

# LONG-TERM CONTRACTING

July 22, 2019



# SJCE/CLIMATE SMART GOALS

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- By 2021, base product 100% GHG-free.
  - Will use combination of near term renewable PCC1, PCC2 and PCC3 RECs and hydro.
  - Will include contracts for RA with gas plants.
- By 2030, base product at least 60% renewable.
- By 2050, base product 100% renewable.



# BENEFITS OF LONG-TERM CONTRACTS

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- Best practice is to build a diversified portfolio with different
  - Durations
  - Types of resources
- For renewables, long-term contracts are typically cheaper than short-term contracts. Potential savings:
  - Solar: 30-45%
  - Wind: 20-55%
- State Law: requires at least 65% of RPS renewable purchases from contracts of 10 years or longer by 2021.





# STORAGE

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- 2018 SJCE IRP, storage:
  - at least 1% of SJCE forecasted demand by 2024,
  - at least 5% of SJCE forecasted demand by 2030.
- SJCE is evaluating increasing the EDPR 10MW project to 30MW.
- Storage benefits include:
  - Provides a sink for solar during low or negative Day Ahead and Real Time prices,
  - Offset load during difficult to forecast weather driven high demand, high-priced hours,
  - Provides RA value at a time when RA markets are disturbed.
- Considerations:
  - limited performance track record and significant additional price reductions expected.



# ADDITIONAL CONSIDERATIONS

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- Take into account risk of customer loss to Direct Access and other types of load reduction.
  - Exploring opportunities for Green Tariff type arrangements.
- Potential for cost and performance of technology to continue to improve.
- Allow room for new technologies and innovation.
- Allow room for mid-term blended, shaped products that better match our load shape.
- Factor in declining (30% this year, 26% next) and uncertain future of the investment tax credits (ITC) that affect cost



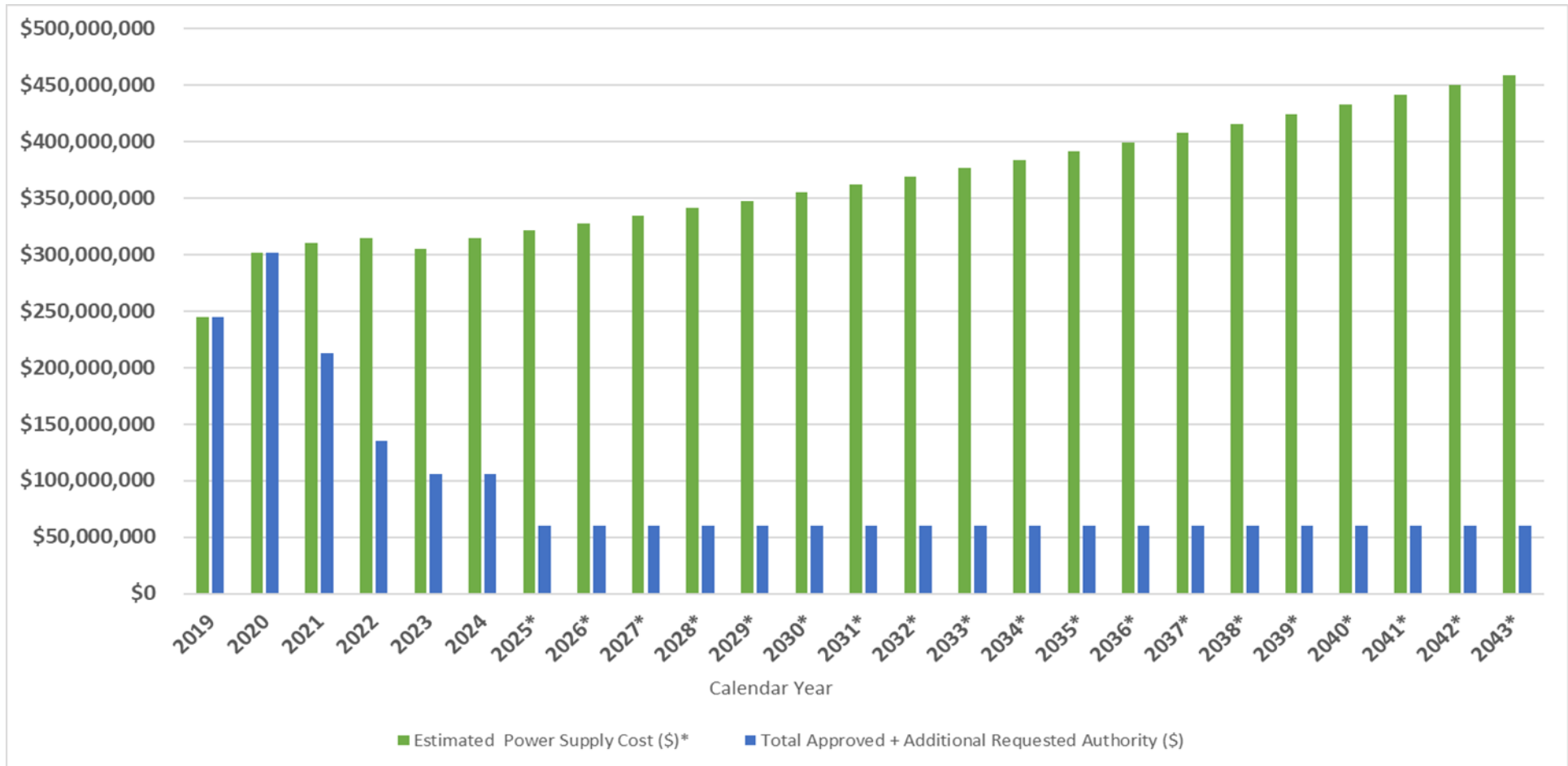
# APPROVED AUTHORITY

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- On June 4, 2019, City Council Authorized the Community Energy Director to:
  - Contract for up to 450 megawatts (MW) of renewable resources for the period between 2020 and 2043, subject to approval by the Risk Oversight Committee (ROC).
  - July 9, ROC authorized a power purchase agreement with EDPR C Solar Park VI LLC (EDPR) for 100MW of Solar Power and 10MW of storage.



# TOTAL AUTHORITY & EXPECTED POWER COSTS



# COLLABORATION WITH OTHER CCAS

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- CCAs are collaborating on renewable purchases to lower costs, e.g., MBCP and SVCE.
- EBCE is similar in size to SJCE and serves similar customers. EBCE is slightly ahead on program rollout.
- Muni code 4.12.225: Allows for joint purchasing agreements entered into by the city and one or more public agencies.
- EBCE offered SJCE opportunity to join EBCE on 3 of 7 projects they are pursuing. All three are solar.
  - SJCE working with EBCE on two. Coordinated negotiations, but independent contracts for separately metered contiguous projects.





# RFO PROCESS

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- SJCE issued industry standard RFO's for long-term renewable contracts with operation dates in 2020 or 2021 and received competitive offers
- RFO was sent to hundreds of market participants,
  - all entities that asked to be included and known market participants
  - posted the solicitation on SJCE's website
  - social media platforms
- Included clear evaluation criteria (value, project viability, experience, etc.)
- Standard industry contract Term Sheet based on Edison Electric Institute (EEI) agreement
- RFO for projects with later operation dates, with option for battery storage, and storage only will be issued once current RFO wraps up.

# BID ANALYSIS

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- E3 analyzed three EBCE possibilities and all bids from 2020-2021 COD solicitation.
- E3 quantitative evaluation that considered:
  - SJCE's load,
  - the generation profile of the potential resources,
  - their potential RA value in light of their location, and
  - curtailment risk.
- Flynn Resource Consultants undertook evaluation of congestion risk for three EBCE projects.
- Staff qualitative evaluation of additional criteria.



# EVALUATION RUBRIC

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Evaluation Criteria	Points
Value (energy, attributes, capacity)	40
Project Viability	10
Environmental impacts and related mitigation requirements	5
Project team experience	10
Material terms	20
Clarity and thoroughness	5
Local Business Enterprise	5
Small Business Enterprise	5
<b>Total</b>	<b>100</b>

# EDPR – SONRISA

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- **Product:** 100 MW Solar + 10 MW Battery Storage
- **Term:** 20 years
- **Volume:** ~300,000 MWh annually
- **Developer:** EDPR
- **Project Name:** Sonrisa
- **Project Location:** Tranquility, CA. Fresno County. Project is in NP 15 trading hub which makes it more attractive compared to other projects in SP 15 due to less transmission congestion.
- **Parent Company:** Energias de Portugal, present in 14 markets across Europe and the Americas, 11,000+ employees, \$3.7 billion gross operating income, on the Dow Jones Sustainability Indices
- **Portfolio Size:** 27 GW installed capacity worldwide
- **Operational Model:** Build to operate
- **Labor:** Committed to utilizing union labor through a 5 party PLA.



renewables



SAN JOSE  
CLEAN ENERGY

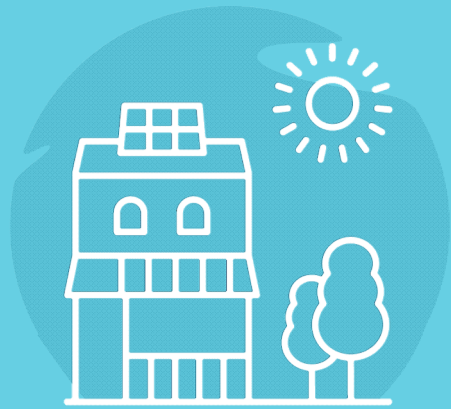
## Bids Received from Long-term Solicitation

Technology	Max. MW	Online Date	Term (Yrs)
½ RECs; ½ GHG-free	50	January 2020	10
RECs only	100,000 MWh	January 2020	10
Wind	140	November 1, 2021	10
Wind	140	November 1, 2021	12
Wind	43	December 1, 2020	15
Wind	99	January 2021	15
Solar	97	July 1, 2021	15
Wind	99	August 1, 2021	15
Solar	200	December 1, 2021	15
Geothermal	135	December 1, 2021	15
Solar	90	December 1, 2021	15
Solar	61	December 1, 2021	15
Solar	250	December 1, 2021	15
Wind	84	December 1, 2021	15
Solar	52	December 1, 2021	15
Wind	45	December 1, 2021	15
Solar	90	December 1, 2021	20
Solar	242	December 1, 2021	20
Wind	250	December 1, 2021	20
Solar	61	December 1, 2021	20
Solar	250	December 1, 2021	20
Solar	13	July 1, 2021	25



# SHORTLISTED PROJECTS FROM LONG-TERM SOLICITATION

Project Name	Tech	Term (years)	Max. MW	Total RFO Score
Project 1	Wind	20	250	<b>78.1</b>
Project 2	Wind	15	90	<b>73.4</b>
Project 3	Solar	15	52	<b>72.9</b>
Project 4	Solar	15	61	<b>71.5</b>
Project 4	Solar	20	61	<b>69.5</b>
Project 5	Wind	15	45	<b>66.9</b>
Project 6	Solar	20	250	<b>66.5</b>
Project 7	Solar	15	200	<b>65.3</b>
Project 8	Solar	20	250	<b>62.4</b>
Project 9	Solar	20	90	<b>61.4</b>
Project 10	Solar	15	100	<b>59.6</b>
Project 9	Solar	15	90	<b>59.4</b>



**QUESTIONS?**