Integrating Environmental Stewardship Principles into Power Procurement
CalCCA Webinar Team

Leora Broydo Vestel
Director of Communications

Sandra McCafferty
Administrative Coordinator
Thank you to our sponsor!
Meet our Speakers

Natasha Keefer
Director of Power Planning & Procurement
Clean Power Alliance

Erica Brand
Energy Strategy Director
The Nature Conservancy
Housekeeping

- Webinar is being recorded
- All participants will be in listen-only mode
- Use the Q&A button on your screen to submit questions
- Q&A will begin following presentations
Integrating Environmental Stewardship Principles into Power Procurement

July 31, 2020
CCA Clean Energy Procurement

• CCAs are committed to investing in new renewable energy facilities throughout CA

• CCAs have signed 3,600 MW+ of new clean Energy Power Purchase Agreements (PPAs)
Clean Power Alliance

- A Joint Powers Authority, CPA has 32 member jurisdictions within Los Angeles and Ventura counties
- CPA launched service to customers in February 2018
- CPA serves ~1 million customer accounts and is the largest CCA in the state
Clean Power Alliance Offers Choices

**Lean Power** provides 36% renewable energy content at the lowest possible cost, with the added benefit of local management and control.

**Clean Power** provides 50% renewable energy content and the opportunity to support building a cleaner future, all at cost-competitive rates.

**100% Green Power** provides 100% renewable energy content and allows you to support the environment—leading the way to a greener future.
Clean Power Alliance Procurement

- CPA is committed to procuring resources to meet its customers’ demand, its communities’ environmental targets, and statewide planning goals.

- CPA’s Board has approved 10 long-term clean energy contracts to date, with many hundreds of additional megawatts in negotiation:

<table>
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<tr>
<th>Project</th>
<th>Resource Type</th>
<th>Status</th>
<th>Commercial Operation Date</th>
<th>Term (Years)</th>
<th>Renewable MWs</th>
<th>Storage MWs</th>
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<td>Wind</td>
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<td>Online</td>
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<td>12/31/2020</td>
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<td>3/31/2021</td>
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<td>15</td>
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<td><strong>786.64</strong></td>
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CPA Procurement Process

- CPA procures RPS-certified and storage resources via annual request for offers (RFOs) or through bilateral negotiations
- CPA ran its initial 2018 Clean Energy RFO, where its Board established an Environmental Stewardship Principle
- CPA uses standardized evaluation criteria to evaluate long-term contracts, including environmental stewardship
- CPA has used the same criteria in its 2019 Clean Energy RFO and will be incorporating this approach in its 2020 Clean Energy RFO, which will be released in October 2020
RFO Evaluation Criteria

- Individual projects receive a rank for each of the following criteria:

1. Value
2. Environmental Stewardship
3. Workforce Development
4. Development Risk
5. Project Location
6. Benefits to Disadvantaged Communities

(1) Defined as Disadvantaged Community means in or within half a mile of a CalEnviroscreen census tract in the 75th percentile or higher.
1 IN 3 Americans live in a place with a commitment to 100% clean energy
Potentially **75 MILLION** acres needed for clean energy development across US

= 100.26 YOSEMITES
Decarbonizing California through clean power and electrification will require significant land area for new electricity infrastructure.
Place Matters in Clean Energy Buildout
Can the high renewable build required to achieve California’s deep decarbonization goals in 2050 be done while limiting impacts to natural and agricultural lands across the West?
Statewide Modeling of California Goals

- The Power of Place study builds upon the California Energy Commission EPIC project “Deep Decarbonization in a High Renewables Future”, which considered multiple scenarios for achieving statewide emissions targets.

- All scenarios incorporated high levels of vehicle and building electrification.

- All scenarios met SB 100 targets of 100% of retail electricity sales with zero-carbon resources and 80 percent reduction in GHGs by 2050.
What Factors Might Shape California's Clean Electricity System in 2050?

The Power of Place study developed 61 scenarios that explore pathways to land conservation and clean energy in 2050. Five cases and sensitivities were applied in different combinations to create scenarios that achieved a variety of balanced energy and land protection outcomes for California.

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**Geographies**
Three geographic areas within which renewable energy resources are assumed to be available for development:
- California
- Part West
- Full West

**Levels of Land Protection**
Four environmental siting levels (SL) with increasing emphasis on land protection to reduce impacts to natural and agricultural lands:
- SL1
- SL2
- SL3
- SL4

**Rooftop Solar Capacity**
California agency rooftop solar forecast vs. a 35% increase

**Battery Cost**
California agency assumptions vs. a 25% reduction

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The Power of Place study developed
61 Scenarios

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**CO₂**
All scenarios achieve 80% greenhouse gas emissions reduction below 1990 levels by 2050.

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The scenarios generate 102–110% zero carbon electricity in 2050 (of retail sales).

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*See the technical report for an in-depth discussion of choices, trade-offs, and implications.*
2050 scale of wind and solar across scenarios

Total acres of wind and solar across the scenarios:

Approximately 1.6 million to 3.1 million acres
Spatial visualization of a subset of 2050 scenarios
2018

~87,000 acres

2050

~1.2 million acres
2050
With planning, California can scale up the clean energy infrastructure needed to decarbonize California through clean power and electrification while limiting impacts to natural and agricultural lands across the west.
Benefits of solar energy in low biodiversity value areas:

• Permitting timelines are two and half times shorter (14 months compared with 35 months on average)

• Less requirements for compensatory mitigation

• Mitigation and habitat management costs are lower ($0.02/watt compared with $0.16/watt, or $2,000/acre compared to $18,000/acre)
Integrating environmental stewardship into procurement yields multiple benefits

Achieve multiple environmental goals
- Increase clean energy deployment
- Limit impacts to critical lands and waters
- Support sustainable development principles

Increase certainty
- Opportunities and constraints become visible much earlier in planning, improving decisions and increasing certainty
- Maximize benefits of smart from the start development
How to integrate environmental stewardship into procurement decisions?

Identify environmental **values**

Define environmental criteria, including identifying data layers

Assign environmental stewardship value to project bids

Integrate environmental stewardship value into renewable energy project evaluation
Clean Power Alliance Case Study
RFO evaluation criteria reflects the following values:

- CPA will prioritize projects that are considered multi-benefit renewable energy and projects located in areas zoned for renewable energy development.
- CPA will de-prioritize projects located in high-conflict areas.
Environmental Stewardship Ranking

Projects are ranked high, medium, neutral, and low:

- **HIGH**
  - Demonstrates multiple benefits (provides additional societal, health, economic, water saving, or environmental benefits beyond the climate and GHG reduction benefits of renewable energy)

- **MEDIUM**
  - Located in an area designated as a preferred renewable energy zone and received required land use entitlement permits

- **NEUTRAL**
  - Project does not demonstrate either preference or avoidance criteria

- **LOW**
  - Project is located in a high conflict area
Avoidance Screens

- RETI Category 1 and 2 lands
- LA County Significant Ecological Areas
- West Mojave Assessment for Least Conflict Solar Energy
- Ventura County Save Open Space & Agricultural Resources (SOAR) protected areas
- BLM West Wide Wind Mapper siting considerations
Multiple Benefit

• Repurposed energy or industrial site

• Located on salt-affected agricultural land

• Located on exposed Salton Sea Playa

• Located in the built environment, i.e. rooftop or parking lot solar PV

• Project developed in partnership with another public agency or community organization to provide benefits for recreation, transportation, water conservation, or other public good
Data Basin Tool

CPA and TNC have collaborated on a web-based mapping tool to screen project proposals:
Lessons Learned

- Integrating environmental stewardship principles into procurement benefits CPA

- All CCAs are different – the approach to integrating environmental stewardship principles may look different depending upon the service territory and community priorities

- Mapping tool should be easy to use and open access for developers

- Developer responses require post-submission validation

- The Mapping tool is helpful as a screening tool, but projects may require additional due diligence
Resources

- Clean Power Alliance Data Basin Gallery
- California Energy Commission – CA Energy Infrastructure Planning Analyst (not yet live)
- TNC’s conservation-compatible renewable energy siting resource center
- Example of distributed generation screening tool – example for Lancaster
TNC Energy-Related Analyses

- **Mojave Desert Ecoregional Assessment** (2010)
- **Solar Energy Development in the Western Mojave** (2012)
- **Western San Joaquin Valley Least Conflict Solar Energy Assessment** (2013)
- **Optimizing the Grid**: Scenarios that explore curtailment and increasing solar deployment in the San Joaquin Valley (2017)
- **Power of Place** – deep decarbonization and 100% clean energy scenarios for California (2019)
- **Green Light Study** – business case for low-impact clean energy siting (2019)
Contact us to learn more about this initiative.

Natasha Keefer
nkeefer@cleanpoweralliance.org

Erica Brand
ebrand@tnc.org
Speaker Q&A

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Director of Power Planning & Procurement
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The Nature Conservancy
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2,369 Megawatts
New Solar Panels

978 Megawatts
New Wind Turbines

240 Megawatts
New Energy Storage

14 Megawatts
New Geothermal

12 Megawatts
New Biogas

cal-cca.org/cca-impact
CCA Power Procurement

CCA in the News

Silicon Valley Clean Energy receives Moody’s investment-grade credit rating

Clean Power Alliance signs on for 60-MW solar, 152-MWh storage project in California

Mundie Park becomes first U.S. city to set goal to be carbon neutral by 2030

8minute Solar Nabs Its First Supply Deal With California Community-Choice Aggregators

Sonoma & Mendocino Counties To Get $6.75 Million For EV Chargers

Proposed City of Long Beach Power Authority could accelerate port wind power development

Buellton joins Monterey Bay Community Power

Member News

Bay Area Community Energy Agencies Reach Emission-Free Power Resiliency Agreements

SF Public Utilities Commission to Provide Electricity Bill Credits to Eligible CleanPowerSF Customers This Fall

MBCP Dedicates $160,000 to Electricity LOCAL Agricultural Equipment

SV Clean Energy Receives Moody’s Investment-Grade Credit Rating

Peninsula-Silicon Valley Collaboration Recognised for Advancing Electrification in Building Codes, EV Infrastructure

Electric vehicle charger incentives bring EV accessibility to Sonoma and Mendocino counties

SV Clean Energy Surpasses $1 Billion in Renewable Power Investments

Press Releases

CalCCA Statement on Passage of SB 350 (Golden State Energy Act)

CalCCA Statement on the CPUC’s Central Procurement Decision

Celebrating 10 Years of CCA in California

CalCCA Launching New “Community Energy Innovation” Webinar Series

Evelyn Kahl Joins CalCCA as General Counsel

California CCAs Hit 3,000-Megawatt Mark for New Long-Term Clean Energy Contracts

CalCCA Statement on the San Diego City Council’s Decision to Join a Regional JPA to Implement CCA

CalCCA and Key Energy Market Stakeholders Reach Central Buyer Settlement Agreement

Info Resources

CCA Resiliency Initiatives

CCAs and COVID-19

California CCAs Hit 3,000-Megawatt Mark for New Long-Term Clean Energy Contracts

CCA Renewable Energy Map/Infographics, List of PPAs

CCAs’ Contact Info and Location

CCAs and Union Labor

CCA Equity and Inclusion Report

CCA Power Purchasing

What People are Saying about CCAs

CCA Benefits

What are CCAs?

cal-cca.org/news
CCA Power Procurement

- Join the CCA Family
- Requests for Offers
- CalCCA Openings

[Images of construction workers and solar panels]

cal-cca.org/opportunities
Thank you and stay well!

Leora Broydo Vestel
CalCCA Director of Communications
leora@cal-cca.org