



# **Building Decarb Joint Action Plan**

**City of Sunnyvale  
Sustainability Commission  
January 19, 2021**

# Outline

1. Background
2. Building Decarb Joint Action Plan
3. Implementation

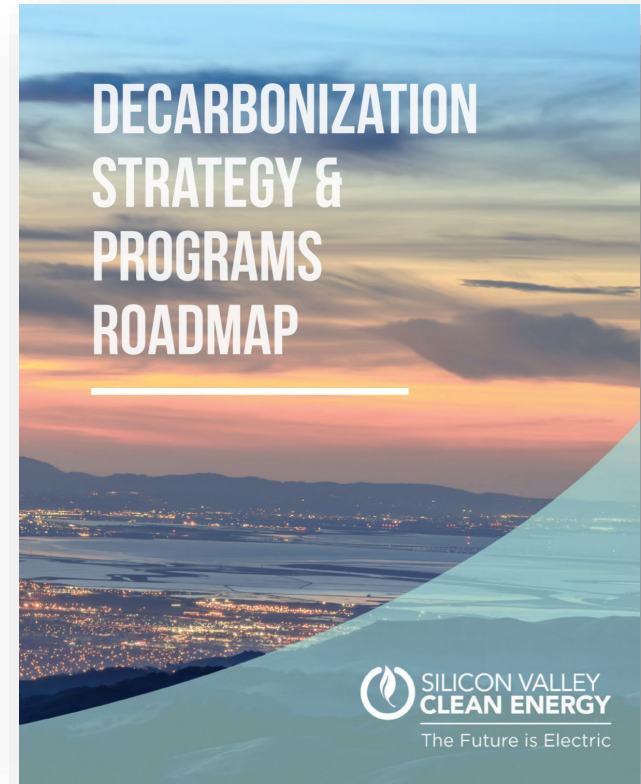
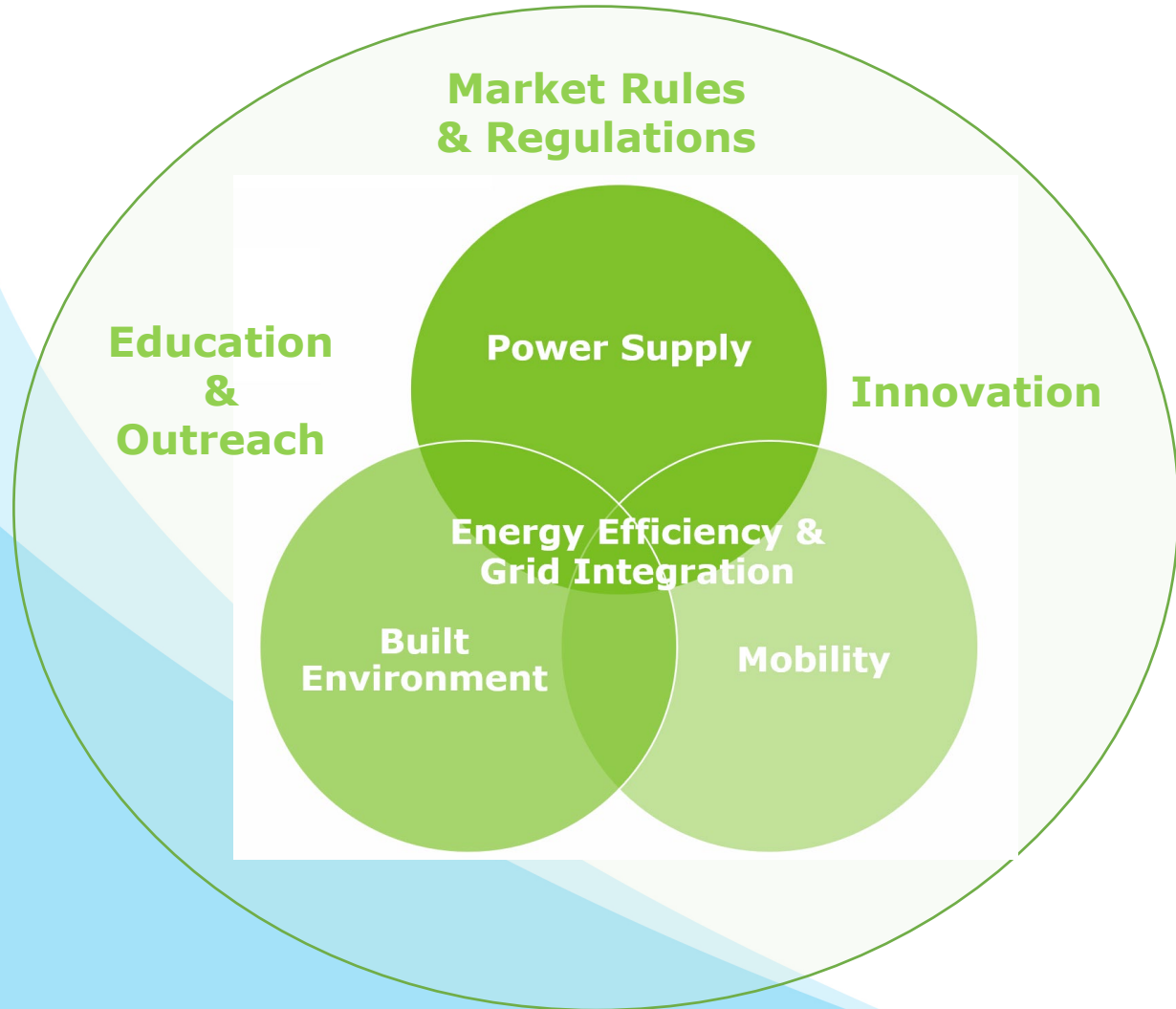
# Outline

## **1. Background**

## 2. Building Decarb Joint Action Plan

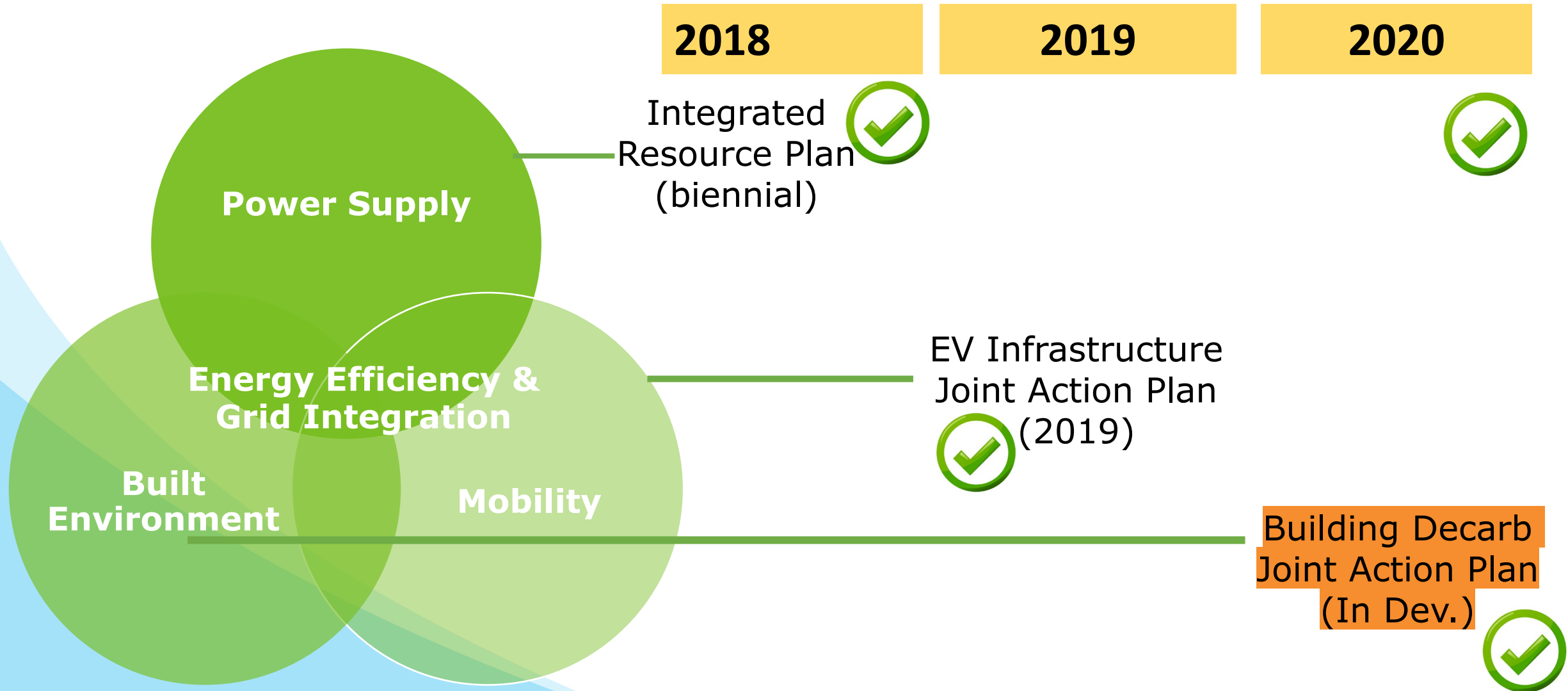
## 3. Implementation

# Overarching Approach



Decarb Strategy & Programs Roadmap (2018)

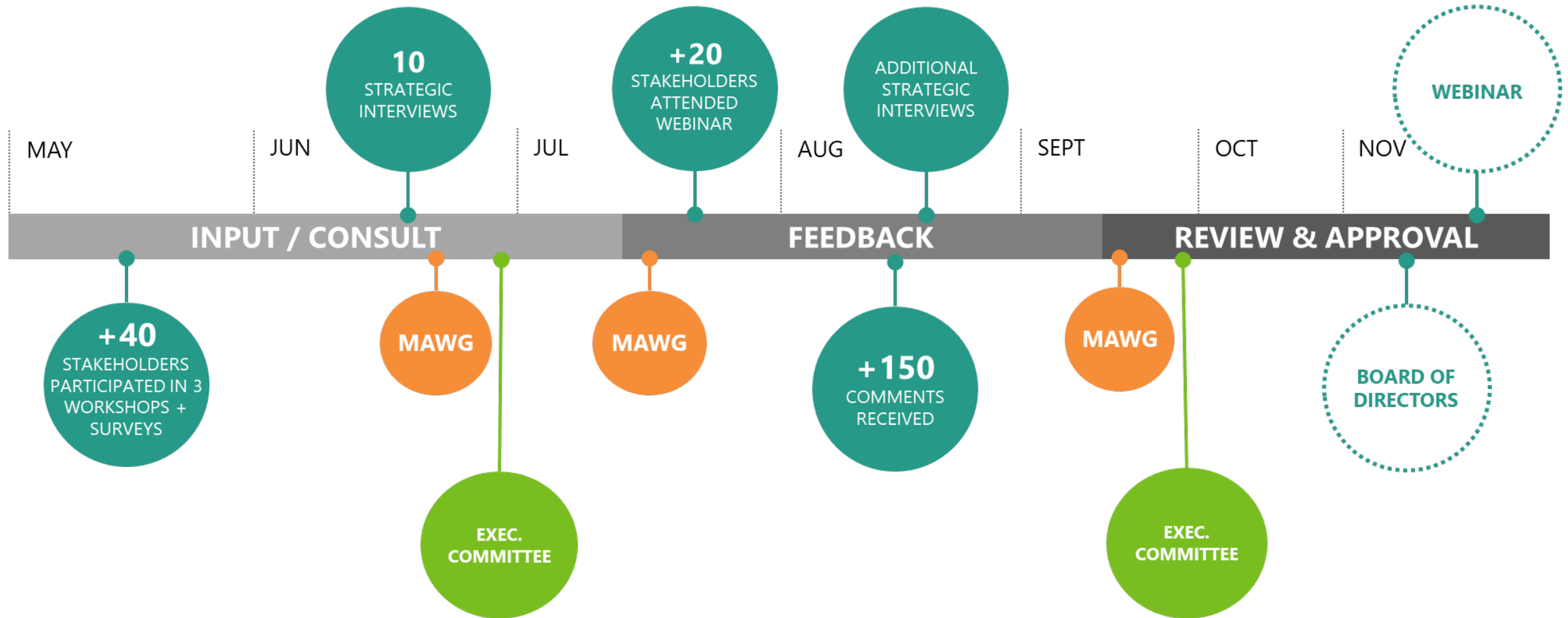
# Board has approved Sector-Specific Plans



# Summary of Process

- Feb 2020: BOD approved development of Plan as program priority
- Mar 2020: BOD approved Integral Group (IG) contract for support
- Apr–Jun: IG & staff carried out the following to develop draft:
  - Background research & analysis (“Buildings Baseline Study”)
  - Stakeholder surveys
  - 3 virtual workshops (attendee list in appendix)
  - 1:1 strategic interviews with key stakeholders
- Jul-Aug: Draft plan released for stakeholder input
  - Additional stakeholder surveys
  - Additional strategic interviews
- Aug-Sep: IG & staff synthesized input & updated draft

# Timeline of Stakeholder Feedback



*Note: Updates to BOD were also included in monthly CEO report & quarterly programs update*

# Outline

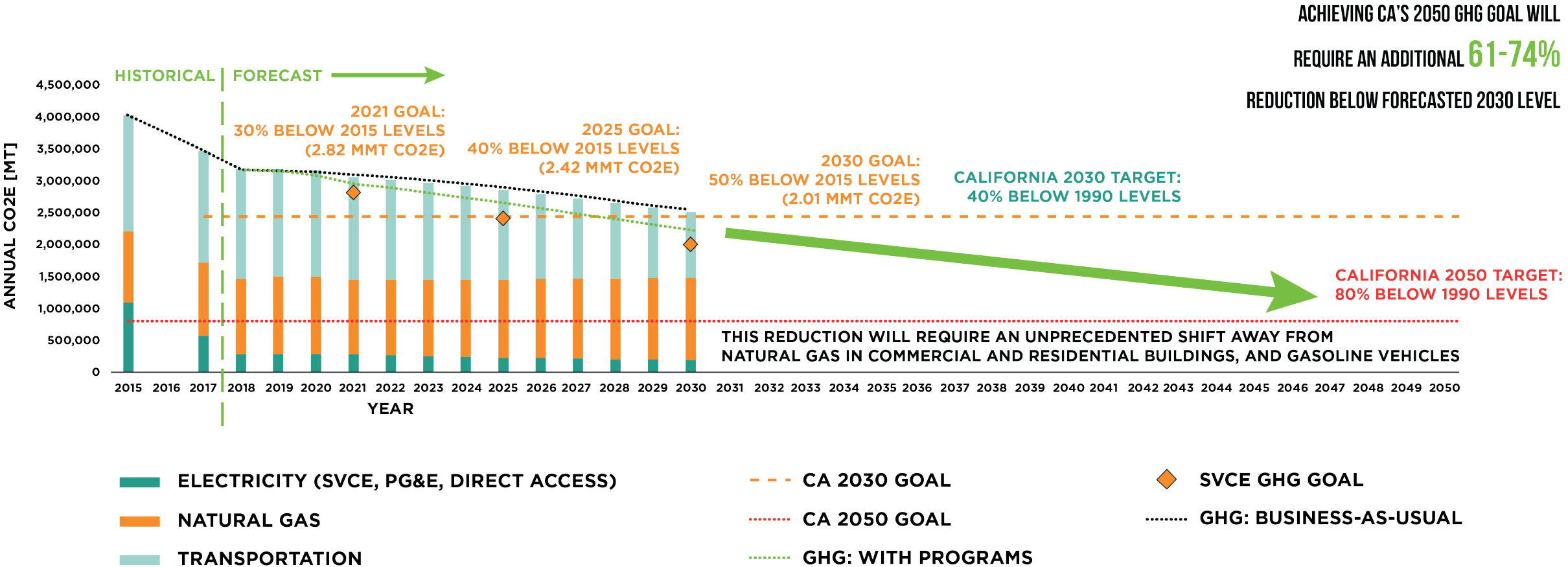
1. Background

**2. Building Decarb Joint Action Plan**

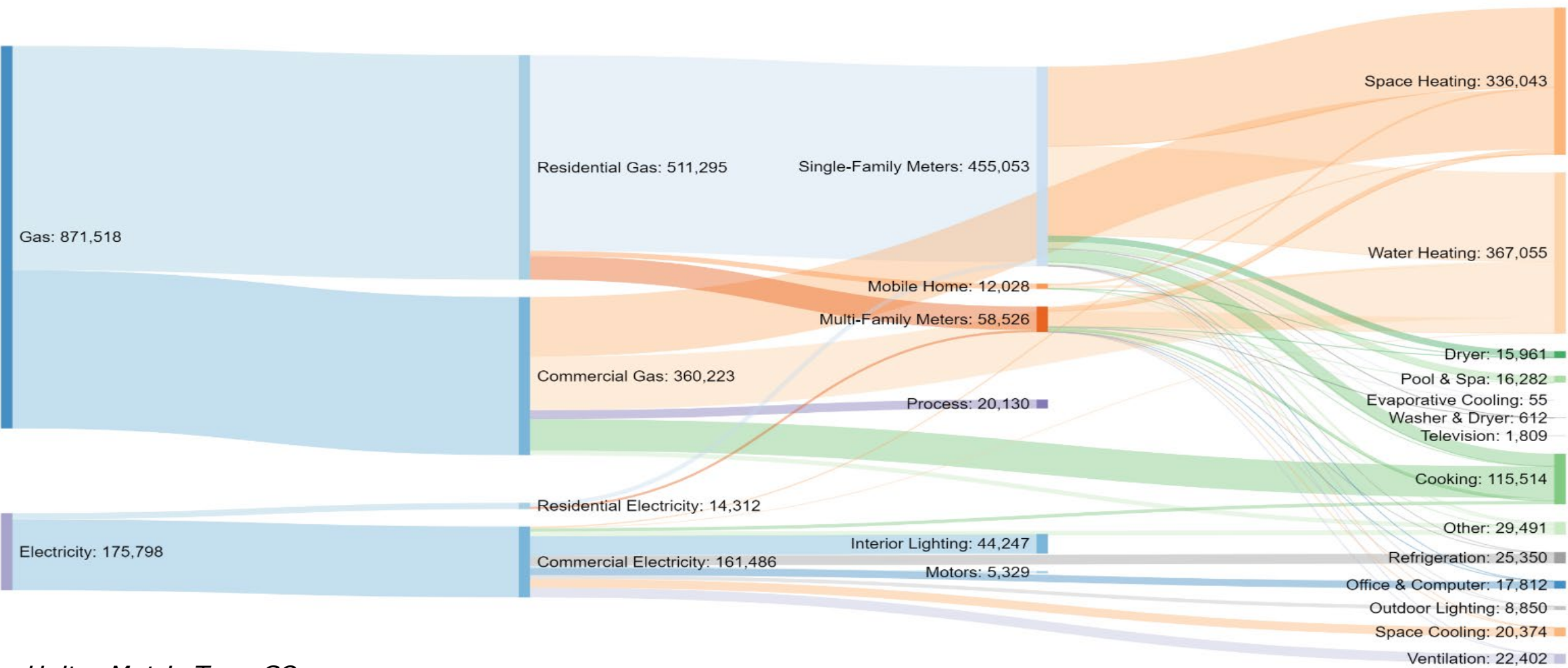
3. Implementation



# Community GHG Reduction Goals



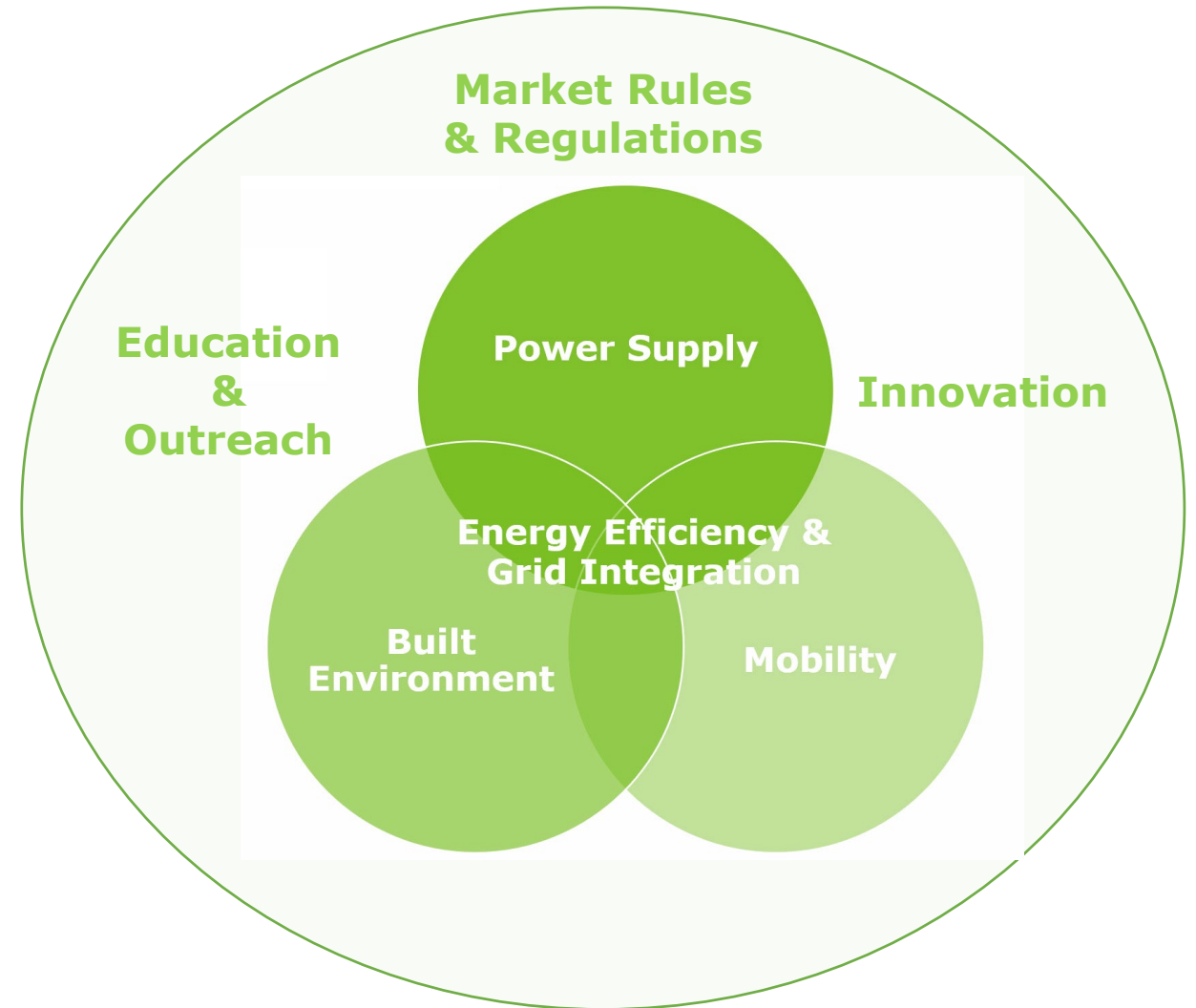
# SVCE Community Building Stock Emissions from Fuel Source to End Use



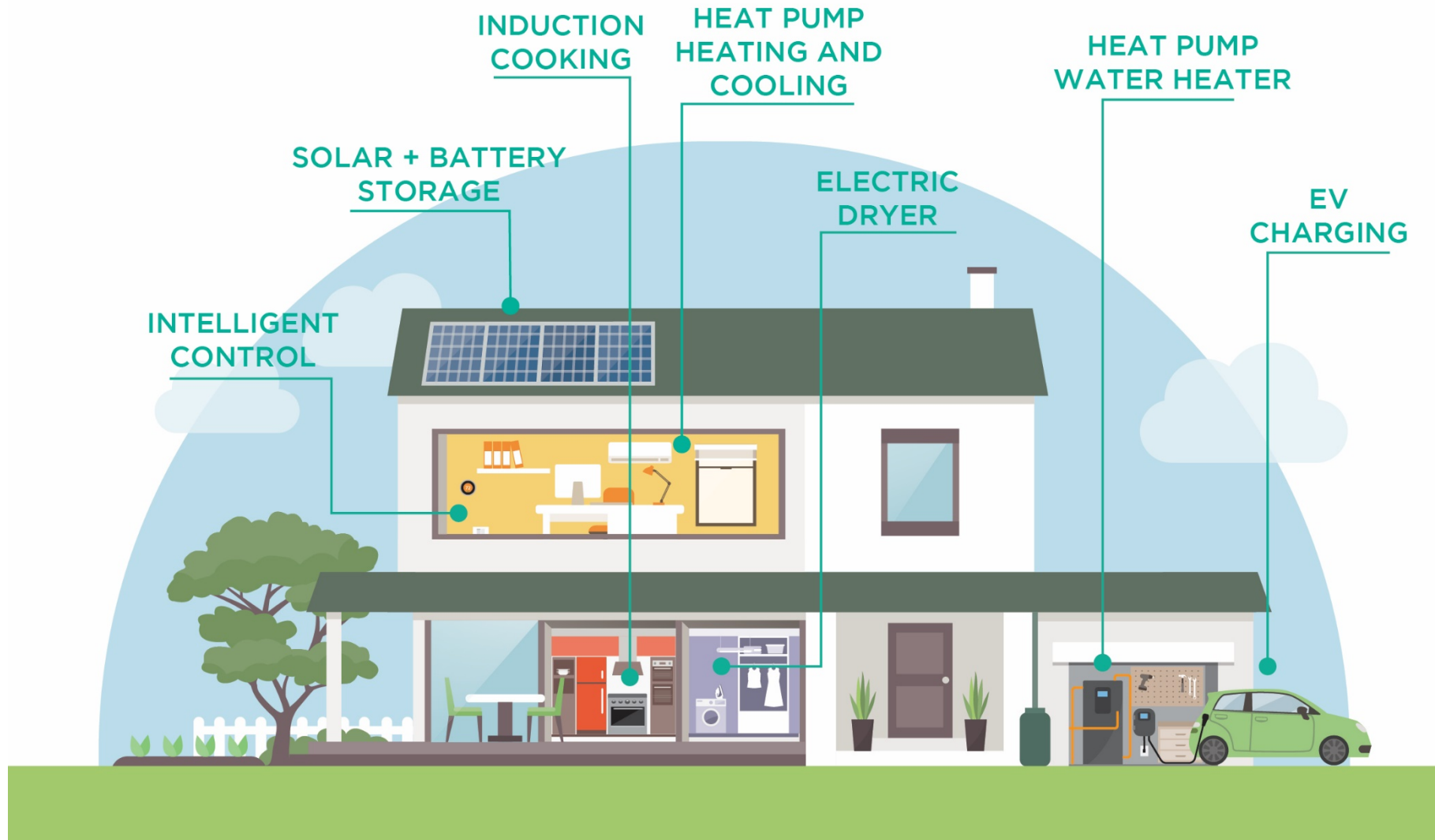
Units: Metric Tons CO<sub>2</sub>

# Overarching Approach

- Procure & maintain a sustainable, affordable and carbon-free **power supply**
- Electrify the **built environment** and **mobility**
- Promote **energy efficiency** & successful **grid integration**



# The All-Electric “FutureFit” Home



# Key Barriers to Electrification



*Barrier identification influenced by the Building Decarbonization Coalition's "Building Decarbonization Roadmap"*

# Suite of Interventions



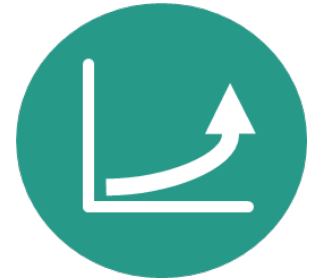
**Retail Products  
& Services**



**Education  
& Outreach**



**Public  
Policy**



**Market  
Transformation**

# Actions Developed Using Decarb Roadmap Strategic Framework

What will we do?



Retail Products & Services



Education & Outreach



Public Policy



Market Transformation

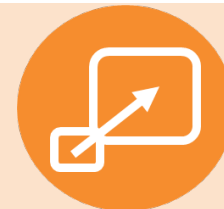
Which priorities will guide us?



Customer & Community Value



Emissions Impact



Scalable and Transferable



Equity in Service



Core Role for SVCE

How will we do it?



Innovation



Data



Partnerships

# SVCE & Member Agency Roles

## SPHERES OF CONTROL

### SVCE

- Clean Energy Supply
- Electricity Generation Rates
- Grid Integration
- Regional Coordination
- Financing & Incentives
- Innovation
- Public education

### Member Agencies

- Local Codes, Standards & Policies
- Permitting
- Land Use Planning
- Municipal Buildings
- Public education

## SPHERE OF INFLUENCE

### Other Stakeholders

- State Codes, Standards and Policies
- Regional Codes, Standards & Policies
- State & Regional Customer Programs
- Electric Grid Service, Rates & Modernization
- Industry Associations & Coalitions
- Environmental NGOs
- Manufacturers
- Labor & Workforce Associations
- Other CCAs, Local Governments, and Utilities



# Building Decarb Plan



## **New Construction**

*Accelerate  
transition to all-  
electric new  
construction*



## **Existing Buildings**

*Convert existing  
buildings to all-  
electric*



## **Market Development**

*Cultivate regional  
ecosystem for  
advancing building  
decarbonization goals*

# Building Decarb Plan



## New Construction

**NC1:** Reach Code Initiative 2.0



## Existing Buildings

**EB1:** Feasibility Assessment for Natural Gas Phase Out by 2045

**EB2:** Local Policy Options to Decarbonize Existing Buildings

**EB3:** FutureFit Homes & Buildings

**EB4:** Accessible Financing





## Market Development

**MD1:** Regional Coordination

# Building Decarb Plan





## New Construction

Activity Type	Barriers Addressed	Cornerstone Action
 Public Policy	 Misaligned Policy	<u>NC1: Reach Code Initiative 2.0</u> Evaluate the initial Reach Code Initiative and develop a second wave of Reach Code support that includes all new construction types as well as renovations.

# Building Decarb Plan







## Existing Buildings

Activity Type	Barriers Addressed	Cornerstone Actions
 Public Policy	 Misaligned Policy	<p><u>EB1: Feasibility Assessment for Natural Gas Phase Out by 2045</u> Carry out technical, economic and legal feasibility assessment of pathways to phasing out natural gas service by 2045.</p> <p><u>EB2: Local Policy Options to Decarbonize Existing Buildings</u> Support member agencies in evaluating feasible pathways to regulate existing building emissions and help develop model policy approaches.</p>

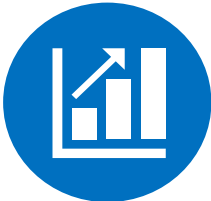
# Building Decarb Plan







## Existing Buildings

Activity Type	Barriers Addressed	Cornerstone Actions
 Retail Products & Services	 Low Perceived Customer Value	<u>EB3: FutureFit Homes &amp; Buildings</u> Provide comprehensive assistance to SVCE customers in navigating and accessing non-SVCE led energy programs and identify and address incentive gaps and layering opportunities.
	 Low Perceived Contractor & Builder Value	
	 Low Availability	<u>EB4: Accessible Financing</u> Assess feasibility of financing mechanisms to unlock equitable financing, particularly for low-income communities.

# Building Decarb Plan



## Market Development

Activity Type	Barriers Addressed	Cornerstone Actions
 Market Transformation	 Low Perceived Customer Value   Low Perceived Contractor & Builder Value   Low Availability	<p><u>MD1: Regional Coordination</u></p> <p>Initiate regular regional stakeholders meetings to coordinate program alignment; streamline access to incentive funds; identify strategies to lower costs; inform messaging and communication needs; and assess barriers and opportunities to workforce development.</p>

# Existing & Supportive Actions

## Activity Type

## Existing & Supportive Actions



### Retail Products & Services

- *Virtual Power Plant Initiative*
- *Retail Rates Assessment*
- *Electrical Distribution & Panel Capacity Assessment*



### Education & Outreach

- *eHub (formerly "Customer Resource Center")*
- *Regional Positive Messaging Campaign*
- *SVCE's "Watts for Lunch"*



### Public Policy

- *State Policy Coordination & Advocacy*
- *Regional Policy Coordination*
- *Streamlining Community-Wide Electrification*



### Market Transformation

- *FutureFit Fundamentals Contractor Training*
- *Innovation Partners & Innovation Onramp*
- *Research & Development Support*

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# Budget Allocation & Tentative Timeline for Implementation

- \$6M budget allocation: \$2M/year for FY21-FY23
- Tentative timeline for phased program deployment:

Deployment Phase	Cornerstone Actions
Phase 1 (2021)	<ul style="list-style-type: none"><li>• Reach Code 2.0 (NC)</li><li>• FutureFit Homes &amp; Buildings (EB)</li><li>• Regional Coordination (MD)</li></ul>
Phase 2 (2022)	<ul style="list-style-type: none"><li>• Feasibility Assessment for Natural Gas Phase Out by 2045 (EB)</li><li>• Local Policy to Decarbonize Existing Buildings (EB)</li><li>• Accessible Financing (EB)</li></ul>

# Thank you! Questions?

# Appendix



# Attendees – Virtual Workshops in May 2020

## Workshop 1: Policy

Carbon-Free Mountain View

EHDD Architecture

BAAQMD

Santa Clara County

Sonoma County Regional Climate  
Protection Authority [RCPA]

City of Cupertino

City of Los Altos

City of Morgan Hill

City of Mountain View

City of Sunnyvale

## Workshop 2: SVCE-Led Programs

SMUD

Infinera

East Bay Community Energy

Ardenna Energy

City of Palo Alto

Rocky Mountain Institute

Carbon Free Mountain View

California Energy Commission

Peter Turnbull and Associates

Peninsula Clean Energy

Electric Power Research Institute

## Workshop 3: Overview

MidPen Housing Corporation

Google

SummerHill

Carbon Free Silicon Valley

PG&E

Joint Venture Silicon Valley

City of Sunnyvale

CalCCA

Building Decarb Coalition

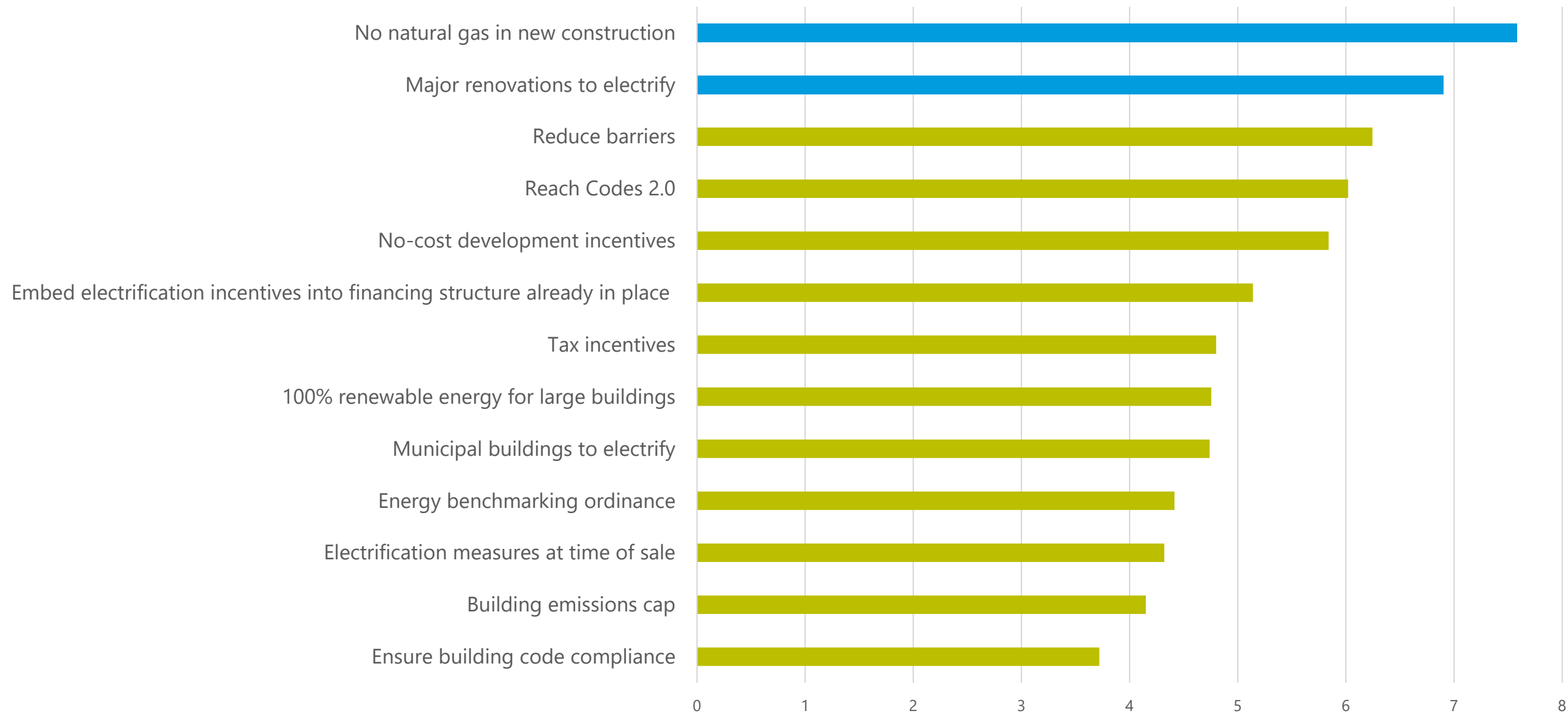
CPUC

Carbon Free Silicon Valley

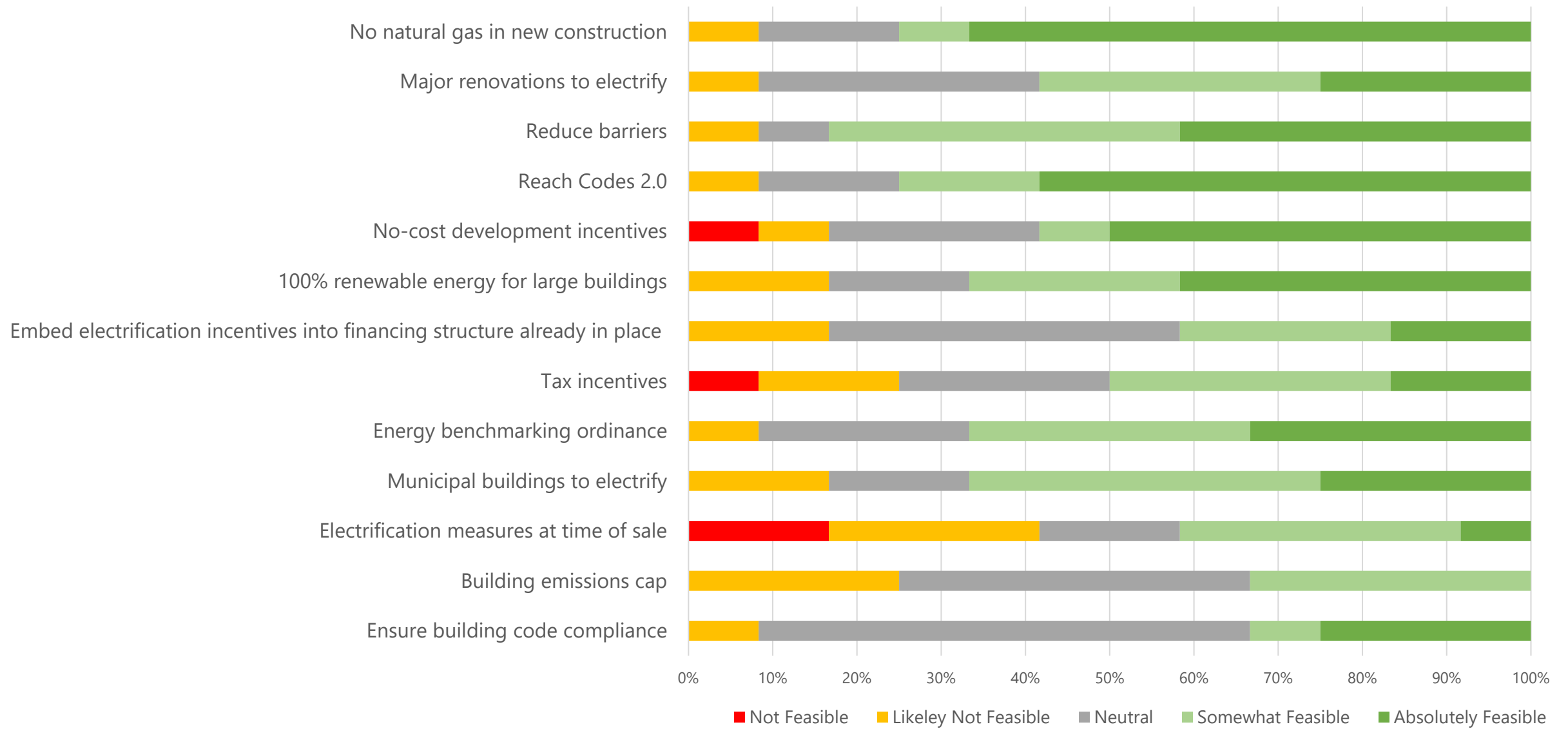
UA393



# Example Initial Survey Results – Prioritizing Decarb Policies



# Example Initial Survey Results – Feasibility of Policy Strategies



# Example Initial Survey Results – Additional Strategies Suggested

Research End of Gas Flow by 2035 ordinance

Develop combined washer/dryer lending program

Make climate action and building decarb a Council/BOS priority applied by jurisdiction staff across all actions

County-issued Green Bond to finance electrification retrofits of local government or private sector facilities

Align and amplify SVCE programs/messaging with City programs/messaging and vice versa

Engage with financing company like Redaptive or Carbon Lighthouse and/or build relationship with local credit unions to offer low or no-cost financing for electrification

Work with PG&E on gas pipe replacement avoidance districts

Eliminate the sale of tankless gas water heaters

Member Agency policies that could help with market readiness for electrification?

Encourage the design of grid adaptive buildings that help alleviate duck curve

"BE Ready" program requiring panel upgrades whenever major electrical work happens

Time-of-sale gas usage disclosure report

Utility Users Tax on natural gas

Technical support and market building for projects that directly benefit the community and consumer

Energy efficiency in general

Promote community solar projects



# Stakeholder Feedback on Draft

Based on review of 150+ comments:

- **Reorganized structure** to emphasize scale of challenge, clarify organization of actions, and incorporate visuals
- **Distilled cornerstone actions**, emphasizing partnerships and related external activities
- **Clarified roles of SVCE and MAWG** in context of state and regional action
- Incorporated section on **tracking and evaluation**