COMMUNITY ENERGY INNOVATION WEBINAR

How California Communities are Driving Investment in EV Charging Infrastructure
CalCCA Webinar Team

Leora Broydo Vestel
Director of Communications

Sandra McCafferty
Administrative Coordinator
Thank you to our sponsor!

CALPINE ENERGY SOLUTIONS
Meet our Speakers

Jessie Denver
Program Manager
Transportation Electrification/Community Resilience
East Bay Community Energy

Kielan Rathjen
Special Advisor
Zero Emission Vehicle Policy
Gov’s Office of Business and Economic Development (GO-Biz)
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
How California Communities are Driving Investment in EV Charging Infrastructure

- May 29, 2020 -
Impacts of COVID-19

- Tremendous challenges face local government
- GO-Biz wants to give cities and counties the time they need to respond to the crisis
  - Variation from jurisdiction to jurisdiction how COVID is impacting permitting for EV infrastructure
- Opportunity to rebuild our economy
  - Numerous shovel ready projects are awaiting permits to put Californians back to work installing charging stations
- Please visit the state’s websites regularly to get up to date information on California's COVID-19 guidance:
  - California’s comprehensive COVID-19 website: [https://covid19.ca.gov/](https://covid19.ca.gov/)
  - Business assistance can be found through GO-Biz: [https://business.ca.gov/coronavirus-2019/](https://business.ca.gov/coronavirus-2019/)
What are Electric Vehicle Charging Stations (EVCS)

Level 1
(Up to 1.9 kW)
- 4-5 miles per hour -

Level 2
(Up to 19.2 kW)
- 12-70 miles per hour -

Level 3 / Direct Current Fast Chargers
/ DCFC
(50-350 kW)
- 3-20 miles per minute -
California's ZEV Goals:

- Carbon neutral as a state by 2045 (Executive Order B-55-18)
- Carbon free electricity production by 2045 (SB 100)
- 1.5 Million ZEVs by 2025
- 5 Million ZEVs by 2030
- 250,000 EVCS by 2025
- 200 Hydrogen fueling stations by 2025

Gavin Newsom's Executive Order N-19-19 affirmed this climate vision.
Electricity has been the biggest driver of emissions reductions to date - transportation has been the hardest nut to crack.

Million metric tons of greenhouse gases emitted in CA
ZEVs are *part* of this solution, but we need them to be part of the solution *faster*

- #2 Concern about EVs: low charging station availability
  - *California has the highest EVCS cost in the country*
  - Permitting and related costs are higher in CA than most states
  - AB 1236 was passed in 2015 to streamline permitting; implementation has been uneven across the state
Why is Permit Streamlining Important?

- New jobs, cleaner air and less work for city/county staff
- Installing a charging station is 3 to 5 the cost of charger itself,
  - Soft Costs (i.e. permitting) have the greatest possibility for cost reduction with installing charging stations
- Electrify America data across states:
  - Average permitting time in California exceeds the national average by more than 70%
  - Stations must be redesigned in California 30% more frequently
  - Cost 22% more to build in California
- In order to achieve California’s goals, we must build charging stations at 30 sites every working day over the 2020-2030 timeframe

1. From Reducing EV Charging Infrastructure Costs, Rocky Mountain Institute.
Guidebook Key Sections

1. Planning and Site Selection
2. Permitting
3. Accessibility
4. Connecting to the Grid
5. Construction, Commissioning, and Operation
Planning and Site Selection

- Voluntary Building Codes
- Parking/Charging Clarification
  - AB 1100 (Kamlager-Dove, 2019)
- Climate Action Plans

<table>
<thead>
<tr>
<th>Authority Having Jurisdiction (AHJ)</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento County</td>
<td>EVCS spaces count as two spaces</td>
</tr>
<tr>
<td>Los Angeles County</td>
<td>EVCS spaces count as one space</td>
</tr>
<tr>
<td>City of Pleasanton</td>
<td>EVCS spaces count as one space</td>
</tr>
<tr>
<td>City of Santa Barbara</td>
<td>EVCS spaces count as one space</td>
</tr>
<tr>
<td>City of West Hollywood</td>
<td>EVCS spaces count as one space</td>
</tr>
<tr>
<td>City of Stockton</td>
<td>EVCS spaces count as two spaces, for up to 10% reduction of parking requirements</td>
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</tbody>
</table>
Permitting

- Assembly Bill 1236 Permit Streamlining Law
### Application Submittal » Complete Response

<table>
<thead>
<tr>
<th>Type of Charger</th>
<th>Within Best Practice</th>
<th>Optimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2 – Single Family</td>
<td>1 day</td>
<td></td>
</tr>
<tr>
<td>Multi L2 – Shared (Multi Family/Workplace/Public)</td>
<td>5 days</td>
<td>Same Day</td>
</tr>
<tr>
<td>DCFC</td>
<td>5 days</td>
<td></td>
</tr>
</tbody>
</table>

### Complete package » Approval to Build

<table>
<thead>
<tr>
<th>Type of Charger</th>
<th>Within Best Practice</th>
<th>Optimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2 – Single Family</td>
<td>1 day</td>
<td></td>
</tr>
<tr>
<td>Multi L2 – Shared (Multi Family/Workplace/Public)</td>
<td>15 days*</td>
<td>Same Day</td>
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<tr>
<td>DCFC</td>
<td>15 days*</td>
<td></td>
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</tbody>
</table>

### Construction Complete Notice » Inspection

<table>
<thead>
<tr>
<th>Type of Charger</th>
<th>Within Best Practice</th>
<th>Optimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2 – Single Family</td>
<td>5 days</td>
<td></td>
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<tr>
<td>Multi L2 – Shared (Multi Family/Workplace/Public)</td>
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<td>Same Day</td>
</tr>
<tr>
<td>DCFC</td>
<td>5 days</td>
<td></td>
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</tbody>
</table>
Accessibility

- California is first in the nation to provide ADA compliance specificity

<table>
<thead>
<tr>
<th>Total Number of EVCS at a Facility</th>
<th>Minimum Number (by type of EVCS Required to Comply with Section 11B-812:1)</th>
<th>Minimum Number (by type of EVCS Required to Comply with Section 11B-812:1)</th>
<th>Minimum Number (by type of EVCS Required to Comply with Section 11B-812:1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Van Accessible</td>
<td>Standard Accessible</td>
<td>Ambulatory</td>
</tr>
<tr>
<td>1 to 4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 to 25</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>26 to 50</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>51 to 75</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>76 to 100</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>101 and over</td>
<td>1, plus 1 for each 200, or fraction thereof, over 100</td>
<td>3, plus 1 for each 60, or fraction thereof, over 100</td>
<td>3, plus 1 for each 50, or fraction thereof, over 100</td>
</tr>
</tbody>
</table>
Connecting to the Grid

- Working with Utilities
  - Communicate early with utilities
  - Working with designated interconnection teams
Construction, Commissioning, and Operation

- Weight and Measures Certification
- Signage
CA Electric Vehicle Charging Station Permit Streamlining Map

*Interactive map available [here](#)

<table>
<thead>
<tr>
<th>EVCS Permit Ready Score:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green – City or County is EVCS Permit Ready, charging infrastructure permitting is streamlined</td>
</tr>
<tr>
<td>Yellow – City or County EVCS permit streamlining is in progress, or partially complete</td>
</tr>
<tr>
<td>Red – City or County is <strong>not</strong> streamlined for EVCS permitting</td>
</tr>
<tr>
<td>Grey – Not yet evaluated (or in process)</td>
</tr>
</tbody>
</table>
*See [http://business.ca.gov/zevreadiness](http://business.ca.gov/zevreadiness) for updated map
Common Problems

- Aesthetics – Requiring additional landscaping, colored bollards, public art etc.
- Zoning Concerns
- Parking Counts
- No Electronic Signature
- Different ADA Interpretations
- Lack of Awareness of AB 1236
Common Problem: Multiple Rounds of Deficiency Comments

Building Review Comments
Planning Review Comments
Parking Count Issues
Second, Third, Forth Round of Comments

ADA Compliance
<table>
<thead>
<tr>
<th>Scoring Criteria:</th>
<th>Complete if:</th>
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</thead>
</table>
| □ **1. Streamlining Ordinance**  
Ordinance creating an expedited, streamlined permitting process for electric vehicle charging stations (EVCS) including level 2 and direct current fast chargers (DCFC) has been adopted. | - Streamlining ordinance has been adopted |
| □ **2. Permitting checklists covering Level 2 and DCFC**  
Checklist of all requirements needed for expedited review posted on city or county website. | - Permitting checklist is available and easily found on city or county website |
| □ **3. Administrative approval of EVCS**  
EVCS projects that meet expedited checklist are administratively approved through building or similar non-discretionary permit. | - The streamlining ordinance states that permit applications that meet checklist requirements will be approved through non-discretionary permit (or similar) |
| □ **4. Approval limited to health and safety review**  
EVCS project review limited to health and safety requirements found under local, state, and federal law. | - The streamlining ordinance states that no discretionary use permit is required and permit approval will be limited to health and safety review |
5. Electric signatures accepted
   AHJ accepts electronic signatures on permit applications.*

6. EVCS not subject to association approval
   EVCS permit approval not subject to approval of an association (as defined in Section 4080 of the Civil Code).

7. One complete deficiency notice
   AHJ commits to issuing one complete written correction notice detailing all deficiencies in an incomplete application and any additional information needed to be eligible for expedited permit issuance.

8. Bonus: Expedited timeline for approval
   Consistent with the intent of AB 1236, AHJ establishes expedited timelines for EVCS permit approval compared to standard project approval procedures.
Status of the State as of 5/29/20
- Cities and counties

- **Streamlined** - 96
- **Streaming in Progress** - 163
- **Not Streamlined** - 279

Only 17.5% of California has streamlined its EVCS permitting.
Alameda County Comparison
- 14 cities and 1 county

- **Streamlined** - 11
- **Streaming in Progress** - 2
- **Not Streamlined** - 2

73% of Alameda County has streamlined its EVCS permitting
ZEVe- Award

- Awarded by GO-Biz to local leaders for ZEV readiness efforts in California
- **Jessie Denver** from EBCE was first winner of the ZEVe-award for EVCS permit streamlining in Alameda County!
The California Electric Vehicle Infrastructure Project (CALeVIP)

Implement targeted incentive projects throughout California that address a specific region’s EV charging needs

<table>
<thead>
<tr>
<th>Project Territory</th>
<th>Launch Date</th>
<th>Counties</th>
<th>Funding</th>
<th>Partners</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresno County</td>
<td>December 2017</td>
<td>Fresno</td>
<td>$4 million</td>
<td>N/A</td>
<td>Level 2</td>
</tr>
<tr>
<td>Southern California</td>
<td>August 2018</td>
<td>Los Angeles, Orange, Riverside, San Bernardino</td>
<td>$29 million</td>
<td>N/A</td>
<td>DCFC</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>April 2019</td>
<td>Sacramento</td>
<td>$15.5 million</td>
<td>Sacramento Municipal Utilities District, $1.5 million</td>
<td>Level 2 &amp; DCFC</td>
</tr>
<tr>
<td>Northern California</td>
<td>May 2019</td>
<td>Shasta, Humboldt, Tehama</td>
<td>$4 million</td>
<td>N/A</td>
<td>Level 2 &amp; DCFC</td>
</tr>
<tr>
<td>Central Coast</td>
<td>October 2019</td>
<td>Monterey, Santa Cruz, San Benito</td>
<td>$7 million</td>
<td>Monterey Bay Community Power, $1 million/3 years</td>
<td>Level 2 &amp; DCFC</td>
</tr>
<tr>
<td>San Joaquin Valley</td>
<td>December 2019</td>
<td>San Joaquin, Kern, Fresno</td>
<td>$14 million</td>
<td>N/A</td>
<td>Level 2 &amp; DCFC</td>
</tr>
</tbody>
</table>
## 2021 Letters of Intent

- East Bay Community Energy (Alameda County)
- MCE (Contra Costa, Marin, Napa, and Solano counties)
- San Francisco Public Utilities Commission (CleanPowerSF, Hetch Hetchy Power)
- Clean Power Alliance, Monterey Bay Community Power, SBCACD, VCAPCD, SLOCAPCD (San Luis Obispo, Santa Barbara, Ventura counties)

- CEC will factor a region’s EVCS permit streamlining status in determining future CALeVIP projects
  - Complying with AB 1236 can bring $$$ to your community

Reach out to Brian Fauble from CEC for CALeVIP questions

_brian.fauble@energy.ca.gov_

### CALeVIP

<table>
<thead>
<tr>
<th>Project Territory</th>
<th>Launch Date</th>
<th>Counties</th>
<th>Funding</th>
<th>Partners</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonoma Coast</td>
<td>Summer 2020</td>
<td>Sonoma, Mendocino</td>
<td>$6.75 million total</td>
<td>Sonoma Clean Power, Northern Sonoma County APCD</td>
<td>Level 2 &amp; DCFC</td>
</tr>
<tr>
<td>Peninsula-Silicon Valley</td>
<td>Fall 2020</td>
<td>San Mateo, Santa Clara</td>
<td>$54 million total funding, 2-4 years</td>
<td>Peninsula Clean Energy; Silicon Valley Clean Energy; San Jose Clean Energy; Silicon Valley Power; City of Palo Alto Utilities</td>
<td>Level 2 &amp; DCFC</td>
</tr>
<tr>
<td>San Diego County</td>
<td>Winter 2020</td>
<td>San Diego</td>
<td>$17.66 million total</td>
<td>SANDAG; San Diego APCD</td>
<td>Level 2 &amp; DCFC</td>
</tr>
</tbody>
</table>
How to become “Green” on the AB 1236 Map

- Pass an Ordinance
- Create EVCS permitting checklist
  - Based on the ordinance and checklist, develop permitting process that *(in practice)* streamlines the permitting process
  - Removing Planning Department decisions from the process as much as possible

**CHAPTER V. - STREAMLINED PERMITTING FOR ELECTRIC VEHICLE CHARGING STATIONS**

Sec. C3-49. - Purpose and authority.

The purpose of this Chapter is to promote and encourage the use of electric vehicles by creating an expedited, streamlined permitting process for Electric Vehicle Charging Stations and removing obstacles to permitting for Electric Vehicle Charging Stations so long as the action does not supersede the Building Official’s authority to identify and address higher priority life-safety situations. This Chapter is adopted in accordance with Government Code Section 65850.7, and shall be implemented in compliance with that provision and any amendments thereto.
Contact us with your questions:

Kielan Rathjen
kielan.rathjen@gobiz.ca.gov

Tyson Eckerle
tyson.eckerle@gobiz.ca.gov
(916) 322-0563

Subscribe to our Newsletter: The Plug and the Nozzle
Introduction: CALeVIP

- CA Electric Vehicle Infrastructure Project
- EV charger incentive program to meet regional gaps/needs
- Meet state goals
- Funding: California Energy Commission
- Requires a co-funding partner

Note: San Joaquin County has a CALeVIP program in place currently that customers in the City of Tracy can access
EBCE ZEV Goals

Executive Order B-48-18

• 5M Zero Emission Vehicles x 2030
  – Battery Electric Vehicles
  – Plug-in Hybrid EVs
  – Fuel Cell EVs

• 2025 Milestones
  – 1.5M ZEVs
  – 250,000 EV Chargers
    • Level 2 & DC Fast

• Alameda County
  – 2020: 35,000
  – 2025: min 60,000
  – 2030: 200,000 (L, M/HD)
CALeVIP: 2021 Program

- $50M for Program Year 2021
- 3-4 regions will be selected
- Non-competitive
- **3 Variables in Selection**
  1. EVI-Pro Analysis
     - Alameda County #1 on gap/need list
  2. Partnership & Co-Funding
     - EBCE
  3. AB 1236 Compliance
Variable 1: Identifying the Gaps

Incentives meet wide ranging customers needs

Level 2
- Multi-family, schools, hospitals, public facilities, fleets, workplaces, and more
  - NA: Single family homes

DCFC
- Commercial/retail, gas stations, public facilities and more
- Public & open 24/7/365

Alameda County Gaps are Significant

Source: EVI Pro
Filling the Gap

Workplace + Public L2 (Low gap)
• Need: 6,400+
• Existing: 1,209
• Low gap: 5,200+
• % addressed via CEC CALeVIP Investment: 50% of gap
  – Quantity L2: 2,633

Multi-family L2: (upper estimate): Need 7,000+

Public DCFC (Low gap)
• Need: 645
• Existing: 244
• Low gap: 400+
• % addressed via CEC CALeVIP Investment: 30% of gap
  – Quantity DCFC: 145

EBCE’s co-funding will double the impact / close more of the gap!
• Incentives
• EBCE owned assets ($1.5M FY 20 budget allocation)

Source: MCE
Variable 2: Co-Funding Partner

• Match funding: CEC & EBCE
  – At least 1:1
  – EBCE Request to CEC: $15-$33M
  – EBCE Letter of Intent: $16M
    • Revised to $14.5M (over 4 years)
    • Will allocate $1.5M from FY 20 budget to EBCE owned L2 & DCFC

• Benefits
  – City / County / Regional air quality & climate goals
  – One-time opportunity for Alameda County to leverage CEC investment
  – Local economic development
    • Jobs
    • Load & revenue growth opportunity
  – Incentives cover range of customer costs
  – Experienced Program Administrator
    • Center for Sustainable Energy
      – Website management, customer service, application & incentive processing, outreach & education, etc.
CEC + EBCE: Local Benefits

Emission Reductions + Load & Revenue Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2022</th>
<th>2024</th>
<th>2026</th>
<th>2028</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Vehicles</td>
<td>35,358</td>
<td>42,489</td>
<td>53,188</td>
<td>70,293</td>
<td>112,469</td>
<td>197,429</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
<td>25%</td>
<td>31%</td>
<td>-</td>
</tr>
<tr>
<td>Cumulative New Vehicles</td>
<td>7,425</td>
<td>17,830</td>
<td><strong>34,935</strong></td>
<td>77,111</td>
<td>111,977</td>
<td></td>
</tr>
<tr>
<td>Emissions Reduction (Metric Tons)</td>
<td>39,062</td>
<td>93,800</td>
<td><strong>183,787</strong></td>
<td>405,665</td>
<td>589,084</td>
<td></td>
</tr>
<tr>
<td>Additional EBCE Load (MWh)</td>
<td>32,626</td>
<td>78,344</td>
<td>153,504</td>
<td>338,822</td>
<td>492,019</td>
<td></td>
</tr>
<tr>
<td>Additional Revenue ($)</td>
<td>$3,262,579</td>
<td>$7,834,416</td>
<td><strong>$15,350,371</strong></td>
<td>$33,882,247</td>
<td>$49,201,935</td>
<td></td>
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</tbody>
</table>
Variable 3: AB 1236 Compliance

- Streamline EV Charging Infrastructure Permitting
- Current CALeVIP programs: barriers / lessons learned
- Required for 2021 CALeVIP

- CEC CALeVIP Cost Data

<table>
<thead>
<tr>
<th>LEVEL 2</th>
<th>DC FAST CHARGERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocated Rebate Funding: $24,040,000</td>
<td>Allocated Rebate Funding: $49,460,000</td>
</tr>
<tr>
<td>Number of Connectors Installed: 230</td>
<td>Number of Chargers Installed: 76</td>
</tr>
<tr>
<td>CEC Rebates Issued: $814,059</td>
<td>CEC Rebates Issued: $4,835,104</td>
</tr>
<tr>
<td>Total Project Costs: $2,204,032</td>
<td>Total Project Costs: $7,622,431</td>
</tr>
</tbody>
</table>

Source: energy.ca.gov
Variable 3: AB 1236 Compliance

• Goal: Eliminate barriers & reduce soft costs
• Required for 2021 CALeVIP
  – E.g. stakeholders not able to apply for incentives in cities/counties not in compliance
• EBCE: 15 JPA members
  – Step 1: Evaluate countywide compliance
    • Berkeley, Fremont

Source: energy.ca.gov
EBCE Technical Assistance

• Goal: Countywide compliance 3/2020
• Outreach
  – Stopwaste TAG
  – AMP Coordination
• EBCE-GO-BIZ Coordination
  – Compliance doc review/approval
  – Ex. Oakland
• Outstanding
  – Pleasanton: coming soon
  – Albany: coming soon
  – Newark: EBCE TA

Source: GO_BIZ AB1236 Compliance Map
CALeVIP Timeline

• 2019: Potential partners identified by CEC
• 2019: Letter of Intent signed w/non-binding funding commitment
  – EBCE: $16M
• March 2020: Project customization due
• May 2020: Pencils down – SOW, budget & agreement
  – EBCE CAC and Board vote to approve co-funding
• June/July 2020: CEC selects 2021 projects
  – Tentative based on State budget approval
• August 2020: Public workshop & comment period starts
• 2021: Program launch
CCA CALeVIP Incentive Projects

2019

Monterey Bay Community Power

2020

PENINSULA CLEAN ENERGY
SAN JOSE CLEAN ENERGY
SILICON VALLEY CLEAN ENERGY
Sonoma Clean Power

2021

CleanPowerSF
CPA CLEAN POWER ALLIANCE
EAST BAY COMMUNITY ENERGY
MCE My community. My choice.
Monterey Bay Community Power
Speaker Q&A

Jessie Denver
Program Manager
Transportation Electrification/Community Resilience
East Bay Community Energy

Kielan Rathjen
Special Advisor
Zero Emission Vehicle Policy
Gov’s Office of Business and Economic Development (GO-Biz)
What’s Next?

• Recording/slides will be posted at cal-cca.org/webinars

• Next CEI webinar on June 26

• Topic: Accelerating Decarbonization and Local Investment Through Better Data Access

• Registration link and details at cal-cca.org/webinars
## CCA Programs

<table>
<thead>
<tr>
<th>Programs</th>
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<tbody>
<tr>
<td>COVID-19 Rapid Response</td>
</tr>
<tr>
<td>Electric Vehicles and EV Infrastructure</td>
</tr>
<tr>
<td>Building Decarbonization/Electrification</td>
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<tr>
<td>Energy Efficiency</td>
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<tr>
<td>Net Energy Metering</td>
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<tr>
<td>Solar Rebates/Incentives (beyond NEM)</td>
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<tr>
<td>Demand Response</td>
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<tr>
<td>Resilience: Microgrids, Local Solar+Storage</td>
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<tr>
<td>Community Advisory Committees</td>
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<tr>
<td>Local Innovation</td>
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<tr>
<td>Outreach/Innovation Grants</td>
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<tr>
<td>Feed-in Tariff</td>
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<td>Citizen Sourcing</td>
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[cal-cca.org/cca-programs](cal-cca.org/cca-programs)