

JULY, 2023

2023 Long-Term Resource RFO: Overview and Update



Agenda

- Solicitation Overview
- Participation
- Evaluation Process
- Challenges in Marketplace
- Next Steps
- Reminder: 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 current and future CPUC compliance 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 2024 through 2030 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

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	Stand-Alone Energy Storage Toll or RA-Only offer	Energy storage may offer a full product “tolling” structure contract. RA-only offers <i>not</i> accepted in this RFO	Any storage technology with 2-hr, 4-hr, or 4-hr+ duration capability

Participation

More robust project offering than 2022 RFO, comparable to 2020 RFO. 72 unique project sites; 195 project variations (as compared to 44 sites; 185 variations in 2022 RFO)

All 4 products that were solicited were offered

Offers included solar, wind, and battery storage

Projects based in 6 different states (CA, AZ, ID, NM, NV, WY); predominantly CA

**Only 2 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 and NPV.**
 - Each item has 100 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 55%.
 - The Net Present Value was calculated based on simulations on 6 different forward curves
 - For *each* forward curve we took a weighted average of the P5 (50%), P50 (30%), and P95 (20%); and then took a simple average across the 6 curves
 - We normalized this number on a \$/MW basis and the projects were then assigned a 0-55 score based on the NPV distribution
 - Other factors considered in qualitative evaluation were Counterparty Execution Risk (20 points), Development Status Risk (20 points) and Local Business Enterprise (4 points) and Small Business Enterprise (1 point)
- **Scoring and rubric were similar to the selection process for previous RFOs**
 - Previous RFOs used 3 forward curves, this RFO featured 6 curves each representing a unique scenario
 - Minor changes were made to weighting of local projects, including addition of points for small businesses

Challenges in the Marketplace

- Ongoing supply chain disruption & delays
- Uncertainty related to future tariffs for core components
- Result: suppliers of core components pricing using Index structure; many Project Developers unwilling to take on price risk thus requiring pricing using index also or extreme mark-ups in price to cover risk
- General: prices for generation and storage resources have increased 30-40% since ~2020.

Next Steps

- Complete negotiations of projects under consideration. Anticipate presentations to Board beginning in September and continuing through 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 August 1, 2023.
- CPUC's 2024 IRP cycle provides formal opportunity for portfolio review and analysis of open position, cost and risk. Further engagement with board and community as part of IRP process.

Portfolio Summary

Project Name1	Project Name2	Developer	Type	Nameplate Capacity	COD	Term (Years)	Technology	County	State
Altamont	SHWEC	Greenbacker	RPS	57.5	7/2/2021	20	Wind	Alameda	CA
Rosamond Central	Golden Fields	Clearway	RPS	112	12/22/2020	15	Solar	Kern	CA
Pattern	Tecolote	Pattern	RPS, no RA	100	12/20/2021	10	Wind	Guadalupe & Torrance	NM
Luciana	Tulare	Idemitsu	RPS	55.83	4/30/2022	15	Solar	Tulare	CA
Edwards Solar II	Edwards	Terra Gen	RPS	100	Q2 2024	15	Solar	Kern	CA
Fervo	Corsac Station	Fervo	RPS	40	2/1/2030	15	Geothermal	Churchill	NV
Daggett South	Daggett	Clearway	RPS+Storage	482	7/1/2023	15	Solar + Storage	San Bernardino	CA
RE Scarlet	Sonrisa	EDPR	RPS+Storage	100	12/15/2023	20	Solar+Storage	Fresno	CA
Oberon	Oberon	Intersect	RPS+Storage	125	1/1/2024	15	Solar	Riverside	CA
Henrietta D	Henrietta	Convergent	Storage	10	12/2/2021	15	Storage	Kings	CA
Tumbleweed	Tumbleweed	REV Renewables	Storage	50	6/1/2024	15	Storage	Kern	CA
Kola	Kola	NextEra	Storage	125	4/1/2025	20	Storage	San Joaquin	CA
Sanborn	Sanborn	Terra Gen	Storage	47	Q2 2024	12	Storage	Kern	CA