Peninsula Clean Energy
Special Board of Directors Meeting

January 18, 2022
Special Agenda

- Call to Order / Roll Call
- Public Comment (for items not on the Agenda)
- Action to set the Agenda
- Regular Agenda
  - Agenda Item 1 – CC Power
Approval of Resolutions Related to CC Power

Special Board Meeting
Siobhan Doherty, Director of Power Resources
January 18, 2022
Recommendation

1. Approve Resolution directing the Chief Executive Officer to vote as a director on the California Community Power (CC Power) Board to approve the Energy Storage Services Agreement between California Community Power and Tumbleweed Energy Storage, LLC and any necessary ancillary documents for a long duration energy storage (LDS) project with a delivery term of 15 years starting at the Commercial Operation Date on or about June 1, 2026.

2. Approve Resolution Delegating Authority to Chief Executive Officer to Execute on behalf of Peninsula Clean Energy as a member of CC Power the following agreements and any necessary ancillary documents for the LDS project with a delivery term of 15 years starting at the Commercial Operation Date on or about June 1, 2026, in an amount not to exceed $100 million:

   - Project Participation Share Agreement between Peninsula Clean Energy, California Community Power and other participating CCAs
   - Buyer Liability Pass Through Agreement between Peninsula Clean Energy Authority, California Community Power and Tumbleweed Energy Storage, LLC
1. Background
2. LDS Need – Mid-term Reliability Procurement Mandate
3. Contract Structure
4. Tumbleweed Project
5. Recommendation
Background
## RFO Background and Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 2020</td>
<td>Interest and Information Gathering (RFI) for Long Duration Storage (LDS)</td>
</tr>
<tr>
<td>Oct 2020</td>
<td>CCAs issue a joint Request for Offers (RFO) for up to 500 MW of LDS</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>California Community Power (CC Power) Formed / LDS Project Oversight Committee (POC) formalized</td>
</tr>
<tr>
<td>Jun 2021</td>
<td>LDS Projects shortlisted, Energy Storage Service Agreement (ESSA) Negotiations start, and begin development of CC Power / CCA Agreements</td>
</tr>
<tr>
<td>CPUC issues Mid-term Reliability Procurement Order</td>
<td></td>
</tr>
<tr>
<td>Oct 2021</td>
<td>Start CC Power and Individual CCA Approval processes for LDS Project #1 - Tumbleweed</td>
</tr>
<tr>
<td>Jan 2022</td>
<td>Peninsula Clean Energy Board approval for Tumbleweed</td>
</tr>
<tr>
<td>Feb – Mar 2022</td>
<td>CC Power Board approval for Tumbleweed</td>
</tr>
<tr>
<td>Feb – Mar 2022</td>
<td>Other CCAs Board Approvals</td>
</tr>
</tbody>
</table>
Participating CCAs

- 7 CCAs are participating in this joint procurement effort
LDS Need – Mid-term Reliability Procurement Mandate
Mid-Term Reliability Decision (2023 – 2026)

- D.21-06-035 adopted by CPUC on June 24, 2021, to address mid-term reliability needs
- LSEs required to collectively procure 11,500 MW of new resources
- Allocated to LSEs by load share
- Resources must be zero-emission or RPS eligible (no fossil resources)
- 4,500 MW of obligation subject to specific category requirements (next slide)
### Peninsula Clean Energy Allocation

#### Procurement Obligation in NQC\(^1\) MW for Peninsula Clean Energy by Category and Year

<table>
<thead>
<tr>
<th>Procurement Category</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero-emissions generation, generation paired with storage, or demand response resources(^2)</td>
<td>-</td>
<td>-</td>
<td>47</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>Firm zero-emitting resources(^3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Long-duration storage resources(^3,4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Remaining New Capacity Required</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>132</td>
</tr>
<tr>
<td><strong>Total Annual Net Qualifying Capacity (NQC) Requirements</strong></td>
<td>38</td>
<td>113</td>
<td>28</td>
<td>38</td>
<td>217</td>
</tr>
</tbody>
</table>

1. Obligation is in NQC MW (not nameplate) and subject to ELCC factor
2. Zero-emissions resources required to replace Diablo Canyon must be procured by 2025 but may occur in any of the years 2023-2025; therefore, the columns do not add to the total.
3. LSEs may request an extension by February 1, 2023, up to 2028 for the LLT resources.
4. 4. Minimum 8-hour discharge
Effective Load Carrying Capacity Factors

- Requirements are based on Net Qualifying Capacity
- Long duration storage assigned an NQC of 78.2%
- Each MW of nameplate capacity = .782 MW NQC

<table>
<thead>
<tr>
<th>Peninsula Clean Energy NQC Allocation</th>
<th>Nameplate Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 MW</td>
<td>24.30 MW</td>
</tr>
</tbody>
</table>
Contract Structure
Typically, a CCA will procure storage services on behalf of its customers by directly entering into an Energy Storage Services Agreement (ESSA) with a developer. The ESSA addresses (1) payment obligations, (2) liability for damages, and (3) operational control of the storage unit.
Project Participation Share Agreement

LDS Project

Energy Storage Services Agreement
- Developer
- CC Power

Project Participation Share Agreement
- CC Power
- 7 CCAs

CCA Customers
Liability for Damages

LDS Project

Energy Storage Services Agreement

Project Participation Share Agreement

Buyer Liability Pass Through Agreements

Each participating CCA executes with Developer’s Seller entity and CC Power

CCA Customers

Peninsula Clean Energy
Operational Control

LDS Project

Energy Storage Services Agreement
- Developer
- CC Power

Operations Agreement

Project Participation Share Agreement
- CC Power
- 7 CCAs

Buyer Liability Pass Through Agreements
(Each participating CCA executes with Developer’s Seller entity and CC Power)

CCA Customers
Tumbleweed Project
LS Power Tumbleweed

- **Developer** – REV Renewables / LS Power
- **Location** – Kern County, CA (in CAISO)
- **Product** – Full Toll, w/RA and A/S rights
- **Capacity/Technology** – 69 MW Li-ion (NMC/LFP) contract w/Full Capacity Deliverability Status
- **COD/Term** – 6/1/2026, 15 years
- **Discharge Duration** – 8 hours
Environmental Review

• Staff worked with several environmental non-profits to develop a system for evaluating the environmental impact of projects. Staff 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:

  o 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.).
  o Identified and mapped important habitat and habitat linkages, especially for threatened and endangered species (either state or federally listed).

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

  RETI: https://reti.databasin.org/
## Tumbleweed Shares

- Project Capacity was allocated based on CPUC obligation

<table>
<thead>
<tr>
<th>CCA</th>
<th>CPUC PD Capacity Obligation MW NQC in 2026</th>
<th>Entitlement Share</th>
<th>Tumbleweed Allocation (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSF</td>
<td>15.5</td>
<td>16.06%</td>
<td>11.08</td>
</tr>
<tr>
<td>PCE</td>
<td>19</td>
<td>19.69%</td>
<td>13.59</td>
</tr>
<tr>
<td>RCEA</td>
<td>3.5</td>
<td>3.62%</td>
<td>2.50</td>
</tr>
<tr>
<td>SJCE</td>
<td>21.5</td>
<td>22.28%</td>
<td>15.37</td>
</tr>
<tr>
<td>SVCE</td>
<td>20.5</td>
<td>21.25%</td>
<td>14.66</td>
</tr>
<tr>
<td>SCPA</td>
<td>12.5</td>
<td>12.95%</td>
<td>8.94</td>
</tr>
<tr>
<td>VCE</td>
<td>4</td>
<td>4.15%</td>
<td>2.86</td>
</tr>
<tr>
<td>Total</td>
<td><strong>96.5</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>
ESSA Contract Structure

• Pay for the use of the storage project of the project at a fixed-price rate per kW-month
• No escalation
• Contract term: 15 years
• CC power is entitled to all product attributes from the facility:
  o Energy Arbitrage
  o Ancillary services
  o Resource adequacy.
Contract Details – Credit / Collateral

• Buyer’s Liability Pass Through Agreement (BLPTA)
  • Executed by CCA, Developer and CC Power
  • Each CCA guarantees payment performance of CC Power under ESSA
  • No LCs or cash collateral required

• Project Participation Agreement
  • 25% step-up cap – Each CCA commits to take up to 25% additional capacity if another CCA defaults
  • 3 months payment obligation posting per CCA to CC Power
Workforce Requirements

All construction work shall

• Comply with CA prevailing wage requirements
• 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
Environmental and Environmental Justice Requirements

• Seller required to obtain and maintain all permits and approvals.

• Seller represents and warrants that it has not and will not knowingly utilize equipment or resources 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.
Board Authorization MW

• Each CCA is seeking authority to procure a maximum amount of MW to cover:
  • Contingency should not all CCA's gain board authority; and
  • 25% step-up per PPSA

• Peninsula Clean Energy is sizing its requested authorization to its total LDS requirement

<table>
<thead>
<tr>
<th>Peninsula Clean Energy NQC Allocation</th>
<th>Nameplate Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 MW</td>
<td>24.30 MW</td>
</tr>
</tbody>
</table>
Recommendation and Approval
Recommendation

1. Approve Resolution directing the Chief Executive Officer to vote as a director on the California Community Power (CC Power) Board to approve the Energy Storage Services Agreement between California Community Power and Tumbleweed Energy Storage, LLC and any necessary ancillary documents for a long duration energy storage (LDS) project with a delivery term of 15 years starting at the Commercial Operation Date on or about June 1, 2026.

2. Approve Resolution Delegating Authority to Chief Executive Officer to Execute on behalf of Peninsula Clean Energy as a member of CC Power the following agreements and any necessary ancillary documents for the LDS project with a delivery term of 15 years starting at the Commercial Operation Date on or about June 1, 2026, in an amount not to exceed $100 million:

   - Project Participation Share Agreement between Peninsula Clean Energy, California Community Power and other participating CCAs
   - Buyer Liability Pass Through Agreement between Peninsula Clean Energy Authority, California Community Power and Tumbleweed Energy Storage, LLC
Thank you! Questions?

A sustainable world with clean energy for everyone.
Mid-Term Reliability Decision (2023 – 2026)

• **D.21-06-035** adopted by CPUC on June 24, 2021, to address mid-term reliability needs
• LSEs required to collectively procure 11,500 MW of new resources
  o Measured in net qualifying capacity not nameplate capacity
• Follow-on to November 7, 2019, CPUC decision mandating 3,300 MW procurement for 2021-2023 to maintain reliability
• Contract of at least 10 years
• Allocated to LSEs by load share
• Resources must be zero-emission or RPS eligible (no fossil resources)
• 4,500 MW of obligation subject to specific category requirements (next slide)
Procurement Timing

- Timing of overall procurement requirement and specific categories assigned in tranches between 2023 and 2026

**Procurement Obligation in NQC\(^1\) MW for All LSEs by Category and Year**

<table>
<thead>
<tr>
<th>Procurement Category</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero-emissions generation, generation paired with storage, or demand response resources(^2)</td>
<td>-</td>
<td>-</td>
<td>2,500</td>
<td>-</td>
<td>2,500</td>
</tr>
<tr>
<td>Firm zero-emitting resources(^3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Long-duration storage resources(^3,4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Remaining New Capacity Required</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7,000</td>
<td>7,000</td>
</tr>
<tr>
<td><strong>Total Annual Net Qualifying Capacity (NQC) Requirements</strong></td>
<td>2,000</td>
<td>6,000</td>
<td>1,500</td>
<td>2,000</td>
<td>11,500</td>
</tr>
</tbody>
</table>

1. Obligation is in NQC MW (not nameplate) and subject to ELCC factor
2. Zero-emissions resources required to replace Diablo Canyon must be procured by 2025 but may occur in any of the years 2023-2025; therefore, the columns do not add to the total.
3. LSEs may request an extension by February 1, 2023, up to 2028 for the LLT resources.
4. Minimum 8-hour discharge
Penalties for Non-Compliance

- If an LSE fails to meet its procurement obligations, “penalties” may be imposed.
- IOUs will be ordered to backstop with costs assigned to LSE and/or its customers based on a methodology to be determined.
- LSE will be subject to on-going financial penalties per MW not procured until deficiency is cured.
- Also possible, but currently unclear, if existing (or new) RA compliance penalties and CAISO backstop procurement would be applicable.
CC Power Tumbleweed Approval Process

**Step 1:** CC Power Board issues 60-day notice to consider ESSA for approval in December - Today

**Step 2:** CC Power Board approves ESSA, PPSA, BLPTA & Operating Agreement condition on individual CCA Approval

**Step 3:** CCAs seek respective Board Approvals of PPSA, BLPTA and Operating Agreement

**Step 4:** Tumbleweed Agreements become effective

---

Process will be repeated for additional LDS Project Agreements – condition on negotiations and interest from other CCAs
Contracting Through CC Power

LDS Project → Energy Storage Services Agreement → CCA Customers

- Developer
- CC Power

Peninsula Clean Energy
Overall Structure

LDS Project

Scheduling Coordinator Agreement

Operations Agreement

Energy Storage Services Agreement

Developer

CC Power

Project Participation Share Agreement

CC Power

7 CCAs

Buyer Liability Pass Through Agreements

Each participating CCA executes with Developer’s Seller entity and CC Power

CCA Customers
Project Owner – REV Renewables

• A subsidiary of LS Power

• LS Power was founded in 1990
  o Developed more than 660 miles of high voltage transmission,
  o 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.
  o Actively invests in distributed energy resources including 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.
Adjournment