



# Building Decarbonization Coalition

Roadmapping Session (2/3)

November 9, 2018

Remote Access:

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

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

# Introduction:



## Goals of today's meeting:

Building on our October meeting assessment of goals and barriers, *identify a list of potential actions to take, who needs to take them, when and how.*

*The list will be harmonized in the next draft of the Roadmap and you will be able to review and comment on that draft.*

## Goals of future meetings:

- Meeting 3 - Prioritize what action the Coalition will take

# Agenda:



- 10:00-10:15 - Introductions and Purpose Outlining
- 10:15-10:45 - Recap Targets, Barriers, Goals
- 10:45-12:00 - Identifying Action We Can Take -- Exercise
- 12:00-12:45 - Lunch
- 12:45- 1:45 - Identifying Action We Can Take -- Group Discussion
- 1:45 - 2:15 - Rolling it Up
- 2:15 - 2:30 - Next Steps for the Coalition

# Guidelines for the Day:



- Be present and engaged.
- Step Up, Step Back. Be mindful of taking up much more space than others.
- On the same note, empower yourself to speak up when others are dominating the conversation.
- Contest ideas, not people.
- Speak your discomfort. If something is bothering you, please share this with the group.
- We are all responsible for the productivity of this meeting.

# Recapping Targets, Barriers, and Goals:



- The following is material Coalition members are invited to critique through comments on the [Draft Roadmap](#). Your input is due November 16.
- Today we are focused on getting your input on a different question: actions we can take relative to this material.

# Recapping Targets, Barriers, and Goals:



**Figure 1: Decarbonization Targets by Sector**

	Residential	Commercial
New Buildings	2025: Zero Emissions Building Code	2028: Zero Emissions Building Code
Retrofits	% GHG reduction below 1990 levels from the overall building stock: 2025: 20% GHG reductions from building sector 2030: 40% GHG reductions from building sector 2045: 100% GHG reductions from building sector	

# Recapping Targets, Barriers, and Goals:



## *Cross-cutting Goals:*

- Ensure market transformation through a long-term commitment to goals and incentives.
- Ensure building decarbonization is being delivered as an opportunity for all communities and not disproportionately burdening customers least likely to be able to overcome the awareness and capital costs barriers.
- Identify, fund, oversee, and proactively leverage targeted research and development initiatives which would raise awareness, provide insight into the value, streamline prompt delivery, and better align policy, in support of building decarbonization.
- Provide the industry clear, unambiguous recognition of the challenges California faces in building decarbonization and the value of overcoming those challenges, then let California's innovators design the business models to meet the need. Keep it simple and do not micromanage.

# Recapping Targets, Barriers, and Goals:

- 1) **Builder and Contractor Value Proposition:** builders and contractors are critical to the success of building decarbonization. The value proposition for them needs to not only be clear but unambiguously preferable to fossil-fuel heating.

***Goal: Make Decarbonization More Valuable to Builders and Contractors Than Fossil-fuel Heating***

- *Offer financial, recognition and marketing programs that flip the value proposition*
- *Engage, train, certify and motivate builders and contractors to promptly offer high-quality carbon-free solutions.*
- *Promote assessment of builders and contractors to encourage better performance and recognize leaders*
- Study and promote leading fuel substitution business models (e.g. HVAC + PV retrofits)
- Study and promote the most customer-valued decarbonization benefits to support contractor sales

# Recapping Targets, Barriers, and Goals:



**2) Lack of Awareness:** While the necessary technology has matured and is able to efficiently address customer needs throughout the state, customers and contractors are largely unaware of the benefits.

## **Goals: Increase Awareness**

- *Increase awareness of carbon-free technologies among customers, contractors, and policy-makers.*
- *Draw on research, pilots, and experience from other regions to dispel myths and raise awareness of benefits of decarbonization.*
- *Tailor messages to reach all-customers, with emphasis on reaching underserved communities where the benefits of decarbonization are significant.*
- *Leverage co-benefits with like-minded initiatives, such as rooftop solar and electrification of transportation.*

# Recapping Targets, Barriers, and Goals:

**3) Customer Value:** While the long-term benefits may outweigh the costs, customers adopting a high-efficiency heat pump for space and water heating must shoulder a relatively high upfront cost, especially if natural gas piping is still required. Policy-makers who would advance building decarbonization policies through progressive building codes or incentive policies also encounter friction stemming from this barrier.

## **Goal: Improve Value Proposition**

- *The full benefits of building decarbonization are recognized in policy and incentives to encourage adoption are commensurate with those benefits.*
- *Rate designs reorganized to remove financial disincentives.*
- *Weatherization measures which lower costs of decarbonization are accelerated.*
- *Equipment and delivery cost reductions are achieved through targeted interventions in the supply-chain and sharing of infrastructure costs, such as electric panel upgrades.*
- *Financing solutions allowing customers to amortize up-front costs over time and leverage sources of low-cost capital.*
- *Combined, lower costs and increased incentives make the financial benefit of choosing high efficiency space and water heat pumps outweigh the costs within 3 years of purchase by 2022.*

# Recapping Targets, Barriers, and Goals:



**4) Technology Adoption:** the current deployment of heat pump technology and high performance electric cooking, such as induction, is too low to take advantage of the clean electricity being provided to California's buildings and play a meaningful role in the State's decarbonization. These technologies need to substantially increase and soon become the default purchase.

## **Goal: Increase Heat Pumps and Induction Cooking Market Share**

- *Increase the percent of high efficiency heat pumps for space heating from \_\_% of sales in 201\_\_ to 50 % in 2030.*
- *Increase the percent of high efficiency heat pumps for water heating from \_\_% of sales in 201\_\_ to 50 % in 2030.*
- *Increase the percent of high performance electric induction cooking from \_\_% of sales in 201\_\_ to \_\_% in 2030.*

# Recapping Targets, Barriers, and Goals:



**5) 72-Hour Window Emergency Replacements:** customers who lose space and water heating usually replace a failed unit within 72 hours, providing a very narrow window of opportunity to encourage an unfamiliar solution.

## **Goal: Ease Delivery**

- *Mitigate the barrier in the short-term through patches which extend the window of opportunity.*
- *Increase the quantity, quality and performance of available technologies through proactive engagement with the manufacturing community, including engagement at a national scale.*
- *Engage, train, certify and motivate contractors to promptly offer high-quality carbon-free solutions.*
- *Develop portable temporary heating solutions to allow sufficient time to implement electric solutions*

# Recapping Targets, Barriers, and Goals:



**6) Misaligned Policy:** from code, to metrics, to rate design, to incentives, the regulatory framework favors other fossil-fuel sources of space and water heating.

## ***Goal: Align Policy***

- Evolve measures of success, shifting focus to emissions efficiency to reflect California's growing supply of renewable power.
- Anticipate and mitigate potential stranded costs to legacy systems which must continue to provide safe, reliable service during a period of transition.
- Replace policies which obscure the true value of decarbonization with alternatives that do.

# Identifying Action We Can Take:



- If these were the Coalition's targets and goals, what actions could be taken to realize them?
- Actively consider interdependencies and interactions between considered actions
- Collect all ideas first (today). Prioritize them second (December).

# Example of Today's Target Outcomes

ID#	Goal	Action	Actor(s)	Time Frame (S,M,L)
#	Bring shoppers back to main street in order to generate local jobs and grow our city's tax base			
#a	Ensure all businesses on main are open for the kid's halloween parade	<i>Creates and communicate the expectation to all businesses</i>	<i>Business Association Board of Directors</i>	<i>Short-term</i>
#b	Persuade the city to provide free parking during the holidays	<i>Introduce legislation asking City Council to require meter readers to stand down</i>	<i>Business Association attorney drafts code; city council acts on proposal</i>	<i>Medium-term</i>
#c	State law that ensures online competitors pay their staff a living wage	<i>Build a coalition of other local businesses across the state &gt; hire a lobbyist &gt; research other relevant state laws</i>	<i>County Association of Small Businesses</i>	<i>Long-term</i>

# Example 2: BDC Goals-Action-Actor Matrix



[BDC Goals-Action-Actor Matrix Sample \(Improve Customer Value Proposition\)](#)



# Identifying Action We Can Take

# Lunch



Thank you SCE!





# Identifying Action We Can Take

# BDC Next Steps



September 18	BDC Kickoff Meeting
October 25	BDC Roadmapping Session (1/3): Goals and Barriers for the BDC
October 29	Stakeholder Feedback Round 1 ("Roadmap Outline") Due
November 2	Draft Roadmap #1
November 9	Roadmapping Session (2/3): Opportunities to Address Barriers
November 16	Stakeholder Feedback Round 2 Due
November 29	Draft Roadmap #2
December 7	Stakeholder Feedback Round 3 Due
December 18	Roadmapping Session (3/3): Trade-offs, Strategies, and Priorities
December 23	Draft Roadmap #3
January 1	Final Stakeholder Feedback Due
January 15	Final Roadmap

# BDC Next Steps



- Please provide input on the first draft of the [Roadmap](#) by November 16.
- Our final Roadmap meeting will be in Sacramento on 12.18
  - additional information will be posted on the [Gridworks BDC](#) landing page and distributed by email