

Local Energy Codes

Tools for Reaching Your Climate Action Goals





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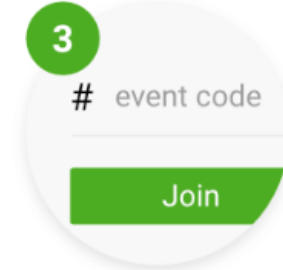
3 easy steps to join in.



Open browser



Go to slido.com



Enter event code:
#LocalEnergyCodes

IT'S TIME FOR OUR BUILDINGS TO MATCH OUR AMBITIONS

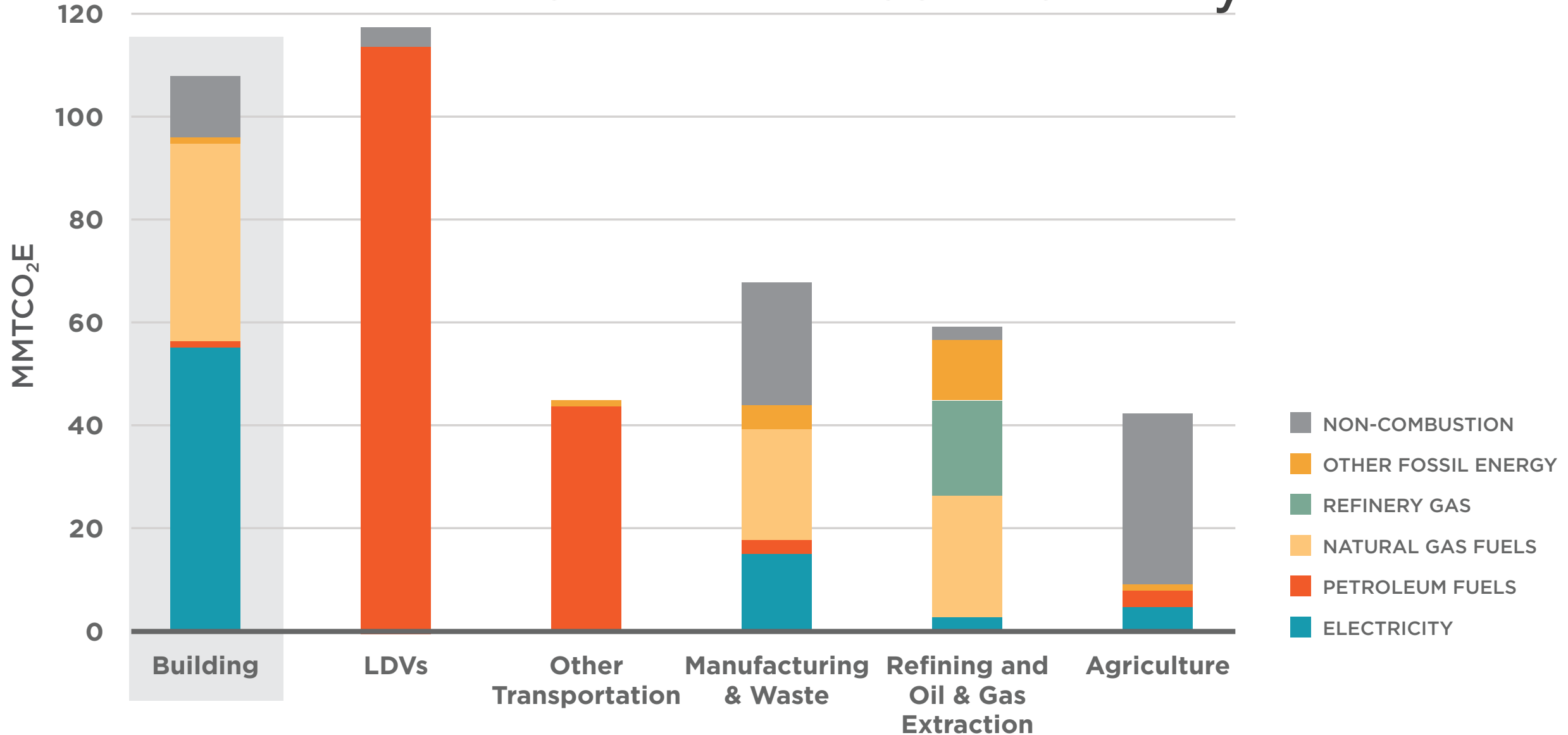
JOIN US



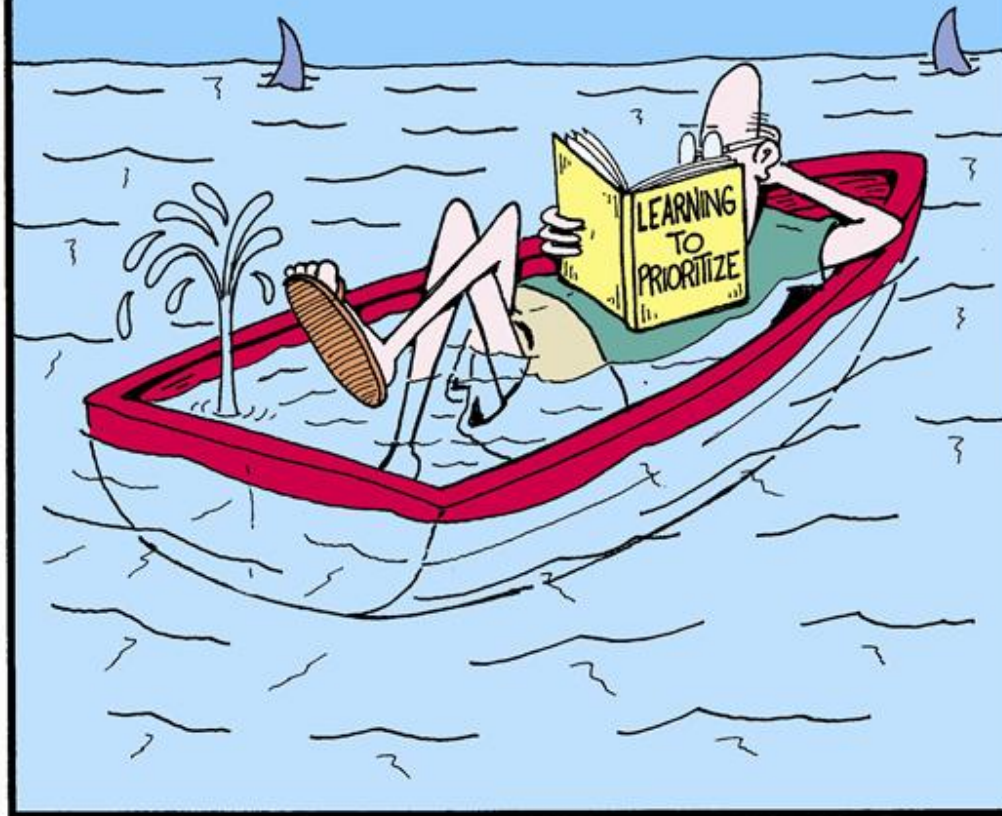
**BUILDING
DECARBONIZATION
COALITION**

Decarbonization is the Goal

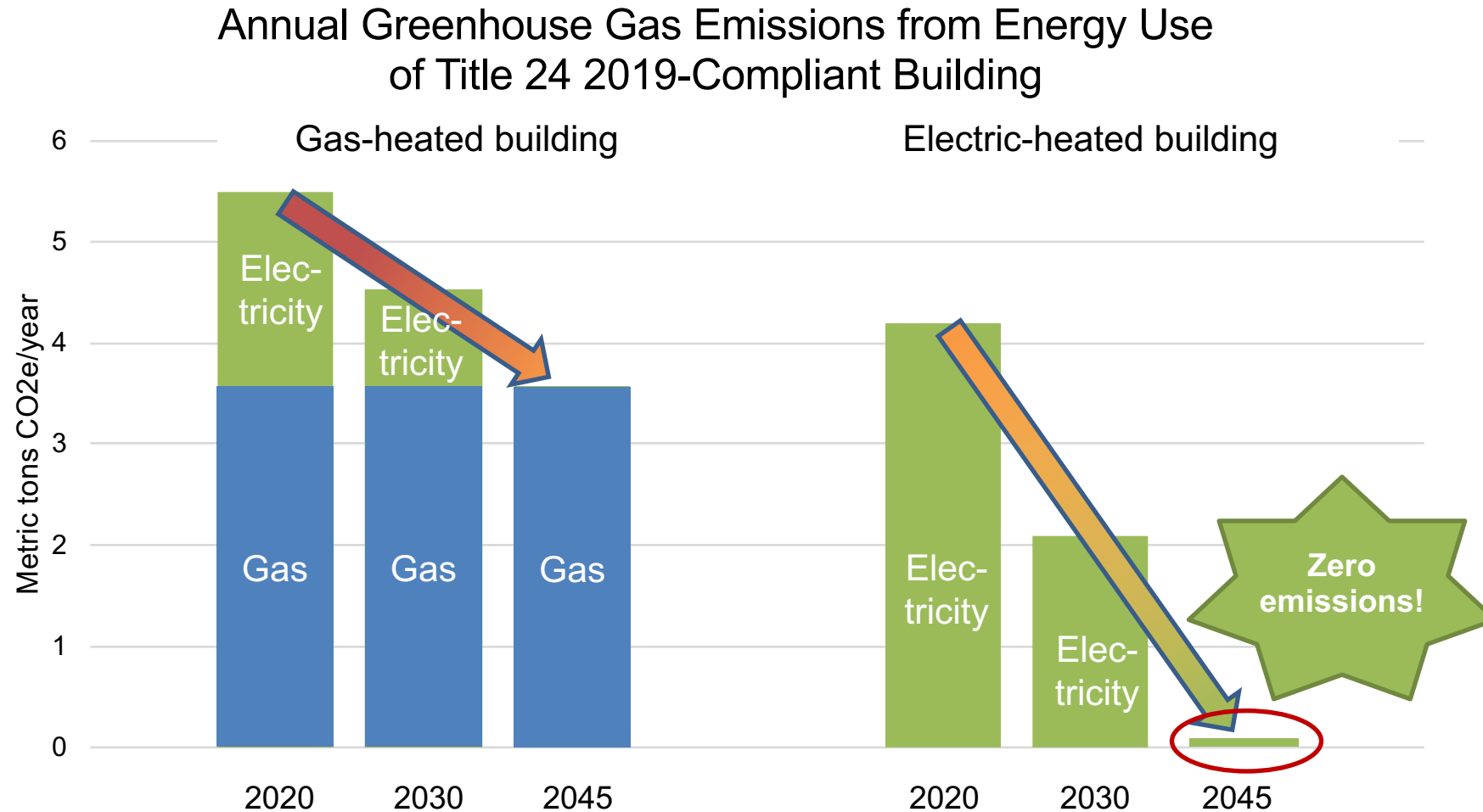
Buildings represent ~25% of California's GHG emissions today



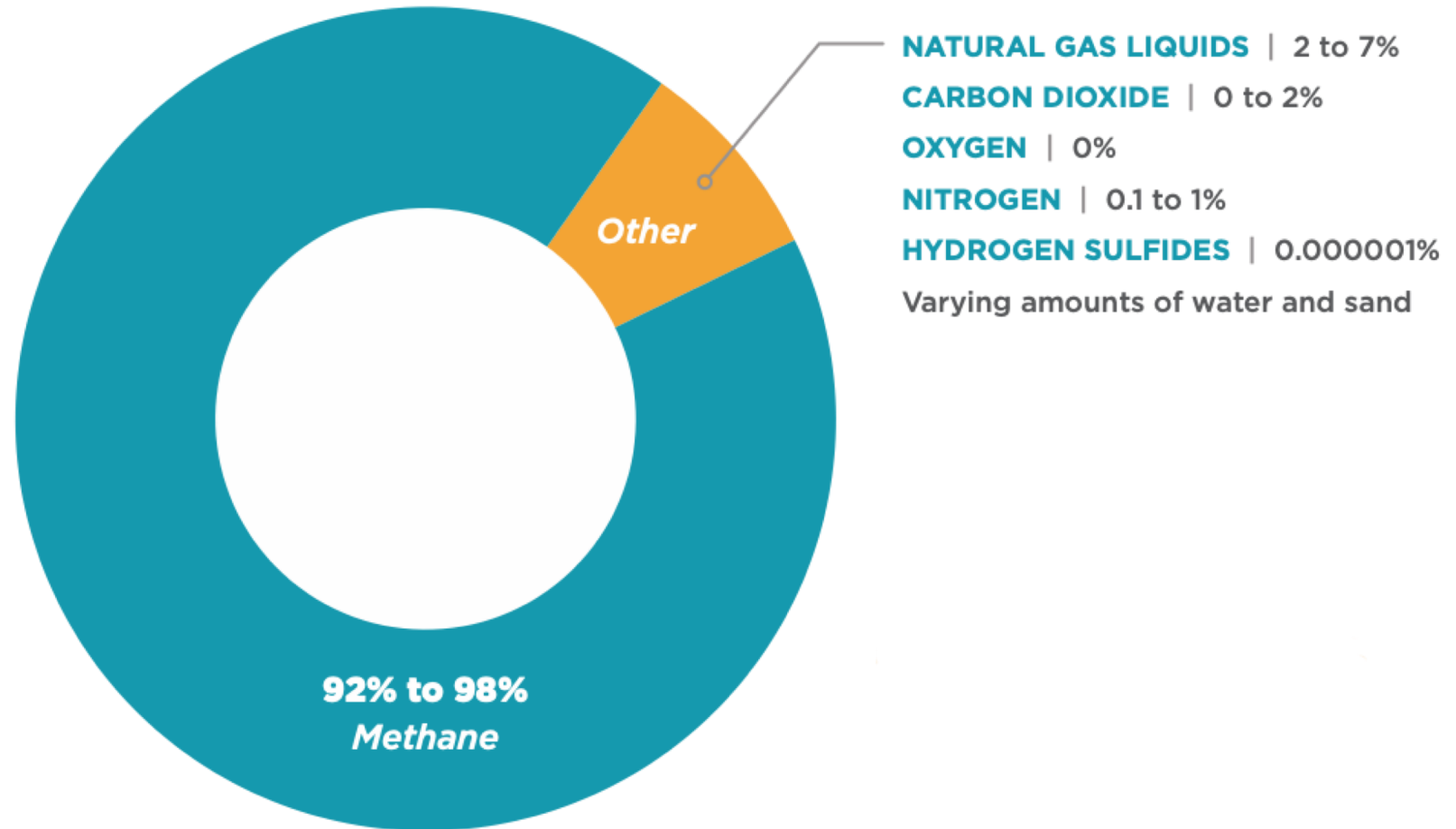
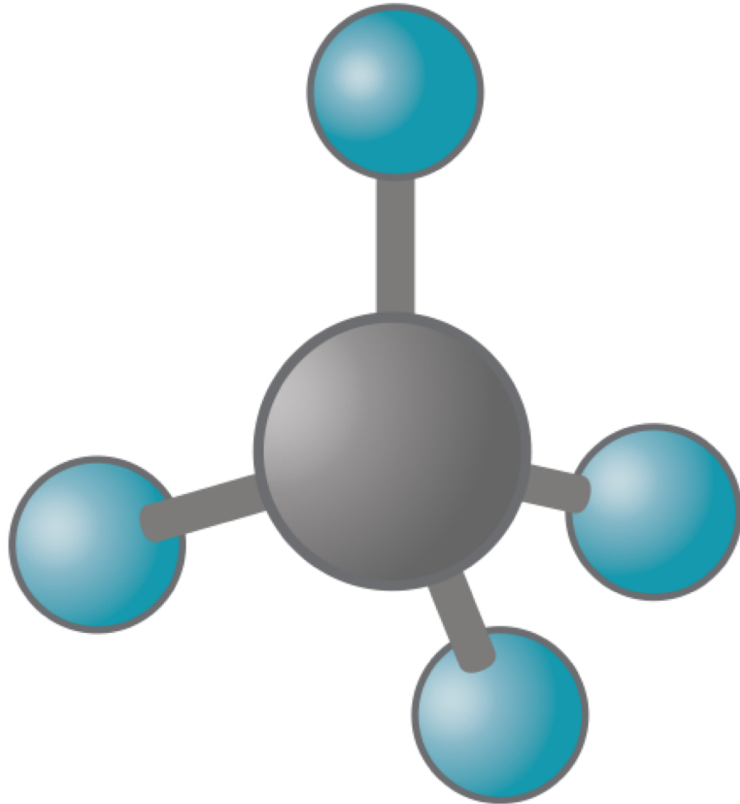
Rubes By Leigh Rubin



Electric Heat Offers Pathway To Zero Emissions



~~Natural Gas~~ Methane





METHANE IS

84x more potent
than CO₂ in the short run



Electric Buildings are ...

Cheaper

More Equitable

Healthier

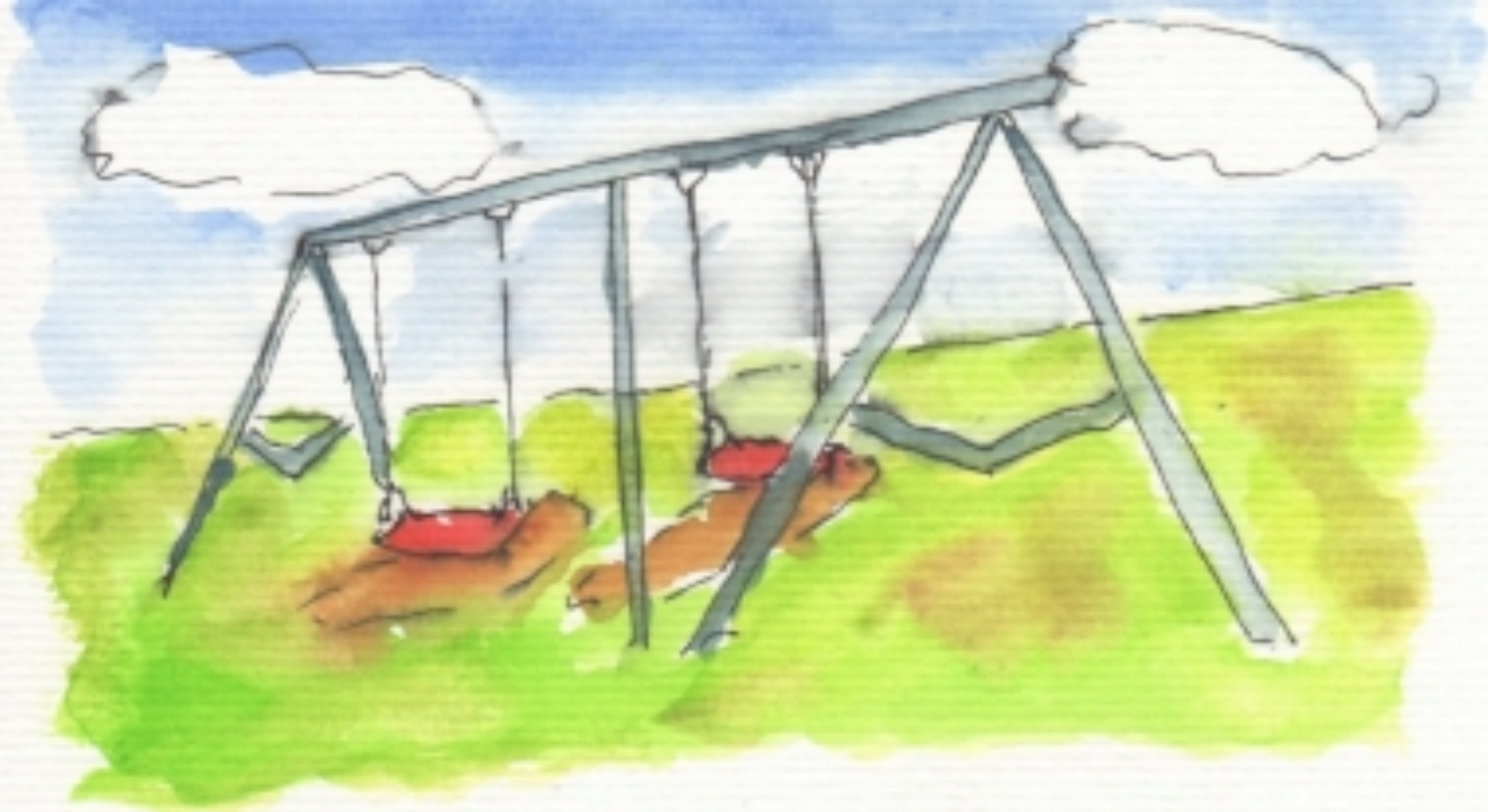
More Climate Friendly

Safer

Decarbonization is the Goal

Decarbonization is the Goal

We must start today to get there no later than 2045



THE FUTURE

Forty years from now
children will live in a world
shaped by our choices.



For more information:

Building Decarbonization Coalition
www.buildingdecarb.org

Amy Rider

Building Decarbonization Coalition

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California Energy Commission's Role in Local Reach Codes

2019 SEEC Forum



Gabriel D. Taylor, P.E.
June 27, 2019
California Energy Commission



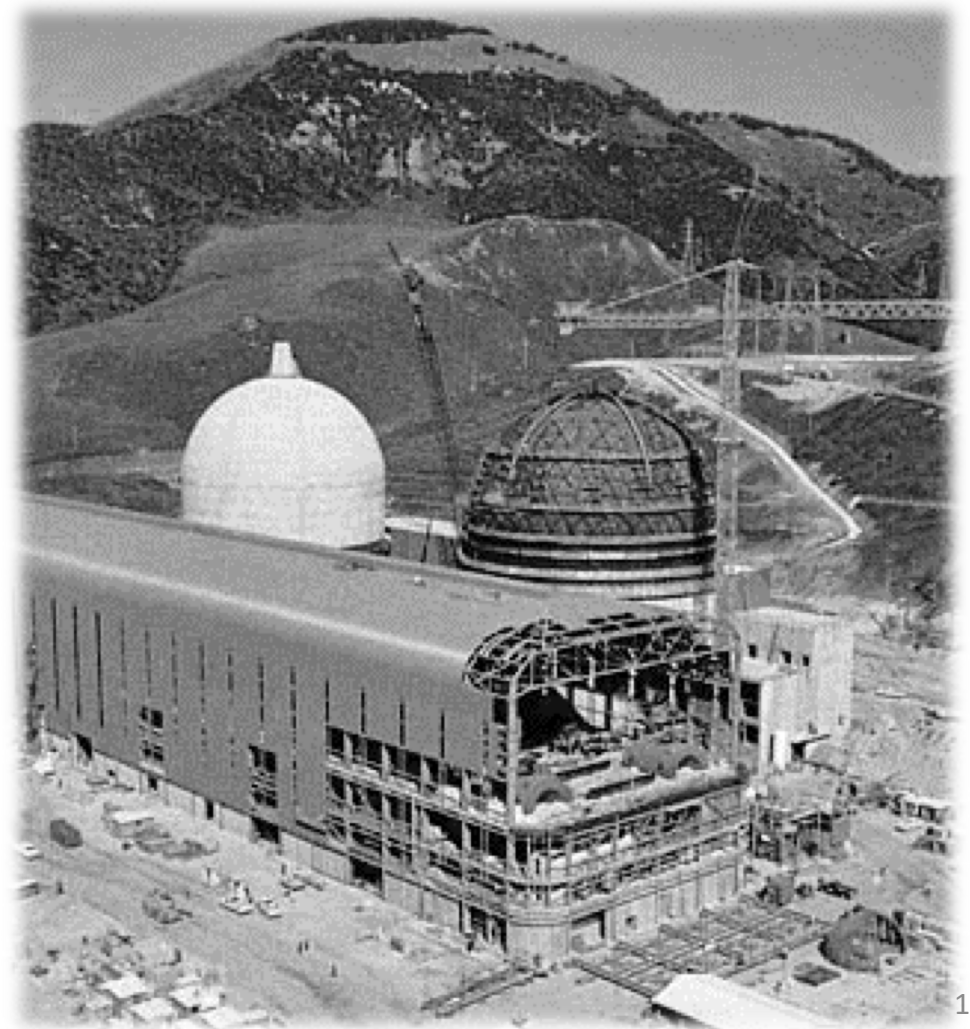
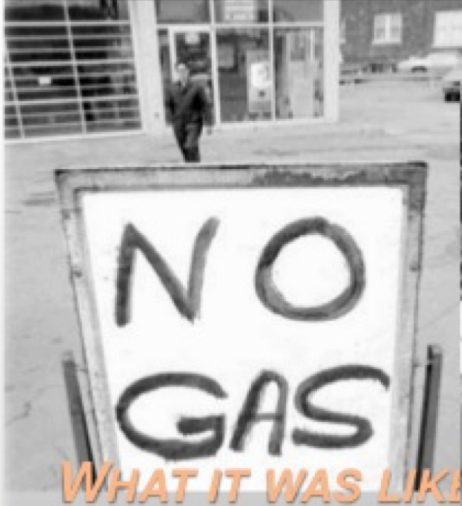
Goals

- History & Background
- Energy Commission Role
- Policy Context





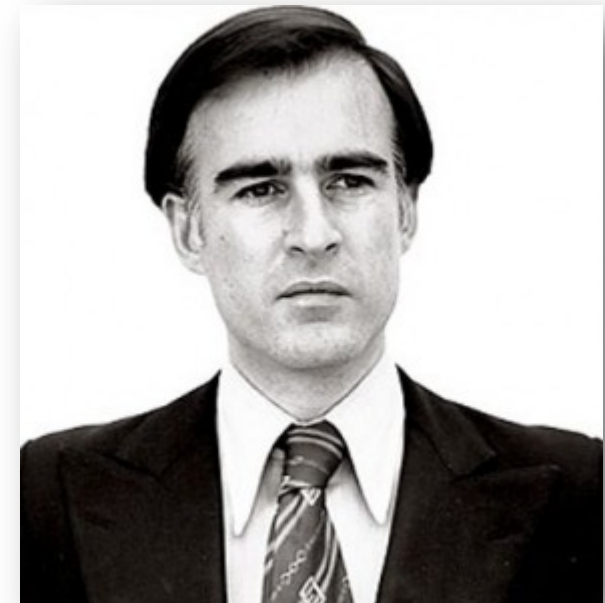
1973: Energy Crisis





1974 & 1975: The Warren-Alquist Act

Prescribe, by regulation, lighting, insulation climate control system, and other **building design and construction standards** that increase the efficiency in the use of energy...





California Energy Commission

- Energy Policy
- Power Plant Permitting
- Research & Development
- Emergency Planning
- Transportation Fuel
- Renewable Energy
- **Energy Efficiency**



California Code of Regulations

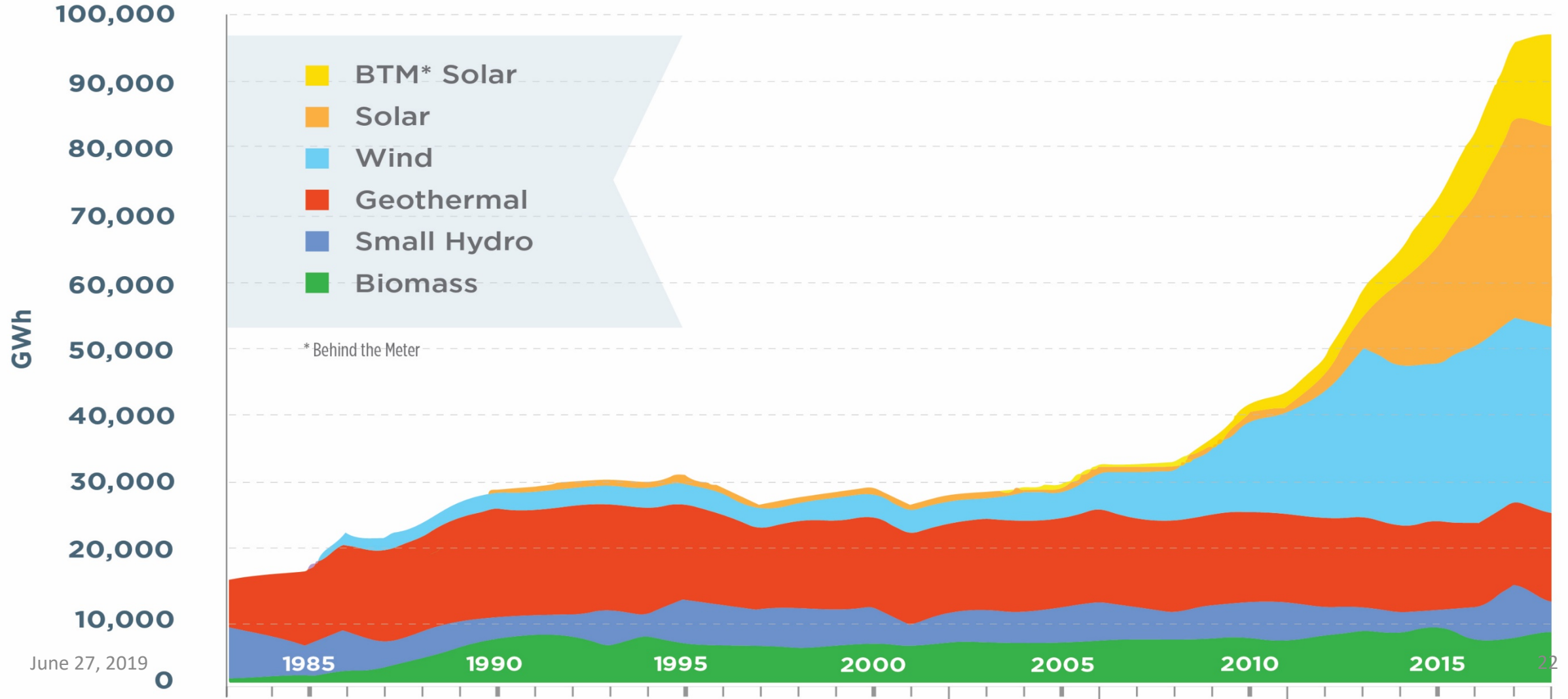
Title 24 (Building Standards)

Part 6 (Energy Code)





California Renewable Generation





SB 100

California Renewable Portfolio Standard Program

- 50% by 2026
- 60% by 2030
- 100% by 2045 (zero carbon)



Senate Bill No. 100

CHAPTER 312

An act to amend Sections 399.11, 399.15, and 399.30 of, and to add Section 454.53 to, the Public Utilities Code, relating to energy.

[Approved by Governor September 10, 2018. Filed with Secretary of State September 10, 2018.]

LEGISLATIVE COUNSEL'S DIGEST

SB 100, De León. California Renewables Portfolio Standard Program: emissions of greenhouse gases.

(1) Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations, while local publicly owned electric utilities, as defined, are under the direction of their governing boards. The California Renewables Portfolio Standard Program requires the PUC to establish a renewables portfolio standard requiring all retail sellers, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources, as defined, so that the total kilowatthours of those products sold to their retail end-use customers achieve 25% of retail sales by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. The program additionally requires each local publicly owned electric utility, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources to achieve the procurement requirements established by the program. The Legislature has found and declared that its intent in implementing the program is to attain, among other targets for sale of eligible renewable resources, the target of 50% of total retail sales of electricity by December 31, 2030.



AB 3232

Zero-Emissions Buildings and Sources of Heat Energy

- Residential and Commercial Buildings
- GHG 40% Below 1990 Levels
- By 2030



STATE OF CALIFORNIA
AUTHENTICATED
ELECTRONIC LEGAL MATERIAL

Assembly Bill No. 3232

CHAPTER 373

An act to add Section 25403 to the Public Resources Code, relating to energy.

[Approved by Governor September 13, 2018. Filed with
Secretary of State September 13, 2018.]

LEGISLATIVE COUNSEL'S DIGEST

AB 3232, Friedman, Zero-emissions buildings and sources of heat energy. The Warren-Alquist State Energy Resources Conservation and Development Act requires the State Energy Resources Conservation and Development Commission to adopt building design and construction standards and energy and water conservation standards for new residential and nonresidential buildings to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy, including energy associated with the use of water. The act requires those standards to be cost effective when taken in their entirety and when amortized over the economic life of the structure compared with historic practice. The act requires the commission to adopt standards for a program of electrical load management for each utility service area.

This bill would require the commission, by January 1, 2021, to assess the potential for the state to reduce the emissions of greenhouse gases from the state's residential and commercial building stock by at least 40% below 1990 levels by January 1, 2030. The bill would require the commission to include in the 2021 edition of the integrated energy policy report and all subsequent integrated energy policy reports a report on the emissions of greenhouse gases associated with the supply of energy to residential and commercial buildings.

The people of the State of California do enact as follows:

California Code of Regulations

Title 24 (Building Standards)

Part 6 (Energy Code)





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Building Standards Office

Energy Efficiency Division

California Energy Commission

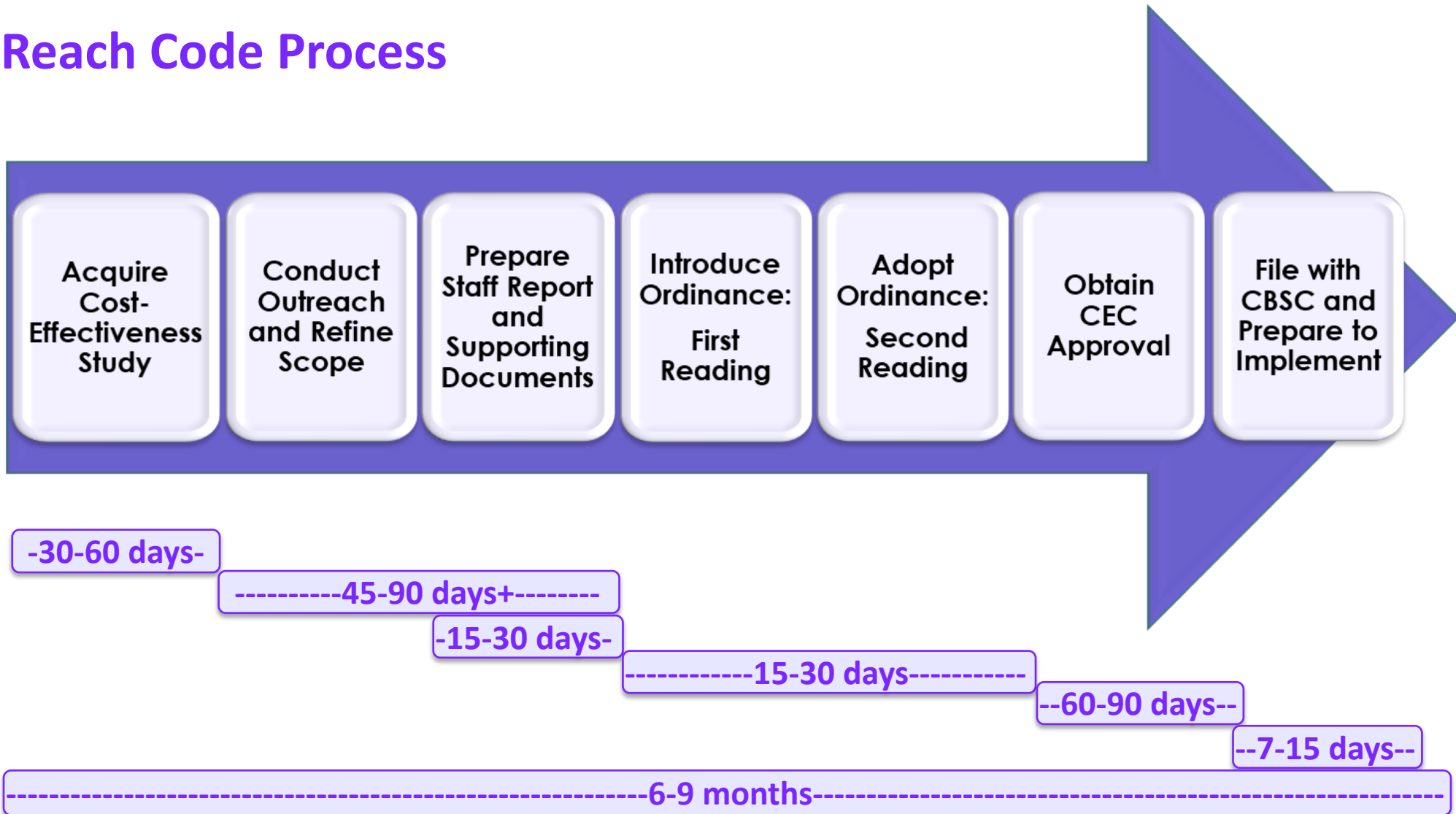
Local Energy Codes:
Tools for Reaching Your Climate Action Goals

Reach Code Strategies and Options

June 27, 2019

Misti Bruceri

Local Reach Code Process



Major Reach Codes Groups

**Building
Efficiency
and
Renewables**

**Energy Plus
Water
Efficiency**

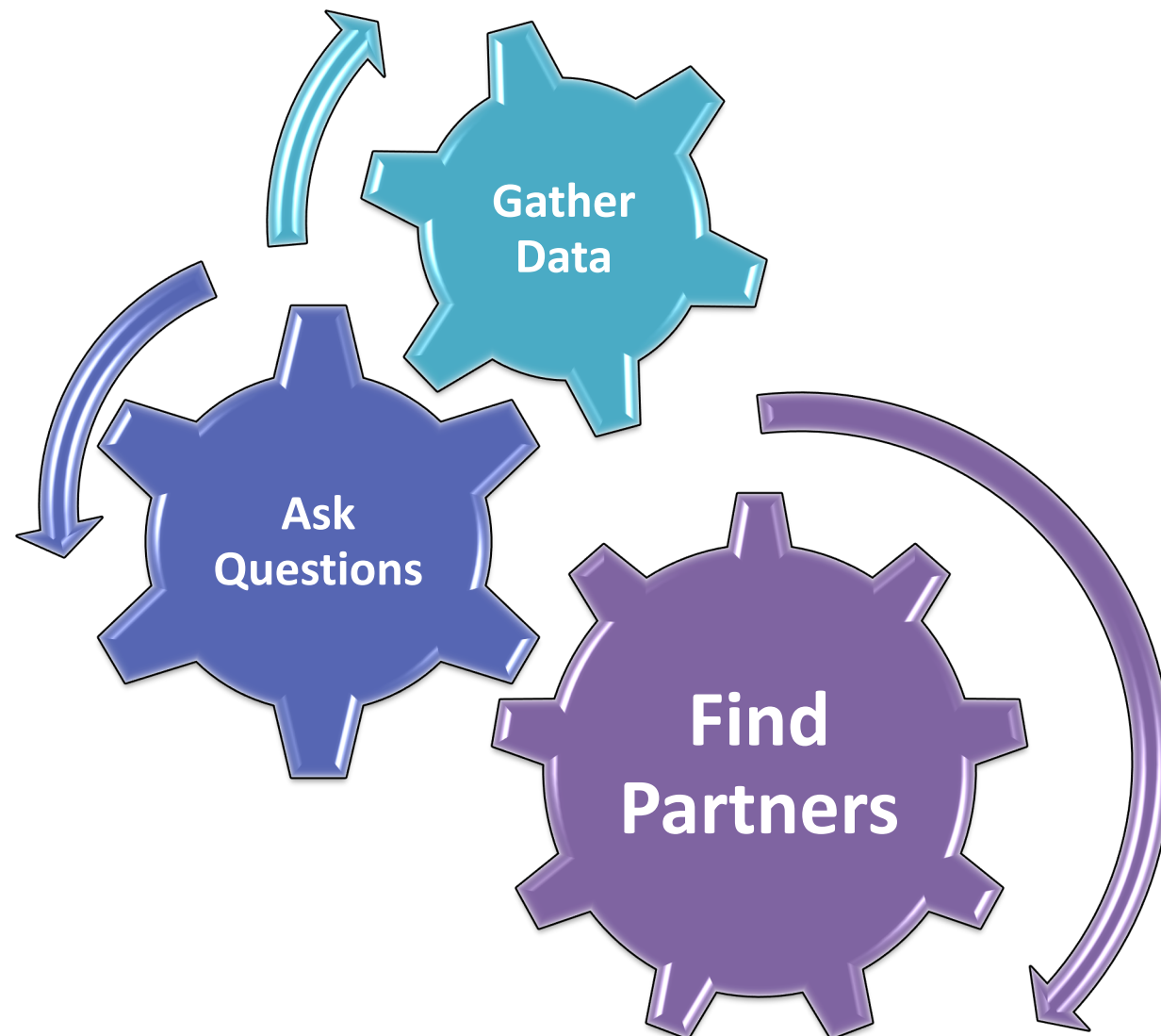
**Process
Loads**

**Electric-
ready**

**Information
Disclosure**

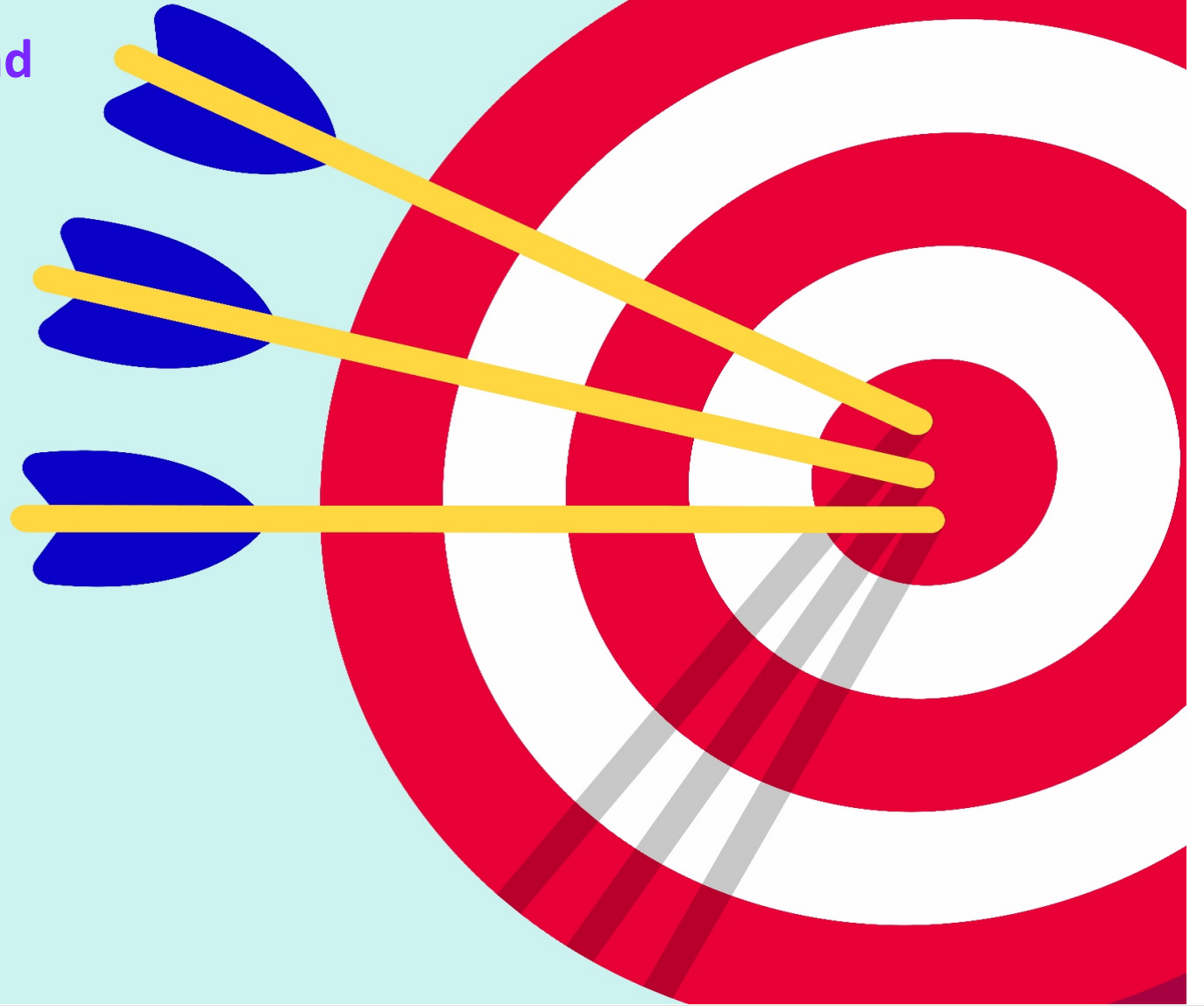


Getting Started...



Target Local Priorities and Policy Objectives

- Increasing density
- Minimizing impacts of new development
- Improving affordability
- Upgrading existing building stock



LocalEnergyCodes.com – 2019 Resources



2019 Local Energy Ordinances

In preparation for the January 1, 2020 effective date of the 2019 Building Energy Efficiency Standards, the California Codes and Standards Reach Codes Program provides technical support to jurisdictions that wish to adopt a local energy ordinance (reach code). The program facilitates adoption and implementation of the code by providing resources such as cost-effectiveness studies, model language, sample findings, and other supporting documentation.

When you download a file, be sure to select "Yes, email me local codes news." to receive notifications when new versions of the studies are released or new resources become available.

2019 Cost-effectiveness Studies



Additional 2019 Resources



2019 Workshops and Technical Presentations



- Download studies from the [2019 page](#) of LocalEnergyCodes.com
- Submit questions and requests to info@localenergycodes.com



Local Governments Empowering Our Communities

SEEC Forum 2019

Reach Codes in the Bay Area:
What's Happening & Best Practices

June 27, 2019

Bay Area Regional Energy Network (BayREN)



BayREN is:

- one of three regional energy networks (RENs) in California
- a collaboration of the nine counties that make up the San Francisco Bay Area
- focused on energy efficiency and related efforts

Most funding is provided by ratepayer funds through the the California Public Utilities Commission (CPUC)

BayREN's Role in Reach Codes

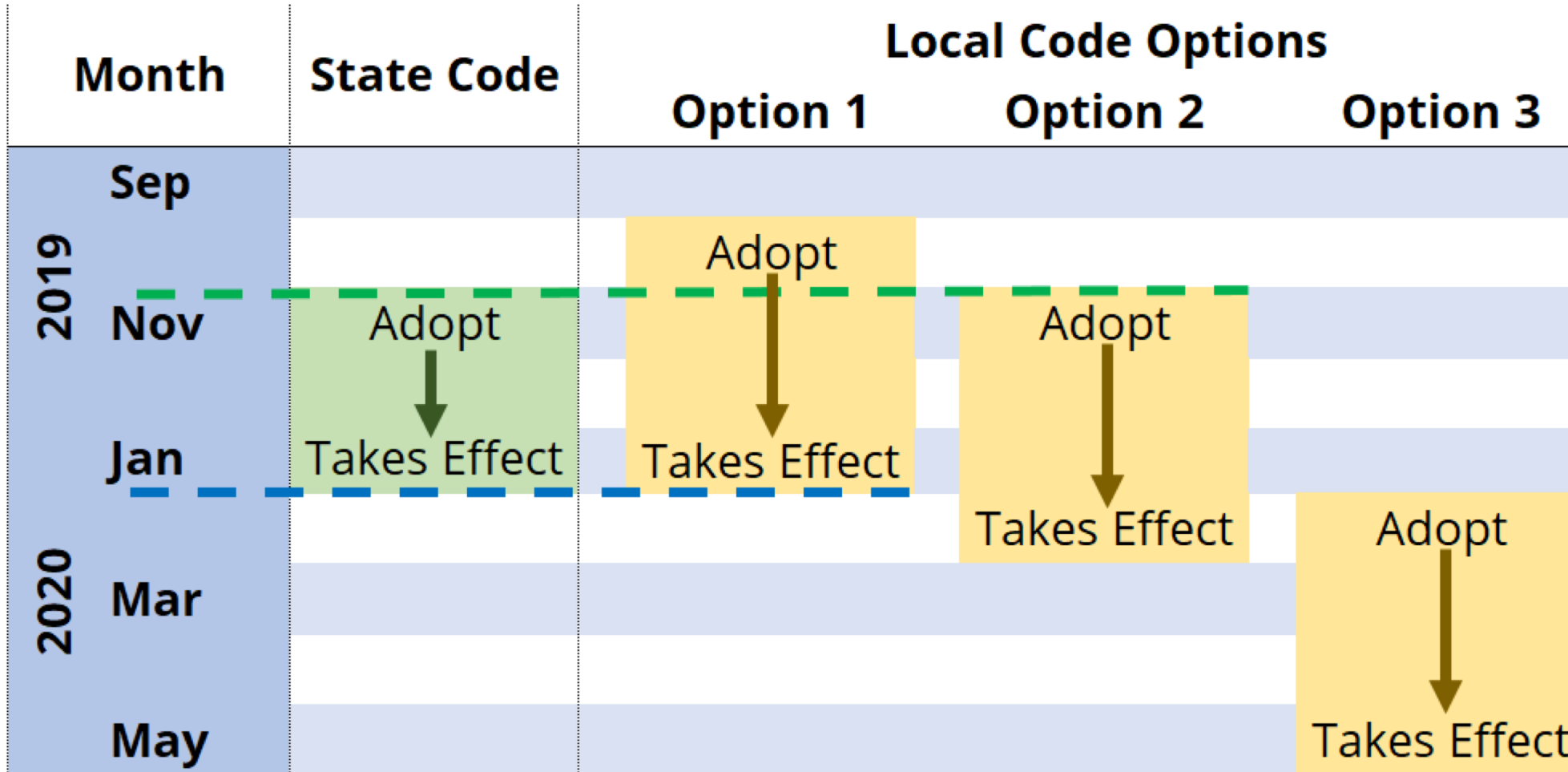
Encourage reach codes and assist local government staff by providing:

- **Information** about reach code processes and options, and
- **Opportunities** to collaborate and share their knowledge.

What's Happening?

- 10 Bay Area jurisdictions have adopted reach codes under the 2016 Building Code; some are looking to update those
- At least 30 jurisdictions are actively looking at new reach codes for the 2019 code cycle, primarily as a tool to reduce greenhouse gases by promoting all-electric new construction
 - Model ordinances from ZEB Taskforce with the Statewide IOU Team and Bay Area CCAs (PCE/SVCE)
- Push to adopt reach codes this year

Adopting reach codes in 2019 (and other choices)



Talk with neighboring jurisdictions

Advantages of consistency

- Easier for building industry to comply
- Easier for local governments to enforce
- Easier to support implementation



Reach codes should fit local context

Model Reach Codes

- Often based on areas of most interest
- Templates and other support are often available
- Requires least staff resources

Tailored Reach Codes

- Can use model reach code as base
- Leverage materials and support
- Requires more staff time and knowledge, or access to experts

Customized Reach Codes

- Can be developed to address topics of local interest
- Designed to fit to specific local conditions
- Requires most staff resources or expert assistance

Champions can smooth the way

Local reach code champions

- Council member or Supervisor
- Commissioner or Committee member

People can grow into champions

- Educate and inform
- Relationship between reach codes and other priorities



Building Officials are important for reach codes

May have concerns

- Defending to applicants
- How to implement
- Time constraints for enforcement

Address concerns by:

- Talking with Building Dept. staff
- Providing resources



Work with stakeholders



Internal Stakeholders

- Officials
- Staff

External Stakeholders

- Architects & Designers
- Developers & Contractors
- Realtors
- Environmental Organizations
- Residents & Businesses
- Property Owners

Adoption is the beginning

Reach codes need to be implemented and enforced

- Barriers include:
 - Time constraints
 - Lack of information/understanding
 - Lack of support
- Ways to help
 - Have a staff champion
 - Provide information: training, handouts, etc.
 - Track results



Public Domain,
<https://commons.wikimedia.org/w/index.php?curid=1484255>

Reach Code Best Practices

- Consider timing choices
- Coordinate with neighbors if possible
- Match reach codes with local goals and staffing
- Nurture potential champions
- Talk to your Building Official early and often
- Work with all stakeholders
- Support implementation & enforcement efforts
- Track reach code results

BayREN Codes and Standards Program

For more information:

bayrencodes.org

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