Notes

City of Culver City
Reach Code Policy Development & Adoption
Community Engagement Meetings
2022 Reach Code Public Meeting Results

Consultant ID360 Melanie Jacobson and Leila Silver were facilitators of the 2022 potential Electrification Reach Code Amendment community engagement. The follow is a summary of there work, copy of the presentation, and community engagement meeting notes.

Public Notice

To ensure broad notification of the public outreach meetings, public notice was distributed through several different channels as follows: Culver City Website, Publication in "Culver City News", publication in GoGov, and notification to interested parties via Community Development email distribution lists.

Public Outreach Meetings

The outreach program was presented in a 1.5 hour long interactive format that encouraged audience participation. The program was repeated three (3) times. To afford the greatest opportunity for public input, the sessions were conducted on different days and time periods. It was held virtually and included the option for written comments. To accommodate individuals with varying schedules, sessions were held during the morning (10:30 am – 12:00 am), evening (5:00 pm – 6:30 pm), and afternoon (3:00 pm – 4:30 pm).

Attendance at each of the outreach meetings was moderate, with a maximum of less than a dozen individuals at any meeting. In some instances, only a single individual was present. Over the course of all meetings, participation included individuals from the following stakeholder categories: residents, business owners, designers (architect/engineer), Environmental groups, Utility company, planning commission members, and City Council Member McMorrin.

All meetings included open discussion. Considerations are summarized below. Participants represented a broad range of perspectives and attendance at the outreach sessions was moderate with between members in attendance.

Considerations

Community members asked clarifying questions about the definition of new construction and whether extensive remodels that would qualify as new construction. One community member requested that the definition of new construction be expanded to capture additional construction projects, such as substantial renovation projects within the city. City staff clarified how new construction is typically defined and welcomed the suggestion to explore redefining the definition of new construction.

Multiple community members asked questions about where Accessory Dwelling Units (ADU's) stand within the reach code and if those building types would be impacted by a proposed reach code. Many community members expressed interest in the proposed reach code impacting new detached ADUs and did not favor exemptions for that building type.

Members from a restaurant association expressed concerns about the impact an all-electric reach code would have on restaurants and attracting future businesses to the city. The community members expressed that natural gas is essential to restaurants and cautioned on the cost-effectiveness of going all-electric for restaurants. The community members from the restaurant association requested that the City allow restaurants to have an exemption to use natural gas for commercial kitchens if an all-electric reach code is mandated. An SCE representative shared findings that show induction cooking equipment is cost comparable to gas and clarified that SCE offers free demonstrations and free rentals on induction cooktops. City staff acknowledged this exemption request for further consideration.

When looking at the potential reach code pathways, multiple community members showed support for the all-electric pathway or all-electric plus efficiency, as it would make the most impact to the City's greenhouse gas emissions. A resident offered to share performance data of their own all-electric home in support of the city making the transition to a potential all-electric reach code. Another resident requested that education and resources be provided to developers to help support making transitions to all-electric design and construction.

Following the overall support of the reach codes, a few residents asked about the strain all-electric pathways could potentially put on the electric grid and concern over power failures. All concerns were addressed by a representative from Southern California Edison (SCE), who explained that the utility is more than prepared to serve the load from all-electric buildings and how the demands from all-electric buildings are similar to mixed-fuel buildings. SCE clarified that the stress on the grid is determined by peak load and that SCE is more concerned about working with the city and developer to ensure there is enough lead time to plan infrastructure accordingly for new buildings.

Community members involved in the development community commented that it would be a challenge for construction to keep up with the changes and requested that the City provide guidance on the potential requirements early on. This concern was raised by a community member who commented that it is not cost-effective to reengineer a project for electricity and renewable energy sources. When engineers, architects, and project teams are aware of the requirements as early as possible, it is easier for projects to adapt to the changes.

One community member requested information on disposing of batteries and solar PV panels due to concerns of the end-of-life cycle of those materials. An SCE representative confirmed that the state is taking steps to address these issues and there are a number of bills in the legislature aimed at tackling recycling issues related to batteries and PV panels. It was also clarified that lithium-ion batteries are recyclable and currently there is a state law that requires all electric vehicle batteries to be recycled, which uses the same technology.

REACH CODE COMMUNITY ENGAGEMENT MEETING

CITY OF CULVER CITY

DATE: August 25th, 2022

SPEAKERS: ID360

Welcome

Tim Koutsouros

Building Official

Building and Safety Division

Facilitators

Melanie Jacobson

LEED AP BD&C, ICC
CALGreen Inspector/Plans Examiner

Principal, ID360

Leila Silver

LEED AP BD&C, ICC
CALGreen Inspector/Plans Examiner

Project Manager, ID360

Housekeeping

- There will be a Q&A Session after the presentation, please hold questions until then.
- Please submit questions via the chat function.
- Please use the hand-raising function if you have a question or would like share feedback in real-time.

Scan QR Code for access to presentation materials and supplemental resources.

AGENDA

1. Sustainability Initiatives
2. Reach Code Background
3. Introduction to Electrification
4. Electrification Reach Codes
5. 2022 Energy Code Highlights
6. 2022 Statewide Reach Codes Initiative
7. Electrification Reach Code Strategy
8. Common Questions

OBJECTIVE

- Provide educational background on Energy Reach Codes.
- Review Energy Reach Code Adoption Process.
- Respond to your questions and comments regarding the local Energy Reach Code pathways.
- Discuss next steps.

SUSTAINABILITY INITIATIVES

Sustainability Initiatives

Committed to Sustainability

- In 2009, the City implemented its Mandatory Green Building Program.
- Phase one of the City's reach code efforts went into effect in 2021.
- Green building measures address: light pollution reduction, water use, construction waste reduction, shower facilities for bike parking, and defensible space in wildland-urban interface areas.
- Culver City has joined the Clean Power Alliance; a community choice aggregation formed to deliver power generated by renewable sources.
- City maintains a Platinum Level leadership in SCE's Energy Leader Partnership Mode, reducing energy consumption by over 28% since 2006.
- Reduce greenhouse gas (GHG) emissions.

REACH CODE BACKGROUND

Global & Domestic Context

- Climate Change in CA: extreme weather, wildfires, coastal erosion, and sea level rise
- Efforts related to climate action and decarbonization:
  - Paris 2015: 192 Parties agreed to limit the temperature increase and reduce GHG emissions
  - President Biden signed EO 14008: "government-wide approach to the climate change"
  - Gov. Brown issued EO B-30-15: reduce GHG emissions 40% below 1990 levels by 2030
  - Gov. Newsom issued EO N-79-20: 100% in-state sales of new passenger cars/trucks to be zero-emission by 2035
  - California is committed to becoming carbon-neutral by 2045
- CA jurisdictions are adopting local reach codes in support of climate goals

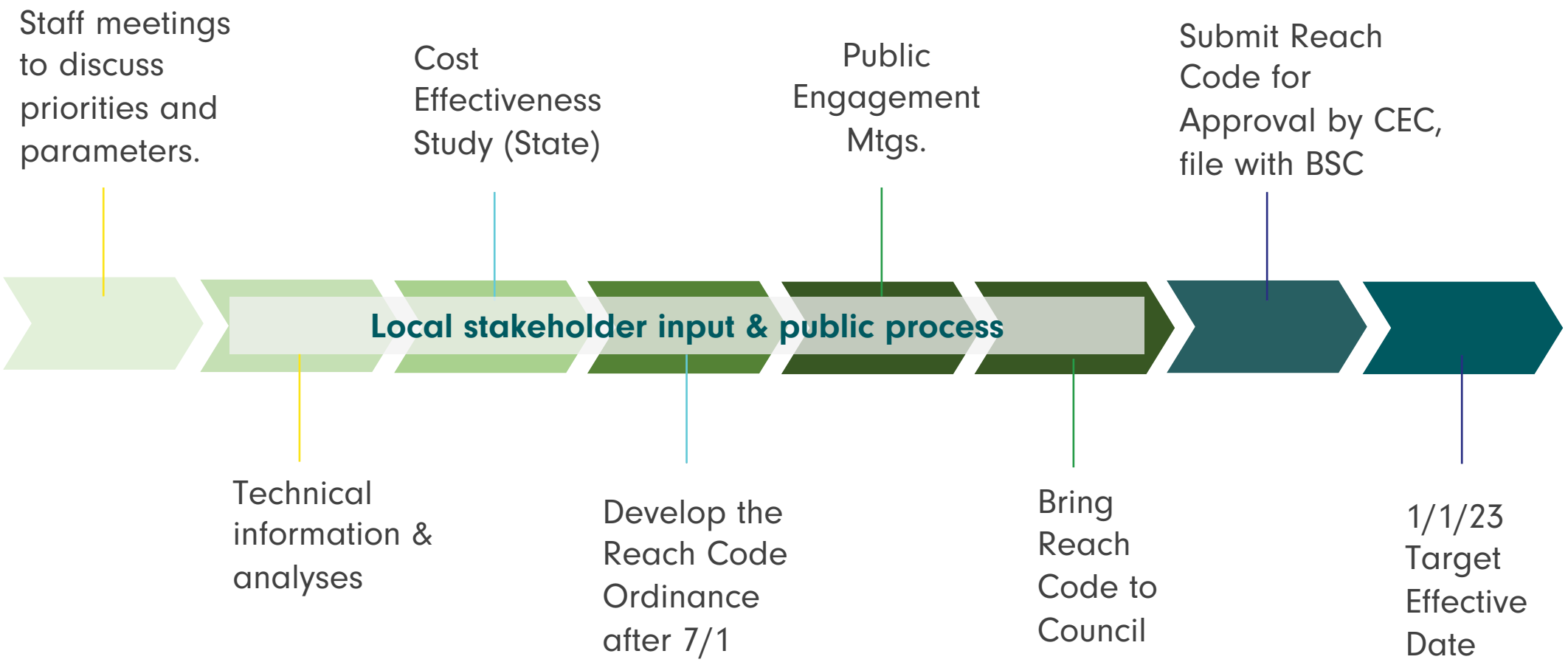
Why Reach Codes?

- Supports local governments reach various policy goals.
- Benefits:
  - Save energy
  - Reduce greenhouse gas emissions
  - Contribute to climate goals
- Furthers decarbonization efforts when clean energy is available

What is a Reach Code?

- Statewide Code updated every three years. (2022 code will take effect 1/1/23)
- Reach Code is a voluntary code that "reaches" beyond baseline requirements
- Based on local prototypes built within CEC-approved energy modeling software
- Requires cost-effectiveness studies that outline modeling assumptions
- Must not preempt federal appliance efficiency standards

Reach Code Process: Development to Implementation



Introduction to Building Electrification

What is Building Electrification?

- Uses electric appliances and equipment in homes and businesses.
  - Induction cooktops
  - Heat pump water heaters
  - Heat pump heating and air ventilation (HVAC) systems

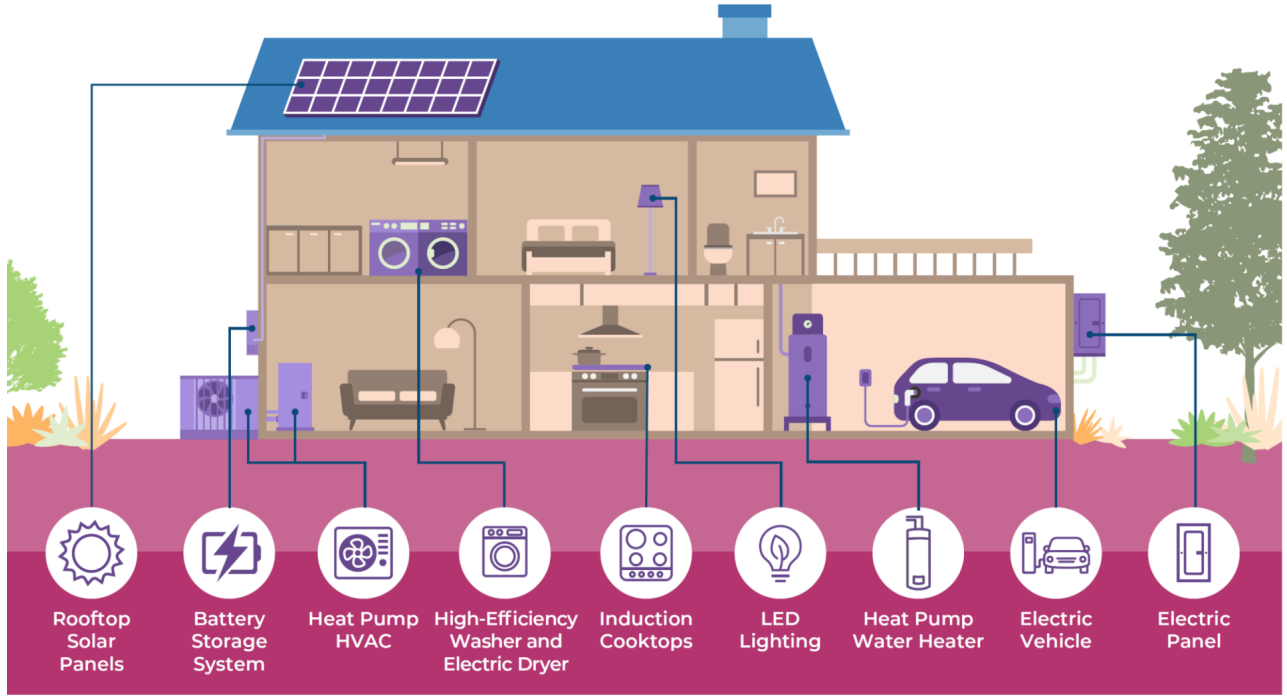
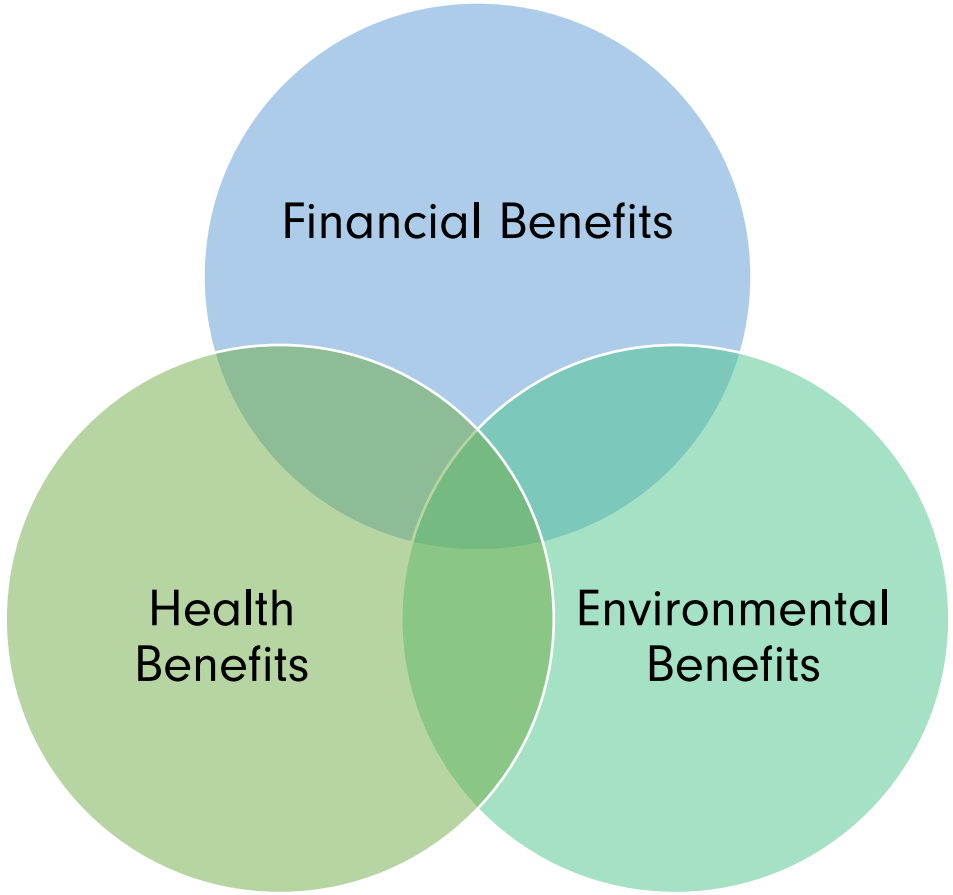


Photo Credit: City of Palo Alto Utilities

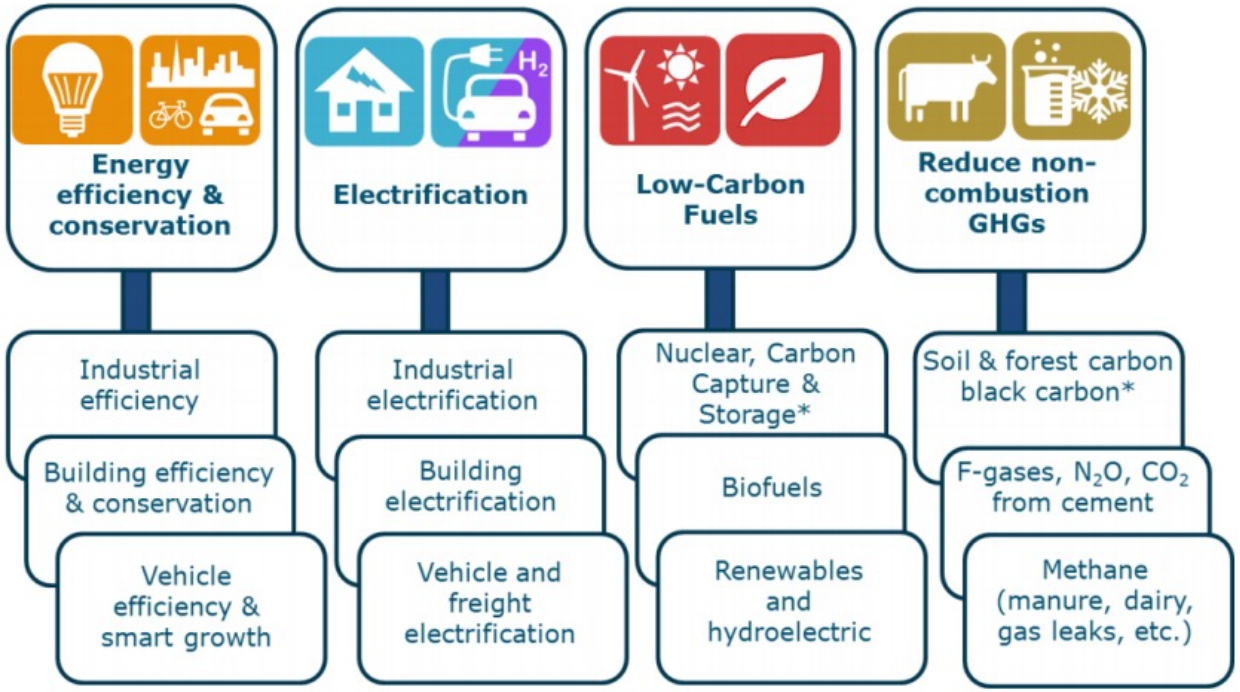
Why Building Electrification?

- Offers financial, health, and environmental benefits.
  - Better for indoor air quality
  - Electric appliances are more efficient than gas counterparts (saves money)
  - Electric appliances can be powered by clean energy (carbon-free/renewable)



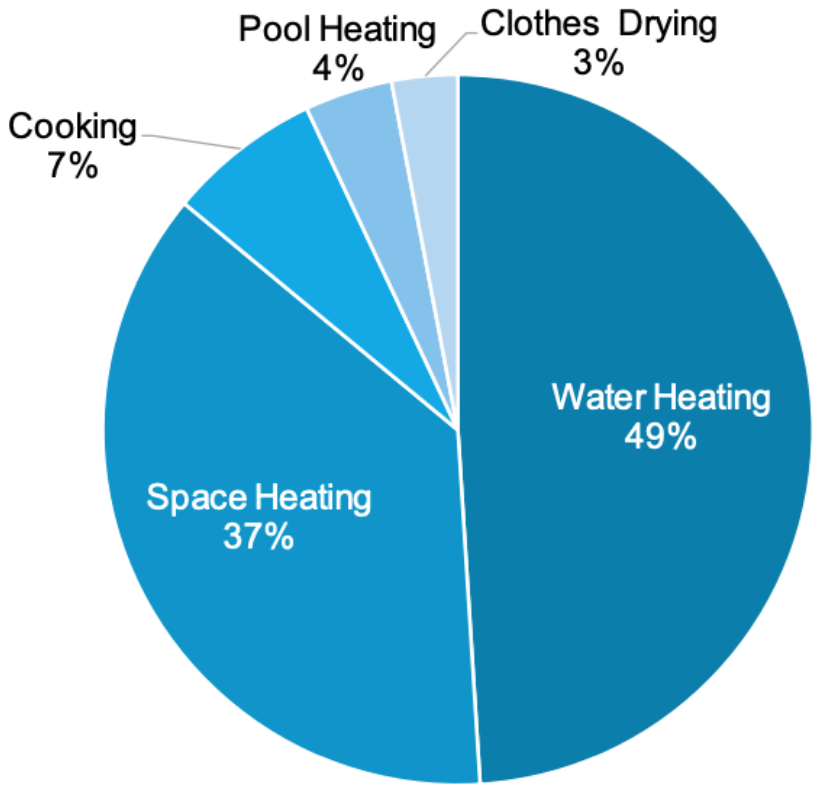
Electrification Compared to Fossil Fuels

- Carbon-free
- Lowest-cost, lowest-risk pathway
- Healthier indoor air
- Job creation

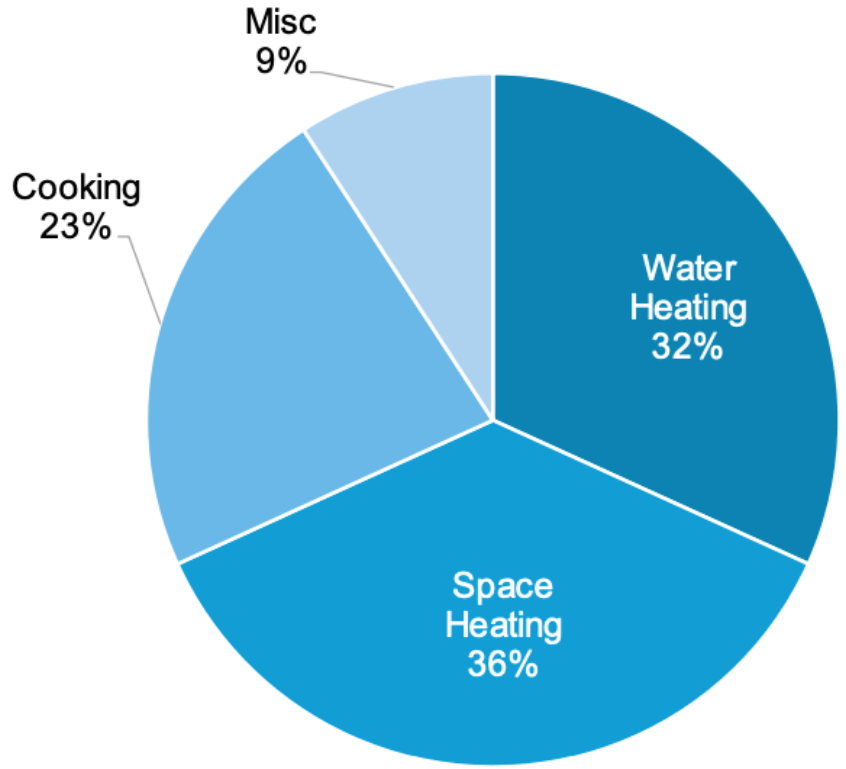


Sources: 1) AB3232 Decarbonization Assessment 2021 2) CA Energy Commission 2018 3) CPUC 2021

California Buildings Gas Usage



Residential



Non- Residential

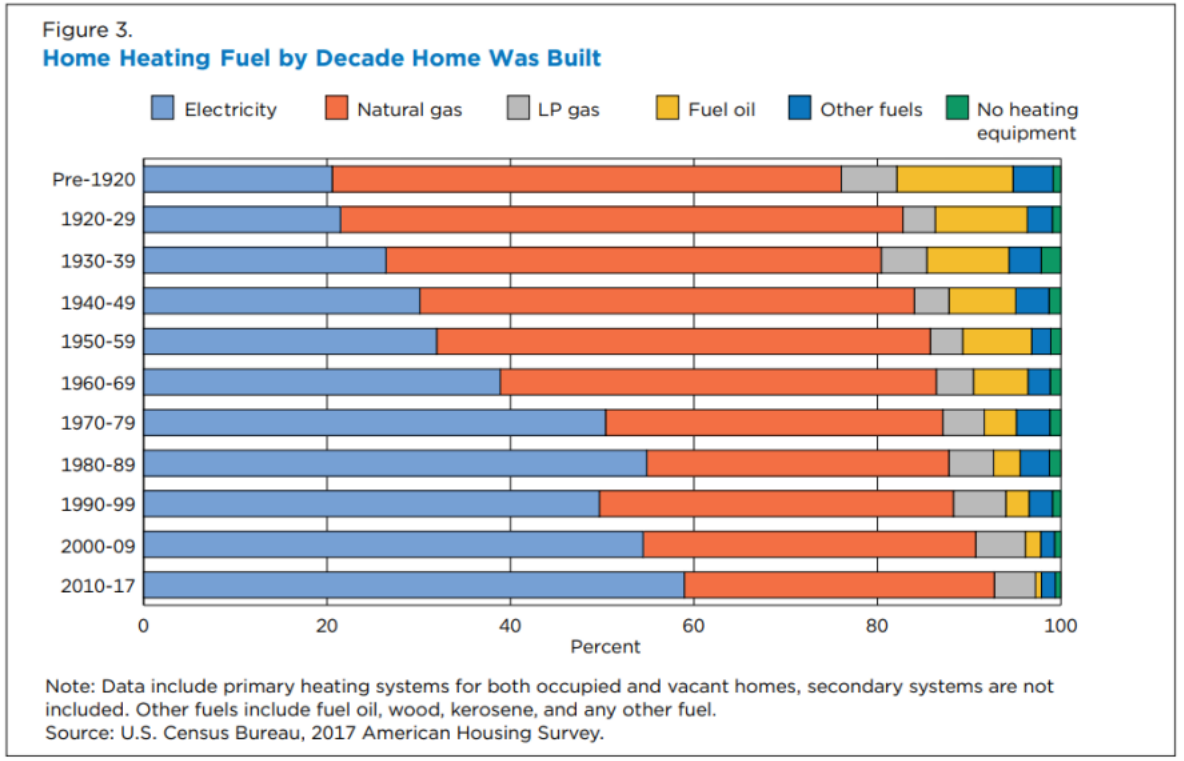
2009 Residential Appliance Saturation Survey

2006 California Commercial End Use Survey

Electric is already the majority

Of national new construction homes:

- 60% use electric space heating
  - 40% of which are heat pumps
- 55% use electric water heating
- 62% use electric cooking
- 75% use electric clothes drying



Sources: 1) 2017 American Community Survey 2) 2017 IEA Heat Pump Conference Proceedings

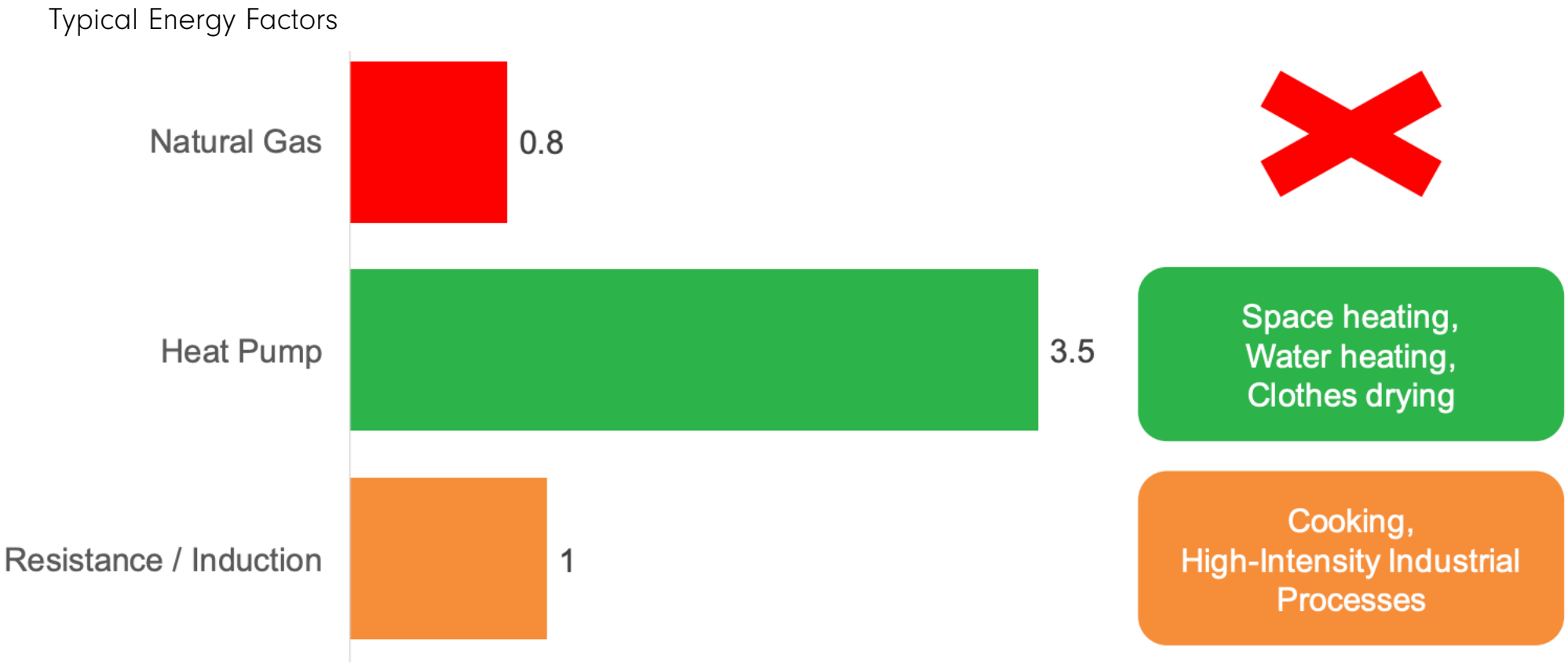
Equipment

	Space Heating	Water Heating	Cooking	Clothes Drying
Residential				
Commercial				

Source: BayAreaReachCodes.Org

Equipment Efficiency

Energy Efficiency Comparison of Technology

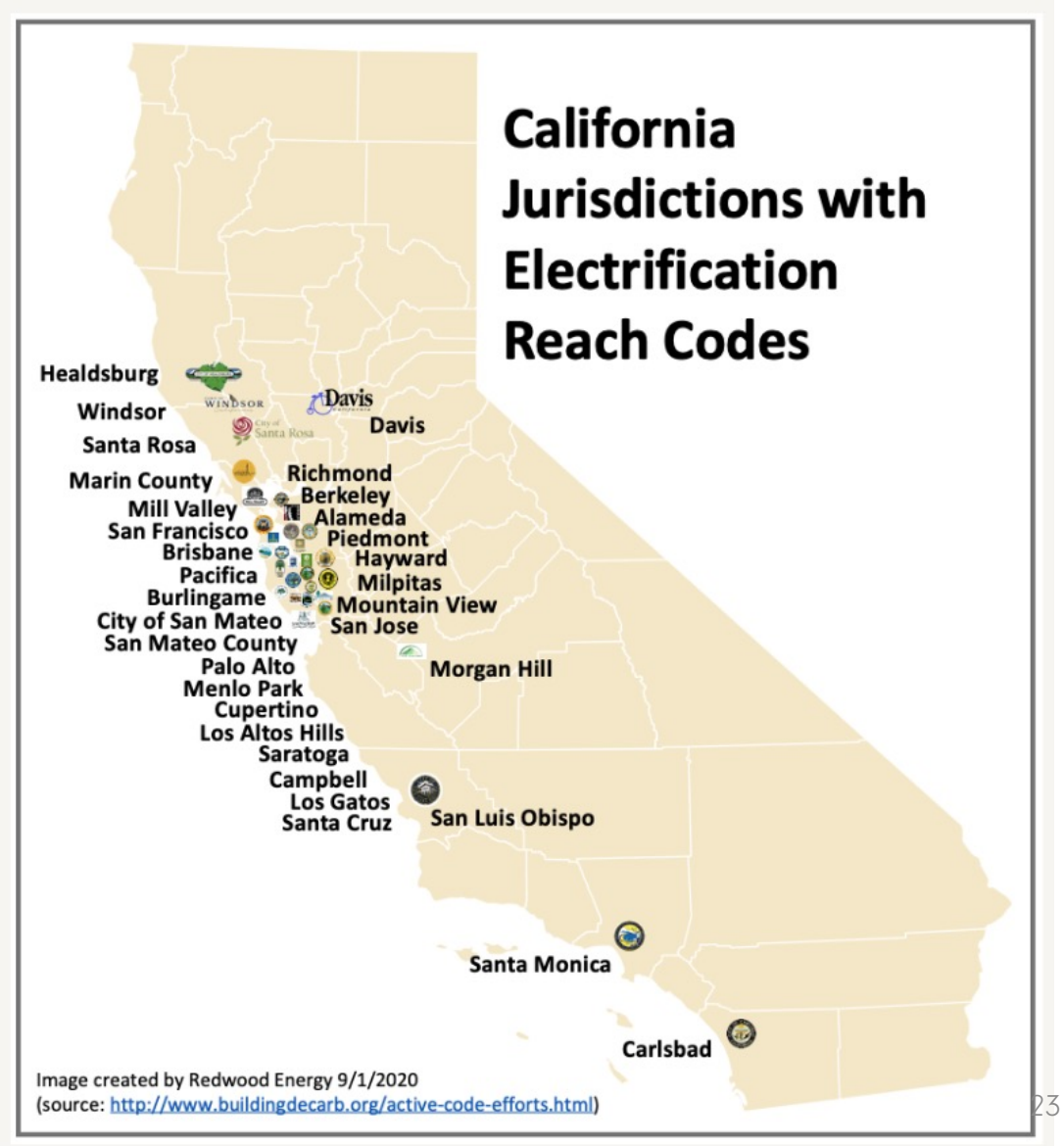


Source: BayAreaReachCodes.Org

ELECTRIFICATION REACH CODES

Adoption of Electrification Reach Codes

- 54 California Jurisdictions (as of 12/10/21)
- Variety of policy approaches to reach codes:
  - All-Electric Only Whole Building
  - All-Electric Only Specific Systems
  - Electric-Preferred
  - Electric Vehicle Charging Infrastructure



Neighbors with Local Reach Codes

Highlighted local cities:

- Santa Monica (electric Preferred, PV, EV)
- West Hollywood (PV, Cool Roofs)
- Ojai (All Electric)
- Los Angeles County (Cool Roofs)
- City of Los Angeles (All Electric)

Source: Statewide Energy Code Program

2022 CALIFORNIA ENERGY CODE HIGHLIGHTS

2022 California Energy Code: Highlights

Residential

- Heat pumps = prescriptive baseline
  - Residential: space heating or water heating
  - Performance credit for all-electric design
- Pre-wiring required for gas appliances
- Higher ventilation rate for gas stoves
- Energy storage systems (ESS) ready

Nonresidential

- Heat pumps = prescriptive baseline
  - Nonresidential: water and/or space heating for most building types
  - Performance credit for all-electric design
- Solar PV prescriptive
  - Requirements based on building type
- Battery Storage system prescriptive
  - Requirements based on building type

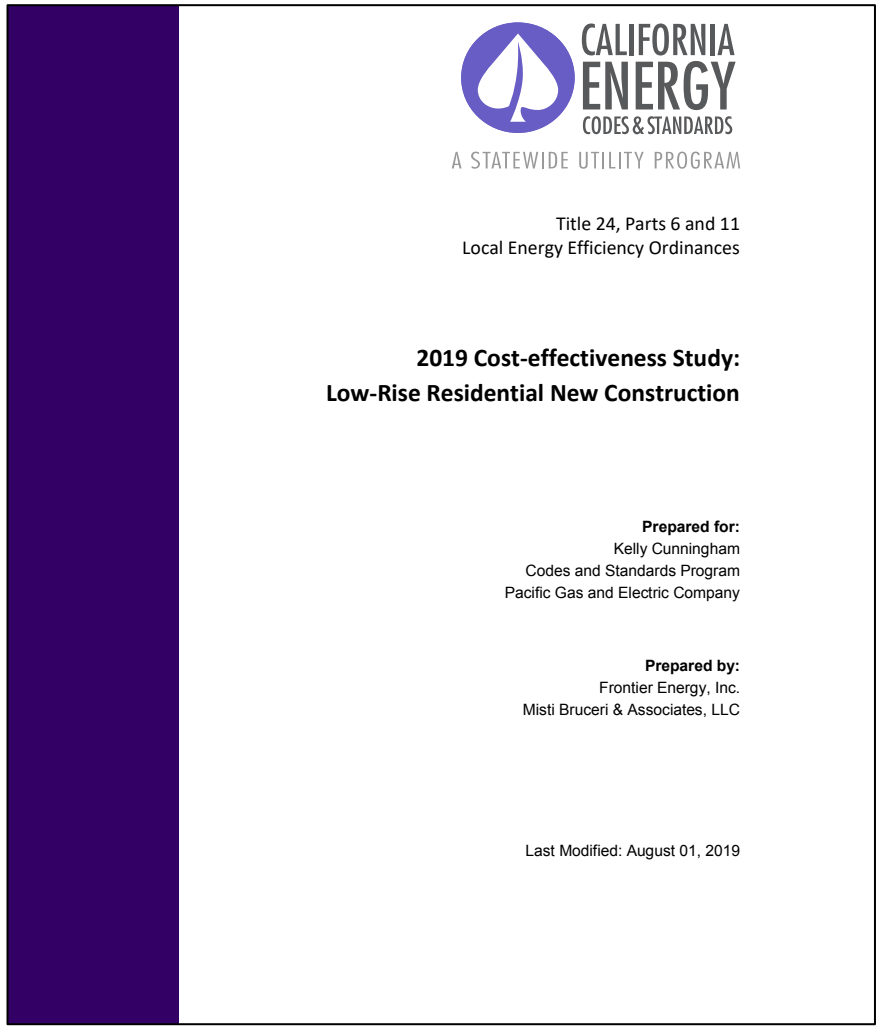
2022 STATEWIDE REACH CODES INITIATIVE

2022 Statewide Reach Codes: Updates

- Preliminary C/E results for new single-family, new multi-family, and new nonresidential are published now.
- Final results anticipated to be available at the end of August 2022.
- Additional C/E Studies coming soon:
  - Electric Pool Heating analysis
  - Accessory Dwelling Unit (ADU) analysis is underway
- Statewide Reach Codes Webinar Series:
  - Reach code implementation – Upcoming on 9/27

Cost-Effectiveness Study Overview

- C/E Study required for local amendments to California Energy Code
- Two metrics/methodologies
  - "On-bill" (individual consumer, utility rates)
  - "Time Dependent Valuation" (code, societal)
- Jurisdiction makes final determination if reach code is cost-effective
- May not preempt Federal appliance standards
- Measures assembled into packages


CALIFORNIA ENERGY CODES & STANDARDS
A STATEWIDE UTILITY PROGRAM

Title 24, Parts 6 and 11
Local Energy Efficiency Ordinances

2019 Cost-effectiveness Study:
Low-Rise Residential New Construction

Prepared for:
Kelly Cunningham
Codes and Standards Program
Pacific Gas and Electric Company

Prepared by:
Frontier Energy, Inc.
Misti Bruceri & Associates, LLC

Last Modified: August 01, 2019

2022 REACH CODE PATHWAYS

Triggers & Buildings Impacted by Reach Code

Triggers

- New Construction

Building Types Impacted

- New Residential Single-family and ADUs
- New Multi-family
- New Non-residential
  - Hotel
  - Office
  - Retail
  - Restaurant

Exemptions for building types

- H or I Occupancy Types
- Existing Buildings

Ordinance Pathways: New Construction

	☑ Efficiency	☑ Electric-Preferred	☑ Electric Only	☑ Electric Only	☑ Electric Only Plus Efficiency
			Electric Only	Natural Gas Moratorium	
Mechanism 	Energy Code	Energy Code	CALGreen	Jurisdictional authority	Jurisdictional authority or CALGreen plus Energy Code
Requires 	All new construction exceeds minimum energy code	Only mixed fuel buildings exceed minimum energy code	All new construction is electric only	No new gas infrastructure (Hookups or Piping)	All new construction is electric only AND exceeds minimum
Considerations 	Simplicity, preserves choice, specific measures	Preserves choice, lower GHG savings	Must be renewed	Longest lasting	Biggest impact, must be renewed

2022 Statewide Reach Codes: Residential Exceptions

- Emergency backup power
- MF Residential building projects that have approved entitlements before the effective date may use fuel gas for water heating systems
- New swimming pools and spas
- New indoor and outdoor fireplaces
- Water heating or space heating in ADUs
- Outdoor BBQs
- When combustion equipment is allowed, require electric ready

- Waivers
  - For cost burden
  - For technical infeasibilities
- Other exemptions
  - By building occupancy
  - By appliance type
  - By % of remodel

2022 Statewide Reach Codes: Non-Residential Exceptions

- Emergency backup power
- Commercial kitchens located in a place of public accommodation
- Hotels/motels w/ 80+ guestrooms may utilize fuel gas in on-site commercial clothes drying equipment
- If all-electric is not feasible, local enforcing agency may grant modifications
- New swimming pools and spas
- New indoor and outdoor fireplaces
- Outdoor BBQs
- When combustion equipment is allowed, require electric ready

- Waivers
  - For cost burden
  - For technical infeasibilities
- Other exemptions
  - By building occupancy
  - By appliance type
  - By % of remodel

ELECTRIFICATION REACH CODE STRATEGY

Culver City Permit Data Background

- The City issues **approximately 35 new single-family residential** building permits each year.
- Anticipated Development Projects in Planning Entitlement
  - 150+ room Hotel
  - 1 Office Building
  - 4-unit Condominium
  - 1 Mixed-use Building w/ 82-units and Retail

Reach Code Policy Considerations

- Reach Code Adoption Approach
  - Natural Gas Moratorium
  - All-Electric Reach Code
  - Electric Preferred Reach Code
  - Electric Only Plus Efficiency Reach Code
  - Efficiency Reach Code
- Applicable Systems and Appliances
  - Whole Building
  - Specific Appliances
    - Heat Pump Water Heater
    - Cooking Appliance
    - Electric Dryer
    - Heat Pump Space Heating and Cooling

Reach Code Policy Considerations

- Building Types Impacted
  - New Residential Single-family and ADUs
  - New Multi-family
  - New Non-residential
    - Hotel
    - Office
    - Retail
    - Restaurant
- Exemptions for building types
  - H or I Occupancy Types
  - Existing Buildings
- Nonresidential Specific Exemptions
  - Commercial Kitchen
  - Laboratory
  - Generator
- Residential Specific Exemptions
  - Attached ADU/JADU
  - Fireplaces
  - Swimming Pool
  - Generator

COMMON REACH CODE QUESTIONS

Common Questions

Will my existing building be affected?

- No. The City is considering reach codes for new construction.

In Culver City, electricity costs more per unit of energy than natural gas, so electrification may result in higher utility bills.

- Starting January 1, 2020, all new homes are required to have on-site solar PV.
- Thereby resulting in either a net-zero electrical bill or a very small electrical bill to cover any excess consumption.
- Starting January 1, 2023, new nonresidential buildings will also be required to install solar PV.

Common Questions:

How would I cook meals in a 100% electrified building during an electrical power outage?

- During an electrical power outage, all electric appliances would be compromised, unless the building is equipped with solar PV, a batter back-up system or an electrical generator.
- Since all new residential buildings are now required to have solar PV, electrical cooking appliances would only be compromised at night or on days without sufficient sun exposure.

Electricity is not a clean power source. Off-site power generation produces pollution.

- Culver City is supplied by a high proportion of renewable electrical energy.
- CA Energy Code requires all homes to be provided with on-site solar PV systems sized to address the annual energy demand of the building.
- Culver City participates in the local CCA that delivers a percentage of power generated by renewable sources.

Common Questions

Which target building categories are most prevalent in Culver City?

- Low-rise residential buildings account for most existing and new buildings in Culver City.
- Low-rise buildings include single family residential buildings and apartment buildings up to 4-stories in height.

Will reach codes increase the cost of utilities?

- The cost-effectiveness analyses demonstrate that if there is any increased costs associated with implementation of a local standard, the associated savings in energy cost would eventually result in cost recovery during the reasonable life expectancy of the building.

DISCUSSION

Next Steps

- Develop local code based on statewide model code language and community and industry feedback. (ongoing)
- State finalizes the cost-effectiveness studies. (August 2022)
- Bring reach code to City Council. (October 2022)
- Undergo state approvals and begin local enforcement. (Dec. 2022-January 2023)

THANK YOU.

Speakers:

ID360

SUPPLEMENTAL SLIDES

Notes

City of Culver City

Reach Code Policy Development & Adoption

Community Engagement Meeting

Date: August 25th, 2022
Time: 10:30 AM – 12:00 PM
Location: Virtual Meeting

Presenters/Panelists:

- Tim Koutsouros, Building Official, City of Culver City
- Melanie Jacobson, Principal, ID360
- Leila Silver, Project Manager, ID360
- Joshua Torres, Senior Policy Advisor, Southern California Edison

A) Meeting Discussion:

1. **ID360 presented background reach code priorities, overview of the reach code process and building electrification.**
    a. Reviewed purpose and goals of Culver Cities Sustainability Initiatives.
    b. Reviewed background of reach codes and building decarbonization.
        i. Highlighted studies that support the benefits of building decarbonization.
            - Gas Stoves: Health and Air Quality Impacts and Solutions by Rocky Mountain Institute
            - Noxious Gas Stove Emissions Worsen Asthma Symptoms In Young Children by Johns Hopkins Medicine
            - Air Quality Implications of an Energy Scenario for California Using High Levels of Electrification by California Energy Commission
            - California Building Decarbonization Workforce Needs and Recommendations by UCLA Luskin Center for Innovation
            - A Program for Economic Recovery and Clean Energy Transition in California by University of Massachusetts
            - California Building Decarbonization Assessment by California Energy Commission
            - Deep Decarbonization in a High Renewables Future by California Energy Commission
            - Residential Building Electrification in California: Consumer economics, greenhouse gases and grid impacts by E3.
    c. Reviewed key changes to 2022 California Energy Code.
        i. Discussed considerations for reach code policy:
            - Reach Code adoption approach: all-electric
            - Applicable systems and appliances: whole building

- Building types to be impacted: new construction
- Exemptions for building types: existing buildings, H or I Occupancy
- Nonresidential specific exemptions: commercial kitchen, laboratory
- Residential specific exemptions: attached ADU/JADU, fireplaces, swimming pool

2. **Discussion session held to address questions and comments from the community.**
    a. A community member thanked the City for committing to reach code efforts and expressed excitement for a potential reach code.
    b. A community member asked if remodels are considered new construction under the state reach code pathways and gave an example of a house that is fully gutted.
        i. Staff clarified that the statewide code has very specific definitions on what new construction is (typically ground-up construction).
        ii. The state draws the line for what these definitions are within the reach code by using energy modeling software.
        iii. The modeling software will request details on what is being done to the building and then determine if it is new construction.
    c. A few community members suggested that the City expand the definition of new construction to capture substantial remodels.
        i. Staff acknowledged that the definition of new construction can be something to consider but it is key to look at existing building cost-effectiveness studies.
        ii. The Statewide model code includes optional definitions for substantial remodels that can be incorporated into a potential new construction each code.
        iii. Staff clarified that the City has records that would indicate remodel vs new construction but not the level of detail of that remodel, which would require looking closely at each plans remodel scope of work.
    d. A community member asked if an ADU is considered new construction and how they are defined.
        i. Staff confirmed that ADU's would be considered as new construction and can be considered as a potential exemption.
    e. A member from the restaurant association commented that electric preferred is a good option for a restaurant to allow the ability to cook with gas.
    f. Many community members agreed that an exemption for restaurants in the event of an all-electric reach code is necessary.
        i. Staff acknowledged the comments around commercial kitchen exceptions.
    g. A member from the restaurant association asked how economical induction cooktops are.
        i. An SCE representative responded that induction equipment is cost comparable to gas equipment.
        ii. For new construction it is cheaper because the avoided gas infrastructure and the ability to install smaller hood for ventilation.
        iii. SCE offers free demonstrations and free rentals on using induction cooktops.
            - Information on SCE's Foodservice Technology Center: https://www.sce.com/business/Energy-Education-Center/Foodservice-Technology-Center

- A resource on restaurant kitchen full electrification: https://www.energy.ca.gov/publications/2021/demonstration-high-efficiency-commercial-cooking-equipment-and-kitchen
- https://cbe.berkeley.edu/wp-content/uploads/2020/10/Young-2020-Oct-electricification-kitchens.pdf

h. A community member shared that they have lived in an all-electric building since 2018 (with solar PV/EV) and supported the electric only plus efficiency approach. The resident offered to share their building performance data with staff.
i. A community member commented that it makes sense to include ADUs in all-electric requirements since they can be rental units.
j. A community member commented that they would be in support of electric only plus efficiency as it would make the most impact in reducing GHG emissions.
k. A member of a planning commission shared their excitement for an all-electric reach code and asked if the City is anticipating providing resources different types of buildings developers to complete all-electric construction.
    i. Staff acknowledged that there are statewide and regional incentive and rebate programs that exist and are being planned to support electrification.
l. A community member asked if the current 2019 green building reach codes will be considered for 2022.
    i. Staff confirmed that they are looking to continue those reach codes to the next code cycles.
m. A community member asked where they can see the current green building reach codes.
    i. Staff provided a link to the current municipal code: https://codelibrary.amlegal.com/codes/culvercity/latest/culvercity_ca/0-0-0-68468.
n. A community member mentioned in their opinion Pasadena's reach code is not very strong and how Santa Monica's proposed reach code for 2023 is a good comparison for Culver City to consider.

3. Reviewed next steps for reach code development and adoption.

a. Develop local code based on statewide model code language and community and industry feedback. (ongoing)
b. State finalizes the cost-effectiveness studies. (August 2022)
c. Bring reach code to City Council. (October 2022)
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- Building types to be impacted: new construction
- Exemptions for building types: existing buildings, H or I Occupancy
- Nonresidential specific exemptions: commercial kitchen, laboratory
- Residential specific exemptions: attached ADU/JADU, fireplaces, swimming pool

2. **Discussion session held to address questions and comments from the community.**
    a. A resident expressed concerns about putting additional burden on the electrical grid, the increased demands on electricity, and power point/electrical failures.
    b. A community member expressed concerns over transitioning to all-electric because of anticipated challenges.
        i. The SCE representative clarified that SCE is more than prepared to serve the load from all-electric buildings and the demands from all-electric buildings are similar to mixed-fuel buildings.
        ii. The SCE representative also clarified that stress on the grid is determined by peak loads, which vary on the time of the year (i.e., electric heating in winter, cooling in summer).
            - There are neighborhoods in Fontana and other cities that SCE has been studying for years.
            - When the electric grid is designed, it is designed for peak load.
            - In California, the greatest time of energy is hot summers.
            - When there is all-electric heating happening in the winter, there is plenty of capacity on the grid.
            - With all-electric water heating, those appliances are programmable to operate at off-peak hours.
            - All-electric households are very similar to mixed-fuel houses when looking at consumption.
            - The real concern is new load in general, when you have a new building going in, SCE needs cities to work with them to ensure capacity.
    c. A community member from the Sierra Club commented that many local jurisdictions have adopted reach codes and they expect Culver City to adopt a reach code to remain a leader in environmental policy.
    d. A member from the architecture community expressed favor of an all-electric reach code.
    e. A member from the architecture agreed that the concerns related to the stress on the electric grid are valid, in particular for EV charging and EV not yet being a reliable backup power source.
    f. A member from the architecture community mentioned that induction cooking and heat pumps required dedicated circuits and will impact the grid.
    g. A community member requested that the City look into rebates and financing for sustainable technology.
    h. A member from the architecture community commented that they would not be in favor of battery backup requirements.
        i. Staff clarified that this is already going to be a requirement in the 2022 California Energy Code.
    i. A resident of Culver City asked at what point does a remodel become new construction.

i. Staff responded that at this time new construction will encompass projects that are ground up construction.

j. A resident expressed their support of all-electric reach codes and encourages the City to focus on multi-family buildings as they are more cost effective to build.

k. A resident asked if ADU's would be exempt from the all-electric reach codes and if so, why.

i. Staff responded that the biggest goal is for it to be cost-effective.

ii. Once the cost-effectiveness results are out then the City can determine if we should add ADU's in the reach code.

iii. Staff clarified that many cities have exempted ADUs and others have included ADUs in the reach code requirements.

iv. The Cost effectiveness studies will look at the 16 climate zones and that will determine cost-effectiveness.

3. A community member asked how is heat pump efficiency affected by air humidity.
    a. Staff responded that humidity outdoors will impact the heat pump technology.
4. A community member expressed interest that ADU's be included in the reach code and not be exempt as ADU's can go up to 1000+ SF and are essentially almost the size of single-family homes that were built in early 1970's and 1980's.
5. **Reviewed next steps for reach code development and adoption.**
    a. Develop local code based on statewide model code language and community and industry feedback. (ongoing)
    b. State finalizes the cost-effectiveness studies. (August 2022)
    c. Bring reach code to City Council. (October 2022)
    d. Undergo state approvals and begin local enforcement. (Dec. 2022- January 2023)

Notes

City of Culver City

Reach Code Policy Development & Adoption

Community Engagement Meeting

Date: August 31st, 2022
Time: 3:00 PM – 4:30 PM
Location: Virtual Meeting

Presenters/Panelists:

- Tim Koutsouros, Building Official, City of Culver City
- Melanie Jacobson, Principal, ID360
- Leila Silver, Project Manager, ID360
- Joshua Torres, Senior Policy Advisor, Southern California Edison

A) Meeting Discussion:

1. **ID360 presented background reach code priorities, overview of the reach code process and building electrification.**
    a. Reviewed purpose and goals of Culver Cities Sustainability Initiatives.
    b. Reviewed background of reach codes and building decarbonization.
        i. Highlighted studies that support the benefits of building decarbonization.
            - Gas Stoves: Health and Air Quality Impacts and Solutions by Rocky Mountain Institute
            - Noxious Gas Stove Emissions Worsen Asthma Symptoms In Young Children by Johns Hopkins Medicine
            - Air Quality Implications of an Energy Scenario for California Using High Levels of Electrification by California Energy Commission
            - California Building Decarbonization Workforce Needs and Recommendations by UCLA Luskin Center for Innovation
            - A Program for Economic Recovery and Clean Energy Transition in California by University of Massachusetts
            - California Building Decarbonization Assessment by California Energy Commission
            - Deep Decarbonization in a High Renewables Future by California Energy Commission
            - Residential Building Electrification in California: Consumer economics, greenhouse gases and grid impacts by E3.
    c. Reviewed key changes to 2022 California Energy Code.
        i. Discussed considerations for reach code policy:
            - Reach Code adoption approach: all-electric
            - Applicable systems and appliances: whole building

- Building types to be impacted: new construction
- Exemptions for building types: existing buildings, H or I Occupancy
- Nonresidential specific exemptions: commercial kitchen, laboratory
- Residential specific exemptions: attached ADU/JADU, fireplaces, swimming pool

2. **Discussion session held to address questions and comments from the community.**
    a. A community member commented that it would be a challenge for construction to keep up with the changes and will need guidance on this early on.
        i. Not cost effective to go back to and reengineer a project for electricity and renewable energy sources.
        ii. The earlier this information gets to the municipalities, the easier this would be for engineers.
    b. A community member commented that many pools and spas in their experience run on electricity and/or solar.
    c. A community member expressed concern for the disposal of solar PV and lithium-ion batteries from electric vehicles.
        i. Staff clarified that the requirements for back-up battery and solar panels are all included in the state-level code.
        ii. A representative from SCE added comments about waste disposal issues and what the state has been exploring in this area.
            - Lithium-ion batteries are recyclable and is required in the state.
    d. A community member brought up the City's public pool ("The Plunge") and commended the heating technology used to heat the pool.
    e. A community member suggested that the City consider electrical panel capacity and the availability of panels on the market.
        i. Staff responded that those are related to supply chain issues.
    f. A community member asked about diesel back-up generators and impacts to support electrification.
    g. A community member asked if the City has considered fuel cells as a backup power source.
        i. Staff responded that the way that the proposed regulations are developed won't necessarily regulate back-up power.

3. **Reviewed next steps for reach code development and adoption.**
    a. Develop local code based on statewide model code language and community and industry feedback. (ongoing)
    b. State finalizes the cost-effectiveness studies. (September 2022)
    c. Bring reach code to City Council. (November 2022)
    d. Undergo state approvals and begin local enforcement. (Dec. 2022- January 2023)