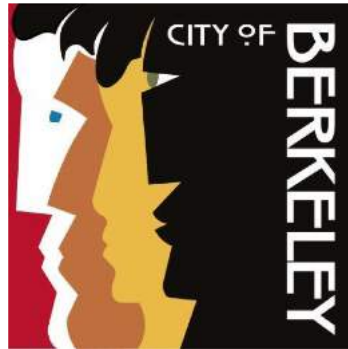




12th Annual CCEC Forum: Lunch 5

August 17, 2021 | 11:30 - 1:00 pm

Local Government Electrification: Opportunities and Challenges





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Zoom Features

Microphone

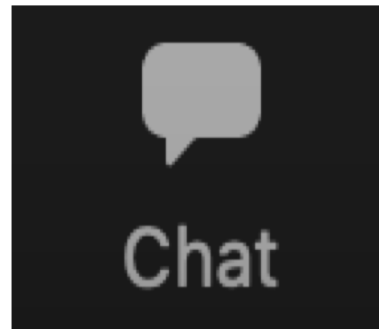
Keep yourself **muted** so that we can hear our speakers clearly

Unmute yourself when speaking



Chat

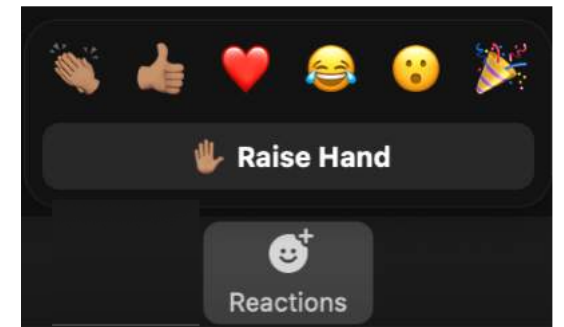
Communicate with other participants or reach out to LGC staff if you encounter technical issues.



Reactions

Click the icon to raise your hand to ask to speak verbally.

We encourage the use of emojis!





Meet our Speakers!



Moderator
Benjamin Zank
*Engineer,
Energy Solutions*



Renee Lafrenz
*Senior Manager,
Energy Solutions*



Marna Schwartz
*Sustainability Coordinator,
Office of Energy and
Sustainable Development,
City of Berkeley*



Jessie Denver
*Senior Distributed
Energy Resources
Manager,
East Bay Community
Energy*

Local Government Electrification

Opportunities and Challenges



Local
Government
Commission

ZNE/Alliance

Funded by:



Agenda

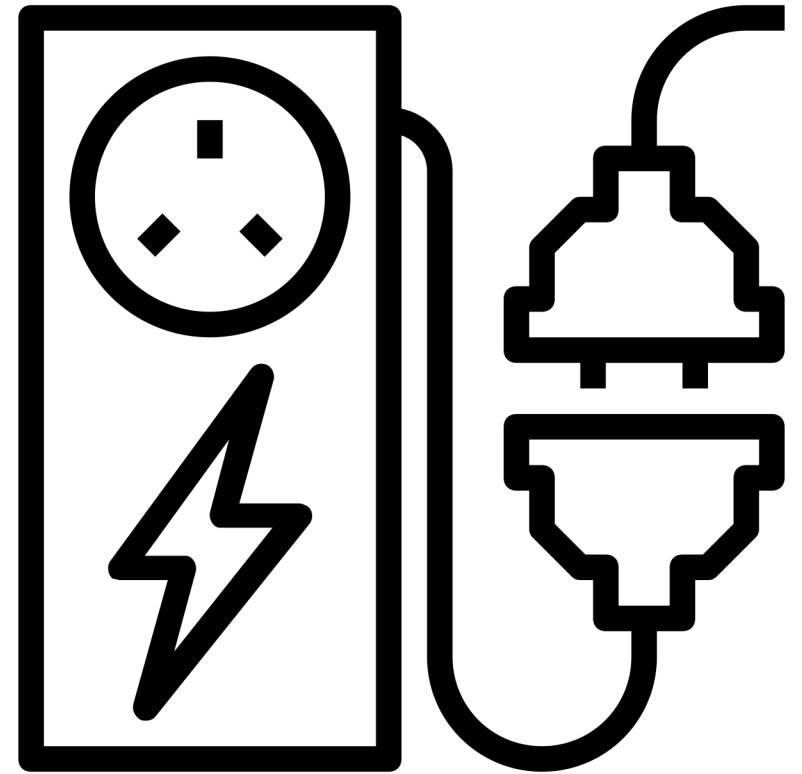
1	Welcome and Introductions Please fill out the survey	<i>10 min</i>
2	Empower Procurement Background	<i>5 min</i>
3	City of Berkeley	<i>10 min</i>
4	East Bay Community Energy	<i>10 min</i>
5	Discussion	<i>50 min</i>
6	Wrap-up and Close Out	<i>5 min</i>

Why and When Switch from Gas to Electric?

1. Electrification is one of the most cost-effective ways to reduce GHG emissions¹

- Key strategy to meet CA's ambitious targets
- Electricity is getting cleaner every year
- Renewable energy is the cheapest form of new electricity infrastructure²

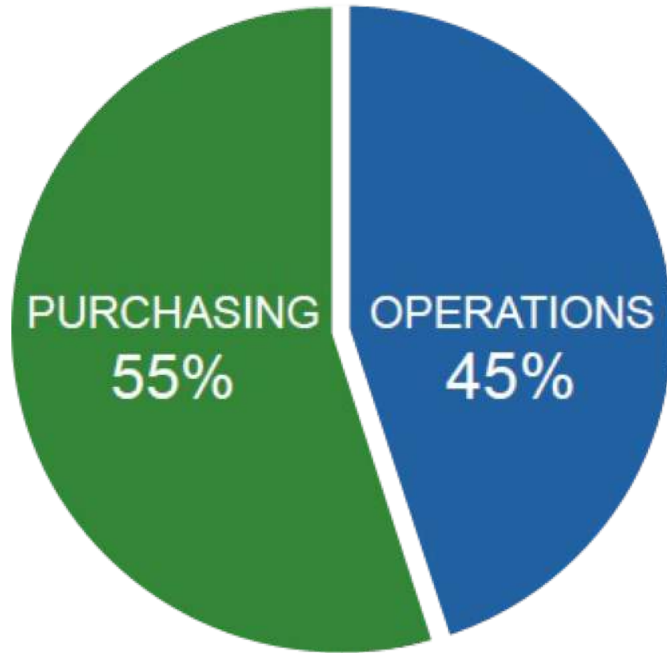
2. The best time to convert: when building equipment needs to be replaced



¹https://rmi.org/wp-content/uploads/2018/06/RMI_Economics_of_Electrifying_Buildings_2018.pdf

²<https://www.theguardian.com/environment/2021/jun/23/most-new-wind-solar-projects-cheaper-than-coal-report>

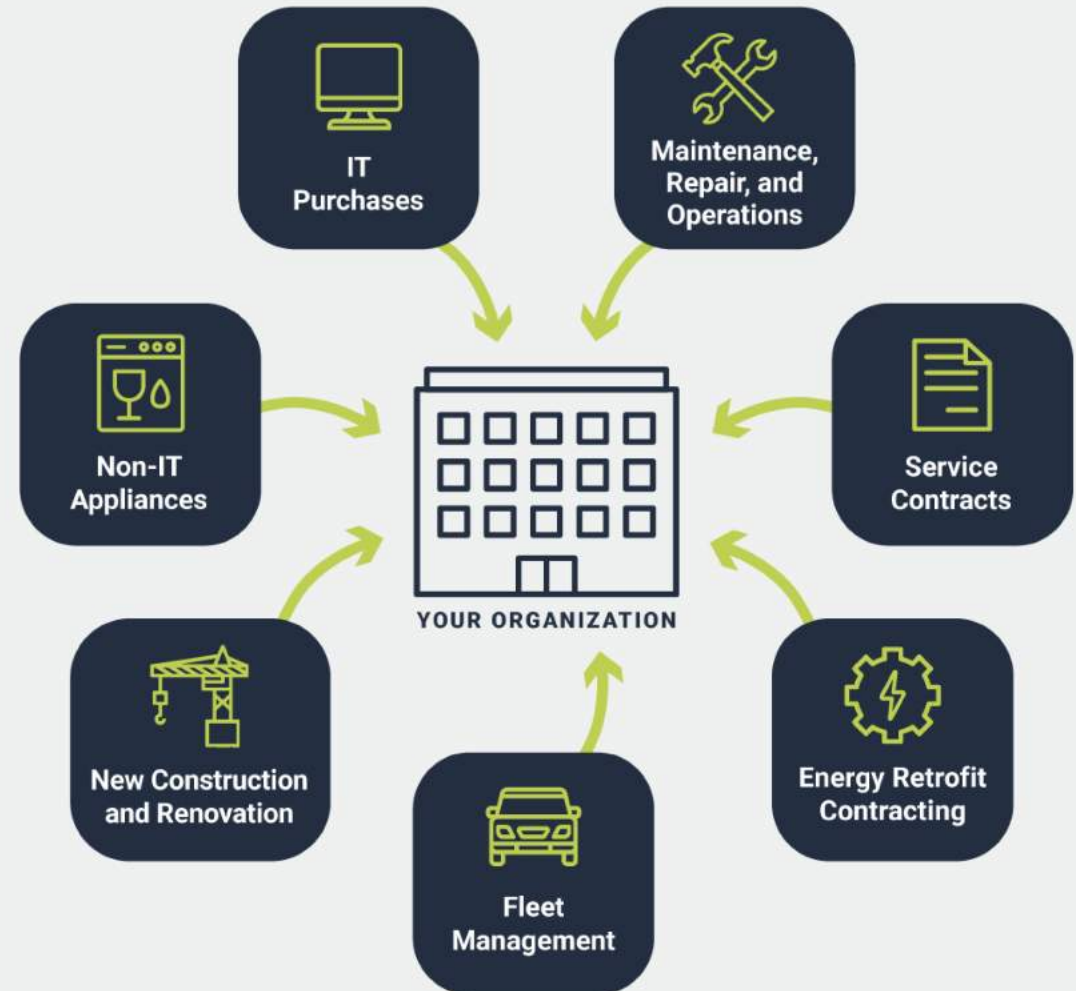
GHG Emissions from Public Institutions



Source: The West Coast Climate and Materials Management Forum

Procurement Pathways

There are many ways that energy-consuming goods can enter your government institutions.



What does the funding do?

For Us: An understanding of how we can make a difference in GHG through our assistance.

For Local Government Participants:

- ✓ Organizational Procurement Assessment by world class experts
- ✓ Recommendations & Assistance on aligning your procurement streams with sustainability goals
- ✓ See new resources and tools that help
- ✓ A more educated seller community – better bidders, better outcomes
- ✓ Join a network of organizations committed to change



E-Buildings Procurement Initiative

We want to help you access:

- Energy efficient products
- Expert energy services contractors
- Fuel switching resources: planning and installing
- Targeted specifications for low-energy building systems
- New approaches to procurement operations
- Training on organizational benchmarking & procurement metrics



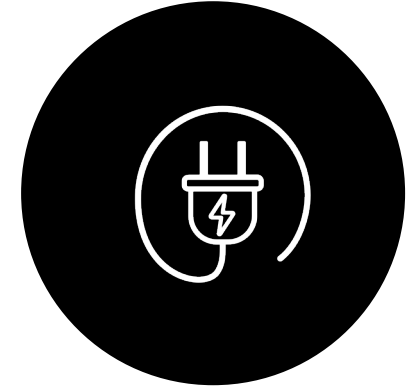
E-Buildings PI: Benefits to Local Governments



- Build collaboration network for local governments to begin and bolster electrification strategic planning efforts
- Why we're here today -- and hoping to stay connected!
- Opportunities for streamlined and cooperative procurement



Identify challenges for electrification – particularly in existing government buildings; develop resources to address them



Track and share electrification best practices and GHG reduction potential calculations

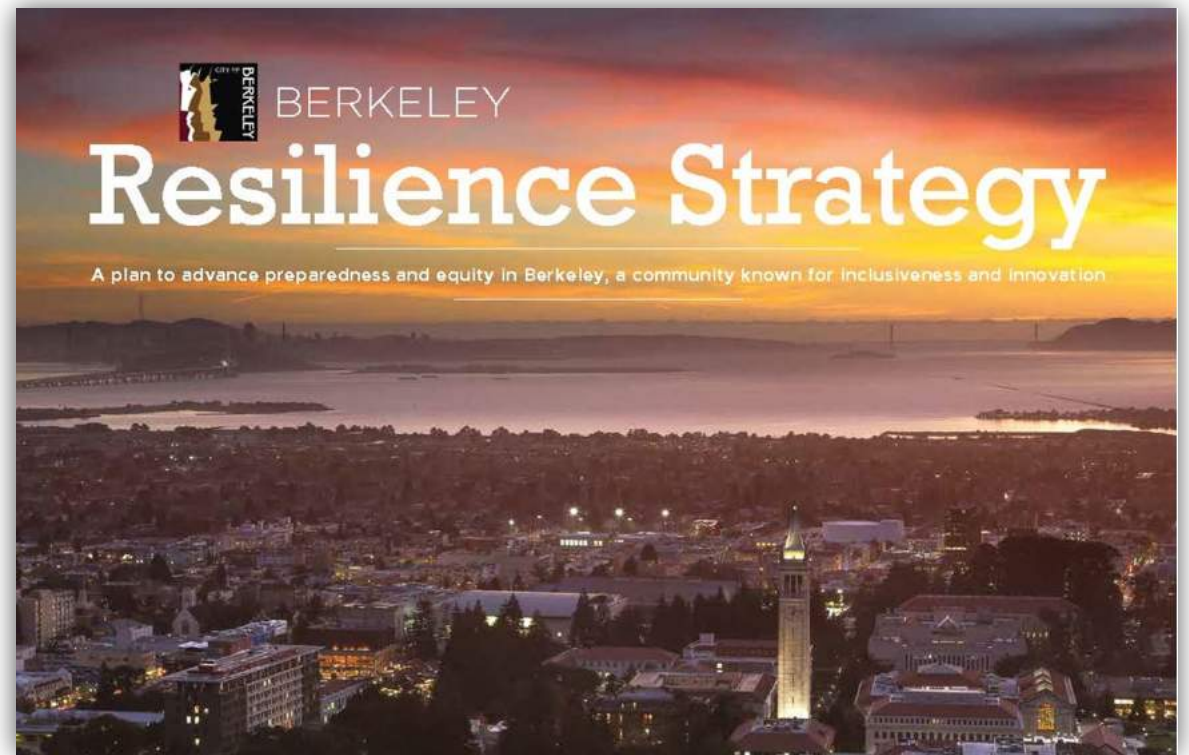
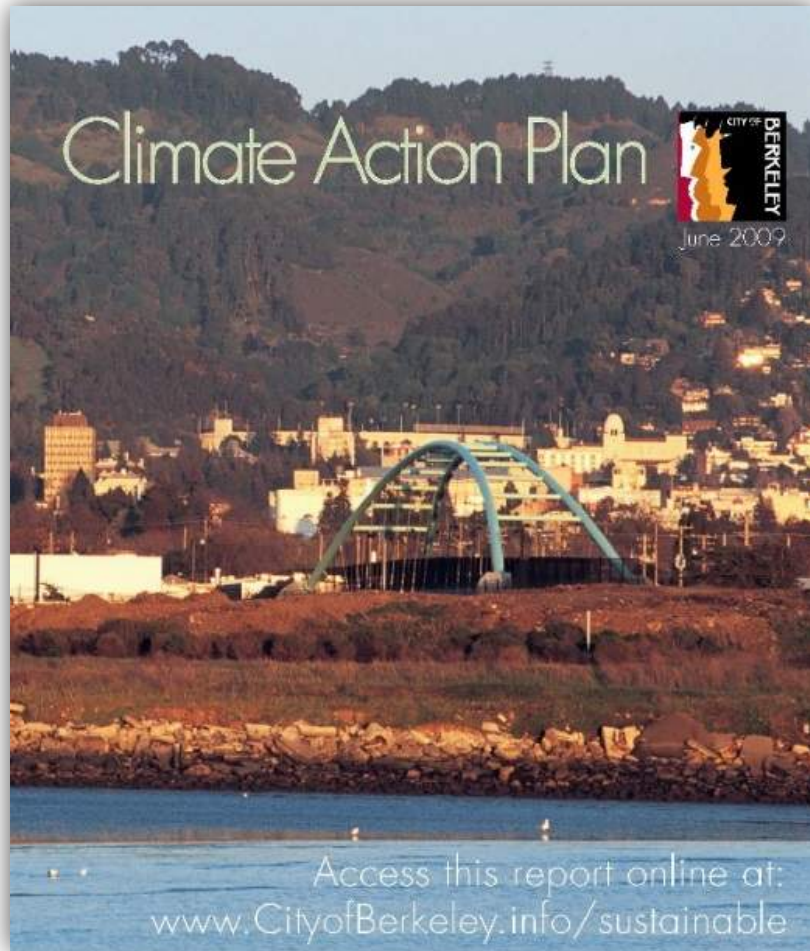


City of Berkeley

Marna Schwartz



Berkeley Climate and Resilience Plans



Ambitious Community and Council



Vision 2050

THE VISION 2050 TASK FORCE HAS DEVELOPED THE FOLLOWING
GUIDING PRINCIPLES FOR OUR INFRASTRUCTURE DEVELOPMENT



PRINCIPLE ONE
Support Vibrant and
Safe Communities



PRINCIPLE TWO
Have Efficient and Well
Maintained Infrastructure



PRINCIPLE THREE
Facilitate a Green Berkeley
and Contribute to Saving
Our Planet

Berkeley's Municipal Infrastructure



95 Public Buildings



52 Parks



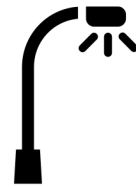
11 Creek Watersheds



216 Miles of Streets



6,00 Storm Drains



7,000 Streetlights



38,000 Street Trees



50 Miles of Bike Paths



380 Miles of Sewer



2 Pools

A black Chevrolet Bolt EV is parked at a ChargePoint charging station in a parking garage. The car is plugged into the station. Signs indicate '4 HOUR ELECTRIC VEHICLE CHARGING' and 'ADDITIONAL PUBLIC EV CHARGING STATIONS'. The car is parked in a designated 'CHARGING ONLY' space.

West Berkeley Library Branch



North Berkeley Senior Center





Energy Resilient Municipal Facilities: CCA Planning & Procurement

Presented by: Jessie Denver
Senior Program Manager
Transportation Electrification and Community Resilience

Critical Municipal Facilities

Who is EBCE? JPA & default public power provider (LSE) in Alameda County & City of Tracy

Project Goal: EBCE delivery / operation of a cost-effective portfolio of solar + battery energy storage systems to enhance resilience.

Berkeley Site Portfolio: Background

Step 1 (Q4 2019 – 2020)

- Sites identified by City staff and shared with EBCE
- Site hazard, solar potential and service analysis
- Results: narrowed portfolio

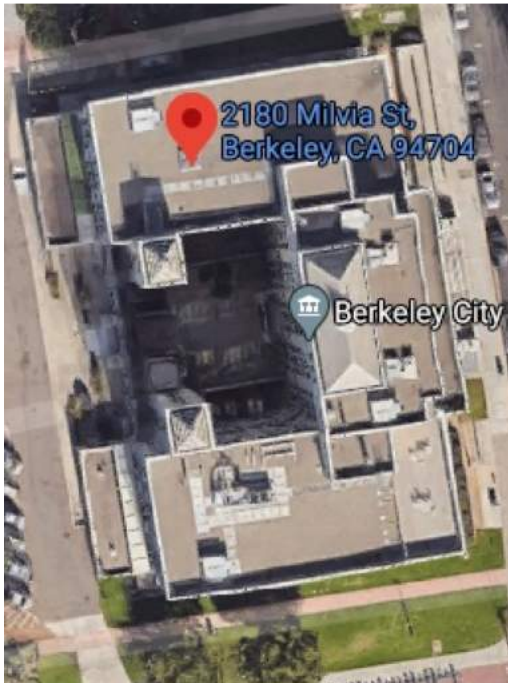
Step 2 (2020 – to date)

- EBCE site and economic analysis
- Results: not all sites are 1) feasible and 2) cost effective

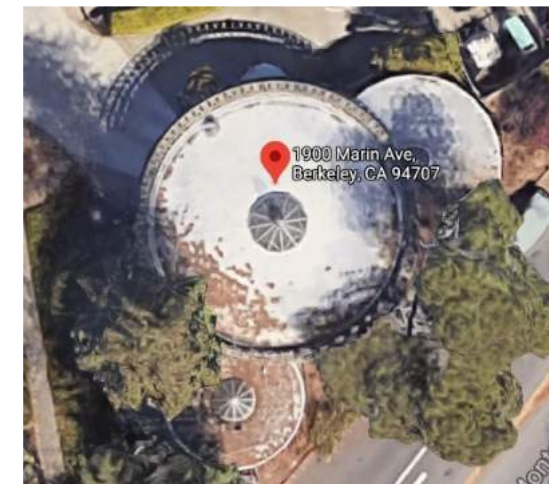
Step 3: EBCE integrated *Solar Only* sites into portfolio to achieve cost effectiveness; detailed portfolio review with City

Ex: Sites Eliminated from Phase I Procurement

Complex roof configuration / attributes



Significant shading issues



De-risking Sites for Developers

EBCE hired Independent Engineers (IE)

- IE completes preliminary review of facility portfolio to confirm the most technically viable solar + BES sites
- Review focus on structural stability, roof condition, electrical capacity
- EBCE is funding IE

Intent: reduce portfolio risk to developers at time of RFP

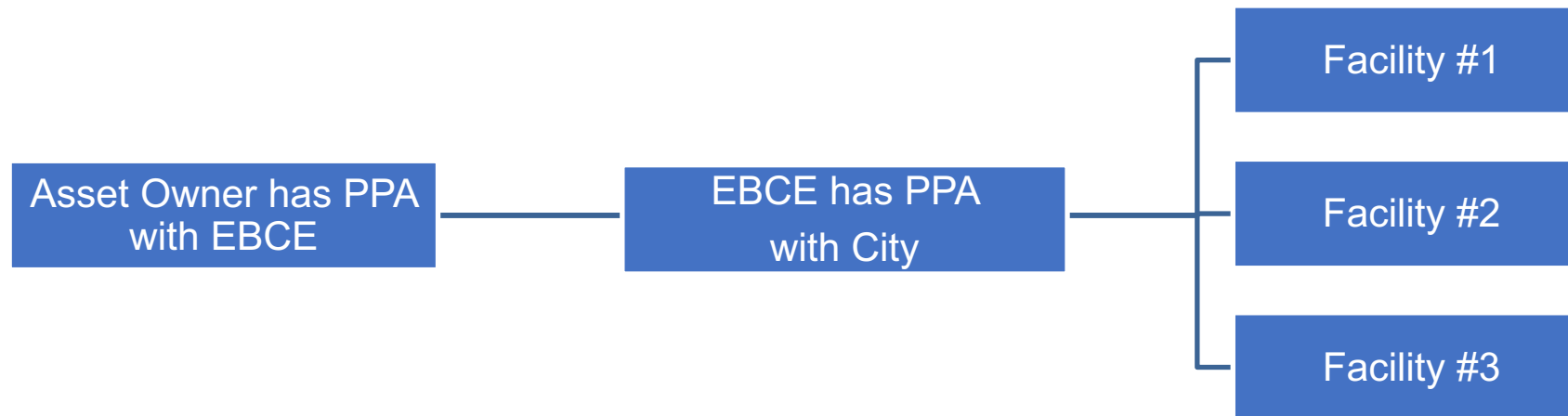
- IE assessments will eliminate sites with significant upgrade expenses.
- The more developers know about sites the better PPA pricing they can offer.

Phase I Procurement: Contracting

EBCE standard PPA with City

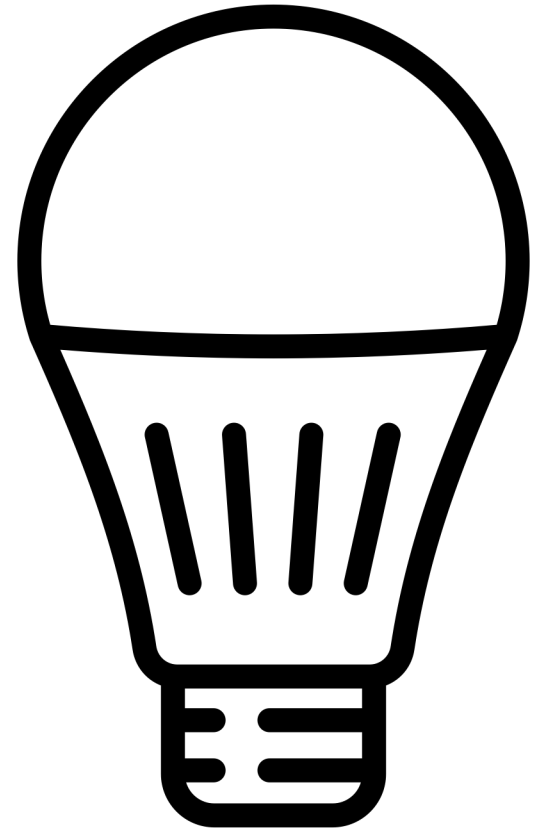
- Single PPA will reduce costs by limiting legal expenses
- EBCE will stand behind system operation; minimize electricity bills + resilience
- EBCE will hold PPA with City, be counter signatory with developer(s)

Coming Soon – Fall/Winter 2021



Questions for Panel

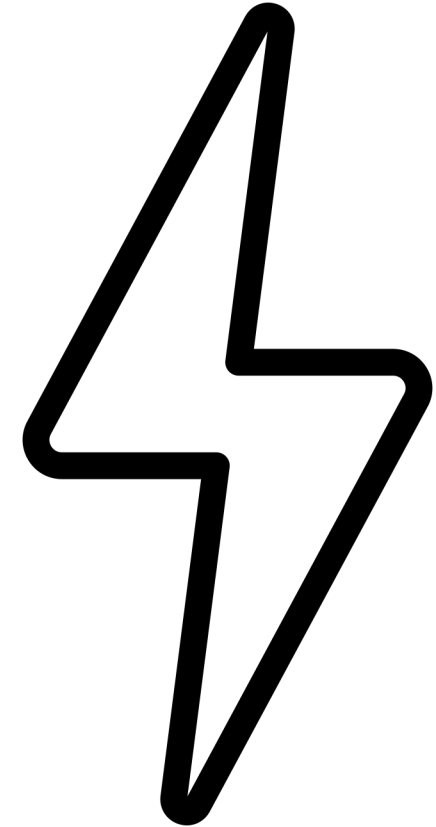
1. What unexpected challenges did you face during your energy resilience planning process?
2. How did this pooled-procurement idea come about from EBCE? What opportunities are there for replication and going further?
3. Who are the key decision makers within and outside of local government?
4. What concerns were raised by stakeholders and decision-makers?



Discussion Questions & Working Session

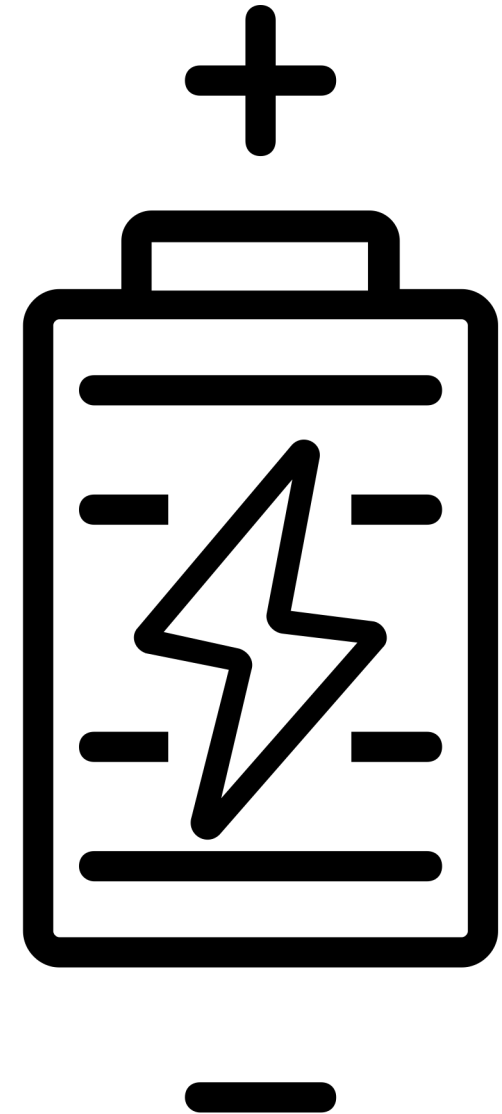
Questions for Participants:

1. Is electrification a top priority in your jurisdiction? If not, why?
2. Where are you in your electrification planning? What resources could help you?
3. Who are the key stakeholders for electrification planning in your jurisdiction? How does this inform your messaging?
4. Procurement question: Which DERs have been the focus in your jurisdiction? Ex. HPWH, solar, storage.
5. Time horizon/deferred maintenance – what is the approximate age of your municipal space heating and water heating equipment? Is it in need of replacing?



Closing & Next Steps

- Summarize key challenges identified today
- Overview Empower Procurement resources available now and in development via www.empowerprocurement.com
- Follow up opportunities to stay involved in Empower Procurement
 - ✓ Deeper dive electrification workshop
 - ✓ Peer Forum
 - ✓ Electrification Challenge





Thank You!

Donny Zank

Engineer, Energy Solutions

(702) 751-2568

Donny.Zank@energy-solution.com



EMPOWER
PROCUREMENT



Thanks again to...

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Upcoming Events



12th Annual California Climate & Energy Forum

Transforming Tomorrow Together

August 3 - 19, 2021

Post-Session Survey:

bit.ly/CCEC-Post-Session-Survey

WEEK 3

- **8/17 Webinar 10:**
Speeding Decarbonization Efforts with Reach Code Development Tools
- **8/18 Lunch 6:**
The State of Local Climate Planning – a Needed Evolution
- **8/18 Webinar 11:**
Next Generation Building Decarbonization: Policy Evolution in California & Washington
- **8/19 Webinar 12:**
Leveraging Solar & Battery Systems to Lower Costs & Increase Resiliency

To view the entire program visit eecoordinator.info/forum-program/