant may be eliminated or reduced to the extent permitted by law, through an amendment to this Agreement, which shall be subject to the consent and approval of all Parties to this Agreement.

ARTICLE 13
LIABILITY

13.1. Project Participants' Obligations Several. No Project Participant shall be liable under this Agreement for the obligations of any other Project Participant or for the obligations of CCP incurred on behalf of other Project Participants. Each Project Participant shall be solely responsible and liable for performance of its obligations under this Agreement, except as otherwise provided for herein. The obligation of Project Participants to make payments under this Agreement is a several obligation and not a joint obligation with those of the other Project Participants.

13.2. No Liability of CCP or Project Participants, Their Directors, Officers, Etc.; CCP, The Project Participants' and CCP Manager's Directors, Officers, Employees Not Individually Liable. Except as provided for under Section 13.5 herein, the Parties agree that neither CCP, Project Participants, nor any of their past, present or future directors, officers, employees, board members, agents, attorneys or advisors (collectively, the "**Released Parties**") shall be liable to any other of the Released Parties for any and all claims, demands, liabilities, obligations, losses, damages (whether direct, indirect or consequential), penalties, actions, loss of profits, judgments, orders, suits, costs, expenses (including attorneys' fees and expenses) or disbursements of any kind or nature whatsoever in law, equity or otherwise (including, without limitation, death, bodily injury or personal injury to any person or damage or destruction to any property of Project Participants, CCP, or third persons) suffered by any Released Party as a result of the action or inaction or performance or non-performance by the Project Developer under the ESSA. Except as provided for under Section 13.5 herein, each Party shall release each of the other Released Parties from any claim or liability that such Party may have cause to assert as a result of any actions or inactions or performance or non-performance by any of the other Released Parties under this Agreement (excluding gross negligence and willful misconduct, which, unless otherwise agreed to by the Parties, are both to be determined and established by a court of competent jurisdiction in a final, non-appealable order). Notwithstanding the foregoing, no such action or inaction or performance or non-performance by any of the Released Parties shall relieve CCP or any Project Participants from their respective obligations under this Agreement, including, without limitation, the Project Participants' obligation to make payments required under Section 9.5 of this Agreement and CCP's obligation to make payments under Section 8.2 of the ESSA. The provisions of this Section 13.2 shall not be construed so as to relieve the CCP or the Project Developer from any obligation or liability under this Agreement or the ESSA.

13.3. Extent of Exculpation; Enforcement of Rights. The exculpation provision set forth in Section 13.2 hereof shall apply to all types of claims or actions including, but not limited to, claims or actions based on contract or tort. Notwithstanding the foregoing, any Party may protect and enforce its rights under this Agreement by a suit or suits in equity for specific performance of any obligations or duty of any other Party, and each Party shall at all times retain the right to recover, by appropriate legal proceedings, any amount determined to have been an overpayment, underpayment or other monetary damages owed by the other Party in accordance with the terms of this Agreement.

13.4. No General Liability of CCP. The undertakings under this Agreement by CCP shall not constitute a debt or indebtedness of CCP within the meaning of any provision or limitation of the Constitution or statutes of the State of California, and shall not constitute or give rise to a charge against its general credit.

13.5. Indemnification. Each Party shall indemnify, defend, protect, hold harmless, and release the other Parties, their directors, board members, officers, employees, agents, attorneys and advisors, past, present or future, from and against any and all claims, demands, liabilities, obligations, losses, damages (whether direct, indirect or consequential), penalties, actions, loss of profits, judgments, orders, suits, costs, expenses (including attorneys' fees and expenses) or disbursements of any kind or nature whatsoever in law, equity or otherwise, which include, without limitation, death, bodily injury, or personal injury to any person or damage or destruction to any property of Project Participants, CCP, or third persons, that may be imposed on, incurred by or asserted against any Party arising by manner of any breach of this Agreement, or the negligent acts, errors, omissions or willful misconduct incident to the performance of this Agreement on the part of any Party or any Party's directors, board members, officers, employees, agents and advisors, past, present or future.

ARTICLE 14
NOTICES

14.1. 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 in Exhibit A or at such other address or addresses as a Party may designate for itself from time to time by Notice hereunder.

14.2. 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, five (5) 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 or other electronic means) at the time indicated by the time stamp upon delivery and, if after 5:00 pm, on the next Business Day; 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 15
ASSIGNMENT

15.1. General Prohibition on Assignments. No Party may assign this Agreement, or its rights or obligations under this Agreement, without the prior written consent of all other Parties, in each Party's sole discretion.

ARTICLE 16
GOVERNING LAW AND 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. The Parties agree that any suit, action, or other legal proceeding by or against any Party with respect to or arising out of this Agreement shall be brought in the federal or state courts located in the State of California in a location to be mutually chosen by all Parties, or in the absence of mutual agreement, the County of San Francisco.

16.2. Dispute Resolution. In the event of any dispute arising under this Agreement, within ten (10) days following the receipt of a Notice from either Party identifying such dispute, the Parties shall meet, negotiate, and attempt, in good faith, to resolve the dispute quickly and informally without significant legal costs. If the Parties are unable to resolve a dispute arising hereunder within thirty (30) days after Notice of the dispute, the Parties may pursue all remedies available to them at Law or in equity.

ARTICLE 17
MISCELLANEOUS

17.1. Entire Agreement; Integration; Exhibits. This Agreement, together with the Exhibits attached hereto constitutes the entire agreement and understanding by and among the Parties 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. 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.

17.2. Amendments. This Agreement may only be amended, modified, or supplemented by an instrument in writing executed by duly authorized representatives of all Parties; *provided*, this Agreement may not be amended by electronic mail communications. Any revisions to the Entitlement Share specified in Exhibit B pursuant to Section 4.2. or Section 12.8 shall be considered an element of the administration of this Agreement and shall not require the consent of the Parties hereto.

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

17.4. 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.

17.5. 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.

17.6. Electronic Delivery. This Agreement may be duly executed and delivered by a Party by electronic format (including portable document format (.pdf)). Delivery of an executed counterpart in .pdf electronic version shall be binding as if delivered in the original. The words "execution," "signed," "signature," and words of like import in this Agreement shall be deemed to include electronic signatures or electronic records, each of which shall be of the same legal effect, validity, or enforceability as a manually executed signature or the use of a paper-based record keeping system, as the case may be, to the extent and as provided for in any applicable law.

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

17.8. Forward Contract. The Parties acknowledge and agree that this Agreement constitutes a "forward contract" within the meaning of the U.S. Bankruptcy Code, and that the Parties are "forward contract merchants" within the meaning of the U.S. Bankruptcy Code. Each Party further agrees that, for all purposes of this Agreement, each Party waives and agrees not to assert the applicability of the provisions of 11 U.S.C. § 366 in any Bankruptcy proceeding wherein such Party is a debtor. In any such proceeding, each Party further waives the right to assert that the other Party is a provider of last resort to the extent such term relates to 11 U.S.C. §366 or another provision of 11 U.S.C. § 101-1532.

17.9. City of San Francisco Standard Provisions.

(a) False Claims. Pursuant to San Francisco Administrative Code § 21.35, any Party to this Agreement who submits a false claim shall be liable to the City and County of San Francisco for the statutory penalties set forth in that section. A Party will be deemed to have submitted a false claim to the City and County of San Francisco if the Party: (a) knowingly presents or causes to be presented to an officer or employee of the City and County of San Francisco a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City and County of San Francisco; (c) conspires to defraud the City and County of San Francisco by getting a false claim allowed or paid by the City and County of San Francisco; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City and County of San Francisco; or (e) is a beneficiary of an inadvertent submission of a false claim to the City and County of San Francisco, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City and County of San Francisco within a reasonable time after discovery of the false claim.

(b) Political Activity. In performing its responsibilities under this Agreement, CCP shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City and County of San Francisco for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure.

(c) Non-discrimination Requirements.

(i) Non-discrimination in Contracts. CCP shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. CCP shall incorporate by reference in all subcontracts the provisions of Sections12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. CCP is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

(ii) Non-discrimination in the Provision of Employee Benefits. San Francisco Administrative Code 12B.2. CCP does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

(d) Consideration of Criminal History in Hiring and Employment Decisions. CCP agrees to comply fully with and be bound by all of the provisions of Chapter 12T, "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Administrative Code, including the remedies provided, and implementing regulations, as may be amended from time to time. The requirements of Chapter 12T shall only apply to CCP's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law. MacBride Principles – Northern Ireland. Pursuant to San Francisco Administrative Code § 12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride principles.

(e) MacBride Principles – Northern Ireland. Pursuant to San Francisco Administrative Code § 12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

(f) Tropical Hardwood and Virgin Redwood Ban. The City and County of San Francisco urges contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood product, virgin redwood or virgin redwood product. If this order is for wood products or a service involving wood products: (a) Chapter 8 of the Environment Code is incorporated herein and by reference made a part hereof as though fully set forth. (b) Except as expressly permitted by the application of Sections 802(B), 803(B), and 804(B) of the Environment Code, CCP shall not provide any items to the City in performance of this Agreement which are tropical hardwoods, tropical hardwood products, virgin redwood or virgin redwood products. (c) Failure of CCP to comply with any of the requirements of Chapter 8 of the Environment Code shall be deemed a material breach of contract.

17.10. City of San José Standard Provisions.

(a) Nondiscrimination/Non-Preference. The Parties shall not, and shall not cause or allow its subcontractors to, discriminate against or grant preferential treatment to any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity or national origin. This prohibition applies to recruiting, hiring, demotion, layoff, termination, compensation, fringe benefits, advancement, training, apprenticeship and other terms, conditions, or privileges of employment, subcontracting and purchasing. The Parties will inform all subcontractors of these obligations. This prohibition is subject to the following conditions: (i) the prohibition is not intended to preclude Parties from providing a reasonable accommodation to a person with a disability; (ii) the City of San José's Compliance Officer may require the Parties to file, and cause any Party's subcontractor to file, reports demonstrating compliance with this section. Any such reports shall be filed in the form and at such times as the City's Compliance Officer designates. They shall contain such information, data and/or records as the City's Compliance Officer determines is needed to show compliance with this provision.

(b) Conflict of Interest. The Parties represent that they are familiar with the local and state conflict of interest laws, and agrees to comply with those laws in performing this Agreement. The Parties certify that, as of the Effective Date, are unaware of any facts constituting a conflict of interest or creating an appearance of a conflict of interest. The Parties shall avoid all conflicts of interest or appearances of conflicts of interest in performing this Agreement. The Parties have the obligation of determining if the manner in which it performs any part of this Agreement results in a conflict of interest or an appearance of a conflict of interest, and a Party shall immediately notify the City of San José in writing if it becomes aware of any facts giving rise to a conflict of interest or the appearance of a conflict of interest. A Party's violation of this Section 17.10(b) is a material breach.

(c) Environmentally Preferable Procurement Policy. Parties shall perform its obligations under this Agreement in conformance with San José City Council Policy 1-19, entitled "Prohibition of City Funding for Purchase of Single serving Bottled Water," and San José City Council Policy 4-6, entitled "Environmentally Preferable Procurement Policy," as those policies may be amended from time to time. The Parties acknowledge and agree that in no event shall a breach of this Section 17.10(c) be a material breach of this Agreement or otherwise give rise to an Event of Default or entitle the City of San José to terminate this Agreement.

(d) Gifts Prohibited. The Parties represent that they are familiar with Chapter 12.08 of the San José Municipal Code, which generally prohibits a City of San José officer or designated employee from accepting any gift. The Parties shall not offer any City of San José officer or designated employee any gift prohibited by Chapter 12.08. A Party's violation of this Section 17.10(d) is a material breach.

(e) Disqualification of Former Employees. The Parties represent that they are familiar with Chapter 12.10 of the San José Municipal Code, which generally prohibits a former City of San José officer and former designated employee from providing services to the City of San José connected with his/her former duties or official responsibilities. Parties shall not use either directly or indirectly any officer, employee or agent to perform any services if doing so would violate Chapter 12.10.

17.11. Further Assurances. Each of the Parties hereto agrees to provide such information, execute, and deliver any instruments and documents and to take such other actions as may be necessary or reasonably requested by the other Party which are not inconsistent with the provisions of this Agreement and which do not involve the assumptions of obligations other than those provided for in this Agreement, to give full effect to this Agreement and to carry out the intent of this Agreement.

[Signatures on following page]

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

California Community Power By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________	Clean Power San Francisco By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________
Peninsula Clean Energy By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________	Redwood Coast Energy Authority By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________

San José Clean Energy By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________	Silicon Valley Clean Energy By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________
Sonoma Clean Power By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________	Valley Clean Energy By: Name: ____________________ Title: ____________________ Approved as to form by Counsel By: Name: ____________________ Title: ____________________

EXHIBIT A

NOTICES

Party	*All Notices*	*Invoices*
California Community Power	**California Community Power** Tim Haines ____________________ ____________________ timhaines@powergridsymmetry.com	
Clean Power San Francisco	**Clean Power San Francisco** Barbara Hale, Assistant General Manager, Power San Francisco Public Utilities Commission 525 Golden Gate Ave, 13th Floor San Francisco, CA 94102 bhale@sfwater.org	
Peninsula Clean Energy	**Peninsula Clean Energy** Jan Pepper, CEO Peninsula Clean Energy 2075 Woodside Road Redwood City, California 94061 jpepper@peninsulacleanenergy.com	
Redwood Coast Energy Authority	**Redwood Coast Energy Authority** Matthew Marshall, CEO Redwood Coast Energy Authority 633 3rd Street Eureka, CA 95501 mmarshall@redwoodenergy.org	

Party	*All Notices*	*Invoices*
San José Clean Energy	**San José Clean Energy** Lori Mitchell, Director cc: Luisa Elkins, Senior Deputy City Attorney San José Clean Energy 200 E. Santa Clara Street, 14th Floor San José, CA 95113 Lori.Mitchell@sanjoseca.gov Luisa.Elkins@sanjoseca.gov	
Silicon Valley Clean Energy	**Silicon Valley Clean Energy** Girish Balachandran, CEO Silicon Valley Clean Energy Authority 333 W. El Camino Real, Suite 330 Sunnyvale, CA 94087 girish@svcleanenergy.org	
Sonoma Clean Power	**Sonoma Clean Power** Geof Syphers, CEO Sonoma Clean Power 50 Santa Rosa Avenue, 5th Floor Santa Rosa, CA 95404 gsyphers@sonomacleanpower.org	
Valley Clean Energy	**Valley Clean Energy** Gordon Samuel Assistant General Manager & Director of Power Resource 604 2nd Street Davis, CA 95616 gordon.samuel@valleycleanenergy.org	

EXHIBIT B

SCHEDULE OF PROJECT PARTICIPANT ENTITLEMENT SHARES AND STEP-UP ALLOCATION CAPS

*Dated:*______________________

A	B	C	D	E
Project Participant	**Entitlement Share** *As of Effective Date*	**Entitlement Share** *As Modified Pursuant to Section 4.2*	**Entitlement Share** *As Modified Pursuant to Section 12.8(b) or 12.8(c)*	**Step-Up Allocation Cap** *125% multiplied by Column B or C as applicable*
Clean Power San Francisco	16.06%			
Peninsula Clean Energy	19.69%			
Redwood Coast Energy Authority	3.62%			
San José Clean Energy	22.28%			
Silicon Valley Clean Energy	21.25%			
Sonoma Clean Power	12.95%			
Valley Clean Energy	4.15%			
Total	100%			

Instructions: If the CCP Manager modifies one or more Project Participant's Entitlement Share pursuant to Section 4.2, the CCP Manager shall prepare an updated Exhibit B that shows the prior Entitlement Share (Column B or D) in ~~strikeout~~ and specifies the new Entitlement Share values and the effective date of such modification in Column C. If the CCP Manager modifies one or more Project Participant's Entitlement Share pursuant to Section 12.8, the CCP Manager shall prepare an updated Exhibit B that shows the prior Entitlement Share (Column B or Column C) in ~~strikeout~~ and specifies the new Entitlement Share values and the effective date of such modification in Column D.

EXHIBIT C

PROCEDURE FOR VOLUNTARY REDUCTION OF PROJECT PARTICIPANT'S ENTITLEMENT SHARE

(a) Offer to Other Project Participants. A Project Participant proposing to reduce its Entitlement Share of the Project shall provide Notice to all other Project Participants and CCP specifying the quantity of the proposed reduction of Entitlement Share ("**Entitlement Share Reduction Amount**") and the first Month for which the Project Participant Proposes that the change of Entitlement Share would become effective (such Notice referred to as the "**Entitlement Share Reduction Notice**").

(i) Upon receiving an Entitlement Share Reduction Notice from any Project Participant, the CCP Manager shall promptly do all of the following:

(A) Establish Entitlement Share Reduction Compensation Amount. The CCP Manager shall secure at least one (1), but no more than three (3), valuations of the net present value of the Entitlement Share Reduction Amount over the remaining term of the ESSA from one or more qualified firm(s) with the requisite experience to determine such valuation. The valuation, or if more than one valuation is obtained, the average of all valuations received, shall be the "**Proposed Entitlement Share Reduction Compensation Amount**." The CCP Manager shall call a meeting of the Project Committee and present the Proposed Entitlement Share Reduction Compensation Amount to the Project Committee. The Project Committee shall by a Normal Vote either approve the Proposed Entitlement Share Reduction Compensation Amount or direct the CCP Manager to secure additional valuations. The Proposed Entitlement Share Reduction Compensation Amount approved by the Project Committee shall be the "**Entitlement Share Reduction Compensation Amount**." The Project Participant proposing to reduce its Entitlement Share may modify the quantity of the Entitlement Share Reduction Amount associated with its proposal or withdraw its proposal at any time prior to the initiation of the process set forth in paragraph (a)(i)(B).

(B) Oversee the Offering of the Entitlement Share Reduction Amount to Other Project Participants. The CCP Manager shall facilitate the offering of the Entitlement Share Reduction Amount to the other Project Participants through multiple rounds of offerings.

a) The initial offering shall be to each Project Participant on a pro rata share, based on such Project Participant's Entitlement Share. Each Project Participant may accept or reject the portion of the Entitlement Share Reduction Amount offered to the Project Participant through this process. If any portion of the Entitlement Share Reduction Amount remains after the initial offering, then the remaining portion shall be offered to any Project Participant that accepted the share of the Entitlement Share Reduction Amount offered in the initial offering on a pro rata share, based on such Project Participant's Entitlement Share as a percentage of the total Entitlement Shares of all Project Participants that accepted the portion of the Entitlement Share Reduction Amount offered to them in the initial offering.

b) The CCP Manager shall conduct subsequent offering rounds until either the total Entitlement Share Reduction Amount is accepted by one or more of the other Project Participants or some portion of the Entitlement Share Reduction Amount remains, but all Project Participants have rejected such amount.

c) Any Project Participant accepting a share of the offered Entitlement Share Reduction Amount shall either pay the offering Project Participant or be compensated by the offering Project Participant at the Entitlement Share Reduction Compensation Amount multiplied by the quantity of the portion being accepted.

d) Before a transfer of all or a portion of any Project Participant's Entitlement share to another Project Participant can become effective, the proposed transfer must be submitted to and approved by the Project Committee through a Normal Vote.

e) After acceptance and payment for such portion of the Entitlement Share Reduction Amount, and upon approval of such transfer by the Project Committee, the CCP Manager shall cause the Entitlement Share specified in Exhibit B to be modified accordingly, and such modification shall be considered an element of the administration of this Agreement and shall not require the consent of the Parties hereto.

(C) Oversee the Offering of the Entitlement Share Reduction Amount to CCP Members that are not Project Participants. If there is any portion of the Entitlement Share Reduction Amount that remains unaccepted after the process specified in paragraph (a)(i)(B) is complete, then the Project Participant proposing to reduce its Entitlement Share may request that the CCP Manager offer the remaining portion of the Entitlement Share Reduction Amount to CCP Members that are not Project Participants. If any CCP Member wishes to accept any or all of the remaining portion of the Entitlement Share Reduction Amount, such action shall require the CCP Member to become a Project Participant through an amendment to this Agreement, which shall be subject to the consent and approval of all Parties to this Agreement and the CCP Member becoming a Project Participant. The compensation amount associated with the CCP Member accepting the remaining portion of the Entitlement Share Reduction Amount shall be negotiated between the CCP Member and the offering Project Participant.

(D) Oversee the Offering of the Entitlement Share Reduction Amount to a Community Choice Aggregator that is not a CCP Member. If there is any portion of the Entitlement Share Reduction Amount that remains unaccepted after the process specified in both paragraphs (a)(i)(B) and (a)(k)(C) is complete, then the Project Participant proposing to reduce its Entitlement Share, may request that the CCP Manager offer the remaining portion of the Entitlement Share Reduction Amount to a community choice aggregator that is not a CCP Member. If any community choice aggregator wishes to accept any or all of the remaining portion of the Entitlement Share Reduction Amount, such action shall require the community choice aggregator to become a CCP Member, and subsequent to becoming a CCP Member, to become a Project Participant through an amendment to this Agreement that is subject to the consent and approval of all Parties to this Agreement and the community choice aggregator becoming a Project Participant. The compensation amount associated with the community choice aggregator accepting the remaining portion of the Entitlement Share Reduction Amount shall be negotiated between the community choice aggregator and the offering Project Participant.

EXHIBIT D

PROJECT COMMITTEE OPERATIONS, MEETINGS, AND VOTING

(a) Chairperson of Project Committee. The chairperson of the Project Committee ("**Chairperson**") shall be the CCP Manager. The Chairperson shall be responsible for calling and presiding over meetings of the Project Committee in a manner and to the extent permitted by law.

(b) Conducting Meetings. Conducting of Project Committee meetings and actions taken by the Project Committee may be taken by vote given in an assembled meeting, by telephone, by video conferencing, or by any combination thereof, to the extent permitted by law.

(c) Calling of Meetings.

(i) The Chairperson may call a meeting of the Project Committee at their discretion.

(ii) The Chairperson shall promptly call a meeting of the Project Committee at the request of any representative of a Project Participant.

(d) Unanimous Votes. Certain actions, as designated in Section 6.4(c), require a unanimous affirmative vote by all Project Participants (**"Unanimous Vote"**). No such vote may be taken unless a representative from every Project Participant is present at the meeting of the Project Committee. If any Project Participant's Entitlement Share is reduced to zero through the process specified in Exhibit C, such Project Participant shall not be required to be present or be entitled to vote in order for such vote to be a Unanimous Vote.

(e) Normal Votes. All actions not designated as requiring unanimous vote, shall proceed pursuant to the **"Normal Vote"** process set forth in this paragraph (e).

(i) Quorum. No Normal Vote of the Project Committee shall be taken unless a representative is present for at least fifty percent (50%) of the total number of Project Participants, without regard to each Project Participant's Entitlement Share.

(ii) Initial Normal Vote. Unless a representative requests an Alternate Normal Vote, pursuant to paragraph (e)(iii), all actions requiring a Normal Vote, as specified in Section 6.4(b) or 6.4(d), shall require an affirmative vote of at least fifty-one percent (51%) of the total number of Project Participants, without regard to each Project Participant's Entitlement Share.

(iii) Alternate Normal Vote. Any representative may request that any Normal Vote be taken on an Entitlement Share basis (referred to as an "**Alternate Normal Vote**"). If a representative requests an Alternate Normal Vote, then the following vote requirements shall apply:

(A) If any individual Project Participant has an Entitlement Share exceeding fifty percent (50%), then all actions for which an Alternate Normal Vote is taken shall require that the Project Participant with an Entitlement Share exceeding fifty percent (50%) plus any other Project Participant vote in the affirmative.

(B) If no individual Project Participant has an Entitlement Share exceeding fifty percent (50%), then all actions for which an Alternate Normal Vote is taken shall require an affirmative vote of Project Participants having Entitlement Shares aggregating at least fifty-one percent (51%) of the total Entitlement Shares.

Execution Version

ENERGY STORAGE SERVICE AGREEMENT

COVER SHEET

Seller: Tumbleweed Energy Storage, LLC, a Delaware limited liability company

Buyer: California Community Power, a California joint powers authority

Description of Facility: 69 MW/552 MWh grid-connected battery energy storage facility (CAISO Queue 1217) located near Rosamond, Kern County, California, as further described in Exhibit A.

Milestones:

Milestone	Expected Date for Completion
Evidence of Site Control	8/12/2019
Conditional Use Permit obtained	[redacted]
Phase I and Phase II Interconnection study results obtained	6/1/2018
Interconnection Agreement executed	11/12/2018
Major equipment procured	[redacted]
Federal and state discretionary permits issued	[redacted]
Expected Construction Start Date	[redacted]
Guaranteed Construction Start Date	12/31/2025
Initial Synchronization	4/1/2026
Network Upgrades completed	12/31/2025
Partial Capacity Deliverability Status sufficient to fully deliver the Facility's Guaranteed Capacity is obtained	3/16/2018
Expected Commercial Operation Date	4/15/2026
Guaranteed Commercial Operation Date	6/1/2026

Delivery Term: 15 Contract Years

Guaranteed Capacity: 69 MW of Installed Capacity at eight (8) hours of continuous discharge

Dedicated Interconnection Capacity: 69 MW

Guaranteed Efficiency Rate:

Contract Year	Guaranteed Efficiency Rate
1-15	83.3%

Contract Price:

Contract Year	Contract Price
1 – 15	$[redacted]/kW-mo. (flat) with no escalation and subject to adjustments in Exhibit C

Product:

☒ Discharging Energy

☒ Installed Capacity and Effective Capacity

☒ Ancillary Services

☒ Capacity Attributes

Scheduling Coordinator:

Prior to Commercial Operation Date: Seller

From Commercial Operation Date through the Delivery Term: Buyer

Security Amount:

Development Security: $[redacted]/kW of Guaranteed Capacity

Performance Security: $[redacted]/kW of Guaranteed Capacity

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ENERGY STORAGE SERVICE AGREEMENT

This Energy Storage Service Agreement ("**Agreement**") is entered into as of 01/24/2022 (the "**Effective Date**"), between Buyer and Seller. Buyer and Seller are sometimes referred to herein individually as a "**Party**" and jointly as the "**Parties**." All capitalized terms used in this Agreement are used with the meanings ascribed to them in Article 1 to this Agreement.

RECITALS

WHEREAS, Seller intends to develop, design, construct, own, and operate the Facility; and

WHEREAS, Seller desires to sell, and Buyer desires to purchase, on the terms and conditions set forth in this Agreement, the Product;

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 agree to the following:

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.

"**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. For purposes of this definition and the definition of "Permitted Transferee", "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 at least 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 at least 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. Notwithstanding the foregoing, the Parties hereby agree and acknowledge that with respect to Buyer the public entities designated as members or participants under the Joint Powers Agreement creating Buyer shall not constitute or otherwise be deemed an "Affiliate" for purposes of this Agreement.

"**Agreement**" has the meaning set forth in the Preamble and includes the Cover Sheet and any Exhibits, schedules and any written supplements hereto.

"**Ancillary Services**" means frequency regulation, spinning reserve, non-spinning reserve, regulation up, regulation down, voltage support, and any other ancillary services, in each case that the Facility is capable of providing consistent with the Operating Restrictions set forth in Exhibit Q, as each is defined in the CAISO Tariff.

"**Approved Maintenance Hours**" means up to [redacted] per Contract Year of Planned Outages for Facility maintenance scheduled in accordance with Section 4.12.

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

"**Automatic Generation Control**" or "**AGC**" has the meaning set forth in the CAISO Tariff.

"**Availability Adjustment**" has the meaning set forth in Exhibit C.

"**Availability Notice**" has the meaning set forth in Section 4.10.

"**Availability Standards**" has the meaning set forth in the CAISO Tariff or such other similar term as modified and approved by FERC hereafter to be incorporated in the CAISO Tariff.

"**Available Capacity**" means the capacity of the Facility, expressed in whole MWs, that is mechanically available to charge and discharge Energy and provide Ancillary Services.

"**Bankrupt**" or "**Bankruptcy**" 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.

"**Battery Charging Factor**" means a fraction, the numerator of which is the amount of Charging Energy absorbed by the Facility after the first ten (10) hours of the charging phase of the applicable Capacity Test, and the denominator of which is the Effective Capacity.

"**Battery Discharging Factor**" means one (1) minus a fraction, the numerator of which is the amount of Discharging Energy discharged during the first eight (8) hours of the discharging phase of the applicable Capacity Test, and the denominator of which is the Effective Capacity.

"**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 Default**" means an Event of Default of Buyer.

"**Buyer Dispatched Test**" has the meaning in Section 4.4(c).

"**Buyer's Indemnified Parties**" has the meaning set forth in Section 16.1(a).

"**Buyer Liability Pass Through Agreement**" means the form set forth in Exhibit L.

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

"**CAISO Balancing Authority Area**" has the meaning set forth in the CAISO Tariff.

"**CAISO Certification**" means the certification and testing requirements for a storage unit set forth in the CAISO Tariff that are applicable to the Facility, including certification and testing for all Ancillary Services that the Facility can provide, PMAX, and PMIN associated with such storage units, that are applicable to the Facility.

"**CAISO Charges Invoice**" has the meaning set forth in Exhibit D.

"**CAISO Dispatch**" means any Charging Notice or Discharging Notice given by the CAISO to the Facility, whether through ADS, AGC or any successor communication protocol, communicating an Ancillary Service Award (as defined in the CAISO Tariff) or directing the Facility to charge or discharge at a specific MW rate for a specified period of time or amount of MWh.

"**CAISO Grid**" has the same meaning as "CAISO Controlled Grid" as defined in the CAISO Tariff.

"**CAISO Tariff**" means the California Independent System Operator Corporation Agreement and Tariff, Business Practice Manuals (BPMs), and Operating Procedures, 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) as 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.

"**CEC**" means the California Energy Commission, or any successor agency performing similar functions.

"**Capacity Attribute**" means any current or future defined characteristic, certificate, tag, credit, or accounting construct associated with the ability of the Facility to charge, discharge and deliver to the Delivery Point at a particular moment and that can be purchased, sold or conveyed under CAISO or CPUC market rules, including Resource Adequacy Benefits.

"**Capacity Damages**" has the meaning set forth in Section 5 of Exhibit B.

"**Capacity Test**" or "**CT**" means any test or retest of the Facility to establish the Installed Capacity, Effective Capacity or Efficiency Rate or, subject to the qualifications set forth in Exhibit O, any other test conducted pursuant to Exhibit O.

"**CEQA**" means the California Environmental Quality Act, as amended or supplemented from time to time.

"**Change of Control**" means, except in connection with public market transactions of equity interests or capital stock of Seller's Ultimate Parent, any circumstance in which 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; *provided*, in calculating ownership percentages for all purposes of the foregoing:

(a) any ownership interest in Seller held by Ultimate Parent indirectly through one or more intermediate entities shall not be counted towards Ultimate Parent's ownership interest in Seller unless 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 the Energy delivered to the Facility pursuant to a Charging Notice as measured at the Facility Metering Point by the Facility Meter, as such meter readings are adjusted by the CAISO for any applicable Electrical Losses. All Charging Energy not consumed in Electrical Losses or used for Station Use shall be used solely to charge the Facility.

"**Charging Notice**" means the operating instruction, and any subsequent updates, given by Buyer's SC or the CAISO to Seller, directing the Facility to charge at a specific MW rate for a specified period of time or amount of MWh; *provided*, any such operating instruction shall be in accordance with the Operating Restrictions. Any instruction to charge the Storage Facility pursuant to a Buyer Dispatched Test shall be considered a Charging Notice.

"**Collateral Assignment Agreement**" has the meaning set forth in Section 14.2 and substantially in the form attached as Exhibit T.

"**Commercial Operation**" means the condition existing when Seller has fulfilled all of the conditions precedent in Section 2.2 of the Agreement and provided Notice of the same to Buyer; *provided*, Commercial Operation shall occur no sooner than the Expected Commercial Operation Date.

"**Commercial Operation Capacity Test**" means the Capacity Test conducted in connection with Commercial Operation of the Facility, including any additional Capacity Test for additional capacity installed after the Commercial Operation Date pursuant to Section 5 of Exhibit B.

"**Commercial Operation Date**" or "**COD**" means the later of (a) the Expected Commercial Operation Date or (b) the date on which Commercial Operation is achieved.

"**Commercial Operation Delay Damages**" means an amount equal to (a) the Development Security amount required hereunder, divided by (b) ninety (90).

"**Communications Protocols**" means certain Operating Restrictions developed by the Parties pursuant to Exhibit Q that involve procedures and protocols regarding communication with respect to the operation of the Facility pursuant to this Agreement.

"**Compliant Project Participant**" means a Project Participant that is not a Defaulted Project Participant.

"**Confidential Information**" has the meaning set forth in Section 18.1.

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

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

"**Contract Price**" has the meaning set forth on the Cover Sheet.

"**Contract Term**" has the meaning set forth in Section 2.1(a).

"**Contract Year**" means a period of twelve (12) consecutive months (plus, in the case of the first Contract Year only, if the Commercial Operation Date does not occur on the first day of a calendar month, the period from the Commercial Operation Date through the end of the calendar month in which the Commercial Operation Date occurs). 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 or, if the Commercial Operation Date does not occur on the first day of a calendar month, the anniversary of the first day of the first full calendar month following the Commercial Operation Date.

"**Costs**" means, with respect to the Non-Defaulting Party, brokerage fees, commissions and other similar third-party transaction costs and expenses reasonably incurred by such Party either in terminating any arrangement pursuant to which it has hedged its obligations or entering into new arrangements which replace the 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, which is incorporated into this Agreement.

"**CPM Soft Offer Cap**" has he meaning set forth in the CAISO Tariff.

"**CPUC**" means the California Public Utilities Commission, or any successor entity performing similar functions.

"**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 by S&P or Moody's. If ratings by S&P and Moody's are not equivalent, the lower rating shall apply.

"**Cure Plan**" has the meaning set forth in Section 11.1(b)(iii).

"**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 deliveries of Discharging Energy for the following reasons: (i) any System Emergency, or (ii) any warning of an anticipated System Emergency, or warning of an imminent condition or situation, which jeopardizes CAISO's electric system integrity or the integrity of other systems to which CAISO is connected;

(b) a curtailment ordered by the Transmission Provider 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 Transmission Provider's electric system integrity or the integrity of other systems to which the Transmission Provider is connected;

(c) a curtailment ordered by CAISO or the Transmission Provider due to a Transmission System Outage; or

(d) a curtailment in accordance with Seller's obligations under its Interconnection Agreement with the Transmission Provider or distribution operator.

"**Cycles**" means the number of equivalent charge/discharge cycles of the Facility during a specified time period, which shall be deemed to be equal to (a) the total cumulative amount of Discharging Energy discharged from the Facility (expressed in MWh) divided by (b) eight (8) hours times the weighted average Effective Capacity for such time period.

"**Daily Delay Damages**" means an amount equal to (a) the Development Security amount required hereunder, divided by (b) one hundred twenty (120).

"**Damage Payment**" means the amount to be paid by the Defaulting Party to the Non-Defaulting Party after a Terminated Transaction occurring prior to the Commercial Operation Date, in a dollar amount set forth in Section 11.3(a).

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

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

"**Dedicated Interconnection Capacity**" means the maximum instantaneous amount of Charging Energy and/or Discharging Energy, as applicable, that is permitted to be delivered from and/or to the Delivery Point under Seller's Interconnection Agreement, in the amount of MWs as set forth on the Cover Sheet.

"**Defaulted Liability Share**" means the Liability Share of a Defaulted Project Participant.

"**Defaulted Project Participant**" means a Project Participant that has incurred but not cured a Project Participant Payment Default, including any Project Participant whose rights under the Project Participation Share Agreement have been suspended or terminated.

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

"**Delivery Point**" means the Facility Pnode on the CAISO grid.

"**Delivery Term**" shall mean the period of Contract Years set forth 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 (a) cash or (b) a Letter of Credit in the amount set forth on the Cover Sheet.

"**Discharging Energy**" means the Energy delivered from the Facility to the Delivery Point pursuant to a Discharging Notice during any Settlement Interval or Settlement Period, as measured at the Facility Metering Point by the Facility Meter, as such meter readings are adjusted by the CAISO for any applicable Electrical Losses.

"**Discharging Notice**" means the operating instruction, and any subsequent updates, given by Buyer's SC or the CAISO to the Facility, directing the Facility to discharge Discharging Energy at a specific MW rate for a specified period of time or to an amount of MWh. Any instruction to discharge the Storage Facility pursuant to a Buyer Dispatched Test shall be considered a Discharging Notice.

"**Disclosing Party**" has the meaning set forth in Section 18.2.

"**Dispatch Notice**" means any Charging Notice, Discharging Notice and any subsequent updates thereto, given by the CAISO, Buyer or Buyer's SC, to Seller, directing the Facility to charge or discharge Energy at a specific MWh rate, for a specified period of time, and/or to a specified Storage Level; *provided*, any such operating instruction or updates shall be in accordance with the Operating Restrictions.

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

"**Effective Capacity**" means the lesser of (a) PMAX, and (b) maximum dependable operating capacity of the Facility to discharge Energy for eight (8) hours of continuous discharge, as measured in MW AC at the Delivery Point (i.e., measured at the Facility Meter and adjusted for Electrical Losses to the Delivery Point) as determined pursuant to the most recent Capacity Test (including the Commercial Operation Capacity Test), and as evidenced by a certificate substantially in the form attached as Exhibit I hereto, in either case (a) or (b) up to but not in excess of (i) the Guaranteed Capacity (with respect to a Commercial Operation Capacity Test) or (ii) the Installed Capacity (with respect to any other Capacity Test).

"**Effective Date**" has the meaning set forth on the Preamble.

"**Effective Flexible Capacity**" or "**EFC**" has the meaning set forth in the CAISO Tariff.

"**Efficiency Rate**" means the tested rate calculated pursuant to Sections II.I(2) and III(A) of Exhibit O by dividing Discharging Energy by Charging Energy and which for a given calendar month shall be prorated as necessary if more than one Efficiency Rate test has been conducted in such calendar month and different tested Efficiency Rates apply during such calendar month.

"**Efficiency Rate Adjustment**" has the meaning set forth in Exhibit C.

"**Electrical Losses**" means all transmission or transformation losses (a) between the Delivery Point and the Facility Metering Point associated with delivery of Charging Energy, and (b) between the Facility Metering Point and the Delivery Point associated with delivery of Discharging Energy.

"**Emission Reduction Credits**" or "**ERCs**" means emission reductions that have been authorized by a local air pollution control district pursuant to California Division 26 Air Resources; Health and Safety Code Sections 40709 and 40709.5, whereby a district has established a system by which all reductions in the emission of air contaminants that are to be used to offset certain future increases in the emission of air contaminants shall be banked prior to use to offset future increases in emissions.

"**Energy**" means electrical energy, measured in kilowatt-hours, megawatt-hours, or multiple units thereof.

"**Energy Management System**" or "**EMS**" means the Facility's energy management system.

"**Environmental Attributes**" shall mean any and all attributes under the RPS regulations 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 Facility and its displacement of conventional energy generation. "Environmental Attributes" do not include (i) Tax Credits or other tax benefits or attributes, including any cash payments in lieu thereof, (ii) any governmental grants, subsidies or other incentive payments related to the construction, ownership or operation of the Facility, or (iii) any Emission Reduction Credits or Marketable Emission Trading Credits.

"**Environmental Cost**" means costs incurred in connection with acquiring and maintaining all environmental permits and licenses for the Facility, and the Facility's compliance with all applicable environmental laws, rules and regulations, including capital costs for pollution mitigation or installation of emissions control equipment required to permit or license the Facility, all operating and maintenance costs for operation of pollution mitigation or control equipment, costs of permit maintenance fees and emission fees as applicable, the costs of all Emission Reduction Credits or Marketable Emission Trading Credits required by any applicable environmental laws, rules, regulations, and permits to operate the Facility, and the costs associated with the disposal and clean-up of hazardous substances introduced to the Site, and the decontamination or remediation, on or off the Site, necessitated by the introduction of such hazardous substances on the Site.

"**Event of Default**" has the meaning set forth in Section 11.1.

"**Excused Event**" has the meaning set forth in Exhibit P.

"**Expected Commercial Operation Date**" means the date set forth on the Cover Sheet.

"**Facility**" means the energy storage 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 Product (but excluding any Shared Facilities), as such storage facility may be expanded or otherwise modified from time to time in accordance with the terms hereof.

"**Facility Meter**" means a CAISO-approved bi-directional revenue quality meter or meters (with a 0.3% accuracy class), CAISO-approved 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 Charging Energy delivered to the Facility Metering Point and the amount of Discharging Energy delivered to the Delivery Point for the purpose of invoicing in accordance with Section 8.1. The Facility may contain multiple measurement devices that will make up the Facility Meter, and, unless otherwise indicated, references to the Facility Meter shall mean all such measurement devices and the aggregated data of all such measurement devices, taken together.

"**Facility Metering Point**" means the location(s) of the Facility Meter shown in Exhibit R.

"**Federal Investment Tax Credit Legislation**" means validly enacted federal legislation that either (a) applies the ITC in its current form to the Facility, or (b) extends federal Tax Credits associated with capital investment in the construction of energy storage facilities or equipment used to store energy for which Seller, as the owner of the Facility, is eligible.

"**FERC**" means the Federal Energy Regulatory Commission or any successor government agency.

"**Flexible Capacity**" has the meaning set forth in the CAISO Tariff.

"**Flexible RAR**" means the flexible capacity requirements established for load-serving entities by the CAISO pursuant to the CAISO Tariff, the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority.

"**Forced Labor**" has the meaning set forth in Section 13.4(c).

"**Force Majeure Event**" has the meaning set forth in Section 10.1.

"**Full Capacity Deliverability Status**" or "**FCDS**" has the meaning set forth in the CAISO Tariff.

"**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 include the value of Capacity Attributes.

"**GHG Regulations**" means Title 17, Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 10 (Climate Change), Article 5 (Emissions Cap), Sections 95800 to 96023 of the California Code of Regulations, as amended or supplemented from time to time.

"**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*, "Governmental Authority" shall not in any event include any Party.

"**Greenhouse Gas**" or "**GHG**" has the meaning set forth in the GHG Regulations or in any other applicable Laws.

"**Guaranteed Availability**" has the meaning set forth in Section 4.3(a).

Guaranteed Amount" has the meaning set forth in each Project Participant's Buyer Liability Pass Through Agreement, which amount may be different for each Project Participant given each Project Participant's Liability Share.

"**Guaranteed Capacity**" means the maximum dependable operating capability of the Facility to discharge electric energy, as measured in MW AC at the Delivery Point for eight (8) hours of continuous discharge, as set forth on the Cover Sheet.

"**Guaranteed Commercial Operation Date**" means the date set forth on the Cover Sheet, as such date may be extended pursuant to Exhibit B.

"**Guaranteed Construction Start Date**" means the date set forth on the Cover Sheet, as such date may be extended pursuant to Exhibit B.

"**Guaranteed Efficiency Rate**" means the minimum guaranteed Efficiency Rate of the Facility in each Contract Year of the Delivery Term, as set forth on the Cover Sheet.

"**Guaranteed Flexible Capacity**" means, at any point in time, the maximum quantity of Flexible Capacity (in MWs) for which a storage facility having a storage capacity of 69 MW with eight (8) hours of continuous discharging at the maximum rate of discharge, having achieved PCDS sufficient to fully deliver the Facility's Guaranteed Capacity, and performing with operational characteristics equal to those required by the Guaranteed Availability, Guaranteed Efficiency Rate, and the Operating Restrictions may be counted in any given Showing Month pursuant to the then current Law, including counting conventions set forth in the Resource Adequacy Rulings and the CAISO Tariff applicable to Resource Adequacy Resources.

"**Guaranteed Net Qualifying Capacity**" means, at any point in time, the maximum quantity of Net Qualifying Capacity (in MWs) for which a storage facility having a storage capacity of 69 MW with eight (8) hours of continuous discharging at the maximum rate of discharge, having achieved PCDS sufficient to fully deliver the Facility's Guaranteed Capacity, and performing with operational characteristics equal to those required by the Guaranteed Availability, Guaranteed Efficiency Rate, and the Operating Restrictions may be counted in any given Showing Month pursuant to the then current Law, including counting conventions set forth in the Resource Adequacy Rulings and the CAISO Tariff applicable to Resource Adequacy Resources.

"**Hazardous Substance**" means, collectively, (a) any chemical, material or substance that is listed or regulated under applicable Laws as a "hazardous" or "toxic" substance or waste, or as a "contaminant" or "pollutant" or words of similar import, (b) any petroleum or petroleum products, flammable materials, explosives, radioactive materials, asbestos, urea formaldehyde foam insulation, and transformers or other equipment that contain polychlorinated biphenyls, and (c) any other chemical or other material or substance, exposure to which is prohibited, limited or regulated by any Laws.

"**Imbalance Energy**" means the amount of Energy in MWh, in any given Settlement Period or Settlement Interval, by which the amount of Charging Energy or Discharging Energy, as applicable, deviates from the amount of Scheduled Energy.

"**Indemnified Party**" shall mean (i) Buyer, with respect to all third-party claims, demands, losses, liabilities, penalties, and expenses arising out of, resulting from, or caused by the circumstances described in Section 16.1(a), and (ii) Seller, with respect to all third-party claims, demands, losses, liabilities, penalties, and expenses arising out of, resulting from, or caused by the circumstances described in Section 16.1(b).

"**Indemnifying Party**" shall mean (i) Seller, with respect to all third-party claims, demands, losses, liabilities, penalties, and expenses arising out of, resulting from, or caused by the circumstances described in Section 16.1(a), and (ii) Buyer, with respect to all third-party claims, demands, losses, liabilities, penalties, and expenses arising out of, resulting from, or caused by the circumstances described in Section 16.1(b).

"**Initial Liability Share**" means the Liability Share of each Project Participant shown on Exhibit V as of the Effective Date.

"**Initial Synchronization**" means the commencement of Trial Operations (as defined in the CAISO Tariff).

"**Installed Capacity**" means the lesser of (a) PMAX, and (b) maximum dependable operating capacity of the Facility to discharge Energy for eight (8) hours of continuous discharge, as measured in MW AC at the Facility Meter Point by the Facility Meter and adjusted for Electrical

Losses to the Delivery Point, that achieves Commercial Operation, as evidenced by a certificate substantially in the form attached as Exhibit I hereto, as such capacity may be adjusted pursuant to Section 5 of Exhibit B, but in either case (a) or (b) up to but not in excess of the Guaranteed Capacity.

"**Inter-SC Trade**" has the meaning set forth in the CAISO Tariff.

"**Interconnection Agreement**" means the interconnection agreement entered into by Seller or a Seller Affiliate 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 Facilities**" means the interconnection facilities, control and protective devices and metering facilities required to connect the Facility with the Transmission System in accordance with the Interconnection Agreement.

"**Interconnection Point**" has the meaning set forth in Exhibit A.

"**Interest Rate**" has the meaning set forth in Section 8.2.

"**ITC**" means the investment tax credit established pursuant to Section 48 or other applicable provisions of the United States Internal Revenue Code of 1986.

"**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 January 29, 2021, as amended from time to time, under which Buyer is organized as a Joint Powers Authority in accordance with the Joint Powers Act.

"**kWh**" means a 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.

"**Lender**" means, collectively, any Person (a) 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 (including back-leverage debt), equity (including tax 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 or similar representative acting on their behalf, (b) providing interest rate or commodity protection under an agreement hedging or otherwise mitigating the cost of any of the foregoing obligations and/or (c) participating in a lease financing (including a sale leaseback or leveraged leasing structure) with respect to the Facility.

"**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 (a) 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 or (b) being reasonably acceptable to Buyer, in a form substantially similar to the letter of credit set forth in Exhibit K.

"**Liability Share**" means the percentage amount set forth for each Project Participant in Exhibit V.

"**Licensed Professional Engineer**" means an independent, professional engineer selected by Seller and reasonably acceptable to Buyer, licensed in the State of California.

"**Local Capacity Area Resource**" has the meaning set forth in the CAISO Tariff.

"**Local RAR**" means the local Resource Adequacy Requirements established for load-serving entities by the CAISO pursuant to the CAISO Tariff, the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority. "Local RAR" may also be known as local area reliability, local resource adequacy, local resource adequacy procurement requirements, or local capacity requirement in other regulatory proceedings or legislative actions.

"**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., NP-15), all of which should be calculated for the remaining Contract Term and must include the value of Capacity Attributes. Seller's lost revenue under this Agreement resulting from a Buyer Default shall not be considered to be consequential, incidental, punitive, exemplary or indirect or business interruption damages for purposes of determining Losses under this Agreement.

"**Marketable Emission Trading Credits**" means emissions trading credits or units pursuant to the requirements of California Division 26 Air Resources; Health & Safety Code Section 39616 and Section 40440.2 for market-based incentive programs such as the South Coast Air Quality Management District's Regional Clean Air Incentives Market, also known as RECLAIM, and allowances of sulfur dioxide trading credits as required under Title IV of the Federal Clean Air Act (42 U.S.C. § 7651b (a) to (f)).

"**Master File**" has the meaning set forth in the CAISO Tariff.

"**Material Permits**" means all permits required for Seller to commence construction, as set forth on Exhibit U.

"**Maximum Charging Capacity**" means the highest level at which the Facility may be charged, expressed in MW and as set forth in Exhibit Q.

"**Maximum Discharging Capacity**" means the highest level at which the Facility may be discharged, expressed in MW and as set forth in Exhibit Q.

"**Milestones**" means the development activities for significant permitting, interconnection, and construction milestones set forth on the Cover Sheet.

"**Monthly Capacity Availability**" has the meaning set forth in Exhibit P.

"**Monthly Capacity Payment**" means the payment required to be made by Buyer to Seller each month of the Delivery Term as compensation for the Product, as calculated in accordance with Exhibit C.

"**Moody's**" means Moody's Investors Service, Inc., or its successor.

"Most Offer Obligations" means the obligations to offer the Net Qualifying Capacity in order to satisfy Resource Adequacy Requirements, including under Section 40.6 of the CAISO Tariff.

"**MW**" means megawatts 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.

"**NERC**" means the North American Electric Reliability Corporation, or any successor entity performing similar functions.

"**Net Qualifying Capacity**" or "**NQC**" has the meaning set forth in the CAISO Tariff.

"**Network Upgrades**" 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 the Agreement, mean written communications by a Party to be delivered by hand delivery, United States mail, overnight courier service, or electronic messaging (e-mail).

"**Notification Deadline**" in respect of a Showing Month shall be fifteen (15) days before the relevant deadlines for the corresponding RA Compliance Showings for such Showing Month.

"**NP-15**" means the Existing Zone Generation Trading Hub for Existing Zone region NP15 as set forth in the CAISO Tariff.

"**Operating Restrictions**" means those restrictions, rules, requirements, and procedures set forth in Exhibit Q.

“**Outage Schedule**” has the meaning set forth in Section 4.12(a)(i).

“**Partial Capacity Deliverability Status**” or “**PCDS**” has the meaning set forth in the CAISO Tariff.

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

“**Payment Demand**” has the meaning set forth in Exhibit L.

“**Performance Guarantees**” has the meaning set forth in Section 4.3(b).

“**Performance Security**” means (i) cash or (ii) a Letter of Credit in the amount set forth on the Cover Sheet.

“**Permitted Transferee**” means (i) any Affiliate of Seller or (ii) any entity that satisfies, or is controlled by another Person that satisfies, the following requirements:

(a) A tangible net worth of not less than one hundred fifty million dollars ($150,000,000) or a Credit Rating of at least BBB- from S&P or Baa3 from Moody’s; and

(b) At least two (2) years of experience in the ownership and operations of energy generation or storage facilities similar to the Facility or has retained a third-party with such experience to operate the Facility.

“**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.

“**Planned Outage**” means a period during which the Facility is either in whole or in part not capable of providing service due to planned maintenance that has been scheduled in advance in accordance with Section 4.12(a).

“**PMAX**” means the applicable CAISO-certified maximum operating level of the Facility.

“**PMIN**” means the applicable CAISO-certified minimum operating level of the Facility.

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

“**Portfolio**” means the portfolio of electrical energy generating, electrical energy storage, or other assets and entities, including the Facility (or the interests of Seller or Seller’s Affiliates or the interests of their respective direct or indirect parent companies), that is pledged as collateral security in connection with a Portfolio Financing.

“**Portfolio Financing**” means any debt incurred by an Affiliate of Seller that is secured only by a Portfolio.

“**Portfolio Financing Entity**” means any Affiliate of Seller that incurs debt in connection with any Portfolio Financing.

"**Prevailing Wage Requirement**" has the meaning set forth in Section 13.4(b).

"**Product**" has the meaning set forth on the Cover Sheet.

"**Progress Report**" means a progress report including the items set forth in Exhibit E.

"**Project Labor Agreement**" has the meaning set forth in Section 13.4(b).

"**Project Participant**" means each Person identified in Exhibit V that shall execute a Buyer Liability Pass Through Agreement in the form set forth in Exhibit L.

"**Project Participant Approval**" means each Project Participant has obtained all necessary approvals from its board or governing authority necessary to execute a Buyer Liability Pass Through Agreement and the Project Participation Share Agreement, and that Buyer has delivered to Seller Buyer Liability Pass Through Agreements and the Project Participation Share Agreement executed by each Project Participant and countersigned by Buyer.

"**Project Participation Share Agreement**" means that certain Tumbleweed Energy Storage Project Participation Share Agreement executed by and among Buyer and all of the Project Participants relating to their allocation among themselves of Buyer's responsibilities and liabilities under this Agreement, and any successor agreement.

"**Project Participant Payment Default**" means any failure by a Project Participant to pay any material amount under the Project Participation Share Agreement as and when due (without giving effect to any extensions of time, waivers or late notices), including monthly amounts collected to fund, or to reserve funds for, payment of Buyer's obligations under this Agreement.

"**Pro Rata**" means, for purposes of calculating a Project Participant's Revised Liability Share, the ratio of (i) such Project Participant's Initial Liability Share to (ii) the sum of the Initial Liability Shares of all of the Compliant Project Participants.

"**Prudent Operating Practice**" means (a) the applicable practices, methods and acts required by or consistent with applicable Laws and reliability criteria, and otherwise engaged in or approved by a significant portion of the electric industry during the relevant time period with respect to grid-interconnected, utility-scale energy storage facilities in the Western United States, and (b) any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Prudent Operating Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to acceptable practices, methods or acts generally accepted in the industry with respect to grid-interconnected, utility-scale energy storage facilities in the Western United States. Prudent Operating Practice shall include compliance with applicable Laws, applicable safety and reliability criteria, and the applicable criteria, rules and standards promulgated in the National Electric Safety Code and the National Electrical Code, as they may be amended or superseded from time to time, including the criteria, rules and standards of any successor organizations.

"**Qualifying Capacity**" has the meaning set forth in the CAISO Tariff.

"**RA Compliance Showing**" means the (a) System RAR compliance or advisory showings (or similar or successor showings) and (b) Flexible RAR compliance or advisory showings (or similar successor showings), in each case, an entity is required to make to the CAISO pursuant to the CAISO Tariff, to the CPUC (and, to the extent authorized by the CPUC, to the CAISO) pursuant to the Resource Adequacy Rulings, or to any Governmental Authority.

"**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 3.5(b).

"**RA Guarantee Date**" means the Commercial Operation Date, which is the date by which the Facility is expected to have achieved Partial Capacity Deliverability Status sufficient to fully deliver the Facility's Guaranteed Capacity.

"**RA Penalties**" means the RA penalties assessed against load serving entities by the CPUC for RA deficiencies that are not replaced or cured, as established by the CPUC in the Resource Adequacy Rulings and subsequently incorporated into the annual Filing Guide for System, Local and Flexible Resource Adequacy Compliance Filings that is issued by the CPUC Energy Division, or any replacement or successor documentation established by the CPUC Energy Division to reflect RA penalties that are established by the CPUC and assessed against load serving entities for RA deficiencies.

"**RA Shortfall Month**" means any Showing Month, commencing with the Showing Month that contains the RA Guarantee Date, during which either:

(a) the Facility has not achieved PCDS sufficient to fully deliver the Facility's Guaranteed Capacity; or

(b) the Net Qualifying Capacity of the Facility for such Showing Month was either (i) not published by or otherwise established with the CAISO by the Notification Deadline for such Showing Month, or (ii) was less than the then applicable Guaranteed Net Qualifying Capacity of the Facility for such Showing Month; or

(c) the Effective Flexible Capacity of the Facility for such Showing Month was either (i) not published by or otherwise established with the CAISO by the Notification Deadline for such Showing Month, or (ii) was less than the then applicable Guaranteed Flexible Capacity of the Facility for such Showing Month.

"**Real-Time Market**" has the meaning set forth in the CAISO Tariff.

"**Receiving Party**" has the meaning set forth in Section 18.2.

"**Reliability Network Upgrades**" has the meaning set forth in the CAISO Tariff.

"**Remedial Action Plan**" has the meaning in Section 2.4.

"**Replacement RA**" means Resource Adequacy Benefits, if any, (a) equivalent to those that would have been provided by the Facility with respect to the applicable month in which a RA

Deficiency Amount is due to Buyer, unless Buyer consents to accept Replacement RA from another facility, and (b) located within the CAISO Balancing Authority Area.

"**Requested Confidential Information**" has the meaning set forth in Section 18.2.

"**Resource Adequacy Benefits**" means the rights and privileges attached to the Facility that satisfy any entity's Resource Adequacy Requirements, as those obligations are set forth in any ruling issue by the CPUC, including the Resource Adequacy Rulings, or the CAISO Tariff, and shall include Flexible Capacity, and any local, zonal or otherwise locational attributes associated with the Facility.

"Resource Adequacy Capacity" or **"RA Capacity"** has the meaning set forth in the CAISO Tariff.

"**Resource Adequacy Requirements**" or "**RAR**" means the resource adequacy requirements applicable to an entity as established by the CAISO pursuant to the CAISO Tariff, by the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority.

"**Resource Adequacy Resource**" shall have the meaning used in Resource Adequacy Rulings.

"**Resource Adequacy Rulings**" means CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-025, 13-06-024, 14-06-050, 15-06-063, 16-06-045, 17-06-027, 18-06-030, 18-06-031, 19-02-022, 19-06-026, 19-10-021, 20-01-004, 20-03-016, 20-06-002, 20-06-031, 20-06-028, 20-12-006 and any other existing or subsequent ruling or decision, or any other resource adequacy laws, rules or regulations enacted, adopted or promulgated by the CPUC or the CAISO, however described, as such decisions, rulings, Laws, rules or regulations may be amended or modified from time-to-time throughout the Contract Term.

"**Revised Liability Share**" means the sum of a Project Participant's Initial Liability Share plus its Pro Rata portion of all Defaulted Liability Shares, not to exceed one hundred twenty-five percent (125%) of such Participant's Initial Liability Share.

"**S&P**" means the Standard & Poor's Financial Services, LLC (a subsidiary of S&P Global Inc.) or its successor.

"**SCADA Systems**" means the standard supervisory control and data acquisition systems to be installed by Seller as part of the Facility, including those system components that enable Seller to receive ADS and AGC instructions from the CAISO or similar instructions from Buyer's SC.

"**Schedule**" has the meaning set forth in the CAISO Tariff, and "**Scheduled**" and "**Scheduling**" have a corollary meaning.

"**Scheduled Energy**" means the Charging Energy or Discharging Energy, as applicable, that clears under the applicable CAISO market based on the final Day-Ahead Schedule, FMM

Schedule (as defined in the CAISO Tariff), and/or any other financially binding Schedule, market instruction or CAISO dispatch for the Facility for a given period of time implemented in accordance with the CAISO Tariff.

"**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.

"**Security Interest**" has the meaning set forth in Section 8.9.

"**Seller**" has the meaning set forth on the Cover Sheet.

"**Seller's Indemnified Parties**" has the meaning set forth in Section 16.1(b).

"**Seller Initiated Test**" has the meaning set forth in Section 4.4(c).

"**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). The Settlement Amount shall not include consequential, incidental, punitive, exemplary or indirect or business interruption damages for purposes of this Agreement, except to the extent that Seller's lost revenue under this Agreement resulting from a Buyer Default may be included in the determination of Losses.

"**Settlement Interval**" has the meaning set forth in the CAISO Tariff.

"**Settlement Period**" has the meaning set forth in the CAISO Tariff.

"**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 Discharging Energy to the Delivery Point, including the Interconnection Facilities and the Interconnection Agreement itself, if applicable, that are used in common with third parties or by Seller for electric generation or storage facilities owned by Seller other than the Facility.

"**Showing Month**" shall be a calendar month of the Delivery Term, commencing with the Showing Month that contains the RA Guarantee Date, that is the subject of a RA Compliance Showing, as set forth in the Resource Adequacy Rulings and outlined in the CAISO Tariff. For illustrative purposes only, pursuant to the CAISO Tariff and Resource Adequacy Rulings in effect as of the Effective Date, the monthly RA Compliance Showing made in June is for the Showing Month of August.

"**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 in the form of Exhibit J to Buyer; *provided*, that any such update to the Site that includes real property that was not originally contained within the Site boundaries described in Exhibit A shall be subject to Buyer's approval of such updates in its sole discretion. "Site" does not include any land rights or interests in the real property constituting the Site that relate to or are used by other projects constructed or owned by Seller or its Affiliates.

"**Site Control**" means that, for the Contract Term, Seller (or, prior to the Delivery Term, its Affiliate): (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.

"**State of Charge**" or "**SOC**" means the ratio of (a) the Storage Level of the Facility to (b) the Effective Capacity multiplied by eight (8) hours, expressed as a percentage.

"**Station Use**" means the Energy that is used within the Facility to power the lights, motors, temperature control systems, control systems and other electrical loads that are necessary for operation of the Facility (or as otherwise defined by the retail energy provider and CAISO Tariff) except during periods in which the Storage Facility is charging or discharging pursuant to a Charging Notice or Discharging Notice.

"**Step-Up Event**" means the forty-fifth (45th) day following the occurrence of a Project Participant Payment Default if such Project Participant Payment Default has not been cured by that date, regardless of whether or not notice was given to the Defaulted Project Participant under the Project Participation Share Agreement or otherwise or by Buyer hereunder.

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

"**Subsequent Purchaser**" means the purchaser or recipient of Product from Buyer in any conveyance, re-sale or remarketing of Product by Buyer.

"**Supplementary Capacity Test Protocol**" has the meaning set forth in Exhibit O.

"**Supply Plan**" has the meaning set forth in the CAISO Tariff.

"**System Emergency**" means any condition that requires, as determined and declared by CAISO or the Transmission Provider, 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) to preserve Transmission System reliability.

"**System RAR**" means the Resource Adequacy Requirements established for load-serving entities by the CAISO pursuant to the CAISO Tariff, the CPUC pursuant to the Resource Adequacy Rulings, or by any other Governmental Authority. "System RAR" may also be known as system area reliability, system resource adequacy, system resource adequacy procurement requirements, or system capacity requirement in other regulatory proceedings or legislative actions.

"**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.

"**Tax Credits**" means any (i) federal production tax credit, depreciation benefit, tax deduction and/or investment tax credit, including the ITC, specific to investments in renewable energy facilities and/or energy storage facilities and (ii) any refundable credit, grant, or other cash payment in lieu of an incentive described in clause (i).

"**Terminated Transaction**" has the meaning set forth in Section 11.2(a).

"**Termination Payment**" has the meaning set forth in Section 11.3(b).

"**Transmission Provider**" means any 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 for the purpose of transmitting or transporting the Discharging Energy from the Delivery Point.

"**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.

"**Transmission System Outage**" means an outage on the Transmission System, other than a System Emergency, that is not caused by Seller's actions or inactions and that prevents Buyer or the CAISO (as applicable) from receiving Facility Energy onto the Transmission System.

"**Ultimate Parent**" means Rev Renewables, LLC, a Delaware limited liability company.

"**Unplanned Outage**" means a period during which the Facility is not capable of providing service due to the need to maintain or repair a component thereof, which period is not a Planned Outage.

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 Article, 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 terms "include" and "including" mean "include or including (as applicable) 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;

(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 **<u>Contract Term</u>**.

(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, including Section 2.1(b) ("**<u>Contract Term</u>**"); *provided*, Buyer's obligations to pay for or accept any Product are subject to Seller's completion of the conditions precedent pursuant to Section 2.2.

(b) Notwithstanding anything to the contrary in this Agreement, if Project Participant Approval of this Agreement is not obtained within ninety (90) days following the Effective Date, then either Party may terminate this Agreement upon written Notice to the other Party. Upon such termination, neither Party shall have any liability to the other Party, save and except for those obligations specified in Section 2.1(c), and Buyer shall promptly return to Seller any Development Security then held by Buyer, if any, less any amounts drawn in accordance with this Agreement.

(c) 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 18 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 three (3) years following the termination of this Agreement.

2.2 **Commercial Operation; Conditions Precedent**. Seller shall provide Notice to Buyer of the expected Commercial Operation Date at least sixty (60) days in advance of such date. Seller shall provide Notice to Buyer when Seller believes it has provided the required documentation to Buyer and met all the conditions precedent set forth below for achieving Commercial Operation. Following Buyer's receipt of such Notice, Buyer shall have five (5) Business Days to approve or reject Seller's request for confirmation of Commercial Operation, which, if confirmed, shall be deemed to have occurred as of the date of such Notice. Upon Buyer's approval of Seller's achievement of Commercial Operation, Buyer shall provide Seller with written acknowledgement of the Commercial Operation Date.

(a) Seller shall have delivered to Buyer (i) a completion certificate from a Licensed Professional Engineer substantially in the form of Exhibit H and (ii) a certificate from a Licensed Professional Engineer substantially in the form of Exhibit I setting forth the Installed Capacity and Efficiency Rate on the Commercial Operation Date;

(b) Seller has executed an Interconnection Agreement with the Transmission Provider, which shall be in full force and effect and a copy of the Interconnection Agreement delivered to Buyer;

(c) Seller has provided Buyer with a copy of written notice from CAISO that the Facility has achieved Partial Capacity Deliverability Status sufficient to fully deliver the Facility's Guaranteed Capacity, if applicable;

(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) Seller has obtained CAISO Certification for the Facility;The Facility has successfully completed all testing required by Prudent Operating Practice or any requirement of Law to operate the Facility;

(f) All applicable regulatory authorizations, approvals and permits for the operation of the Facility have been obtained and all conditions thereof that are capable of being satisfied on the Commercial Operation Date have been satisfied and shall be in full force and effect;

(g) Seller has Site Control;

(h) Seller has delivered the Performance Security to Buyer in accordance with Section 8.8;

(i) Insurance requirements for the Facility have been met, with evidence provided in writing to Buyer, in accordance with Section 17.1; and

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

2.3 **Development; Construction; Progress Reports**. 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 agrees 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 E. Seller shall also provide Buyer with any reasonably requested documentation (subject to confidentiality restrictions) directly related to the achievement of Milestones within ten (10) Business Days of receipt of such request by Seller. Seller is solely responsible for the design and construction of the Facility, including the location of the Site, the Facility layout, and the selection and procurement of the equipment comprising the Facility.

2.4 **Remedial Action Plan**. If Seller misses a Milestone by more than thirty (30) days, except as the result of Force Majeure Event or Buyer Default, Seller shall submit to Buyer, within ten (10) Business Days of the end of such thirty (30)-day period following the Milestone completion date, 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), 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*, 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, so long as Seller complies with its obligations under this Section 2.4, Seller shall not be considered in default of its obligations under this Agreement solely as a result of missing any Milestone; *provided*, in the event Seller misses any Milestone and Seller provides Notice to Buyer that it is not likely to be able to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date as may be extended pursuant to Exhibit B, Buyer shall have the right to terminate this Agreement and retain the Development Security as liquidated damages and as its exclusive remedy, and neither Party shall have any further liability under this Agreement arising after the date of termination. Such termination right must be exercised, if at all, within ten (10) Business Days after Buyer's receipt of Seller's Notice that it is not likely to be able to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date (as may be extended pursuant to Exhibit B).

2.5 **Pre-Commercial Operation Actions**. The Parties agree that, in order for Buyer to dispatch the Facility for its Commercial Operation Date, the Parties will have to perform certain of their Delivery Term obligations in advance of the Commercial Operation Date, including, without limitation, Seller's delivery of an Availability Notice for the Commercial Operation Date, and delivery of a Dispatch Notice and nominating and scheduling the Facility for the Commercial Operation Date, in advance of the Commercial Operation Date. The Parties shall cooperate with each other in order for Buyer to be able to dispatch the Facility for the Commercial Operation Date. In addition, Seller shall have the right to operate the Facility [redacted] prior to the Commercial Operation Date, so long as such operation does not interfere with Seller's ability to perform its obligations under this Agreement from and after the Commercial Operation Date.

ARTICLE 3
PURCHASE AND SALE

3.1 **Product**. Subject to the terms and conditions of this Agreement, during the Delivery Term, Buyer shall have the exclusive right to the Installed Capacity and Effective Capacity, as applicable, and all Product associated therewith. Seller has all rights to the Installed Capacity and Effective Capacity, as applicable, and all Product associated therewith [redacted] and after the Delivery Term. Seller shall operate the Facility and make available, charge and discharge, deliver, and sell the Product therefrom to Buyer when and as the Facility is available, subject to the terms and conditions of this Agreement, including the Operating Restrictions. Seller represents and warrants that it will deliver the Product to Buyer free and clear of all liens, security interests, claims and encumbrances. Seller shall not substitute or purchase any energy storage capacity, Energy, Ancillary Services or Capacity Attributes from any other energy storage resource or the market for delivery hereunder except as otherwise provided herein, nor shall Seller sell, assign or otherwise transfer any Product, or any portion thereof, to any third party other than to Buyer or the CAISO pursuant to this Agreement.

3.2 **Discharging Energy**. Subject to the terms and conditions of this Agreement, Seller commits to make available the Discharging Energy to Buyer during the Delivery Term, and Buyer shall have the exclusive rights to all such Discharging Energy, subject to the Operating Restrictions. Title to and risk of loss related to the Discharging Energy shall pass and transfer from Seller to Buyer at the Delivery Point.

3.3 **Capacity Attributes**. Seller shall request Partial Capacity Deliverability Status sufficient to fully deliver the Facility's Guaranteed Capacity 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 Partial Capacity Deliverability Status.

(a) Throughout the Delivery Term, Seller grants, pledges, assigns and otherwise commits to Buyer all the Capacity Attributes from the Facility.

(b) Throughout the Delivery Term, Seller shall maintain Partial Capacity Deliverability Status sufficient to fully deliver the Facility's Guaranteed Capacity for the Facility from the CAISO and shall perform all actions necessary to ensure that the Facility qualifies to provide Resource Adequacy Benefits, including Flexible Capacity, to Buyer. Throughout the Delivery Term, Seller hereby covenants and agrees to transfer all Resource Adequacy Benefits from the Facility to Buyer.

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

3.4 **Ancillary Services; Environmental Attributes**.

(a) Ancillary Services. Buyer shall have the exclusive rights to all Ancillary Services that the Facility is capable of providing during the Delivery Term consistent with the Operating Restrictions, with characteristics and quantities determined in accordance with the CAISO Tariff. Seller shall operate and maintain the Facility throughout the Contract Term so as to be able to provide such Ancillary Services in accordance with the specifications set forth in the Facility's initial CAISO Certification associated with the Installed Capacity. Upon Buyer's reasonable request, Seller shall submit the Facility for additional CAISO Certification so that the Facility may provide additional Ancillary Services that the Facility is, at the relevant time, actually physically capable of providing consistent with the definition of Ancillary Services herein and without modification of the Facility, provided that Buyer has agreed to reimburse Seller for any costs Seller incurs in connection with conducting such additional CAISO Certification.

(b) Environmental Attributes. Buyer shall have the exclusive rights during the Delivery Term to any Environmental Attributes existing on the Effective Date or that may come into existence during the Contract Term. Buyer shall bear all costs and risks associated with the transfer, qualification, verification, registration and ongoing compliance for such Environmental Attributes. Upon Seller's receipt of Notice from Buyer of Buyer's intent to claim such Environmental Attributes, the Parties shall determine the necessary actions and additional costs associated with such Environmental Attributes. Seller shall have no obligation to bear any costs, losses or liability, or alter the Facility, unless the Parties in their discretion have agreed on all necessary terms and conditions relating to such alteration and Buyer has agreed to reimburse Seller for all costs, losses, and liabilities associated with such alteration.

3.5 **Resource Adequacy Failure**.

(a) RA Deficiency Determination. For each RA Shortfall Month, Seller shall pay to Buyer as liquidated damages the RA Deficiency Amount, as set forth in Section 3.5(b), and/or provide Replacement RA, as set forth in Section 3.5(c), as the exclusive remedy 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 the product of:

(i) The greater of:

(A) the difference, expressed in kW, of the then applicable Guaranteed Net Qualifying Capacity of the Facility, minus the then applicable Net Qualifying Capacity of the Facility that may be included in Supply Plans by Buyer, which shall be deemed to be zero (0) MW if the Net Qualifying Capacity has not been published by or otherwise established with the CAISO by the Notification Deadline for such RA Shortfall Month, plus any Replacement RA that was able to be included in Supply Plans for the Showing Month by Buyer; and

(B) the difference, expressed in kW, of the then applicable Guaranteed Effective Capacity of the Facility, minus the then applicable Effective Flexible Capacity of the Facility that may be included in Supply Plans by Buyer, which shall be deemed to be zero (0) MW if the Effective Flexible Capacity has not been published by or otherwise established with the CAISO by the Notification Deadline for such RA Shortfall Month, plus any Effective Flexible Capacity that was provided as Replacement RA that was able to be included in Supply Plans in the Showing Month by Buyer;

(ii) [redacted]

(c) If Seller anticipates that it will have an RA Shortfall Month, Seller may, provide Replacement RA in the amount of (i) the Guaranteed Net Qualifying Capacity and/or Guaranteed Flexible Capacity, as applicable, of the Facility with respect to such Showing Month, minus (ii) the expected Net Qualifying Capacity and/or Effective Flexible Capacity, as applicable, of the Facility with respect to such Showing Month; *provided*, that any Replacement RA is communicated by Seller to Buyer in a Notice substantially in the form of Exhibit M at least sixty (60) days before the RA Shortfall Month.

3.6 **Buyer's Re-Sale of Product**. Buyer shall have the exclusive right in its sole discretion to convey, use, market, or sell the Product, or any part of the Product, to any Subsequent Purchaser; and Buyer shall have the right to all revenues generated from the conveyance, use, re-sale or remarketing of the Product, or any part of the Product. If the CAISO or CPUC develops a centralized capacity market, Buyer shall have the exclusive right to offer, bid, or otherwise submit the Capacity Attributes for re-sale into such market, and Buyer shall retain and receive all revenues from such re-sale. Seller shall take all commercially reasonable actions and execute all documents or instruments reasonably necessary to allow Subsequent Purchasers to use such resold Product, but without increasing Seller's obligations or liabilities under this Agreement. If Buyer incurs any liability to a Subsequent Purchaser due to the failure of Seller to comply with this Section 3.6, Seller shall be liable to Buyer for the amounts Seller would have owed Buyer under this Agreement if Buyer had not resold the Product.

ARTICLE 4
OBLIGATIONS AND DELIVERIES

4.1 **Delivery**.

(a) Subject to the provisions of this Agreement, including Section 4.9(a), commencing on the Commercial Operation Date through the end of the Contract Term, Seller shall supply and deliver the Product to Buyer at the Delivery Point, and Buyer shall take delivery of the Product at the Delivery Point in accordance with the terms of this Agreement. Seller shall be responsible for paying or satisfying when due any costs or charges imposed in connection with the delivery of Discharging Energy to the Delivery Point, including any operation and maintenance charges imposed by the Transmission Provider directly relating to the Facility's operations. Buyer shall be responsible for all costs, charges and penalties, if any, imposed in connection with the delivery of Discharging Energy at and after the Delivery Point, including without limitation transmission costs and transmission line losses and imbalance charges. Commencing as of the Commercial Operation Date, the Charging Energy and Discharging Energy will be scheduled to the CAISO by Buyer in accordance with Exhibit D.

(b) Seller shall be permitted to reduce deliveries of applicable Products during periods of Planned Outages, Unplanned Outages, Force Majeure Events and Curtailment Orders and as necessary to maintain health and safety pursuant to Section 6.2.

4.2 **Interconnection**. Seller shall be responsible for all costs of interconnecting the Facility to the Interconnection Point. During the Delivery Term, Seller shall maintain the Dedicated Interconnection Capacity for the Facility's sole use.

4.3 **Performance Guarantees**.

(a) During the Delivery Term, the Facility shall maintain a Monthly Capacity Availability during each month of no less than [redacted] (the "**Guaranteed Availability**"), which Monthly Capacity Availability shall be calculated in accordance with Exhibit P.

(b) During the Delivery Term, the Facility shall maintain an Efficiency Rate of no less than Guaranteed Efficiency Rate, which Efficiency Rate shall be calculated in accordance with Exhibit O. The Guaranteed Availability and Guaranteed Efficiency Rate are collectively the "**Performance Guarantees**".

(c) Buyer's sole remedies for Seller's failure to achieve the Performance Guarantees are: (i) for the Guaranteed Availability, (1) the Availability Adjustment to the Monthly Capacity Payment, as set forth in Exhibit C, and (2) the Seller Event of Default as set forth in Section 11.1(b)(iii) and the applicable remedies set forth in Article 11; and (ii) for the Guaranteed Efficiency Rate, the Efficiency Rate Adjustment to the Monthly Capacity Payment, as set forth in Exhibit C.

4.4 **Facility Testing**.

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

(i) Buyer shall have the right to send one or more representative(s) to witness all Capacity Tests.

(ii) Following each Capacity Test, Seller shall submit a testing report in accordance with Exhibit O. If the actual capacity or efficiency rate determined pursuant to a Capacity Test varies from the then-current Effective Capacity and/or Efficiency Rate, as applicable, then the actual capacity and/or efficiency rate determined pursuant to such Capacity Test shall become the new Effective Capacity and/or Efficiency Rate, at the beginning of the day following the completion of the test for all purposes under this Agreement.

(b) Additional Testing. Seller shall conduct such additional testing as necessary to ensure the Facility is functioning properly and the Facility is able to respond to Dispatch Notices pursuant to Section 4.6(b).

(c) Any testing of the Facility requested by Buyer after the Commercial Operation Capacity Tests, and all required annual tests pursuant to Section B of the section headed "Capacity Test Notice and Frequency" in Exhibit O, shall be deemed Buyer-instructed dispatches of the Facility ("**Buyer Dispatched Test**"). Any test of the Facility that is not a Buyer Dispatched Test, including all tests conducted prior to Commercial Operation, any Commercial Operation Capacity Test, any Capacity Test conducted if the Effective Capacity immediately prior to such Capacity Test is below [redacted], any test required by CAISO (including any test required to obtain or maintain CAISO Certification), and other Seller-requested discretionary tests or dispatches, at times and for durations reasonably agreed to by Buyer, that Seller deems necessary for purposes of reliably operating or maintaining the Facility or for re-performing a required test within a reasonable number of days of the initial required test (considering the circumstances that led to the need for a retest) shall be deemed a "**Seller Initiated Test**".

(i) For any Seller Initiated Test other than a Capacity Test required by Exhibit O for which there is a stated notice requirement, Seller shall notify Buyer no later than twenty-four (24) hours prior thereto (or any shorter period reasonably acceptable to Buyer consistent with Prudent Operating Practices).

(ii) No Dispatch Notices shall be issued during any Seller Initiated Test. Dispatch Notices may be issued during a Buyer Dispatched Test as reasonably necessary to implement the applicable test. The Facility shall be deemed unavailable during any Seller Initiated Test. Any Buyer Dispatched Test shall be deemed an Excused Event for the purposes of calculating the Monthly Capacity Availability.

4.5 **Testing Costs and Revenues**.

(a) Buyer shall be responsible for paying for all Charging Energy and shall be entitled to all CAISO revenues associated with a Buyer Dispatched Test. Seller shall be responsible for paying for all Energy to charge the Facility and shall be entitled to all CAISO revenues associated with a Seller Initiated Test. Buyer shall pay to Seller, in the month following Buyer's receipt of such CAISO revenues and otherwise in accordance with Exhibit C, all applicable CAISO revenues received by Buyer and associated with the discharge Energy associated with such Seller Initiated Test.

(b) Buyer shall be responsible for all costs, expenses and fees payable or reimbursable to its representative(s) witnessing any Facility test.

(c) Except as set forth in Sections 4.5(a) and (b), all other costs of any testing of the Facility shall be borne by Seller.

4.6 **Facility Operations**.

(a) Seller shall operate the Facility in accordance with Prudent Operating Practices.

(b) During the Delivery Term, Seller shall maintain SCADA Systems, communications links, and other equipment necessary to receive automated Dispatch Notices consistent with CAISO protocols and practice ("**Automated Dispatches**"). In the event of the failure or inability of the Facility to receive Automated Dispatches, Seller shall use all commercially reasonable efforts to repair or replace the applicable components as soon as reasonably possible, and if there is any material delay in such repair or replacement, Seller shall provide Buyer with a written plan of all actions Seller plans to take to repair or replace such components for Buyer's review and comment. During any period during which the Facility is not capable of receiving or implementing Automated Dispatches, Seller shall implement back-up procedures consistent with the CAISO Tariff and CAISO protocols to enable Seller to receive and implement non-automated Dispatch Notices ("**Alternative Dispatches**").

(c) Seller shall maintain a daily operations log for the Facility which shall include but not be limited to information on Energy charging and discharging, electricity consumption and efficiency (if applicable), availability, outages, changes in operating status, inspections and any other significant events related to the operation of the Facility. Information maintained pursuant to this Section 4.6(c) shall be provided to Buyer within fifteen (15) days of Buyer's request.

(d) Seller shall maintain accurate records with respect to all Capacity Tests.

(e) Seller shall maintain and make available to Buyer records, including logbooks, demonstrating that the Facility is operated in accordance with Prudent Operating Practices. Seller shall comply with all reporting requirements and permit on-site audits, investigations, tests and inspections permitted or required under any Prudent Operating Practices.

4.7 **Dispatch Notices**. Buyer shall have the right to dispatch the Facility seven (7) days per week and twenty-four (24) hours per day (including holidays), by providing Dispatch Notices, subject to the requirements and limitations set forth in this Agreement, including the Operating Restrictions. Subject to the Operating Restrictions, each Dispatch Notice shall be effective unless and until such Dispatch Notice is modified by the CAISO, Buyer or Buyer's SC. If Automated Dispatches are not possible for reasons beyond Buyer's control, Alternative Dispatches may be provided pursuant to Section 4.6(b).

4.8 **Facility Unavailability to Receive Dispatch Notices.** To the extent the Facility is unable to receive or respond to Dispatch Notices either through Automated Dispatches or Alternative Dispatches during any Settlement Interval or Settlement Period, then as an exclusive remedy, the time period corresponding to such Settlement Interval or Settlement Period shall be deemed unavailable for purposes of calculating the Monthly Capacity Availability.

4.9 **Energy Management**.

(a) Charging Generally. Upon receipt of a valid Charging Notice, Seller shall take all action necessary to deliver the Charging Energy to the Facility from the Delivery Point. Seller shall maintain, repair or replace equipment in Seller's possession or control used to deliver the Charging Energy from the Delivery Point to the Facility. Except as otherwise expressly set forth in this Agreement, Buyer shall be responsible for paying all costs and charges of delivering the Charging Energy to the Delivery Point, including all CAISO costs and charges associated with Charging Energy.

(b) Charging Notices. Buyer shall have the right to charge the Facility seven (7) days per week and twenty-four (24) hours per day (including holidays) during the Delivery Term, by causing Charging Notices to be issued, subject to the requirements and limitations set forth in this Agreement, including the Operating Restrictions. Each Charging Notice issued in accordance with this Agreement shall be effective unless and until Buyer's SC or CAISO modifies such Charging Notice by providing Seller with an updated Charging Notice. Buyer shall be responsible for issuing all Charging Notices necessary or required in connection with the Must Offer Obligations.

(c) No Unauthorized Charging. Seller shall not charge the Facility during the Delivery Term other than pursuant to a valid Charging Notice (it being understood that Seller may adjust a Charging Notice to the extent necessary to maintain compliance with the Operating Restrictions), or in connection with a Seller Initiated Test (including Facility maintenance or a Capacity Test), or pursuant to a notice from the Transmission Provider or Governmental Authority. If, during the Delivery Term, Seller charges the Facility (i) to a Storage Level greater than the Storage Level provided for in a Charging Notice, or (ii) in violation of the first sentence of this Section 4.9(c), then (i) Seller shall pay to Buyer all Energy costs associated with such charging of the Facility, and (ii) Buyer shall be entitled to discharge such Energy and shall be entitled to all of the benefits (including Product) associated with such discharge.

(d) Discharging Notices. Buyer shall have the right to discharge the Facility seven (7) days per week and twenty-four (24) hours per day (including holidays) during the Delivery Term, by causing Discharging Notices to be issued. Each Discharging Notice issued in accordance with this Agreement shall be effective unless and until Buyer's SC or the CAISO modifies such Discharging Notice by providing the Facility with an updated Discharging Notice. Buyer shall be responsible for issuing all Discharging Notices necessary or required in connection with the Must Offer Obligations and all CAISO charges and penalties for failing to comply with the Must Offer Obligation.

(e) No Unauthorized Discharging. Seller shall not discharge the Facility during the Delivery Term other than pursuant to a valid Discharging Notice (it being understood that Seller may adjust a Discharging Notice to the extent necessary to maintain compliance with the Operating Restrictions), or in connection with a Seller Initiated Test (including Facility maintenance or a Storage Capacity Test), or pursuant to a notice from the Transmission Provider or Governmental Authority.

(f) Unauthorized Charges and Discharges. If Seller or any third party charges, discharges or otherwise uses the Facility other than as permitted hereunder, or as is expressly addressed in this Section 4.9, it shall be a breach by Seller and Seller shall hold Buyer harmless from, and indemnify Buyer against, all actual costs or losses associated therewith, and be responsible to Buyer for any damages arising therefrom, and, if Seller fails to implement procedures reasonably acceptable to Buyer to prevent any further occurrences of the same, then the failure to implement such procedures shall be an Event of Default under Article 11.

(g) CAISO Dispatches. During the Delivery Term, CAISO Dispatches shall have priority over any Charging Notice or Discharging Notice issued by Buyer's SC, and Seller shall have no liability for violation of this Section 4.9 or any Charging Notice or Discharging Notice if and to the extent such violation is caused by Seller's compliance with any CAISO Dispatch. During any time interval during the Delivery Term in which the Facility is capable of responding to a CAISO Dispatch, but the Facility deviates from a CAISO Dispatch or Seller negligently or intentionally fails to accurately communicate to Buyer the Facility's availability, Seller shall be responsible for all CAISO charges and penalties resulting from such deviations (in addition to any Buyer remedy related to overcharging of the Facility as set forth in Section 4.9(c)).

(h) Pre-Commercial Operation Date Period, etc. Prior to the Commercial Operation Date, Buyer shall have no rights to issue or cause to be issued Charging Notices or Discharging Notices, and Seller shall have exclusive rights to charge and discharge the Facility.

(i) Curtailments. Notwithstanding anything in this Agreement to the contrary, during any Settlement Interval, Curtailment Orders applicable to such Settlement Interval shall have priority over any Dispatch Notices applicable to such Settlement Interval, and Seller shall have no liability for violation of this Agreement or any Dispatch Notice if and to the extent such violation is caused by Seller's compliance with any Curtailment Order or other instruction or direction from a Governmental Authority or the Transmission Provider. Buyer shall have the right, but not the obligation, to provide Seller with updated Dispatch Notices during any Curtailment Order consistent with the Operating Restrictions.

(j) Station Use. Notwithstanding anything to the contrary in this Agreement, the Parties acknowledge (i) Seller is responsible for providing all Energy to serve Station Use(including paying the cost of any Energy used to serve Station Use during periods in which the Storage Facility is not charging or discharging pursuant to a Charging Notice or Discharging Notice), (ii) Energy supplied from Charging Energy or Discharging Energy during periods in which the Storage Facility is charging or discharging pursuant to a Charging Notice or Discharging Notice shall not be considered Station Use, (iii) Station Use may be supplied over the same circuit as Charging Energy and Discharging Energy, and (iv) Seller shall indemnify and hold harmless Buyer from any and all costs, penalties or charges for Energy supplied for Station Use by any means other than retail service from the applicable utility, and shall take any additional measures to ensure Station Use (other than that supplied from Charging Energy or Discharging Energy as provided in clause (ii) or over the same circuit as Charging Energy and Discharging Energy as provided in clause (iii)) is supplied by the applicable utility's retail service if necessary to avoid any such costs, penalties or charges.

4.10 **Capacity Availability Notice**.

(a) No less than thirty (30) days before the beginning of Commercial Operation, and thereafter ten (10) Business Days before the beginning of each month during the Delivery Term, Seller shall provide to Buyer and the SC (if applicable) a non-binding forecast of the hourly expected Available Capacity for each day of the following month in a form substantially similar to Exhibit F ("**Monthly Forecast**").

(b) During the Delivery Term, no later than two (2) Business Days before each schedule day for the Day-Ahead Market in accordance with CAISO scheduling practices, Seller shall provide Buyer and the SC (if applicable) with an hourly schedule of the Available Capacity that the Facility is expected to have for each hour of such schedule day (the "**Availability Notice**"). Seller shall provide Availability Notices (including updated Availability Notices) using the form attached in Exhibit G, or other form as reasonably requested by Buyer, by (in order of preference) electronic mail or telephonically to Buyer personnel or its Scheduling Coordinator designated to receive such communications.

(c) Seller shall notify Buyer and the SC (if applicable) immediately with an updated Monthly Forecast and Availability Notice, as applicable, if the Available Capacity of the Facility changes or is expected to change after Buyer's receipt of a Monthly Forecast or Availability Notice. Seller shall accommodate Buyer's reasonable requests for changes in the time of delivery of Availability Notices.

4.11 **[Reserved]**.

4.12 **Outages**

(a) **Planned Outages**.

(i) No later than January 15, April 15, July 15 and October 15 of each Contract Year, and at least sixty (60) days prior to the Commercial Operation Date, Seller shall submit to Buyer Seller's schedule of proposed Planned Outages ("**Outage Schedule**") for the following twelve (12)-month period in a form reasonably agreed to by Buyer. Within twenty (20) Business Days after its receipt of an Outage Schedule, Buyer shall give Notice to Seller of any reasonable request for changes to the Outage Schedule, and Seller shall, consistent with Prudent Operating Practices, accommodate Buyer's requests regarding the timing of any Planned Outage. Seller shall deliver to Buyer the final Outage Schedule no later than ten (10) days after receiving Buyer's comments. Seller shall be permitted to reduce deliveries of applicable Products during any period of such Planned Outages.

(ii) If reasonably required in accordance with Prudent Operating Practices, Seller shall have the right, on no less than ninety (90) days advance Notice to Buyer, to propose changes to the Outage Schedule developed pursuant to Section 4.12(a)(i). Buyer may provide comments no later than ten (10) days after receiving Seller's Notice of proposed changes to the Outage Schedule and shall permit any changes if doing so would not have a material adverse impact on Buyer and Seller agrees to reimburse Buyer for any costs or charges associated with such changes.

(b) **No Planned Outages During Summer Months**. Except as scheduled by the Parties under Section 4.12(a), during the months of June through September, Seller shall not schedule any non-emergency maintenance that reduces the energy storage capability of the Facility by more than the lesser [redacted] 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 of the months of June through September, (iii) such outage is required in accordance with Prudent Operating Practices, or (iv) the Parties agree otherwise in writing. In the event that Seller has a previously Planned Outage that becomes coincident with a System Emergency, Seller shall make all reasonable efforts to reschedule such Planned Outage.

(c) **Planned Outage Timing**. To the extent commercially reasonable, Seller shall 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.

(d) **Notice of Unplanned Outages** Seller shall notify Buyer by telephoning Buyer's Scheduling Coordinator no later than thirty (30) minutes following the occurrence of an Unplanned Outage, or if Seller has knowledge that an Unplanned Outage will occur, within thirty (30) minutes of determining that such Unplanned Outage will occur. Seller shall relay outage information to Buyer as required by the CAISO Tariff. Seller shall communicate to Buyer the estimated time of return of the Facility as soon as practical after Seller has knowledge thereof.

(e) **Inspection**. In the event of an Unplanned Outage, Buyer shall have the option to inspect the Facility and all records relating thereto on any Business Day and at a reasonable time and Seller shall reasonably cooperate with Buyer during any such inspection. Buyer shall comply with Seller's safety and security rules and instructions during any inspection and shall not interfere with work on or operation of the Facility.

(f) **Reports of Outages**. Seller shall promptly prepare and provide to Buyer, all reports of Unplanned Outages or Planned Outages that Buyer may reasonably require for the purpose of enabling Buyer to comply with CAISO requirements or any applicable Laws. Seller shall also report all Unplanned Outages or Planned Outages in the Daily Operating Report.

ARTICLE 5
TAXES, GOVERNMENTAL AND ENVIRONMENTAL COSTS

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 its delivery to Buyer at the time and place contemplated under this Agreement (other than withholding or other Taxes imposed on Buyer's income, revenue, receipts or employees). 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 after its delivery to Buyer at the time and place contemplated under this Agreement (other than withholding or other Taxes imposed on Seller's income, revenue, receipts or employees) or on Charging Energy prior to its delivery to Seller. 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 Product hereunder is exempt from or not subject to any particular Tax, Buyer shall provide Seller with all necessary documentation to evidence such exemption or exclusion within thirty (30) days after the date Buyer makes such claim. Buyer shall indemnify, defend, and hold Seller harmless from any liability with respect to Taxes for which Buyer is responsible hereunder and 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*, 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 Product delivered by Seller to Buyer hereunder shall be a sale made at wholesale, with Buyer reselling such Product.

5.3 **Environmental Costs**. Seller shall be solely responsible for:

(a) All Environmental Costs;

(b) All taxes, charges or fees imposed on the Facility or Seller by a Governmental Authority for Greenhouse Gas emitted by or attributable to the Facility during the Delivery Term, but expressly excluding any taxes, charges or fees related to Greenhouse Gases imposed on Charging Energy or Discharging Energy;

(c) Seller's obligations listed under "Compliance Obligation" in the GHG Regulations, and

(d) All other costs associated with the implementation and regulation of Greenhouse Gas emissions (whether in accordance with the California Global Warming Solutions Act of 2006, Assembly Bill 32 (2006) and the regulations promulgated thereunder, including the GHG Regulations, or any other federal, state or local legislation to offset or reduce any Greenhouse Gas emissions implemented and regulated by a Governmental Authority) with respect to the Facility and/or Seller.

ARTICLE 6
MAINTENANCE AND REPAIR OF THE FACILITY

6.1 **Maintenance of the Facility**.

(a) Seller shall construct, operate, and maintain the Facility so that Buyer may dispatch the Facility within the operating parameters of the Operating Restrictions. Nothing herein shall limit Seller's right replace or augment existing batteries and other equipment to maintain the capacity of the Facility.

(b) Seller shall, as between Seller and Buyer, be solely responsible for the operation, inspection, maintenance and repair of the Facility, and any portion thereof, in accordance with applicable Law and Prudent Operating Practices. Seller shall maintain and deliver maintenance and repair records of the Facility to Buyer's scheduling representative upon request.

(c) Seller shall promptly make all necessary repairs to the Facility, and any portion thereof, and take all actions necessary in order to provide the Product to Buyer in accordance with the terms of this Agreement (and, at a minimum, the Performance Guarantees).

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 in Exhibit N Notice of such condition. Such action may include disconnecting and removing all or a portion of the Facility or suspending the supply of Discharging Energy to the Delivery Point.

6.3 **Shared Facilities**. The Parties acknowledge and agree that certain of the Shared Facilities and Interconnection Facilities, and Seller's rights and obligations under the Interconnection Agreement, may be subject to certain shared facilities and/or co-tenancy agreements to be entered into among Seller, the Transmission Provider, Seller's Affiliates, and/or third parties. Seller agrees that any agreements regarding Shared Facilities (i) shall permit Seller to perform or satisfy, and shall not purport to limit, Seller's obligations hereunder, (ii) shall provide for separate metering of the Facility; (iii) shall not limit Buyer's ability to charge or discharge the Facility up to the Dedicated Interconnection Capacity; (iv) shall provide that any other generating or energy storage facilities not included in the Facility but using Shared Facilities shall not be included within the Facility's CAISO Resource ID; and (iv) shall provide that any curtailment or restriction of Shared Facility capacity not attributable to a specific project or projects shall be allocated to all generating or storage facilities utilizing the Shared Facilities based on their pro rata allocation of the Shared Facility capacity prior to such curtailment or reduction. Seller shall not, and shall not permit any Affiliate to, allocate to other Persons a share of the total interconnection capacity under the Interconnection Agreements in excess of an amount equal to the total interconnection capacity under the Interconnection Agreements minus the Dedicated Interconnection Capacity.

ARTICLE 7
METERING

7.1 **Metering**. Seller shall measure the amount of Charging Energy and Discharging Energy using the Facility Meter, which shall be subject to adjustment in accordance with applicable CAISO meter requirements and Prudent Operating Practices, including to account for Electrical Losses. Seller shall separately meter all Station Use except to the extent drawn from Charging Energy or Discharging Energy. The Facility Meter shall be operated pursuant to applicable CAISO-approved calculation methodologies and maintained at Seller's cost. Each meter shall be kept under seal, such seals to be broken only when the Facility Meters are to be tested, adjusted, modified or relocated. In the event Seller breaks a seal, Seller shall notify Buyer as soon as practicable. In addition, Seller hereby agrees to provide all Facility 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 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.

7.2 **Meter Verification**. If Seller or Buyer have reason to believe there may be a Facility Meter malfunction, Seller shall test the Facility 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 Facility 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 Facility Meter inaccuracy commenced (if such evidence exists, then such date will be used to adjust prior invoices), then the invoices covering the period of time since the last Facility Meter test shall be adjusted for the amount of the inaccuracy on the assumption that the inaccuracy persisted during one-half of such period if such adjustments are accepted by CAISO; *provided*, such period may not exceed twelve (12) months.

ARTICLE 8
INVOICING AND PAYMENT; CREDIT

8.1 **Invoicing**. Seller shall use commercially reasonable efforts to deliver an invoice to Buyer for Product no later than the tenth (10^{th}) day of each month for the previous calendar month. Each invoice shall reflect (a) records of metered data, including, to the extent the available, (i) CAISO metering and transaction data reflecting the amount of Product delivered by the Facility for any Settlement Period during the preceding month, including the amount of Charging Energy and the amount of Discharging Energy, in each case as read by the Facility Meter, and the amount of Replacement RA delivered to Buyer (if any) and (ii) Seller's records of metered data, including data showing a calculation of the Monthly Capacity Payment and other relevant data for the prior month; and (b) be in a format reasonably specified by Buyer, covering the Product provided in the preceding month determined in accordance with the applicable provisions of this Agreement. Beginning on the Commercial Operation Date, Buyer shall, and shall cause its Scheduling Coordinator to, provide Seller with all reasonable access (including, in real time, to the maximum extent reasonably possible) to any records, including invoices or settlement data from the CAISO, forecast data and other information, all as may be necessary from time to time for Seller to prepare and verify the accuracy of all invoices; *provided*, however, that the Parties acknowledge and agree that CAISO metering and transaction data showing the amount of Product delivered by the Facility for any Settlement Period during the prior month may not be available or be final at the time each monthly invoice is delivered pursuant to this Section 8.1 and that the monthly invoice will be based on such data as are available at the time. When CAISO metering and transaction data showing the amount of Product delivered by the Facility for any Settlement Period during the applicable month, including the amount of Charging Energy and the amount of Discharging Energy, in each case as read by the Facility Meter, and the amount of Replacement RA delivered to Buyer (if any) becomes available, Seller will true up such invoices to reflect any differences between Seller's records and the data received from CAISO, and an appropriate credit or charge will be added to the next monthly invoice.

8.2 **Payment**. Buyer shall make payment to Seller of Monthly Capacity Payments for Product (and any other amounts due) by wire transfer or ACH payment to the bank account provided on each monthly invoice. Buyer shall pay undisputed invoice amounts within (30) days of Buyer's receipt of Seller's invoices; *provided*, 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. Upon fifteen (15) days' Notice to the other Party, either 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. Seller acknowledges that in accordance with California Government Code Section 8546.7, Seller may be subject to audit by the California State Auditor with regard to Seller's performance of this Agreement because the compensation under this Agreement exceeds $10,000.

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 or 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 Facility 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.

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 via adjustments in accordance with Section 8.4. 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 third party not affiliated with any Party and such third party corrects its information after the twelve-month period. If an invoice is not rendered within twelve (12) months after the close of the month during which performance occurred, the right to payment for such performance is waived.

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 or otherwise arising out of this Agreement, including any related damages calculated pursuant to Exhibits B and P, 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 its obligations under this Agreement, Seller shall deliver the Development Security to Buyer within thirty (30) days after receipt of Project Participant Approval. Seller shall maintain the Development Security in full force and effect. Within five (5) Business Days following any draw by Buyer on the Development Security, Seller shall replenish the amount drawn such that the Development Security is restored to the applicable amount. Upon the earlier of (a) Seller's delivery of the Performance Security, or (b) sixty (60) days after termination of this Agreement, Buyer shall return the Development Security to Seller, less the amounts drawn in accordance with this Agreement.

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. Seller shall maintain the Performance Security in full force and effect, and Seller shall within five (5) Business Days after any draw thereon replenish the Performance Security 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, until the following have occurred: (a) the Delivery Term has expired or terminated early; and (b) all payment obligations of Seller due and payable 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 both events, Buyer shall promptly return to Seller the unused portion of the Performance Security.

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 such obligations are satisfied in full.

8.10 **Buyer Credit Arrangements**.

(a) To secure its obligations under this Agreement, Buyer shall deliver to Seller, within ninety (90) days after the Effective Date, Buyer Liability Pass Through Agreements from the Project Participants with Liability Shares as set forth on Exhibit V. Seller shall countersign each Buyer Liability Pass Through Agreement within ten (10) days of receipt of Buyer's delivery of each such Buyer Liability Pass Through Agreement executed by Buyer and the applicable Project Participant; *provided* that no delay in countersigning any such Buyer Liability Pass Through Agreement shall affect Seller's, Buyer's or the Project Participant's rights or obligations thereunder. Buyer shall maintain such Buyer Liability Pass Through Agreements in full force and effect until both of the following have occurred: (a) the Delivery Term has expired or terminated early; and (b) all payment obligations of Buyer due and payable under this Agreement are paid in full (whether directly or indirectly such as through set-off or netting). Buyer may propose amendments to Exhibit V, including with respect to the identity of Project Participants and the amount of each Project Participant's Liability Share. Seller shall have ten (10) Business Days to evaluate any such proposed amendments to Exhibit V in its sole but good faith discretion. If Seller approves such proposed amendments to Exhibit V, Buyer shall have thirty (30) days to provide Seller with replacement Buyer Liability Pass Through Agreements with Liability Shares executed by Buyer and the applicable Project Participants that incorporate the Liability Shares set forth in the amended Exhibit V. Seller shall countersign each such Buyer Liability Pass Through Agreement executed by Buyer and the applicable Project Participant within ten (10) Business Days after Buyer's delivery of such Buyer Liability Pass Through Agreements to Seller; *provided* that no delay in countersigning any such Buyer Liability Pass Through Agreement shall affect Seller's, Buyer's or the Project Participant's rights or obligations thereunder.

(b) Within thirty (30) days following a Step-Up Event, (A) Buyer shall provide Seller with replacement Buyer Liability Pass Through Agreements from all Compliant Project

Participants executed by Buyer and the applicable Compliant Project Participants that reflect each Compliant Project Participant's Revised Liability Share following such Step Up Event, and, (B) Exhibit V will be amended to reflect the Compliant Project Participants' Revised Liability Shares following such Step Up Event. Seller shall countersign each such Buyer Liability Pass Through Agreement executed by Buyer and the applicable Compliant Project Participant within ten (10) Business Days after Buyer's delivery of such Buyer Liability Pass Through Agreements to Seller; *provided* that no delay in countersigning or failure to countersign any such Buyer Liability Pass Through Agreement shall affect Buyer's or the Project Participant's rights or obligations thereunder. [redacted] Following the occurrence of a Step-Up Event, Seller and Buyer will amend Exhibit V to set forth the Revised Liability Shares of the remaining Project Participants.

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 in Exhibit N 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 or other electronic means) at the time indicated by the time stamp upon delivery and, if after 5 pm, on the next Business Day; 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 commercially 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 (excluding impacts of the disease designated COVID-19 or the related virus designated SARS-CoV-2 impacts actually known by the Party claiming the Force Majeure Event as of the Effective Date); 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 or changes in Law that render a Party's performance of this Agreement at the Contract Price unprofitable or otherwise uneconomic (including an increase in component or compliance costs for any reason, including foreign or domestic tariffs, Buyer's ability to buy Product at a lower price, or Seller's ability to sell the Product, or any component thereof, at a higher price, than under this Agreement); (ii) Seller's inability to obtain permits or approvals of any type for the construction, operation, or maintenance of the Facility, except to the extent such inability is caused by a Force Majeure Event; (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 Order, except to the extent such Curtailment Order 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, including the lack of wind, sun or other fuel source of an inherently intermittent nature, 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) events otherwise constituting a Force Majeure Event that prevents Seller from achieving Construction Start or Commercial Operation of the Facility, except to the extent expressly permitted as an extension under this Agreement; or (ix) any action or inaction by any third party, including Transmission Provider, that delays or prevents the approval, construction or placement in service of any Interconnection Facilities or Network Upgrades, except to the extent caused by a Force Majeure Event.

10.2 **No Liability If a Force Majeure Event Occurs**. Except as provided in Section 4 of Exhibit B, 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. 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. Notwithstanding the foregoing, the occurrence and continuation of a Force Majeure Event shall not (a) suspend or excuse the obligation of a Party to make any payments due hereunder except as provided above, (b) suspend or excuse the obligation of Seller to achieve the Guaranteed Construction Start Date or the Guaranteed Commercial Operation Date beyond the extensions provided in Section 4 of Exhibit B, or (c) limit Buyer's right to declare an Event of Default pursuant to Section 11.1(b)(ii) after all applicable extensions of the Guaranteed Construction Start Date and the Guaranteed Commercial Operation Date and receive a Damage Payment upon exercise of Buyer's remedies pursuant to Section 11.2.

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) promptly 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) promptly 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*, 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 after the Commercial Operation Date that has caused either Party to be wholly or substantially unable to perform its obligations hereunder, and the impacted Party has claimed and received relief from performance of its obligations for a consecutive twelve (12) month period, then the non-claiming Party may terminate this Agreement upon Notice to the other Party. Upon any such termination, neither Party shall have any further liability to the other Party, save and except for those obligations specified in Section 2.1(c), and Buyer shall promptly return to Seller any Performance Security then held by Buyer, less any amounts drawn in accordance with this Agreement.

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 ten (10) 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 (or such longer additional period, not to exceed an additional sixty (60) days, if the Defaulting Party is unable to remedy such default within such initial thirty (30)-day period despite exercising commercially reasonable efforts);

(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 set forth in this Section 11.1; and except for (A) failure to provide Capacity Attributes, the exclusive remedies for which are set forth in Section 3.5, (B) failures related to the Monthly Capacity Availability that do not trigger the provisions of Section 11.1(b)(iii), the exclusive remedies for which are set forth in Exhibit C and Exhibit P, and (C) failure to maintain the Guaranteed Efficiency Rate, the exclusive remedies for which are set forth in Exhibit C), and such failure is not remedied within thirty (30) days after Notice thereof (or such longer additional period, not to exceed an additional ninety (90) days, if the Defaulting Party is unable to remedy such default within such initial thirty (30)-day period despite exercising commercially reasonable efforts);

(iv) such Party becomes Bankrupt;

(v) such Party assigns this Agreement or any of its rights hereunder other than in compliance with Article 14, if 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 Energy to the Delivery Point for sale under this Agreement that was not discharged by the Facility;

(ii) the failure by Seller to (A) achieve Construction Start on or before [redacted] the Guaranteed Construction Start Date, as such date may be extended by Seller's payment of Daily Delay Damages pursuant to Section 1(b) of Exhibit B and/or a Development Cure Period pursuant to Section 4 of Exhibit B, or (B) achieve Commercial Operation on or before the Guaranteed Commercial Operation Date, as such date may be extended by Seller's payment of Commercial Operation Delay Damages pursuant to Section 2(b) of Exhibit B and/or a Development Cure Period pursuant to Section 4 of Exhibit B;

(iii) if, in any Contract Year, the simple average of the Monthly Capacity Availability calculations for such Contract Year is not equal to at least [redacted] of the Guaranteed Availability, and Seller fails to (x) deliver to Buyer within ten (10) Business Days after Notice from Buyer a plan or report developed by Seller that describes the cause of the failure of the simple average of the Monthly Capacity Availability calculations for such Contract Year to equal at least [redacted] of the Guaranteed Availability, and the actions that Seller has taken, is taking, or proposes to take in an effort to cure such condition along with the written confirmation of a Licensed Professional Engineer that such plan or report is in accordance with Prudent Operating Practices and capable of cure within a reasonable period of time, not to exceed [redacted] ("**Cure Plan**") and (y) complete such Cure Plan in all material respects as set forth therein, including within the timeframe set forth therein;

(iv) failure by Seller to satisfy the collateral requirements pursuant to Sections 8.7 or 8.8 within five (5) Business Days after Notice from Buyer, including the failure to replenish the Performance Security amount in accordance with this Agreement in the event Buyer draws against it for any reason other than to satisfy a Termination Payment;

(v) with respect to any outstanding Letter of Credit provided for the benefit of Buyer that is not then required under this Agreement to be canceled or returned, the failure by Seller to provide for the benefit of Buyer either (1) cash, or (2) a Letter of Credit from a different issuer meeting the criteria set forth in the definition of Letter of Credit, in each case, in the amount required hereunder within ten (10) Business Days (thirty (30) days in the case of subsection (A)) 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.

(c) [redacted]

(i) [redacted]

(ii) [redacted]

(iii) [redacted]

11.2 **<u>Remedies; Declaration of Early Termination Date</u>**. If an Event of Default with respect to a Defaulting Party shall have occurred and be continuing, the other Party ("**<u>Non-Defaulting Party</u>**") 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 ("**<u>Early Termination Date</u>**") that terminates this Agreement (the "**<u>Terminated Transaction</u>**") 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, or (ii) the Termination Payment, as applicable, in each case calculated in accordance with Section 11.3 below;

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

(d) to suspend performance; and

(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, 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 **Damage Payment; Termination Payment**. If an Early Termination Date has been declared, the Non-Defaulting Party shall calculate, in a commercially reasonable manner, the Damage Payment or Termination Payment, as applicable, in accordance with this Section 11.3.

(a) Damage Payment Prior to Commercial Operation Date. If the Early Termination Date occurs before the Commercial Operation Date, then the Damage Payment shall be calculated in accordance with this Section 11.3(a).

(i) [redacted] The Parties agree that Buyer's damages in the event of an Early Termination Date prior to the Commercial Operation Date caused by Seller's default would be difficult or impossible to determine and that the damages set forth in this Section 11.3(a)(i) are a reasonable approximation of Buyer's harm or loss.

(ii) If Buyer is the Defaulting Party, then a Damage Payment shall be owed to Seller and shall equal (A) the sum of (i) Seller's Losses, including Seller's lost revenue under this Agreement resulting from a Buyer Default, which shall not be considered to include consequential, incidental, punitive, exemplary, indirect, or business interruption damages for purposes of this Agreement, plus (ii) without duplication of any costs or expenses covered by preceding clause, all actual, documented and verifiable Costs that have been actually incurred, or become payable, by Seller arising out of the termination of this Agreement, less (B) Seller's Gains. There will be no amount owed to Buyer. The Parties agree that Seller's damages in the event of an Early Termination Date prior to the Commercial Operation Date caused by Buyer's default would be difficult or impossible to determine and that the damages set forth in this Section 11.3(a)(ii) are a reasonable approximation of Seller's harm or loss.

(b) Termination Payment On or After the Commercial Operation Date. The payment owed by the Defaulting Party to the Non-Defaulting Party for a Terminated Transaction occurring after the Commercial Operation Date ("**Termination Payment**") shall be the aggregate of all Settlement Amounts plus any and all other amounts due to or from the Non-Defaulting Party (as of the Early Termination Date) netted into a single amount. 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. 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 (i) 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, (ii) the Termination Payment described in this Section 11.3(b) is a reasonable and appropriate approximation of such damages, and (iii) the Termination Payment described in this Section 11.3(b) 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 or Damage Payment**. As soon as practicable after a Terminated Transaction, but in no event later than sixty (60) days after the Early Termination Date (or such longer additional period, not to exceed an additional sixty (60) days, if the Non-Defaulting Party is unable, despite using commercially reasonable efforts, to calculate the Termination Payment or Damage Payment, as applicable, within such initial sixty (60)-day period despite exercising commercially reasonable efforts), Notice shall be given by the Non-Defaulting Party to the Defaulting Party of the amount of the Damage Payment or Termination Payment, as applicable, and whether the Termination Payment or Damage Payment, as applicable, 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 or Damage Payment, as applicable, 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 or Damage Payment**. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment or Damage Payment, as applicable, 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 or Damage Payment, as applicable, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute. Disputes regarding the Termination Payment or Damage Payment, as applicable, shall be determined in accordance with Article 15.

[redacted] **Limitation on Seller's Ability to Make or Agree to Third-Party Sales from the Facility after Early Termination Date**. [redacted]

[redacted]

[redacted]

11.7 **<u>Rights And Remedies Are Cumulative</u>**. Except where liquidated damages or other remedy are explicitly provided as the exclusive remedy herein, 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.

11.8 **<u>Mitigation</u>**. Any Non-Defaulting Party shall be obligated to use commercially reasonable efforts to mitigate its Costs, Losses and damages resulting from any Event of Default of the other Party under this Agreement.

11.9 **<u>Pass Through of Buyer Liability</u>**. Notwithstanding any other provision of this Agreement, if Buyer fails to make when due any payment required pursuant to this Agreement, and such failure is not remedied within ten (10) Business Days after Notice thereof, Seller may, without waiving any of its rights with respect to Buyer except as expressly provided herein, pursue remedies under any or all of the Buyer Liability Pass Through Agreements as provided therein. Seller hereby waives the right to recover directly from Buyer any Damage Payment or Termination Payment owed by Buyer that is not paid by Buyer pursuant to Sections 11.3 and 11.4, but the foregoing waiver does not apply to any other right or remedy of Seller under this Agreement, including the right to recover accrued Monthly Capacity Payments, other amounts payable or reimbursable under this Agreement or any other amounts incurred or accrued prior to termination of this Agreement, and the right to terminate the ESSA as the result of an Event of Default by Buyer.

ARTICLE 12
LIMITATION OF LIABILITY AND EXCLUSION OF WARRANTIES.

12.1 **<u>No Consequential Damages</u>**. EXCEPT TO THE EXTENT (A) PART OF AN EXPRESS REMEDY OR MEASURE OF DAMAGES HEREIN, (B) PART OF A THIRD PARTY INDEMNITY CLAIM UNDER ARTICLE 16, (C) INCLUDED IN A LIQUIDATED DAMAGES CALCULATION, OR (D) RESULTING FROM A PARTY'S WILLFUL MISCONDUCT, 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 **<u>Waiver and Exclusion of Other Damages</u>**. 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. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, INCLUDING UNDER SECTIONS 3.5, 11.2 AND 11.3, AND AS PROVIDED IN EXHIBIT B, EXHIBIT C, AND EXHIBIT P, 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. 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.

THE PARTIES ACKNOWLEDGE AND AGREE THAT MONEY DAMAGES AND THE EXPRESS REMEDIES PROVIDED FOR HEREIN ARE AN ADEQUATE REMEDY FOR THE BREACH BY THE OTHER OF THE TERMS OF THIS AGREEMENT, AND EACH PARTY WAIVES ANY RIGHT IT MAY HAVE TO SPECIFIC PERFORMANCE WITH RESPECT TO ANY OBLIGATION OF THE OTHER PARTY UNDER THIS AGREEMENT.

12.3 **Limitation on Pre-COD Liability.** Notwithstanding anything in this Agreement to the contrary, unless and until the Facility has achieved Commercial Operation, Seller's aggregate liability under this Agreement for any and all reasons, including liabilities for payment of Delay Damages, Commercial Operation Delay Damages and the Damage Payment, shall not exceed [redacted] of the amount of the Development Security. For avoidance of doubt, this Section 12.3 shall not be applicable once the Facility has achieved Commercial Operation.

ARTICLE 13
REPRESENTATIONS AND WARRANTIES; COVENANTS

13.1 **Seller's Representations and Warranties**. As of the Effective 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 jurisdiction of its formation, 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) Neither Seller nor its Affiliates have received notice from or been advised by any existing or potential supplier or service provider that the disease designated COVID-19 or the related virus designated SARS-CoV-2 have caused, or are reasonably likely to cause, a delay in the construction of the Facility or the delivery of materials necessary to complete the Facility, in each case that would cause the Commercial Operation Date to be later than the Guaranteed Commercial Operation Date.

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

(a) Buyer is a joint powers authority, 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 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 Effective 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 in material compliance with any Law.

13.4 **Seller's Covenants**. Seller covenants that commencing on the Effective Date and continuing throughout the Contract Term:

(a) Compliance with Laws. To the extent applicable to Seller or the Facility, Seller shall comply with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals, including, without limitation those related to employment discrimination and prevailing wage, non-discrimination and non-preference; conflict of interest; environmentally preferable procurement; single serving bottled water; gifts; and disqualification of former employees. Seller shall not discriminate against any employee or applicant for employment on the basis of the fact or perception of that person's race, color, religion, ancestry, national origin, age, sex (including pregnancy, childbirth or related medical conditions), legally protected medical condition, family care status, veteran status, sexual orientation, gender identity, transgender status, domestic partner status, marital status, physical or mental disability, or AIDS/HIV status.

(b) Workforce Development. Seller shall comply with all applicable federal, state and local laws, statutes, ordinances, rules, regulations and orders and decrees of any courts or administrative bodies or tribunals, including, without limitation, employment discrimination and prevailing wage laws. Although the Facility is not a public work as defined by California Labor Code section 1720, any construction work contracted by Seller in furtherance of this Agreement shall (i) comply with California prevailing wage provisions applicable to public works projects, including but not limited to those set forth in California Labor Code sections 1770, 1771, 1771.1, 1772, 1773, 1773.1, 1774, 1775, 1776, 1777.5, and 1777.6, as they may be amended from time to time ("**Prevailing Wage Requirement**"); and (ii) be conducted using a project labor agreement, community workforce agreement, work site agreement, collective bargaining agreement, or similar agreement providing for terms and conditions of employment with applicable labor organizations ("**Project Labor Agreement**"). Seller will request that the following or similar language be included in any Project Labor Agreement executed after the Effective Date: "Union members agree not to make any written or verbal statements about CC Power or its members that are disparaging, untrue or inaccurate."

(c) Prohibition Against Forced Labor. Seller represents and warrants that it has not and will not knowingly utilize equipment or resources for the construction, operation or maintenance of the Facility that rely on work or services exacted from any person under the threat of a penalty and for which the person has not offered himself or herself voluntarily ("**Forced Labor**"). Consistent with the business advisory jointly issued by the U.S. Departments of State, Treasury, Commerce and Homeland Security on July 1, 2020, equipment or resources sourced from the Xinjiang region of China are presumed to involve Forced Labor.

(d) Permits. Seller shall obtain and maintain any and all permits and approvals necessary for the construction and operation of the Facility, including without limitation, environmental clearance under CEQA or other environmental law, as applicable, from the local jurisdiction where the Facility is or will be constructed.

(e) Site Control. Seller shall maintain Site Control throughout the Delivery Term.

ARTICLE 14
ASSIGNMENT

14.1 **General Prohibition on Assignments**. Except as provided below in this Article 14, neither Party may assign this Agreement or its rights or obligations under this Agreement, without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed. Any Change of Control of Seller (whether voluntary or by operation of law) will be deemed an assignment and will require the prior written consent of Buyer, which consent shall not be unreasonably withheld, conditioned or delayed; *provided*, a Change of Control of Seller shall not require Buyer's consent if the assignee or transferee is a Permitted Transferee. Any assignment made without the required written consent, or in violation of the conditions to assignment set out below, shall be null and void. The assigning Party shall pay the other Party's reasonable expenses associated with the preparation, review, execution and delivery of documents in connection with any assignment of this Agreement by the assigning Party, including without limitation reasonable attorneys' fees.

14.2 **Collateral Assignment**. Subject to the provisions of this Section 14.2, Seller has the right to assign this Agreement as collateral for any financing or refinancing of the Facility without the consent of Buyer. In connection with any financing or refinancing of the Facility by Seller, Buyer shall in good faith work with Seller and Lender to agree upon a consent to collateral assignment of this Agreement ("**Collateral Assignment Agreement**"), which shall be substantially in the form of Exhibit T. Seller shall pay Buyer's reasonable expenses, including attorneys' fees, incurred to provide consents, estoppels, or other required documentation in connection with Seller's financing of the Facility. Buyer shall have no obligation to provide any consent, or enter into any agreement, that materially and adversely affects any of Buyer's rights, benefits, risks or obligations under this Agreement, or to modify this Agreement.

14.3 **Permitted Assignment**.

(a) Seller may, without the prior written consent of Buyer, transfer or assign this Agreement, including through a Change of Control, to: (i) an Affiliate of Seller, (ii) as part of a portfolio financing or portfolio sale of projects, [redacted] Notwithstanding the foregoing, any assignment by Seller, its successors or assigns under this Section 14.3(a) shall be of no force and effect unless and until such Notice and agreement by the assignee have been received and accepted by Buyer.

(b) Buyer may, without the prior written consent of Seller, transfer or assign this Agreement to any member of Buyer that (A) has a Credit Rating of at least BBB- from S&P and Baa3 from Moody's, and (B) is a load serving entity; *provided*, Buyer shall give Seller Notice at least fifteen (15) Business Days before the date of such proposed assignment and provide to Seller a written agreement signed by the Person to which Buyer wishes to assign its interests that provides that such Person will assume all of Buyer's obligations and liabilities under this Agreement upon such transfer or assignment. Notwithstanding the foregoing, any assignment by Buyer, its successors or assigns under this Section 14.3(b) shall be of no force and effect unless and until such Notice and agreement by the assignee have been received and accepted by Seller.

14.4 **Portfolio Financing**. Buyer agrees and acknowledges that Seller may elect to finance all or any portion of the Facility or the Interconnection Facilities or the Shared Facilities (1) utilizing tax equity investment, and/or (2) through a Portfolio Financing, which may include cross-collateralization or similar arrangements. In connection with any financing or refinancing of the Facility, the Interconnection Facilities or the Shared Facilities by Seller or any Portfolio

Financing, Buyer, Seller, Portfolio Financing Entity (if any), and Lender shall execute and deliver such further consents, approvals and acknowledgments as may be reasonable and necessary to facilitate such transactions; *provided*, Buyer shall not be required to agree to any terms or conditions which are reasonably expected to have a material adverse effect on Buyer and all reasonable attorney's fees incurred by Buyer in connection therewith shall be borne by Seller.

14.5 **Buyer Financing Assignment**. Buyer may assign this Agreement to a financing entity that will pre-pay all of Buyer's payment obligations under this Agreement with Seller's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned; *provided* that Seller reasonably determines that the terms and conditions of such pre-payment arrangements are satisfactory to Seller and its Lenders and do not adversely affect Seller or its arrangements with Lenders in any respect and that Seller is reimbursed for all costs and expenses incurred by Seller and its Lenders in connection with such transaction.

ARTICLE 15
DISPUTE RESOLUTION

15.1 **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. The Parties agree that any suit, action or other legal proceeding by or against any Party with respect to or arising out of this Agreement shall be brought in the federal or state courts located in the State of California in a location to be mutually chosen by Buyer and Seller, or in the absence of mutual agreement, the County of San Francisco.

15.2 **Dispute Resolution**. In the event of any dispute arising under this Agreement, within ten (10) days following the receipt of a Notice from either Party identifying such dispute, the Parties shall meet, negotiate and attempt, in good faith, to resolve the dispute quickly and informally without significant legal costs. If the Parties are unable to resolve a dispute arising hereunder within thirty (30) days after Notice of the dispute, the Parties may pursue all remedies available to them at Law in or equity.

15.3 **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.

ARTICLE 16
INDEMNIFICATION

16.1 **Indemnification**.

(a) Seller agrees to indemnify, defend and hold harmless Buyer and its Affiliates, directors, officers, attorneys, employees, representatives and agents (collectively, the "**Buyer's Indemnified Parties**") from and against all third-party claims, demands, losses, liabilities, penalties, and expenses (including reasonable attorneys' fees and expert witness fees), howsoever described, to the extent arising out of, resulting from, or caused by (i) Seller's breach of this Agreement (including inaccuracy of any Seller representation of warranty made hereunder), (ii) a violation of applicable Laws by Seller or its Affiliates, including but not limited to violations of any laws in constructing or operating the Facility, or (iii) negligent or willful misconduct by Seller or its Affiliates, directors, officers, employees, or agents.

(b) Buyer agrees to indemnify, defend and hold harmless Seller and its Affiliates, directors, officers, attorneys, employees, representatives and agents (collectively, the "**Seller's Indemnified Parties**") from and against all third-party claims, demands, losses, liabilities, penalties, and expenses (including reasonable attorneys' fees and expert witness fees), howsoever described, to the extent arising out of, resulting from, or caused by (i) Buyer's breach of this Agreement (including inaccuracy of any representation of warranty made hereunder), (ii) a violation of applicable Laws by Buyer or its Affiliates, or (iii) negligent or willful misconduct of Buyer or its Affiliates, its directors, officers, employees, or agents.

(c) Seller shall indemnify, defend, and hold harmless Buyer's Indemnified Parties, from any claim, liability, loss, injury or damage arising out of, or in connection with Environmental Costs and any environmental matters associated with the Facility, including the storage, disposal and transportation of Hazardous Substances, or the contamination of land, including but not limited to the Site, with any Hazardous Substances by or on behalf of the Seller or at the Seller's direction or agreement.

(d) Nothing in this Section 16.1 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 solely from its own 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.

16.2 **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 an indemnity provided for in this Article 16 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 the Indemnifying Party and satisfactory to the Indemnified Party, *provided*, 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*, 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 16, in the event that a Party is obligated to indemnify and hold the other Party and its successors and assigns harmless under this Article 16, 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 17
INSURANCE

17.1 **Insurance**.

(a) General Liability. Seller shall maintain, or cause to be maintained at its sole expense, commercial general liability insurance, including products and completed operations and personal injury insurance, in a minimum amount of One Million Dollars ($1,000,000) per occurrence, and an annual aggregate of not less than Two Million Dollars ($2,000,000), endorsed to provide contractual liability in said amount, specifically covering Seller's obligations under this Agreement and including Buyer as an additional insured. Defense costs shall be provided as an additional benefit and not included within the limits of liability. Such insurance shall name Buyer as an additional insured and contain standard cross-liability and severability of interest provisions.

(b) Employer's Liability Insurance. Seller, if it has employees, shall maintain Employers' Liability insurance with limits of not less than One Million Dollars ($1,000,000.00) for injury or death occurring as a result of each accident. With regard to bodily injury by disease, the One Million Dollar ($1,000,000) 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 statutory amounts, with employer's liability limits of not less than One Million Dollars ($1,000,000.00) for each accident, injury, or illness; and include a blanket waiver of subrogation.

(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 One Million Dollars ($1,000,000) per occurrence. 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 and shall name Buyer as an additional insured and contain standard cross-liability and severability of interest provisions.

(e) Pollution Liability. Seller shall maintain or cause to be maintained during the construction of the Facility prior to the Commercial Operation Date, Pollution Insurance in the amount of Two Million Dollars ($2,000,000) per occurrence and in the aggregate, including Seller (and Lender, if any) as additional named insureds.

(f) Umbrella Liability Insurance. Seller shall maintain or cause to be maintained an umbrella liability policy with a limit of liability of [redacted] per occurrence and in the aggregate. Such insurance shall be in excess of the General Liability, Employer's Liability, and Business Auto Insurance coverages. Seller may choose any combination of primary, excess or umbrella liability policies to meet the insurance limits required under Sections 17.1(a), 17.1(b) and 17.1(d) above.

(g) Construction All-Risk Insurance. Seller shall maintain or cause to be maintained during the construction of the Facility prior to the Commercial Operation Date, construction all-risk form property insurance covering the Facility during such construction periods.

(h) Property Insurance. On and after the Commercial Operation Date, Seller shall maintain or cause to be maintained insurance against loss or damage from all causes under standard "all risk" property insurance coverage in amounts that are not less than the actual replacement value of the Facility; *provided*, however, with respect to property insurance for natural catastrophes, Seller shall maintain limits equivalent to a probable maximum loss amount determined by a firm with experience providing such determinations. Such insurance shall include business interruption coverage in an amount equal to twelve (12) months of expected revenue from this Agreement.

(i) Subcontractor Insurance. Seller shall require all of its subcontractors to carry: (i) comprehensive general liability insurance with a combined single limit of coverage not less than One Million Dollars ($1,000,000); (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 with limits of one million dollars ($1,000,000) per occurrence. 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 17.1(i).

(j) 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 with insurers with ratings comparable to A-VII or higher, and that are authorized to do business in the State of California, in form evidencing all coverages set forth above. Such certificates shall specify that Buyer shall be given at least thirty (30) days prior Notice by Seller in the event of 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. The general liability, auto liability and worker's compensation policies shall be endorsed with a waiver of subrogation in favor of Buyer for all work performed by Seller, its employees, agents and sub-contractors.

ARTICLE 18
CONFIDENTIAL INFORMATION

18.1 **Definition of Confidential Information**. The following constitutes "**Confidential Information**," whether oral or written which is delivered by Seller to Buyer or by Buyer to Seller including: (a) the terms and conditions of, and proposals and negotiations related to, this Agreement, and (b) information that either Seller or Buyer stamps or otherwise identifies as "confidential" or "proprietary" 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 after the time of the delivery; (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.

18.2 **Duty to Maintain Confidentiality**. The Party receiving Confidential Information (the "**Receiving Party**") from the other Party (the "**Disclosing Party**") shall not disclose Confidential Information to a third party (other than the Party's members, employees, lenders, counsel, accountants, directors or advisors, or any such representatives of a Party's Affiliates, who have a need to know such information and have agreed to keep such terms confidential) except in order to comply with any applicable Law, regulation, or any exchange, control area or independent system operator rule or in connection with any court or regulatory proceeding applicable to such Party or any of its Affiliates; *provided*, each Party shall, to the extent practicable, use reasonable efforts to prevent or limit the disclosure. The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation. The Parties agree and acknowledge that nothing in this Section 18.2 prohibits a Party from disclosing any one or more of the commercial terms of a transaction (other than the name of the other Party unless otherwise agreed to in writing by the Parties) to any industry price source for the purpose of aggregating and reporting such information in the form of a published energy price index.

The Parties acknowledge and agree that the Agreement and any transactions entered into in connection herewith are subject to the requirements of the California Public Records Act (Government Code Section 6250 et seq.). In order to designate information as confidential, the Disclosing Party must clearly stamp and identify the specific portion of the material designated with the word "Confidential." The Parties agree not to over-designate material as Confidential Information. Over-designation includes stamping whole agreements, entire pages or series of pages as "Confidential" that clearly contain information that is not Confidential Information.

Upon request or demand of any third person or entity not a Party hereto to Buyer pursuant to the California Public Records Act for production, inspection and/or copying of Confidential Information ("**Requested Confidential Information**"), Buyer shall as soon as practical notify Seller in writing via email that such request has been made. Seller shall be solely responsible for taking at its sole expense whatever legal steps are necessary to prevent release of the Requested Confidential Information to the third party by Buyer. If Seller takes no such action after receiving the foregoing notice from Buyer, Buyer shall, at its discretion, be permitted to comply with the third party's request or demand and is not required to defend against it. If Seller does take or attempt to take such action, Buyer shall provide timely and reasonable cooperation to Seller, if requested by Seller, and Seller agrees to indemnify and hold harmless Buyer and Buyer's Indemnified Parties from any claims, liability, award of attorneys' fees, or damages, and to defend any action, claim or lawsuit brought against any of Buyer or Buyer's Indemnified Parties for Buyer's refusal to disclose any Requested Confidential Information.

18.3 **Irreparable Injury; Remedies**. Receiving Party acknowledges that its obligations hereunder are necessary and reasonable in order to protect Disclosing Party and the business of Disclosing Party, and expressly acknowledges that monetary damages would be inadequate to compensate Disclosing Party for any breach or threatened breach by Receiving Party of any covenants and agreements set forth herein. Accordingly, Receiving Party acknowledges that any such breach or threatened breach will cause irreparable injury to Disclosing Party and that, in addition to any other remedies that may be available, in law, in equity or otherwise, Disclosing Party will be entitled to obtain injunctive relief against the threatened breach of this Agreement or the continuation of any such breach, without the necessity of proving actual damages.

18.4 **Further Permitted Disclosure**. Notwithstanding anything to the contrary in this Article 18, Confidential Information may be disclosed by the Receiving Party to any of its agents, consultants, contractors, trustees, or actual or potential financing parties (including, in the case of Seller, its Lender(s)), so long as such Person to whom Confidential Information is disclosed agrees in writing to be bound by confidentiality provisions that are at least as restrictive as this Article 18 to the same extent as if it were a Party.

18.5 **Press Releases**. 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 public statement.

ARTICLE 19
MISCELLANEOUS

19.1 **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.

19.2 **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*, this Agreement may not be amended by electronic mail communications.

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

19.4 **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) and/or, to the extent set forth herein, any Lender and/or Indemnified Party.

19.5 **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.

19.6 **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 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). Changes proposed by a non-Party or FERC acting *sua sponte* shall be subject to the most stringent standard permissible under applicable Law.

19.7 **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.

19.8 **Electronic Delivery**. This Agreement may be duly executed and delivered by a Party by electronic format (including portable document format (.pdf)). Delivery of an executed counterpart in .pdf electronic version shall be binding as if delivered in the original. The words "execution," "signed," "signature," and words of like import in this Agreement shall be deemed to include electronic signatures or electronic records, each of which shall be of the same legal effect, validity, or enforceability as a manually executed signature or the use of a paper-based record keeping system, as the case may be, to the extent and as provided for in any applicable law.

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

19.10 **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. Except as set forth in Section 11.9 and any Buyer Liability Pass Through Agreements issued by one or more Project Participants pursuant to Section 8.10, Buyer shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement, and 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 officers, directors, advisors, contractors, consultants or employees of Buyer or its constituent members, in connection with this Agreement.

19.11 **Forward Contract**. The Parties acknowledge and agree that this Agreement constitutes a "forward contract" within the meaning of the U.S. Bankruptcy Code, and Buyer and Seller are "forward contract merchants" within the meaning of the U.S. Bankruptcy Code. Each Party further agrees that, for all purposes of this Agreement, each Party waives and agrees not to assert the applicability of the provisions of 11 U.S.C. § 366 in any Bankruptcy proceeding wherein such Party is a debtor. In any such proceeding, each Party further waives the right to assert that the other Party is a provider of last resort to the extent such term relates to 11 U.S.C. §366 or another provision of 11 U.S.C. § 101-1532.

19.12 **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. 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 15. 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, and (ii) all of the unaffected provisions of this Agreement shall remain in full force and effect during any period of such negotiation or dispute resolution.

19.13 **Further Assurances**. Each of the Parties hereto agrees to provide such information, execute and deliver any instruments and documents and to take such other actions as may be necessary or reasonably requested by the other Party which are not inconsistent with the provisions of this Agreement and which do not involve the assumption of obligations other than those provided for in this Agreement, to give full effect to this Agreement and to carry out the intent of this Agreement.

[Signatures on following page]

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

TUMBLEWEED ENERGY STORAGE, LLC		CALIFORNIA COMMUNITY POWER, a California joint powers authority	
By:	DocuSigned by: Mark Strength	By:	DocuSigned by: Tim Haines
Name:	Mark Strength	Name:	Tim Haines
Title:	Senior Vice President	Title:	Interim General Manager

Signature Page

EXHIBIT A

FACILITY DESCRIPTION

Site Name: Tumbleweed Energy Storage (75 MW) (CAISO Queue 1217)

Site includes all or some of the following APNs: [redacted]

City: [redacted] near Rosamond, CA

County: Kern

Zip Code: 93560

Latitude and Longitude: [redacted]

Facility Description: 69 MW/552 MWh grid-connected battery energy storage facility, as depicted on the following page.

Interconnection Point: The Project shall interconnect to Whirlwind Substation 230 kV

Facility Meter: See Exhibit R

Facility Metering Points: See Exhibit R

P-node: [redacted]

Transmission Provider: Southern California Edison (SCE)

Additional Information: The Facility may include a co-located 1 MW solar generation system which will only serve onsite load.

Site Diagram (indicative only, will change prior to construction):

[redacted]

EXHIBIT B

FACILITY CONSTRUCTION AND COMMERCIAL OPERATION

1. **Construction of the Facility**.

   a. "**Construction Start**" will occur upon Seller's acquisition of the conditional use permit and other applicable discretionary permits for the construction of the Facility, and once Seller has engaged one or more contractors, and ordered all long lead time equipment as, in each case, can reasonably be considered necessary so that physical construction of the Facility may begin, and has executed one or more engineering, procurement, and construction contract and issued a notice to proceed under the applicable contract that authorizes the contractor to mobilize to Site and begin physical construction (including, at a minimum, excavation for foundations) at the Site. The date of Construction Start will be evidenced by and subject to Seller's delivery to Buyer of a certificate substantially in the form attached as Exhibit J hereto, and the date certified therein shall be the "**Construction Start Date**." Seller shall cause Construction Start to occur no later than the Guaranteed Construction Start Date.

   b. In addition to extensions pursuant to a Development Cure Period, Seller may extend the Guaranteed Construction Start Date for all purposes hereunder, including Section 11.1(b)(ii), by paying Daily Delay Damages to Buyer for each day Seller desires to extend the Guaranteed Construction Start Date, not to exceed a total of one hundred twenty (120) days of extensions by such payment of Daily Delay Damages. On or before the date that is ten (10) days prior to the then-current (including any previous extensions) Guaranteed Construction Start Date, Seller may provide notice and payment to Buyer of the Daily Delay Damages for the number of days of extension to the Guaranteed Construction Start Date. If Seller achieves Construction Start prior to the Guaranteed Construction Start Date, as extended by the payment of Daily Delay Damages, Buyer shall refund to Seller the Daily Delay Damages for each day Seller achieves Construction Start prior to the Guaranteed Construction Start Date times the Daily Delay Damages, not to exceed the total amount of Daily Delay Damages paid by Seller pursuant to this Section 1(b). If Seller achieves Commercial Operation on or before the Guaranteed Commercial Operation Date (not including any extensions to such date resulting from Seller's payment of Commercial Operation Delay Damages, but as may be extended pursuant to a Development Cure Period), then Buyer shall refund to Seller all Daily Delay Damages paid by Seller and not previously refunded by Buyer.

2. **Commercial Operation of the Facility**.

   a. Seller shall cause Commercial Operation for the Facility to occur by the Guaranteed Commercial Operation Date.

   b. In addition to extensions pursuant to a Development Cure Period, Seller may extend the Guaranteed Commercial Operation Date for all purposes hereunder, including

Section 11.1(b)(ii), by paying Commercial Operation Delay Damages to Buyer for each day Seller desires to extend the Guaranteed Commercial Operation Date, not to exceed a total of ninety (90) days of extensions by such payment of Commercial Operation Delay Damages. On or before the date that is ten (10) days prior to the then-current (including any previous extensions) Guaranteed Commercial Operation Date, Seller may provide Notice and payment to Buyer of the Commercial Operation Delay Damages for the number of days of extension to the Guaranteed Commercial Operation Date. If Seller achieves Commercial Operation prior to the Guaranteed Commercial Operation Date, as extended by the payment of Commercial Operation Delay Damages, Buyer shall refund to Seller the Commercial Operation Delay Damages for each day Seller achieves Commercial Operation prior to the Guaranteed Commercial Operation Date times the Commercial Operation Delay Damages, not to exceed the total amount of Commercial Operation Delay Damages paid by Seller pursuant to this Section 2(b).

3. **Termination for Failure to Achieve Commercial Operation**. If the Facility has not achieved Commercial Operation on or before the Guaranteed Commercial Operation Date (as may be extended hereunder), Buyer may elect to terminate this Agreement in accordance with Sections 11.1(b)(ii) and 11.2.

4. **Extension of the Guaranteed Dates**. The Guaranteed Construction Start Date and the Guaranteed Commercial Operation Date shall, subject to notice and documentation requirements set forth below, both be automatically extended on a day-for-day basis (the "**Development Cure Period**") for the duration of any and all delays arising out of the following circumstances to the extent the following circumstances are not the result of Seller's failure to take all commercially reasonable actions to meet its requirements and deadlines:

   a. Seller has not acquired the Material Permits by the Guaranteed Construction Start Date despite the exercise of diligent and commercially reasonable efforts by Seller; or

   b. a Force Majeure Event occurs; or

   c. the Interconnection Facilities or Reliability Network Upgrades are not complete and ready for the Facility to connect and sell Product at the Delivery Point by the Guaranteed Commercial Operation Date despite the exercise of diligent and commercially reasonable efforts by Seller; or

   d. Buyer has not made all necessary arrangements to receive the Discharging 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(d) above) shall not exceed one hundred twenty (120) days, for any reason, including a Force Majeure Event, and the cumulative extensions granted to the Guaranteed Commercial Operation Date by the payment of Commercial Operation Delay Damages and any Development Cure Period(s) (other than the extensions granted pursuant to clause 4(d) above) shall not exceed one hundred eighty (180) days. Upon request from Buyer, Seller shall provide documentation reasonably demonstrating that the delays described in subsections (a) and (c) above did not result from Seller's actions or failure to take commercially reasonable actions.

5. **Failure to Reach Guaranteed Capacity**. If, at Commercial Operation, the Installed Capacity is less than one hundred percent (100%) of the Guaranteed Capacity, Seller shall have ninety (90) days after the Commercial Operation Date to install additional capacity and/or Network Upgrades such that the Installed Capacity is equal to (but not greater than) the Guaranteed Capacity, and Seller shall provide to Buyer a new certificate substantially in the form attached as Exhibit I hereto specifying the new Installed Capacity. If Seller fails to construct the Guaranteed Capacity by such date, Seller shall pay "**Capacity Damages**" to Buyer, in an amount equal to [redacted] for each MW that the Guaranteed Capacity exceeds the Installed Capacity, and the Guaranteed Capacity and other applicable portions of the Agreement shall be adjusted accordingly. Capacity Damages shall not be offset or reduced by the payment of Development Security, Performance Security, Daily Delay Damages, Commercial Operation Delay Damages, or any other form of liquidated damages under this Agreement.

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.

EXHIBIT C

COMPENSATION

(a) Monthly Compensation. Each month of the Delivery Term (and pro-rated for the first and last month of the Delivery Term if the Delivery Term does not start on the first day of a calendar month), Buyer shall pay Seller a Monthly Capacity Payment equal to the Contract Price x Effective Capacity x Availability Adjustment x Efficiency Rate Adjustment. Such payment constitutes the entirety of the amount due to Seller from Buyer for the Product. If the Effective Capacity and/or Efficiency Rate are adjusted pursuant to a Capacity Test effective as of a day other than the first day of a calendar month, payment shall be calculated separately for each portion of the month in which the different Effective Capacity and/or Efficiency Rate are applicable.

(b) Availability Adjustment. The "**Availability Adjustment**" (or "**AA**") is calculated as follows:

[redacted]

[redacted]

[redacted]

[redacted]

(c) Efficiency Rate Adjustment. The "**Efficiency Rate Adjustment**" is calculated as follows:

[redacted]

[redacted]

[redacted]

[redacted]

(d) Tax Credits. If, prior to the commencement of Commercial Operation of the Facility, Federal Investment Tax Credit Legislation is enacted that is applicable to the Facility, Seller shall use commercially reasonable efforts (including taking into consideration any increased costs that may be required in order to qualify for any New Tax Credit) to cause the ITC or other Tax Credits provided by such Federal Investment Tax Credit Legislation ("**New Tax Credit**") to be available for the Facility; *provided*, however, that the Parties' obligations hereunder, including for delivery and purchase of the Product, shall be effective regardless of whether the Facility or the sale of Product hereunder is eligible for or receives the New Tax Credit, and the Contract Price shall not be revised if Seller does not receive the New Tax Credit or if the New Tax Credit expires, ceases to apply or is repealed before it can be used by Seller. [redacted]

EXHIBIT D

SCHEDULING COORDINATOR RESPONSIBILITIES

(a) Buyer as Scheduling Coordinator for the Facility. Unless Buyer agrees in its absolute discretion to provide Scheduling Coordinator services prior to the Commercial Operation Date, beginning on the Commercial Operation Date, 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 (as applicable) of Charging Energy, Discharging Energy and the Product at the Delivery Point. At least thirty (30) days prior to the Commercial Operation Date, (i) Seller shall take all actions and execute and deliver to Buyer and the CAISO all documents necessary to authorize or designate Buyer (or Buyer's designee) as the Scheduling Coordinator for the Facility effective as of the Commercial Operation Date, 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 Commercial Operation Date. On and after the Commercial Operation Date, Seller shall not authorize or designate any other party to act as the Facility's Scheduling Coordinator, nor shall Seller perform for its own benefit the duties of Scheduling Coordinator, and Seller shall not revoke Buyer's authorization to act as the Facility's Scheduling Coordinator unless agreed to by Buyer. Buyer (as the Facility's SC) 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, real time or other CAISO market basis that may develop after the Effective Date, as determined by Buyer.

(b) Notices. Beginning on the Commercial Operation Date, Buyer (as the Facility'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 outages, forced outage reports, clearance requests, or must offer waiver forms. Seller shall 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 transmission to the personnel designated to receive such information.

(c) CAISO Costs and Revenues. Beginning on the Commercial Operation Date, Buyer (as Scheduling Coordinator for the Facility) shall be responsible for CAISO costs (including Charging Energy, penalties, Imbalance Energy costs or revenues, and other charges) and shall be entitled to all CAISO revenues (including Discharging Energy, 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 Delivery Point; *provided*, *however*, Seller shall assume all liability and reimburse Buyer for any and all costs or charges (i) incurred by Buyer because of Seller's default, breach or other failure to perform as required by this Agreement, (ii) incurred by Buyer resulting from any failure by Seller to abide by the CAISO Tariff requirements imposed on it as Facility owner (but not in connection with obligations of Buyer hereunder) or the outage notification requirements set forth in 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), or (iii) to the extent arising as a result of Seller's failure to comply with a timely Curtailment Order if such failure results in incremental costs to Buyer. The Parties agree that any Availability Incentive Payments (as defined in the CAISO Tariff) are for the benefit of Seller and for Seller's account and that any Non-Availability Charges (as defined in the CAISO Tariff) are the responsibility of Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, and any such sanctions or penalties are imposed upon the Facility or to Buyer as Scheduling Coordinator due to failure by Seller to abide by the CAISO Tariff or the outage notification requirements set forth in this Agreement, the cost of the sanctions or penalties shall be Seller's responsibility.

(d) CAISO Settlements. Beginning on the Commercial Operation Date, Buyer (as the Facility'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 payments, charges or penalties ("**CAISO Charges Invoice**") for which Seller is responsible under this Agreement. CAISO Charges Invoices shall be rendered after settlement information becomes available from the CAISO that identifies any CAISO charges. Notwithstanding the foregoing, Seller acknowledges that the CAISO will issue additional invoices reflecting CAISO adjustments to such CAISO charges. Buyer shall review, validate, and if requested by Seller under paragraph (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 such 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 in respect of performance prior to the expiration or termination of this Agreement shall survive the expiration or termination of this Agreement.

(e) Dispute Costs. Beginning on the Commercial Operation Date, Buyer (as the Facility'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. Seller shall provide the data to the CAISO (and to Buyer) 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. Neither Party shall change such data without the other Party's prior written consent.

(h) NERC Reliability Standards. Beginning on the Commercial Operation Date, 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.

EXHIBIT E

PROGRESS REPORTING FORM

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 reasonably likely to 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 material agreements, contracts, permits (including Material 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. Workforce Development or Supplier Diversity Reporting (if applicable). Format to be provided by Buyer.

14. Any other documentation reasonably requested by Buyer.

EXHIBIT F

FORM OF MONTHLY EXPECTED AVAILABLE CAPACITY REPORT

[Available Capacity, MW Per Hour] – [*Insert Month*]

	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
Day 1																								
Day 2																								
Day 3																								
Day 4																								
Day 5																								
[insert additional rows for each day in the month]																								
Day 29																								
Day 30																								
Day 31																								

The foregoing table is provided for informational purposes only, and it shall not constitute, or be deemed to constitute, an obligation of any of the Parties to this Agreement.

EXHIBIT G

FORM OF DAILY AVAILABILITY NOTICE

Trading Day: ________________________

Station: ________________________ Issued By: ________________________

Unit: ________________________ Issued At: ________________________

Unit 100% Available No Restrictions: ________________________

Hour Ending	Available Capacity			Comments
	(MW)			
1:00				
2:00				
3:00				
4:00				
5:00				
6:00				
7:00				
8:00				
9:00				
10:00				
11:00				
12:00				
13:00				
14:00				
15:00				
16:00				
17:00				
18:00				
19:00				
20:00				
21:00				
22:00				
23:00				
0:00				

Comments: ____

____

____

____

____

____

EXHIBIT H

FORM OF COMMERCIAL OPERATION DATE CERTIFICATE

This certification ("**Certification**") of Commercial Operation is delivered by _______ [*licensed professional engineer*] ("**Engineer**") to California Community Power, a California joint powers authority **(**"**Buyer**") in accordance with the terms of that certain Energy Storage Service Agreement dated _______ ("**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.

As of _______[DATE]_____, Engineer hereby certifies and represents to Buyer the following:

1. The Facility is fully operational, interconnected, and synchronized with the Transmission System in accordance with the Interconnection Agreement.

2. The Facility has met all Interconnection Agreement requirements and is capable of receiving Charging Energy from, and delivering Discharging Energy to, the CAISO Balancing Authority.

3. The commissioning of the equipment has been completed in accordance with the applicable material requirements of the manufacturers' specifications.

4. The Facility's Installed Capacity is no less than ninety-five percent (95%) of the Guaranteed Capacity and the Facility is capable of charging, storing and discharging Energy, all within the operational constraints and subject to the applicable Operating Restrictions.

5. Authorization to parallel the Facility was obtained by the Transmission Provider, [Name of Transmission Provider as appropriate] on___[DATE]____.

6. The Transmission Provider has provided documentation supporting full unrestricted release for Commercial Operation by [Name of Transmission Provider as appropriate] on _______[DATE]_____.

7. The CAISO has provided notification supporting Commercial Operation, in accordance with the CAISO Tariff on _______[DATE]_____.

8. Seller has segregated and separately metered Station Use to the extent reasonably possible in accordance with Prudent Operating Practice, and any such meter(s) have the same or greater level of accuracy as is required for CAISO certified meters used for settlement purposes.

EXECUTED by **[**LICENSED PROFESSIONAL ENGINEER**]**
this ________ day of _____________, 20__.

[LICENSED PROFESSIONAL ENGINEER**]**
By:_________________________________
Its:_________________________________
Date:__________________________

EXHIBIT I

FORM OF CAPACITY AND EFFICIENCY RATE TEST CERTIFICATE

This certification ("**Certification**") of Capacity and Efficiency Rate Test results is delivered by [licensed professional engineer] ("**Engineer**") to California Community Power, a California joint powers authority ("**Buyer**") in accordance with the terms of that certain Energy Storage Service Agreement dated __________ ("**Agreement**") by and between [*SELLER ENTITY*] 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.

I hereby certify that a Capacity and Efficiency Rate Test conducted on [Date] demonstrated (i) an [Installed or Effective] Capacity of __ MW AC to the Delivery Point at eight (8) hours of continuous discharge, (ii) a Battery Charging Factor of __%, (iii) a Battery Discharging Factor of __%, and (iv) an Efficiency Rate of __%, all in accordance with the testing procedures, requirements and protocols set forth in Section 4.4 and Exhibit O.

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 of Construction Start Date ("**Certification**") is delivered by [SELLER ENTITY] ("**Seller**") to California Community Power, a California joint powers authority ("**Buyer**") in accordance with the terms of that certain Energy Storage Service Agreement dated __________ ("**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) Construction Start (as defined in Exhibit B of the Agreement) has occurred, and a copy of the notice to proceed that Seller issued to its contractor as part of Construction Start is attached hereto.

(2) the Construction Start Date occurred on _____________ (the "**Construction Start Date**"); and

(3) 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 of the Agreement.)

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

[SELLER ENTITY]

By:_________________________________
Its:_________________________________

Date:_______________________________

EXHIBIT K

FORM OF LETTER OF CREDIT

[Issuing Bank Letterhead and Address]

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [XXXXXXX]

Date:

Bank Ref.:

Amount: US$[XXXXXXXX]

Beneficiary:

California Community Power,
a California joint powers authority
[Address]

Ladies and Gentlemen:

By the order of __________ ("Applicant"), we, [insert bank name and address] ("Issuer") hereby issue our Irrevocable Standby Letter of Credit No. [XXXXXXX] (the "Letter of Credit") in favor of California Community Power, a California joint powers authority ("Beneficiary"), [Address], for an amount not to exceed the aggregate sum of U.S. $[XXXXXX] (United States Dollars [XXXXX] and 00/100) (the "Available Amount"), pursuant to that certain Energy Storage [Service] Agreement dated as of ______ and as amended (the "Agreement") between Applicant and Beneficiary. This Letter of Credit shall become effective immediately and shall be of no further force or effect at 5:00 p.m., California time, on [Date] or, if such day is not a Business Day (as hereinafter defined), on the next Business Day (as may be extended pursuant to the terms of this Letter of Credit, the "Expiration Date").

For the purposes hereof, "Business Day" shall mean any day on which commercial banks are not authorized or required to close in San Francisco, California.

Funds under this Letter of Credit are available to Beneficiary by valid presentation on or before 5:00 p.m. California time, on or before the Expiration Date of a copy of this Letter of Credit No. [XXXXXXX] and all amendments accompanied by Beneficiary's dated statement purportedly signed by Beneficiary's duly authorized representative, in the form attached hereto as <u>Exhibit A</u>, containing one of the two alternative paragraphs set forth in paragraph 2 therein.

Any full or partial drawing hereunder may be requested by transmitting copies of the requisite documents as described above to the Issuer by facsimile at [facsimile number for draws] or such other number as specified from time-to-time by the Issuer.

The facsimile transmittal shall be deemed delivered when received. Drawings made by facsimile transmittal are deemed to be the operative instrument without the need of originally signed documents.

Issuer hereby agrees that all drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored if presented to the Issuer before the Expiration Date. All correspondence and any drawings (other than those made by facsimile) hereunder are to be directed to [Issuer address/contact]. Issuer undertakes to make payment to Beneficiary under this Standby Letter of Credit within three (3) business days of receipt by Issuer of a properly presented Drawing Certificate. The Beneficiary shall receive payment from Issuer by wire transfer to the bank account of the Beneficiary designated in the Drawing Certificate.

Partial draws are permitted under this Letter of Credit, and this Letter of Credit shall remain in full force and effect with respect to any continuing balance; *provided*, the Available Amount shall be reduced by the amount of each such drawing.

It is a condition of this Letter of Credit that it shall be deemed automatically extended without an amendment for a one year period (or, if such period ends on a day that is not a Business Day, until the next Business Day thereafter) beginning on the present Expiration Date hereof and upon each anniversary for such date (or, if such period ends on a day that is not a Business Day, until the next Business Day thereafter), unless at least ninety (90) days prior to any such Expiration Date Issuer has sent Beneficiary written notice by overnight courier service at the address provided below that Issuer elects not to extend this Letter of Credit, in which case it will expire on its then current Expiration Date. No presentation made under this Letter of Credit after such Expiration 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.

Except so far as otherwise stated, this Letter of Credit is subject to the International Standby Practices ISP98 (also known as ICC Publication No. 590), or revision currently in effect (the “ISP”). As to matters not covered by the ISP, the laws of the State of California, without regard to the principles of conflicts of laws thereunder, shall govern all matters with respect to this Letter of Credit.

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. [XXXXXXX]. For telephone assistance, please contact Issuer’s Standby Letter of Credit Department at [XXX-XXX-XXXX] and have this Letter of Credit available.

All notices to Beneficiary shall be in writing and are required to be sent by certified letter, overnight courier, or delivered in person to: California Community Power, a California joint powers authority, [Title], [Address]. Only notices to Beneficiary meeting the requirements of this paragraph shall be considered valid. Any notice to Beneficiary which is not in accordance with this paragraph shall be void and of no force or effect.

[Bank Name]

____
[Insert officer name]
[Insert officer title]

EXHIBIT A

(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 California Community Power, [ADDRESS], as beneficiary (the "Beneficiary") of the Irrevocable Letter of Credit No. [XXXXXXX] (the "Letter of Credit") issued by [insert bank name] (the "Bank") by order of __________ (the "Applicant"), hereby certifies to the Bank as follows:

1. Applicant and Beneficiary are party to that certain Energy Storage Service Agreement dated as of ___________, 20__ (the "Agreement").

2. Beneficiary is making a drawing under this Letter of Credit in the amount of U.S. $___________ because a Seller Event of Default (as such term is defined in the Agreement) has occurred.

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 Applicant is required to maintain the Letter of Credit in force and effect beyond the expiration date of the Letter of Credit but has failed to provide Beneficiary with a replacement Letter of Credit or other acceptable instrument within thirty (30) days prior to such expiration date.

3. The undersigned is a duly authorized representative of [ ] 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 [ ] by wire transfer in immediately available funds to the following account:

[Specify account information]

[ ]

____

Name and Title of Authorized Representative

Date__________________________

EXHIBIT L

FORM OF BUYER LIABILITY PASS THROUGH AGREMENT

This Buyer Liability Pass Through Agreement (this "**BLPTA**") is entered into as of [______], 20__ (the "**BLPTA Effective Date**") by and between [______], a [______] (together with its successors and permitted assigns "**Project Participant**"), California Community Power, a California joint powers authority ("**CC Power**"), and [_____], a [______] (together with its successors and permitted assigns "**Seller**"). Seller, CC Power, and Project Participant are sometimes referred to herein individually as a "**Party**" and jointly as the "**Parties**."

RECITALS

WHEREAS, CC Power and Seller have entered into that certain Energy Storage Service Agreement (as amended, restated or otherwise modified from time to time, the "**ESSA**") dated as of [_____], 20__;

WHEREAS, Project Participant is entering into this BLPTA to secure, in part, California Community Power's obligations under the ESSA;

WHEREAS, Project Participant is named as a Project Participant under the ESSA and will derive substantial direct and indirect benefits from the execution and delivery of the ESSA;

WHEREAS, Seller and CC Power will derive substantial and direct benefits from the execution and delivery of this BLPTA; and

WHEREAS, initially capitalized terms used but not defined herein have the meaning set forth in the ESSA.

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 agree to the following:

AGREEMENT

1. Project Participant Covenants. For value received, Project Participant does hereby unconditionally, absolutely, and irrevocably guarantee, as obligor and not as a surety, to Seller the complete and prompt payment of [X%] (the "**Liability Share**"), as the same may be adjusted pursuant to Section 4, ***[Note: Insert percentage from Exhibit V]*** of all obligations and liabilities for payment now or hereafter owing from CC Power to Seller under the ESSA, including liabilities for Monthly Capacity Payments, the Damage Payment or Termination Payment, as applicable, and any other damage payments or reimbursement amounts (each such obligation or liability of CC Power under the ESSA, a "**Guaranteed Amount**"). Any payment made directly from CC Power to Seller under the ESSA shall reduce Project Participant's liability hereunder by reducing the total amount that is used to calculate the Guaranteed Amount pursuant to the preceding sentence. This BLPTA is an irrevocable, absolute, unconditional, and continuing guarantee of the punctual payment and performance, and not of collection, of Project Participant's

Liability Share of the Guaranteed Amount. In the event CC Power shall fail to duly, completely, or punctually pay any amount owed by Buyer pursuant to the terms and conditions of the ESSA, and such failure is not remedied within ten (10) Business Days after Notice thereof pursuant to Sections 11.1 or 11.4, as applicable, Project Participant shall promptly pay Project Participant's Liability Share of the Guaranteed Amount, as required herein.

2. **Seller Waiver**. In consideration of the foregoing, Seller unconditionally waives:

a) all right to recover directly from CC Power any Damage Payment or Termination Payment that is not paid by CC Power pursuant to Sections 11.3 and 11.4 of the ESSA, but the foregoing waiver does not apply to any other right or remedy of Seller under the ESSA, including the right to recover accrued Monthly Capacity Payments, other amounts payable or reimbursable under the ESSA or any other amounts incurred or accrued prior to termination of the ESSA and the right to terminate the ESSA as the result of an Event of Default by Buyer

3. **Demand Notice**. For avoidance of doubt, Seller may demand payment from Project Participant for purposes of this BLPTA only when and if a payment is not duly, completely, or punctually paid by CC Power pursuant to the terms and conditions of the ESSA and such failure is not remedied by CC Power within ten (10) Business Days after Notice thereof is issued pursuant to Sections 11.1 or 11.4, as applicable. If CC Power fails to pay any amount when due pursuant to the ESSA, and such failure is not remedied by CC Power within ten (10) Business Days after Notice thereof, then Seller may exercise its rights under this BLPTA and make a payment demand upon Project Participant to pay Project Participant's Liability Share of the unpaid Guaranteed Amount (a "**Payment Demand**"). A Payment Demand shall be in writing and shall reasonably specify (a) in what manner and what amount CC Power has failed to pay, (b) an explanation of why such payment is due and owing, (c) a calculation of the Guaranteed Amount due from Project Participant, and (d) a specific statement that Seller is requesting that Project Participant pay its Guaranteed Liability Share of the unpaid Guaranteed Amount under this BLPTA. Project Participant shall, within fifteen (15) Business Days following its receipt of the Payment Demand, pay to Seller Project Participant's Liability Share of the unpaid Guaranteed Amount.

4. **Step-Up Events.** Within thirty (30) days after the occurrence of a Step-Up Event, Project Participant and CC Power will tender to Seller a duly executed and binding replacement Buyer Liability Pass Through Agreement in the same form as this Agreement, but for a Liability Share equal to the Project Participant's Revised Liability Share. Upon receipt of such executed replacement Buyer Liability Pass Through Agreement, Seller will cancel this Buyer Liability Pass Through Agreement, effective upon the effectiveness of the replacement Buyer Liability Pass Through Agreement. For the avoidance of doubt, the cancellation of an existing Buyer Liability Pass Through Agreement shall not be effective unless and until the replacement Buyer Liability Pass Through Agreement has become effective and binding. Following delivery of such replacement Buyer Liability Pass Through Agreement and cancellation of this Buyer Liability Pass Through Agreement, Exhibit V to the ESSA will be deemed amended to reflect the Project Participant's Revised Liability Share; *provided* that the Project Participant's Revised Liability Share shall not exceed one hundred twenty-five percent (125%) of the Project Participant's Initial Liability Share.

5. **Scope and Duration of BLPTA**. The obligations under this BLPTA are independent of the obligations of CC Power under the ESSA, and an action may be brought to enforce this BLPTA whether or not action is brought against CC Power under the ESSA. This BLPTA shall continue in full force and effect from the BLPTA Effective Date until both of the following have occurred: (a) the Delivery Term of the ESSA has expired or terminated early, and (b) either (i) all payment obligations of CC Power due and payable under the ESSA are paid in full (whether directly or indirectly such as through set-off or netting) or (ii) Project Participant has paid the maximum Guaranteed Amount (i.e. based on its maximum Revised Liability Share as provided in Section 4) in full. This BLPTA shall also continue to be effective or be reinstated, as the case may be, if at any time any payment of any Guaranteed Amount by CC Power is rescinded or must otherwise be returned by Seller upon the insolvency, bankruptcy or reorganization of CC Power or similar proceeding, all as though such payment had not been made, and Project Participant's Liability Share of such Guaranteed Amount shall be subject to payment following a Payment Demand issued pursuant to this BLPTA. Without limiting the generality of the foregoing, and to the extent that the Project Participant has not paid its maximum Guaranteed Amount in full, the obligations of the Project Participant hereunder shall not be released, discharged, or otherwise affected, and this BLPTA shall not be invalidated or impaired or otherwise affected for the following reasons:

a) The extension of time for the payment of any Guaranteed Amount; or

b) Any amendment, modification or other alteration of the ESSA; or

c) Any insurance that may be available to cover any loss, except to the extent insurance proceeds are used to satisfy the Guaranteed Amount; or

d) Any voluntary or involuntary liquidation, dissolution, receivership, insolvency, bankruptcy, assignment for the benefit of creditors, reorganization, arrangement, composition or readjustment of, or other similar proceeding affecting CC Power, including but not limited to any rejection or other discharge of CC Power's obligations under the ESSA imposed by any court, trustee or custodian or any similar official or imposed by any law, statue or regulation, in each such event in any such proceeding; or

e) Any reorganization of CC Power or Project Participant, or any merger or consolidation of CC Power or Project Participant into or with any other Person; or

f) The receipt, release, modification or waiver of, or failure to pursue or seek relief under or with respect to, any other BLPTA, guaranty, collateral, pledge or security device whatsoever; or

g) CC Power's inability to pay any Guaranteed Amount or perform its obligations under the ESSA; or

h) Any other event or circumstance that may now or hereafter constitute a defense to payment of the Guaranteed Amount, including, without limitation, statute of frauds and accord and satisfaction; *provided* that Project Participant reserves the right to assert for itself any defenses, setoffs or counterclaims that CC Power is or may be entitled to assert against Seller, including with respect to disputes regarding the calculation of a Guaranteed Amount.

6. **Waivers by Project Participant**. Project Participant hereby unconditionally waives as a condition precedent to the performance of its obligations hereunder, with the exception of the requirements in Paragraphs 2 and 3, (a) notice of acceptance, presentment or protest, notice of any of the events described in Paragraph 5, or any other notice or demand of any kind with respect to the Guaranteed Amounts and this BLPTA, (b) any requirement that Seller pursue or exhaust any right, power or remedy or proceed against California Community Power under the ESSA or against any other Person, including any obligation to pursue any other BLPTAs, or to marshal assets, (c) any defense based on any of the matters described in Paragraph 4, (d) all rights of subrogation or other rights to pursue CC Power for payments made under this BLPTA until all amounts owing under the ESSA have been paid in full, and (e) any duty of Seller to disclose any information or other matters relating to the business, operations or finances or other condition of CC Power or any other Person who has provided a BLPTA or other security or guaranty with respect to the ESSA now or hereafter known to Seller. Project Participant further acknowledges and agrees that it is and will be bound by actions taken and elections made by CC Power under the ESSA and waives any defense based on CC Power's authority or lack thereof or the validity, regularity or advisability of the actions taken or elections made.

7. **Project Participant Representations and Warranties**. Project Participant hereby represents and warrants that (a) it has all necessary and appropriate powers and authority and the legal right to execute and deliver, and perform its obligations under, this BLPTA, (b) this BLPTA constitutes its legal, valid and binding obligations enforceable against it in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, moratorium and other similar laws affecting enforcement of creditors' rights or general principles of equity, (c) the execution, delivery and performance of this BLPTA does not and will not contravene Project Participant's organizational documents, any applicable Law or any contractual provisions binding on or affecting Project Participant, (d) there are no actions, suits or proceedings pending before any court, governmental agency or arbitrator, or, to the knowledge of the Project Participant, threatened, against or affecting Project Participant or any of its properties or revenues which may, in any one case or in the aggregate, adversely affect the ability of Project Participant to enter into or perform its obligations under this BLPTA, and (e) no consent or authorization of, filing with, or other act by or in respect of, any arbitrator or Governmental Authority, and no consent of any other Person (including, any member of the Project Participant), that has not heretofore been obtained is required in connection with the execution, delivery, performance, validity or enforceability of this BLPTA by Project Participant.

8. **Seller Representations and Warranties**. Seller hereby represents and warrants that (a) it has all necessary and appropriate powers and authority and the legal right to execute and deliver, and perform its obligations under, this BLPTA, (b) this BLPTA constitutes its legal, valid and binding obligations enforceable against it in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, moratorium and other similar laws affecting enforcement of creditors' rights or general principles of equity, (c) the execution, delivery and performance of this BLPTA does not and will not contravene Seller's organizational documents, any applicable Law or any contractual provisions binding on or affecting Seller, (d) there are no actions, suits or proceedings pending before any court, governmental agency or arbitrator, or, to the knowledge of the Seller, threatened, against or affecting Seller or any of its properties or revenues which may, in any one case or in the aggregate, adversely affect the ability of Seller to enter into or perform its obligations under this BLPTA, and (e) no consent or authorization of, filing with, or other act by or in respect of, any arbitrator or Governmental Authority, and no consent of any other Person (including, any stockholder or creditor of the Seller), that has not heretofore been obtained is required in connection with the execution, delivery, performance, validity or enforceability of this BLPTA by Seller.

9. **California Community Power Representations and Warranties**. California Community Power hereby represents and warrants that (a) it has all necessary and appropriate powers and authority and the legal right to execute and deliver, and perform its obligations under, this BLPTA, (b) this BLPTA constitutes its legal, valid and binding obligations enforceable against it in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, moratorium and other similar laws affecting enforcement of creditors' rights or general principles of equity, (c) the execution, delivery and performance of this BLPTA does not and will not contravene California Community Power's organizational documents, any applicable Law or any contractual provisions binding on or affecting California Community Power, (d) there are no actions, suits or proceedings pending before any court, governmental agency or arbitrator, or, to the knowledge of the California Community Power, threatened, against or affecting California Community Power or any of its properties or revenues which may, in any one case or in the aggregate, adversely affect the ability of California Community Power to enter into or perform its obligations under this BLPTA, and (e) no consent or authorization of, filing with, or other act by or in respect of, any arbitrator or Governmental Authority, and no consent of any other Person (including, any member of California Community Power), that has not heretofore been obtained is required in connection with the execution, delivery, performance, validity or enforceability of this BLPTA by California Community Power.

10. **Notices**. Notices under this BLPTA shall be deemed received if sent to the address specified below: (i) on the day received if served by overnight express delivery, and (ii) four (4) Business Days after mailing if sent by certified, first-class mail, return receipt requested. Any Party may change its address or facsimile to which notice is given hereunder by providing notice of the same in accordance with this Paragraph 8.

If delivered to Seller, to it at:

[____]
Attn: [____]
Fax: [____]

If delivered to Project Participant, to it at:

[____]
Attn: [____]
Fax: [____]

If delivered to CC Power, to it at:

[____]
Attn: [____]
Fax: [____]

11. **Governing Law and Forum Selection**. This BLPTA shall be governed by, and interpreted and construed in accordance with, the laws of the United States and the State of California, excluding choice of law rules. The Parties agree that any suit, action or other legal proceeding by or against any Party (or its affiliates or designees) with respect to or arising out of this BLPTA shall be brought in the federal courts of the United States or the courts of the State of California sitting in the county of ________.

12. **Miscellaneous**. This BLPTA shall be binding upon the Parties and their respective successors and assigns and shall inure to the benefit of the Parties and their successors and permitted assigns. No provision of this BLPTA may be amended or waived except by a written instrument executed by Seller, CC Power, and Project Participant. No provision of this BLPTA confers, nor is any provision intended to confer, upon any third party (other than the Parties' successors and permitted assigns) any benefit or right enforceable at the option of that third party. This BLPTA embodies the entire agreement and understanding of the Parties hereto with respect to the subject matter hereof and supersedes all prior or contemporaneous agreements and understandings of the Parties hereto, verbal or written, relating to the subject matter hereof. If any provision of this BLPTA is determined to be illegal or unenforceable (i) such provision shall be deemed restated in accordance with applicable Laws to reflect, as nearly as possible, the original intention of the Parties hereto, and (ii) such determination shall not affect any other provision of this BLPTA and all other provisions shall remain in full force and effect. This BLPTA may be executed in any number of separate counterparts, each of which when so executed shall be deemed an original, and all of said counterparts taken together shall be deemed to constitute one and the same instrument. This BLPTA may be executed and delivered by electronic means with the same force and effect as if the same was a fully executed and delivered original manual counterpart.

13. **Assignment**. Except as provided below in this Paragraph 12, no Party may assign this BLPTA or its rights or obligations under this BLPTA, without the prior written consent of the other Parties, which consent shall not be unreasonably withheld, conditioned or delayed. Seller may, without the prior written consent of Project Participant and CC Power, transfer or assign this BLPTA to any Person to whom Seller may assign its rights or obligations under the ESSA, including assignments for financing purposes, including a Portfolio Financing; *provided*, Seller shall give Project Participant and CC Power Notice at least fifteen (15) Business Days before the date of such proposed assignment and, except in the case of a collateral assignment or other assignment for financing purposes, provide Project Participant and CC Power a written agreement signed by the Person to which Seller wishes to assign its interests that provides that such Person will fully assume all of Seller's obligations and liabilities under this BLPTA, including obligations and liabilities that arose prior to the date of transfer or assignment, upon such transfer or assignment. Project Participant may, without the prior written consent of Seller and CC Power, transfer or assign this BLPTA to any member of CC Power that (A) has a Credit Rating of at least BBB- from S&P or Baa3 from Moody's, and (B) is a load serving entity; *provided*, Project Participant shall give Seller and CC Power Notice at least fifteen (15) Business Days before the date of such proposed assignment and provide to Seller and CC Power a written agreement signed by the Person to which Project Participant wishes to assign its interests that provides that such Person will fully assume all of Project Participant's obligations and liabilities, including obligations and liabilities that arose prior to the date of transfer or assignment, under this BLPTA upon such transfer or assignment.

14. **No Recourse to Members of Project Participant**. Project Participant 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. Project Participant shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this BLPTA. Seller and CC Power shall have no rights and shall not make any claims, take any actions or assert any remedies against any of Project Participant's constituent members, or the officers, directors, advisors, contractors, consultants or employees of Project Participant or its constituent members, in connection with this BLPTA.

15. **No Recourse to Members of CC Power**. CC Power 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. Except as expressly set forth in the ESSA and this BLPTA, CC Power shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this BLPTA, and as such, Seller and Project Participant shall have no rights and shall not make any claims, take any actions or assert any remedies against any of CC Power's constituent members, or the officers, directors, advisors, contractors, consultants or employees of Project Participant or its constituent members, in connection with this BLPTA.

16. **CleanPowerSF as Project Participant**. Paragraph 14 shall not apply if CleanPowerSF is the Project Participant, but the following shall apply:

a) Designated Fund. CleanPowerSF payment obligations under this BLPTA are special limited obligations of CleanPowerSF payable solely from the revenues of CleanPowerSF. CleanPowerSF's payment obligations under this BLPTA are not a charge upon the revenues or general fund of the San Francisco Public Utility Commission ("**SFPUC**") or the City and County of San Francisco or upon any non- CleanPowerSF moneys or other property of the SFPUC or the City and County of San Francisco.

b) Controller Certification. CleanPowerSF's obligations hereunder shall not at any time exceed the amount certified by the Controller for the purpose and period stated in such certification. Except as may be provided by laws governing emergency procedures, officers and employees of CleanPowerSF are not authorized to request, and CleanPowerSF is not required to reimburse Seller for, commodities or services beyond the agreed upon contract scope unless the changed scope is authorized by amendment and approved as required by law. Officers and employees of CleanPowerSF are not authorized to offer or promise, nor is CleanPowerSF required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation.

c) Biennial Budget Process. For each City and County of San Francisco biennial budget cycle during the term of this BLPTA, CleanPowerSF agrees to take all necessary action to include the maximum amount of its annual payment obligations under this BLPTA in its budget submitted to the City and County of San Francisco's Board of Supervisors for each year of that budget cycle.

d) Compliance with Laws. Each Party shall keep itself fully informed of all applicable federal, state, and local laws in any manner affecting the performance of its obligations under this BLPTA, and must at all times materially comply with such applicable laws as they may be amended from time to time.

e) Prohibition on Political Activity with City Funds. In performing any services required under this BLPTA, Seller shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this BLPTA from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure in San Francisco.

f) Non-discrimination in Contracts. Seller shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Seller shall incorporate by reference in all subcontracts the provisions of Sections12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Seller is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

g) Non-discrimination in the Provision of Employee Benefits. San Francisco Administrative Code 12B.2. Seller does not as of the date of this BLPTA, and will not during the term of this BLPTA, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

h) Submitting False Claims. Pursuant to San Francisco Administrative Code §21.35, any contractor or subcontractor who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor or subcontractor will be deemed to have submitted a false claim to the City if the contractor or subcontractor: (1) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (2) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (3) conspires to defraud the City by getting a false claim allowed or paid by the City; (4) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (5) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

i) Consideration of Salary History. Seller shall comply with San Francisco Administrative Code Chapter 12K, the Consideration of Salary History Ordinance or "Pay Parity Act." Seller is prohibited from considering current or past salary of an applicant in determining whether to hire the applicant or what salary to offer the applicant to the extent that such applicant is applying for employment to be performed on this BLPTA or in furtherance of this BLPTA, and whose application, in whole or part, will be solicited, received, processed or considered, whether or not through an interview, in the City or on City property.

j) Consideration of Criminal History in Hiring and Employment Decisions.

Seller agrees to comply fully with and be bound by all of the provisions of Chapter 12T, "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Administrative Code, including the remedies provided, and implementing regulations, as may be amended from time to time. The requirements of Chapter 12T shall only apply to Seller's operations to the extent those operations are in furtherance of the performance of this BLPTA, shall apply only to applicants and employees who would be or are performing work in furtherance of this BLPTA, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

k) Conflict of Interest. By executing this BLPTA, Seller certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 et seq.), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 et seq.), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this BLPTA.

l) Campaign Contributions. By executing this BLPTA, Seller acknowledges its obligations under Section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with, or is seeking a contract with, any department of the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, for a grant, loan or loan guarantee, or for a development agreement, from making any campaign contribution to (i) a City elected official if the contract must be approved by that official, a board on which that official serves, or the board of a state agency on which an appointee of that official serves, (ii) a candidate for that City elective office, or (iii) a committee controlled by such elected official or a candidate for that office, at any time from the submission of a proposal for the contract until the later of either the termination of negotiations for such contract or twelve months after the date the City approves the contract. The prohibition on contributions applies to each prospective party to the contract; each member of Seller's board of directors; Seller's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than ten percent (10%) in Seller; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Seller. Seller shall inform the relevant persons of the limitation on contributions imposed by Section 1.126.

m) MacBride Principles – Northern Ireland. Pursuant to San Francisco Administrative Code § 12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with corporations that abide by the MacBride principles.

n) Tropical Hardwood and Virgin Redwood Ban. The City and County of San Francisco urges contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood product, virgin redwood or virgin redwood product. If this order is for wood products or a service involving wood products: (a) Chapter 8 of the Environment Code is incorporated herein and by reference made a part hereof as though fully set forth. (b) Except as expressly permitted by the application of Sections 802(B), 803(B), and 804(B) of the Environment Code, Seller shall not provide any items to the City in performance of this BLPTA which are tropical hardwoods, tropical hardwood products, virgin redwood or virgin redwood products. (c) Failure of Seller to comply with any of the requirements of Chapter 8 of the Environment Code shall be deemed a material breach of contract.

o) Effect on Payment Obligations. The Parties agree that, although breach of an obligation set forth in Sections 16(d) through 16(n) may result in Seller incurring liability for such breach, any such liability will be independent of Project Participant's liability hereunder, and no breach of or default by Seller under Sections 16(d) through 16(n) will relieve Project Participant of its liability for its Liability Share of all Guaranteed Amounts, nor may any such breach or default, or claim of breach or default, be permitted or asserted as a defense to or offset against payment of any amounts owed by Project Participant to Seller hereunder.

17. City of San José (San José Clean Energy) as Project Participant. Paragraph 14 shall not apply if the City of San José, as administrator of San José Clean Energy ("**SJCE**") is the Project Participant, but the following shall apply:

a) Designated Fund. The City of San José is a municipal corporation and is precluded under the California State Constitution and applicable law from entering into obligations that financially bind future governing bodies without an appropriation for such obligation, and, therefore, nothing in the Agreement shall constitute an obligation of future legislative bodies of the City to appropriate funds for purposes of the Agreement; *provided*, *however*, that the City of San José has created and set aside a designated fund (being the San Jose Energy Operating Fund established pursuant to City of San Jose Municipal Code, Title 4, Part 63, Section 4.80.4050 *et. seq.*) ("**Designated Fund**") for payment of its obligations under this BLPTA. Subject to the requirements and limitations of applicable law and taking into account other available money specifically authorized by the San José City Council and allocated and appropriated to the SJCE's obligations, SJCE agrees to establish rates and charges that are sufficient to maintain revenues in the Designated Fund necessary to pay its obligations under this BLPTA.

b) Limited Obligations. SJCE's payment obligations under this BLPTA are special limited obligations of the SJCE payable solely from the Designated Fund and are not a charge upon the revenues or general fund of the City of San José or upon any non- San José Clean Energy moneys or other property of the Community Energy Department or the City of San José.

c) Nondiscrimination/Non-Preference. In performing its obligations under this BLPTA, Seller shall not, and shall not cause or allow its subcontractors to, discriminate against or grant preferential treatment to any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity or national origin. This prohibition applies to recruiting, hiring, demotion, layoff, termination, compensation, fringe benefits, advancement, training, apprenticeship and other terms, conditions, or privileges of employment, subcontracting and purchasing. Seller will inform all subcontractors of these obligations. This prohibition is subject to the following conditions: (i) the prohibition is not intended to preclude Seller from providing a reasonable accommodation to a person with a disability; (ii) the City's Compliance Officer may require Seller to file, and cause any Seller's subcontractor to file, reports demonstrating compliance with this section. Any such reports shall be filed in the form and at such times as the City's Compliance Officer designates. They shall contain such information, data and/or records as the City's Compliance Officer determines is needed to show compliance with this provision.

d) Conflict of Interest. Seller represents that it is familiar with the local and state conflict of interest laws and agrees to comply with those laws in performing this BLPTA. Seller certifies that, as of the Effective Date, it was unaware of any facts constituting a conflict of interest or creating an appearance of a conflict of interest. Seller shall avoid all conflicts of interest or appearances of conflicts of interest in performing this BLPTA. Seller has the obligation of determining if the manner in which it performs any part of this BLPTA results in a conflict of interest or an appearance of a conflict of interest and shall immediately notify SJCE in writing if it becomes aware of any facts giving rise to a conflict of interest or the appearance of a conflict of interest. Seller's violation of this subsection (ii) is a material breach.

e) Environmentally Preferable Procurement Policy. Seller shall perform its obligations under this BLPTA in conformance with San José City Council Policy 1-19, entitled "Prohibition of City Funding for Purchase of Single serving Bottled Water," and San José City Council Policy 4-6, entitled "Environmentally Preferable Procurement Policy," as those policies may be amended from time to time. The Parties acknowledge and agree that in no event shall a breach of this Section 13.1(g) be a material breach of this BLPTA or otherwise give rise to an Event of Default or entitle SJCE to terminate this BLPTA.

f) Gifts Prohibited. Seller represents that it is familiar with Chapter 12.08 of the San José Municipal Code, which generally prohibits a City of San José officer or designated employee from accepting any gift. Seller shall not offer any City of San José officer or designated employee any gift prohibited by Chapter 12.08. Seller's violation of this subsection (iv) is a material breach.

g) Disqualification of Former Employees. Seller represents that it is familiar with Chapter 12.10 of the San José Municipal Code, which generally prohibits a former City of San José officer and former designated employee from providing services to the City of San José connected with his/her former duties or official responsibilities. Seller shall not use either directly or indirectly any officer, employee or agent to perform any services if doing so would violate Chapter 12.10.

h) Effect on Payment Obligations. The Parties agree that, although breach of an obligation set forth in Sections 17(d) through 17(g) may result in Seller incurring liability for such breach, any such liability will be independent of Project Participant's liability hereunder, and no breach of or default by Seller under Sections 17(c) through 17(h) will relieve Project Participant of its liability for its Liability Share of all Guaranteed Amounts, nor may any such breach or default, or claim of breach or default, be permitted or asserted as a defense to or offset against payment of any amounts owed by Project Participant to Seller hereunder.

IN WITNESS WHEREOF, the Parties have caused this BLPTA to be duly executed and delivered by their duly authorized representatives on the date first above written.

[**PROJECT PARTICIPANT**]:

By:_______________________________

Printed Name:___________________

Title:_____________________________

CALIFORNIA COMMUNITY POWER, a California joint powers authority:

By:_______________________________

Printed Name:___________________

Title:_____________________________

[**SELLER**]:

By:_______________________________

Printed Name:___________________

Title:_____________________________

EXHIBIT M

FORM OF REPLACEMENT RA NOTICE

This Replacement RA Notice (this "**Notice**") is delivered by [SELLER ENTITY] ("**Seller**") to [______], a California joint powers authority ("**Buyer**") in accordance with the terms of that certain Energy Storage Service Agreement dated __________ ("**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 3.5 of the Agreement, Seller hereby provides the below Replacement RA product information:

Unit Information[1]

Name	
Location	
CAISO Resource ID	
Unit SCID	
Prorated Percentage of Unit Factor	
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	
Delivery Period	

Month	Unit CAISO NQC (MW)	Unit Contract Quantity (MW)
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

[1] To be repeated for each unit if more than one.

[SELLER ENTITY]

By:__________________________________
Its:__________________________________

Date:________________________________

EXHIBIT N

NOTICES

Tumbleweed Energy Storage, LLC (“Seller”)	**California Community Power, a California joint powers authority** (“Buyer”)
All Notices: Street: 5000 Hopyard Road, Suite 480 City: Pleasanton, CA 94588 Attn: Contract administration Phone: C: 510-363-7124 | O: 925-201-5232 Email: GBrehm@RevRenewables.com	**All Notices:** Street: 70 Garden Court, Suite 300 City: Monterey, CA 93940 Attn: Tim Haines Phone: 916-207-4078 Email: timhaines@powergridsymmetry.com
Scheduling: Attn: Edward Warner Phone: 925-201-5233 | C: 925-519-0031 Email: EWarner@RevRenewables.com	**Scheduling:** Attn: TBD Phone: TBD Email: TBD
Confirmations: Attn: Greg Brehm Phone: C: 510-363-7124 | O: 925-201-5232 Email: GBrehm@RevRenewables.com	**Confirmations:** Attn: TBD Phone: TBD Email: TBD
Invoices: Attn: Adekunle Adebayo Phone: 732-867-5910 E-mail: AAdebayo@RevRenewables.com	**Invoices:** Attn: TBD Phone: TBD E-mail: TBD
Payments: Attn: Adekunle Adebayo Phone: 732-867-5910 E-mail: AAdebayo@RevRenewables.com	**Payments:** Attn: TBD Phone: TBD E-mail: TBD
Wire Transfer: BNK: [redacted] ABA: [redacted] ACCT: [redacted]	**Wire Transfer:** BNK: TBD ABA: TBD ACCT: TBD
Reference Numbers: Duns: N/A Federal Tax ID Number: 85-3069929	**Reference Numbers:** Duns: Federal Tax ID Number:
Credit and Collections: Attn: Scott Tansey Street: One Tower Center, 21st Floor City: East Brunswick, NJ 08816 Phone: 732 867-5881 Email: stansey@lspower.com	**Credit and Collections:**

Tumbleweed Energy Storage, LLC (“Seller”)	**California Community Power, a California joint powers authority** (“Buyer”)
With additional Notices of an Event of Default to: Attn: David Sass VP & Assistant General Counsel Street: One Tower Center, 21st Floor City: East Brunswick, NJ 08816 Phone: 732 867-5853 Facsimile: 732 249-7290 Email: DSass@RevRenewables.com	**With additional Notices of an Event of Default to:** Attn: Brittany Iles, Attorney Street: 555 Capitol Mall, Ste 570 City: Sacramento, CA 95814 Phone: 916 326-5812 Facsimile: 916 330-4337 Email: Iles@braunlegal.com

EXHIBIT O

CAPACITY AND EFFICIENCY RATE TESTS

Capacity Test Notice and Frequency

A. Commercial Operation Capacity Test(s). Upon no less than ten (10) Business Days prior Notice to Buyer, Seller shall schedule and complete a Commercial Operation Capacity Test prior to the Commercial Operation Date. Such initial Commercial Operation Capacity Test (and any subsequent Commercial Operation Capacity Test permitted in accordance with Section 5 of Exhibit B) shall be performed in accordance with this Exhibit O and shall establish the Installed Capacity and initial Efficiency Rate hereunder based on the actual capacity and capabilities of the Facility determined by such Commercial Operation Capacity Test(s).

B. Subsequent Capacity Tests. Following the Commercial Operation Date, at least fifteen (15) days in advance of the start of each Contract Year, upon no less than ten (10) Business Days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test. In addition to the annual capacity test, if Buyer has reason to believe that the Effective Capacity or the Efficiency Rate is materially less than shown by the most recent test results, Buyer shall have the right to require a Capacity Test at any time upon no less than five (5) Business Days prior Notice to Seller. Seller shall have the right to run a retest of any Capacity Test at any time upon five (5) Business Days' prior Notice to Buyer (or any shorter period reasonably acceptable to Buyer consistent with Prudent Operating Practice).

C. Test Results and Re-Setting of Effective Capacity and Efficiency Rate. No later than five (5) days following any Capacity Test, Seller shall submit a testing report detailing results and findings of the test. The report shall include Facility Meter readings and plant log sheets verifying the operating conditions and output of the Facility. In accordance with Section 4.4(a)(ii) of the Agreement and Part II(I) below, after the Commercial Operation Capacity Test(s), the Effective Capacity (up to, but not in excess of, the Installed Capacity) and Efficiency Rate determined pursuant to such Capacity Test shall become the new Effective Capacity and Efficiency Rate at the beginning of the day following the completion of the test for calculating the Monthly Capacity Payment and all other purposes under this Agreement.

Capacity Test Procedures

PART I. GENERAL.

A. Each Capacity Test shall be conducted in accordance with Prudent Operating Practices, the Operating Restrictions, and the provisions of this Exhibit O. For ease of reference, a Capacity Test is sometimes referred to in this Exhibit O as a "**CT**". Buyer or its representative may be present for the CT and may, for informational purposes only, use its own metering equipment (at Buyer's sole cost).

B. Conditions Prior to Testing.

(1) EMS Functionality. The EMS shall be successfully configured to receive data from the Battery Management System (BMS), exchange DNP3 data

with the Buyer SCADA device, and transfer data to the database server for the calculation, recording and archiving of data points.

(2) Communications. The Remote Terminal Unit (RTU) testing should be successfully completed prior to any testing. The interface between Buyer's RTU and the Facility SCADA System should be fully tested and functional prior to starting any testing, including verification of the data transmission pathway between Buyer's RTU and Seller's EMS interface and the ability to record SCADA System data.

(3) Commissioning Checklist. Commissioning shall be successfully completed per manufacturer guidance on all applicable installed Facility equipment, including verification that all controls, set points, and instruments of the EMS are configured.

PART II. REQUIREMENTS APPLICABLE TO ALL CAPACITY TESTS.

Note: Seller shall have the right and option in its sole discretion to install storage capacity in excess of the Guaranteed Capacity; provided, for all purposes of this Agreement, the amount of Installed Capacity shall never be deemed to exceed the Guaranteed Storage Capacity, and all SOC measurements associated with a Capacity Test shall be based on the Installed Capacity without taking into account any capacity that exceeds the Guaranteed Capacity.

A. Test Elements. Each CT shall include at least the following individual test elements, which must be conducted in the order prescribed in Part III of this Exhibit O, unless the Parties mutually agree to deviations therefrom. The Parties acknowledge and agree that should Seller fall short of demonstrating one or more of the Test Elements as specified below, the Test will still be deemed "complete," and any adjustments necessary to the Effective Capacity or to the Efficiency Rate resulting from such Test, if applicable, will be made in accordance with this Exhibit O.

(1) Electrical output at maximum discharging level (MW) for eight (8) continuous hours; and

(2) Electrical input at maximum charging level at the Facility Meter (MW), as sustained until the SOC reaches at least 90%, continued by the electrical input at a rate up to the maximum charging level at the Facility Meter (MW), as sustained until the SOC reaches 100%, not to exceed ten (10) hours of total charging time.

B. Parameters. During each CT, the following parameters shall be measured and recorded simultaneously for the Facility, at two (2) second intervals:

(1) Time;

(2) The amount of Discharging Energy to the Facility Meters (kWh) (i.e., to each measurement device making up the Facility Meter);

(3) Net electrical energy input from the Facility Meters (kWh) (i.e., from each measurement device making up the Facility Meter); and

(4) Storage Level (MWh).

C. Site Conditions. During each CT, 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 Facility; and

(3) Ambient air temperature (°F).

D. Test Showing. Each CT shall record and report the following datapoints:

(1) That the CT successfully started;

(2) The maximum sustained discharging level for eight (8) consecutive hours pursuant to A(1) above;

(3) The maximum sustained charging level for ten (10) consecutive hours (or such lesser time as is required to reach 100% SOC) pursuant to A(2) above;

(4) Amount of time between the Facility's electrical output going from 0 to the maximum sustained discharging level registered during the CT (for purposes of calculating the ramp rate);

(5) Amount of time between the Facility's electrical input going from 0 to the maximum sustained charging level registered during the CT(for purposes of calculating the ramp rate);

(6) Amount of Charging Energy, registered at the Facility Meter, to go from 0% SOC to 100% SOC;

(7) Amount of Discharging Energy, registered at the Facility Meter, to go from 100% SOC to 0% SOC.

E. Test Conditions.

(1) General. At all times during a CT, the Facility shall be operated in compliance with Prudent Operating Practices, the Operating Restrictions, and all operating protocols recommended, required or established by the manufacturer for the Facility.

(2) Abnormal Conditions. If abnormal operating conditions that prevent the testing or recordation of any required parameter occur during a CT, Seller

may postpone or reschedule all or part of such CT in accordance with Part II.F below.

(3) Instrumentation and Metering. Seller shall provide all instrumentation, metering and data collection equipment required to perform the CT. The instrumentation, metering and data collection equipment electrical meters shall be calibrated in accordance with Prudent Operating Practice and, as applicable, the CAISO Tariff.

F. Incomplete Test. If any CT is not completed in accordance herewith, Buyer may in its sole discretion: (i) accept the results up to the time the CT stopped without any modification to the Effective Capacity or Efficiency Rate pursuant to Section I below; (ii) require that the portion of the CT not completed, be completed within a reasonable specified time period; or (iii) require that the CT be entirely repeated within a reasonable specified time period. Notwithstanding the above, if Seller is unable to complete a CT due to a Force Majeure Event or the actions or inactions of Buyer or the CAISO or the Transmission Provider, Seller shall be permitted to reconduct such CT on dates and at times reasonably acceptable to the Parties.

G. Test Report. Within five (5) Business Days after the completion of any CT, Seller shall prepare and submit to Buyer a written report of the results of the CT, which report shall include:

(1) A record of the personnel present during the CT that served in an operating, testing, monitoring or other such participatory role;

(2) The measured and calculated data for each parameter set forth in Part II.A through D, including copies of the raw data taken during the test; and

(3) Seller's statement of either Seller's acceptance of the CT or Seller's rejection of the CT 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 CT results or Buyer's rejection of the CT and reason(s) therefor. If either Party rejects the results of any CT, such CT shall be repeated in accordance with Part II.F.

H. Supplementary 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 O with additional and supplementary details, procedures and requirements applicable to Capacity Tests based on the then current design of the Facility ("**Supplementary 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 Capacity Test Protocol. The initial Supplementary Capacity Test Protocol (and each update thereto), once approved by Buyer, shall be deemed an amendment to this Exhibit O.

I. Adjustment to Effective Capacity and Efficiency Rate. The Effective Capacity and Efficiency Rate shall be updated as follows:

(1) The total amount of Discharging Energy delivered to the Delivery Point (expressed in MWh AC) during the first eight (8) hours of discharge (up to, but not in excess of, the product of (i) (a) the Guaranteed Capacity (in the case of a Commercial Operation Capacity Test, including under Section 5 of Exhibit B) or (b) the Installed Capacity (in the case of any other Capacity Test), multiplied by (ii) eight (8) hours) shall be divided by eight (8) hours to determine the Effective Capacity, which shall be expressed in MW AC, and shall be the new Effective Capacity in accordance with Section 4.4(a)(ii) of the Agreement.

(2) The total amount of Discharging Energy (as reported under Section II.D(7) above) divided by the total amount of Charging Energy (as reported under Section II.D(6) above), and expressed as a percentage, shall be recorded as the new Efficiency Rate, and shall be used for the calculation of the Efficiency Rate Adjustment in Exhibit C until updated pursuant to a subsequent Capacity Test.

PART III. INITIAL SUPPLEMENTARY CAPACITY TEST PROTOCOL.

A. **Effective Capacity and Efficiency Rate Test**

- Procedure:

(1) System Starting State: The Facility will be in the on-line state at 0% SOC.

(2) Record the initial value of the SOC.

(3) Command a real power charge that results in an AC power of Facility's maximum charging level and continue charging until the earlier of (a) the Facility has reached 100% SOC or (b) ten (10) hours have elapsed since the Facility commenced charging.

(4) Record and store the SOC after the earlier of (a) the Facility has reached 100% SOC or (b) ten (10) hours of continuous charging. Such data point shall be used for purposes of calculation of the Battery Charging Factor.

(5) Record and store the amount of Charging Energy, registered at the Facility Meter, to go from 0% SOC to 100% SOC.

(6) Following an agreed-upon rest period (not to exceed 5 minutes), command a real power discharge that results in an AC power output of the Facility's maximum discharging level and maintain the discharging state until the earlier of (a) the Facility has discharged at the maximum discharging level for eight (8) consecutive hours, or (b) the Facility has reached 0% SOC.

(7) Record and store the SOC after eight (8) hours of continuous discharging. Such data point shall be used for purposes of calculation of the Battery Discharging Factor. If the Facility SOC remains above zero percent (0%) after discharging at a rate at or above the Guaranteed Capacity (or at or above the Installed Capacity after a Commercial Operation Capacity Test) for eight (8) consecutive hours pursuant to Part III.A.6(a), the SOC will be deemed 0 for the purposes of calculating the Battery Discharging Factor.

(8) Record and store the Discharging Energy as measured at the Facility Meter. Such data point shall be used for purposes of calculation of the Effective Capacity.

(9) If the Facility has not reached 0% SOC pursuant to Section III.A.6, continue discharging the Facility until it reaches a 0% SOC.

(10) Record and store the Discharging Energy as measured at the Facility Meter from the commencement of discharging pursuant to Part III.A.6 until the Facility has reached a 0% SOC pursuant to either Part III.A.7 or Part III.A.9, as applicable.

- Test Results:

(1) The resulting Effective Capacity measurement is the sum of the total Discharging Energy at the Facility Meter divided by eight (8) hours.

(2) The total amount of Discharging Energy (as reported under Section III.A(10) above) divided by the total amount of Charging Energy (as reported under Section III.A(5) above), and expressed as a percentage, shall be recorded as the new Efficiency Rate, and shall be used for the calculation of the Efficiency Rate Adjustment in Exhibit C until updated pursuant to a subsequent Capacity Test.

Note: The following tests (B) through (E), or alternative tests consistent with CAISO rules, may be conducted in connection with the initial Commercial Operation Capacity Test and any subsequent Capacity Test to the extent permitted under applicable Laws, including CAISO rules, but the results of these tests will not affect the determination of whether or not the Facility has passed a Capacity Test and will only be used to determine whether the Facility is performing with operational characteristics equal to those required by the Operating Restrictions.

B. **AGC Discharge Test**

- Purpose: This test will demonstrate the AGC discharge capability to achieve the Facility's maximum discharging level within 1 second.

- System starting state: The Facility will be in the on-line state at 50% SOC and at an initial active power level of 0 MW and reactive power level of 0 MVAR. The EMS will be configured to follow a predefined agreed-upon active power profile.

- Procedure:

  (1) Record the Facility active power level at the Facility Meter.

  (2) Command the Facility to follow a simulated CAISO RIG signal of Pmax at .95 power factor for ten (10) minutes.

  (3) Record and store the Facility active power response (in seconds).

- System end state: The Facility will be in the on-line state and at a commanded active power level of 0 MW.

C. **AGC Charge Test**

- Purpose: This test will demonstrate the AGC charge capability to achieve the facility's full charging level within 1 second.

- System starting state: The Facility will be in the on-line state at 50% SOC and at an initial active power level of 0 MW and reactive power level of 0 MVAR. The Facility control system will be configured to follow a predefined agreed-upon active power profile.

- Procedure:

  (1) Record the Facility active power level at the Facility Meter.

  (2) Command the Facility to follow a simulated CAISO RIG signal of Pmax at .95 power factor for ten (10) minutes.

  (3) Record and store the Facility active power response (in seconds).

- System end state: The Facility will be in the on-line state and at a commanded active power level of 0 MW.

D. **Reactive Power Production Test**

- Purpose: This test will demonstrate the reactive power production capability of the Facility.

- System starting state: The Facility will be in the on-line state at 50% SOC and at an initial active power level of 0 MW and reactive power level of 0 MVAR. The EMS will be configured to follow an agreed-upon predefined reactive power profile.

- Procedure:

  (1) Record the Facility reactive power level at the Facility Meter.

  (2) Command the Facility to follow 35 MW for ten (10) minutes.

(3) Record and store the Facility reactive power response.

- System end state: The Facility will be in the on-line state and at a commanded reactive power level of 0 MVAR.

E. **Reactive Power Consumption Test**

- Purpose: This test will demonstrate the reactive power consumption capability of the facility.

- System starting state: The Facility will be in the on-line state at 50% SOC and at an initial active power level of 0 MW and reactive power level of 0 MVAR. The Facility control system will be configured to follow an agreed-upon predefined reactive power profile.

- Procedure:

  (1) Record the Facility reactive power level at the Facility Meter.

  (2) Command the Facility to follow 35 MW for ten (10) minutes.

  (3) Record and store the Facility reactive power response.

- System end state: The Facility will be in the on-line state and at a commanded reactive power level of 0 MVAR.

EXHIBIT P

FACILITY AVAILABILITY CALCULATION

Monthly Capacity Availability Calculation. Seller shall calculate the "**Monthly Capacity Availability**" for a given month of the Delivery Term using the formula set forth below:

$$\text{Monthly Capacity Availability (\%)} = \frac{[AVAILHRS_m + EXCUSEDHRS_m]}{[MONTHRS_m]}$$

Where:

m = relevant month "m" in which Monthly Capacity Availability is calculated;

$MONTHRS_m$ is the total number of hours for the month;

$AVAILHRS_m$ is the total number of hours, or partial hours, in the month during which the Facility was available to charge and discharge Energy between the Facility and the Delivery Point and to provide Ancillary Services at the Delivery Point. If the Facility is available pursuant to the preceding sentence during any applicable hour, or partial hour, but for less than the full amount of the Effective Capacity, the $AVAILHRS_m$ for such time period shall be calculated by multiplying such $AVAILHRS_m$ by a percentage determined by dividing (a) by (b); where (a) is the lower of (i) such capacity amount reported as available by Seller's real-time EMS data feed to Buyer for the Facility for such hours, or partial hours, and (ii) Seller's most recent Availability Notice (as updated pursuant to Section 4.10(b)), and (b) is the Effective Capacity.

$EXCUSEDHRS_m$ is the total number of hours, or partial hours, in the month that are not included as $AVAILHRS_m$ due to Approved Maintenance Hours, Buyer Dispatched Tests, Operating Restrictions in Exhibit Q, Buyer breach or default, or any circumstances at the high-voltage side of the Delivery Point or beyond that point that may limit Seller's delivery of Product (each, an "**Excused Event**"). If an Excused Event results in less than the full amount of the Effective Capacity for the Facility being unavailable during any applicable hour, or partial hour, the $EXCUSEDHRS_m$ for such time period shall be calculated by multiplying such $EXCUSEDHRS_m$ by a percentage determined by dividing (a) by (b); where (a) is the lower of such Effective Capacity amount that is not reported as available by (i) Seller's real-time EMS data feed to Buyer for the Facility for such hours, or partial hours, and (ii) Seller's most recent Availability Notice (as updated pursuant to Section 4.10(b)), and (b) is the Effective Capacity. For avoidance of doubt, the total of $AVAILHRS_m$ plus $EXCUSEDHRS_m$ for any hour, or partial hour, shall never exceed 1.

EXHIBIT Q

OPERATING RESTRICTIONS

The Parties will develop and finalize the Operating Restrictions prior to the Commercial Operation Date; *provided*, the Operating Restrictions (i) may not be materially more restrictive of the operation of the Facility than as set forth below, unless agreed to by Buyer in writing, (ii) will, at a minimum, include the rules, requirements and procedures set forth in this Exhibit Q, (iii) will include protocols and parameters for Seller's operation of the Facility in the absence of Discharging Notices or other similar instructions from Buyer relating to the use of the Facility, and (iv) may include facility scheduling, operating restrictions and Communications Protocols.

File Update Date:	**[XX/XX/20XX]**
Technology:	**Lithium-ion**
Storage Unit Name:	**[Unit Name and Number]**
A. Contract Capacity	
Guaranteed Capacity (MW):	69
Effective Capacity (MW):	69
B. Total Unit Dispatchable Range Information	
Interconnect Voltage (kV)	230
Maximum State of Charge (SOC) during Charging	100%
Minimum State of Charge (SOC) during Discharging	0%
Maximum Storage Level (MWh):	552
Minimum Storage Level (MWh):	0
Maximum Charging Capacity (MW):	69
Maximum Discharging Capacity (MW):	69
C. Daily/Monthly/Annual Cycles	
Maximum annual Cycles:	365
D. Charge and Discharge Rates	
Mode	**Ramp Rate (MW/minute) Description**
Energy	40 MW/minute to 80 MW/minute
E. Ancillary Services	
Frequency regulation is included:	yes
Spinning reserve is included:	yes
Non-spinning reserve is included:	yes
Regulation up is included:	yes
Regulation down is included:	yes
Black start is included:	no
Voltage support is included:	yes, in form of Automatic Voltage Regulation (AVR)

EXHIBIT R

METERING DIAGRAM

[redacted]

EXHIBIT S

[INTENTIONALLY OMITTED]

EXHIBIT T

FORM OF CONSENT TO COLLATERAL ASSIGNMENT

This Consent to Collateral Assignment (this "Consent") is entered into among (i) California Community Power, a California joint powers authority ("CCP"), (ii) *[Name of Seller]*, a *[Legal Status of Seller]* (the "Project Company"), and (iii) *[Name of Collateral Agent]*, a *[Legal Status of Collateral Agent]*, as Collateral Agent for the secured parties under the Financing Documents referred to below (such secured parties together with their successors permitted under this Consent in such capacity, the "Secured Parties", and, such agent, together with its successors in such capacity, the "Collateral Agent"). CCP, Project Company and Collateral Agent are hereinafter sometimes referred to individually as a "Party" and jointly as the "Parties". Capitalized terms used but not otherwise defined in this Consent shall have the meanings ascribed to them in the ESSA (as defined below).

RECITALS

The Parties enter into this Consent with reference to the following facts:

A. Project Company and CCP have entered into that certain Energy Storage Service Agreement, dated as of *[Date] [List all amendments as contemplated by Section 3.4]* ("ESSA"), pursuant to which Project Company will develop, construct, commission, test and operate the Storage Units (the "Project") and sell the Product to CCP, and CCP will purchase the Product from Project Company;

B. As collateral for Project Company's obligations under the ESSA, Project Company has agreed to provide to CCP certain collateral, which may include Performance Security and Development Security and other collateral described in the ESSA (collectively, the "ESSA Collateral");

C. Project Company has entered into that certain *[Insert description of financing arrangements with Lender]*, dated as of *[Date]*, among Project Company, the Lenders party thereto and the Collateral Agent (the "Financing Agreement"), pursuant to which, among other things, the Lenders have extended commitments to make loans to Project Company;

D. As collateral security for Project Company's obligations under the Financing Agreement and related agreements (collectively, the "Financing Documents"), Project Company has, among other things, assigned all of its right, title and interest in, to and under the ESSA and Project's Company's owners have pledged their ownership interest in Project Company (collectively, the "Assigned Interest") to the Collateral Agent pursuant to the Financing Documents; and

E. It is a requirement under the Financing Agreement and the ESSA that CCP and the other Parties hereto shall have executed and delivered this Consent.

AGREEMENT

In consideration of the foregoing, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound, the Parties hereto hereby agree as follows:

SECTION 1. CONSENT TO ASSIGNMENT, ETC.

1.1 Consent and Agreement.

CCP hereby acknowledges:

(a) Notice of and consents to the assignment as collateral security to Collateral Agent, for the benefit of the Secured Parties, of the Assigned Interest; and

(b) The right (but not the obligation) of Collateral Agent in the exercise of its rights and remedies under the Financing Documents, to make all demands, give all notices, take all actions and exercise all rights of Project Company permitted under the ESSA (subject to CCP's rights and defenses under the ESSA and the terms of this Consent) and accepts any such exercise; *provided*, insofar as the Collateral Agent exercises any such rights under the ESSA or makes any claims with respect to payments or other obligations under the ESSA, the terms and conditions of the ESSA applicable to such exercise of rights or claims shall apply to Collateral Agent to the same extent as to Project Company.

1.2 Project Company's Acknowledgement.

Each of Project Company and Collateral Agent hereby acknowledges and agrees that CCP is authorized to act in accordance with Collateral Agent's instructions, and that CCP shall bear no liability to Project Company or Collateral Agent in connection therewith, including any liability for failing to act in accordance with Project Company's instructions.

1.3 Right to Cure.

If Project Company defaults in the performance of any of its obligations under the ESSA, or upon the occurrence or non-occurrence of any event or condition under the ESSA which would immediately or with the passage of any applicable grace period or the giving of notice, or both, enable CCP to terminate or suspend its performance under the ESSA (a "ESSA Default"), CCP will not terminate or suspend its performance under the ESSA until it first gives written notice of such ESSA Default to Collateral Agent and affords Collateral Agent the right to cure such ESSA Default within the applicable cure period under the ESSA, which cure period shall run concurrently with that afforded Project Company under the ESSA. In addition, if Collateral Agent gives CCP written notice prior to the expiration of the applicable cure period under the ESSA of Collateral Agent's intention to cure such ESSA Default (which notice shall include a reasonable description of the time during which it anticipates to cure such ESSA Default) and is diligently proceeding to cure such ESSA Default, notwithstanding the applicable cure period under the ESSA, Collateral Agent shall have a period of ninety (90) days (or, if such ESSA Default is for failure by the Project Company to pay an amount to CCP which is due and payable under the ESSA other than to provide ESSA Collateral, thirty (30) days, or, if such ESSA Default is for failure by Project Company to provide ESSA Collateral, ten (10) Business Days) from the Collateral Agent's receipt of the notice of such ESSA Default from CCP to cure such ESSA Default; *provided*, (a) if possession of the

Project is necessary to cure any such non-monetary ESSA Default and Collateral Agent has commenced foreclosure proceedings within ninety (90) days after notice of the ESSA Default and is diligently pursuing such foreclosure proceedings, Collateral Agent will be allowed a reasonable time, not to exceed two hundred seventy (270) days after the notice of the ESSA Default, to complete such proceedings and cure such ESSA Default, and (b) if Collateral Agent is prohibited from curing any such ESSA Default by any process, stay or injunction issued by any Governmental Authority or pursuant to any bankruptcy or insolvency proceeding or other similar proceeding involving Project Company, then the time periods specified herein for curing a ESSA Default shall be extended for the period of such prohibition, so long as Collateral Agent has diligently pursued removal of such process, stay or injunction. Collateral Agent shall provide CCP with reports concerning the status of efforts to cure a ESSA Default upon CCP's reasonable request.

1.4 Substitute Owner.

Subject to Section 1.7, the Parties agree that if Collateral Agent notifies (such notice, a "Financing Document Default Notice") CCP that an event of default has occurred and is continuing under the Financing Documents (a "Financing Document Event of Default") then, upon a judicial foreclosure sale, non-judicial foreclosure sale, deed in lieu of foreclosure or other transfer following a Financing Document Event of Default, Collateral Agent (or its designee) shall be substituted for Project Company (the "Substitute Owner") under the ESSA, and, subject to Sections 1.7(b) and 1.7(c) below, CCP and Substitute Owner will recognize each other as counterparties under the ESSA and will continue to perform their respective obligations (including those obligations accruing to CCP and the Project Company prior to the existence of the Substitute Owner) under the ESSA in favor of each other in accordance with the terms thereof; *provided*, before CCP is required to recognize the Substitute Owner, the Substitute Owner must (i) be a permitted assignee under the ESSA or (ii) have demonstrated to CCP's reasonable satisfaction that the Substitute Owner has financial qualifications and operating experience *[TBD]* (a "Permitted Transferee"). For purposes of the foregoing, CCP shall be entitled to assume that any such purported exercise of rights by Collateral Agent that results in substitution of a Substitute Owner under the ESSA is in accordance with the Financing Documents without independent investigation thereof but shall have the right to require that the Collateral Agent and its designee (if applicable) provide reasonable evidence demonstrating the same.

1.5 Replacement Agreements.

Subject to Section 1.7, if the ESSA is terminated, rejected or otherwise invalidated as a result of any bankruptcy, insolvency, reorganization or similar proceeding affecting Project Company, its owner(s) or guarantor(s), and if Collateral Agent or its designee directly or indirectly takes possession of, or title to, the Project (including possession by a receiver or title by foreclosure or deed in lieu of foreclosure) ("Replacement Owner"), CCP shall, and Collateral Agent shall cause Replacement Owner to, enter into a new agreement with one another for the balance of the obligations under the ESSA remaining to be performed having terms substantially the same as the terms of the ESSA with respect to the remaining Term ("Replacement ESSA"); *provided*, before CCP is required to enter into a Replacement ESSA, the Replacement Owner must have demonstrated to CCP's reasonable satisfaction that the Replacement Owner satisfies the requirements of a Permitted Transferee. For purposes of the foregoing, CCP is entitled to assume that any such purported exercise of rights by Collateral Agent that results in a Replacement Owner is in accordance with the Financing Documents without independent investigation thereof but shall have the right to require that the Collateral Agent and its designee (if applicable) provide reasonable evidence demonstrating the same. Notwithstanding the execution and delivery of a Replacement ESSA, to the extent CCP is, or was otherwise prior to its termination as described in this Section 1.5, entitled under the ESSA, CCP may suspend performance of its obligations under such Replacement ESSA, unless and until all ESSA Defaults of Project Company under the ESSA or Replacement ESSA have been cured.

1.6 Transfer.

Subject to Section 1.7, a Substitute Owner or a Replacement Owner may assign all of its interest in the Project and the ESSA and a Replacement ESSA to a natural person, corporation, trust, business trust, joint venture, joint stock company, association, company, limited liability company, partnership, Governmental Authority or other entity (a "Person") to which the Project is transferred; *provided*, the proposed transferee shall have demonstrated to CCP's reasonable satisfaction that such proposed transferee satisfies the requirements of a Permitted Transferee.

1.7 Assumption of Obligations.

(a) Transferee.

Any transferee under Section 1.6 shall expressly assume in a writing reasonably satisfactory to CCP all of the obligations of Project Company, Substitute Owner or Replacement Owner under the ESSA or Replacement ESSA, as applicable, including posting and collateral assignment of the ESSA Collateral. Upon such assignment and the cure of any outstanding ESSA Default, and payment of all other amounts due and payable to CCP in respect of the ESSA or such Replacement ESSA, the transferor shall be released from any further liability under the ESSA or Replacement ESSA, as applicable.

(b) Substitute Owner.

Subject to Section 1.7(c), any Substitute Owner pursuant to Section 1.4 shall be required to perform Project Company's obligations under the ESSA, including posting and collateral assignment of the ESSA Collateral; *provided*, the obligations of such Substitute Owner shall be no more than those of Project Company under the ESSA.

(c) No Liability.

CCP acknowledges and agrees that neither Collateral Agent nor any Secured Party shall have any liability or obligation under the ESSA as a result of this Consent (except to the extent Collateral Agent or a Secured Party is a Substitute Owner or Replacement Owner) nor shall Collateral Agent or any other Secured Party be obligated or required to (i) perform any of Project Company's obligations under the ESSA, except as provided in Sections 1.7(a) and 1.7(b) and to the extent Collateral Agent or a Secured Party is a Substitute Owner or Replacement Owner, or (ii) take any action to collect or enforce any claim for payment assigned under the Financing Documents. If Collateral Agent becomes a Substitute Owner pursuant to Section 1.4 or enters into a Replacement ESSA, Collateral Agent shall not have any personal liability to CCP under the ESSA or Replacement ESSA and the sole recourse of CCP in seeking enforcement of such obligations against Collateral Agent shall be to the aggregate interest of the Secured Parties in the Project; *provided*, such limited recourse shall not limit CCP's right to seek equitable or injunctive relief against Collateral Agent, or CCP's rights with respect to any offset rights expressly allowed under the ESSA, a Replacement ESSA or the ESSA Collateral.

1.8 Delivery of Notices.

CCP shall deliver to Collateral Agent, concurrently with the delivery thereof to Project Company, a copy of each notice, request or demand given by CCP to Project Company pursuant to the ESSA relating to (a) a ESSA Default by Project Company under the ESSA, (b) any claim regarding Force Majeure by CCP under the ESSA, (c) any notice of dispute under the ESSA, (d) any notice of intent to terminate or any termination notice, and (e) any matter that would require the consent of Collateral Agent pursuant to Section 1.11 or any other provision of this Consent. Collateral Agent acknowledges that delivery of such notice, request and demand shall satisfy CCP's obligation to give Collateral Agent a notice of ESSA Default under Section 1.3. Collateral Agent shall deliver to CCP, concurrently with delivery thereof to Project Company, a copy of each notice, request or demand given by Collateral Agent to Project Company pursuant to the Financing Documents relating to a default by Project Company under the Financing Documents.

1.9 Confirmations.

CCP will, as and when reasonably requested by Collateral Agent from time to time, confirm in writing matters relating to the ESSA (including the performance of same by Project Company); *provided*, such confirmation may be limited to matters of which CCP is aware as of the time the confirmation is given and such confirmations shall be without prejudice to any rights of CCP under the ESSA as between CCP and Project Company.

1.10 Exclusivity of Dealings.

Except as provided in Sections 1.3, 1.4, 1.8, 1.9 and 2.1, unless and until CCP receives a Financing Document Default Notice, CCP shall deal exclusively with Project Company in connection with the performance of CCP's obligations under the ESSA. From and after such time as CCP receives a Financing Document Default Notice and until a Substitute Owner is substituted for Project Company pursuant to Section 1.4, a Replacement ESSA is entered into or the ESSA is transferred to a Person to whom the Project is transferred pursuant to Section 1.6, CCP shall, until Collateral Agent confirms to CCP in writing that all obligations under the Financing Documents are no longer outstanding, deal exclusively with Collateral Agent in connection with the performance of CCP's obligations under the ESSA, and CCP may irrevocably rely on instructions provided by Collateral Agent in accordance therewith to the exclusion of those provided by any other Person.

1.11 No Amendments.

To the extent permitted by Laws, CCP agrees that it will not, without the Project Company obtaining prior written consent of Collateral Agent (not to be unreasonably withheld, delayed or conditioned) (a) enter into any material supplement, restatement, novation, extension, amendment or modification of the ESSA (b) terminate or suspend its performance under the ESSA (except in accordance with Section 1.3) or (c) consent to or accept any termination or cancellation of the ESSA by Project Company.

SECTION 2. PAYMENTS UNDER THE ESSA

2.1 Payments.

Unless and until CCP receives written notice to the contrary from Collateral Agent, CCP will make all payments to be made by it to Project Company under or by reason of the ESSA directly to Project Company. CCP, Project Company, and Collateral Agent acknowledge that CCP will be deemed to be in compliance with the payment terms of the ESSA to the extent that CCP makes payments in accordance with Collateral Agent's instructions.

2.2 No Offset, Etc.

All payments required to be made by CCP under the ESSA shall be made without any offset, recoupment, abatement, withholding, reduction or defense whatsoever, other than that expressly allowed by the terms of the ESSA.

SECTION 3. REPRESENTATIONS AND WARRANTIES OF CCP

CCP makes the following representations and warranties as of the date hereof in favor of Collateral Agent:

3.1 Organization.

CCP is a joint powers authority and community choice aggregator duly organized and validly existing 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. CCP has all requisite power and authority, corporate and otherwise, to enter into and to perform its obligations hereunder and under the ESSA, and to carry out the terms hereof and thereof and the transactions contemplated hereby and thereby.

3.2 Authorization.

The execution, delivery and performance by CCP of this Consent and the ESSA have been duly authorized by all necessary corporate or other action on the part of CCP and do not require any approval or consent of any holder (or any trustee for any holder) of any indebtedness or other obligation of CCP which, if not obtained, will prevent CCP from performing its obligations hereunder or under the ESSA except approvals or consents which have previously been obtained and which are in full force and effect.

3.3 Execution and Delivery; Binding Agreements.

Each of this Consent and the ESSA is in full force and effect, have been duly executed and delivered on behalf of CCP by the appropriate officers of CCP, and constitute the legal, valid and binding obligation of CCP, enforceable against CCP in accordance with its terms, except as the enforceability thereof may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or other similar laws of general application affecting the enforcement of creditors' rights generally and (b) general equitable principles (whether considered in a proceeding in equity or at law).

3.4 No Default or Amendment.

Except as set forth in Schedule A attached hereto: (a) Neither CCP nor, to CCP's actual knowledge, Project Company, is in default of any of its obligations under the ESSA; (b) CCP and, to CCP's actual knowledge, Project Company, has complied with all conditions precedent to the effectiveness of its obligations under the ESSA; (c) to CCP's actual knowledge, no event or condition exists which would either immediately or with the passage of any applicable grace period or giving of notice, or both, enable either CCP or Project Company to terminate or suspend its obligations under the ESSA; and (d) the ESSA has not been amended, modified or supplemented in any manner except as set forth herein and in the recitals hereto.

3.5 No Previous Assignments.

CCP has no notice of, and has not consented to, any previous assignment by Project Company of all or any part of its rights under the ESSA, except as previously disclosed in writing and consented to by CCP.

SECTION 4. REPRESENTATIONS AND WARRANTIES OF PROJECT COMPANY

Project Company makes the following representations and warranties as of the date hereof in favor of the Collateral Agent and CCP:

4.1 Organization.

Project Company is a *[Legal Status of Seller]* duly organized and validly existing under the laws of the state of its organization, and is duly qualified, authorized to do business and in good standing in every jurisdiction in which it owns or leases real property or in which the nature of its business requires it to be so qualified, except where the failure to so qualify would not have a material adverse effect on its financial condition, its ability to own its properties or its ability to transact its business. Project Company has all requisite power and authority, corporate and otherwise, to enter into and to perform its obligations hereunder and under the ESSA, and to carry out the terms hereof and thereof and the transactions contemplated hereby and thereby.

4.2 Authorization.

The execution, delivery and performance of this Consent by Project Company, and Project Company's assignment of its right, title and interest in, to and under the ESSA to the Collateral Agent pursuant to the Financing Documents, have been duly authorized by all necessary corporate or other action on the part of Project Company.

4.3 Execution and Delivery; Binding Agreement.

This Consent is in full force and effect, has been duly executed and delivered on behalf of Project Company by the appropriate officers of Project Company, and constitutes the legal, valid and binding obligation of Project Company, enforceable against Project Company in accordance with its terms, except as the enforceability thereof may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or other similar laws of general application affecting the enforcement of creditors' rights generally and (b) general equitable principles (whether considered in a proceeding in equity or at law).

4.4 No Default or Amendment.

Except as set forth in Schedule B attached hereto: (a) neither Project Company nor, to Project Company's actual knowledge, CCP, is in default of any of its obligations thereunder; (b) Project Company and, to Project Company's actual knowledge, CCP, has complied with all conditions precedent to the effectiveness of its obligations under the ESSA; (c) to Project Company's actual knowledge, no event or condition exists which would either immediately or with the passage of any applicable grace period or giving of notice, or both, enable either CCP or Project Company to terminate or suspend its obligations under the ESSA; and (d) the ESSA has not been amended, modified or supplemented in any manner except as set forth herein and in the recitals hereto.

4.5 No Previous Assignments.

Project Company has not previously assigned all or any part of its rights under the ESSA.

SECTION 5. REPRESENTATIONS AND WARRANTIES OF COLLATERAL AGENT

Collateral Agent makes the following representations and warranties as of the date hereof in favor of CCP and Project Company:

5.1 Authorization.

The execution, delivery and performance of this Consent by Collateral Agent have been duly authorized by all necessary corporate or other action on the part of Collateral Agent and Secured Parties.

5.2 Execution and Delivery; Binding Agreement.

This Consent is in full force and effect, has been duly executed and delivered on behalf of Collateral Agent by the appropriate officers of Collateral Agent, and constitutes the legal, valid and binding obligation of Collateral Agent as Collateral Agent for the Secured Parties, enforceable against Collateral Agent (and the Secured Parties to the extent applicable) in accordance with its terms, except as the enforceability thereof may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or other similar laws of general application affecting the enforcement of creditors' rights generally and (b) general equitable principles (whether considered in a proceeding in equity or at law).

SECTION 6. MISCELLANEOUS

6.1 Notices.

All notices and other communications hereunder shall be in writing, shall be deemed given upon receipt thereof by the Party or Parties to whom such notice is addressed, shall refer on their face to the ESSA (although failure to so refer shall not render any such notice or communication ineffective), shall be sent by first class mail, by personal delivery or by a nationally recognized courier service, and shall be directed (a) if to CCP or Project Company, in accordance with *[Notice Section of the ESSA]* of the ESSA, (b) if to Collateral Agent, to *[Collateral Agent Name]*, *[Collateral Agent Address]*, Attn: *[Collateral Agent Contact Information]*, Telephone: *[___]*, Fax: *[___]*, and (c) to such other address or addressee as any such Party may designate by notice given pursuant hereto.

6.2 Governing Law; Submission to Jurisdiction.

(a) THIS CONSENT SHALL BE CONSTRUED IN ACCORDANCE WITH, AND THIS CONSENT AND ALL MATTERS ARISING OUT OF THIS CONSENT AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY, THE LAW OF THE STATE OF CALIFORNIA WITHOUT REGARD TO ANY CONFLICTS OF LAWS PROVISIONS THEREOF THAT WOULD RESULT IN THE APPLICATION OF THE LAW OF ANOTHER JURISDICTION.

(b) All disputes, claims or controversies arising out of, relating to, concerning or pertaining to the terms of this Consent shall be governed by the dispute resolution provisions of the ESSA. Subject to the foregoing, any legal action or proceeding with respect to this Consent and any action for enforcement of any judgment in respect thereof may be brought in the courts of the State of California or of the United States of America for the Central District of California, and, by execution and delivery of this Consent, each Party hereby accepts for itself and in respect of its property, generally and unconditionally, the non-exclusive jurisdiction of the aforesaid courts and appellate courts from any appeal thereof. Each Party further irrevocably consents to the service of process out of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by registered or certified mail, postage prepaid, to its notice address provided pursuant to Section 6.1 hereof. Each Party hereby irrevocably waives any objection which it may now or hereafter have to the laying of venue of any of the aforesaid actions or proceedings arising out of or in connection with this Consent brought in the courts referred to above and hereby further irrevocably waives and agrees not to plead or claim in any such court that any such action or proceeding brought in any such court has been brought in an inconvenient forum. Nothing herein shall affect the right of any Party to serve process in any other manner permitted by law.

6.3 Headings Descriptive.

The headings of the several sections and subsections of this Consent are inserted for convenience only and shall not in any way affect the meaning or construction of any provision of this Consent.

6.4 Severability.

In case any provision in or obligation under this Consent shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

6.5 Amendment, Waiver.

Neither this Consent nor any of the terms hereof may (a) be terminated, amended, supplemented or modified, except by an instrument in writing signed by CCP, Project Company and Collateral Agent or (b) waived, except by an instrument in writing signed by the waiving Party.

6.6 Termination.

Each Party's obligations hereunder are absolute and unconditional, and no Party has any right, and shall have no right, to terminate this Consent or to be released, relieved or discharged from any obligation or liability hereunder until CCP has been notified by Collateral Agent that all of the obligations under the Financing Documents shall have been satisfied in full (other than contingent indemnification obligations) or, with respect to the ESSA or any Replacement ESSA, its obligations under such ESSA or Replacement ESSA have been fully performed.

6.7 Successors and Assigns.

This Consent shall be binding upon each Party and its successors and assigns permitted under and in accordance with this Consent, and shall inure to the benefit of the other Parties and their respective successors and assignee permitted under and in accordance with this Consent. Each reference to a Person herein shall include such Person's successors and assigns permitted under and in accordance with this Consent.

6.8 Further Assurances.

CCP hereby agrees to execute and deliver all such instruments and take all such action as may be necessary to effectuate fully the purposes of this Consent.

6.9 Waiver of Trial by Jury.

TO THE EXTENT PERMITTED BY APPLICABLE LAWS, THE PARTIES HEREBY IRREVOCABLY WAIVE ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS CONSENT OR ANY MATTER ARISING HEREUNDER. EACH PARTY FURTHER WARRANTS AND REPRESENTS THAT IT HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.10 Entire Agreement.

This Consent and any agreement, document or instrument attached hereto or referred to herein integrate all the terms and conditions mentioned herein or incidental hereto and supersede all oral negotiations and prior writings in respect to the subject matter hereof. In the event of any conflict between the terms, conditions and provisions of this Consent and any such agreement, document or instrument, the terms, conditions and provisions of this Consent shall prevail.

6.11 Effective Date.

This Consent shall be deemed effective as of the date upon which the last Party executes this Consent.

6.12 Counterparts; Electronic Signatures.

This Consent may be executed in one or more counterparts, each of which will be deemed to be an original of this Consent and all of which, when taken together, will be deemed to constitute one and the same agreement. The exchange of copies of this Consent and of signature pages by facsimile transmission, Portable Document Format (i.e., PDF), or by other electronic means shall constitute effective execution and delivery of this Consent as to the Parties and may be used in lieu of the original Consent for all purposes.

[Remainder of Page Left Intentionally Blank.]

IN WITNESS WHEREOF, the Parties hereto have caused this Consent to be duly executed and delivered by their duly authorized officers on the dates indicated below their respective signatures.

[NAME OF PROJECT COMPANY], *[Legal Status of Project Company]*.		CALIFORNIA COMMUNITY POWER, a California joint powers authority.
By: ________________________________ *[Name]* *[Title]* Date: _________________________		**By:** ________________________________ *[Name]* *[Title]* Date: _________________________
[NAME OF COLLATERAL AGENT], *[Legal Status of Collateral Agent]*. By: ______________________________ *[Name]* *[Title]* Date: _________________________		

SCHEDULE A

[Describe any disclosures relevant to representations and warranties made in Section 3.4]

EXHIBIT U

MATERIAL PERMITS

No.	*Permits*
1	[redacted]
2	[redacted]

EXHIBIT V

PROJECT PARTICIPANTS AND LIABILITY SHARES

Project Participant	**Liability Share**
Clean Power San Francisco	16.06%
Peninsula Clean Energy	19.69%
Redwood Coast Energy Authority	3.62%
San Jose Clean Energy	22.28%
Silicon Valley Clean Energy	21.25%
Sonoma Clean Power	12.95%
Valley Clean Energy	4.15%

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 15

TO: Board of Directors

FROM: Mitch Sears, Interim General Manager
Edward Burnham, Director of Finance & Internal Operations

SUBJECT: VCE 2022 Customer Rates

DATE: February 10, 2022

RECOMMENDATIONS

1. Approve VCE 2022 Customer Rates:
   a. Customer rates for 2022 to match PG&E 2022 generation rates for all customer classes.
   b. A rate credit of 2.5% for CARE and FERA customers in 2022
2. Conduct a mid-year rates review in Q2 2022 to assess rates forecast and determine the feasibility of:
   a. allocating additional funds for 2022 clean energy content procurement,
   b. allocating additional funds to program implementation,
   c. providing additional rate credits for all customer classes during peak summer months in 2022.
3. Direct Staff to continue to develop and evaluate the feasibility of a revised rate structure with three customer options: (1) Standard Green (default) and (2) UltraGreen (100% renewable) with cost-based rates and adding a (3) least-cost customer rate option.

OVERVIEW

Beginning in mid-2020, VCE began exploring the concept of cost-based rates to address financial issues associated with the power market and regulatory volatility. Steeply rising Power Charge Indifference Adjustment (PCIA) (+46% for 2021) and power market costs (+57% since May 2021), have required VCE to draw on reserves to stabilize customers rates and maintain its current rate policy of matching PG&E generation rates. In Q1 of 2021, the Board directed Staff to develop an expanded and cost-based rate structure to address these issues. In September, Staff presented a background report to the Board and CAC that included a draft outline rate structure and development/implementation schedule.

Based on updated power market forecasts and VCE financial model results that corrected an overestimation of the value of VCE's long-term renewable contracts, the Board approved an accelerated rate adjustment of approximately 2% on the average overall customer bill in mid-October. This cost-based rate adjustment decreased the draw on reserves.

The Community Advisory Committee considered the proposed cost-based rate policy and structure at its November 28, 2021 meeting and updated the recommendation for the 2022 rates on January 20, 2022.

This report and recommendation update the customer rates consistent with recent CAC and Board direction. In addition, VCE will continue to develop rates calibrated to actual cost and reserve requirements rather than simply indexed to PG&E's generation rates for 2023.

BACKGROUND

In 2017, prior to launch, VCE adopted and registered its Implementation Plan with the California Public Utilities Commission (CPUC). The Plan included a provision that program rates must collect sufficient revenue from participating customers to fully fund VCE's budget, including the need to establish sufficient operating reserve funds. Over the past three years VCE has systematically analyzed policy options and implemented strategies to stabilize customer rates, reduce cost, and manage reserves. This is in keeping with its Strategic Plan goal to maintain financial stability while continuing to offer customer choice, competitive pricing and establishment of local programs. Several of these key financial mitigation strategies have included: discontinuing a rate discount, scaling back voluntary procurement of renewable energy credits (RECs), and signing long-term contracts for fixed price renewable/battery storage projects.

Recognizing that additional steps may be needed to achieve cost recovery objectives, in early 2020 staff began investigating rate related strategies employed by other CCAs designed to address on-going financial pressures outside of a CCAs control (e.g. PCIA, RA, power market prices). Based on general Board direction, research was conducted with input from the CAC Rates Task Group through mid-2021, resulting in a staff concept for an expanded and cost-based customer rate structure. The concept was reviewed by the CAC in September and by the Board in September and October. The staff report related to the concept is at: Item-17-Customer-Rate-Structure-Policy-9-9-21.pdf (valleycleanenergy.org).

Rate Adjustment and Policy Update

Additional forecast information on rising power markets, correction of an overestimation of the value of VCE's long-term renewable contracts, and elevated 2021 PCIA rates prompted the Board to approve a rate adjustment on October 21, 2021. The rate adjustment of approximately 2% on the average overall VCE customer bill for the remaining months of 2021 and into 2022 reduced the draw on VCE's financial reserves. This adjustment went into effect on November 1, 2021. For reference, the Board staff report related to the accelerated rate adjustment is at: Item-4-Rate-Adjustment-10-21-21.pdf (valleycleanenergy.org).

On November 10, 2021, the Board adopted the following update to the VCE rates policy:

> Cost-Based Rate Policy: VCE will set customer rates to collect sufficient revenue from participating customers to fully fund VCE's budget and establish sufficient operating reserve funds.

Additional Rate and Financial Factors

On November 8, 2021, PG&E completed the standard ERRA filings for PCIA and bundled rates with the CPUC with significant changes from forecasts received from the CalCCA analyst forecasts. Staff and Board recommended delaying the adoption of customer rate adjustments and the 2022 budget to include the PG&E updated filings. In mid-December, in an unusual move, the California Public Utilities Commission (CPUC) asked PG&E to submit options to spread its 2022 rate increase of over 30% over more than the standard 12-month period. PG&E filed these options in late December, resulting in a range of a 27% rate increase over 24-months to a 33% increase over the standard 12-month period. In addition, the PCIA decrease for 2022 was revised from a -75% to a -59% based on the incorporation of actual vs. projected value of PG&E's energy portfolio for October and November 2021.

According to the proposed decision by the CPUC on January 24, 2022, PG&E will be implementing the following adjustments effective March 1, 2022.

- 2022 PCIA set to decrease 57%
- 2022 PG&E's average generation rates set to increase by 33%
- All rate changes are inclusive of PG&E December actuals

Community Advisory Committee Recommendation

On September 23, 2021, the Community Advisory Committee (CAC) received a background presentation on the rate-based concept and structure. On October 28, 2021, the CAC considered and recommended the rate-based policy adopted by the Board on November 10. On January 20, 2022, Staff incorporated the updated PG&E filing described above. The CAC considered the updated recommendation analysis of Staff and adopted the below recommendations for 2022 customer rates.

1. Adopt customer rates for 2022 to match PG&E 2022 generation rates for all customer classes to cover VCE's FY 2022 budget expenditures and to achieve between 80-90 days cash reserves by the end of 2022;
2. Provide a 2.5% rate credit for CARE and FERA customers in 2022;
3. Conduct a mid-year rates review in Q2 2022 to assess rates forecast and determine the feasibility of:
    a. allocating additional funds for 2022 clean energy content procurement,
    b. allocating additional funds to program implementation,
    c. providing additional rate credits for all customer classes during peak summer months in 2022.

ANALYSIS

As discussed at previous Board and CAC meetings, the CPUC is scheduled to adopt 2022 PG&E bundled rates inclusive of setting PCIA and generation rates at their February 10, 2022 meeting as described above. The updated analysis shown below is based on the best available information as of the writing of this report. Based on information from VCE and Calca's Analysts, VCE has incorporated the following assumptions in its updated financial forecasts for 2022 (assuming 2022 PG&E rates/PCIA are implemented on March 1, 2022):

- PCIA: 57% reduction over 2021 PCIA
    - Previous Projection from PG&E's November CPUC filing: 75% reduction
- Generation rates: 33% increase in PG&E rates
    - The November projection from PG&E's filing: 36% increase
    - The CPUC requested from PG&E's December update to include amortized rate increase options over 18 & 24 months

Staff has updated VCE's financial model with the updated January base assumptions for 2022. Consistent with previous discussions with the Board and CAC, Staff has run three budget impact scenarios to help inform the Board's consideration of rate options for 2022, including:

1. Scenario 1 (Low Income/At-Risk* Credit): 2.5% (Approx. $750,000) rate credit for CARE/FERA customers; all other revenues directed to reserves.
2. Scenario 2 (Base Case): no modifications; all revenues directed to reserves.
3. Scenario 3 (Low Income/At-Risk* + Credit): 3.5% rate credit for CARE/FERA customers plus 1% rate credit for other customers; all other revenues directed to reserves.

*Includes CARE/FERA and Medical Baseline customers

The recommended scenario 2 adjustments would not apply to CARE and FERA customers who make up approximately 25% of VCE's total load. Taking these customers into account, the fiscal effect of the recommended rate credit is $750,000 for from March 1, 2022 through February 28, 2023.

Customer Bill Fiscal Effects (Scenario 2)

Over the past 18 months the Board has considered the volatility of inputs that impact customer rates. Economy wide disruptions, surging wholesale power markets, and regulatory actions have all contributed to an unprecedented and unstable customer rate structure. As the Board is aware, VCE has taken action to address some of that volatility by drawing on reserves to help create more stable customer rates. However, as PG&E significantly raises rates in 2022 to recover their costs, VCE must consider the need to rebuild reserves and prepare for PCIA volatility going into 2023. These rate impacts are being felt across the State with all three Investor Owned Utilities raising rates by more than 20% in 2022.

The fiscal effects on VCE customers are summarized in the table below. While the rate increases are not insignificant, the staff recommendation does include rate credits for low income and vulnerable customers (CARE, FERA, and Medical Baseline) and a mid-year review to assess revenues and possible additional rate credits. Note: CARE/FERA customers make up over 25% of VCE's customer base and receive 20% and 18% discounts respectively on their electricity bills.

The recommended rate adjustment is forecast to increase the total average monthly residential bill by approximately $19/mo. or 10%[1]. Table 1 shows the estimated average monthly impact

[1] The VCE generation charges plus PCIA and franchise fees are approximately 40% of the total average residential electricity bill; PG&E's Transmission, Distribution and other charges account for the other 60% of the total electricity bill. Therefore, a 33% generation rate increase in VCE's portion of the electricity bill equates to an approximate 10% increase in the total electricity charges for the average residential customer.

on total bills based on key customer classes.

Table 1 - Rate Impacts (Approximate Averages)

Customer Class	Residential	Low Income / At-Risk Credit	Ms Commercial	Med Commercial	Large Commercial*	Ag
Annual Bill	$1,860/yr	(18/yr)	$ 4,500/yr	$ 55,200/yr	$ 98,400/yr	$ 21,600/yr
Monthly Bill	$155/mo	(**$1.5) /mo**	$ 400/mo	$4,600/mo	$ 8,200/mo	$ 1,800/mo
Monthly Impact of 33% adj.	Approx. $19/mo	Approx. $17.5 mo	Approx. $48/mo	Approx. $745/mo**	Approx. $1,221/mo**	Approx. $ 214/mo

Notes:
* Large Commercial does not include the less than 10 largest commercial customers (E-19 and E-20) as it would be a non-representative average for the majority of large commercial customers. The average monthly impact for E-19 and E-20 customers would be approximately $830 based on an average monthly bill of approximately $34,500.
** Medium and Large Commercial rates include the limited portion of the demand charges on the generation portion of the bill, resulting in approximate 0.5% higher increases.

VCE Fiscal Effects

Table 2 below shows the forecasted budget impacts of the three scenarios modeled by staff. Consistent with the rate policy adopted by the Board on November 10, 2021, Staff and CAC are recommending that VCE set rates for 2022 at a level that will fully fund the 2022 budget, build back reserves that have been used over the past 18 months to stabilize customer rates, and provide a level of financial relief to VCE's low-income customers. Based on the updated information from the CPUC proposed decision and analysis, Staff and CAC are recommending that VCE establish a target of 80-90 days cash reserve by the end of 2022. In addition, this is consistent with feedback we have received from CalCCA and financial partners. Two significant benefits from this approach: (1) increased financial stability while taking a significant step toward establishing an investment grade credit rating, and (2) preparing for future PCIA and power market volatility.

Table 2 – 2022 Revenue & Costs Update

	Actuals			Actual YTD (6 Month)	Budget Scenarios	Preliminary Forecast*		
Scenario 1	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	89,750	69,500	70,750	71,050
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	17,468	11,702	18,144	17,034
Scenario 2	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	90,500	70,250	71,500	71,800
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	18,218	12,452	18,894	17,784
Scenario 3	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	89,000	68,750	70,000	70,300
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	16,718	10,952	17,394	16,284

* Notes: Revenues are highly subject to PG&E filings that impact generation rates and PCIA. Power costs are based of current forward market pricing that impact PPA values (cost reductions) and unhedged load costs. Red outline shows staff recommendation.

Customer Outreach & Communications

VCE continues a measured, transparent customer outreach strategy with an emphasis on VCE's additional benefits such as more choice in electricity supply, local control, and community reinvestment through energy contracts and programs.

Based on VCE matching PG&E rates and other CCAs undertaking similar rate actions, staff does not anticipate significant opt-out customer activity in response to the rate changes. VCE will continue to monitor customer activity as the rates are implemented for possible adjustments.

CONCLUSION/NEXT STEPS

If approved by the Board, this rate adjustment would partially address recovering costs and building back reserves over the next twelve months. The longer-term outlook (2024+) shows increased stability and cost certainty due to VCE's fixed price long-term renewable power purchase contracts coming fully on-line combined with a cost-recovery based rate structure. Additional rate and financial forecasts on the longer-term outlook will be provided as part of the mid-year rates review.

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 16

TO: Board of Directors

FROM: Mitch Sears, Interim General Manager
Edward Burnham, Director of Finance & Internal Operations

SUBJECT: 2022 Operating Budget for Calendar Year

DATE: February 10, 2022

RECOMMENDATION

1. Approve 2022 Operating Budget Scenario 1 with $89.8M of operating revenues and $72.3M of operating expenses for a net income of $17.5M.

OVERVIEW

This update is the final of multiple discussions leading to Board adoption of the calendar year 2022 budget (2022 Budget) ending December 31, 2022. The purpose of this staff report is to: (1) provide the current fiscal Year 2021-22 update on actuals (6-Months) ending December 31, 2021, and (2) an overview of key factors influencing the draft 2022 Budget and present analysis of three budget scenarios for Board consideration.

As detailed in the body of this report, the current FY 2021-22 is estimated to have a net loss of $2.7M for a total of $2.5M favorable to the adopted Budget. The three 2022 budget scenarios outlined in the analysis section of this report result in a positive net income range between $18.2M and $16.7M allowing VCE to build back reserves to a targeted 80 to 90 days.

VCE's short-term outlook (2022 and 2023) indicates continued volatility in power market prices and PCIA with associated financial challenges, which requires action on rate-setting to ensure cost recovery and restablishment of reserves. The longer-term outlook (2024+) indicates increased stability and cost certainty due to long-term PPA's coming on-line and a cost-based rate structure allowing VCE to rebuild reserves and achieve positive margins.

BACKGROUND

As discussed in past staff reports, VCE has seen high volatility in the energy sector and overall economy, primarily driven by the uncertainty during the COVID-19 pandemic and possible long-term recession. In addition, the increases in 2021 Power Charge Indifference Adjustment (PCIA), resource adequacy, and power market costs have required VCE to draw against reserves to stabilize customer rates and maintain its rate policy to be competitive with PG&E generation rates. As part of the budget adoption and monitoring process, VCE has taken key actions leading up to the CY2022 budget adoption. These actions are listed below and detailed in the November 10, 2021 Board Item 16 found here.

- June 2020 - FY 2020-21 Budget adoption with fiscal mitigation policy adjustments
- October 2020 - FY 2020-21 Mid-year budget update to monitor Pandemic Impacts
- May 2021 – FY 2021-22 Budget update with load update.
- June 2021 **–** FY 2021-22 Budget adoption with extended fiscal mitigation policy
- October 2021 – Budget update with power costs and financial model corrections.

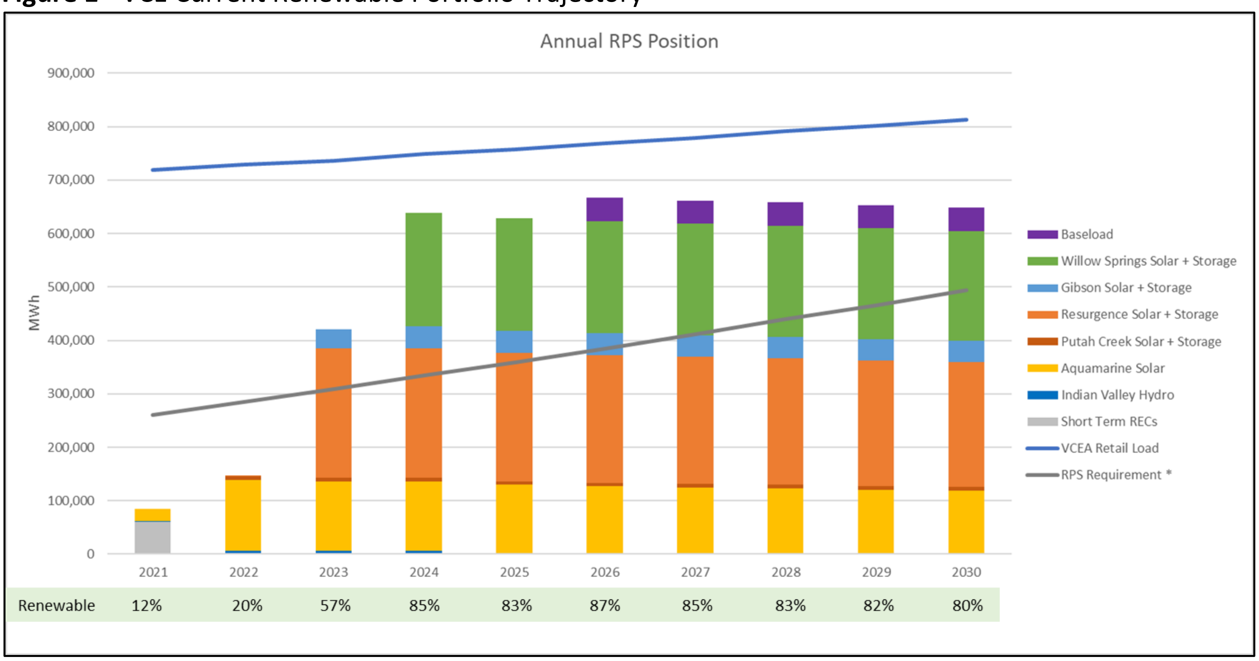
Additional recent actions taken by Board include the following:

- October 2021 – Board adopted rate increase to preserve cash reserves (Board Item 4).
- November 2021 – Discussion of Customer Rate Options (Board Item 15)
- November 2021 – Adopted change from fiscal year to calendar year (Board Item 12).

Long-term Fixed Price Power Purchase Agreements

Renewable power and storage resource deliveries resulting from VCE's contracted long-term power purchase agreements (PPAs) began in 2021 and will significantly increase over 2022 and 2023. As shown in Figure 1 below, the PPAs are fixed-price contracts and are projected to cover over 80% of VCE's annual load by 2024 to reduce VCE costs compared to current RPS and RA market costs and significantly reduce volatility as VCE moves forward. As discussed with the Board leading up to the FY 2021-22 budget adoption in June, the undesirable but necessary RPS policy adjustments and utilization of cash reserves have helped VCE stabilize customer rates and partially bridge the gap until the long-term PPAs begin full delivery in the 2021-24 timeframe.

Figure 1 - VCE Current Renewable Portfolio Trajectory



CPUC ERRA Proceeding (PG&E Rate setting - PCIA and Bundled Rates)

Previous CPUC – Nov/Dec 2021

Previous budget discussions (Oct – December), have been based on PG&E's November update for its 2022 Power Charge Indifference Adjustment (PCIA) and Generation Rates. In a typical year the November PG&E ERRA filing is the final update included in the CPUC proposed decision for bundled rate setting (PCIA and generation rates) which are implemented by the IOU's in January. However, in an unusual mid-December action, the California Public Utilities Commission (CPUC) required PG&E to submit options to spread its 2022 rate increase of over 30% over more than the standard 12-month period. PG&E filed these options in late December, resulting in a range of a 27% rate increase over 24-months to a 33% increase over the standard 12-month period. In addition, the PCIA decrease for 2022 was revised from a-75% to a -59% based on the incorporation of actual vs. projected value of PG&E's energy portfolio for October and November 2021.

Current CPUC Proposed Decision (PD) – January 2022
On January 27, 2022 the CPUC issued the proposed decision (PD) for 2022 bundled rates inclusive of setting PCIA and generation rates for PG&E. The PD did not include the option to spread PG&E's rate increases over more than the normal 12 month period. The updated analysis and staff recommendation shown below are based on VCE's updated rate policy to set rates to cover costs and build reserves and the best available information from the CPUC as of the writing of this report. Based on information from VCE and CalCCA's Analysts, VCE has incorporated the following assumptions in its updated financial forecasts for 2022, including the assumption that 2022 PG&E rates/PCIA will be implemented on March 1, 2022:

Summary of CPUC ERRA Forecasts for 12 months beginning March 1, 2022 (January 2022)

- PCIA: 57% reduction over 2021 PCIA
- PG&E Bundled rates (PCIA & Generation): 33% increase

ANALYSIS
This report updates the information provided to the Board in September 2021 and provides the basis for the budget scenarios outlined in Analysis Section 3 below. The sections below provide updates on: (1) the FY 2021-22 (6 Month) Operating Budget, (2) an overview of key factors influencing the operating budgets, and (3) an analysis of three budget scenarios for Board consideration.

1. Operating Budget Update – FY 2021-22 (6 Month)
As presented to the Board in September, VCE has faced financial challenges associated with power market and regulatory volatility, requiring VCE to draw on reserves to stabilize customer rates and remain competitive with PG&E rates.

FY 2021-22 (6 Month) – The unaudited financials for the six months of July-2021 to December-2021 are currently forecasted to be net favorable to Budget by $2.5M for a forecasted loss of $2.7M. The key factors that resulted in the $2.5M net difference include:

- Customer Rate Increase of 2% - The Board approved an accelerated rate adjustment of approximately 2% on the average customer bill in mid-October for $400K.
- Power Prices. Average forward market power prices have increased 57% since May 2021. The increased market price compared to contracted power purchase agreements and hedged power contract prices resulted in an offset for additional load requirements during peak season.

- Programs Costs, Regulatory Analyst role (Part-time), and contingency were budgeted for the entire fiscal year and not ultilized during the first six months.

The following table summarizes the FY 2021-22 (6 Month) actuals vs. approved Budget.

Table 1 – FY2021-22 Actuals vs. Budget

FY 2021-22	APPROVED BUDGET FY 2021 (6 MO)	Actual YTD December 31, 2021 (6 MO)	Variance
Revenue	$ 24,737	$ 29,677	$ 4,940
Power Cost	$ 27,446	$ 30,133	$ (2,687)
Other Expenses	$ 2,509	$ 2,276	$ 233
Net Income	$ (5,218)	$ (2,732)	$ 2,486

The FY 2021-22 (6 Month) Operating Budget interim audit is ongoing, and the final adjustments, if any, will be included in the annual report.

2. Key factors – Operating Budgets

The VCE financial outlook for CY 2022 and CY 2023 has changed significantly since the Board approved the current fiscal year budget in June 2021. PG&E’s bundled rates are expected to increase by 33%, while PCIA will decrease by 57% in 2022. The 2022 rates will offset higher power costs, rebuild reserves, and allow VCE to implement customer programs as VCE transitions into its long-term fixed-price renewable PPA’s scheduled to come on-line in 2022, 2023 and 2024. Additionally, the PCIA rates are expected to increase in 2023. Staff have factored in a 25% PCIA increase in VCE’s forcast with some stabilization beginning in 2024. The budget scenarios shown in Tables 2 through 4 in Section 3 below incorporate these factors in the short and longer-term forecasts.

Key baseline factors that influenced the development of the budget options presented in Section 3 below include:

- Power Prices. Average forward market power prices have increased by approximately 57% since the April-2021 preliminary draft budget. This impacts the Budget directly since VCE buys forward energy price hedges to manage energy price risk. Based on the Board approved procurement policy, SMUD is in the process of completing hedge purchases for 2022. Speculation in the energy markets on the potential for a repeat of the heat storm event of summer 2020 pushed forward market power prices significantly higher in 2021. Beyond 2022, a significant portion of these short-term energy costs and the associated price volatility will be mitigated by the commencement of VCE’s long-term PPA agreements.
- PG&E Rate Adjustments – PG&E's current filings/CPUC January proposed decision are expected to result in a forecasted 33% rate increase and a PCIA reduction of 57% based on over and under collections by PG&E in 2021.
- Financial Power Cost Model - Total difference between adopted and corrected forecasts

is approximately $13M over the three FYs 2022 to 2024, resulting from a modeling error that overestimated the financial benefits of VCE's long-term renewable power purchase contracts.

- PCIA. A net 46% increase in the PCIA from 2020/21 continues to have significant revenue erosion of approximately $21M for the 6-months of the current calendar through July.
- Fiscal Year and Budget adoption timing. As described and adopted by the Board on November 10, 2021, the budget adoption process was shifted to a align with the calendar year to avoid overlap with the annual load forecast updates and the beginning of the hedging process for the following calendar year.

These factors, in combination with VCE's fixed-rate longer-term PPA's, indicate some moderation in financial volatility for VCE going forward. Staff will continue to monitor and update the Board should conditions change. The 2022 Budget scenarios shown below are inclusive of the above factors.

3. FY 2022 Draft Budget Scenarios

Staff has updated VCE's financial model with these base assumptions for 2022. Based on previous discussions with the Board and CAC, Staff has run three scenarios to help inform the Board's consideration of rate options for 2022, including:

1. Scenario 1 – Staff Reccomnedation (Low Income/At-Risk* Credit): 2.5% rate credit for CARE/FERA customers; all other revenues directed to reserves. (~85 days cash reserves by end of 2022)
2. Scenario 2 (Base Case): no modifications; all revenues directed to reserves. (~90 days cash reserves by end of 2022)
3. Scenario 3 (Low Income/At-Risk* + Credit): 3.5% rate credit for CARE/FERA customers plus 1% rate credit for other customers; all other revenues directed to reserves. (~80 days cash reserves by end of 2022)

*Includes CARE/FERA and Medical Baseline customers

Table 5 below shows the results of these three scenarios. Consistent with the adopted rate policy, Staff is recommending that VCE set rates for 2022 at a level that will fully fund the 2022 budget, build back reserves that have been used over the past 18 months to stabilize customer rates, and provide a level of financial relief to VCE's low-income customers. Based on the updated information, Staff is recommending that VCE establish a target of 80-90 days cash reserve by the end of 2022. This would provide two key benefits: (1) increased financial stability while taking a significant step toward establishing an investment-grade credit rating, and (2) preparing for future PCIA and power market volatility.

Additional Considerations

<u>Other Operating Expenses</u> – Preliminary Budget Other operating expenses (not including power costs) are nearly flat compared to the 2022 budget, reflecting only a 4% increase – lower than 2021 CPI at 7%. The primary factors of increased costs in this category of expenses include:

- Customer programs costs related to launch of AgFIT and other programs.
- Additional interest expenses related to the use of credit lines resulting from the delay of the ERRA proceeding.
- 5% annual salary and contractor inflation rate based on 2021 7% inflation rate.
- 5% administrative contingency rate (increased from 2.5%) for unanticipated expenses related to increase activity.

Power Costs - Other Considerations

VCE has maintained a power cost forecast as received in October for a total of ~$67M for 2022 resulting in a 2%- purchased power contingency for $1.3M. Due to additional evaluations of the power cost model resulting from the model errors, current forecasted costs on a base case are forecasted at ~$65.6M to $64.5M. Staff recommends maintaining our power costs at the base level we received in November to provide additional power cost contingency. The sensitivity of the power costs model forecasts has ranged from $61.6M to $72.2M.

Under these modeled scenarios, VCE is forecasted to reach the current reserve policy minimum and recommended targets, preserve options for customer discount and additional program funding for future periods, and position VCE for an investment-grade rating by 2024.

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2022 Budget Scenario 1 – Staff Recommendation:

Budget Scenario 1 incorporates 2.5% rate credit for CARE/FERA and Medical Baseline customers and directs all other revenues to reserves. This option includes a target of ~85 days cash reserves by the end of 2022.

Table 2 – 2022 Budget Scenario 1 (Low Income/At-Risk Credit) Staff Recommendation

VALLEY CLEAN ENERGY DRAFT BUDGET SUMMARY 2022 - BUDGET SCENARIO 1	APPROVED BUDGET FY 2021 (6 MO)	ACTUAL YTD Dec. 31 2022 FY 2021 (6 MO)	DRAFT BUDGET CY 2022
OPERATING REVENUE	**$ 24,737**	**$ 29,677**	**$ 89,750**
OPERATING EXPENSES:			
Cost of Electricity	27,618	30,133	66,990
Contract Services	1,369	1,297	2,640
Outreach & Marketing	117	79	247
Programs	68	-	174
Staffing	580	537	1,300
General, Administration and other	382	349	840
TOTAL OPERATING EXPENSES	**30,132**	**32,395**	**72,192**
TOTAL OPERATING INCOME	**(5,395)**	**(2,718)**	**17,558**
NONOPERATING REVENUES (EXPENSES)			
Interest income	28	9	17
Interest expense	(23)	(23)	(107)
TOTAL NONOPERATING REV/(EXPENSES)	**5**	**(14)**	**(90)**
NET MARGIN	**$ (5,390)**	**$ (2,732)**	**$ 17,468**
NET MARGIN %	**-21.8%**	**-9.2%**	**19.5%**

2022 Budget Scenario 2:

Budget Scenario 2 no rate credit modifications, and all revenues are directed to reserves. This option includes a target of 90 days cash reserves by the end of 2022.

Table 3 – 2022 Budget Scenario 2 (Base Case)

VALLEY CLEAN ENERGY DRAFT BUDGET SUMMARY 2022 - BUDGET SCENARIO 2	APPROVED BUDGET FY 2021 (6 MO)	ACTUAL YTD Dec. 31 2022 FY 2021 (6 MO)	DRAFT BUDGET CY 2022
OPERATING REVENUE	**$ 24,737**	**$ 29,136**	**$ 90,500**
OPERATING EXPENSES:			
Cost of Electricity	27,618	29,746	66,990
Contract Services	1,369	1,300	2,640
Outreach & Marketing	117	85	247
Programs	68	23	174
Staffing	580	601	1,300
General, Administration and other	382	336	840
TOTAL OPERATING EXPENSES	**30,132**	**32,090**	**72,192**
TOTAL OPERATING INCOME	**(5,395)**	**(2,954)**	**18,308**
NONOPERATING REVENUES (EXPENSES)			
Interest income	28	16	17
Interest expense	(23)	(23)	(107)
TOTAL NONOPERATING REV/(EXPENSES)	**5**	**(7)**	**(90)**
NET MARGIN	**$ (5,390)**	**$ (2,961)**	**$ 18,218**
NET MARGIN %	**-21.8%**	**-10.2%**	**20.1%**

2022 Budget Scenario 3

Budget Scenario 3 incorporates a 3.5% rate credit for CARE/FERA and Medical Baseline customers plus 1% rate credit for other customers. All additional revenues are directed to reserves resulting in ~80 days by the end of 2022.

Table 4 – 2022 Budget Scenario 3 (Scenario 3 (Low Income/At-Risk + Credit)

VALLEY CLEAN ENERGY DRAFT BUDGET SUMMARY 2022 - BUDGET SCENARIO 3	APPROVED BUDGET FY 2021 (6 MO)	ACTUAL YTD Dec. 31 2022 FY 2021 (6 MO)	DRAFT BUDGET CY 2022
OPERATING REVENUE	**$ 24,737**	**$ 29,136**	**$ 89,000**
OPERATING EXPENSES:			
Cost of Electricity	27,618	29,746	66,990
Contract Services	1,369	1,300	2,640
Outreach & Marketing	117	85	247
Programs	68	23	174
Staffing	580	601	1,300
General, Administration and other	382	336	840
TOTAL OPERATING EXPENSES	**30,132**	**32,090**	**72,192**
TOTAL OPERATING INCOME	**(5,395)**	**(2,954)**	**16,808**
NONOPERATING REVENUES (EXPENSES)			
Interest income	28	16	17
Interest expense	(23)	(23)	(107)
TOTAL NONOPERATING REV/(EXPENSES)	**5**	**(7)**	**(90)**
NET MARGIN	**$ (5,390)**	**$ (2,961)**	**$ 16,718**
NET MARGIN %	**-21.8%**	**-10.2%**	**18.8%**

Table 5 – Budget Scenario Comparison

	Actuals			Actual YTD (6 Month)	Budget Scenarios	Preliminary Forecast*		
Scenario 1	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	89,750	69,500	70,750	71,050
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	17,468	11,702	18,144	17,034
Scenario 2	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	90,500	70,250	71,500	71,800
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	18,218	12,452	18,894	17,784
Scenario 3	FY2019	FY2020	FY2021	FY2022	CY2022	CY2023	CY2024	CY2025
Revenue	51,035	55,249	54,657	29,677	89,000	68,750	70,000	70,300
Power Cost	38,540	41,538	54,234	30,133	66,990	52,400	47,100	48,400
Other Expenses	3,850	4,346	4,267	2,276	5,292	5,398	5,506	5,616
Net Income	8,646	9,365	(3,844)	(2,732)	16,718	10,952	17,394	16,284

* Revenues are highly subject to PG&E filings that impact generation rates and PCIA. Power costs are based of current forward market pricing that impact PPA values (cost reductions) and unhedged load costs.

Note: 2023, 2024, and 2025 forecasted financials are based on the most current available data and assumptions, as displayed in Table 1 - Rates Scenarios. These scenarios rely on future rate adjustments, reserves, or both to mitigate future power cost volatility.

CONCLUSION

Consistent with the adopted rate policy, Staff is recommending that VCE set rates for 2022 at a level that will fully fund the 2022 budget, build back reserves that have been used over the past 18 months to stabilize customer rates, and provide a level of financial relief to VCE's low-income and at risk customers.

ATTACHMENTS

1. 2022 Operational Budget
3. Resolution

VALLEY CLEAN ENERGY - OPERATING BUDGET
CALENDAR YEAR 2022

Description	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	TOTAL
Electric Revenue	$ 3,355,600	$ 2,599,100	$ 5,061,100	$ 4,824,200	$ 7,271,000	$ 11,734,000	$ 13,154,300	$ 12,261,000	$ 10,426,200	$ 7,124,000	$ 5,792,800	$ 6,146,700	$ 89,750,000
Interest Revenues	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 18,000
Purchased Power	$ 5,480,900	$ 4,330,500	$ 4,209,200	$ 3,929,900	$ 4,900,200	$ 6,369,200	$ 8,132,700	$ 7,846,500	$ 7,047,300	$ 5,244,200	$ 4,556,100	$ 4,943,400	$ 66,990,100
Purchased Power Base	$ 4,838,600	$ 3,941,700	$ 3,815,100	$ 3,652,600	$ 6,390,400	$ 6,020,300	$ 8,477,000	$ 7,999,300	$ 6,786,900	$ 4,627,800	$ 4,425,100	$ 4,694,800	$ 65,669,600
Purchased Power Contingency 2%	$ 642,300	$ 388,800	$ 394,100	$ 277,300	$ (1,490,200)	$ 348,900	$ (344,300)	$ (152,800)	$ 260,400	$ 616,400	$ 131,000	$ 248,600	$ 1,320,500
Labor & Benefits	$ 109,900	$ 109,900	$ 109,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 107,900	$ 1,300,800
Salaries & Wages/Benefits	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 90,800	$ 1,089,600
Contract Labor (SMUD Staff Aug)	$ 4,900	$ 4,900	$ 4,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 40,800
Human Resources & Payroll	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 14,200	$ 170,400
Office Supplies & Other Expenses	$ 16,400	$ 16,400	$ 16,400	$ 16,400	$ 16,400	$ 21,000	$ 16,400	$ 16,400	$ 16,400	$ 16,400	$ 16,400	$ 16,400	$ 201,400
Technology Costs	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 7,500	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 2,900	$ 39,400
Office Supplies	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 2,400
Travel	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 6,000
CalCCA Dues	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 10,600	$ 127,200
CC Power	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 24,000
Memberships	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 2,400
Contractual Services	$ 209,600	$ 206,400	$ 209,500	$ 209,100	$ 201,800	$ 203,200	$ 219,200	$ 215,000	$ 228,100	$ 286,000	$ 232,300	$ 223,100	$ 2,643,300
Other Contract Services	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 25,200
Don Dame	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 10,200
SMUD - Credit Support	$ 43,500	$ 40,200	$ 43,300	$ 42,900	$ 35,500	$ 36,900	$ 37,800	$ 48,000	$ 61,100	$ 70,400	$ 65,100	$ 55,900	$ 580,600
SMUD - Wholesale Energy Services	$ 48,800	$ 48,800	$ 48,800	$ 48,800	$ 48,800	$ 48,800	$ 50,100	$ 50,100	$ 50,100	$ 50,100	$ 50,100	$ 50,100	$ 593,400
SMUD - Call Center	$ 65,800	$ 65,900	$ 65,900	$ 65,900	$ 66,000	$ 66,000	$ 67,100	$ 67,200	$ 67,200	$ 67,300	$ 67,400	$ 67,400	$ 799,100
SMUD - Operating Services	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 60,600
Commercial Legal Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Legal General Counsel	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 12,900	$ 154,800
Regulatory Counsel	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 16,600	$ 199,200
Joint CCA Regulatory counsel	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 2,700	$ 32,400
Legislative - (Lobbyist)	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 5,100	$ 60,600
Accounting Services	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 2,200	$ 26,400
Financial Consultant	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 25,200
Audit Fees	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 14,500	$ -	$ -	$ 48,500	$ -	$ -	$ 75,600
Marketing	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 20,500	$ 246,000
Marketing Collateral	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 240,000
Community Engagement Activities & Sponsorships	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 6,000
Programs	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 174,000
Program Costs	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 14,500	$ 174,000
Rents & Leases	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 21,600
Hunt Boyer Mansion	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 1,800	$ 21,600
Other A&G	$ 28,000	$ 28,000	$ 35,400	$ 28,000	$ 28,000	$ 28,000	$ 32,300	$ 32,300	$ 32,300	$ 32,300	$ 32,300	$ 32,300	$ 369,200
Development - New Members	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 25,200
Strategic Plan Implementation	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 2,100	$ 6,400	$ 6,400	$ 6,400	$ 6,400	$ 6,400	$ 6,400	$ 51,000
PG&E Data Fees	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 23,000	$ 276,000
Insurance	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700	$ 8,400
Banking Fees	$ 100	$ 100	$ 7,500	$ 100	$ 100	$ 100	$ 100	$ 100	$ 100	$ 100	$ 100	$ 100	$ 8,600
Miscellaneous Operating Expenses	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 600	$ 7,200
Contingency	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 240,000
TOTAL OPERATING EXPENSES	$ 5,902,200	$ 4,748,600	$ 4,637,800	$ 4,348,700	$ 5,311,700	$ 6,786,700	$ 8,565,900	$ 8,275,500	$ 7,489,400	$ 5,744,200	$ 5,002,400	$ 5,380,500	$ 72,193,600
Interest on RCB loan	$ 3,400	$ 3,000	$ 3,200	$ 3,000	$ 3,000	$ 2,800	$ 2,800	$ 2,700	$ 2,500	$ 2,500	$ 2,400	$ 2,300	$ 33,600
Interest Expense - Bridge Loan	$ -	$ -	$ -	$ 10,400	$ 10,400	$ 10,400	$ 10,400	$ 10,400	$ 8,300	$ 6,300	$ 4,200	$ 2,100	$ 72,900
NET INCOME	$ (2,548,500)	$ (2,151,000)	$ 421,600	$ 463,600	$ 1,947,400	$ 4,935,600	$ 4,576,700	$ 3,973,900	$ 2,927,500	$ 1,372,500	$ 785,300	$ 763,300	$ 17,467,900

RESOLUTION NO. 2022-____

RESOLUTION OF THE BOARD OF DIRECTORS OF THE VALLEY CLEAN ENERGY ALLIANCE ADOPTING THE OPERATING BUDGET FOR YEAR 2022

WHEREAS, the Valley Clean Energy Alliance ("VCE") is a joint powers agency established under the Joint Exercise of Powers Act of the State of California (Government Code Section 6500 et seq.) ("Act"), and pursuant to a Joint Exercise of Powers Agreement Relating to and Creating the Valley Clean Energy Alliance between the County of Yolo ("County"), the City of Davis ("Davis"), the City of Woodland and the City of Winters ("Cities") (the "JPA Agreement"), to collectively study, promote, develop, conduct, operate, and manage energy programs;

WHEREAS, the VCE 2022 Operating Budget Scenario 1 for the calendar year 2022 includes Operating Revenues totaling $89.8M and purchased power and other operating expenses totaling $72.3M for a net income of $17.5M;

NOW, THEREFORE, the Board of Directors of the Valley Clean Energy Alliance hereby adopts the 2022 Budget Scenario 1 for the calendar year of 2022.

PASSED, APPROVED AND ADOPTED, at a regular meeting of the Valley Clean Energy Alliance, held on the ____ day of ________________, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

____
Jesse Loren, VCE Chair

____
Alisa M. Lembke, VCEA Board Secretary

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 17

To: Board of Directors

From: Mitch Sears, Interim General Manager
Edward Burnham, Director of Finance & Internal Operations

Subject: Line of Credit Agreement with the County of Yolo

Date: February 10, 2022

RECOMMENDATION

Authorize the Interim General Manager to conduct any final negotiations and sign all necessary documents on behalf of VCE for the short-term line of credit agreement with Yolo County in an amount not to exceed $5,000,000.

BACKGROUND AND ANALYSIS

As discussed at previous Board meetings, a combination of pandemic impacts, rising PCIA, and volatile short-term power market prices have required VCE to implement cost mitigation measures and draw on reserves over the past 18 months to stabilize customer rates. As outlined in Board items 15 (2022 rate setting) and 16 (2022 budget adoption), favorable movement in projected PCIA rates and PG&E generation rates for 2022 have improved VCE's financial outlook for 2022. However, due to a CPUC delay in approving PG&E's 2022 rates and PCIA until March 1st, supplemental financial assistance is needed to address short-term cash requirements.

VCE staff have been in discussions with its financial, member, and business operations partners over the past several months to address these short-term cash requirements. Specifically, staff has worked with these partners to achieve the goal of an average of 30-days cash over the first half of 2022. As noted in Board item 16 (2022 budget adoption), financial projections using the most up to date information on 2022 PCIA and PG&E rates shows VCE in a healthy financial position by the end of 2022 (net position of $17M, inclusive of payback of this line of credit with Yolo County by the end of 2022).

The proposed short-term $5M line of credit with Yolo County is structured to be fully paid off by the end of 2022 while paying the County 1.5% above its current rate of return on its investment pool (total of 1.99%). This amount, in combination with access to a $2.5M VCE/SMUD restricted power purchase reserve account allows VCE to meet its short-term cash on hand reserve goal for the first half of 2022. Note: high revenue months in the second half of 2022 allow VCE to pay off the County line of credit and build back reserves. The principal terms of the line are listed below and included in the attached revolving credit agreement (Attachment 2).

Yolo County Line of Credit Terms

- Type of Financing: Line of Credit (maximum of 1 draw per month)
- Maximum Amount: $5,000,000
- Maturity: December 31, 2022
- Collateral/Pledged Assets: VCE electric utility customer rates
- Security: Rate covenant
- Interest Rate: Variable rate, simple interest, based on Yolo County Treasury Pool Quarterly Earnings Rate plus 1.50% (1.99% as of 12/31/2021)
- Late Penalty: 5% and 10% annualized until paid in full
- Principal Payment Structure: Due in full on December 31, 2022
- Interest Payment Structure: Due in full on December 31, 2022

Current Financial Instrument

VCE has a revolving line of credit (RLOC) Agreement with River City Bank with a limit of $5M available for cash advances and/or letters of credit and an additional $2M credit facility available for Letters of Credit, for a total RLOC of $7M. The line of credit is scheduled to be extended through 2022 and has not been drawn on since August of 2018. This line of credit provides additional security for VCE and allows for longer-term financial flexibility.

CONCLUSION

Staff believes that the short-term cash requirement and the reduced but continued uncertainty related to the PCIA fee, resource adequacy costs, and PG&E bundled rates for 2023 justify adding the line of credit with the County of Yolo. This agreement allows VCE to build reserves by December 31, 2022, of approximately 80 to 90 days cash. Additionally, credit support from both the County and River City Bank will allow VCE to optimize borrowing costs and provide additional assurance of rate stabilization.

Staff is recommending that the Board adopt a resolution that authorizes the Interim General Manager to conduct any final negotiations and sign all necessary documents on behalf of VCE to execute a line of credit not to exceed $5,000,000 with the County of Yolo. The proposed terms are described in the attached term sheet and package that the County of Yolo Debt Committee has recommended to the Board of Supervisors for approval (scheduled for late February).

Attachments

1. Yolo Debt Committee - Item #7 - VCE Loan Request
2. Revolving Credit Agreement
3. Resolution authorizing the Interim General Manager to execute Credit Agreement with the County of Yolo

Yolo County Debt Committee

Item #7 – Consider options for providing a short-term loan to the Valley Clean Energy Alliance

January 20, 2022

Requesting Department/Agency:	Valley Clean Energy Alliance
Time Duration:	Less than one year
Loan Amount Requested:	Up to $10 million
Loan Amount Recommended:	$5 million
Reason before Debt Committee:	1) The transaction involves an agreement with another governmental agency. 2) The Interim Chief Financial Officer determined that the issue merits review by the Debt Committee.

Purpose/Project

The Valley Clean Energy Alliance (VCE), like other Community Choice Aggregations throughout the state, has been negatively impacted over the last several years due to volatility in the energy sector resulting from COVID-19, sharp increases in power market costs, and increases in Power Charge Indifference Adjustment (PCIA) charges from PG&E.

California's investor-owned utilities (IOU), such as PG&E, use the PCIA to recover above-market costs associated with long-term power contracts that were entered into many years ago. The PCIA is charged to Community Choice Aggregations (CCA) such as VCE in order to spread the cost of these contracts to customers who were formerly served by the IOUs. In 2021-22, the PCIA charged by PG&E increased by approximately 46% over the prior year. In addition, the extreme heat events that occurred in August and September 2020 increased average forward power market prices by approximately 57% due to speculation on the potential repeat events occurring in the future.

These factors resulted in significant impacts to VCE's fiscal position over the last several years. To mitigate this impact, VCE has taken a number of actions, including drawing down reserves, scaling back near-term acquisition of renewable energy credits and power purchase agreements, and implementing an accelerated 5% increase on generation rates beginning in November 2021.

Fortunately, recent filings by PG&E to the California Public Utilities Commission (CPUC) reflect an anticipated 59% reduction in the PCIA and a 33% increase in customer rates for calendar year 2022[1]. Since VCE's customer rates are currently tied to PG&E rates, the anticipated customer rate increase will allow VCE to generate additional revenue, while the decrease in PCIA will reduce VCE costs. The estimated result of these rate changes substantially improves VCE's fiscal outlook for

[1] The CPUC has requested that PG&E propose options to amortize or spread this rate increase over 18 or 24 months. Based on PG&E's filings on December 28th, 2021, these options would result in either a 29% rate increase over 18 months, or a 27% rate increase over 24 months.

calendar 2022. However, despite this improvement, VCE is still projecting short-term fiscal strain beginning in March 2022.

To bridge this short-term cash flow need, VCE has requested a loan in the amount of $10 million from Yolo County. The loan would be used to fund operations and maintain cash reserves at the policy minimum of 30 days of operating expenditures. County staff met with VCE staff on several occasions to discuss the loan request, review financial projections, and explore alternatives. In addition to the loan request from the County, VCE has worked with SMUD to gain access to a $2.5 million cash reserve that is held by SMUD to be used for short-term support of power purchases and operations. VCE has also been in discussions with River City Bank on extension of their credit line for 2022. River City Bank recently extended a $7 million line of credit to the end of February 2022 and will finalize the 2022 credit line extension once PG&E rate adjustments are approved by the CPUC, currently scheduled for February 10^{th}. VCE does not intend to use credit lines in the long-term as it moves towards establishing an investment grade credit rating.

Staff Recommendation

In light of VCE's projected cash flow needs, the availability of other financing options, and the County's lending capacity, staff recommend that the Debt Committee consider a $5 million loan or line of credit to VCE in accordance with the proposed loan terms outlined in Attachment A. Such a loan should be adequate to cover VCE's short-term financing needs without imposing adverse impacts to the County. If approved, it is anticipated that this loan will be made out of the Demeter fund, which currently has an available balance of approximately $5.35 million.

Alternative Options

Other options that the Debt Committee may consider are as follows:

- **Provide a loan or line of credit of up to $10 million.** This option reflects VCE's original loan request and would likely satisfy VCE's cash flow needs without requiring financing from other sources. However, in order to fund a loan of this magnitude the County would need to utilize General Fund cash balances, which may impact the fund balances that are available for appropriation in the 2022-23 budget.

- **Do not provide a loan or line of credit to VCE.** Under this option, VCE would need to rely on alternate financing sources, such as from SMUD and River City Bank, to fund its short-term cash flow needs. If adequate financing cannot be obtained, VCE may be forced to consider short-term rate increases on its customers.

Attachment A – Proposed VCEA Loan Terms

Attachment B – VCE Funding Request Summary

County of Yolo

www.yolocounty.org

TOM HAYNES
Interim Chief Financial Officer

DEPARTMENT OF FINANCIAL SERVICES
625 Court Street, Room 102
PO BOX 1268
WOODLAND, CA 95776
PHONE: (530) 666-8190
FAX: (530) 666-8215
EMAIL: DFS@yolocounty.org

- *Financial Leadership*
- *Budget & Financial Planning*
- *Treasury & Finance*
- *Tax & Revenue Collection*
- *Financial Systems Oversight*
- *Accounting & Financial Reporting*
- *Internal Audit*
- *Procurement*

January 14, 2022

Mitch Sears
Valley Clean Energy Alliance
604 2nd Street
Davis, CA 95616

RE: VCEA Loan Request Term Sheet

This term sheet is being submitted to you in response to your request for a loan from the County of Yolo to address short-term financing needs in order to maintain the policy minimum of 30 days operating cash. While the request from VCE was for a $10 million loan, the terms proposed herein reflect the County's capacity to extend financing and the recognition that VCE has other potential financing options.

This Term Sheet summarizes the terms at which the County would expect to extend financing to VCEA in order to assist you in your determination whether to pursue financing from the County or to support you in comparing to external sources. As noted below, formal approval through a loan agreement by the Board of Supervisors will be required to secure these terms.

Type of Financing:	Line of Credit (maximum of 1 draw per month)
Borrower:	Valley Clean Energy Alliance
Lender:	County of Yolo
Maximum Amount:	$5,000,000
Maturity:	December 31, 2022
Collateral/Pledged Assets:	VCE electric utility customer rates
Security:	Rate covenant
Interest Rate:	Variable rate, simple interest, based on Yolo County Treasury Pool Quarterly Earnings Rate plus 1.50% (2.31% as of 09/30/2021)
Principal Payment Structure:	Due in full on December 31, 2022
Interest Payment Structure:	Due in full on December 31, 2022

Prepayment Options: VCE shall have the right to prepay any amounts drawn from the Line of Credit in whole or in part without prepayment penalty.

Fees: No fees for origination.

Documentation: The financing will require execution of a mutually agreeable financing agreement to be prepared by the Department of Financial Services with support from County Counsel. The form of documents would be those normal and customary for the County of Yolo.

Loan Approval: This Term sheet and related Financing Agreement will require formal approval by the Yolo County Board of Supervisors in a public meeting. **No guarantee or representation is provided whether the financing will receive Board approval.**

Please don't hesitate to contact me at (530) 666-8162 or tom.haynes@yolocounty.org should you have questions regarding this document. We look forward to your respond and upon receipt of your favorable response, will endeavor under good faith to complete a financing agreement reflecting the terms herein.

Sincerely,

Tom Haynes
Interim Chief Financial Officer

CC: Chad Rinde
Edward Burnham

VCE – Interagency Loan Request
VCE Loan Request Summary – 01/06/22

Background Update

The CPUC and PG&E have updated actuals for their balancing accounts related to the PCIA and customer rates, resulting in a 59% decrease in PCIA and a 33% increase in customer rates for 2022. Both adjustments are related to power market price changes in 2021. The PCIA has been adjusted from -75% to -59% for 2022 based on the incorporation of power market price actuals for October and November. For 2022 customer energy rates, the CPUC has requested PG&E propose amortization options between 18 and 24 months on the 33% generation rate increase.

Based on PG&E's filings on December 28, 2021, the amortizations are 29% for 18 months and 27% for 24 months. VCE understands that to maintain general parity with the other IOUs, increases approved by the CPUC for 2022 will most likely be at 24 months for 27% increase. The CPUC is scheduled to act on its annual rate-setting proceeding, including PG&E's amortization proposals, on January 21, 2022. Under this schedule, 2022 PCIA and rates would go into effect on March 1, 2022.

These actions by the CPUC help provide near and mid-term stability to VCE by spreading the rate increase over 2022 and 2023. PG&E's smoothing of rate increases by PG&E reduces rate volatility and provides VCE with additional certainty that PG&E rates will not rebound dramatically in 2023. This, in combination with VCE's transition into its long-term fixed-price renewable energy contracts in 2022/2023, provides a more stable financial outlook in the future. However, the immediate short-term cash positions remain unfavorable through the first half of 2022, making it necessary for VCE to request bridge funding for short-term power purchases and operations. In summary, while VCE will be in a solid financial position at the close of 2022, the PCIA and rates implementation delay to March 1st makes the first half of 2022 challenging from a cash flow perspective.

VCE Request to Yolo County

Valley Clean Energy requests a loan of up to $10M of funds from Yolo County related to anticipated revenues over the calendar year 2022. This request is to maintain VCEs reserve policy of a minimum of 30 days operating cash. These funds would be limited to fund cash reserves and operating expenses. Operational expenses, including billed and owed obligations for (i) PG&E power-related fees, if any; (ii) SMUD power purchases and related charges, including SMUD obligations to CAISO; (iii) monthly VCEA administrative overhead (based on annual budgeted amounts related to CCA activities);(iv) payment of service fees to SMUD; and (v) amounts owed to direct VCEA counterparties for energy purchases. VCE would enter into a financial agreement with the County of Yolo based on repayment of any loan funds used by the end of 2022.

If agreed, this short-term loan eliminates the need for substantial short-term rate increases by VCE to fund cash reserves our customers have over-paid in PCIA to PG&E in 2021. This short-term bridge funding will support VCE's transition to its fixed long-term PPAs (~80% of VCE's load by 2024) and move toward an investment-grade rating by 2024. Table 1 below shows the sensitivity of net generation rate increases beginning in March 2022. In addition, we have provided cash flow scenarios of 12-month outlooks in the table 2 below.

TABLE 1

	CY 2022 Budget Rate Scenarios			
Net Rate Increase	5%	27%	29%	33%
Revenue (net uncollectible)	70,821	86,794	88,246	91,151
Power Costs	66,990	66,990	66,990	66,990
Gross Margin	3,831	19,804	21,256	24,161
Operating & Admin Costs	5,055	5,055	5,055	5,055
Net Income	(1,224)	14,750	16,202	19,106
Gross Margin	5.41%	22.82%	24.09%	26.51%
Net Margin	-1.73%	16.99%	18.36%	20.96%
Ending Cash	975	15,011	16,290	18,880
Loan Requirement (30 Days Cash)	8,640	6,970	6,910	6,780
Maximum Forecasted Cash	3,380	15,011	16,290	18,880
Minimum Forecasted Cash	(3,240)	(1,570)	(1,510)	(1,380)
Average forecasted Cash	(430)	4,830	5,310	6,290

Additional Considerations:

- VCE is expected to receive ~$820K in outstanding receivables in February. Cash flows are based on the most recent revenues (120 days) and not the total AR balance.
- VCE has received updated power costs forecasts based on final hedges. The current base expected costs are $65M, which is ~ 2M favorable.
- VCE is currently forecasted to be ~$2.4M better than budgeted for FY2021 (6 Months), ending in October.

Item #7 – Attachment B

TABLE 2 – Update with 27%

Page 3 of 3

12 Month Amortizations

	2022											
Description	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Amortization Schedule		(5,000)	500	500	500	500	500	500	500	500	500	500
Projected Loan Balance	**-**	**(5,000)**	**(4,500)**	**(4,000)**	**(3,500)**	**(3,000)**	**(2,500)**	**(2,000)**	**(1,500)**	**(1,000)**	**(500)**	**-**
Projected Cash Balance	**3,400**	**6,220**	**3,540**	**2,430**	**2,010**	**2,460**	**4,850**	**7,710**	**10,570**	**12,950**	**14,370**	**15,020**
Projected Days Cash	**19**	**35**	**20**	**14**	**11**	**14**	**27**	**43**	**59**	**72**	**80**	**83**

	2022											
Description	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Amortization Schedule		(7,500)	750	750	750	750	750	750	750	750	750	750
Projected Loan Balance	**-**	**(7,500)**	**(6,750)**	**(6,000)**	**(5,250)**	**(4,500)**	**(3,750)**	**(3,000)**	**(2,250)**	**(1,500)**	**(750)**	**-**
Projected Cash Balance	**3,400**	**8,720**	**5,790**	**4,430**	**3,760**	**3,960**	**6,100**	**8,710**	**11,320**	**13,450**	**14,630**	**15,020**
Projected Days Cash	**19**	**48**	**32**	**25**	**21**	**22**	**34**	**48**	**63**	**75**	**81**	**83**

	2022											
Description	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Amortization Schedule		(10,000)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Projected Loan Balance	**-**	**(10,000)**	**(9,000)**	**(8,000)**	**(7,000)**	**(6,000)**	**(5,000)**	**(4,000)**	**(3,000)**	**(2,000)**	**(1,000)**	**-**
Projected Cash Balance	**3,400**	**11,220**	**8,040**	**6,430**	**5,510**	**5,460**	**7,350**	**9,720**	**12,070**	**13,960**	**14,880**	**15,030**
Projected Days Cash	**19**	**62**	**45**	**36**	**31**	**30**	**41**	**54**	**67**	**78**	**83**	**84**

REVOLVING CREDIT AGREEMENT

THIS REVOLVING CREDIT AGREEMENT (this "Agreement") is made and entered into as of __________, 2022, by and between COUNTY OF YOLO (the "County"), a political subdivision of the State of California, and the VALLEY CLEAN ENERGY ALLIANCE ("VCEA"), a joint exercise of powers authority established pursuant to the Joint Exercise of Powers Act of the State of California (California Government Code Section 6500 et seq.).

RECITALS

A. VCEA's Financial Reserve Policy, adopted December 14, 2017, targets an operating reserve account minimum balance of 30 days operating expenses.

B. In order to maintain this policy minimum reserve, VCEA has requested the County provide a $5,000,000 revolving line of credit to finance VCEA's operating cost shortfalls.

B. County is willing to provide such financing upon the terms and subject to the conditions hereinafter set forth.

NOW, THEREFORE, County and VCEA agree as follows:

1. Agreement to Make Loans. Subject to the terms and conditions set forth below, the County agrees to lend to VCEA the sum of $5,000,000 (the "$5M Loan") for VCEA's 2022 operating cost requirements as needed to be evidenced by a promissory note in the form attached hereto as Exhibit A..

2. Security for Loan. To secure the performance of VCEA hereunder and the payment of all amounts due or to become due to the County, VCEA hereby grants, pledges, transfers and assign to the County, its right, title and interest in VCEA's net revenues consisting of electric utility customer charges.

3. Use of Loan Proceeds. The $5M Loan shall be used for VCEA's annual operating cost shortfalls. VCEA agrees to use the proceeds of the loans for the foregoing purposes and for no other purposes.

4. Interest on Outstanding Amount of Loan. Simple interest shall accrue on outstanding amounts of the Loan at a variable interest rate equal to Yolo County Treasury Pool Quarterly Earning Rate plus 1.50% (1.99% as of December 31, 2021).

5. Conditions to Loans. County shall make the Loan proceeds available provided that County receives the organizational copies of documents of VCEA and a copy of resolutions of VCEA authorizing the transactions and net revenues pledge described herein.

6. Revolving Credit; Loan Disbursements. County shall have no obligation to make advances of loan proceeds after the earlier of: (i) December 31, 2022; or (ii) the occurrence of an Event of Default (as defined in Section 10 below). Sums borrowed under the

loans that are repaid by VCEA may be re-borrowed (i.e., each loan is a revolving credit agreement) subject to a maximum draw of one per month, but disbursements of each draw are subject to VCEA's giving to County a written request for disbursement at least five business days' prior to the requested disbursement date in substantially the form attached hereto as Exhibit B and any additional documentation reasonably and promptly requested by County in writing.

7. Covenants, Warranties and Representations. VCEA makes the following covenants, representations and warranties as of the date of this Agreement:

(a) VCEA shall pay to County all principal and interest outstanding on the $5M Loan on or before the later of: (i) on or before December 31, 2022, or (ii) the date that is 30 days after County delivers a bill to VCEA describing the amount of the interest to be paid and the calculation thereof.

(b) VCEA has the right and power to enter into and has duly authorized the transactions and documents described herein.

(c) This Agreement, and any other documents evidencing, securing or otherwise relating to the loan that are executed by VCEA, constitute legal, valid and binding obligations of VCEA which are enforceable in accordance with their terms.

(d) Except as disclosed to County in writing: (A) VCEA has never defaulted under: (i) any promissory notes of the same general nature as the Note, or (ii) any of its bonds, leases or other obligations and (B) VCEA has never asserted a right to avoid liability under a lease by non-appropriation (excluding conditions precedent requiring appropriation) as a condition to the effectiveness of an obligation.

(f) To the fullest extent permitted by law, VCEA shall fix, prescribe, revise, and collect electric utility rates, fees and charges sufficient to repay the outstanding amounts under the $5M Loan and any accrued interest by December 31, 2022.

8. Prepayment. VCEA may prepay its draws under the Line of Credit without penalty at any time, in whole or in part upon three (3) business days' written notice to the County. Prepayments shall be applied first to interest and then to principal. VCEA shall be entitled to reborrow any principal amounts under the Line of Credit that are paid, subject to the borrowing availability terms set forth in this Agreement.

9. County Reports/Statement. County shall keep an accounting of the indebtedness of VCEA resulting from draws under the Line of Credit. County shall, within five (5) business days after receipt of a written request from VCEA, provide written statements to VCEA of the outstanding balances under the $5M Loan and a description of any defaults or Events of Default by VCEA of which County then has knowledge or notice.

10. Default; Events of Default. An "Event of Default" by VCEA shall be deemed to have occurred hereunder and under the Notes if: (i) VCEA fails to pay any monetary obligation of VCEA to County when due; or (ii) VCEA fails to perform any non-monetary obligation of VCEA to County when performance is due, and VCEA fails to cure such default

within 15 calendar days after written notice from County of such default (provided that if the default is such that more than 15 calendar days is required for its cure, no Event of Default shall have occurred unless VCEA fails to commence the cure within such 15 day period or thereafter fails to reasonably prosecute the cure to completion). If such an Event of Default by VCEA occurs, all sums disbursed or advanced by the County shall, at the option of County, immediately become due and payable, and County shall not be obligated to make future disbursements of loan proceeds to VCEA.

11. Late Charge; Default Interest Rate. In addition to the default provisions of Section 10, if VCEA fails to pay any payment due within 15 calendar days after the date it is due, a late charge of the greater of $100 or 5% of the late payment amount will be charged to the Loan unless the late charge is waived by the County due to good cause. If VCEA still has not paid any payment due 30 calendar days after the date it is due, interest on the outstanding balance, including late charges, shall accrue interest at an annualized rate of 10 % per annum, which shall be calculated from the due date until such amounts are paid off in full.

12. Independent Contractor. Nothing contained in this Agreement is intended to, or shall be construed in any manner, as creating or establishing a partnership, joint venture or relationship of employer/employee or principal/agent between the parties.

13. Notices. All notices and demands shall be given in writing by certified mail, postage prepaid, and return receipt requested, by personal delivery or by overnight delivery service. Notices shall be considered given upon the earlier of (a) personal delivery; (b) two (2) business days following deposit in the United States mail, postage prepaid, certified or registered, return receipt requested; or (c) one (1) business day following deposit with an overnight courier. Notices shall be addressed as provided below for the respective party; provided that if any party gives notice in writing of a change of name or address, notices to such party shall thereafter be given as demanded in that notice:

VCEA: Valley Clean Energy Alliance
604 2nd Street
Davis, CA 95616
Attn: Mitch Sears

County: County of Yolo
Department of Financial Services
625 Court Street, Room 102
Attn: Chief Financial Officer

14. Nonliability of VCEA Officials and Employees. No member, official or employee of either party shall be personally liable to the other party or its successors in interest in the event of any default or breach or for any amount which may become due.

15. No Third Party Beneficiaries. This Agreement is made for the sole benefit of County and VCEA and their respective permitted successors and assigns, and no other person or persons shall have any right of action hereon, nor should any laborer, materialman, subcontractor, or other third party rely upon the loans as a source of payment for work done or

labor and/or materials supplied in respect to the improvements contemplated hereunder or otherwise, notwithstanding any representation to the contrary made by VCEA, contractor or any other person.

16. Miscellaneous / General Provisions. Time is of the essence of this Agreement and of each and every provision hereof. The waiver by either party of any breach or default herein shall not be deemed, nor shall it constitute, a waiver of any subsequent breach or breaches. Any failure or delay by either party in asserting any of its rights or remedies as to any default shall not operate as a waiver of any default or of any such rights or remedies or deprive it of its right to institute and maintain any actions or proceedings which it may deem necessary to protect, assert or enforce any such rights or remedies. This Agreement, together with all exhibits hereto, constitutes the entire agreement between the parties hereto, and there shall be no other agreement regarding the subject matter hereof unless signed in writing by County and VCEA.

17. No Assignment. VCEA shall not assign any of its rights under this Agreement.

18. Agreement to Pay Attorneys' Fees and Expenses. In the event either party to this Agreement should default under any of the provisions hereof and the nondefaulting party should employ attorneys or incur other expenses for the collection of moneys or the enforcement of performance or observance of any obligation or agreement on the part of the defaulting party contained herein, the defaulting party agrees that it will pay on demand to the nondefaulting party the reasonable fees of such attorneys and such other expenses so incurred by the nondefaulting party.

IN WITNESS WHEREOF, the parties hereto have entered into this Revolving Loan Agreement as of the day and year first above written.

COUNTY OF YOLO	VALLEY CLEAN ENERGY ALLIANCE
By: ______________________________	By: ______________________________
Print Name: _______________________	Print Name: _______________________
Title: ____________________________	Title: ____________________________

EXHIBIT A

REVOLVING CREDIT PROMISSORY NOTE

$5,000,000.00 Date:

FOR VALUE RECEIVED, **VALLEY CLEAN ENERGY ALLIANCE,** a public agency formed under the provisions of the Joint Exercise of Powers Act of the State of California, Government Code Section 6500 et seq. *("Borrower")*, promises to pay to the order of **COUNTY OF YOLO** *("Lender")* the principal sum of FIVE MILLION and /100 DOLLARS ($5,000,000.00), pursuant to the terms of that certain Revolving Credit Agreement (the *"Credit Agreement")* dated as of ___, 2022, between Borrower and Lender, together with interest thereon as provided herein and therein. All payments under this Revolving Credit Promissory Note (this *"Note')* shall be made to Lender at its address specified in the Credit Agreement, or at such other place as the holder of this Note may from time to time designate in writing, in accordance with the terms of this Note and the Credit Agreement. Capitalized terms used but not defined in this Note shall have the definitions provided in the Credit Agreement.

Interest and Payment Terms. Simple interest shall accrue on outstanding amounts of this Note at a variable interest rate equal to Yolo County Treasury Pool Quarterly Earning Rate plus 1.50% (1.99% as of December 31, 2021). VCEA shall pay to County all outstanding principal and interest on this Note on or before the later of: (i) on or before December 31, 2022, or (ii) the date that is 30 days after County delivers a bill to VCEA describing the amount of the interest to be paid and the calculation thereof.

Default and Acceleration. Upon the occurrence of any Event of Default described in Section 10 of the Credit Agreement, Lender may exercise any or all of the rights and remedies set forth therein, including the exercise of Lender's option to accelerate this Note and declare all advances and all indebtedness under this Note then outstanding to be immediately due and payable, with notice to Borrower.

Miscellaneous. This Note and the holder hereof arc entitled to all of the rights benefits provided for in the Credit Agreement. All of the terms, covenants and conditions contained in the Credit Agreement are hereby made part of this Note to the same extent and with the same force as if they were fully set forth herein. In the event of a conflict or inconsistency between the terms of this Note and the Credit Agreement, the terms and provisions of the Credit Agreement shall control.

This Note may not be modified, amended, waived, extended, changed, discharged or terminated orally or by any act or failure to act on the part of Borrower or Lender, but only by an agreement in writing signed by the party against whom enforcement of any modification, amendment, waiver, extension, change, discharge or termination is sought.

This Note will be construed in accordance with, and governed by, the internal laws of the State of California.

Borrower promises to pay all costs and expenses (including reasonable attorneys' fees and expert witnesses' fees) suffered or incurred by Lender or subsequent holder of this Note in the collection of this Note or the enforcement Lender's rights and remedies under the Credit Agreement.

Borrower hereby waives presentment for payment and demand. If any part of this Note cannot be enforced, this fact will not affect the rest of the Note. Lender may delay or forego enforcing any of its rights or remedies under this Note without losing them. Borrower and any other person who signs, guarantees or endorses this Note, to the extent allowed by law, waive any applicable statute of limitations, presentment, demand for payment, and notice of dishonor. Upon any change in the terms of this Note, and unless otherwise expressly stated in writing, no party who signs this Note, whether as maker, guarantor, accommodation maker or endorser, shall be released from liability. All such parties agree that Lender may renew or extend (repeatedly and for any length of time) the obligations evidenced by this Note or release any party or guarantor or collateral, or impair, fail to realize upon or perfect Lender's security interest in the collateral, if any; and take any other action deemed necessary by Lender without the consent of or notice to anyone.

Prior to signing this Note, Borrower read and understood all the provisions of this Note and the Credit Agreement, including the variable interest rate provisions in the Credit Agreement. Borrower agrees to the terms of **this Note and the Credit Agreement. Borrower acknowledges receipt of complete copies of this Note and the Credit Agreement.**

VALLEY CLEAN ENERGY ALLIANCE

By: ______________________________

Name: ___________________________

Its: ______________________________

<u>EXHIBIT B</u>

FORM OF DISBURSEMENT REQUEST

VCEA/COUNTY LOAN DISBURSEMENT REQUEST

County of Yolo
County of Yolo
Department of Financial Services
625 Court Street, Room 102
Attn: Chief Financial Officer

Re: <u>Request for Disbursement of Loan Proceeds</u>

Ladies and Gentleman;

The Valley Clean Energy Alliance ("VCEA") requests that you disburse to the VCEA by wire transfer to:

Payee: Valley Clean Energy Alliance
Bank:
Routing#:
Account#:

the sum of $_________, being a portion of the loan evidenced by that certain $_________ Promissory Note executed by the VCEA.

The VCEA hereby certifies that is has incurred operating costs in excess of the cash available to pay them, and that such loan funds will be sued to pay such operating cost shortfall.

Very Truly Yours,

VALLEY CLEAN ENERGY ALLIANCE

By:_______________________________________

Print Name:________________________________

Title:

VALLEY CLEAN ENERGY ALLIANCE

RESOLUTION NO. 2022-XXX

RESOLUTION OF THE BOARD OF DIRECTORS OF THE VALLEY CLEAN ENERGY ALLIANCE AUTHORIZING THE EXECUTION OF CREDIT AGREEMENT WITH THE COUNTY OF YOLO

WHEREAS, The Valley Clean Energy Alliance ("VCE") was formed as a community choice aggregation agency ("CCA") on November 16, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 et seq., among the County of Yolo, and the Cities of Davis and Woodland, to reduce greenhouse gas emissions, provide electricity, carry out programs to reduce energy consumption, develop local jobs in renewable energy, and promote energy security and rate stability in all of the member jurisdictions. The City of Winters, located in Yolo County, was added as a member of VCE and a party to the JPA in December of 2019; and,

NOW, THEREFORE, the Board of the Valley Clean Energy Alliance resolves as follows:

1. Approves and authorizes the Interim General Manager and/or his designee to conduct any final negotiations and sign all necessary related documents on behalf of VCE for the short-term line of credit agreement with the County of Yolo as described in the term sheet recommended for approved by the County of Yolo Debt Committee to the Yolo County Board of Supervisors on January 20, 2022.
2. The Interim General Manager and/or his designee is authorized to execute and take all actions necessary to implement the line of credit substantially in the form attached hereto on behalf of VCE, and in consultation with legal counsel is authorized to approve minor changes to the line of credit agreement so long as the terms and amount are not changed.

PASSED, APPROVED AND ADOPTED, at a special meeting of the Valley Clean Energy Alliance, held on the ____ day of ________________ 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

____
Jesse Loren, VCE Chair

____
Alisa M. Lembke, VCE Board Secretary

Attachments:

1. Yolo Debt Committee - Item #7 - VCE Loan Request
2. Revolving Credit Agreement

VALLEY CLEAN ENERGY ALLIANCE

Staff Report – Item 18

TO:	Board of Directors
FROM:	Mitch Sears, Interim General Manager Edward Burnham, Director of Finance & Internal Operations
SUBJECT:	VCE Three-Year Strategic Plan Annual Update Report
DATE:	February 10, 2022

PURPOSE

The purpose of this annual report is to provide a progress update to the Board on implementation of the Strategic Plan and provide an outlook of planned activity for 2022.

BACKGROUND

The Board ratified the VCE Three-Year Strategic Plan at the November 12, 2020 meeting which incorporates the following schedule for status reporting:

- <u>Quarterly Report to VCE Management</u>
  Staff will report quarterly to the Interim General Manager on the status of goals, objectives and metrics for which they are responsible.
- <u>Annual Report to Board and CAC</u>
  Staff will report annually to the Board and CAC on the status of goals, objectives and metrics, and will recommend any mitigations or amendments as may be necessary for Board approval.

Staff has provided quarterly progress updates to the Interim General Manager and Community Advisory Committee (CAC). As shown in the attached strategic plan status report, staff believes notable progress is being made in each of the goal areas and that the plan is serving an overall purpose of aligning organizational activities with policy priorities. Staff is seeking feedback and direction from the Board on continuing implementation of the Strategic Plan.

<u>ATTACHMENT</u>

1. VCE Strategic Plan Annual Update Report - 2021

VCE Three-Year Strategic Plan

Annual Update Report

2021

Goal 1 - FINANCIAL STRENGTH

Maintain grow a strong financial foundation and manage costs to achieve long-term organizational health.

Objectives: 1.1 - Maintain consistently healthy cash reserves to fund VCE's mission, vision, and goals.
1.2 - Achieve an investment grade credit rating by end of 2024.
1.3 - Commit to fiscal efficiencies to build a program foundation from which to deliver customer and community value.
1.4 - Manage customer rates to optimize VCE's financial health while maintaining rate competitiveness with PG&E.

Obj.	2021 - Key Accomplishments & Developments	2022 Planned Activities
1.1	1. Developed collections policy for review by CAC & Board 2. Renewed credit line with RCB through calendar 2021. 3. Received preliminary CAPP approval for funding ~$800K of COVID related receivables	1. Collections policy approval Q1 2022 2. Renew and increase credit line(s)
1.2	1. Budgeted for a financial advisor to support the process of establishment of first credit rating	1. Issue RFP for financial advisor Q1 2022 2. Recover cash reserves ~80+ Days
1.3		1. Review financial reserve, dividend, and programs fund policy
1.4	1. Adopted cost-based rate policy 2. Implemented rate change to maintain cash reserve minimums	1. Develop an additional analytics model for cost study and long-term rates.

Goal 2 - PROCUREMENT & POWER SUPPLY

Manage power supply resources to consistently exceed California's Renewable Portfolio Standard (RPS) while working toward a resource portfolio that is 100% carbon neutral by 2030.

2.1 - Continue to identify and pursue cost effective local renewable energy resources.
2.2 - Acquire sufficient bundled energy and renewable resources to achieve VCE's greenhouse gas reduction targets.
2.3 - Deploy storage and other strategies to achieve renewable, carbon neutral, resource adequacy, and resiliency objectives.
2.4 - Identify and pursue cost effective, local distributed energy (e.g., behind the meter rooftop Solar + storage) resources to help meet reliability needs.
2.5 - Study and present options for achieving a 100% carbon neutral resource portfolio as well as 100% carbon free resource portfolio (carbon free hour by hour) by 2030.
2.6 - Optimize the hedging strategy to mitigate risk in accordance with the energy risk guidelines and procurement plan.

Obj.	1 - Key Accomplishments & Developments	2 - Planned Activities
2.2	2021, executed a 90MW PV +75MW BESS 20 yr. PPA with Resurgence. (COD – Q422) 2021, executed a 72MW PV + 36MW BESS 15 yr PPA with Willow Springs. (COD – Q423) e: Both PPAs bring VCE stable, low-cost power, resource adequacy, and RPS compliance.	
2.3	ticipation in RFPs with CC power (1) for (2-3) long-duration energy storage systems. (2) ı clean resources (e.g., geothermal, biomass, other new technologies.) e: Both support CPUC mandate for additional resources – D.21-06-035	lize negotiations and bring them forward for rd approval. uate firm proposals and contract awards for rd approval.
2.5	f and Carbon neutrality task group – (1) Awarded RFP to Energeia to perform portfolio analysis for % carbon neutral and carbon-free hour-by-hour. (2) Provided input and reviewed results for final ommendations	l report to be delivered in February 2022 to rd to begin
2.6	for 2021	ıprehensive review planned to incorporate -term PPAs (EROC participation)

Goal 3 - CUSTOMERS & COMMUNITY (3.1 - 3.4)

Prioritize VCE's community benefits and increase customer satisfaction and retention.

3.1 - Develop engagement strategies to increase awareness of, and participation in, local control of VCE's energy supply and programs with a particular focus on engaging disadvantaged and historically marginalized communities.

3.2 - Develop programs and initiatives to better support community goals, including supporting member agency achievement of energy-sector emissions reduction targets.

3.3 - Design and implement a strategy to more effectively engage local business and agricultural customers.

3.4 - Build awareness and trust of the VCE brand through direct engagement with customers, communities and organizations.

	2021 - Key Accomplishments & Developments	2022 - Planned Activities
	ated a mini-campaign in partnership with Davis Food Co-op on UltraGreen opt-ups, including collateral for the paign. ed out an online platform for customers to easily opt up online without their PG&E account number	nch, publicize, create awareness of programs the low-income/at-risk and opt-up campaigns for Woodland and ters (w/Spanish) lement a program for opt-up sponsorship of -income customers
	owed up on cost analysis for all member jurisdictions to opt up to UltraGreen re-initiated conversations about ng up. aged the Woodland Sustainability Committee on VCE efforts and building electrification. aged with the County of Yolo on the Climate Action Commission.	rade analysis of impacts for enrollment of nber jurisdictions in support of targeted munity goals. age Key decision-makers in emission uction programs.
	IT pilot (1) Approved by CPUC with launch in 2022 (2) outreach developed for key ag customers eloped and Launched campaign for UltraGreen commercial customers to advertise efforts and engage itional key accounts.	cessful AgFIT Launch in May-22. ude additional key commercial accounts to UltraGreen campaign.
	ctly engaged with Mutual Housing (MH) management staff and conducted three customer centered public etings (1 in Spanish). This resulted in much more awareness of VCE's brand and activities. de significant improvements to the VCE website, including adding content on carbon-free vs. renewables, lighting key UltraGreen customers on the homepage, updating FAQs, updating the financial resources page, adding the VCE Power Contract map. f conducted two educational presentations in elementary schools about VCE and climate change f co-lead energy related class at the UC Davis Graduate School of Management.	tinue to engage and continue conversations ut partnering with MH on programs, e.g., ti-family EV age with GRID Alternatives for multi-family, harging, and workforce development ning.

		tinue to seek out opportunities to make sroom presentations with the local cational system.

Goal 3 - CUSTOMERS & COMMUNITY (3.5 – 3.7)

Prioritize VCE's community benefits and increase customer satisfaction and retention.

3.5 - Develop customer programs and initiatives that prioritize decarbonization, community resiliency and customer savings.

3.6 - Measure and increase customer satisfaction, using tools such as surveys and focus groups, while maintaining an overall participation rate of no less than 90%.

3.7 - Integrate and address the concerns and priorities of emerging and historically marginalized communities in the design and implementation of VCE's services and programs.

.	2021 - Key Accomplishments & Developments	2022 - Planned Activities
	de significant progress on three programs in Q3-4 2021. Ag pilot approved by the CPUC; programs for both EV ates and heat pump rebates/support are in progress. f was invited to present on building decarbonization to the Woodland Sustainability Committee (WSC) in uary 2022	rove and launch heat pump and EV ate program; program design for ner incentives for low-income omers. ntivize low-income community with grams (CARE/FERA, PIPP, and ELRP.)
	ntained customer participation rate of over 90% iewed and modified Opt-out process for improvements such as live customer service representative agement for better awareness and education prior to final customer decision.	used engagement and outreach with nmunities with low participation.
	ticipating in Arrearage Management Program (AMP) and Percentage Income Payment Plan (PiPP) with PG&E and er CCAs so that customers at high risk of disconnection can get support in paying arrearages and avoid onnection.	nitor AMP and PiPP implementation n PG&E and SMUD. tinue posting in Spanish, measure cess in March 2022.

Goal 4 - DECARBONIZATION & GRID INNOVATION

Promote and deploy local decarbonization and grid innovation programs to improve grid stability, reliability,

VCE Three-Year Strategic Plan Update

.	2021 - Key Accomplishments & Developments	2022 - Planned Activities
	rked w/ the CAC on a building electrification statement. The Board adopted a statement porting and encouraging the electrification of new buildings.	age with the County of Yolo planning nmission on decarbonization efforts.
	npleted draft Carbon Neutral by 2030 Report (CNx2030).	sent final CNx2030 Report to Board Q1; Q3 rn to Board with recommendations based on 2030 Report. rgy Resilience Task Group to contribute to ding local energy resilience for essential nmunity needs.
	owed up with member jurisdiction staff for UltraGreen Analysis & adoption ated a mini-campaign in partnership with Davis Food Co-op on UltraGreen opt-ups, including aterial for the campaign. ed out an online platform for customers to easily opt up online without their PG&E account nber	tinue to identify opt-up solutions for member sdictions lyze VCE opt-up numbers in Q2 2022
	lied for County of Yolo American Rescue Plan funding for downtown Winters reliability upgrade. lied for funding to CPUC under the Reliability OIR to develop and deploy an agricultural autoDR t. Received $3.25M in funds for the 3-year pilot.	tinue to identify ARP and other funding rces with member districts, state, and federal ncies. 2 advice letter to be filed Jan 5th, 2022.

Goal 5 - REGULATORY & LEGISLATIVE AFFAIRS

 Strongly advocate for public policies that support VCE’s Vision/Mission.

5.1 - Work with CalCCA and other partners to proactively engage State regulators, legislators, and other State authorities in

VCE Three-Year Strategic Plan Update

bj.	2021 - Key Accomplishments & Developments	2022 - Planned Activities
.1	vely engaged in CalCCA sponsored legislation on PCIA – SB 612 (Portantino) ve support of AB 843 (Aguiar-Curry) – access for CCA's to BioMat resources Leg/Reg Task Group – bi-weekly meeting	oing engagement in support legislation ted to CCAs
.2	ntify key stakeholder groups within VCE service territory – in process, nded Winters Chamber of Commerce on 4.12.21 with Cool Davis to explore formalizing a relationship to work on shared decarbonization and trification goals.	ision around a structure to formalize tionships with community orgs (e.g., MOU nplate)
.3	aged with CalCCA PCIA forecasting team to make more informed forecasts of PCIA and PG&E rates.	ruitment of Regulatory Staffing

Goal 6 - ORGANIZATION, WORKPLACE & TECHNOLOGY (6.1 – 6.4)

Analyze and implement optimal long-term organizational, management, and information technology structure at VCE.

6.1 - Develop a roadmap to evaluate and guide future steps toward formation of a local Publicly Owned Utility (POU).

6.2 - Evaluate and pursue opportunities for shared services with other CCAs for certain functions.

VCE Three-Year Strategic Plan Update

bj.	1 - Key Accomplishments & Developments	nned Activities
.1	tinuing to monitor POU formation activities in PG&E service territory.	reach to CMUA uate funding options for transitioning to a J.
.2	tinued Board and staff level engagement with CC Power for joint CCA procurement	tinued Board and staff level engagement CC Power for joint CCA procurement.
.3	oing investigation of other CCA expansion evaluation methods used in the process. icipation with the City of Stockton regarding the City's CCA feasibility study	tinued Board and staff level support for ansion opportunities.
.4	geted (1) half time regulatory Analyst and (1) Intern for Marketing and Support	ruitment for Analyst & Intern for 2022.

Goal 6 - ORGANIZATION, WORKPLACE & TECHNOLOGY (6.1 – 6.4)

Analyze and implement optimal long-term organizational, management, and information technology structure at VCE.

6.5 - Promote diversity, equity and inclusion in leadership, hiring, promotion, and contracting policies.

6.6 - Support health, wellness and a productive workplace.

6.7 - Create an innovation-focused culture that rewards proactive participation, problem solving, new ideas, and creative use of

Obj.	2021 - Key Accomplishments & Developments	nned Activities
6.5	1. Completed annual diversity report (GO 156) for CPUC 2. Actively recruited for new hire Analyst position on multiple platforms, including women i science and engineering associations.	1. Will complete annual diversity report (GO 156) CPUC
6.6	1. Continued remote work option to address on-going pandemic issues.	1. Will continue remote work option as necessar address on-going pandemic issues.
6.8	1. Working with County of Yolo GIS team on VCE platform for Dashboard and GIS mapping 2. Adopted Datto as an organizational network drive	2. Implement Dashboard and GIS Mapping Q222