

Peninsula Clean Energy Board of Directors Meeting

January 26, 2023

Agenda

- Call to Order / Roll Call
- Public Comment (for items not on the Agenda)
- Action to set the Agenda and Approve Consent Items 1-4
 - Consent - Public Comment
- Regular Agenda
- Adjournment

Chair Report (Discussion)

CEO Report (Discussion)

Staffing Updates

Welcome to New Hires:

- Cassius Gray, IT Systems and Support Administrator, started January 23

The word "WELCOME" is displayed in a bold, sans-serif font. Each letter is filled with a different color from a rainbow spectrum, creating a vibrant, multi-colored effect. The colors transition from red on the left, through orange, yellow, green, blue, and finally purple on the right.

Staffing Updates: Open Positions

Currently posted on PCE website:

- Director of Power Resources
- Human Resources Manager
- Administrative Assistant
- Director of Marketing and Community Relations

Soon to be posted on PCE website:

- Power Resources Analyst/Specialist



4th All-Staff In-Person Meeting



Supporting the Coastside Community

PCE is providing support for the farmworkers with donations to:

- ALAS
- Coastside Hope



Tumbleweed Storage Capacity Expansion

- Tumbleweed Long-Duration Storage project, contracted with other California Community Power (CC Power) members, is expanding from 69 MW to 75 MW
 - Peninsula Clean Energy's share is expanding from 14 MW to 15 MW
- Board approved on January 18, 2022
 - 13.59 MW, with possible 25% increase (to 16.9875 MW)
 - NTE amount of \$100 million
- More details will be provided later tonight



News from Sacramento

Assembly Committee on Utilities and Energy - New Memberships:

- Assemblymember Lisa Calderon
- Assemblymember Damon Connolly
- Assemblymember Pilar Schiavo
- Assemblymember Greg Wallis



Solar+Storage on Public Buildings

- First cohort of 15 projects in 13 jurisdictions
 - Approval tonight of EPC contract and PPAs with each jurisdiction
- Looking for projects for next cohort – deadline is January 31 to qualify for NEM 2.0
 - Other city facilities
 - Other public facilities – school districts, water treatment and waste treatment facilities, transit agencies
 - Please contact us if with contact information of interested parties



PCE Ad Hoc Subcommittees

- Any interest in serving on:
 - Ad hoc Marketing Subcommittee



Upcoming Meetings

- Citizens Advisory Committee:
 - February 9 at 6:30 p.m. (Zoom)
- Audit and Finance Committee:
 - February 13, 2023, at 8:30 a.m. (Zoom)
- Executive Committee:
 - February 13, at 10:00 a.m. (Zoom)
- Board of Directors:
 - February 23 at 6:30 p.m. (Zoom)



CAC Report (Discussion)

-
8. Appointment of Ad-hoc Chair and Vice Chair Nominating Committee
 9. Appointment of Ad-hoc Citizens Advisory Committee Nominating Committee
 10. Appointment of Two Citizens Advisory Committee Liaisons

2023 Rate Change Update

January 26, 2023

Guiding Principles for 2023 Ratemaking

- Continue to maintain two rate schedules for PCE customers
 - One rate for Vintage 2016-2021 customers, and
 - One rate for Vintage 2022 customers
- Customers with negative PCIA keep the benefit
- Ensure a minimum net 5% discount on generation costs for PCE customers

PCE Standard Ratemaking Process

$$((\text{PG\&E Bundled Gen rate}) * 0.95) - \text{PCIA} - \text{FFS} \\ = \text{PCE Gen rate}$$

$\text{PCE Gen Rate} + \text{PCIA} + \text{FFS} = \text{net 5\% discount from PG\&E Gen Rate}$

PCIA = Power Charge Indifference Adjustment
FFS = Franchise Fee Surcharge

PCIA Rates Effective January 1, 2023

Customer Class	2016 Vintage	2021 Vintage	2022 Vintage
Residential	0.00335	(0.00397)	0.01309
Sm Commercial	0.00320	(0.00379)	0.01252
Md Commercial	0.00338	(0.00400)	0.01319
Lg Commercial	0.00317	(0.00375)	0.01239

PCE Customer Vintage Distribution

PCE Customers by Vintage			
PCIA Vintage	2016-2020	2021	2022
Active PCE Customers	294,878	13,193	1,615
Net % Discount	5%	8-12%	5%

E1 Example Based on January 1, 2023 Rates

	2016 vintage (Standard Rate Making)		2021 vintage (using 2016 vintage PCE rate)	2022 vintage (Standard Rate Making)		
Based on PG&E Rates Effective 1/1/2023						
PG&E rate (E1 Rate Example)		0.15614		0.15614	PCIA	
multiplied by	95%	0.14833		0.14833	PCE Rate Discount	5%
minus PCIA		-0.00335		-0.01309	PCIA	
minus FFS		-0.00110		-0.00103	2016 vintage	0.00335
PCE rate		0.14388	0.14388	0.13421	2021 vintage	-0.00397
					2022 vintage	0.01309
Plus (or minus) PCIA paid by customer		0.00335	-0.00397	0.01309	FFS (2016)	0.00110
Plus FFS paid by customers		0.00110	0.00116	0.00103	FFS (2021)	0.00116
					FFS (2022)	0.00103
Effective Customer Rate		0.14833	0.14107	0.14833		
Discount		95.00%	90.35%	95.00%		
		5.00%	9.65%	5.00%		
Avg Bill Savings vs PG&E (450 kWh)		\$ 3.51	\$ 6.78	\$ 3.51		

Questions?



Approval of Amendments to CC Power Project Participation Share Agreements

January 26, 2023

Sara Maatta

Power Resources and Compliance Manager
(Interim Director of Power Resources)

Recommendation

- Delegate authority to the CEO to execute amendments to the Project Participation Share Agreements (PPSA) with California Community Power and Participating CCAs related to one long duration storage project and two firm clean resources projects:
 - Amendment No. 1 to Tumbleweed Energy Storage PPSA
 - Amendment No. 1 to the Fish Lake Geothermal PPSA
 - Amendment No. 1 to the ORGP LLP Geothermal Portfolio PPSA

About California Community Power (CC Power)

- CC Power is a JPA of nine CCAs
- Vision: Leverage the buying power of the members to deliver more cost-effective, clean and reliable energy solutions for our customers
 - Access to economies of scale and greater efficiency by working together
- Peninsula Clean Energy has been a member since 2021

CC Power Members

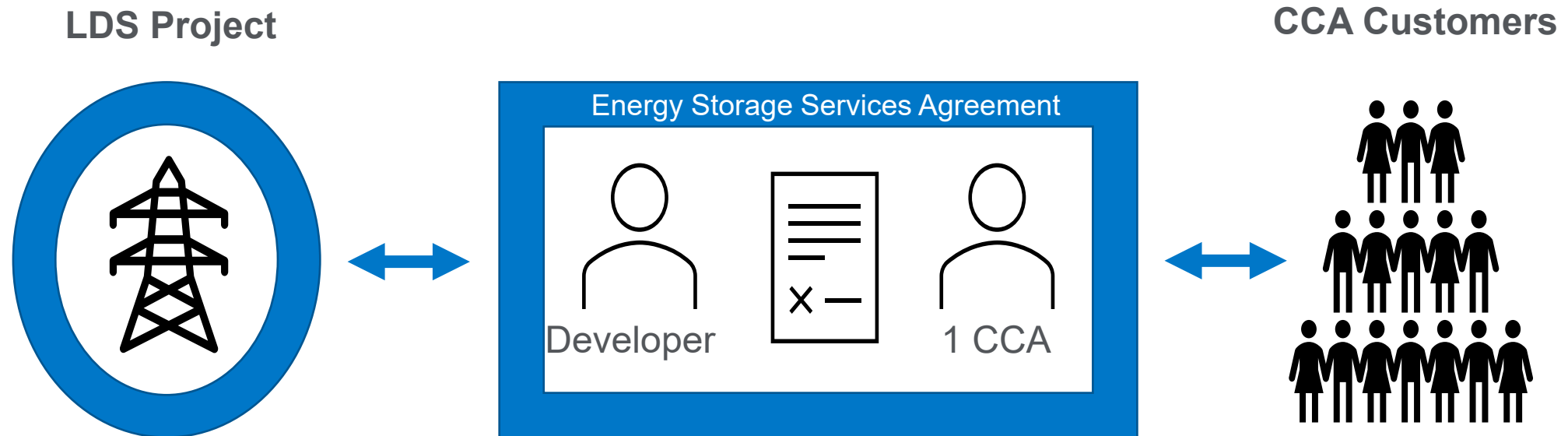


Resources Contracted through CC Power

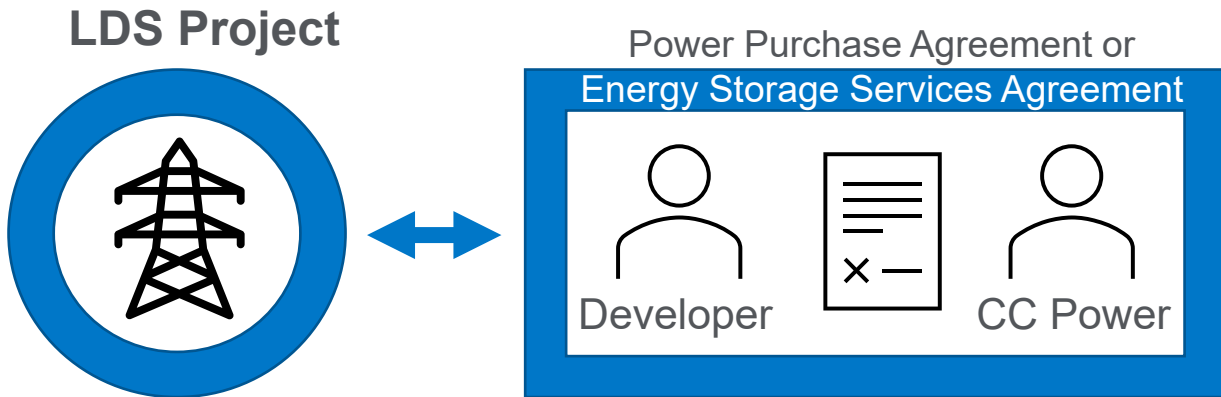
Resource Type	Tumbleweed Long Duration Storage	Open Mountain Energy Firm Clean Resource (Geothermal)	Ormat Portfolio Firm Clean Resource (Geothermal)
Developer	LS Power	Open Mountain Energy	Ormat
Total Project Capacity	75 MW / 600 MWh	13 MW	64 MW (min) – 125 MW (max)
PCE's Share	14.77 MW / 118.1 MWh (19.69%)	2.31 MW (17.8%)	10.94 MW (min) – 21.38 MW (max) (17.1%)
RFO Issued	Oct 2020	Oct 2021	Oct 2021
PCE Board Approved	Jan 2022	July 2022	July 2022
Contract Executed	Apr 2022	Sept 2022	Sept 2022
Location	Kern County	Esmeralda County, NV	Various – CA and NV
Online Date	6/1/2026	6/1/2024	Various, as early as 2024

Typical CCA Contracting

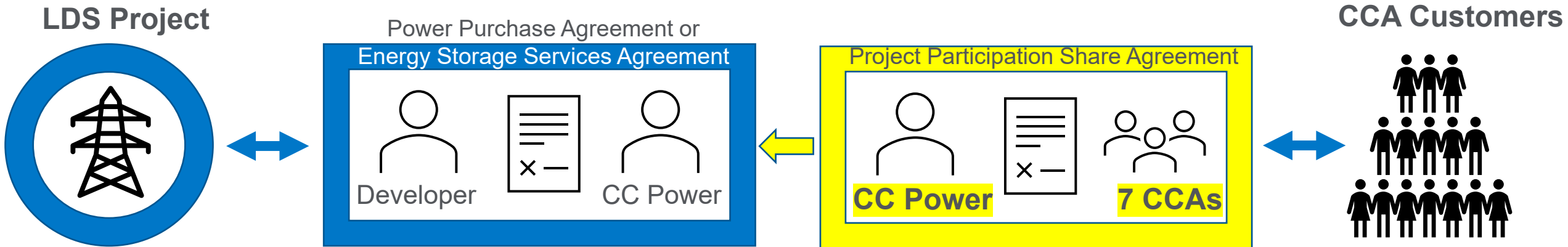
Typically, a CCA will procure storage services on behalf of its customers by directly entering into an Energy Storage Services Agreement (ESSA) with a developer. The ESSA addresses (1) payment obligations, (2) liability for damages, and (3) operational control of the storage unit.



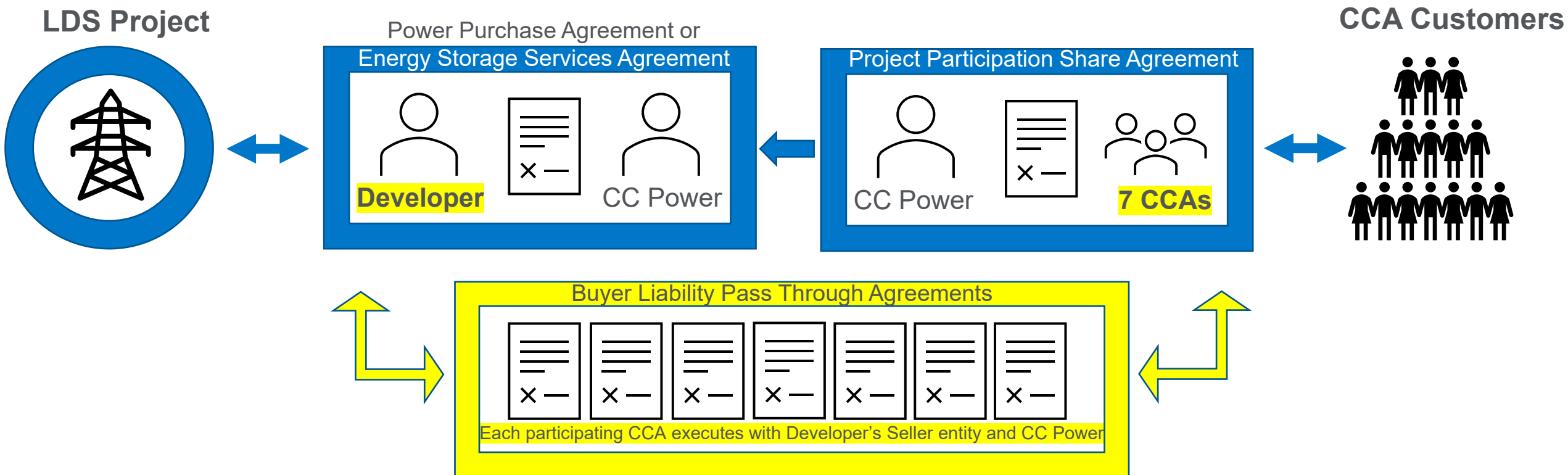
CC Power Contract Structure: Power Purchase Agreement (PPA) or Energy Storage Services Agreement (ESSA)



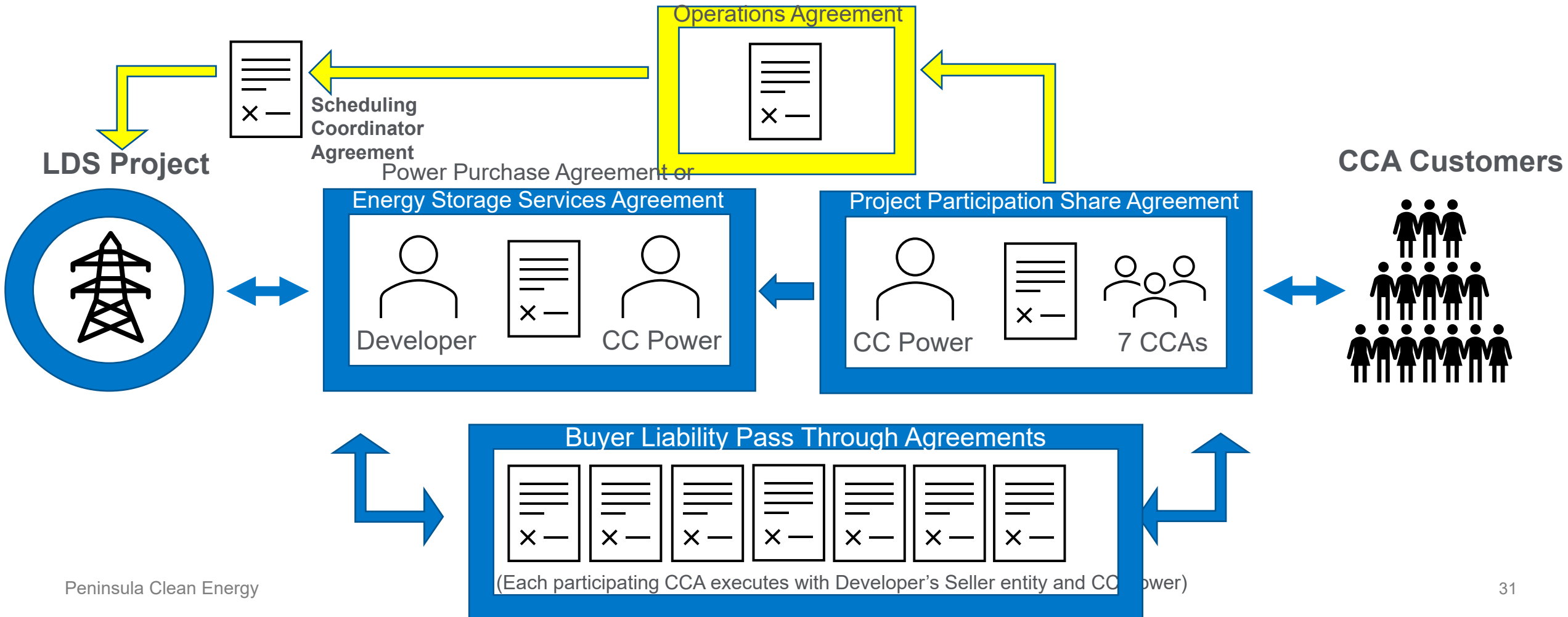
CC Power Contract Structure: Project Participation Share Agreement (PPSA)



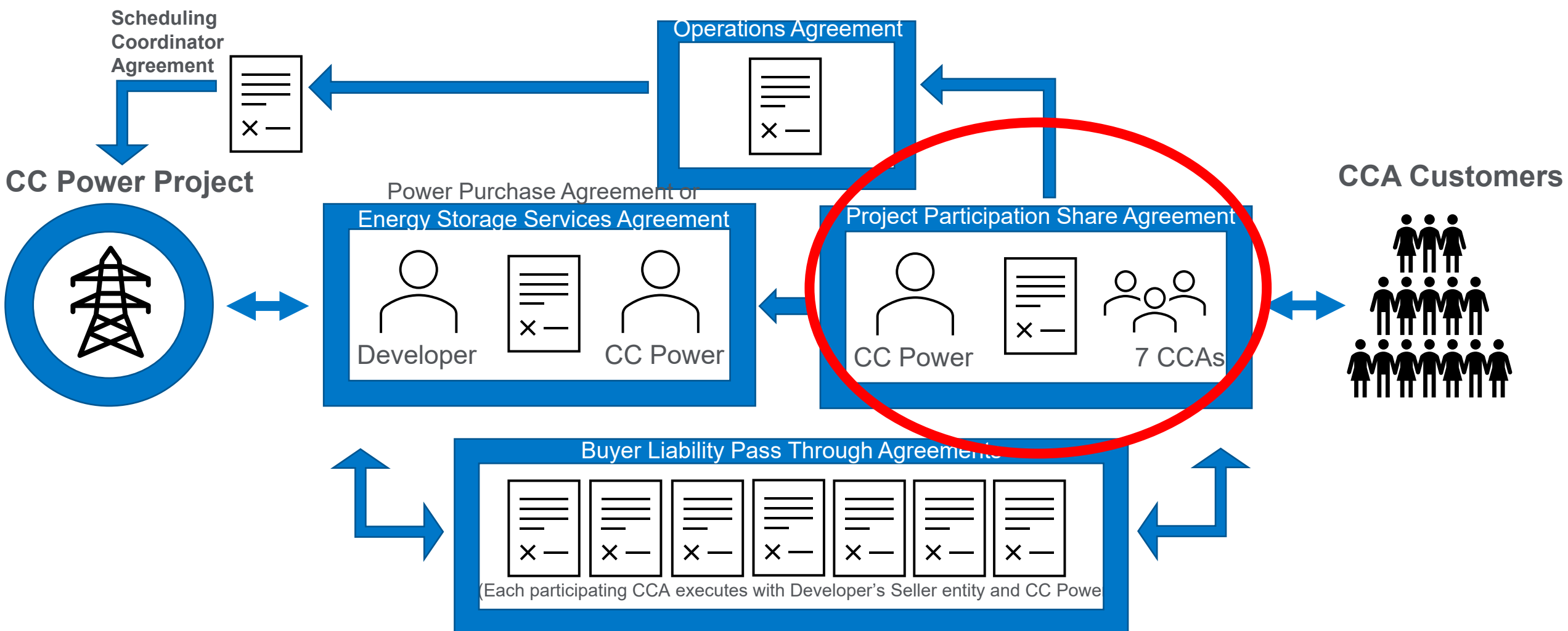
CC Power Contract Structure: Liability for Damages



CC Power Contract Structure: Operational Control



Today's focus: Project Participation Share Agreement (PPSA)



Project Participation Share Agreement (PPSA)

- The PPSA governs the overall mechanics for how members will fund payment obligations of the ESSA/PPA, how revenue will be shared, and how member defaults are covered. These major elements are functioning as intended and don't require any change.
- The PPSA also addresses project operations and administration
- The PPSA originally required approval at a formal, noticed meeting of the Project Committee, composed of staff from each of the participating CCAs, for administerial actions such as:
 - Project management during the development phase (such as authorizing change of control and assignment)
 - Project management budget authorization
 - Determining scheduling and bidding of the project
- The requirement of Project Committee approval for administerial actions severely limits the ability of the project to efficiently and timely operate and meet constraints

Motivation for Amendment 1 to the PPSAs

- Since execution of the contracts, CC Power has adopted a Strategic Business Plan that makes recommendations regarding the roles and responsibility of the CC Power Board of Directors, CC Power General Manager, and project participants.
- Amendment 1:
 - Aligns the PPSAs with the recommendations in the Strategic Business Plan
 - Improves operational efficiency of the projects

Project Participation Share Agreement (PPSA) Amendment 1

- Removes the Project Committee and assigns those responsibilities to the CC Power General Manager
 - The General Manager may still form a Project Committee to coordinate amongst members on an as-needed basis
- Further defines the roles and responsibilities of the General Manager and the CC Power Board of Directors, consistent with CC Power's Strategic Business Plan
- Greatly increases the efficiency of CC Power's ability to manage projects in development and schedule the projects in the CAISO market once they are online.
- There is no financial impact of Amendment 1
- Peninsula Clean Energy staff support Amendment 1.

Environmental and Labor Review

- Environmental and labor are negotiated prior to the execution of the ESSA/PPA contracts
- Amendment 1 only affects administrative matters that arise after the ESSA/PPA contracts have been executed, and does not affect our ability to enforce environmental and labor terms of the contracts
- Peninsula Clean Energy retains the ability to negotiate for environmental and labor terms consistent with our policies
- Any future projects considered by CC Power will be brought to Peninsula Clean Energy's board for review and approval prior to execution.

Amendment 1 Timeline

- CC Power Board voted to approve the Amendments 1 on Dec 14, 2022
- Participating members are targeting Board approvals for January through March 2023
- Peninsula Clean Energy staff support the Amendments

CC Power Member	Will seek Board approval for Amendment 1?
CCCE	
CPSF	No
PCE	Yes – Target 1/26/2023
RCEA	Yes – Target January 2023
SJCE	Yes – By March 2023
SVCE	Yes – Target January 2023
SCP	No
VCE	Yes – January 2023

Recommendation

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Additional Context on Item 21

Amendment to CC Power Tumbleweed Energy Storage Service Agreement (ESSA) (Information Only)

Board of Directors, January 26, 2023

CC Power Tumbleweed Project History

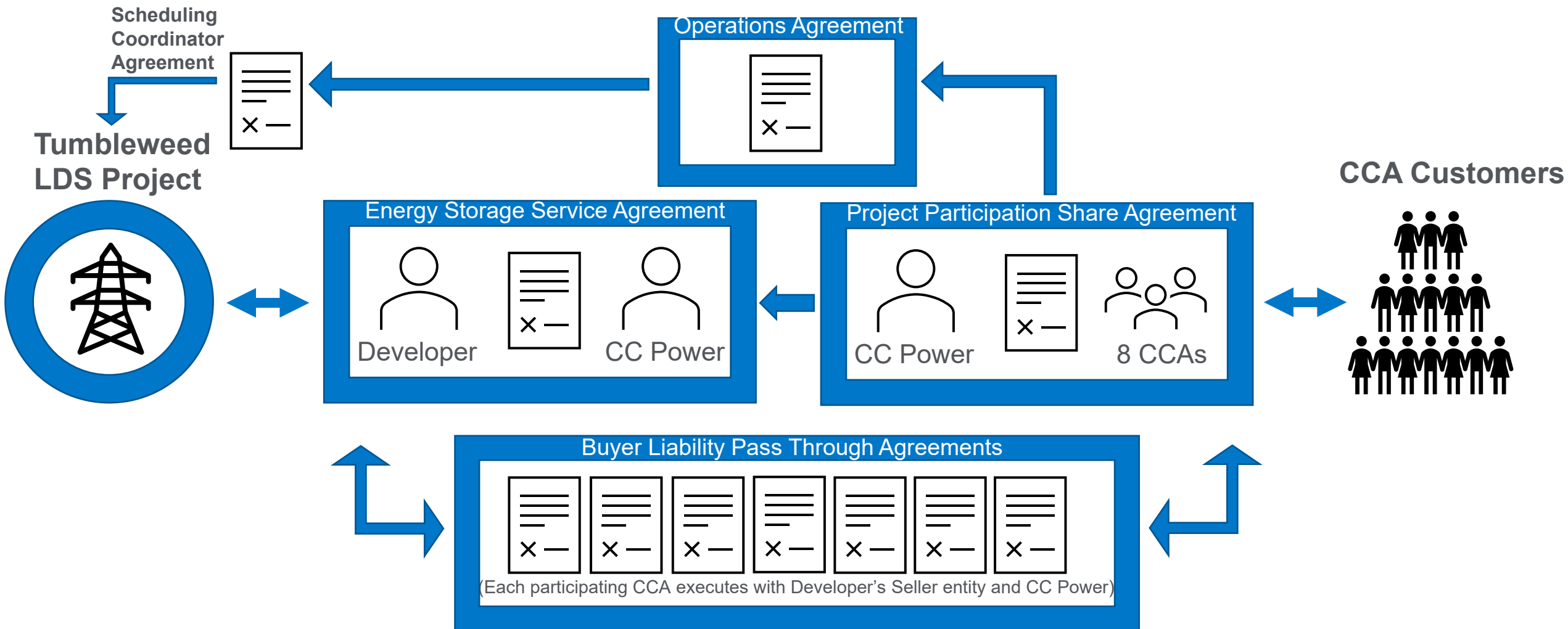
- CC Power Long Duration Storage RFO Issued October 2020
 - Tumbleweed Storage (developed by LS Power) shortlisted June 2021
 - Peninsula Clean Energy Board Approved January 18, 2022
 - Fully Executed April 19, 2022
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- Original total project capacity was 69 MW/552 MWh (8-hr duration)
 - Peninsula Clean Energy share is 19.69%, and was originally 13.59 MW / 108.7 MWh

CC Power Tumbleweed Capacity Expansion

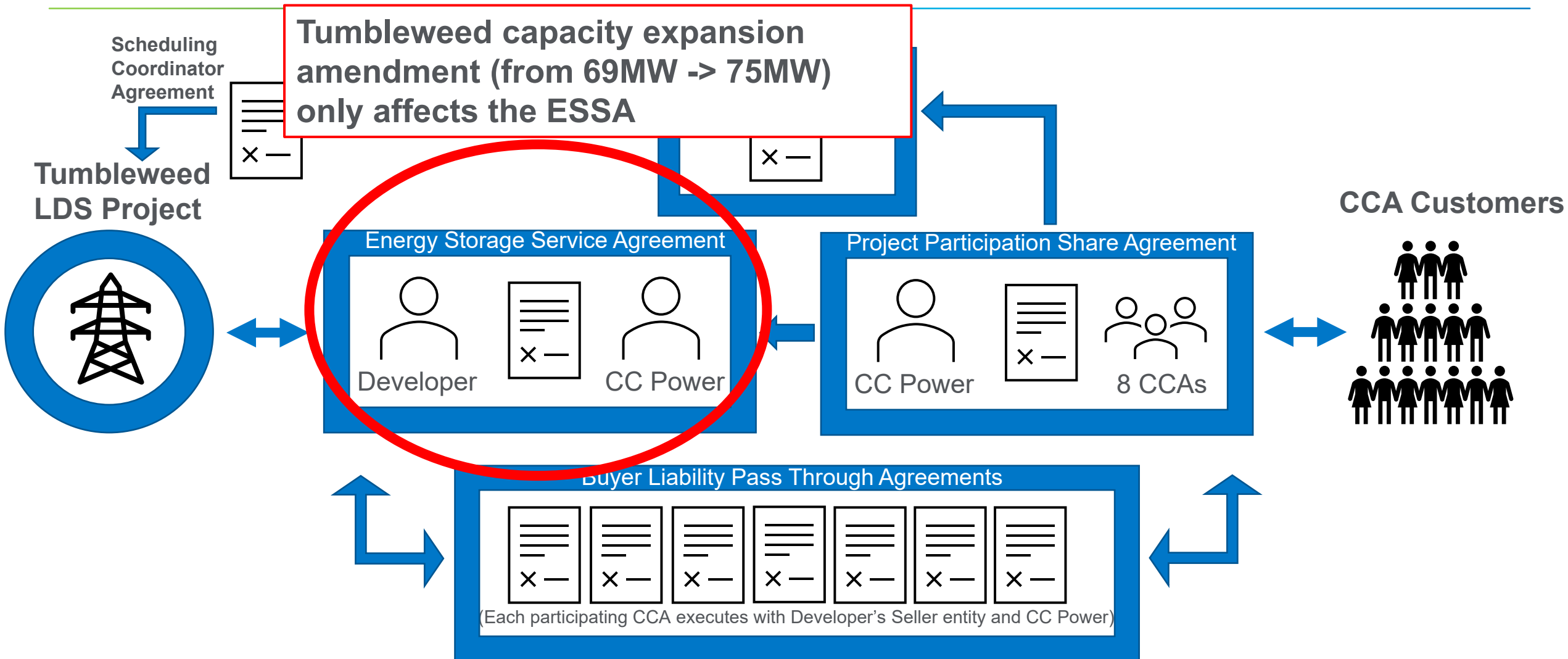
- The developer, LS Power, recently approached CC Power and offered to expand the total project capacity to 75 MW / 600 MWh
- All project participants support the expansion of the project
- Peninsula Clean Energy's share remains 19.69%, and the same price and contract terms will apply to the expansion

	Original		Expanded
Total Project Size	69 MW / 552 MWh		75 MW / 600 MWh
PCE Share (%)	19.69%		19.69%
PCE Share (MW/MWh)	13.59 MW / 108.7 MWh		14.77 MW / 118.1 MWh

Review: CC Power Contract Structure



Review: CC Power Contract Structure



Tumbleweed Approval Process

- CC Power Board voted to approve the amended ESSA 12/14/2022
- Peninsula Clean Energy does not need to execute the agreement
 - No change to the PPSA or BLPTA, and PCE is not a signatory to the ESSA
- Peninsula Clean Energy Board approved a not-to-exceed (NTE) amount of \$100M at the January 2022 Special Meeting
- The expanded capacity will remain within the NTE amount
- No action is required by the Peninsula Clean Energy Board

2023 Legislative and Regulatory Policy Platform

January 26, 2023

2023 Policy Platform

- I. Governance and Authority
- II. Decarbonization
- III. IOU Charges and Exit Fees (PCIA)
- IV. Power Procurement & Grid Reliability
- V. Environmental Justice & Affordability
- VI. Community Resilience
- VII. Local Economic Development
- VIII. California Energy Market Structure

Solar and Storage for Public Buildings

Presentation to the Board of Directors
January 26, 2022



Solar and Storage for Public Buildings: Request

Program: Solar and Storage for Public Buildings

Request: Board delegate authority to CEO to execute two contracts:

1. Engineering, Procurement, and Construction (EPC), and
2. Power Purchase Agreement (PPA) contracts with participating public agencies to deploy solar and storage at customer sites

Program Overview

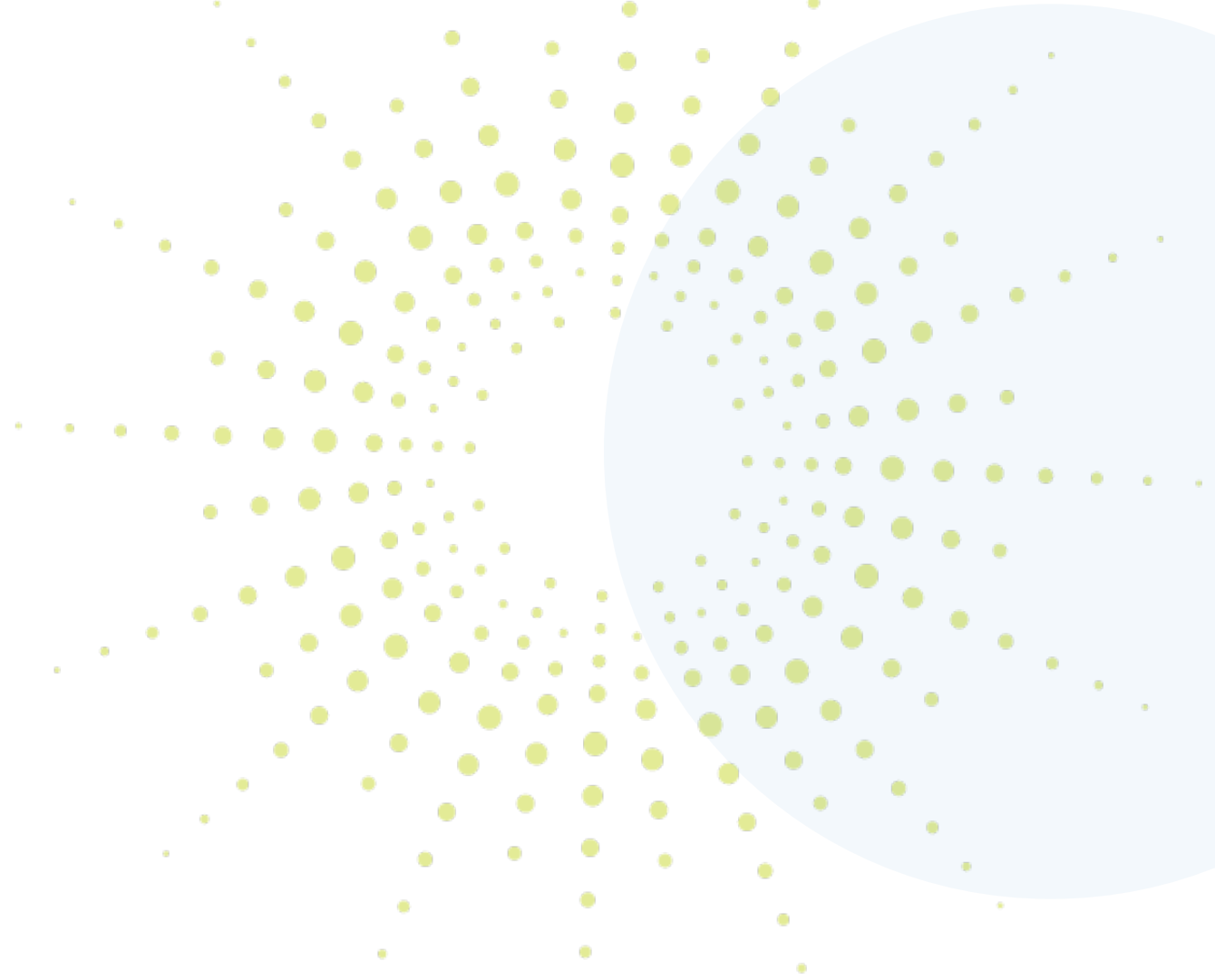
Summary: Accelerate local renewable energy deployment at local government facilities

Objectives

- Local solar and storage towards PCE's goal of 20 MW by 2025
- Reduce customer energy costs; insulate against rise in PG&E rates
- Help local governments achieve sustainability goals
- Develop a reproducible program and new service model

Program Detail

Portfolio
Structure
Policy



Pilot Portfolio

Total Solar: 1,913 kW

Total Battery: 200 kW / 1110 kWh (subject to change)

Facility	Rooftop PV (kW DC)	Carport PV (kW DC)	Ground Mount Solar (kW DC)	Battery (kW)	Battery (kWh)	Status
Atherton Town Hall	113.5					GO
Belmont Police Station	29.5	59				Waiting on City's decision
Brisbane Mission Blue Center	11.1			25	155	GO
Colma Community Center	17.2	44		40	415	GO
Hillsborough Public Works Yard	23	39.4				GO
Los Banos Community Center		162.4				GO
Los Banos Wastewater Plant			277			GO
Millbrae Chetcuti Building & Complex	118.5	293				GO
Millbrae Rec Center	128.3					GO
Pacifica Community Center	76.7			60	240	GO
Redwood City Fair Oaks Community Center	29.5	59		75	300	Waiting on City's decision
San Bruno Aquatic Center	276.8					Waiting on City's decision
San Carlos Youth Center	29.5					GO
San Mateo County HSA Building (2500 Middlefield)	125.5					GO
San Mateo Police Building	81.2	89	<i>Removed late due to roof repair issue</i>			<i>Removed</i>

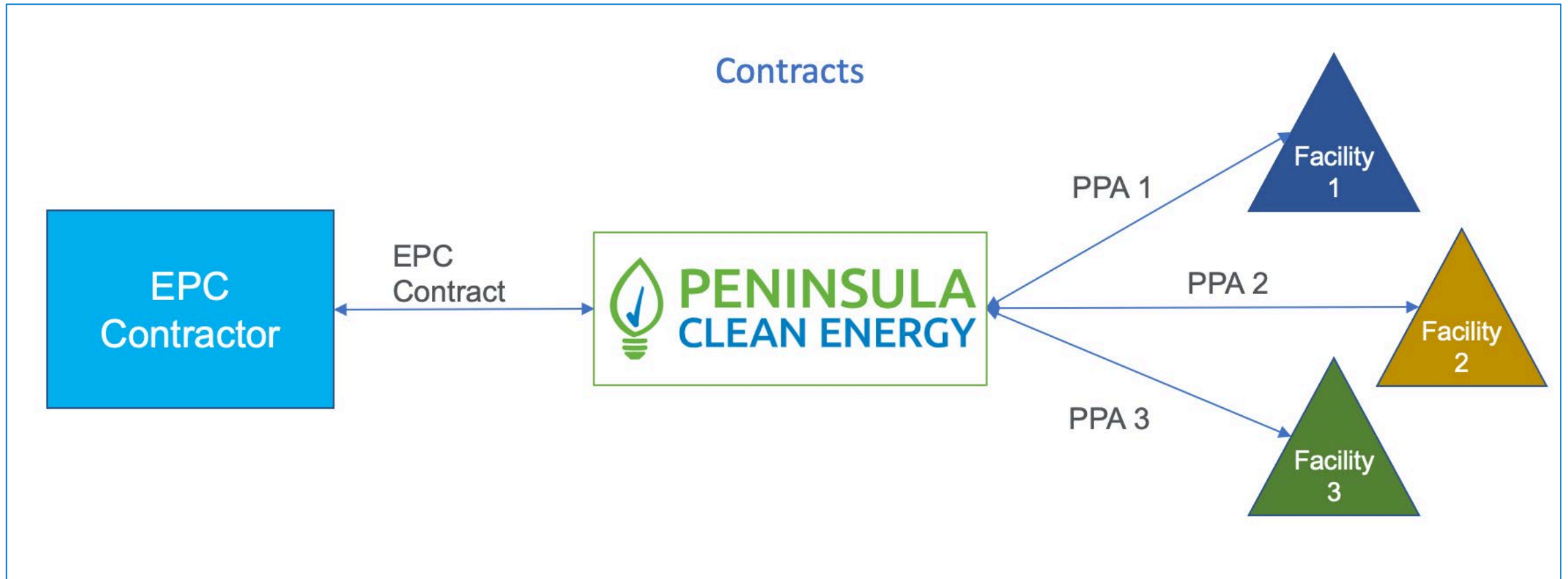
- Systems designed by McCalmont Engineering under contract approved by Board in Oct 2022
- Each jurisdiction has approved participation pending determination of “financial and/or community benefits”

Value to Customers

- \$12 million in savings projected over 20 years
- No upfront cost to customers
- Peninsula Clean Energy fully manages:
 - Procurement
 - Financing and tax-credits
 - Installation
 - Operations and maintenance

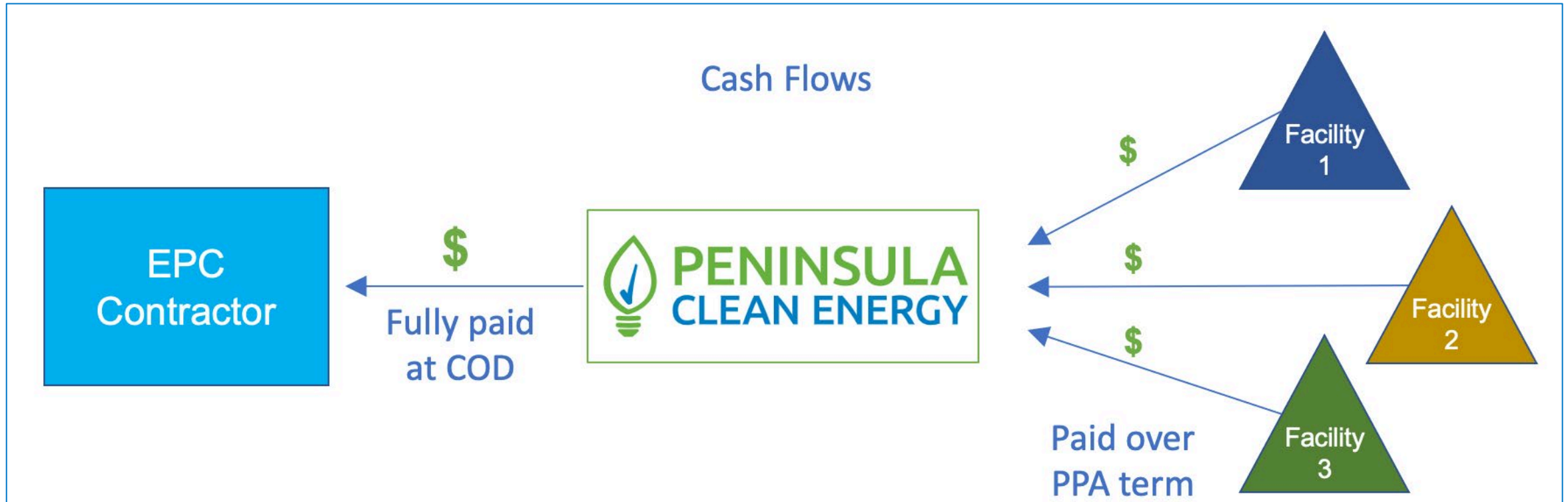
Contract Structure

- PCE executes an Engineering, Procurement, and Construction (EPC) contract for equipment
- PCE owns and operates resources
- PCE has a PPA for each facility for the solar production from the equipment (battery terms TBD)



Cash Flows

- Cash outflow to EPC, fully paid at Commercial Operation Date (COD)
- Cash inflow from each PPA contract over 20-year PPA term
- Result is cash neutral over the PPA term



Inflation Reduction Act (IRA) and Direct Pay

- Increases federal Investment Tax Credit (ITC) to 30% (from 26%)
 - Also removes stepdown in 2023
- Allows for 'Direct Pay' – qualifying tax-exempt organizations can directly claim the ITC without requiring a tax equity partner
 - No need for a tax equity partner (and sharing the ITC value)
 - Improves the PPA price that PCE can offer
 - PCE conducted due diligence with external federal tax counsel on Direct Pay

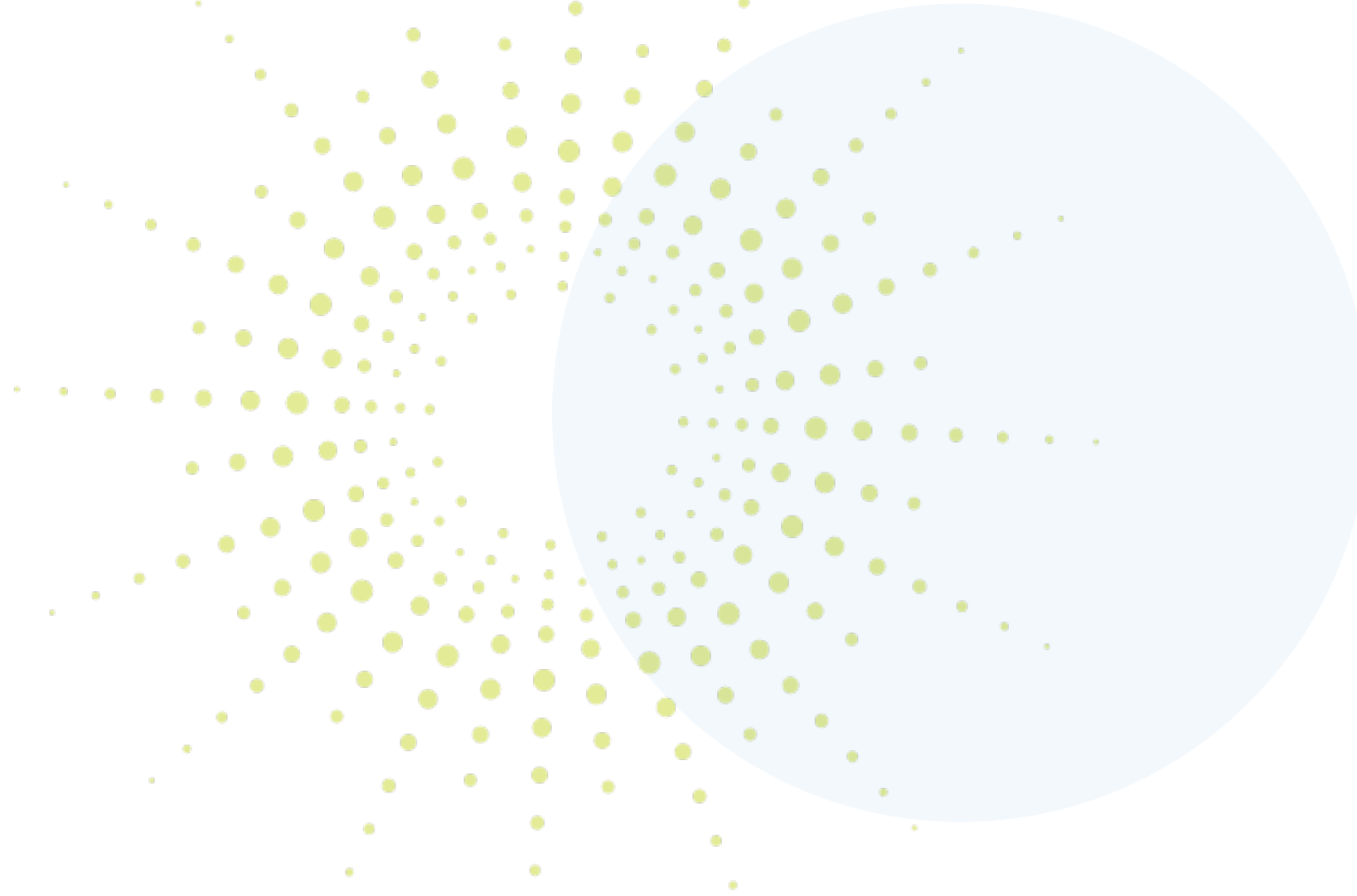
NEM Successor Tariff / Interconnection

- Net Energy Metering (NEM) rules specify how excess hourly generation is valued
- CPUC released a decision for NEM 3.0 in December
 - Reduces economic value of solar-only systems
 - Would likely require redesign/downsizing of solar systems
- Systems will be grandfathered in current, preferred NEM 2.0 rules
 - All interconnection applications submitted to PG&E in October

Contracts

Construction Services

Power Purchase Agreement



Construction Contractor (EPC) Overview

- Selected via competitive RFP in August 2022
- Intermountain Electric Company (IME) selected
 - Based on price, experience, qualifications, contract terms, approach, Workforce Policy
 - Union labor
 - Local, headquartered in PCE territory (San Carlos)
 - Excellent reputation as confirmed by multiple reference checks
- Scope of contractor role
 - Procurement of equipment
 - Installation and commissioning
 - Operations and Maintenance (O&M)
 - Warranty service

EPC Contract – Key Details

- Solar pricing enabling PPA price to cities with substantial savings
- Battery pricing higher than expected
 - Requires more iteration with customers on system sizing
 - Will move forward with solar projects while continuing to explore battery viability
- PCE to own and operate resources
- Milestone based payments through Commercial Operation Date (COD)
- Warranties: 25 years modules, 15 years inverters, 1 year labor
- Operations and Maintenance (O&M) contract
- Solar production guarantee

Customer PPA Overview

- One PPA contract for all cities
 - Created from Solar Energy Industries Association template recognized as fair to both parties
- Refined with all participants, incorporated requests where possible
- Key terms tied to those in EPC contract (e.g. performance guarantee)
- Battery projects (4 sites with batteries) will need further iteration
 - Exploring grid services to improve economics
 - Will proceed with solar first. Battery systems can follow and would be an addendum to the Customer PPA.

PPA Contract - Key Details

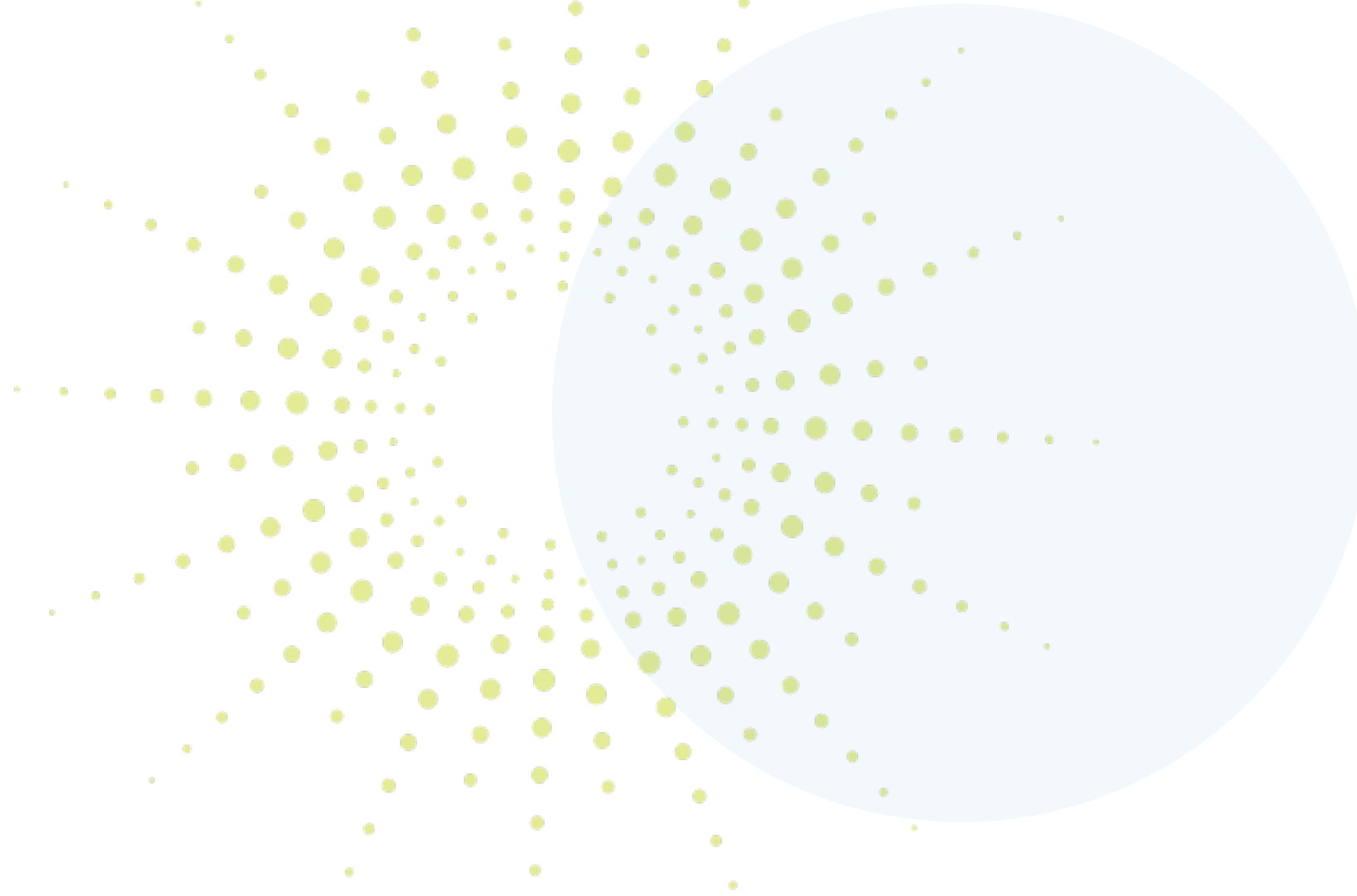
- \$/kWh price with 0% escalation
- Pricing delivers savings near 20% or better
 - Pricing and savings varies by install type (roof, carport)
 - Projection based on increasing PG&E rates (5%/year)
- 20-year initial term
 - Option for up to 2 addl. 5-year terms or customer buyout at end of initial term
- Performance guarantee (matched to EPC performance guarantee)
- PCE provides operations and maintenance (O&M)

PPA Pricing Determination

Included Costs	Costs <u>Not</u> Included
<ol style="list-style-type: none">1. Engineering, Procurement, and Construction Costs2. System design costs3. Contingency4. Insurance5. Permitting and Interconnection6. System removal (end of term, if customer declines purchase or no agreement for PPA extension)7. Operations & maintenance (including reserves)8. Small direct staff expense (1/8 FTE)	<ol style="list-style-type: none">1. Cost of capital2. Program pilot development costs (legal, etc.)3. PCE overhead

- Developed financial model for determining a PPA price based on costs and revenues
- Based on portfolio-level costs, we determine an average PPA price and then adjust it to each facility based on the equipment specific to that facility. (e.g., carport is more expensive than rooftop, so there is a premium for carports). **The only difference between PPA prices for different customers is based on relative amount of carport solar.**

Next Steps



Fiscal Impact

- **EPC contract:** Not to exceed \$10 million
 - 30% (up to \$3 million) to be received back via federal Investment Tax Credit
- **PPA Agreements:** Receive ongoing revenues for balance of costs over 20 years
- **Net neutral cost to Peninsula Clean Energy**
 - Time differential between cash outflows and inflows per below:

Expected year	Cashflow
2022 – early 2023	Outflow of up to \$10,000,000 for EPC contract-related work
2023 – 2024	Receipt of up to 30% of the amount spent on EPC contract-related work
2023-2043	Receipt of PPA revenues
2043	Breakeven year (when total cash inflows equal total cash outflows)

Project Timeline

Date	Project Status
Oct 2022	Interconnection applications submitted to PG&E to secure NEM2 grandfathering position
Jan 2023	Execution of EPC contract & execution of all PPAs with cities that are moving forward
Jan – May 2023	EPC site walkdowns, design diligence, permit applications
Jan – Apr 2023	Iteration with customers on batteries (4 sites) and, if moving forward, addendum to PPA agreement
Jun 2023	Completion of final site design packages, and receipt of required permits
Sept 2023	Equipment procured and construction started
Q1 2024	Target completion at all sites

- **There is always potential for PG&E delays on interconnection**
 - Process is a “black box” and PG&E can easily delay regardless of any published timelines
 - Expect a rush of applications from others also looking to get ahead of NEM3

Key Next Steps

- Execute Engineering, Procurement, and Construction (EPC) contract with Intermountain Electric Company
- Execute Power Purchase Agreement (PPA) with each city that wishes to move forward

Recommendations

Recommend the Board delegate Authority to the Chief Executive Officer to:

1. Execute Engineering, Procurement, and Construction (EPC) Contract with Intermountain Electric Company in an amount not to exceed \$10,00,000 for the deployment of solar and solar + storage systems
2. Execute Power Purchase Agreements (PPAs) with Participating Jurisdictions (Buyers) for a term of 20 years to sell the energy generated by these systems, with revenues expected to fully offset cost of EPC Contract over the PPA term

Board Members' Reports (Discussion)

Adjournment