



Staff Report Item 13

TO: East Bay Community Energy Board of Directors

FROM: Marie Fontenet, Vice President of Power Resources

SUBJECT: Kola Energy Storage, Vitol Ocotillo Solar, Sun Streams 2 Contract Approvals (Action)

DATE: January 18, 2023

Recommendation

Adopt three Resolutions authorizing the Chief Executive Officer to execute Agreements for three projects awarded short listing through the 2022 Long-Term Resources request for offers (RFO) and bilateral outreach: Kola Energy Storage (NextEra Energy), Ocotillo Solar, LLC (Vitol), and Sun Streams 2 (Longroad Energy). The project operational dates are listed below:

- a. Kola: a 20-year, 125 MW energy storage agreement (ESA) for a battery storage project in Tracy, CA. June, 2025 online date. Developed by NextEra Energy.
- b. Ocotillo Solar: 10-year, 50 MW RA-only from solar and battery storage project in San Diego County. August 2023 online date. Developed by Vitol.
- c. Sun Streams 2: 10-year, RA-only from solar project in Maricopa County, Arizona. Already online. Developed by Longroad Energy.

Background and Discussion

The 2022 Long-Term Resource Request for Offers (RFO) is EBCE's third long-term contract solicitation; it was performed in partnership with San Jose Clean Energy (SJCE). The RFO was launched in February, 2022. The RFO sought several hundred megawatts (MW) of contracts with renewable energy and battery storage projects with a preference for projects located in California, and more preferentially, those located in Alameda County. EBCE's objective was to drive investments in new renewable and energy storage projects in Alameda County and California, while securing affordable resources to manage future power price risk. EBCE received a very healthy response to its RFO both in volume and quality of projects and proposals.

EBCE administered the RFO and completed robust analytics using internal tools and the cQuant valuation platform to calculate the net present value of proposed projects and determine the optimal portfolio to meet its objectives. EBCE intends to bring additional contracts from this RFO to the Board for approval in the coming months. All of these contracts will be utilized to hedge EBCE against price fluctuation in the CAISO energy markets and they will also contribute to procurement mandates issued by the California Public Utilities Commission (CPUC). The 2021-2023 Electric Reliability Requirements procurement mandate identified volumes of RA capacity each CPUC-jurisdictional load serving entity must procure and have online in the years 2021, 2022 and 2023.¹ The second mandate requires additional volumes of RA come online in years 2023, 2024, 2025, and 2026. That mandate is the “Decision Requirement Procurement to Address Mid-Term Reliability 2023-2026”.²

The Ocotillo Solar and Sun Streams 2 project were offered to EBCE bilaterally, concurrent to ongoing negotiations underway in EBCE’s 2022 Long-Term Resource Request for Offers (RFO) and were evaluated against offers submitted to the RFO.

The Kola project is an ESA from a 125 MW/500 MWh battery storage project. The contracted project, is located in Tracy, CA. It is part of a 400 MW total build-out at this site. The contract is for 20 years with an expected commercial operation date of June 1, 2025. NextEra Energy is an experienced developer having numerous operating renewable energy generation project and energy storage resources in California. NextEra has executed long-term contracts with several CCAs. The contracting entity is Kola Energy Storage II, LLC.

The Vitol Ocotillo Solar contract is for RA from a solar plus 50 MW/200 MWh battery storage project. The contracted project, Ocotillo Solar, is located in San Diego County. The contract is for 10 years with an expected commercial operation date of August 1, 2023. Vitol is a global energy business founded in 1966. Vitol is an experienced renewables developer with 750 MW of wind and solar projects in operation across the U.S. and over 2 GW in development across the U.S. The contracting entity is Ocotillo Solar LLC.

The Longroad Sun Streams 2 contract is for RA from a 150 MW solar project. The contracted project, Sun Streams 2, is located in Maricopa County, Arizona. The contract is for 10 years. The project is already operational, having achieved commercial operate on July 1, 2021. The energy and associated environmental attributes are committed to a long-term offtaker but the RA attribute is currently uncontracted and was offered to EBCE. Longroad is an experienced developer; Longroad is led by former executives of First Wind Energy. Since 2019, Longroad has brought to eleven major projects to COD, including 1.9 MW of solar projects. Longroad is currently contracted to operate 3.5 GW of operating or under-

¹ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M319/K825/319825388.PDF>

² <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M389/K603/389603637.PDF>

construction solar and wind projects across the United States, of which Longroad owns 1.8 GW. The contracting entity is Sun Streams 2 Solar, LLC.

Attachments

- A. Resolution Authorizing the CEO to Negotiate and Execute an Energy Storage Agreement with Kola Energy Storage II, LLC
- B. Resolution Authorizing the CEO to Negotiate and Execute a Resource Adequacy Agreement with Ocotillo Solar LLC
- C. Resolution Authorizing the CEO to Negotiate and Execute a Resource Adequacy Agreement with Sun Streams 2 Solar, LLC
- D. PowerPoint Presentation

RESOLUTION NO. R-2023-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

**OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHORIZING THE CEO TO
NEGOTIATE AND EXECUTE A RESOURCE ADEQUACY AGREEMENT WITH KOLA
ENERGY STORAGE II, LLC**

WHEREAS, The East Bay Community Energy Authority (“EBCE”) was formed as a community choice aggregation agency (“CCA”) on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS, EBCE issued the 2022 Long-Term Resources request for offers (RFO) in February 2022; and

WHEREAS, Kola Energy Storage II, LLC, proposed an Energy Storage Agreement (ESA) for a 125MW/500 MWh battery storage project in San Joaquin County, developed by NextEra Energy; and

WHEREAS, the project is expected to be operational by June 1, 2025 and will provide energy arbitrage and Resource Adequacy (RA) for a term of twenty years.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The CEO is hereby authorized to negotiate and execute a twenty-year energy storage agreement with Kola Energy Storage II, LLC for a 125MW battery energy storage project in San Joaquin County. The final agreement shall include the key terms outlined in the staff report associated with this Resolution.

ADOPTED AND APPROVED this 18th day of January, 2023.

Dan Arriola, Chair

ATTEST:

Adrian Bankhead, Clerk of the Board

RESOLUTION NO. R-2023-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

**OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHORIZING THE CEO TO
NEGOTIATE AND EXECUTE A RESOURCE ADEQUACY AGREEMENT WITH OCOTILLO
SOLAR LLC**

WHEREAS, The East Bay Community Energy Authority (“EBCE”) was formed as a community choice aggregation agency (“CCA”) on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS, Ocotillo Solar LLC, proposed 50 MW of Resource Adequacy (RA) from a 50W solar and 50 MW/200 MWh battery energy storage project in San Diego County, developed by Vitol;

WHEREAS, the project is expected to be operational by August 1, 2023 and will deliver RA for a term of ten years; and

WHEREAS, EBCE staff considers this is a competitive proposal based on submissions to the 2022 Long-Term Resources Request For Offers (RFO).

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The CEO is hereby authorized to negotiate and execute a ten-year RA agreement with Ocotillo Solar LLC for a 50 MW RA-only agreement from a solar and battery energy storage project in San Diego County. The final agreement shall include the key terms outlined in the staff report associated with this Resolution.

ADOPTED AND APPROVED this 18th day of January, 2023.

Dan Arriola, Chair

ATTEST:

Adrian Bankhead, Clerk of the Board

RESOLUTION NO. R-2023-XX

A RESOLUTION OF THE BOARD OF DIRECTORS

OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHORIZING THE CEO TO NEGOTIATE AND EXECUTE A RESOURCE ADEQUACY AGREEMENT WITH SUN STREAMS 2, LLC

WHEREAS, The East Bay Community Energy Authority (“EBCE”) was formed as a community choice aggregation agency (“CCA”) on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS, Sun Streams 2, LLC, proposed Resource Adequacy (RA) from a 150W solar project in Maricopa County, Arizona, developed by Longroad Energy;

WHEREAS, the project is already operational as of July 1, 2021 and will deliver RA for a term of ten years; and

WHEREAS, EBCE staff considers this is a competitive proposal based on submissions to the 2022 Long-Term Resources Request For Offers (RFO).

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The CEO is hereby authorized to negotiate and execute a ten-year RA agreement with Sun Streams 2, LLC for RA-only from a solar generation resource in Maricopa County, Arizona. The final agreement shall include the key terms outlined in the staff report associated with this Resolution.

ADOPTED AND APPROVED this 18th day of January, 2023.

Dan Arriola, Chair

ATTEST:

Adrian Bankhead, Clerk of the Board



2022 Long-Term Resource RFO: Project Update

PRESENTED BY: Marie Fontenot

DATE: January 18, 2023



Agenda

Attachment Staff Report Item 13D

- Solicitation Overview
- Participation
- Evaluation Process
- Current RFO Portfolio Characteristics
- Challenges in Marketplace
- Next Steps
- Appendix: Portfolio Summary

Solicitation Overview

Goals & Objectives

- Secure a portfolio of contracts to provide EBCE customers with affordable renewable and clean energy sources
- Meet IRP Near- and Mid-Term Resource Adequacy Reliability Procurement mandates
- Meet a significant percent of SB350 long-term contracting requirements, equal to 65% of RPS obligations
- Create new renewable energy projects to deliver PCC1 RECs
- Contract low-cost energy hedges to compliment existing portfolio
- Partner with SJCE for efficiency, to minimize expenses, and lead the market in contract terms

Project Characteristics

Facilities:

- Location: Projects may be within or outside of California. All energy must be deliverable to CAISO & must provide RA
- Construction Status: Energy and related products may come from new resources or add incremental capacity to existing resources.

Capacity:

- Minimum Contract Capacity: 5 MW
- Maximum Contract Capacity: none

Delivery Date:

- Energy and RPS attribute delivery must be within calendar years 2023, 2024, 2025, or 2026 with a preference for projects that begin delivery earlier within this window.

Contract Duration:

- 10-20 year durations

Technology:

- Renewables, Large Hydro
- Storage – short or long duration; any technology

Actions

- Issued a broad, open, competitive solicitation to ensure wide array of opportunities considered
- Evaluated combinations of projects to achieve desired volume targets
- Typically prioritize project risk, location, workforce development, economics, and other characteristics; limited ability to do so in this RFO due to limited offers in earlier years
- Encouraged RFO participants to be creative and provide proposal variations on individual projects and include battery storage

Solicitation Overview – Eligible Products

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Product #	Product Name	Description	Example
Product 1	As-Available RPS Product	New or incremental capacity to an existing stand-alone PCC1-eligible generating resource	solar, wind, geothermal, small hydro or ocean (thermal, wave, or current)
Product 2	As-Available RPS plus Energy Storage	New or incremental capacity to an existing stand-alone PCC1-eligible generating resource with co-located energy storage	Same as above plus storage with 2-hr, 4-hr, or 4-hr+ duration capability
Product 3	Firm or Shaped RPS Product	New PCC1-eligible generating resources; likely paired with energy storage	Energy delivered during specific hours
Product 4	High Capacity Factor, No On-Site Emissions RPS Energy	New stand-alone PCC1-eligible generating resource	Geothermal or Biomass
Product 5	Stand-Alone Energy Storage Toll or RA-Only offer	Energy storage may offer a full product “tolling” structure contract or and RA-only offer	Any storage technology with 2-hr, 4-hr, or 4-hr+ duration capability
Product 6	Zero-Emitting Capacity Resources	Must be available every day from 5pm to 10pm (hours ending 17 through 22); must be able to deliver <u>at least 5 MWh of energy for every 1 MW of incremental capacity</u>	Emission-free generation resources, emissions-free generation paired with storage, or demand response



Participation

- **Less robust project offering than 2020 RFO. 44 unique project sites; 185 contract variations (as compared to 70 sites; 400 project variations in 2020 RFO)**
- **All 6 products that were solicited were offered**
- **Offers included solar, wind, geothermal, pumped hydro, and storage**
- **Projects based in 6 different states (CA, AZ, ID, NM, NV, OR); predominantly CA**
 - **Only 1 projects in EBCE service territory.*

Evaluation Process

- **Evaluation Rubric scored 3 areas:**
 - Counterparty Execution, Offer Competitiveness, and Project Development Status
 - Multiple items under each area
- **Two reviewers were assigned to each project.**
- **Staff reviewed all submitted information and provided scores for all categories except for Term Sheet Markups and NPV.**
 - Each item has 10 point max. at its own weighting.
 - Term Sheet Markups were scored by one assigned reviewer.
 - NPV scores were directly incorporated into overall project score with a weighting of 45%.
 - The Net Present Value was calculated based on simulations on 3 different forward curves
 - For each forward curve we took a weighted average of the P5 (50%), P50 (25%), and P95 (25%) and then took a simple average across the 3 curves
 - We normalized this number on a \$/MW basis and the projects were then assigned a 0-10 score based on the NPV distribution
- **Scoring and rubric were consistent with the selection process for the 2018 California Renewables RFP and 2020 RPS and Storage RFO.**

Projects Proposed for Execution

Seeking approval for three contracts: one Energy Storage Agreement and two RA-only Agreements (ESA, submitted into EBCE and SJCE's Joint 2022 Long-Term Resource RFO; RA-only submitted bilaterally)

- Kola Energy Storage: 20 year, 125 MW / 500 MWh energy storage agreement (ESA) in Tracy, CA. Expected to be operational in June, 2025. Developed by NextEra Energy.
- Ocotillo Solar: 10-year, 50 MW RA-only from solar and battery storage project in San Diego County. Expected to be operational August, 2023. Developed by Vitol.
- Sun Streams 2: 10-year, RA-only from solar project in Maricopa County, Arizona. Already operational. Developed by Longroad Energy.

NextEra – Kola Energy Storage

Project Details

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- Selected via the 2022 Joint CCA Long-Term Resource RFO
- Energy Storage Agreement for 125 MW / 500 MWh battery storage project in San Joaquin County (Tracy), CA
- Total site is expected to be 400 MW; EBCE's 125 MW contract is for a standalone resource
- 20-year contract
- Expected Commercial Operation Date is June 1, 2025
- Project has an executed interconnection agreement.
- Project will execute a Project Labor Agreement with local unions.
- The contracting entity under NextEra Energy is Kola Energy Storage II, LLC.

NextEra Company Overview

- NextEra Energy is one of the world's largest owner/operators of renewable energy projects.
- NextEra is a holding company; it includes ownership of Florida Power & Light.
- NextEra owns and operates 28,000 MW of renewable generation resources with an additional 18,000 MW under development.
- NextEra has 4,500 MW of battery storage in operation and under development
- Through 2022, NextEra had ~\$55 B in planned investments in North American infrastructure including generation, storage and transmission assets.
- NextEra is a large, diversified energy company. Across its business units, NextEra employs 266 people in California. development team is comprised of three individuals who all live in the state.
- NextEra has experience with CCAs; owns and operates generation and storage projects with:
 - SVCE, MCE, CleanPower SF, SCP, CPA, VCE, Pioneer, CCCE, PCE

Vitol – Ocotillo Solar Project Details

- Originated and negotiated bilaterally
- Contract for 50 MW Resource Adequacy from solar and energy storage project in San Diego County
- Total project size is 50 MW solar, 50 MW/200MWh energy storage
- 10-year contract
- Expected Commercial Operation Date is August 1, 2023
- Project has an executed interconnection agreement.
- Project has an executed Project Labor Agreement with local unions. Labor procurement plans include a local diverse workforce.
- The contracting entity under Vitol is Ocotillo Solar LLC.

Vitol Company Overview

- Founded in 1966, Vitol is a global energy business and active electricity market participant.
- Vitol's renewables platform has over 750 MW of wind and solar projects in operation and over 2 GW in development pipeline across the US.
- Vitol's parent company is investment grade.
- Vitol's California development team is comprised of 5 individuals who live in the state. The project's EPC contractor has 155 California employees. The project will have 130 individuals on site at its peak.
- Vitol has experience with CCAs, PUD's, IOU's and Retail Providers in California.

Longroad – Sun Streams 2

Project Details

- Originated and negotiated bilaterally
- Contract for Resource Adequacy from solar project in Maricopa County, AZ
- Total project size is 150 MW
- 10-year contract
- Project is operational as of July 1, 2021
- The contracting entity under Longroad Energy is Sun Streams 2, LLC.

Longroad Company Overview

- Longroad is led by former executives of First Wind Energy.
- Since 2019, Longroad has brought to eleven major projects to COD, including 1.9 MW of solar projects, with over 400 MW delivering to CAISO
- Longroad has significant experience as owner and operator of solar and wind projects. Longroad is currently contracted to operate 3.5 GW of operating or under-construction solar and wind projects across the United States, of which Longroad owns 1.8 GW.
- Longroad has experience with CCAs with at least 1 executed contract with CCAs:
 - PPA with MCE; 211 MW solar project that achieved COD 2020

Portfolio Characteristics

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	Developer	Project	Location	Product	Offtake	COD	Nameplate	Sept NQC
Gener- -ation		None at this time						
Storage	NextEra Energy	Kola Energy Storage	San Joaquin County (Tracy), CA	ESA	EBCE	6/1/2025	125 MW	116.75
RA Only	Vitol	Ocotillo Solar	San Diego County, CA	RA only	EBCE	8/1/2023	50 MW	50
	Longroad	Sun Streams 2	Maricopa County, AZ	RA only	EBCE	7/1/2021	150 MW	16.65
	Broad Reach Power	Noosa Energy Storage	San Joaquin County, CA	RA only	EBCE & SJCE	6/1/2024	30 MW	27
	Broad Reach Power	Cascade Energy Storage	San Joaquin County, CA	RA only	EBCE & SJCE	6/1/2024	5 MW	4.5

Next Steps

- Finalize the three contracts and execute agreements.
- Complete negotiations of projects under consideration. Anticipate final presentations to Board through the winter.
- Assess projects as they hit key milestones and mature further.
- Update filing to CPUC on status of 2021-2023 and 2023-2026 Electric Reliability Requirements due February 1, 2023.

Appendix

Portfolio Summary

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DEVELOPER	PROJECT NAME	TECHNOLOGY	NAMEPLATE MW	STORAGE MW/MWH	COUNTY	ONLINE	TERM (YEARS)
Clearway Energy Group	Golden Fields Solar	Solar	112	N/A	Kern	December 2020	15
Greenbacker Capital	Scott Haggerty Wind Energy Center	Wind	57.5	N/A	Alameda	July 2021	20
Convergent Energy and Power	Henrietta D Energy Storage	Storage	0	10/40	Kings	January 2022	15
Pattern Energy	Tecolote Wind	Wind	100	N/A	Torrance and Guadalupe (NM)	December 2021	10
Idemitsu Renewables	Tulare Solar Center	Solar	56	N/A	Tulare	May 2022	15
Terra-Gen	Sanborn Storage	Storage	0	47/188	Kern	December 2022	12
EDP Renewables	EDPR Solar Park	Solar + Storage	100	30/120	Fresno	December 2022	20
Terra-Gen	Edwards Solar	Solar + Virtual Storage	100	TBD	Kern	December 2022	15
Clearway Energy Group	Daggett 3	Solar+ Storage	50	12.5/50	San Bernadino	April 2023	15
Intersect Power	Oberon	Solar+ Storage	125	125	Riverside	January 2024	10+
LS Power	Tumbleweed Energy Storage	Storage	0	50/200	Kern	June 2024	15