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Presentation for the CALeVIP 2 Public Workshop

Additional submitted attachment is included below.

CALeVIP 2.0 Public Workshop

BUILDING EV INFRASTRUCTURE

The workshop will begin at 10 a.m.

May 12, 2022

Introductions

Moderator
Aimee Slavensky, Center for Sustainable Energy

Speakers
Fidel Leon-Green, Center for Sustainable Energy
Brian Fauble, California Energy Commission
Geoffrey Cook, CALSTART

Panelists
Fidel Leon-Green, Center for Sustainable Energy
Brian Fauble, California Energy Commission
Geoffrey Cook, CALSTART
Jeffrey Lu, California Energy Commission

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Before We Get Started

- Participants can submit questions in the chat box any time during the presentation.
- We will be conducting polls throughout this presentation. Please respond and include any additional feedback in the chat box.
- Due to high traffic, you may experience technical difficulties during this presentation. We apologize for potential delays or compromised presentation quality.
- If you miss any part of this presentation or have questions, contact us at calevip@energycenter.org.

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Agenda

- Block Grant Overview
- Communities in Charge (CALSTART)
- CALeVIP 2.0 project goals
- Lessons Learned in CALeVIP 1.0
- Differences between CALeVIP 1.0 and CALeVIP 2.0
- Application Process & Selection for CALeVIP 2.0
- Project Concepts & Requirements
- Question & Answer Session

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Block Grant Overview

Second Block Grants

Communities in Charge

- First Projects:
  - Level 2 only
  - Ready-to-go applications

CALeVIP 2.0

- First projects
  - DC fast chargers only
  - Ready-to-go applications

Equipment Requirements – (CALeVIP 1.0)

Level 2	DCFC
• Charger capable of at least 6.2 kW • J-1772 connector • Networked • Use an open standard protocol • Be safety certified by a Nationally Recognized Testing Laboratory (NRTL) • Energy Star certified	• Active connectors must always deliver a minimum of 50 kW • At least 50% CCS, CHAdeMO are eligible (ACIP) • Networked • Use an open standard protocol • Be safety certified by a Nationally Recognized Testing Laboratory (NRTL)

Equip Req. – Level 2 & DCFC (CALeVIP 2.0 & Communities in Charge)

- CALeVIP 1.0 requirements plus;

- ISO-15118 “Hardware Ready*” (self-attestation), at a minimum must support:
  1. Powerline carrier (PLC) based high-level communication as specified in ISO 15118-3.
  2. Secure management and storage of keys and certificates.
  3. Transport Layer Security (TLS) version 1.2; additional support for TLS 1.3 or subsequent versions is recommended to prepare for future updates to the ISO 15118 standard.
  4. Remotely receiving updates to activate or enable ISO 15118 use cases.
  5. Connecting to a backend network.

*CEC's Recommendation for Deployment of ISO 15118-Ready Chargers

Equip Req. – Level 2 & DCFC cont. (CALeVIP 2.0 & Communities in Charge)

- OCPP 1.6 or later certified by Open Charge Alliance Certification Program
  - EVSE shall support network interoperability and be third-party certified to OCPP 1.6 or newer through the Open Charge Alliance's certification program (**Full and Security).** Proprietary network software and contracts may be used if the EVSE can switch to any OCPP-compliant network provider at the end of any contract agreement.
- DCFC Energy Star Certification (ENERGY STAR Version 1.1 DC EVSE Final Specification)
- Connectors
  - All Level 2 sites must have J-1772, Tesla may be eligible
  - All DCFC sites must have CCS, Tesla may be eligible

New Technology Requirement Dates

Level 2

New Requirement	Date
OCPP 1.6 or greater	September 1, 2022
ISO-15118	July 1, 2023*

*May require Energy Star re-certification

DCFC

New Requirement	Date
ISO-15118	September 1, 2022
OCPP 1.6 or greater	September 1, 2022
DCFC Energy Star	July 1, 2023

Certify Today:
Open Charge Alliance OCPP Certification
Join Energy Star

Coming Soon:
CEC's Vehicle-Grid Innovation Lab (ViGIL):
- 15118 and OCPP testing

Communities in Charge (CALSTART)

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STATE OF CALIFORNIA
ENERGY COMMISSION

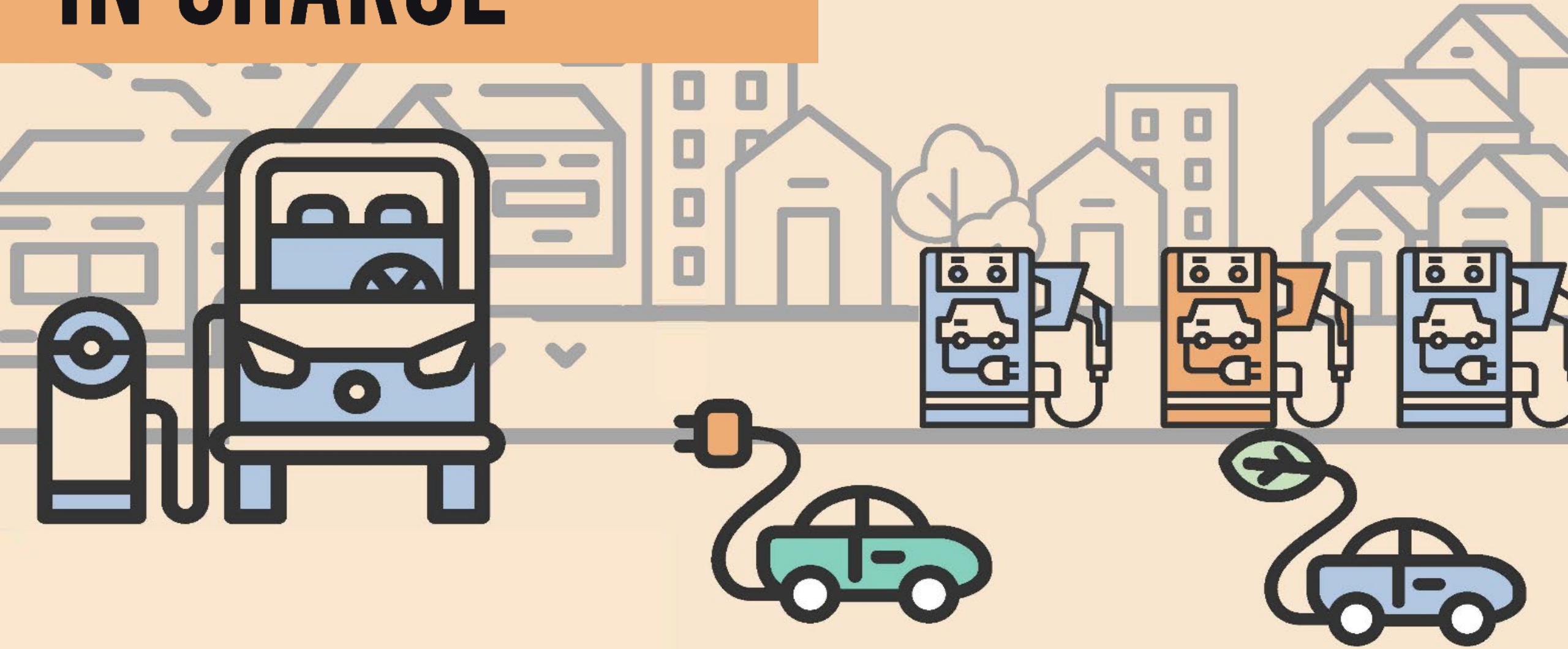
COMMUNITIES IN CHARGE

CALSTART

STATE OF CALIFORNIA ENERGY COMMISSION SINCE 1975

TETRA TECH

GRID ALTERNATIVES



Overview of Communities in Charge

Electric Vehicle Infrastructure
Where Communities Live and Gather

Provides Financial Incentives to Accelerate Deployment of Level-2 Charging Equipment.

Prioritizes Equity Through Targeted Outreach to 'Community Connections'.

Focused on Technical Assistance to Support Development of Charging Infrastructure Where Communities Live and Gather.

Overview of Communities in Charge

Electric Vehicle Infrastructure
Where Communities Live and Gather

Ready to Go

A 'Shovel Ready' Project Serving Community Needs.

Ready to Plan

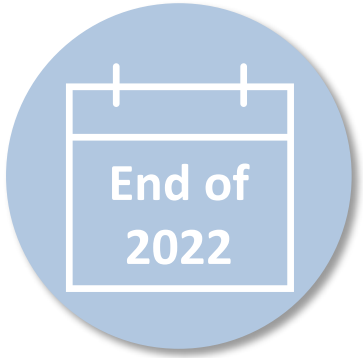
An Identified EV Charging Site Requiring Further Coordination.

Ready to Partner

An Opportunity for EV Charging Requiring Further Engagement.

Upcoming Important Dates

Technical, Funding, and Community Advisory Committee Meetings



Planned Launch of Project 1

Planned Launch of Project 2

Contact the Team:

Geoff Cook, *Deputy Director*
gcook@calstart.org

Dillon Kadish, *Associate Project Manager*
dkadish@calstart.org

CALeVIP 2.0 Project Goals

CALeVIP 2.0 Project Goals

Rapid Deployment of Chargers

Fast & Efficient Application Processing

Equitable Distribution of Chargers to Areas of High Need

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CALeVIP 2.0 Overview

Rapid Deployment

- Focus on quick installations statewide
- Focus on installations of fast charging

Fast & Efficient Processing

- Process and platform improvements to facilitate processing and communication

Address Gaps

- Focus on increasing access to, and availability of, fast charging options

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Lessons Learned in CALeVIP 1.0

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Lessons Learned from CALeVIP 1.0

1. **First-come, First-served methodology led to an influx of applications on launch day and high oversubscription rates**
   - Applications were often incomplete or submitted as “placeholders”
   - Led to long processing times and a large waitlist
2. **Varying project requirements created challenges for applicants and inefficiencies for processing**
   - Significant back-and-forth communication with individual applicants led to slower processing times
   - Incomplete and inadequate documentation leads to payment delays
3. **Almost 40% of applications are cancelled after reaching Funds Reserved**
   - Cancellations mean the clock re-starts for a new application, delaying chargers in the ground
   - Waitlisted applicants might be ready to begin their project but are waiting until they have Funds Reserved
4. **30% of applications require extensions**
   - Extensions delay chargers in the ground and require additional processing and documentation
   - CALeVIP’s purpose is rapid deployment of chargers

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Differences between CALeVIP 1.0 and CALeVIP 2.0

Key Differences – CALeVIP 1.0 & CALeVIP 2.0

Category	CALeVIP 1.0	CALeVIP 2.0
Application Process & Selection	• First Come, First Served Methodology for selecting applicants	• Application Window and Tiered Randomization Methodology for selecting applicants
Documentation	• Site Verification required within 5 days of applying • Evidence of Permit/Utility Application required within 60 days of applying	• Both Site Verification Form and Evidence of Permit/Utility Application required at application • Construction Progress checkpoint*
Project Types	• 13 regional projects with varying requirements • Regions = Counties	• 2 main statewide projects, with potential for targeted projects in the future

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Application Window

CALeVIP 1.0	CALeVIP 2.0
• First-come, First-served • Applicants quickly fill out applications at launch • Those who apply later are placed on a waitlist until other applications cancel or additional funding becomes available	• Applicants will have 30 days to fill out and finalize applications • All applications must be submitted by close of window • No waitlist, instead improve on project readiness and apply at next eligible application window.

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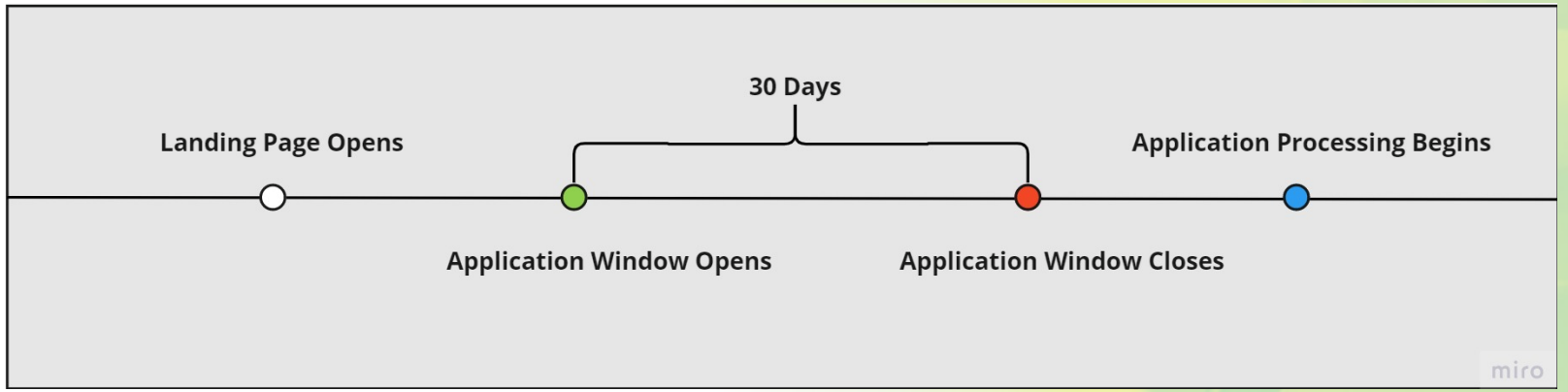
Application Timeline



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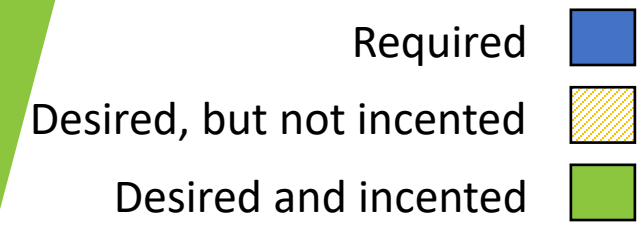
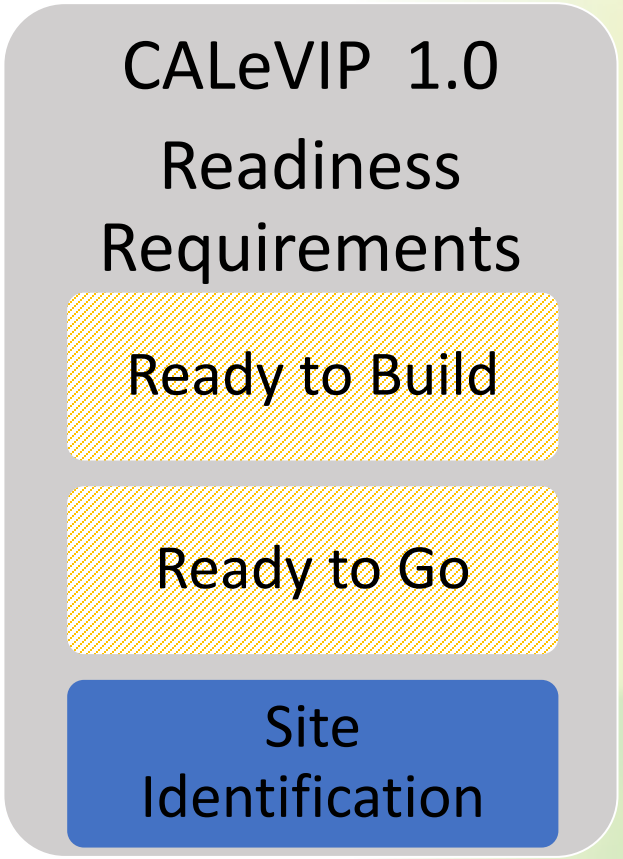
Raising the (Readiness) Bar





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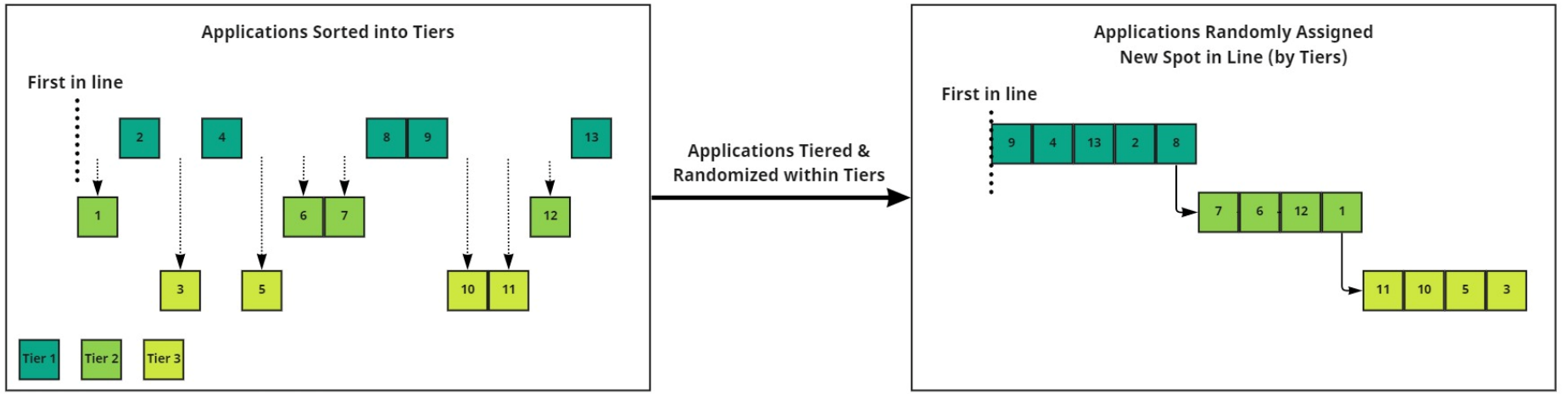
Selection Methodology

(Tiered Randomization)

Tier	Tier Name	Required Documents at Application
1	**Ready to Build**	Site Verification Form + Issued Permit AND Final Utility Design
2	**Design-Approved**	Site Verification Form + Issued Permit OR Final Utility Design
3	**Ready to Go**	Site Verification Form + Permit Application Package OR Utility Service Design Application Package



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Construction Progress Checkpoints

Problem: Currently no insight on projects after 60-day checkpoint until final document submission

Checkpoint Solution:

1. New construction checkpoints to be implemented after funds reserved (frequency TBD)

2. Checkpoints to require documentation on construction progress through survey responses (Will be required for CALeVIP 2.0)

3. Testing process out for CALeVIP 1.0 projects

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Poll Question #1

CALeVIP 2.0 will have higher eligibility requirements for project readiness. Do you support the proposed tiers for readiness?

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

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Poll Question #2

What length of Application Window would you prefer?

< 7 days

7-14 days

15-30 days

> 30 days

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Project Concepts & Requirements

Region Concepts

Goals of region selection:

1. Distribute funds equitably
   - Funding shared with similar communities
   - Reducing likelihood of large metropolitan areas receiving the majority of funding

2. Distribute funds widely, faster
   - Larger regions = immediate access to more of the state

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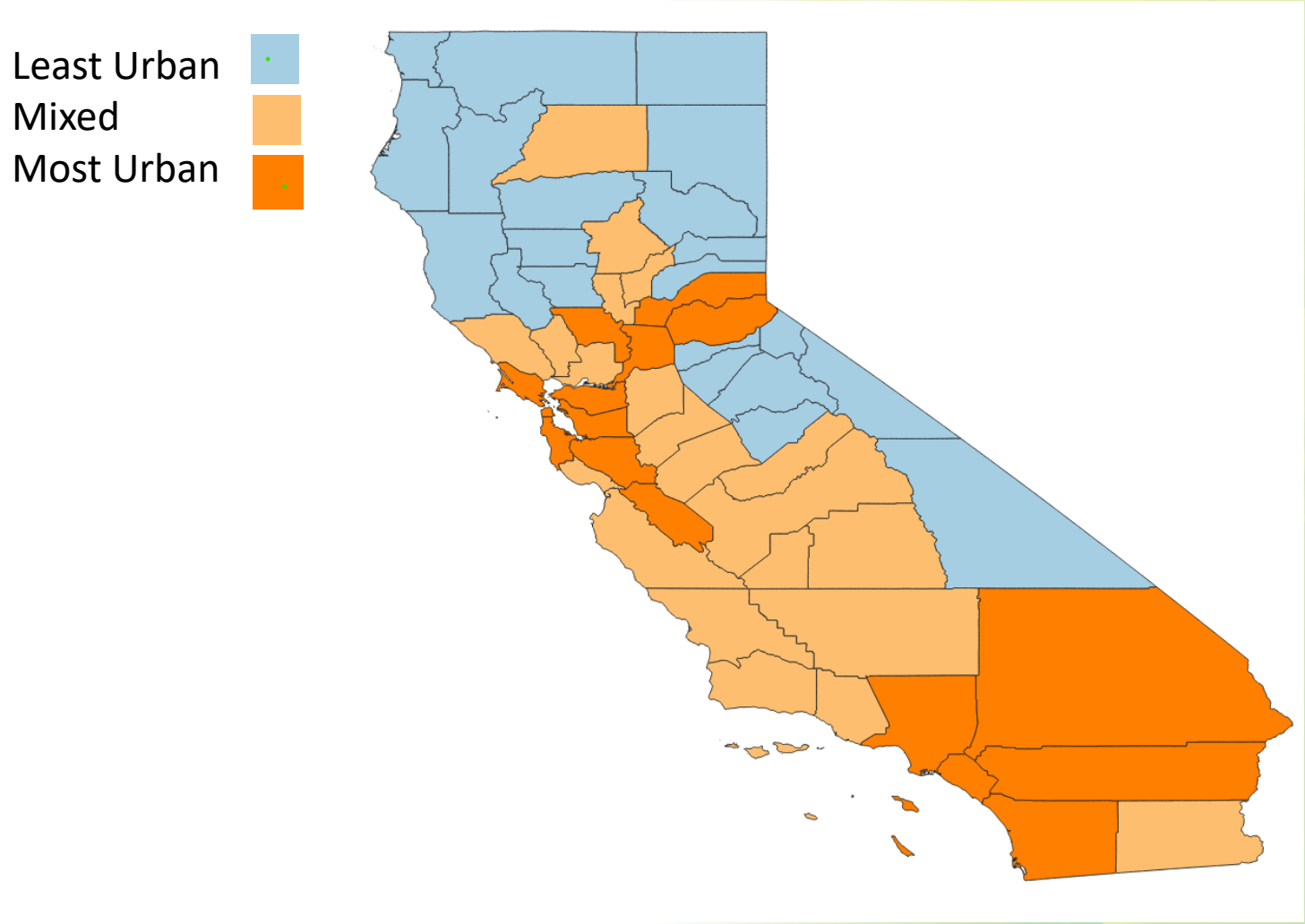
Region Concept #1

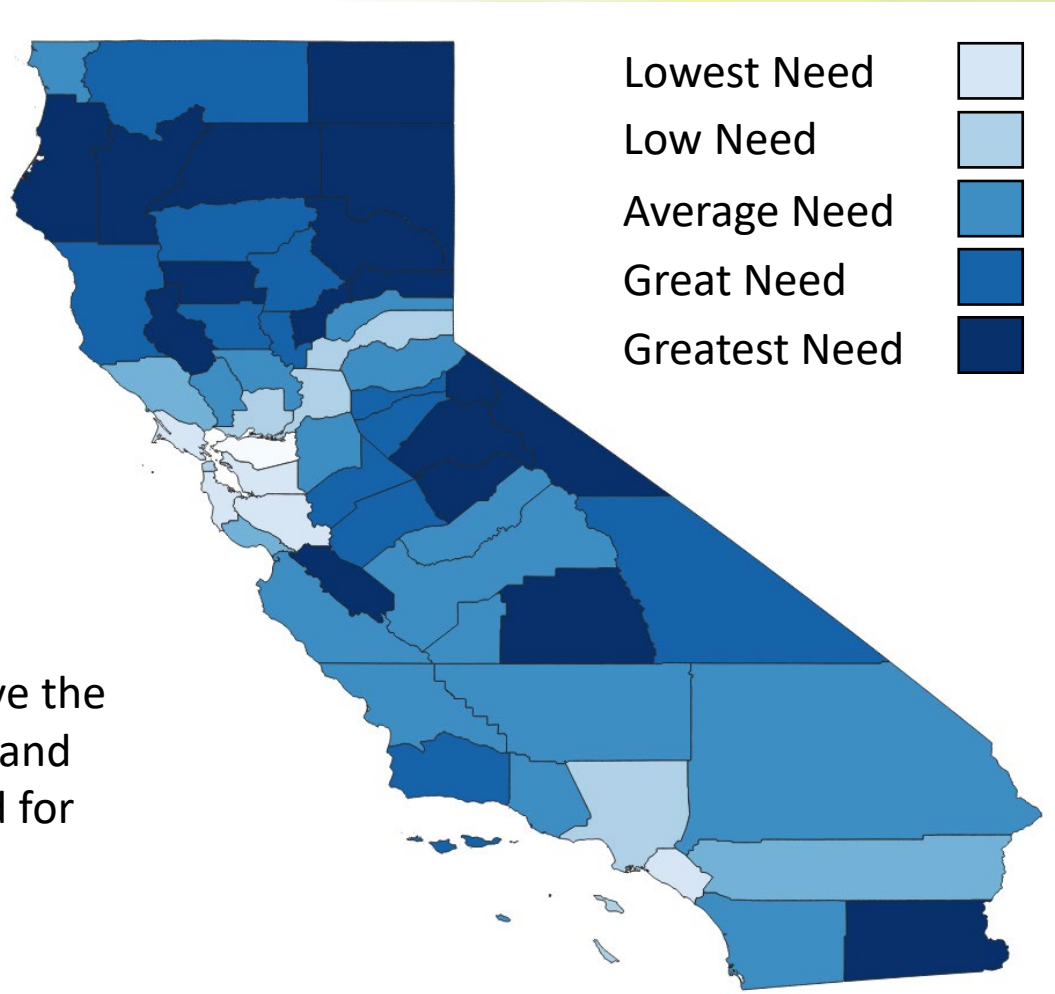
By Degree of Urbanization



Note: This is based on the USDA classification system

Region Concept #2

By Need for DCFC

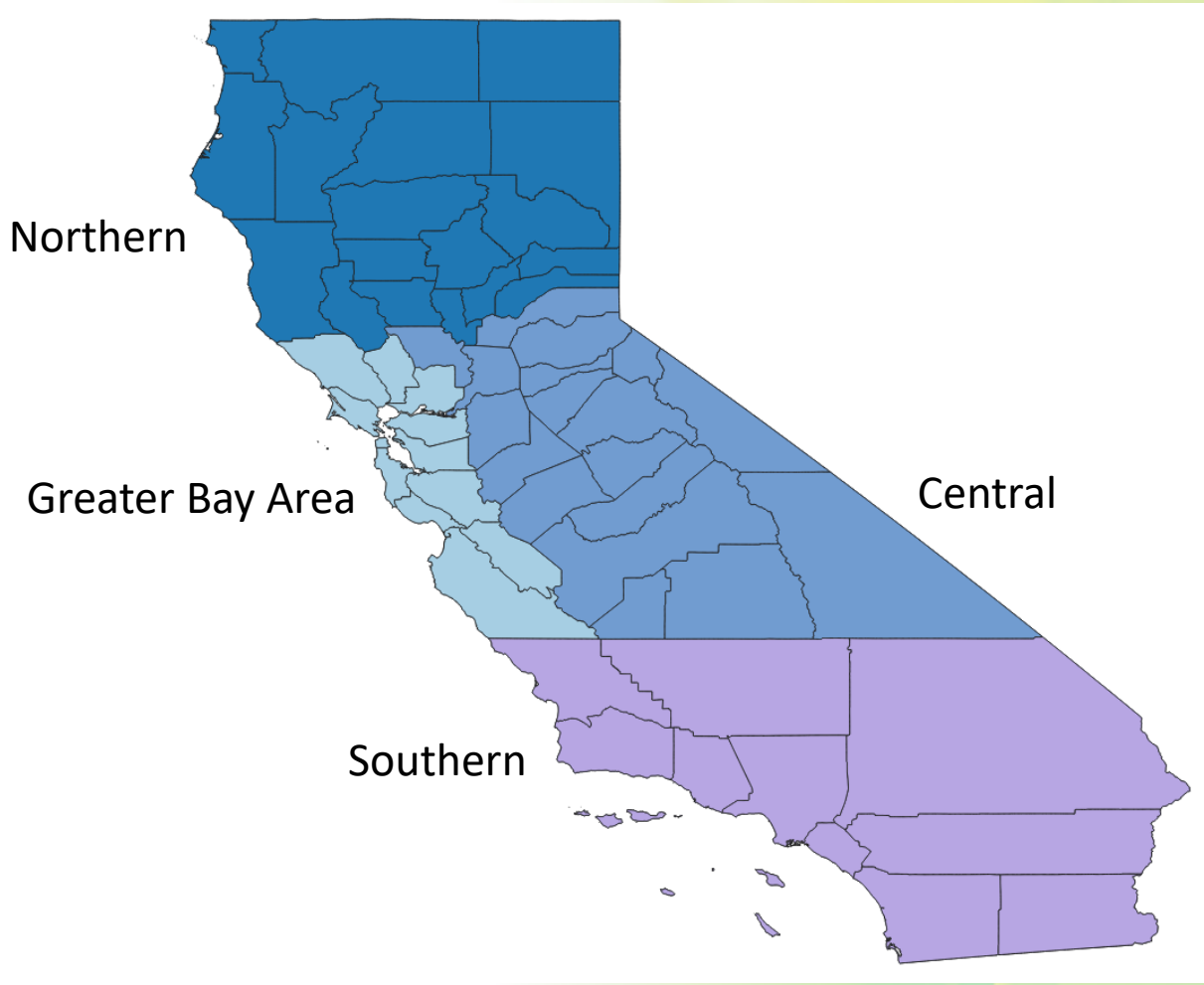


Darkest blue areas have the least amount of DCFC and thus the greatest need for additional charging infrastructure

Note: This is based on a preliminary analysis of existing DCFC ports (AFDC data) per 100 mi of primary and secondary roads (e.g., interstates, highways, main arteries).

Region Concept #3

By Geographic Regions



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Poll Question #3

For Projects 1 and 2, we are proposing three options for funding regions. Which option do you prefer?

Degree of Urbanization
Need for DCFC
Geographic Regions

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Fewer Projects & Requirements Changes

Project	Focus	Concept
P1	**DAC / LIC**	100% of funding dedicated to DAC/LIC sites
P2	**Standard**	Same requirements as Project 1, with no DAC/LIC minimum.
P3+	**Targeted Projects**	TBD (Targeted projects to address specific gaps)

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Project 1 - Priority Populations

- Scheduled to launch in Q4 2022
- DAC/LIC ONLY
- DCFC ONLY
- Regions to be funded: TBD
- Additional regions may be funded in subsequent application windows

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Project 2 - Standard Project

- Scheduled to launch in 2023
- Open to All (including DAC/LIC)
- DCFC ONLY
- Regions to be funded: TBD
- Additional regions may be funded in subsequent application windows

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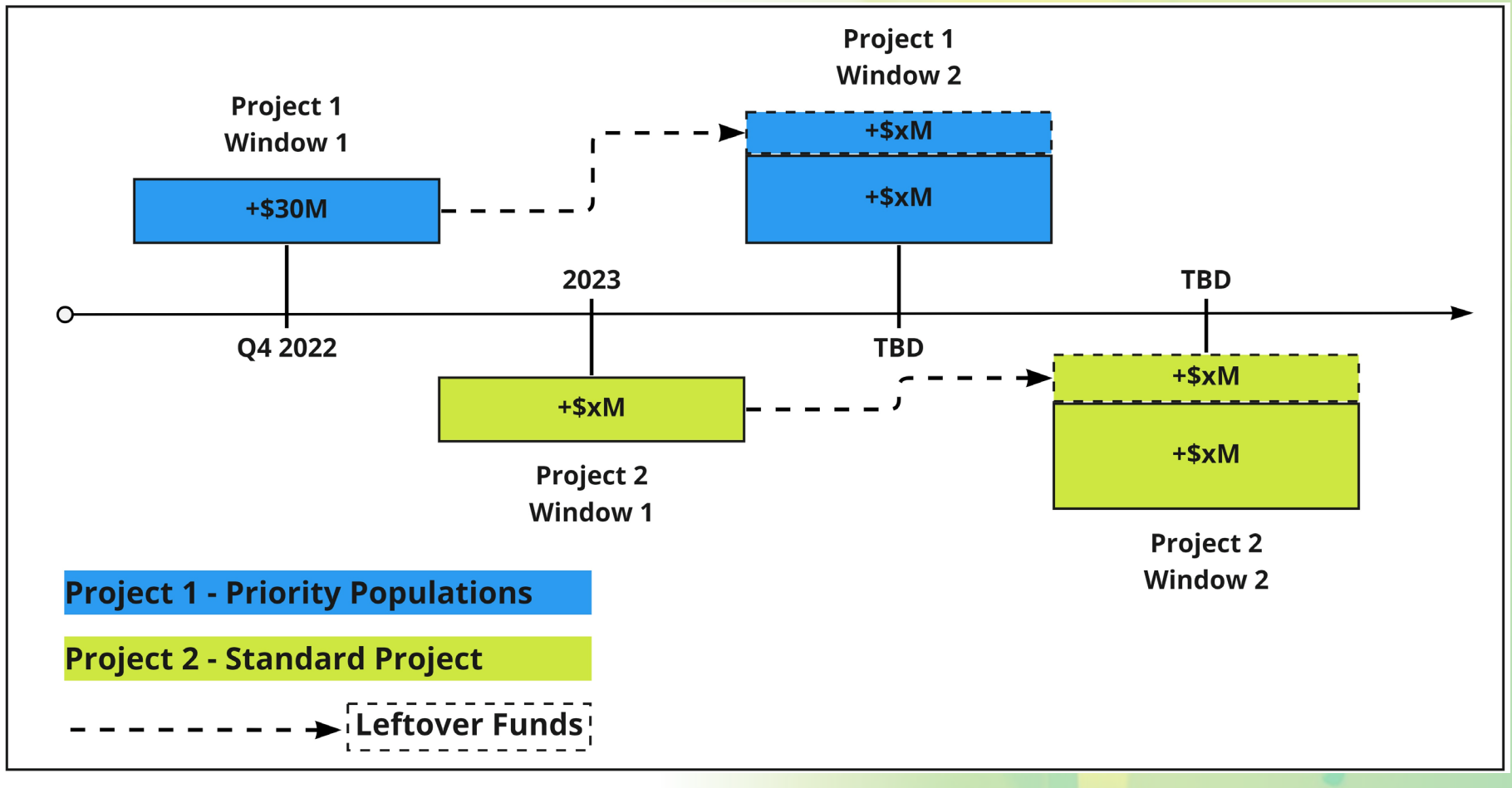
Application Window Funding Timelines



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Active Connectors

Active connector definition

- The number of DCFC connectors that can concurrently supply the rebated power level at any one time.

Example:

A DCFC equipment capable of providing up to 125 kW charging is configured with four connectors and is capable of powering two connectors simultaneously at up to 62.5 kW each (i.e., has two active connectors). This equipment would be eligible for two DCFC rebates at the 50 kW – 99.99 kW rebate level

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Power Output Requirements Proposals:

- Minimum DCFC Power Outputs
  - Per active connector

Option 1	Option 2	Option 3	Option 4
Rural: 50kW	All: 50kW	All: 100kW	All: 150kW
Urban: 150kW			

- DCFC Rebate Tiers
  - Per active connector

Rebate Amount	Option 1	Option 2	Option 3	Option 4
$XX,XXX	50kW to 99kW	50kW to 149kW	50kW to 99kW	50kW to 149kW
$YY,YYY	100kW to 199kW	150kW to 249kW	100kW+	150kW+
$ZZ,ZZZ	200kW+	250kW+		

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Poll Question #4

What minimum power output do you prefer?

50kW rural/150kW urban
50kW for all
100kW for all
150kW for all

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Poll Question #5

?

What power output tiers do you prefer?

3 tiers with 100kW and 200Kw cutoffs
3 tiers with 150kW and 250Kw cutoffs
2 tiers with 100kW cutoff
2 tiers with 150kW cutoff

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Connector Requirements

- Rebates per site
  - 1 rebate per active connector

	Minimum	Maximum
Rural	2	6
Urban	4	6

- Connector Requirements
  - At least 75% of rebated connectors must be CCS
  - Tesla and CHAdeMO may be eligible
  - Standalone CHAdeMO chargers are not eligible

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Documentation Requirements

Step in Process	Required Documents
During application window	1. Site Verification Form 2. Permit or Utility Design Submittal
Checkpoint (within 4 months of Funds Reserved)	1. Final Permit
Checkpoint (within X months of Funds Reserved)	1. Construction Progress Update
At project completion (within 12 months of Funds Reserved)	1. Signed Application Form 2. Design, equipment, installation costs 3. Installation Data Form w/ EVITP attestation 4. Photos of Installed Equipment 5. Equipment Serial Numbers 6. Final Inspection Card
Post-project completion	1. Charger Usage Data for 5 years

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Poll Question #6

Do you agree with the proposed Documentation Requirements?

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

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Other Enhancements

- Increased Applicant Visibility
- Refreshed Website and Resources
- Updated Applicant dashboard
- Streamlined documentation process
- Interactive Eligible Equipment List

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Question & Answer Session

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Questions for you:

- Defining “Ready to Build” Tier. What is the upper limit?

  Purpose: Avoid funding projects that were previously completed or would be completed without CALeVIP funding

  A. Construction hasn’t begun
  B. Chargers are not installed
  C. Transformer/Utility work has not begun

- What other features would you like to see on the CALeVIP website and dashboard?

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Question and Answer Session

Questions?

Submit comments and questions now through chat.

Post-workshop:

- Workshop recording will be emailed to attendees by 5/16.
- Two ways to submit comments to **CEC Docket 17-EVI-01**:

  1) Electronic Commenting System: Visit the "Submit e-Comment" page for this docket:

  https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=17-EVI-01

  2) Comment by E-mail:

  E-mail: docket@energy.ca.gov
  Subject Line: "17-EVI-01 CALeVIP 2.0 Public Workshop"

  All comments due by 5:00 pm on May 19, 2022

New dockets for CALeVIP 2.0 (22-EVI-01) and Communities in Charge (22-EVI-02) will be available soon.

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CALeVIP 2.0
Public Workshop

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Thank you