



**CAC Item C5
Staff Report Item 12**

TO: East Bay Community Energy Board of Directors

FROM: Marie Fontenot, Vice President of Power Resources

SUBJECT: Middle River Power Malaga Contract Approval (Action)

DATE: March 15, 2023

Recommendation

Adopt a Resolution authorizing the Chief Executive Officer to finalize negotiations and execute an Agreement with contracting entity MRP Pacifica Marketing, LLC for the Malaga contract. The Malaga contract is a 15-year, multi-product agreement comprised of a financial hedge backed by physical resources and RA from a co-located existing natural gas peaker plant and an incremental battery storage project in Fresno County as well as RA from an incremental battery storage project in Kings County, CA. with April 1, 2024 as the date for contract deliveries to begin. The project is being developed by Middle River Power, LLC.

Background and Discussion

The 2022 Long-Term Resource Request for Offers (RFO) is EBCE's third long-term contract solicitation. 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 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. All of these contracts will be utilized to hedge EBCE against price fluctuation in the CAISO energy markets and they will 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 Malaga contract is comprised of multiple products and three resources; the deal structure includes a financial hedge backed by physical resources and two RA agreements. The Malaga contract was originally offered to EBCE in its 2020 RFO but was re-evaluated during the 2022 RFO process. Staff sees value to this unique mixture of products: a financial hedge offered in part by an existing asset is especially valuable in the current climate: supply chain problems continue to delay the construction of new facilities and investor-owned utilities experience delays in their ability to interconnect new generating resources, and RA provided by a natural gas plant will contribute to EBCE’s position and is needed as the RA rules undergo redesign. The hedge is intended to provide financial coverage, a form of insurance policy, for EBCE during the highest demand periods of the year and will provide some coverage of EBCE’s open position. The proposed hedge structure is a financial transaction only, EBCE will not take possession of or title to the energy generated by the natural gas plant or the energy charged and discharged by the co-located battery; as such the transaction will not add emissions to EBCE’s portfolio.

The physical resources that comprise the contract are a co-located 96MW natural gas peaking facility and a 96MW/96MWh battery storage project in Fresno County and an additional 16MW/64MWh battery storage project in Kings County. The natural gas peaking facility is existing; the batteries are new and not yet developed. The 96MW battery storage project co-located with the gas plant is noteworthy in the addition of this new resource is intended to result in reduced dispatch of the co-located natural gas peaking facility by the CAISO market. The contract is for 15 years with is expected to begin delivery on April 1, 2024. Middle River Power is an experienced developer and project owner having numerous operating natural gas facilities in California. Middle River Power has executed a similar agreement with another CCA. The contracting entity is MRP Pacifica Marketing, LLC.

Attachments

- A. Resolution Authorizing the CEO to Negotiate and Execute a Fifteen-Year Financial Hedge and RA Agreement with MRP Pacifica Marketing, LLC.
- B. PowerPoint Presentation

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>

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 DISPATCHABLE ENERGY AND ENERGY STORAGE
AGREEMENT WITH MRP PACIFICA MARKETING, 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 2020 Long-Term Resources request for offers (RFO) in October 2020;

WHEREAS EBCE re-evaluated the previously offered project while negotiating contracts from the 2022 RFO and saw new value in the unique commercial structure;

WHEREAS MRP Pacifica Marketing, LLC, proposed a Financial Hedge and RA Agreement for a co-located 96MW natural gas peaking facility and a 96MW/96MWh battery storage project in Fresno County and a 16MW/64MWh battery storage project in Kings County, developed by Middle River Power, and

WHEREAS the project is expected to be operational by April 1, 2024 and will provide a financial hedge and Resource Adequacy (RA) for the term of fifteen 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 fifteen-year financial hedge and RA Agreement with MRP Pacifica Marketing, LLC for a co-located 96MW natural gas peaking facility and a 96MW battery energy storage project in Fresno County. The final agreement shall include the key terms outlined in the Staff Report associated with this Resolution.

ADOPTED AND APPROVED this 15th day of March, 2023.

Elisa Marquez, Chair

ATTEST:

Adrian Bankhead, Clerk of the Board



Bilateral Contract for Board Consideration

PRESENTED BY: Marie Fontenot

DATE: March 15, 2023



Agenda

- Context:
 - Recent 2022 RFO Solicitation Overview
 - 2022 RFO Participation
 - Evaluation Process
- Current RFO Portfolio Characteristics
- Projects Proposed for Execution
- 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.**

2022 RFO Portfolio Characteristics

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| | Developer | Project | Location | Product | Offtake | COD | Nameplate | Sept NQC |
|------------------|----------------------|---------------------------|-----------------------------------|---------------|----------------|----------|-----------|----------|
| Gener- -ation | Longroad | Sun Pond | Maricopa County, AZ | PV and ESA | EBCE | 4/1/2025 | 85 MW | 34.4 |
| Stor- age | NextEra Energy | Kola Energy Storage | San Joaquin County (Tracy), CA | ESA | EBCE | 6/1/2025 | 125 MW | 116.75 |
| RA Only | ConEd | Alpaugh BESS | Tulare County, CA | RA only | EBCE | 6/1/2024 | 5 MW | 4.5 |
| | Vitol | Ocotillo Solar | San Diego County, CA | RA only | EBCE | 8/1/2023 | 50 MW | 50 |
| | 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 |

“Existing” 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 |

Middle River Power – Malaga Dispatchable Energy and Energy Storage Project Details



- Originated and negotiated bilaterally. Originally offered into 2020 Renewable Resource and Energy Request for Offers (RFO).
- Financial Hedge back by physical assets and RA Agreement.
 - Existing gas peaker plant
 - Two new batteries
- 15-year contract
- Expected Initial Contract Delivery Date is April 1, 2024
- Project has an executed interconnection agreement.
- The contracting entity under Middle River Power (MRP) is MRP Pacifica Marketing, LLC.



Middle River Power Company Overview

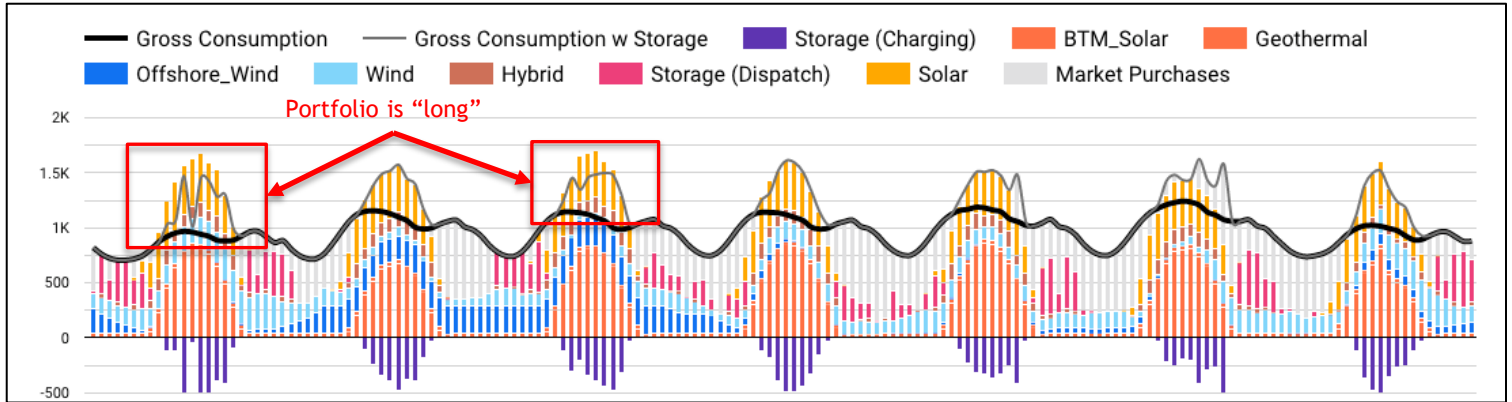
- Middle River Power is a private equity sponsored investment and asset management platform focused on US power generation assets.
- Middle River Power owns and operates 2300 MW of natural gas fired generation with 160 MW of peaker and 100 MW of solar in development within California and a combined total of over 3000 MW throughout the US.
- Middle River Power has 420 MW of co-located natural gas and battery storage in development within California.
- MRP has successfully developed and contracted several assets in California such as a 100 MW solar project with a 50 MW battery in Victorville, a 60 MW standalone battery, and a 130 MW geothermal project in Coso Junction, California
- Middle River Power is an experienced power owner and operator in California with several their projects contracted with PG&E ending in 2022.

Example Portfolio – Market Exposure

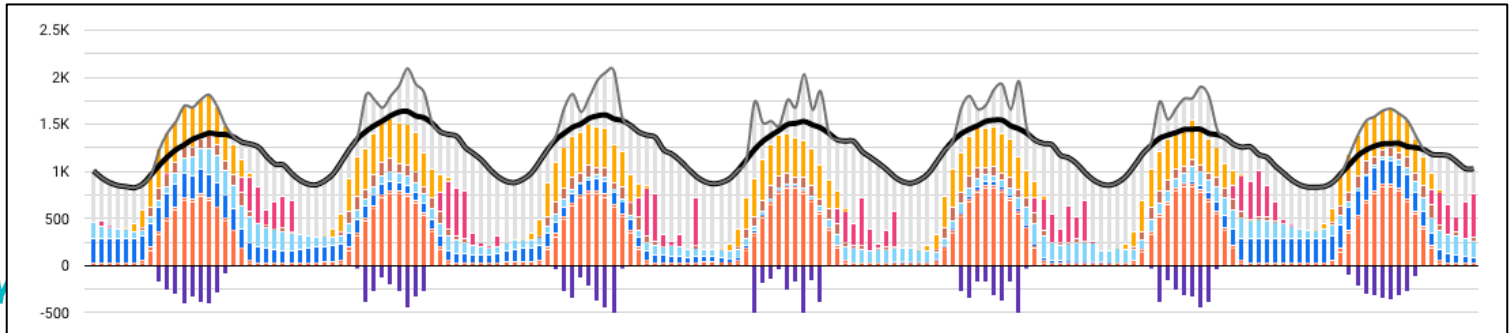
Attachment Staff Report Item 12B

- Modeling exhibits a preference for portfolios that, on average, limit EBCE's sales of excess electricity into the market. This leads to periods of market reliance in "high load" months to limit exposure to low / negative prices in "lower load" months

Sample week
- April 2030



Sample week
- July 2030



Challenges in Marketplace

- Supply Chain
- Permitting Delays
- Interconnection Delays
- Risk of additional governmental intervention, similar to solar anti-circumvention investigation of 2022

Next Steps

- Finalize contract and execute agreements.
- Assess project as it hits key milestones and matures further.
- Update filing to CPUC on status of 2021-2023 and 2023-2026 Electric Reliability Requirements due June 1, 2023.

Appendix