



# Building Decarbonization Coalition

Roadmapping Session (3/3)

December 18, 2018

Remote Access:

<http://www.uberconference.com/gridworks>

Call-in: 415-429-8160 (no PIN)

# Introduction

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- Received input from nearly **100 stakeholders** through **2 workshops** and **3 drafts**
- Articulated **35 goals** and **21 priority actions** (after editing) across **6 categories**



Comprehensive



Strategic

# Introduction:

Today's Objective: Defining and prioritizing the near-term actions the Coalition will undertake



Comprehensive



Strategic

# Agenda:



- 10:00-10:15 Introductions
- 10:15-11:00 Level-Setting
- 11:00-12:00 Defining Near-term Actions
- 12:00-1:00 Lunch

# Agenda:

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- 1:00-2:00 Prioritizing Near-term Actions (cont'd)
- 2:00-2:45 Case Studies
  - Soliciting case study input from the Coalition
- 2:45-3:00 Wrap Up/Next Steps

## Guidelines for the Day:



- Be present and engaged.
- Step Up, Step Back. Be mindful of taking up much more space than others. Empower yourself to speak up when others are dominating the conversation.
- We are all responsible for the productivity of this meeting.

# Targets

***All California buildings must be fully decarbonized  
no later than 2045.***

<b>Figure 1: Decarbonization Targets by Sector</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>New Buildings</b>	<b>2025: Zero Emissions Building Code</b>	<b>2028: Zero Emissions Building Code</b>

Zero Emissions Building Code defined as a code that requires buildings do not emit greenhouse gas emissions from on-site sources.

# Targets

## Figure 1: Decarbonization Targets by Sector

Retrofits	<p>% GHG reduction below 1990 levels from the overall building stock:</p> <ul style="list-style-type: none"><li>● 2025: 20%</li><li>● 2030: 40%</li><li>● 2045: 100%</li></ul>
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# Targets

## Figure 1: Decarbonization Targets by Sector

*Market share targets for underlying technologies:*

- *high efficiency heat pumps for space heating from 5% of sales in 2018, to 50% in 2025 and 100% in 2030.*
- *high efficiency heat pumps for water heating from 1% of sales in 2018, to 50% in 2025 and 100% in 2030.*
- *high performance electric induction cooking from 1% of sales in 2018, to 50% in 2025, and 100% in 2030.*

# Principles



- Long-term **market transformation** rather than start-stop programs
- Deliver building decarbonization **equitably to all communities**
- Prioritize having a **positive grid impact**
- Let California's **innovators design the business models**. Keep it simple and do not micromanage

# Goals



**Goal 1:** Increase Awareness and Interest

**Goal 2:** Improve Value Proposition for Customers

**Goal 3:** Improve Value Proposition for Builder and Contractors

**Goal 4:** Ease Delivery of Building Decarbonization Measures to Maximize Adoption

**Goal 5:** Align Policy

## Near Term Actions:



#1	Upstream Incentive Programs
#2	Customer Incentive Programs
#3	Builder Support
#4	All-electric Development and Building Recognition Program
#5	Contractor Support and Accreditation Program
#6	Marketing Campaign

## Near Term Actions:



#7	Induction Cooktop Campaign
#8	Building Electrification Finance
#9	Electrical panel and service innovation
#10	Reach Code Support
#11	Addressing Legacy Systems

# Near-term Actions + Designated Leads

**Key Initiatives:**

- #1: Upstream Incentive Programs
- #2: Long Term Customer Incentives
- #3: Builder Support
- #4: All-Electric Development and Building Recognition Program
- #5: Contractor Support and Accreditation Program
- #6: General Marketing Campaign
- #7: Induction Cooktop Campaign
- #8: Building Electrification Finance
- #9: Electrical Panel Upgrade and Service Innovation Programs
- #10: Reach Code Support
- #11: Legacy System Evaluation

Building Decarb Coalition	Utilities	CCAs	Manufacturers	CEC	CPUC	Local Governments	Workforce Associations	Environmental NGOs
	●	●			●			
	●	●				●		
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# Define and Prioritize Near-term Actions



Questions for Each Action:

1. What is the current status?
2. What specifications need to be made and understood before adoption as a priority action?
3. Who will lead the action?
4. Given 1-3, do you support prioritization?

# Priority Action #1 - Upstream/Midstream Incentive Programs

<b>Action:</b> Produce incentive programs for builders offering decarbonized new buildings and installers offering <del>all</del> -electric retrofits.	<b>Current Status:</b> Do not currently have these programs
	<b>Specifications:</b> <ul style="list-style-type: none"> <li>● Begin with expedited implementation of SB 1477</li> <li>● Commercial sector as well</li> <li>● Tiering incentives</li> <li>● Partial or all-electric retrofit</li> </ul>
	<b>Lead:</b> <ul style="list-style-type: none"> <li>Utilities</li> <li>CCAs</li> <li>CPUC</li> <li>Environmental NGOs</li> <li>Local government (?)</li> </ul>



# Priority Action #2 - Customer Incentive Programs

<b>Action:</b> Create a strategic long term (10 year) incentive program	<b>Current Status:</b>	Square 1.1(ish) San Joaquin Valley Proceeding
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>● Modeled after California Solar Initiative -Potentially modelled on Prop 39</li><li>● Incentives commensurate with benefits**</li><li>● Ensure stable funding for appliance replacement/displacement</li><li>● Early retirement incentive similar to Cash 4 Clunkers model</li><li>● Sensitive to customer bill impact</li></ul>
	<b>Lead:</b>	Utilities CCAs Local Governments Environmental NGOs/Consumer Advocacy Groups Air quality MDs

# Priority Action #3 - Builder Support

<b>Action:</b> Support all builders move to decarbonization through inquiry, assistance and policies.	<b>Current Status:</b>	Square 1 (Sunnyvale Green Building Program)
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>• Market assessment of production home builders in California and what their preferences, opinions and needs are regarding building and promoting all-electric.</li><li>• Recommendations for policies, programs, permitting and other solutions to support builders to build all-electric developments.</li><li>• Supported by relating permitting/inspection training, funding</li></ul>
	<b>Lead:</b>	Building Decarbonization Coalition Utilities (contributor) ngos(contributor) CCAs Raters/Designers as contributors Local Governments (permitting etc)

# Priority Action #4 - All-electric Development and Building Recognition Program

<p><b>Action:</b> Create a statewide program to <b>voluntarily</b> certify buildings and developments to recognize and promote builders and contractors supporting decarbonization.</p> <p>“Lead by example”</p>	<p><b>Current Status:</b></p>	<p>Step ~1 (Plenty of examples exist)</p>
	<p><b>Specifications:</b></p>	<ul style="list-style-type: none"> <li>• Scoping study of what an All-electric development and building recognition program (such as Gold Medallion) could include. (Recognizes different building types/sectors/financing options)</li> <li>• Scoping could include: types of projects, forms of recognition, builder and designer appeal, administration of recognition, ownership of the program, market interaction and other considerations.</li> <li>• Study would recommend a proposed recognition program and components.</li> </ul>
	<p><b>Lead:</b></p>	<p>Building Decarbonization Coalition Utilities CCAs Division of the state architect</p>

# Priority Action #5 - Contractor Support and Accreditation Program

<p><b>Action:</b> Support contractors move to decarbonization through inquiry, <b>recognition</b>, assistance and policies.</p> <p>Include Designers/Architects</p>	<p><b>Current Status:</b> Some utility assessments on residential side</p>
	<p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Market assessments of residential and commercial contractors in California</li> <li>• Recommendations for policies, programs, permitting a building - training included</li> <li>• Create and maintain a centralized resource for contractors to access information on best practices, technology, programs</li> <li>• Create building electrification professional designation.</li> </ul>
	<p><b>Lead:</b></p> <p>Building Decarbonization Coalition  Utilities  CCAs  CSLB (some details from previous solar initiatives)  Contractor/Workforce Organizations  CEC</p>

# Priority Action #6 - Marketing Campaign

<b>Action:</b> Release a marketing campaign to raise awareness and increase interest in building decarbonization	<b>Current Status:</b>	BDC fundraising and scoping underway
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>● Market Research</li><li>● Electrification/Decarbonization Hotline</li><li>● One-stop online resource for decarbonization</li><li>● Includes contractor recognition side</li><li>● Traditional and social media advertising</li><li>● Available material in multiple languages</li><li>● Supporting an active presence at live events to support decarbonization</li></ul>
	<b>Lead:</b>	Building Decarbonization Coalition CARB

# Priority Action #7 - Induction Cooktop Campaign

<b>Action:</b> Launch induction cooktop campaign to educate consumers about benefits of induction cooking  *Distinct from the Marketing Campaign	<b>Current Status:</b>	Square 1
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>● <b>Celebrity Chef partnership</b></li><li>● Education component</li><li>● Drive product placement</li><li>● Develop local induction cooktop lending programs</li><li>● Commercial Restaurants specific focus (quick serve chains)</li><li>● Need for <b>cross-training</b> to include cooktops</li></ul>
	<b>Lead:</b>	Building Decarbonization Coalition Utilities CCAs California Restaurant Association Manufacturers appliance + cookware (Cuisinart?) Realtors American Lung Association (Example partnership)

# Priority Action #8 - Building Electrification Finance

<p><b>Action:</b> Develop and launch low-cost, easily accessible financing options for building owners to access and contractors to sell.</p> <p>(All sectors, not just residential) - Emphasis on retrofits?</p>	<b>Current Status:</b>	1.0
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>• Conduct research into best practices and possible directions California could take to attract private investment at scale.</li><li>• Hold no less than two convenings of stakeholders to discuss how to develop California's electrification progress in a way that encourages private investment.</li><li>• Produce a report to guide policy and programs seeking to encourage investment.</li></ul>
	<b>Action Lead:</b>	Building Decarbonization Coalition Agencies that develop housing (LITEC funding mechanism)

# Priority Action #9 - Electrical panel and service innovation

<p><b>Action:</b> Offer a statewide electric panel upgrade program, developed in cooperation with efforts to promote electric vehicle adoption and strategically focused to provide greatest grid and rate-payer benefit.</p> <p>(Includes panel upgrade alternatives - batteries or other)</p>	<b>Current Status:</b>	Step 1.5 (SCE, PG&E, CCA panel upgrade programs)
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>• Research the issues related to electrical panels and service and the barriers they present for electrification.</li><li>• Convene stakeholders for a one-day Electrical Panel Summit to discuss challenges, solutions, innovations and other issues regarding electrical panels and service.</li><li>• Produce a white paper on the state of the electrical panel and service and opportunities for upgrading, innovation, considerations for market players and analysis of policy needed.</li></ul>
	<b>Action Lead:</b>	Building Decarbonization Coalition



# Priority Action #10 - Reach Code Support

<b>Action:</b> Support local governments adopting decarbonizing reach codes.	<b>Current Status:</b>	Step __ (20-30 local governments looking to implement for 1/1/20)
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>• The Coalition will host a local government reach code coordinating group.</li><li>• The Coalition will develop an assessment of local government and builder needs</li><li>• The Coalition will assist in the development of rules, policies, and initiatives needed to help local governments and builders</li><li>• Need for outreach</li></ul>
	<b>Action Lead:</b>	Building Decarbonization Coalition CCAs CPUC Utilities CEC Environmental NGOs

# Priority Action #11 - Addressing Legacy Systems

<b>Action:</b> Open proceedings at the CPUC to evaluate, design and potentially implement measures to provide a just and safe transition away from legacy infrastructure. (that undermines progress toward climate and energy goals.)	<b>Current Status:</b>	
	<b>Specifications:</b>	<ul style="list-style-type: none"><li>● Coalition contributes to members pursuing this action?</li><li>● More complete assessment of the challenge before a formal rulemaking process</li></ul>
	<b>Lead:</b>	Building Decarbonization Coalition CPUC Environmental NGOs Utilities RMI

# Now let's prioritize...

Which two of the top 11 are your highest priority?  
Which two would you miss the least?



Comprehensive



Strategic

Survey



# Case Study Input:



Purpose:

- Make the goals and actions of the Coalition tangible for non-practitioners
- Show the Coalition is not alone in pursuing these goals

Example: Walmart's "[A Policy Roadmap to Renew U.S. Manufacturing](#)"

## Case Study Input:



“These examples demonstrate that effective public policy can come in many shapes and sizes, and that a variety of stakeholders will need to coordinate in different ways in order to overcome often complex, inter-connected barriers to growth.”

*What should the BDC examples be? What barrier would the example address and what outcome would be promoted?*

# BDC Next Steps



December 18	Roadmapping Session (3/3): Trade-offs, Strategies, and Priorities
January 7	Draft Roadmap #3
January 14	Final Stakeholder Feedback Due
January 21	Final Roadmap Available
January 28	Final Opportunity to Sign-on as Formal Stakeholders

# BDC Next Steps



- Our next draft will be distributed on 1.07, requesting comments be provided by 1.14
  - Current [Draft Roadmap](#) available here
- The [Gridworks BDC](#) landing page will continue to be updated as we receive comments and develop the Roadmap.
- Please take Survey on BDC Roadmapping by January 28 at <https://goo.gl/forms/hH5EWNebSFOSPUEN2>

# Priority Action #8 - Project Recognition Program

<b>Action:</b> Developing local and regional partnerships focusing on identifying the best executed projects in building decarbonization helps to showcase new ideas, novel approaches, and best practices in installation, design, and decarbonization.	<b>Status:</b>	
	<b>Specifications:</b>	
	<b>Lead:</b>	



<https://www.surveymonkey.com/r/8HSTHXW>



Survey on highest/lowest priority actions [available here](#)

QR Code to survey:

