

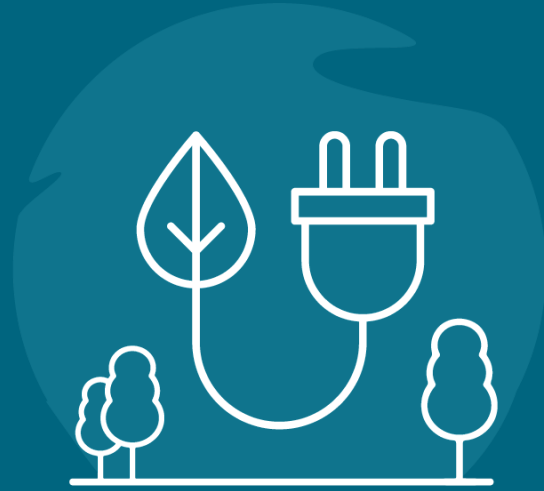
# LONG-DURATION STORAGE AND PROCUREMENT AUTHORITY

San José City Council

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Lori Mitchell, Director of Community Energy  
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# LONG-DURATION STORAGE

# OBJECTIVE – LONG-DURATION STORAGE

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Seek authority to procure up to 25 megawatts (MW) from LS Power's Tumbleweed long-duration storage battery project through CC Power, a Joint Powers Authority composed of CCAs

- \$5.9M annual cost
- \$89M in total not to exceed amount

# WHAT IS LONG-DURATION STORAGE?

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- Technologies that store renewable energy for use at a later time
- Long-duration storage discharges power for 8 hours or longer
- Important to pair with renewables to ensure reliability while reducing carbon emissions



Battery storage from SJCE's Kern County Solar and Storage Project

# BACKGROUND

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- 2021 CPUC Decision 21-06-035 requires SJCE to buy 247 MW of clean capacity by 2026, including 21.5 MW of long-duration storage
- CC Power is a Joint Powers Authority comprised of 10 CCAs formed to buy large scale clean energy and reliability resources
- SJCE participated in a CC Power solicitation for long-duration storage in October 2021, which received offers from 51 entities
- LS Power's Tumbleweed ranked the highest in the solicitation evaluation
- Six other CCAs\* participating in the agreements with LS Power: 4 investment grade credit rated, other 2 are each taking less than 5% of the project

\*Peninsula Clean Energy, Sonoma Clean Power, CleanPower San Francisco, Redwood Coast Energy Authority, Silicon Valley Clean Energy, and Valley Clean Energy

# LS POWER'S TUMBLEWEED PROJECT

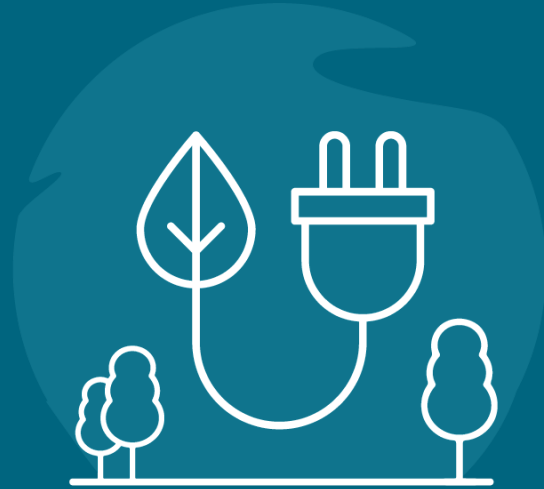
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- Project size: 69 MW; SJCE share: 15.37 MW
- Technology: 8-hour lithium-ion battery energy storage
- Cost: ~\$5.9 million annually, \$89 million in aggregate
- Location: Kern County, CA
- Online date: June 2026
- Term: 15 years
- **Seeking approval for up to 25 MW** to be able to take additional capacity if other CCAs drop out. Can be used to meet resource adequacy and energy needs.

# AGREEMENT STRUCTURE

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1. Energy Service Storage Agreement
  - CC Power buys the storage services from the project developer LS Power
2. Project Participation Share Agreement
  - Each participating CCA receives from CC Power its related share of the storage services
3. Buyer Liability Pass Through Agreement
  - The developer has direct recourse to each participating CCA for its share of the contract payments but is limited to only that CCA's share.
  - Required as CC Power has no assets or revenues.
4. Coordinated Operational Agreement
  - Defines how the resource will be operated between CC Power and the participating CCAs



**PROCUREMENT AUTHORITY INCREASE**



# WHY IS AUTHORITY NEEDED?

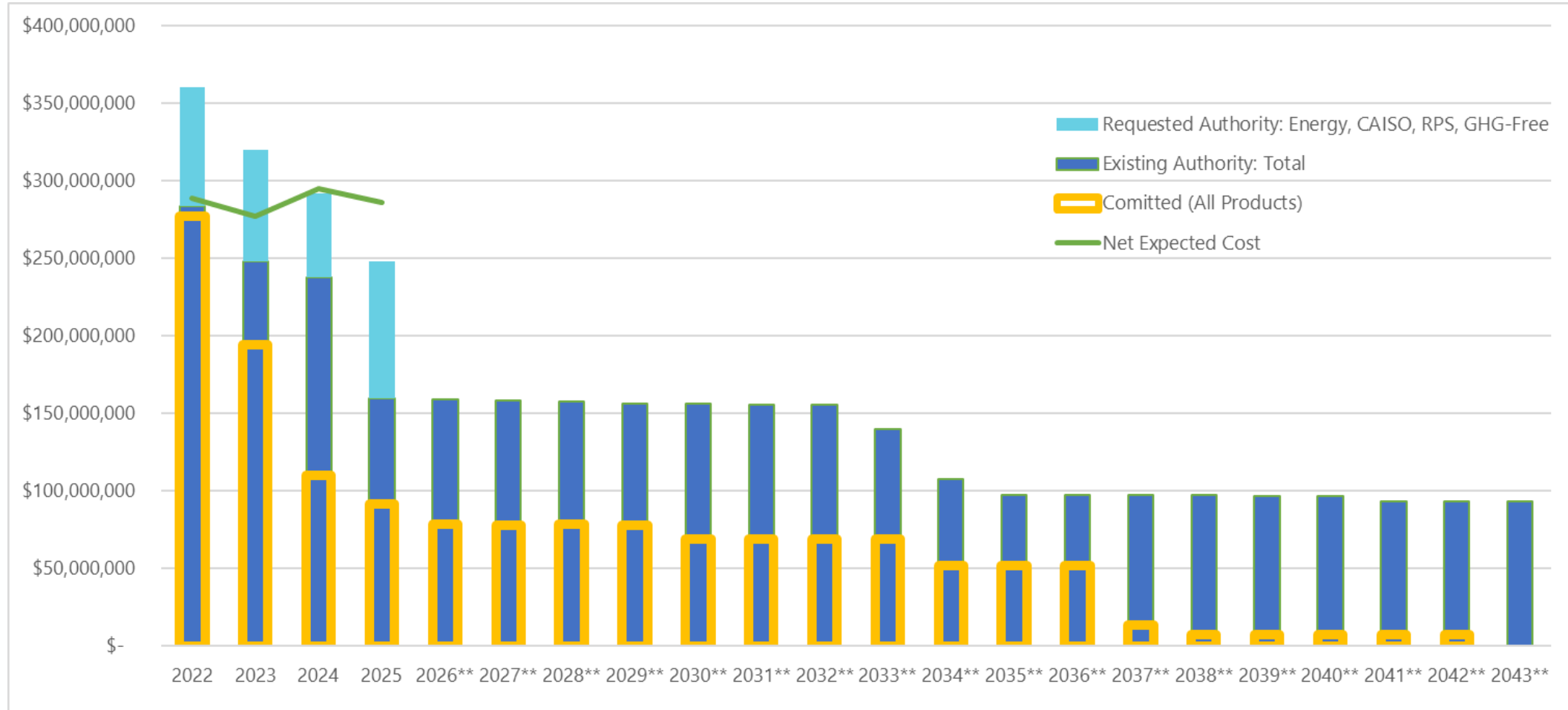
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- Routine additional procurement as outer years move closer to current date in order to comply with Risk Oversight Committee coverage goals
- If SJCE does not procure in forward markets, SJCE must buy in more volatile CAISO markets to meet its load
- Address price increases since City Council authorized procurement for 2022-2025 in May of 2021
- Moderate delivery risks related to intermittent wind and solar power contracts that do not have well established delivery patterns

# SUMMARY OF PROCUREMENT REQUEST

Calendar Year	Total Existing Authority	Requested Additional Authority	Total Authority with Request*	Net Expected Cost (Pro-Forma)	Target Coverage Ratio
2022	\$283,200,000	\$77,000,000	\$360,200,000	\$289,000,000	120%
2023	\$248,100,000	\$72,000,000	\$320,100,000	\$277,000,000	110%
2024	\$237,500,000	\$54,000,000	\$291,500,000	\$295,000,000	90%
2025	\$159,800,000	\$88,000,000	\$247,800,000	\$286,000,000	90%
<b>Total</b>	<b>\$928,600,000</b>	<b>\$291,000,000</b>	<b>\$ 1,219,600,000</b>	<b>\$1,147,000,000</b>	

# POWER SUPPLY AUTHORITY



# QUESTIONS?

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- Recommendation:
  - Authorize procurement of up to 25 MW from LS Power's Tumbleweed long-duration storage project.
  - Authorize additional procurement authority of up to \$291 million through 2025 for power supply contracts with durations of 5 years or shorter.

- Staff
  - Lori Mitchell, Director
  - Jeanne Solé, Deputy Director



SJCE's Kern County Solar and Storage Project

