



**SUSTAINABILITY COMMISSION**  
CITY OF PALM SPRINGS, CALIFORNIA  
[www.palmsprings-ca.gov](http://www.palmsprings-ca.gov)    [www.yoursustainablecity.com](http://www.yoursustainablecity.com)

<b>June 15, 2021 5:30 PM</b>	<b>MEETING AGENDA</b>	<b>Conducted by Video Conference</b>
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<b>COMMISSIONERS</b>		
<b>Roy Clark, Chair</b>	<b>David Freedman</b>	<b>Lani Miller</b>
<b>Robert McCann, Vice Chair</b>	<b>Jennifer Futterman</b>	<b>Alex Ocañas</b>
<b>Carl Baker</b>	<b>Sandra Garratt</b>	<b>Jake Torrens</b>
<b>Jim Flanagan</b>	<b>Greg Gauthier</b>	

*City of Palm Springs Vision Statement: Palm Springs aspires to be a unique world-class desert community where residents and visitors enjoy our high quality of life and a relaxing experience. We desire to balance our cultural and historical resources with responsible, sustainable economic growth and enhance our natural desert beauty. We are committed to providing responsive, friendly, and efficient customer service in an environment that fosters unity among all our citizens.*

**Pursuant to Executive Order N-29-20, this meeting will be conducted by teleconference and there will be no in-person public access to the meeting location.**

**To view/listen/participate in the meeting live, please use the following link:**  
<https://us02web.zoom.us/j/87064801181> / call +1 669 900 6833 **Meeting ID 870 6480 1181.**

- **Written public comment may also be submitted to [cityclerk@palmspringsca.gov](mailto:cityclerk@palmspringsca.gov). Transmittal prior to the meeting is required. Any correspondence received during or after the meeting will be distributed to the Board/Commission as soon as practicable and retained for the official record.**
- **The meeting will be recorded and the audio file will be available from the Office of the City Clerk and will be posted on the City’s YouTube channel, as soon as practicable.**

Staff representative: Patrick Tallarico, Manager, Office of Sustainability; Tracy Sheldon, Program Coordinator, Office of Sustainability

Please **MUTE OR TURN OFF** all audible electronic devices for the duration of this meeting. Thank you!

**CALL TO ORDER**

**ROLL CALL**

**WELCOME AND INTRODUCTIONS (10 MINUTES)**

**ACCEPTANCE OF AGENDA (5 MINUTES)**

**STAFF COMMENTS – Manager Tallarico (10 MINUTES)**

**PUBLIC COMMENTS:** This time is for members of the public to address the Sustainability Commission on Agenda items and items of general interest within the subject matter jurisdiction of the Commission. The Commission values your comments but, pursuant to the Brown Act, cannot take action on items not listed on the posted Agenda. Three (3) minutes are assigned for each speaker.

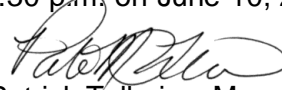
If participating by video conference to provide comments, please try to minimize background noise at your location to ensure you can be heard. Please mute your microphone when you are not speaking.

- A. PRESENTATIONS (0 MINUTES)**  
1. None
- B. MEETING MINUTES – May 18, 2021 Regular Meeting (5 MINUTES)**
- C. OLD BUSINESS (30 MINUTES)**  
1. Leaf Blower Ordinance Enhancement Discussion  
2. Food Ware Ordinance Update and Discussion  
3. Sustainability Scholarship & Home Energy Assessment Audit Status and Feedback
- D. NEW BUSINESS (10 MINUTES)**  
1. City-Funded Turf Conversion Projects
- E. SUBCOMMITTEE AND COMMISSIONER REPORTS (45 MINUTES)**  
1. Standing Subcommittee on Solar and Green Building - Commissioners Freedman and Flanagan  
a. SCE Commercial Energy Efficiency Incentives  
b. Reach Code Proposal  
2. Standing Subcommittee on Waste Reduction – Manager Tallarico, Vice Chair McCann, Chair Clark, Commissioner Miller  
a. 1383 Planning Update  
b. Downtown Trash and Recycling Container signage  
3. World Environment Day – Commissioners Futterman, Garratt, Gauthier  
a. Art Awards Ceremony  
4. Ad Hoc Subcommittee on Walkability & Pedestrian Planning - Manager Tallarico, Commissioners Gauthier, Flanagan, Futterman  
a. Walkability Master Plan and Safe Routes to Schools Master Plan Virtual Walk Audits  
5. Ad Hoc Subcommittee on Bicycle Routes and Cycling – Commissioner Flanagan, Commissioner Torrens  
6. Ad Hoc Subcommittee on Night Sky – Vice Chair McCann, Commissioner Flanagan, Commissioner Ocanas  
7. Ad Hoc Subcommittee on Strategic Planning and General Plan Update – Manager Tallarico, Chair Clark, Vice Chair McCann, Commissioner Freedman  
8. Water Conservation – Commissioner Freedman  
9. Wellness – Commissioner Baker  
10. Desert Community Energy, Community Advisory Committee – Commissioners Baker, Freedman
- F. COMMISSIONER COMMENTS AND UPCOMING AGENDA (10 MINUTES)**  
1. Commissioners will be allowed 1 minute to provide thoughts on future agenda items or other Commission-related items of interest
- G. ADJOURNMENT** - The meeting of the Sustainability Commission will adjourn to the Regular Meeting of the Sustainability Commission to be held at 5:30 p.m. on Tuesday, July 20, 2021, via Video Teleconference. The Sustainability Commission’s regular meeting schedule is at 5:30 p.m. the third Tuesday each month except August unless otherwise noted or amended.

It is the intention of the City of Palm Springs to comply with the Americans with Disabilities Act (ADA) in all respects. If, as an attendee or a participant at this meeting, you need special assistance beyond what is normally provided, the City will attempt to accommodate you in every reasonable manner. Please contact the Office of the City Clerk at (760) 323-8204 at least 48 hours prior to the meeting to inform us of your needs and to determine if accommodation is feasible.

Pursuant to G.C. Section 54957.5(b)(2) the designated office for inspection of records in connection with the meeting is the Office of Sustainability, City Hall, 3200 E. Tahquitz Canyon Way, Palm Springs, CA 92262. Agenda and staff reports are available on the City’s website [www.palmspringsca.gov](http://www.palmspringsca.gov). If you would like additional information on any item appearing on this agenda, please contact the Office of Sustainability at 760-323-8214.

AFFIDAVIT OF POSTING: I, Patrick Tallarico, Manager of the Office of Sustainability of the City of Palm Springs, California, certify this Agenda was posted at or before 5:30 p.m. on June 10, 2021, as required by established policies and procedures.



Patrick Tallarico, Manager of the Office of Sustainability



# City of Palm Springs Development Services Department Office of Sustainability

**TO:** Sustainability Commission

**FROM:** Patrick Tallarico, Manager

**SUBJECT:** Update Summary – Staff Comments

**MEETING DATE:** June 15, 2021

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The Office of Sustainability would like to provide this update on activities since the last Commission meeting to help speed discussion at the in-person meeting. The following items can be discussed in more depth at the meeting, if desired by the Commission.

- **Past and Upcoming Council Meeting Topics**
  - May 27, 2021 – Delinquent Trash Disposal Payments Public Hearing
  - June 24, 2021 – Food Ware Ordinance second First Reading, Leaf Blower Enhanced Enforcement discussion
- **EV Charger Expansion progress** – The City continues to meet with the contractor, Carbon Solutions Group, to submit permits and finalize paperwork associated with the charger installations. The group has submitted permit applications for the Museum Garage and City Hall and will be submitting paperwork for the Downtown Baristo Garage soon. Southern California Edison will require an easement from the City for the City Hall project and estimates it may take about 10 weeks for the SCE portion of the work to commence. The agreement has been signed by the City Manager and is being held until the City receives performance bonds from Carbon Solutions Group.
- **Tree Standards and Arbor Day** – Sustainability Staff has no new updates on the data needed to assess participation in the Tree City USA program. Sustainability Staff met with Maintenance on June 9 and will be following up with them on additional information.
- **Night Sky Follow-up** – Commissioner McCann will be providing updated information at a future meeting as he will remain on the Night Sky subcommittee after he leaves the Commission.
- **Hydrogen Fueling Stations** – The City received another inquiry about the placement of hydrogen fueling stations in Palm Springs. No additional information has been received from potential providers.
- **Michele Mician Community Garden** – Sustainability staff ordered and installed two (2) new hoses and hose reels on June 8<sup>th</sup>. Staff has contracted with Conserve Land Care for irrigation repairs to the

remaining garden plots for the week of August 9th. Plots # 1, 2, 3, 5, 8, 11, 12, 14, 18-26, and 28-31 will be assessed by the contractor and the appropriate repairs will be completed.

- **Airport Demonstration Garden** – Public Works Staff reviewed the draft construction documents for the project and had only minor comments. Sustainability staff will make a final attempt to reach out to the Public Arts Commission representative to get input on a public art project as part of the garden. The project will be put out to bid in late June or early July for a fall installation.
- **Bike Loop Signage** – Sustainability staff ordered 268 bike loop signs and installation hardware to replace faded/damaged signage. The signs will be installed by the City’s Maintenance Department throughout the summer months.
- **Bike Racks** - City staff requested funding for the cost to purchase and install bike racks from the Measure J Commission at their May 20, 2021 meeting. The request was approved and is tentatively planned for the 2021-22 Fiscal Year pending approval from the City’s Finance Department. Once approved, the bike racks will be purchased directly from Dero Bikes which is the primary manufacturer of the bike racks and they are able to offer the most competitive pricing. Sustainability staff has also meet with Engineering staff regarding the proposed locations and Araby Trailhead has been removed from the list due to planned infrastructure changes nearby.



## SUSTAINABILITY COMMISSION - REGULAR MEETING MINUTES

Tuesday, May 18, 2021

Pursuant to Executive Order N-29-20, by Governor Newsom, this meeting was conducted by teleconference and there was no in-person public access to the meeting location.

**CALL TO ORDER:** Chair Clark called the meeting to order at **5:33 p.m.**

**ROLL CALL:** A quorum was present for this Regular Meeting of the City of Palm Springs Sustainability Commission.

### WELCOME AND INTRODUCTIONS

	This Meeting	Present to Date	FY 2020/2021 Excused Absences	FY 2020/2021 Unexcused Absences
Roy Clark, Chair	X	52		
Robert McCann, Vice Chair	X	50		
David Freedman	X	62		
Jennifer Futterman	E	43	3	
Greg Gauthier	X	41	1	
Carl Baker	X	28		
Jim Flanagan	X	21		
Lani Miller	U	18	1	1
Sandra Garratt	X	16	1	
Alex Ocañas	X	2		
Jake Torrens	X	2		

X = Present

E = Excused (notified Chair and Staff of absence)

L = Late

U = Unexcused (did not notify of absence)

**REPORT OF POSTING OF AGENDA:** The Agenda was available for public access at the City Hall exterior bulletin board (west side of the Council Chambers) by 6:00 PM Thursday, May 13, 2021 and posted on the City's website as required by established policies and procedures.

**ACCEPTANCE OF THE AGENDA:** Chair Clark asked if there were any objections to the agenda for the May 18, 2021 meeting. There were no objections and the agenda was unanimously accepted.

**CITY STAFF PRESENT:** Patrick Tallarico, Manager, Office of Sustainability; Tracy Sheldon, Program Coordinator, Office of Sustainability

**GUESTS PRESENT:** Mark Talkington with Palm Springs Post and Deborah McGarrey with SoCalGas.

**STAFF COMMENTS –** Manager Tallarico reported

- Manager Tallarico inquired if there were any questions about the Staff Comment memo and there were none. There were no additional comments from Staff.

**PUBLIC COMMENTS –** None

**A. PRESENTATIONS –** None

### B. MEETING MINUTES

Chair Clark asked if there were any objections to the meeting minutes for the April 20, 2021 meeting. There were no objections and the meeting minutes were unanimously approved.

### C. OLD BUSINESS

1. Leaf Blower Ordinance Enhancement Discussion - Manager Tallarico reported

- Manager Tallarico reported an overview of the leaf blower enforcement issues and potential actions as outlined in the report.
  - Staff met to discuss the leaf blower enforcement process on May 13<sup>th</sup>. The group reviewed key challenges such as staffing shortages, difficulty reaching violators in a timely way, and lack of challenges in obtaining accurate violator contact information.
  - One key challenge is that many gardeners do not have business licenses.
    - Commissioner Freedman stated the Business License information is not easily accessible on the City's website.
    - Commissioner Freedman requested a list of licensed businesses be available on the City's website.
    - Commissioner Flanagan inquired why lawn mowers and other equipment were not included the ordinance.
  - The group discussed the idea of holding home owners accountable for compliance in addition to landscaper/gardener. Under the proposed system, a homeowner would receive a notice when a gardener receives a citation. If that gardener is cited again on their property, the homeowner would be issued a citation along with the gardener.
    - Commissioner Torrens recommended providing homeowners with an approved landscaper/gardener list.
    - Commissioner Freedman recommended communicating with Vacation Home Rental managers to explain the proposed changes to the Leaf Blower Ordinance.
    - Commissioner Freedman inquired if there was still an annual class requirement/certification for landscapers to attend through College of the Desert.
  - The group discussed the option of increasing fines for landscapers.
    - Commissioner Ocañas inquired if an incentive could be offered to landscapers who are in compliance with the ordinance.
  - Manager Tallarico stated there could be an increase in observing violations in real time by engaging the Citizens on Patrol, if the program is revived, or deputizing Sustainability staff, or hiring a part-time person solely for leaf blower enforcement. Code Enforcement is requesting additional staff primarily for Short Term Rentals and Cannabis.
  - Manager Tallarico shared another solution is to allow gardeners to start earlier in the summer months (7:00 am) so that they have less time in the extreme heat, which drains electric batteries.
    - Currently, landscaping can commence at 7:00 am for commercial properties and 8:00 am for residential properties.
  - Commissioner Ocañas expressed concerns that the fines were high.
  - Commissioner Gauthier commented here has been a lot of education since implementation of the ordinance and that it was time to move to increasing the fines.
  - VOTE: Motion by Commissioner Freedman, seconded by Commissioner Gauthier to approve resolution and ordinance.  
AYES: CLARK, McCANN, FLANAGAN, GARRATT, FREEDMAN, BAKER, GAUTHIER, OCAÑAS, TORRENS
2. Sustainability Scholarship & Home Energy Assessment Audit Status and Feedback - Manager Tallarico reported
- There were no questions or comments.
3. GHG Inventory Report, 2020 Look-ahead - Manager Tallarico reported
- Manager Tallarico shared an updated version of the 2020 memo that included updated electric vehicle adoption information within the City. These data further reduced the GHG emissions.
  - Manager Tallarico also shared that the Circulation Plan is in the process of being updated, and it could be used as a tool to help promote behaviors that limit GHG emissions from transportation sources.
4. Night Sky Follow-up – Vice Chair McCann reported
- Vice Chair McCann reported that City Council recently passed Ordinance 2042 which establishes a new oversight committee for new construction which includes lighting codes. It will mean more oversight over new construction, which includes the lighting code.
  - California Energy Codes are being upgraded in 2022 which will impact Palm Springs Municipal Code

Section 93.21.00 for nighttime lighting regulations.

- The combination of these two items impacts the timing and content of the proposed recommendation to City Council for Outdoor Lighting in the City of Palm Springs.
  - Commissioner Freedman shared concern that there are rules in the zoning code and another set of rules in the municipal code, and it was unclear how any conflicts are resolved.
  - Vice Chair McCann agreed to revisit this item and revise the recommendation. It will be presented at a future Commission meeting.
5. Food Ware Ordinance Update and Discussion
- Manager Tallarico reported City Council approved the Food Ware Ordinance with the exception of clarification of some items which are listed below;
  - **Clarify language related to what paper products are allowed in 5.87.002b, which states “Non-reusable paper food wrappers, sleeves and bags; foil wrappers; paper napkins; and paper tray and plate-liners shall be allowed for on-site food consumption.”**
    - Manager Tallarico stated he is clarifying with the hauler on which materials would be acceptable in an organic waste collection (except aluminum).
    - Manager Tallarico suggested adding a statement at the end, “subject to approval by the City.”
  - **Clarify if we need to expand the fluorinated chemical limit to other food ware.**
    - Manager Tallarico stated the current language restricts that prohibition to compostable material, but it could be in any paper or fiber-based product.
    - Manager Tallarico suggested a revision to include any fiber based product and have the reference to fluorinated chemical be broader.
  - **Clarify if “by request only” is just a request by the customer or if a vendor can ask.**
    - Commissioner Torrens stated utensils and the plastic wrapping is the biggest issue.
    - Commissioner Gauthier stated that restaurants continue to provide disposable utensils even after requesting they not be provided.
    - Commissioner Flannagan inquired about using a reusable coffee cup. As a result of COVID-19, businesses stopped using reusable cups as a safety measure.
    - Chair Clark suggested this could be a training opportunity for business owners.
    - Commissioner Baker inquired how this would affect national chains.
    - Manager Tallarico shared that Starbucks is moving towards all fiber based food ware.
  - **Confirm the definition of plastic.**
    - Manager Tallarico stated the current definition focuses on petroleum-based products and that we could allow some compostable plastic.
    - Manager Tallarico shared our consultant indicated that Cal Recycle may be putting forward some restrictions on bio-plastics, so their use as compostable material may be short lived, although it may still be a less problematic option than petroleum-based material.
    - Manager Tallarico asked the Commission if they want to exclude ‘bio’ plastics or whether to only allow “bio” plastic straws.
    - Commissioner Ocañas supports removing plastic from the ordinance in reference to straws.
  - **Potentially add a condition that disposables must be recyclable or compostable.**
    - Manager Tallarico stated that Burrtec will not be composting most of the compostable items and prefers to list items as “fiber based” which are more widely accepted since we do not have access to industrial composting.
    - Commissioner Baker inquired how fast food chains will be handled.
    - Manager Tallarico responded that other cities have these ordinances in place and fast food chains have been moving in this direction for compliance.
  - **Clarify the fee on disposable containers.**
    - Commissioner Baker has a concern for visitors and them not having reusable cups/containers with them. Manager Tallarico stated that part of the outreach to hotels is to encourage them to provide reusable materials to guests.
    - Commissioner Garratt stated to keep the process simple and to not make it overly complicated for front line workers.
    - Commissioner Baker stated this is a regressive tax which impacts lower income individuals more than high income individuals as lower income frequents to go/fast food options more



often.

- Commissioner Torrens inquired if this pertains to cups and containers. Manager Tallarico confirmed this could potentially include providing a restaurant with a reusable container for take away orders.
- **Clarify how the people on aid programs would get their fee waived.**
  - More specific language is available from other cities. Manager Tallarico stated he would research alternative language for this item.
  - There were no additional comments from the Commission.

#### **D. NEW BUSINESS**

1. FY 2021-2022 Sustainability Budget – Manager Tallarico reported
  - Manager Tallarico provided an overview of the annual budget and noted the Office of Sustainability does not receive funding from the General Fund. The Sustainability budget is a savings account and will get spent down because it does not receive funding from the General Fund.
  - Vice Chair McCann stated he would like to develop a program to retrofit outdoor lighting.
  - Commissioner Flannagan inquired if funding could be budgeted for a bicycle survey.
  - Commissioner Freedman inquired if the Home Energy Assessment program could be moved to next year's budget.
  - Commissioner Freedman requested staff inquire with DWA about turf conversion funding availability under the Governor's new programs.

#### **E. SUBCOMMITTEE AND COMMISSIONER REPORTS**

1. Standing Subcommittee on Solar and Green Building - Commissioner Freedman reported
  - Commissioner Freedman reported on the California Energy Commission (CEC) energy efficiency standards exceeding the Energy Code, known as reach codes which is detailed in the memo included in the meeting packet.
2. Standing Subcommittee on Waste Reduction – Manager Tallarico reported
  - Manager Tallarico reported the survey results are included in the packet. The results did reveal that there will be a need for education of organics and what is included in the organics collection bin.
3. Standing Subcommittee on World Environment Day – Commissioner Futterman reported
  - Commissioner Garratt reported the deadline for art submissions had been extended to May 24<sup>th</sup>.
4. Ad Hoc Subcommittee on Walkability & Pedestrian Planning – Manager Tallarico reported
  - Manager Tallarico reported the data collection phase is near completion and now moving into the analytical phase. Priorities and project ideas will be reviewed sometime in mid-June which will be followed by public meetings.
  - Chair Clark reported the next Community Advisory Committee meeting will be June 23<sup>rd</sup>.
5. Ad Hoc Subcommittee on Bicycle Routes and Cycling – Commissioner Flanagan reported
  - Commissioner Flanagan reported there was a meeting held with David Newell on May 13<sup>th</sup>. There is an interest in having a survey(s) to confirm the number of people biking in Palm Springs and would like to use templates from other cities in the data gathering process.
6. Ad Hoc Subcommittee on Night Sky – Vice Chair McCann reported
  - No additional comments.
7. Ad Hoc Subcommittee on Strategic Planning and General Plan Update
  - No report.
8. Water Conservation – Commissioner Freedman reported
  - Commissioner Freedman reported DWA board met today and extended fee waivers until June 15<sup>th</sup>. DWA staff are pursuing grant opportunities for regional water conservation and DWA is working with other local water agencies on a Coachella Valley Urban Water Management Plan.
9. Wellness – Commissioner Baker reported
  - Commissioner Baker reported the Smoking Ordinance has been pushed to the June Human Rights Commission meeting.
10. Desert Community Energy, Community Advisory Committee – Commissioners Freedman reported
  - Commissioner Freedman reported the new Terra-Gen Wind project began operation on May 4<sup>th</sup>.
  - There was a recent article in the solar trade press about the solar PPA in the central valley.

- The annual True Up program ends this month and owners who generate more electricity than they consume will roll over credits less than \$100 and cash out credits over \$100.

**F. COMMISSIONER COMMENTS AND UPCOMING AGENDA**

- Commissioner Garratt shared that Walmart announced they will no longer sell bee killing pesticides.
- Commissioner Gauthier shared he would like to schedule a Commissioner retreat and review and make updates to the Sustainability Master Plan.

**G. ADJOURNMENT** - The meeting of the Sustainability Commission adjourned at **7:11** p.m. by a motion from Commissioner Baker and seconded by Vice Chair McCann and approved by a unanimous vote. They adjourned to the Regular Meeting of the Sustainability Commission to be held at 5:30 p.m. on Tuesday, June 15, 2021, location to be determined. There is a possibility that the next meeting will be via telecommunication also. The Sustainability Commission's regular meeting schedule is at 5:30 p.m. the third Tuesday each month except August unless otherwise noted or amended.

Respectfully Submitted,

Patrick Tallarico, Manager, Office of Sustainability

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PALM SPRINGS, CALIFORNIA, ADDING CHAPTER 5.87 TO TITLE 5 OF THE PALM SPRINGS MUNICIPAL CODE REGARDING REUSABLE FOOD SERVICE WARE AND PLASTIC WASTE REDUCTION**

**WHEREAS**, The City has a goal of diverting over 90% of its solid waste from landfills.

**WHEREAS**, The production and disposal of single-use disposable food and beverage packaging has significant environmental impacts, including the contamination of the environment, the depletion of natural resources, use of non-renewable polluting fossil fuels, greenhouse gas emissions, and the increased clean-up and end of life management costs; and

**WHEREAS**, Food and beverage packaging comprises approximately one quarter of California's disposed waste stream annually,<sup>1</sup> accounts for 14 of the top 20 marine plastic items,<sup>2</sup> and an estimated 70% of street litter<sup>3</sup>; and

**WHEREAS**, Plastics released to land, waterways, and oceans break down into smaller pieces that are not biodegradable and can be easily consumed by animals and people; and

**WHEREAS**, Plastics contribute to greenhouse gas emissions because they are derived from petroleum products and because they release methane emissions when they degrade; and

**WHEREAS**, Polystyrene foam food and beverage service ware is a distinctive litter concern because it is lightweight, easily blown into streets and waterways, and floats in water; and

**WHEREAS**, Polystyrene foam food and beverage service ware breaks apart easily into small pieces, is difficult to collect, and is often mistaken as food by birds, fish, and wildlife; and

**WHEREAS**, Styrene used to manufacture polystyrene products is identified by the State of California as a carcinogen under Proposition 65 chemicals, the state advises that individuals limit consumption of hot food and beverages from polystyrene containers, and containers made from alternative materials that are reusable, recyclable, or compostable are readily available.<sup>4</sup>

**WHEREAS**, The market for alternative forms of disposable food and beverage packaging and food service ware continues to evolve, and there is no ideal replacement for all current plastic disposable food ware.

**WHEREAS**, Reusable food ware, packaging, and products are more environmentally sound alternatives to disposables and saves businesses money.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PALM SPRINGS DOES ORDAIN AS FOLLOWS:**

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<sup>1</sup> CalRecycle Packaging Reform Workshop Background Document (2017) citing CalRecycle waste characterization study entitled "2014 Disposal Facility-Based Characterization of Solid Waste in California."

<https://www2.calrecycle.ca.gov/PublicNotices/Documents/8345>

<sup>2</sup> Better Alternatives Now, List 2.0. UPSTREAM. <https://www.upstreamsolutions.org/reports>

<sup>3</sup> Clean Water Fund (2012), Taking out the Trash: Identifying Sources of Trash in the Bay Area- <http://www.rethinkdisposable.org/resources>

<sup>4</sup> <https://www.p65warnings.ca.gov/fact-sheets/styrene>

SECTION 1. Incorporation of Recitals. The above recitals are true and correct and are incorporated herein by this reference as material findings in support of this Ordinance.

SECTION 2. Chapter 5.87 is hereby added to Title 5 of the Palm Springs Municipal Code to read as follows:

### **5.87.001 Definitions**

For the provisions of this Chapter, the following definitions shall apply:

“Aluminum Foil-based” mean any Non-reusable Food Service Ware composed entirely of aluminum, including but not limited to aluminum tray liners, aluminum foil, and aluminum foil baskets.

“Biodegradable Products Institute” refers to a certification program that ensures that products and packaging displaying the BPI logo have been independently tested and verified accordingly to scientifically based standards to successfully break down in professionally managed industrial composting facilities. BPI-certified products meet the standards of the American Society for Testing Materials (ASTM) D6400 or D6868 for compostability. All BPI-certified products are also required to have (1) a limit of 100 parts per million (ppm) total Fluorinated Chemicals as the upper threshold for acceptance and (2) no intentionally added Fluorinated Chemicals.

“City” means the City of Palm Springs, California.

“City-sponsored event” includes any event, activity or meeting organized or sponsored, in whole or in part by the City or any department of the City.

“Compostable” means an item or material (1) will break down, or otherwise become part of a usable compost in a safe and timely manner and (2) is Natural Fiber-based or made from other materials approved by the City Manager or designee. Compostable items may include those that are made entirely of Natural Fiber or Natural Fiber-based items that are coated or lined with biologically based polymer, such as corn or other plant sources (e.g., compostable plastics), if certified by the Biological Products Institute (BPI) or by another independent third party approved by the City Manager or designee. ~~any non-Plastic product that meets the standards of ASTM D6400 or ASTM D6868 for compostability, as adopted or subsequently amended by the American Society for Testing and Materials (ASTM) such as products certified by the Biodegradable Products Institute or a different third party as specified by the City. Compostable items may include those that are made entirely of Natural Fiber or Natural Fiber-based items that are coated or lined with biologically based polymer, such as corn or other plant sources as long as they meet ASTM standards for compostability and are accepted in the City’s organic waste collection system.~~

“Fluorinated Chemicals” means perfluoroalkyl and polyfluoroalkyl substances or fluorinated chemicals, which for the purposes of food packaging are a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

“Food Service Ware” means all containers, bowls, plates, trays, cups, lids, and other like items that are used for consuming prepared foods, including without limitation, service ware for takeout foods and/or leftovers from partially consumed meals prepared by prepared food vendors.

“Food Service Ware Accessory” means all types of single-use items usually provided along ~~with side Prepared Food in single use plates, containers, bowls, or cups~~ Food Service Ware, including but not limited to utensils, chopsticks, napkins, cup lids, cup sleeves, ~~food or~~ beverage trays, condiment packets and saucers, straws, stirrers, splash sticks, cocktail sticks, and toothpicks designed for a single use for Prepared Foods.

“Natural Fiber/Natural Fiber-based” means a plant or animal-based, non-synthetic fiber, including but not limited to products made of paper, sugarcane, bamboo, wheat stems/stalks, hay, wood, etc.

"Non-reusable" means products that do not meet the definition of “Reusable” as defined in this section.

“Non-reusable cup” is a beverage cup that does not meet the definition of “Reusable” that is used to serve beverages, such as water, cold drinks, hot drinks, alcoholic beverages, and other drinks.

“Packing Material” means material used to hold, cushion, or protect items packed in a container for shipping, transport, or storage.

“Person” means any individual, trust, firm, joint stock company, corporation including a government corporation, partnership or association.

“Plastic” means a ~~synthetic~~ material made from fossil fuel based polymers such as polyethylene, polystyrene, polypropylene, and polycarbonate or from biologically based polymers such as corn or other plant material that can be molded or blown into shape while soft and then set into a rigid or slightly elastic form.

"Polystyrene" means a thermoplastic petrochemical material utilizing the styrene monomer, including but not limited to rigid polystyrene and expanded polystyrene, processed by any number of techniques, including but not limited to fusion of polymer spheres (expandable bead polystyrene), injection molding, expanded polystyrene molding, or extrusion-blow molding (extruded polystyrene), and clear or solid polystyrene (oriented polystyrene). The resin code for polystyrene is '6' or 'PS,' either alone or in combination with other letters. This definition applies to all polystyrene food service ware, regardless of whether it exhibits a resin code.

“Polystyrene foam” means and includes blown polystyrene and expanded and extruded foams (sometimes called Styrofoam, a Dow Chemical Co. trademarked form of expanded polystyrene insulation) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and

extrusion blow molding (extruded foam polystyrene). Polystyrene foam is commonly made into disposable food service ware products. Polystyrene foam does not include clear or solid polystyrene (oriented polystyrene).

“Prepared Food” means food or beverages, which are serviced, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed, poured, or otherwise prepared (collectively “prepared”) for individual customers or consumers. Prepared Food does not include raw eggs; raw, butchered meats, fish, and/or poultry sold from a butcher case, a refrigerator case, or similar retail appliance; or food that is prepared and packaged on site such as breads, baked goods, and deli items that are not intended for immediate consumption.

"Prepared Food Vendor" means any person or place that provides or sells Prepared Food within the City to the general public to be consumed on the premises or for take-away consumption. Prepared Food Vendor includes but is not limited to: a grocery store, supermarket, restaurant, [bar](#), fast-food restaurant, drive-thru, cafe, coffee shop, snack shop, public food market, farmers market, convenience store, or similar place where prepared food is available for sale on the premises or for takeaway consumption, and any mobile store, food vendor, caterer, food truck, or similar mobile outlet. This includes Prepared Food Vendors at City facilities and City contractors and lessees acting pursuant to a City contract, lease, or permit at a City Facility.

“Prepackaged” means food or beverages that are properly labeled and arrive at the premises of the food seller, vendor, or server in a container or wrapper in which the food or beverage is wholly encased, enclosed, contained or packaged and is not removed from such container or wrapper (other than an outer container or wrapper that encloses multiple units of food) before its sale or provision at the premises. Prepackaged food and beverages may be sold, vended, or served in the same container (e.g., ramen noodles in a foam cup).

“Reusable” means products designed and manufactured to maintain its shape and structure and be materially durable to be washed and sanitized and to be used repeatedly over an extended period of time, and is safe for washing and sanitizing by mechanical and/or manual ware washing methods that meet the requirements of the California Retail Food Safety Code for cleaning and sanitizing of equipment and utensils.

“Reuse System” means a closed loop service or program provided by a third party to a Food Vendor that includes the provision of Reusable Food Ware and the collection, cleaning, and redistribution of the Reusable Food Ware to said Food Vendor or other Food Vendors. Any operative third-party Reuse System provider in the City of Palm Springs shall meet regulatory requirements that the City of Palm Springs may set forth in guidelines or regulations with a public hearing.

"Takeout food" means Prepared Food requiring no further preparation which is purchased to be consumed off a Prepared Food Vendor’s premises. Takeout Food includes Prepared Food delivered by a Prepared Food Vendor or by a third-party delivery service.

### **5.87.002 On-Site Food and Beverage Consumption**

- a) Prepared Food Vendors shall use Reusable Food Service Ware and Reusable Food Service Ware Accessories for Prepared Food served for on-site food and beverage consumption, unless the Food Vendor qualifies for a waiver as described in Section 5.87.008006. This requirement does not prohibit a Prepared Food Vendor from providing leftover Prepared Food in Non-reusable Food Service Ware with Non-reusable Food Service Ware Accessories that are compliant with Section 5.87.003 of this Chapter when requested by a customer.
- b) The following Non-reusable Food Service Ware Accessories items are allowed for on-site food consumption and must be non-Plastic: paper food wrappers, sleeves and bags; foil wrappers; paper napkins; straws, stirrers, cocktail sticks; toothpicks; and paper tray and plate-liners shall be allowed for on-site food consumption. -Any additional Non-reusable items not listed in this section or identified elsewhere in the Ordinance must be approved by the City Manager, or designee.
- c) All Prepared Food Vendors offering condiments must offer those items in Reusable containers, bulk dispensers or individual Non-plastic paper packaging for on-site food and beverage consumption. Individual single use plastic condiment packages are prohibited for on-site use.
- d) Although Reusable options are preferred, Prepared Food Vendors may use Non-reusable straws, stirrers, cocktail sticks, and toothpicks that are not Plastic for on-site food consumption. Straws and stirrers shall be made available only upon request.
- e) As of January 1, 2023, Any Non-reusable Food Service Ware and Food Service Ware Accessories items listed in paragraph (b) that are Compostable must meet the definition of Compostable in this Chapter and be free of added Fluorinated Chemicals.

### 5.87.003 Food Service Ware for Off-site Food and Beverage Consumption

- a) No Prepared Food Vendor may use any Non-reusable Food Service Ware or Food Service Ware Accessories made in whole or in part from Polystyrene or Polystyrene Foam.
- b) Non-reusable straws and stirrers shall not be made of Plastic.
- ~~e) Any Non-reusable Food Service Ware and Food Service Ware Accessories that are Compostable must meet the definition of Compostable in this Chapter and shall be free of added Fluorinated Chemicals.~~
- ~~d)c) \_\_\_\_\_~~ Prepared Food Vendors shall provide, sell, or otherwise distribute only those Food Service Ware Accessories that comply with this Section, and only (1) upon a customer's specific request for such items, (2) in a self-service area or dispenser – except for Non-reusable straws and stirrers, which shall be made available by request only, or (3) when Prepared Food is assembled for takeout or delivery, to accommodate for safety and to prevent spills.
- ~~e)d) \_\_\_\_\_~~ Food prepared for off-site consumption or leftovers of partially consumed food on premises shall not be provided to customers in single-use plastic bags.
- ~~f)e) All Prepared Food Vendors must should allow for the use of customer-supplied Reusable Food Service Ware consistent with California Food Retail Code, unless any customer-~~

supplied Reusable Food Service Ware appears to be soiled, unsanitary, or otherwise appears inappropriate in size, material, or condition for the intended use.

f) Prepared Food Vendors and Takeout Food delivery services must provide options for customers to affirmatively request Food Service Ware Accessories ~~separate from orders for food and beverages~~ across all ordering/point of sale platforms, including but not limited to web, smart phone and other digital platforms, telephone and in-person.

Prepared Food Vendors and Takeout Food delivery services shall not automatically include Food Service Ware Accessories.

g) As of January 1, 2023, any Non-reusable Food Service Ware and Food Ware Accessories provided for off-site Food and Beverage Consumption must meet the definition of Compostable in this Chapter. The following Food Service Ware must also be certified Compostable by the Biodegradable Products Institute or another independent third party approved by the City Manager or designee, in collaboration with local waste processors and haulers:

1. Plates

2. Bowls

3. Cups

4. Clamshells, boxes, deli containers and other containers used for the sale and/or distribution of Prepared Food

#### **5.87.004 Food Service Ware for Retail Sale**

a) No Person may sell, offer for sale, or otherwise distribute for compensation within the City any Non-reusable Food Service Ware or Food Service Ware Accessories made in whole or in part from Polystyrene or Polystyrene Foam.

#### **5.87.005 Promoting the Use of Reusable Beverage Cups and Food Containers**

a) Food Vendors must ~~either~~ charge a Non-reusable Food Service Ware fee of \$.25 for any Non-reusable cups ~~and or~~ containers ~~or~~ provided to a customer. This fee is a fee per order, not a fee per item.

b) Food Vendors must provide a \$.25 credit to customers that provide an appropriate Reusable cup or container that is used consistent with California Food Retail Code. This credit does not apply to a Reusable cup or container provided by the Food Vendor through a Reusable cup or container service.

c) Nothing in this section shall prevent a Food Vendor from charging a fee for a Reusable cup or container provided through a Reusable cup or container service. ~~provide an incentive for customers to use a Reusable alternative, if viable Reusable alternatives are available. The incentive must result in the Reusable alternative being less expensive for the consumer than the use of Non-reusable cups or containers.~~

a)d) ~~A Food Vendor shall provide notice of any charge for Non-reusable cups and containers to each customer prior to completing the customer's order. Fees for Non-reusable cups and containers shall not exceed \$.25 per cup or container with a maximum charge of \$.50 per order.~~



- b)e) \_\_\_\_\_ Any Non-reusable cup ~~and Non-reusable food or~~ container charges ~~and Reusable cup and Reusable food container charges~~ imposed under subsection (a) of this Section shall be retained by the Food Vendor. Third-party food delivery services that process and/or deliver orders on behalf of Food Vendors and collect payment on behalf of Food Vendors shall remit the full amount of the charge to the Food Vendor.
- e)f) A Food Vendor shall provide notice of any charge for Non-reusable cups and containers to each customer prior to completing the customer's order. The amount(s) charged pursuant to subsection (a) shall be separately stated on any receipt provided to the customer at the time of sale and shall be identified respectively as the Non-Reusable Cup or Container Charge.

### 5.87.006 Waivers and Exemptions

- a) Non-reusable Food Service Ware that is entirely Aluminum Foil-based is exempt from the provisions of this Chapter.
- a)b) ~~Any charges under Section 5.87.005 Subsection (a) do not apply to Food Vendors when they are providing Prepared Food to a customer who receives state assistance as part of the Special Supplemental Food Program for Women, Infants, and Children or the (California Department of Social Services) CalFresh Program, or California Department of Health Care Services MediCal Program. All Customers demonstrating, at the point of sale, a payment card or voucher issued by the California Special Supplemental Food Program for Women, Infants, and Children (WIC) pursuant to Article 2 (commencing with Section 123275) of Chapter 1 of Part 2 of Division 106 of the California Health and Safety Code, or an electronic benefit transfer card (EBT) issued pursuant to Section 10072 of the California Welfare and Institutions Code, shall be exempt from the charges under Section 5.87.005.~~
- b)c) \_\_\_\_\_ The City Manager or designee may waive the provisions of this Chapter if any of the following are met:
1. The applicant demonstrates a feasibility-based hardship. The person seeking the waiver must demonstrate to the City Manager's satisfaction that it is not feasible to meet a specific requirement or that no reasonably feasible alternative exists to a specific non-compliant product.
  2. The applicant demonstrates compliance is unreasonably financially prohibitive. The person seeking the exemption must demonstrate to the City Manager's satisfaction that with respect to each specific non-compliant product, there is no suitable and reasonably affordable alternative product available, including, but not limited to, good faith efforts to obtain a substantially similar compliant item at a non-prohibitive price.
  3. Strict application of the specific requirement would create an undue hardship, or practical difficulty, not generally applicable to other persons in similar circumstances, and good cause is shown.
- e)d) \_\_\_\_\_ An applicant seeking a waiver under subsection a must submit a written application on a form approved by the City Manager or designee. The City Manager or designee may require the applicant to submit additional information or

documentation to make a determination regarding the waiver requested. The City Manager or designee shall review requests for waivers on a case-by-case basis, and may grant the waiver in whole or in part, with or without conditions, for a period of up to twelve (12) months. An applicant for renewal of a waiver must apply for a new waiver period no later than sixty (60) days prior to the expiration of the then-current period to preserve a continuous waiver status. The City Manager or designee shall review each application anew and base his or her determination on the most current information available. In no case shall a waiver be retroactive or continue past January 1, 2023.

d)e) \_\_\_\_\_ Nothing in this chapter shall restrict the availability of single-use plastic straws, cups, or containers to individuals who may require and request them due to disability or other medical or physical conditions or circumstances. Prepared Food Vendors that customarily offer plastic straws, cups, or containers may maintain a small supply of plastic products to accommodate such requests.

### **5.87.010 Violation**

- a) Any Person, firm or corporation violating any provision of this chapter shall be guilty of an infraction for such violation and shall be subject to penalties as provided in Section 1.01.155.

SECTION 3. CEQA. This Ordinance was assessed in accordance with the authority and criteria contained in the California Environmental Quality Act (“CEQA”) (Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). The City Council hereby finds that under Section 15061(b)(3) of the State CEQA Guidelines, this Ordinance is exempt from the requirements of CEQA because it can be seen with certainty that the provisions contained herein would not have the potential for causing a significant effect on the environment. The City Council also finds the Ordinance is exempt from the requirements of CEQA pursuant to State CEQA Guidelines Sections 15307 and 15308 as an action by a regulatory agency taken to protect the environment and natural resources.

SECTION 4. Severability. If any section or provision of this Ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, or contravened by reason of any preemptive legislation, the remaining sections and/or provisions of this ordinance shall remain valid. The City Council hereby declares that it would have adopted this Ordinance, and each section or provision thereof, regardless of the fact that any one or more section(s) or provision(s) may be declared invalid or unconstitutional or contravened via legislation.

SECTION 5. Effective Date. This Ordinance shall become effective on January 1, 2022. The requirement that all Non-reusable Food Service Ware and Food Service Ware Accessories be fiber-based-Compostable or Certified Compostable shall become effective on January 1, 2023.

SECTION 6. Publication. The City Clerk shall certify to the adoption of this Ordinance and shall cause a summary of the same to be published in the official newspaper of the City of Palm Springs within fifteen (15) days following its adoption.

Ordinance No. \_\_\_\_\_

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PASSED, APPROVED AND ADOPTED this 8 day of April, 2021, by the following  
vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

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MAYOR Christy Holstege

ATTEST:

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Anthony J. Mejia, MMC  
City Clerk

APPROVED AS TO FORM:

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Jeff Ballinger, City Attorney

**CERTIFICATION**

**STATE OF CALIFORNIA** )  
**COUNTY OF RIVERSIDE** ) ss  
**CITY OF PALM SPRINGS** )

I, Anthony Mejia, City Clerk, hereby certify that the attached is a true copy of Ordinance No. \_\_\_\_\_, introduced by the City Council of the City of Palm Springs, California, at a City Council meeting held the \_\_\_ day of XXXXX, 2021. Ordinance No. \_\_\_\_\_ was passed, approved and adopted at a regular City Council meeting held at the \_\_\_ day of XXXXX, 2021.

WITNESS my hand and official seal of the City of Palm Springs this \_\_\_ day of XXXXX, 2021.

\_\_\_\_\_  
Anthony J. Mejia, MMC  
City Clerk



# City of Palm Springs

Development Services Department  
Office of Sustainability

**TO:** Sustainability Commission  
**FROM:** Tracy Sheldon, Program Coordinator  
**SUBJECT:** Sustainability Scholarship Update  
**DATE:** June 15, 2021

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Sustainability Reserved	Sustainability Paid	Sustainability Total	Recycling Reserved	Recycling Paid	Recycling Total
\$ 11,000.00	\$ 22,263.88	\$ 33,263.88	\$ 1,500.00	\$ 5,385.27	\$ 6,885.27

## Final Documentation Received and Checks Requested

Organization Name	Action	Sustainability Paid	Recycling Paid
		\$ 22,263.88	\$ 5,385.27
Palm Springs Power Baseball Club Inc.	Purchase Electric Leaf Blower	\$ 716.68	\$
Juan Gutierrez	Purchase electric mower and backup batteries for leaf blower	\$ 750.00	\$
Lulu	Leaf Blower	\$ 696.60	\$
Postal Palm Springs	Instant hot water system	\$ 245.48	\$
Tops n Tees	New Low flow toilet	\$ 632.00	\$
Dave's Woodworking of Palm Springs	Tankless Hot Water Heater	\$ 750.00	\$
Jerry Houston Ayers JR (handyman)	Electric Leaf Blower	\$ 310.32	\$
Manuel Martinez Landscaping	Electric Leaf Blower	\$ 750.00	\$

Candice Held Boutique	Reusable garment/laundry bags	\$ -	\$ 326.19
Palm Springs Cleaners	Purchase energy star washer	\$ 750.00	\$ -
Chill Bar	Reusable food ware	\$ -	\$ 750.00
Blue Sky Landscape Corp	Electric Blower	\$ 750.00	\$ -
Down to Earth Landscaping	Electric Leaf Blower Battery	\$ 750.00	\$ -
Above All Solutions	Electric Leaf Blower	\$ 184.63	\$ -
Desert Hand Car Wash	electric leaf blower	\$ 435.91	\$ -
Desert Star	Energy Efficient Landscape Lighting	\$ 750.00	\$ -
Cathedral City Upholstery	Bottle Filler and Energy Efficient Mini AC unit	\$ 741.53	\$ -
Daniel Brito Gardening Services	Electric blower and trimmer and mower	\$ 473.55	\$ -
All Seasons Cleaning Services	Electric Leaf Blower	\$ 195.96	\$ -
Terra Palms Landscape	Electric leaf blowers and trimmer	\$ 750.00	\$ -
Ocotillo Apartments - 1200 S Palm Canyon	Replace halogen with LED lighting for safety lights	\$ 568.84	\$ -
Arellano Maintenance	Leaf Blowers	\$ 750.00	\$ -
Greg Lee Worley CMT	Energy Star Washer/Dryer	\$ 750.00	\$ -
JMR Electric Co.	Leaf Blower	\$ 638.36	\$ -
Reset Ketamine	Biodegradable gloves		\$ 478.00
Bermuda Palms Apartments - 650 E Palm Canyon	Energy Efficient Lighting	\$ 726.37	\$ -
Raymon Salinas Fourplex	Washer and dryer	\$ 750.00	\$ -
Cobano Landscape & Irrigation, Inc.	Leaf Blower	\$ 750.00	
Kaiser Grill	Trash enclosure for organics recycling		\$ 750.00
Valley Office Equipment	Leaf Blowers	\$ 585.08	

Xenia v Farghaly Skin Care Services	Tankless Water Heater	\$ 750.00	
Lola Properties - 1932 E Calle Lileta	Energy Efficient Lighting	\$ 312.27	
Gerber Compound Apartments	composting bin with starter compost		\$ 105.08
Gerber Compound Apartments	electric leaf blower	\$ 75.38	
DA Computer	Install water/energy efficient water system	\$ 750.00	
Billy's Blues Cosmetics	Sustainable Packaging	\$	\$ 750.00
Green Rock Investors	Water reuse system	\$ 709.65	
DL Certified Landscape Irrigation	Electric Leaf Blower	\$ 696.44	\$
Thick as Thieves	Ceiling Fans	\$ 592.83	\$

#### Requests Approved and Awaiting Documentation

Organization Name	Action	Reserved Amount	Notes
Inn at Palm Springs	Install EV Charger	\$ 750.00	3/29 - Sent follow up email. Yes going to install. 6/7 Sent email
HundredMileHouse	EV Charging Station	\$ 750.00	Awaiting Install. 3/29 - Sent email. Have not purchased yet but planning too. 6/7 Sent email
Escape Room Palm Springs	Rechargeable batteries	\$ 750.00	3/29/21 Received list of items via email and PT approved. 6/7 Sent email
Ray's Landscape & Gardening	Leaf Blower	\$ 750.00	Provided him with info about the state program. 6/7 Sent email
Premier Construction	Electric Leaf Blower	\$ 750.00	Awaiting purchase. 3/29 - Sent email. 6/7 Sent email
Postal Palm Springs	Biodegradable peanuts - Styro alternative	\$ 500.00	Will split request. 3/29 Sent follow up email. 6/7 Sent email
Reyes Pool Services	Variable Speed pool pump	\$ 750.00	Getting Clarification on request. OK's by commis. 6/7 Sent email
Edgar Ochoa Landscaping	Leaf Blower		confirming what he wants. 6/7 Sent email
Xrayman Images	Replace old hot water heater with instant on unit		Doesn't want to pay extra for Energy Star product. 6/7 Sent email

Joel Vasquez Garden Maintenance	Electric blower and trimmer and mower	\$ 750.00	Awaiting purchase. 6/7 Sent email
Chef Tanya	TBD	\$ 750.00	Awaiting more information. 6/7 Sent email
Kemaan Enterprises, Inc., DBA: Organic Wine Exchange	Reusable bags and Recyclable cardboard packaging (Styrofoam alternative)	\$ 750.00	Awaiting purchase. 3/29 - Sent email. 6/7 Sent email
CV Supersonic Cleaning	TBD	\$ 750.00	Awaiting feedback. 6/7 Sent email
Raul's Gardening	Leaf Blowers	\$ 750.00	Awaiting purchase. 6/7 Sent email
Tahquitz Investment Partners, LLC	EV Charging Station	\$ 750.00	Awaiting purchase. 6/7 Sent email
The Gaffney Group	EV Charging Station for Estados South HOA	\$ 750.00	Awaiting purchase. 6/7 Sent email
Seven Artist Management	Electric leaf blower	\$ 750.00	Awaiting purchase. 6/7 Sent email





# COMMITTEE REPORT

**PRESENTED FOR COMMISSION MEETING DATE: 06/15/21**

**SUBMITTED BY: David Freedman**

**COMMITTEE NAME: Standing Committee on Solar and Green Building**

**SUBMITTED DATE: 06/09/21**

**COMMITTEE MEETING DATE: 06/01/21**

**NEXT COMMITTEE MEETING DATE: TBD**

## **Committee Meeting Agenda:**

- A. Presentation and Discussion of New SCE Commercial Energy Efficiency Incentives
- B. Outdoor Lighting Requirements Under Zoning and Energy Codes
- C. Committee Expansion
- D. GHG Inventory Update
- E. Reach Code Proposal
- F. EV Charger Expansion
- G. Sustainability Scholarship and Home Energy Assessment Rebates
- H. Legislative and Regulatory Update
- I. DCE Issues/Updates
- J. Agenda Items for June Commission Meeting
- K. Adjournment – Discuss Date of Next Committee Meeting

## **Summary:**

Manager Tallarico and Program Coordinator Sheldon represented the Office of Sustainability. Chair Clark and Vice Chair McCann attended for the first three agenda items. Francine Pitassi and Taylor McKerlich of Willdan and Rick Stephens of Inland Mechanical Services made the presentation on behalf of Southern California Edison (SCE) noted below. In the absence of Commissioner Flanagan to establish a quorum for a formal Committee meeting, the focus was on the reporting items on the posted agenda.

### **A. Presentation and Discussion of New SCE Commercial Energy Efficiency Incentives**

Ms. Pitassi noted that SCE has contracted with Willdan as third-party administrator of a five-year program offering \$900 million in incentives for energy efficiency incentives for commercial and multifamily buildings, including residential care facilities, consuming more than 20 kilowatts per month. Approval from the California Public utilities commission (CPUC) is pending, but SCE has authorized Willdan to begin outreach on the incentive program. The program is financed by public purpose charges paid by SCE customers, and customers of Desert Community Energy (DCE) are also eligible since they pay SCE delivery charges.

The purpose of the program is to reduce energy and natural gas consumption from the grid. Eligible projects include HVAC and indoor lighting upgrades. Willdan or its trade allies such as Inland Mechanical Services will conduct a no-cost audit on energy savings measures and put together the project cost. The objective is to influence the customer to do the energy saving project and obtain a quicker return on investment, in three to five years. Willdan can also offer

financing to cover project costs beyond the incentives.

Considering the outdoor lighting discussion next on the agenda, Ms. Pitassi said that outdoor lighting upgrades are not yet part of the program, but she hoped that the CPUC would authorize them. She will send manager Tallarico details on the CPUC proceeding and whether a letter from the City to the CPUC supporting inclusion of outdoor lighting in the program would be helpful. Once the program is launched, Manager Tallarico will include information about it under Energy Efficiency on the Office of Sustainability landing page on the City website. He will check with Ms. Pitassi on whether the program will also cover cannabis grow facilities and new construction.

**B. Outdoor Lighting Requirements Under Zoning and Energy Codes**

Vice Chair McCann provided an update on his outdoor lighting memo to the Commission for its June 15 meeting. The memo will contain a recommendation to staff to resolve possible conflicts between the outdoor lighting standards in Section 93.21.00 of the Zoning Code and those in the 2019 California Energy Code, adopted in Section 8.04.065 of the Municipal Code.

**C. Committee Expansion**

Chair Clark noted that he would like to expand the charter of the Solar and Green Building Committee to cover all elements of the City's Climate Action Roadmap, especially on-road transportation, which accounts for about 50% of the City's GHG inventory. He would like to participate in the expanded Committee and will develop a preliminary approach for evaluating the GHG impact of on-road transportation before recommending any Committee changes.

**D. GHG Inventory Update**

The City issued a news release publicizing that it achieved its 2020 GHG emissions reduction target by reducing emissions more than 15 percent below 2010 levels, as a direct result of the launch of DCE and the commitment by most customers to stay with the Carbon Free program. Councilmember Kors shared the results in his report at the May 27 Council meeting. The GHG memos produced by the contractor, PlaceWorks, have been uploaded to the Office of Sustainability page of the City website, under Plans and Publications.

Manager Tallarico Council said he expects to present the GHG inventory reports to Council before the summer break, together with a discussion of actions the City has taken and can take to reduce its GHG emissions.

**E. Reach Code Proposal**

Commissioner Freedman presented his proposal for a Palm Springs Reach Code that would require certain residential remodels to carry out energy efficiency upgrades when such measures are not already triggered by California Energy Code provisions. These measures are cost-effective over their life cycle and would reduce energy consumption and GHG emissions, as further described in the memo included in the Commission meeting packet. Commissioner Freedman is working on a model with the state Reach Codes team. The California Energy Commission (CEC) has already approved similar ordinances.

**F. EV Charger Expansion**

Manager Tallarico reported that he is continuing to work with contractor for permitting. SCE has raised right-of-way issues for the City Hall parking lot, which may delay issuance of that permit. The contractor is working on the surety bond, and the agreements will be signed once the bond is approved.

G. Sustainability Scholarship and Home Energy Assessment Rebates

Manager Tallarico reported that applications have been submitted for a water recycling system at a cannabis facility and replacing plastics at a beauty facility. For the 2021-22 fiscal year, the Sustainability Scholarship will focus on supporting businesses in their compliance with the City's recently enacted food ware ordinance. The home energy assessment rebates will have a \$5,000 separate budget allocation. None of the current fiscal year's budget of \$10,000 has been spent.

H. Legislative and Regulatory Update

Commissioner Freedman provided an update on energy-related state legislative and regulatory proceedings that will impact the City and DCE.

- The CEC held three days of public hearings on the draft 2022 Energy Code, which it is scheduled to adopt along with the related Environmental Impact Report at its August Business Meeting. Council will adopt the 2022 Energy Code and the other state Building Standards Codes in late 2022, effective January 1, 2023. Commissioner Freedman has sent the CEC staff slide presentations from the hearings to Manager Tallarico for forwarding to the Building Division.
- The CEC held two days of workshops on building decarbonization, as part of the effort under AB 3232 to reduce GHG emissions from the state's building stock by at least 40 percent below 1990 levels by January 1, 2030. One of the workshop presentations is attached.
- The state Senate approved and sent to the Assembly SB 612, which would help ensure that Community Choice Aggregators such as DCE receive access to legacy resource benefits held by an investor-owned utility such as SCE. SB 617, which would require local governments to adopt an automated solar permitting application by September 30, 2023, is being held in the Senate Appropriations Committee suspense file. City Council has issued support letters in favor of both bills.
- The state Assembly rejected AB 1139, which would have limited the Net Energy Metering (NEM) bill credits solar customers receive for their electricity generation. The bill was moved to the inactive file at the request of its sponsor and could be reintroduced next year. The CPUC is also considering changes to the NEM compensation rules.

I. DCE Issues/Updates

The next DCE Board meeting will be on June 21. The DCE Board will approve its FY 2021-22 budget at the meeting.

J. Agenda Items for June Commission Meeting

Manager Tallarico and Commissioner Freedman divided the topics they will each present at the June 15 Commission meeting, reflecting the matters discussed above.

K. Adjournment – Discuss Date of Next Committee Meeting

The next Committee meeting will be scheduled once the Committee's new charter and roster have been set.

**Recommendation/Request:**

Continuing working on energy-related GHG reduction measures to further City and State goals.

<b>ACTION ITEMS REQUEST TO COMMISSION</b>	<ul style="list-style-type: none"><li>• Approve Reach Code proposal.</li><li>• Approve other GHG inventory action items when they are presented.</li></ul>
<b>ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY</b>	<ul style="list-style-type: none"><li>• Work with City Manager to schedule Council discussion of GHG inventory, including Reach Code proposal.</li><li>• Implement EV charger deployment.</li><li>• Process Sustainability Scholarship and home energy assessment pilot program applications.</li></ul>
<b>POTENTIAL FISCAL IMPACT/REQUEST IF ANY</b>	<ul style="list-style-type: none"><li>• The City has received more than \$150,000 in grant funding for EV chargers, which will be used in connection with the installations, unless the grants expire before they can be used. The City will not incur any costs for the Level III stations but will incur a cost of \$4,500 for each Level II charging station. The City will receive leasing revenues totaling about \$18,900 per year. Both the costs and the revenues will be in the Sustainability budget.</li><li>• For FY 21-22, the Sustainability Scholarship will focus on supporting businesses in their compliance with the City's recently enacted food ware ordinance.</li><li>• The home energy assessment rebate program will have a \$5,000 budget allocation in FY 21-22.</li></ul>

**DOCKETED**

<b>Docket Number:</b>	21-IEPR-06
<b>Project Title:</b>	Building Decarbonization and Energy Efficiency
<b>TN #:</b>	237984
<b>Document Title:</b>	Presentation - California's Greenhouse Gas Emissions
<b>Description:</b>	S2.1A Michael Sokol, Efficiency Division, CEC
<b>Filer:</b>	Raquel Kravitz
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	5/25/2021 12:15:53 PM
<b>Docketed Date:</b>	5/25/2021



## Building Decarbonization

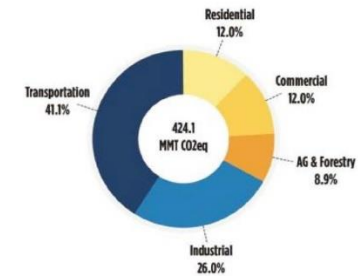
Workshop for the 2021 Integrated Energy Policy Report (IEPR)

Michael Sokol, Efficiency Division Deputy Director

California Energy Commission

May 25, 2021

## California's Greenhouse Gas Emissions



Source: CEC using data from CARB 2019 GHG Inventory and the adopted 2019 IEPR Electricity Forecast. Emissions estimate extracted from [2018 IEPR Update, Chapter 1, Figure 1, p. 27](#).



## Legislative and Regulatory Context

- **SB 32** (2016, Pavley) – Reduce statewide GHG emissions 40% below 1990 levels by 2030
- **AB 3232** (2018, Friedman) – Assessment of potential to reduce building GHG 40% by 2030
- **SB 100** (2018, De León) - 100% zero carbon resources by 2045
- **SB 1477** (2018, Stern) – Low-emissions building technology deployment incentives
- **CEC, CPUC, CARB, and other agencies** taking action to assess and implement strategies to reduce building GHG



## Building Decarbonization Assessment (AB 3232)

### Assembly Bill 3232 Requirements:

- CO<sub>2</sub>e cost per metric ton
- Space and water heating cost-effectiveness
- GHG emission reduction from low-income and multifamily housing, high-rise buildings
- Load management strategies
- Ratepayer, construction costs, and grid reliability considerations



More Info: <https://www.energy.ca.gov/data-reports/reports/building-decarbonization-assessment>



## Variables Impacting Decarbonization

### Building/Technology Impacts

- Building age
- New construction practices and costs
- Availability of heat pumps and low-GWP refrigerants
- Electric panel upgrades
- Internet access



## Variables Impacting Decarbonization

### Customer/Consumer Impacts

- Project financing
- Program design
- Scheduling retrofits
- Retrofit costs
- Cooking practices
- Utility bill changes
- Existing programmatic and regulatory restrictions
- Workforce training
- Split incentives



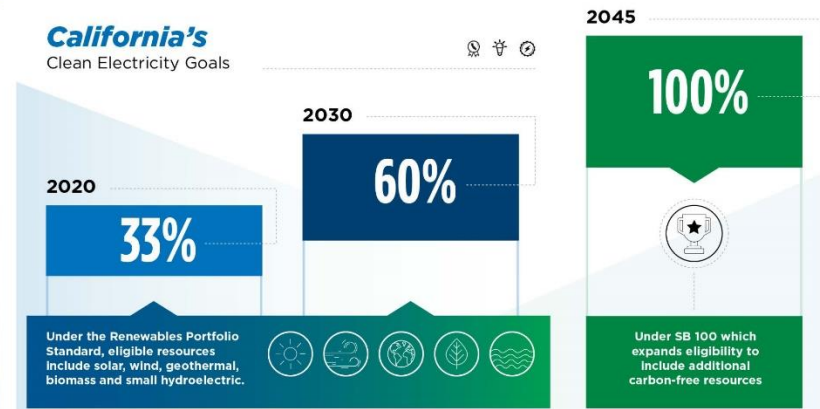
## Seven Broad Strategies of Building Decarbonization

1. Building end-use electrification
2. Decarbonizing electricity generation system
3. Energy efficiency
4. Refrigerant conversion and leakage reduction
5. Distributed energy resources
6. Decarbonizing gas system
7. Demand flexibility



## Senate Bill 100

California's Clean Electricity Goals



Achieving 100% Clean Electricity in California



## Proposed 2022 Energy Code Goals

- Increase building energy efficiency cost-effectively
- Contribute to the state's GHG reduction goals
- Enable pathways for all-electric buildings
- Reduce residential building impacts on the electricity grid
- Promote demand flexibility and self-utilization of PV generation
- Provide tools for local government reach codes



More Info: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>



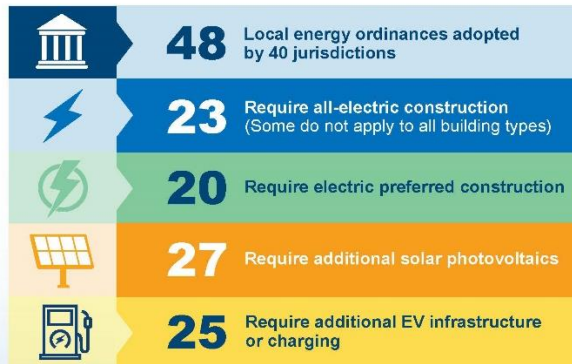
## 2022 Energy Code Update

1. Electric Heat Pumps
2. Electric Ready
3. Solar + Batteries
4. Indoor Air Quality

10



## Local Ordinances Exceeding 2019 Energy Code



**1 IN 3**  
CALIFORNIANS

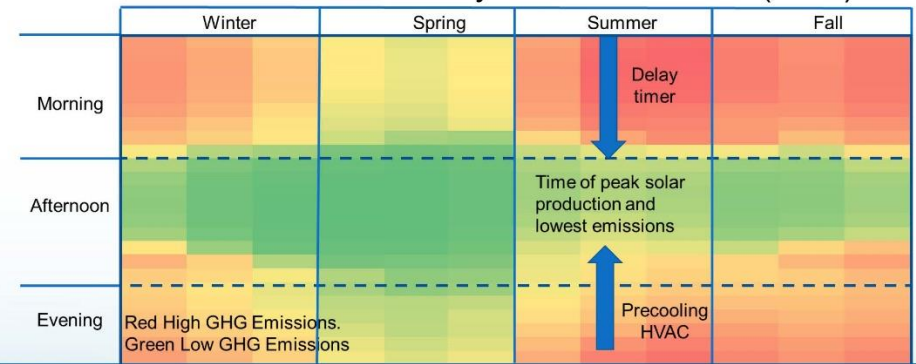
lives in a community with an energy code exceeding state standards

11



## Load Flexibility - Schedule, Shift, and Curtail

GHG Emissions by Hour and Season (2030)



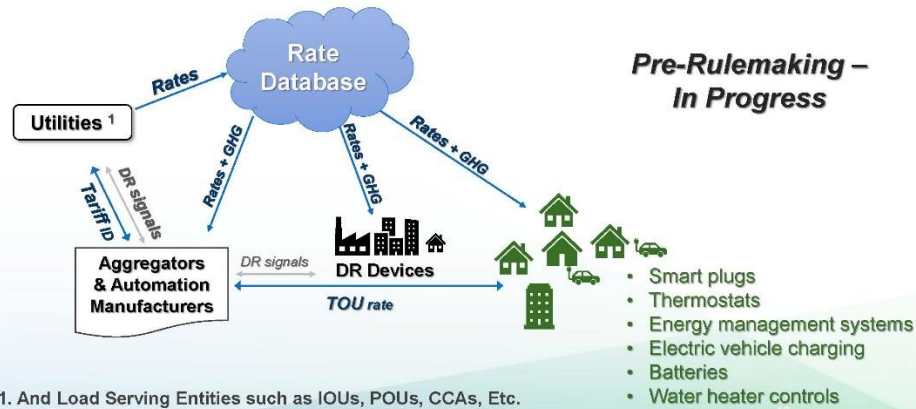
Flexibility is key to reducing emissions from homes and businesses

12





## Load Management Standards



## Senate Bill 49 Requirements

- Requires CEC to develop **Flexible Demand Appliance Standards**, in coordination with LSEs and CPUC
  - ❖ Cost-effective, including GHG and grid benefits
  - ❖ Requires consumer consent
  - ❖ Open source and user-friendly
  - ❖ Cybersecurity
- Report on progress in the Integrated Energy Policy Report

More Info: <https://www.energy.ca.gov/proceedings/energy-commission-proceedings/flexible-demand-appliances>



## Consumer Centric Approach

- Prioritize and invest in community outreach and engagement
- Commitment to Inclusion, Diversity, Equity, Access (IDEA)
- Collaborate with Disadvantaged Communities Advisory Group (DACAG)
- Consult with CA Tribes
- Partner with local community-based organizations (CBOs)

California Tribal Lands, SB 535  
Disadvantaged Communities and Low-income Communities



**Thank you**



# MEMORANDUM

DATE: June 10, 2021

SUBJECT: Palm Springs Reach Code Proposal

TO: Sustainability Commission  
Patrick Tallarico, Manager, Office of Sustainability

FROM: David Freedman, Solar and Green Building Committee Member

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## **I. Summary**

California and Palm Springs have set ambitious goals to reduce greenhouse gas (GHG) emissions. Although the City has achieved the initial 2020 GHG emissions reduction goal, additional actions are necessary to achieve the 2030 and 2050 goals. A Reach Code requiring residential remodels, re-roofing, and additions to carry out energy efficiency upgrades would save homeowners money and reduce community-wide GHG emissions and energy consumption. City Council should provide direction to continue work on this proposal and bring a draft ordinance to Council for consideration.

## **II. State and City Energy Policies**

### **A. State Policies**

Beginning in 2006, California has set ambitious GHG emission reduction goals as part of the state's efforts to combat and mitigate the impacts of climate change. AB 32, the Global Warming Solutions Act of 2006, required California to reduce its GHG emissions to 1990 levels by 2020. SB 32 enacted in 2016 extends California's commitment to reduce GHG emissions by requiring the state to reduce statewide GHG emissions by 40 percent below 1990 levels by 2030. Executive Order B-30-15 directs state agencies to achieve a goal of an 80 percent GHG reduction from 1990 levels by 2050.

AB 3232 enacted in 2018 requires the California Energy Commission (CEC) to assess the potential for the state to reduce GHG emissions from the state's residential and commercial building stock by at least 40 percent below 1990 levels by January 1, 2030. The bill states that decarbonizing California's buildings is essential to achieve the state's GHG reduction goals at the lowest possible cost. The bill establishes that it is the intent of the Legislature to achieve significant reductions in GHG emissions by the state's residential and commercial building stock by January 1, 2030. Residential and commercial buildings jointly account for 25 percent of GHG emissions in the state when accounting for both fossil fuels consumed onsite and those used to generate electricity for buildings.<sup>1</sup>

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<sup>1</sup> Source: California Building Decarbonization Assessment Draft Staff Report, May 2021, CEC-400-2021-006-SD, page 1.

Pursuant to the Warren-Alquist Act of 1974, the CEC is required to adopt regulations to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy, including the energy associated with the use of water, and to manage energy loads to help maintain electrical grid reliability. This is done through amendments to the Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (hereinafter, the “Energy Code”) on a three-year cycle. The Energy Code includes energy efficiency standards applicable to the construction of new buildings and additions and alterations to existing buildings. The CEC is required to adopt or revise standards that shall be cost-effective when taken in their entirety and when amortized over the economic life of the structure compared with historic practice.

The CEC has released the draft 2022 Energy Code and the related Environmental Impact Report, for approval at the CEC’s August 2021 Business Meeting. Once approved, the 2022 Energy Code will become effective on January 1, 2023. As in prior updates to the Energy Code, the proposed 2022 Energy Code updates include numerous changes to the existing 2019 Energy Code. These amendments include new or updated standards to increase efficiency of different building systems and pieces of equipment. In alignment with GHG mitigation as a primary policy driver, the 2022 Energy Code aims to further address building decarbonization through a focus on efficient heat pump technologies and a range of other elements.

In addition to the triennial Energy Code updates, the CEC encourages local governments to adopt energy efficiency standards exceeding the Energy Code, known as reach codes. The CEC considers that these jurisdictions are living laboratories for a clean energy future, reduce state GHG emissions and lead from the grassroots.

Local governments are required to apply to the CEC for approval prior to enforcement of such standards. The CEC must find that the local standards will require buildings to be designed to consume no more energy than permitted by the Energy Code, and the application must include the basis of the local government’s determination that its standards are cost-effective. CEC staff reviews the application to confirm these criteria are met and makes a recommendation for CEC approval based on the findings. The CEC has already approved 48 local reach codes from 40 jurisdictions exceeding the 2019 Energy Code. Several more cities, including most recently Sacramento, have approved reach codes that are pending CEC approval. The cost-effective measures discussed below are intended to exceed the requirements of the 2022 Energy Code and go into effect simultaneously with that Code on January 1, 2023. They would require CEC approval prior to their effectiveness.

## **B. City Policies**

Palm Springs has also established ambitious GHG and energy reduction goals, paralleling the state’s. In 2016, City Council adopted the Sustainability Plan setting the following goals:

- Develop strategies to reduce community-wide contributions to GHG emissions to 1990 levels by 2020 and 80% below 1990 by 2050;
- Achieve carbon neutrality for municipal emissions by 2030.
- Encourage the building or retrofitting of one million square feet of green buildings;
- Reduce the total energy use by all buildings built before 2012 by 10%;
- Reduce energy use and carbon use from new homes and buildings;
- Supply 50% of all energy from renewable sources by 2030.

In addition, the General Plan adopted by City Council in October 2007 sets the following goals:

- Support and encourage the use of alternative energy in the construction of new buildings and retrofit of existing buildings;
- Encourage and support the incorporation of energy efficiency and conservation practices in subdivision and building design;
- Make the maximum use of solar electric capabilities on an individual and community wide basis.

Finally, the General Plan update priorities approved by the Planning and Sustainability Commissions last year includes the following statement:

Continue to advance Palm Springs' role as a sustainability leader. Promote the sustainable use of materials, energy, land, water, air, and other natural resources to enhance the long-term livability of our community. Reduce greenhouse gas emissions and proactively anticipate and mitigate the impacts of climate change. Reduce wastes going to landfill through source reduction, reuse, recycling, and other methods.

The measures discussed below are intended to further the City's stated policy goals.

## **II. GHG Data**

In support of the General Plan update, the City asked its consultant PlaceWorks to update the GHG inventory and forecasts. PlaceWorks updated the City's 2010 community-wide and City operations GHG emissions inventories and prepared a 2018 community-wide GHG emissions inventory. PlaceWorks has also used these results to prepare projections of the community-wide GHG emissions in 2020 and to identify the reductions achieved by existing State of California efforts and the launch of Desert Community Energy (DCE).

PlaceWorks estimates 2020 community-wide annual GHG emissions at 490,180 MTCO<sub>2E</sub>, a 1.1% reduction from the 1990 baseline of 495,720 MTCO<sub>2E</sub>. Residential energy annual GHG emissions are 111,000 MTCO<sub>2E</sub>, approximately 22.6% of total annual GHG emissions. Palm Springs has thus achieved its 2020 GHG emissions reduction target set out in AB 32 and the City's Sustainability Plan by reducing emissions 15 percent below 2010 levels primarily as a result of the launch of DCE and the commitment by most DCE customers to stay with its Carbon Free program.<sup>2</sup> To achieve the state and City 2030 and 2050 goals noted above, GHG emissions would need to be reduced to 297,430 MTCO<sub>2E</sub> by 2030 and 99,140 MTCO<sub>2E</sub> by 2050. Along with the state initiatives noted above, the City will need to take additional actions to achieve those goals.

## **III. Reach Code Proposal**

Among the reach codes approved by the CEC are those in Carlsbad and Chula Vista (San Diego County) and Piedmont (Alameda County) that require certain residential remodels and additions to carry out energy efficiency upgrades when such measures are not already triggered by Energy Code requirements. These measures, which generally track 2019 and 2022 Energy Code provisions, improve the energy efficiency of older homes that can see the most benefits, since these homes were constructed before many of the energy efficiency measures required for new construction and some additions and alterations went into effect with the 2008 Energy Code. Of the 37,735 total residential units in Palm Springs, approximately 80% of the single-family dwelling units (22,518 of 28,326) and 98% of the multifamily units (9,240 of 9,409) were built pre-2006.<sup>3</sup>

<sup>2</sup> The 1990 baseline is 15% below 2010 community-wide GHG emissions of 583,200 MTCO<sub>2E</sub>. According to the State's Scoping Plan, which identifies local governments as strategic partners in meeting the State's GHG emission-reduction targets, reducing GHG emissions 15 percent below 2005-2010 levels by 2020 would be equivalent to reducing GHG emissions to 1990 levels for local governments.

<sup>3</sup> See Attachment 1, generated from the Codes and Standards Cost-Effectiveness Explorer using data from the US Census, National Landcover Database, California Department of Finance, Southern California Association of Governments parcel data

The Chula Vista and Piedmont ordinances have a list of cost-effective energy efficiency upgrades that homeowners can choose, while Carlsbad lists mandatory upgrades.<sup>4</sup> Similar upgrade measures would also be cost effective in Palm Springs. For example, duct sealing of a pre-1978 single-family home is estimated to have an incremental cost of \$683 and would generate 30-year lifecycle savings having a net present value (NPV) of \$18,061. A water heating package for a single-family home consisting of a water heater blanket, hot water pipe insulation and low-flow shower and faucet fixtures is estimated to have an incremental cost of \$208 and would generate 30-year lifecycle savings having an NPV of \$87.<sup>5</sup> To support the state's building decarbonization efforts, prewiring for heat pump water heaters (HPWHs) and space heaters can also be added to the list of eligible measures for homeowners installing a solar PV system at the same time as their home remodel or addition.<sup>6</sup> Exterior lighting controls with photosensors could also be a compliance option to support the Commission's dark sky initiative.

The threshold in the Carlsbad energy efficiency ordinance is \$60,000, the same threshold that triggers a local Coastal Development Permit. The Piedmont ordinance requires one upgrade from the list if the stated project value is \$25,000 or more and two listed upgrades if the stated project value is \$100,000 or more.

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(from the Riverside County Assessor's Office) and the CEC. The residential building stock data are only for Climate Zone 15, covering the low-desert areas of southeastern California. The area within the City limits in the Santa Rosa Mountains is in Climate Zone 16 and would not be subject to the reach code proposal. The Cost-Effectiveness Explorer shows seven single-family homes in the Palm Springs portion of Climate Zone 16.

The Codes and Standards Program under the auspices of the California Public Utilities Commission has issued cost-effectiveness studies to help local jurisdictions determine which measures save energy and are cost effective and support the finding required by state law. The Codes and Standards Program has developed the Cost-Effectiveness Explorer as an online tool using data from the cost-effectiveness studies that local jurisdiction staff and other stakeholders could use to simplify initial reach code research. The tool allows users to identify cost-effective reach code options as well as to better understand the impacts on their local communities of different possible scenarios.

The most recent Codes and Standards Program cost-effectiveness study for single-family home upgrades considered three unique building vintages: pre-1978, 1978-1991, and 1992-2010. The vintages were defined based on review of historic Energy Code requirements and selecting year ranges with distinguishing features. Homes built under the 2001 Energy Code are subject to prescriptive envelope code requirements very similar to homes built under the 2005 Energy Code, which was in effect until January 1, 2010. Source: 2019 Cost-Effectiveness Study: Existing Low-rise Residential Building Efficiency Upgrades, 2021-03-02, pages 3-4. The Cost-Effectiveness Explorer housing stock data are being updated to reflect these building vintages.

<sup>4</sup> See summary of the Chula Vista Existing Home Energy Sustainability Ordinance (Attachment 2).

<sup>5</sup> The various energy efficiency measures and packages are described in the Cost-Effectiveness Study referred to in footnote 3 (see Attachment 3). Cost-effectiveness data for Climate Zone 15 from this study for single-family homes are set out in Attachment 4. Cost-effectiveness data for multifamily homes are set out in Attachment 5 using the Cost-Effectiveness Explorer. These data are derived from the 2020 edition of the Cost-Effectiveness Study, which covered both single-family and multifamily homes.

The Cost-Effectiveness Study prototypes for existing single-family residential buildings are 1,665 ft<sup>2</sup> for a single-family home and 960 ft<sup>2</sup> per unit for a multifamily building. Costs for initial installation and annual operation, and on-bill benefits from reduced energy costs, are calculated over a 30-year period of analysis. The NPV and benefit / cost calculations generally assume an escalation of utility rates, a real discount rate of 3 percent and first incremental costs being financed into a mortgage or loan of 30 years at a rate of 4% for single-family homes and 10 years at a rate of 4% for multifamily homes. Maintenance costs were not included for any measures because there are no incremental maintenance costs expected for any of the measures evaluated. Replacement costs were factored in for lighting measures.

The Cost-Effectiveness Study uses electricity rates from Southern California Edison (SCE) effective April 13 to May 31, 2020, and gas rates from Southern California Gas for the 12-month period ending January 2020 (see pages 54-57). Those rates have since increased. Utility savings could potentially be higher for DCE customers on its Carbon Free product and slightly lower for customers on its Desert Saver product. The on-bill cost data do not include either the social cost of higher GHG emissions leading to air and water pollution, droughts and wildfires or the non-energy benefits of improved public health and a sustainable economy.

<sup>6</sup> The 2019 Energy Code already requires prewiring for a future HPWH for new homes with a gas water heater. See Section 150.0(n)(1)(A). Under the draft 2022 Energy Code, HPWHs will be required for new single-family residences in Climate Zone 15 See Section 150.1(c)8. Prewiring will also be required in new single-family residences for HPWHs (if not installed), battery storage, space heaters, cooktops, and clothes dryers. See Section 150.0(n), (s), (t), (u) and (v).

The Chula Vista ordinance does not have a monetary threshold. Two to four energy efficiency upgrades are required based on the age of the home and the climate zone where the home is located.<sup>7</sup> If the cost of completing required energy efficiency measures exceeds 20% of the overall project cost without those measures, applicants can propose a more limited set from among the required measures that does not exceed 20%. Other exemptions exist, including for low-income households and homes with on-site solar PV systems offsetting at least 95% of the annual electricity and gas-equivalent usage.

A combination of features from the Chula Vista and Piedmont ordinances would produce the greatest flexibility and GHG emission reductions. LED lighting would be required (if not already installed) regardless of permit value. All remodels, additions and reroofing having a permit value of at least \$10,000 would be required to install the water heating package described above. Further thresholds can be set for remodels and additions on single-family and multifamily residential buildings built before 2010 having a permit value of \$25,000 (one additional measure), \$50,000 (two additional measures) and \$100,000 (three additional measures). Various exceptions in the Chula Vista ordinance could apply. DCE Carbon Free customers could be given a compliance credit for certain measures where GHG emission reductions result primarily from electricity savings, such as for LED lighting, as their electricity usage does not contribute to citywide GHG emissions.

For re-roofing or an addition of a steep-sloped roof on an existing pre-2010 residence with a permit value of at least \$25,000, one compliance option would be installation of a roofing product rated by the Cool Roof Rating Council (CRCC) with an aged solar reflectance of 0.25 or higher and thermal emittance of 0.85 or higher.<sup>8</sup> This measure is highly cost effective. For a pre-1978 single-family home, a steep-sloped cool roof is estimated to have an incremental cost of \$778 and would generate 30-year lifecycle savings having an NPV of \$5,788. Roof repair, photovoltaic roofs, and replacements of 50% or less of the roof area would be exempt but the homeowner would need to choose another measure.

A model shows the aggregate effect of this proposal.<sup>9</sup> Over the five-year period that it would be in effect (based on CEC guidance that cost-effectiveness data would need updating after five years), aggregate compliance costs would be approximately \$2.052 million. Over that five-year effectiveness period plus the 30-year lifecycle, aggregate lifecycle on-bill savings would be approximately \$6.464 million. Over that same time frame, electricity consumption would be reduced by approximately 14.964 million kilowatt hours, and natural gas consumption would be reduced by approximately 1.58 million therms. Residential GHG emissions would be reduced by 8,942 MTCO<sub>2e</sub>. Most of the GHG emissions reductions would come from the water heating package, while most of the on-bill and energy savings

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<sup>7</sup> Four measures are required for all pre-2006 homes in the inland portion of Chula Vista in Climate Zone 10, which is the climate zone also covering western Riverside County.

<sup>8</sup> A steep-sloped roof is a roof that has a ratio of rise to run of greater than or equal to 2:12 (9.5 degrees from the horizontal). The requirement for steep-sloped roof replacements is an aged solar reflectance of 0.20 or higher and thermal emittance of 0.75 or higher under both the 2019 Energy Code (Section 150.2(b)11i) and the draft 2022 Energy Code (Section 150.2(b)11i for single-family homes and Section 180.2(b)1Aii for multifamily homes). See Attachment 6 for an analysis of cool roof cost-effectiveness and energy savings for both existing and new homes in Climate Zone 15 prepared by the Codes and Standards Program for this memo and using more recent SCE and SCG utility rates. The Building Division does not have data on how many residential roofs are steep-sloped, so this compliance option is not modeled.

<sup>9</sup> See Attachment 7. The model was developed by local energy policy consultant Eric Engelman, who developed the Cost-Effectiveness Explorer for the Codes and Standards Program and whose assistance was provided by the Codes and Standards Program at no cost to the City. The model is derived from the calculations reflected in the Codes and Standards Program 2020 and 2021 residential retrofit cost-effectiveness studies, residential permit data from January 1, 2015, to May 25, 2021, provided by the Building Division and assumptions on how many residences would be required to carry out the various energy efficiency upgrades and which measures they would choose based on work Mr. Engelman carried out as a consultant for the City of Chula Vista on its Existing Home Energy Sustainability Ordinance.

would come from duct and air sealing and attic insulation because of the large number of DCE customers using carbon-free electricity.

**IV. Request to Sustainability Commission and Office of Sustainability**

Request to Commission to recommend to City Council that it provide direction to the Commission and Office of Sustainability that they continue to research a Palm Springs Reach Code with the provisions proposed above (and any other provisions on which Council would provide direction), conduct community outreach, and bring a draft ordinance to Council for consideration and adoption effective January 1, 2023, simultaneously with 2022 Energy Code.

Request to Office of Sustainability to include this memo as an attachment to the staff report accompanying the GHG inventory be presented to City Council.

Residential Building Stock

City of Palm Springs

Zone 15



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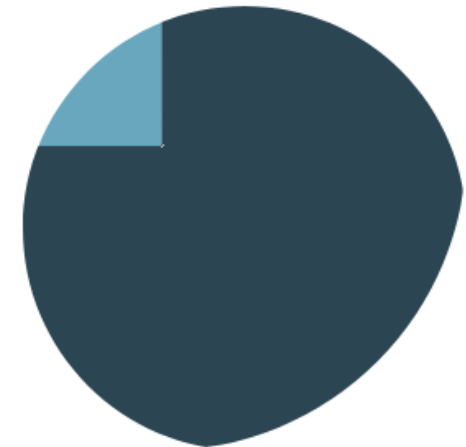
TOTAL RESIDENTIAL UNITS

37,735



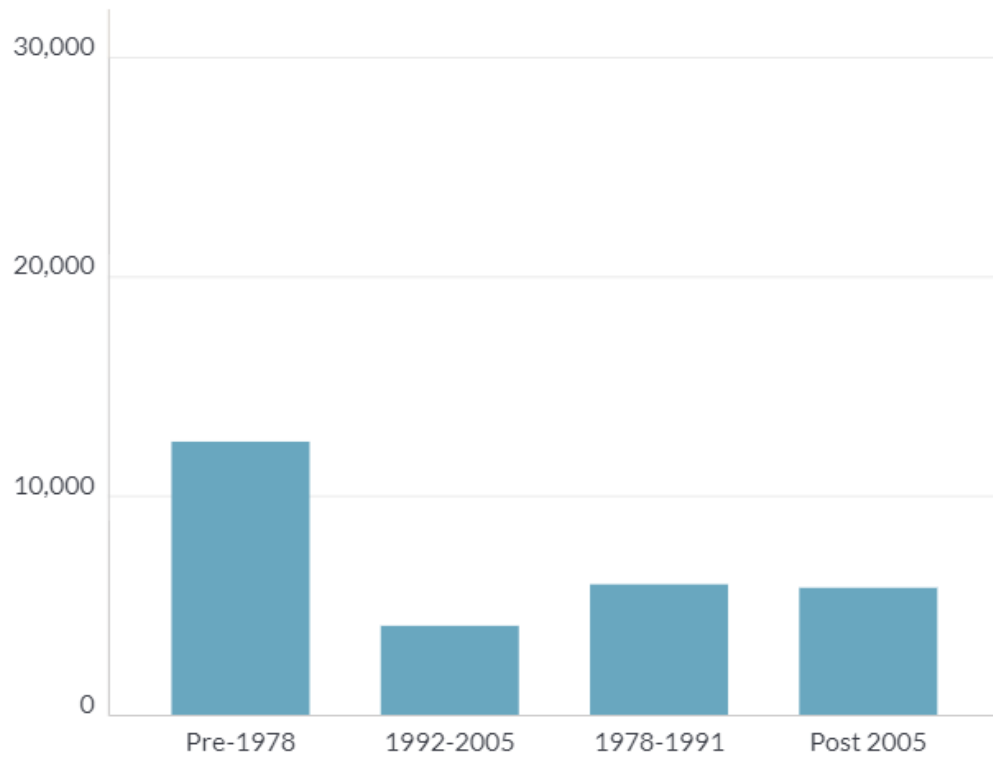
DISTRIBUTION BY BUILDING TYPE

Single Family Homes 75.1%    Multifamily Units 24.9%



Single Family Dwelling Units 28,326

1 CLIMATE ZONE: 15



Number of Single Family Dwelling Units

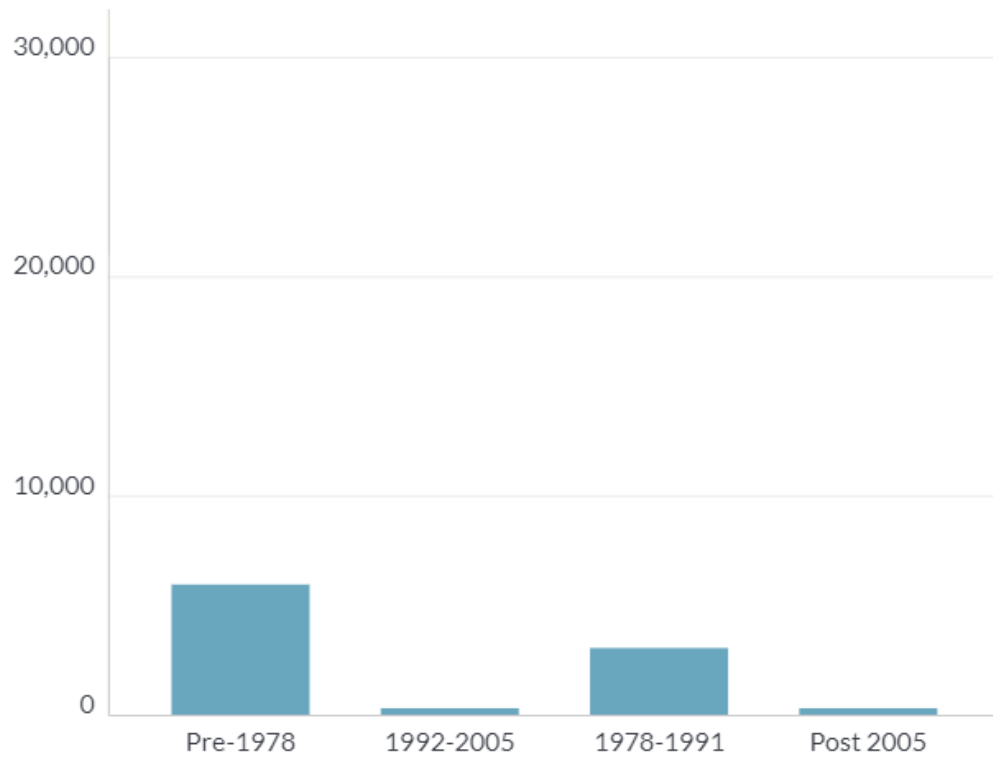
Climate Zone	Pre-1978	1978-1991	1992-2005	Post 2005	Total
15	12,485	5,964	4,069	5,808	28,326

Percentage of Single Family Dwelling Units

Climate Zone	Pre-1978	1978-1991	1992-2005	Post 2005	Total
15	44.1%	21.1%	14.4%	20.5%	100.0%

Multifamily Dwelling Units 9,409

1 CLIMATE ZONE: 15



Number of Multifamily Dwelling Units

Climate Zone	Pre-1978	1978-1991	1992-2005	Post 2005	Total
15	5,956	3,053	231	169	9,409

Percentage of Multifamily Dwelling Units

Climate Zone	Pre-1978	1978-1991	1992-2005	Post 2005	Total
15	63.3%	32.4%	2.5%	1.8%	100.0%

## Sources

Source and Methodology notes are under construction.

This document has been generated from <https://explorer.localenergycodes.com/palm-springs-city/building-stock>

Find more reach code resources at [localenergycodes.com](https://localenergycodes.com)



# City of Chula Vista Existing Home Energy Sustainability Ordinance (EHSO) Overview

**Background:** Homes in Chula Vista have been built over the years to meet the applicable energy related building codes which were first put in place in 1978. Since then new homes have gotten healthier and more efficient while some existing homes have gotten left behind. To help address these older homes the City is educating residents about retrofit opportunities and requiring older homes undergoing additions or remodels to make certain targeted upgrades, where applicable and feasible, to bring them closer to current codes.

**Who Needs to Comply:** These energy saving improvements are something most homes can benefit from but because newer homes have already been built to meet more recent energy code the focus of this policy is homes built in Chula Vista before 2006. Any home that does not have these measures should evaluate if they would benefit their home, but this ordinance is focused on homes that are doing alterations or remodels. Under this ordinance the definition of “remodel” is tied to structural changes that trigger the need for a permit. Please review the potential examples below to better understand what projects need to comply.

What projects trigger this requirement?

- Adding square footage
- Moving interior walls
- Adding or moving windows and doors

Location	Year Home Was Built	Required Energy Efficiency Measures
All City	2006	0
All zip codes except 91914	2005 to 1979	2
All zip codes except 91914	1978 or older	3
91914	2005 or older	4

These projects do NOT trigger this requirement:

- Adding new tile or flooring
- Bathroom fixtures
- Lighting fixtures
- Appliances
- Adding or moving a kitchen island
- Adding or changing counters
- Adding an Accessory Dwelling Unit (ADU/JADU)
- Projects that are medically necessary
- Projects that are repairing without changing elements

Based on the age and location of the home, different energy saving measures will be required. Please use the table above to determine how many of the energy efficiency measures listed in the table below will be required if your home undergoes an alteration or addition. The City recommends all homes in Chula Vista implement some level of the energy measures listed below to reduce their energy bill and improve home air quality. For more information on cost effectiveness or other detail please review “Chula Vista Energy Efficiency Fact Sheet” at <https://www.chulavistaca.gov/departments/clean/retrofit>.

**What Energy Efficiency Actions Could Be Included?** Below is a table that reviews the home energy efficiency standards that the City is trying to ensure homes meet.

Name	Description	Benefit	Implementation Notes
LED Lighting	Replace screw-in halogen, incandescent or CFL light bulbs with LED light bulbs	LED lights can use up to 75% less energy than incandescent bulbs and are 15% more efficient than average Compact Florescent Light (CFL) Bulbs.	Not applicable to lights plugged into outlets, recommend Energy Star bulbs. Historic fixtures exempt if not compatible with LED bulbs.
Water Heating Package	A. Water Heater Blanket - Insulate exterior of storage water heaters manufactured before April 2015. B. Hot Water Pipe Insulation - Insulate all <b>accessible</b> hot water pipes with R-3 pipe insulation. C. Low Flow Fixtures - Upgrade sink and shower fittings to maximum flow rates of 1.8 gallons per minute (gpm) for showerheads and kitchen faucets, and 1.2 gpm for bathroom faucets.	Water heating can account for up to 50% of an average home's natural gas usage. By insulating the tank (if not already insulated) and exposed piping you can minimize the amount of heat that is lost on its way to you. By utilizing low flow faucets, aerators and low flow showerheads you not only save water but also save the energy used to heat up that water.	Only accessible hot water pipes need to be insulated. Historic fixtures exempt if not compatible with water efficiency measures.
Attic Insulation	Add attic insulation in buildings with vented attic spaces to meet R-38.	Attic insulation helps your home maintain a stable temperature.	Homes with existing insulation greater than R-5 in Climate Zone 7 or greater than R-19 in Climate Zone 10 are exempt. Homes without vented attics are exempt.
Duct Sealing	Air seal all <b>accessible</b> ductwork with a goal of reducing duct leakage to be equal to or less than 15% of system airflow.	Duct leakage can be as high as 30% in average California homes. This means that up to 30% of the air you are paying to heat or cool is being lost before it reaches its destination. Additionally, leaky ducts can allow a pathway for dust or other indoor air quality concerns to enter your rooms.	
Air Sealing	Apply air sealing practices throughout all <b>accessible</b> areas of the building. Homes with one or more vented combustion appliances MUST have a BPI Combustion Appliance Safety Inspection performed after air sealing.	Houses built over the past five years are over 20 percent tighter than those built a decade earlier. This means the air you paid to heat or cool can escape and increases your energy bills and outside pollutants can enter your home. By sealing your home you can make it safer and healthier.	Only accessible areas need to be sealed. Attics with crawl space are considered accessible.

Cool Roof	Only applicable if project includes re-roofing or addition of steep slope roofs. Install a roofing product rated by the Cool Roof Rating Council (CRRC) with an aged solar reflectance of 0.25 or higher and thermal emittance of 0.75 or higher.	Cool roofs help save energy by increasing the amount of solar energy that get reflected away from your home and minimize the need for cooling on hot summer days.	Only for steep slope roofs (shallow slope roofs already covered).
Windows	Replace existing single pane windows with a dual pane product.	Energy efficiency windows not only reduce heating and cooling costs they can also reduce the ability of moisture and noise to enter your home.	Look for U-factor equal to 0.32 or lower and a Solar Heat Gain Coefficient (SHGC) equal to 0.25 or lower
Water Heater Replacement	High Efficiency Heat Pump Water Heater: Replace natural gas storage water heater, or, tankless water heater having an Energy Factor of .81 or less, with Heat Pump Water Heater  -or-  High Efficiency Tankless Water Heater: Replace natural gas storage water heater, or, less efficient tankless water with tankless water heater.	About 18% of average homes energy is used for heating water. Heat Pump Water heaters are on average 200% to 300% more efficient than traditional water heaters while tankless units are 8% to 34% more efficient. Additionally because heat pump water heaters store their hot water they can minimize energy usage during peak periods.	Heat Pump Water Heater with Uniform Energy Factor (UEF) of at least 3.1 (Northwest Energy Efficiency Alliance Tier 3).  -or-  Tankless water heater with a minimum Energy Factor of 0.96.
Air Conditioner Replacement	High Efficiency Air Conditioner: Replace an existing air conditioner with an high efficiency air conditioner.  -or-  High Efficiency Heat Pump: Replace an existing air conditioner with a Heat Pump	When running air conditioners can be the biggest energy user in a home so installing high efficiency units can prevent higher bills. It is also important to ensure ducting is sealed and installed and filters are regularly changed.	Install an air conditioner or heat pump rated to at least 18 SEER

**Benefits:** As mentioned in the table above, there are numerous benefits that these upgrades can provide depending on your home. Below is more information about the main benefits.

- Energy Bill Reductions – Over the expected life of the products, all of the measures are expected to reduce the home’s energy bills by more than the cost of installing them.
- Improved Indoor Air Quality – Leaky homes and ducts are one of the largest ways that outdoor pollutants like dust and pollen can enter a home. Properly sealing homes and ducts can help increase indoor air quality. But all homes need ventilation, especially homes using fuel-fired appliances – gas water heaters, heating systems and stoves need ventilation, but homes can be sealed up too tight to allow this. If you seal your home beyond the recommended 15% of

system airflow you may need mechanical ventilation to ensure you are still receiving fresh air. Residents can have a third party verify their homes air leakage.

- **Reduce Carbon Emissions** – Home energy use is one of the largest contributors to climate change in Chula Vista. By saving energy residents will also reduce greenhouse gas (GHG) emissions. For more ways to reduce GHG emissions please visit [www.cvclimatechallenge.com](http://www.cvclimatechallenge.com).

**What if I have already Made Similar Upgrades:** If you have already made these, or similar, upgrades or they will be a part of your home project, you will be benefiting from a more energy efficient home and do not need to make any additional upgrades. Please review the list of exemptions below:

- Similar measures have already been completed
  - Including participation in a low-income weatherization program (a deferment will be provided to qualifying applicants that have applied for weatherization programs but not received the work yet)
- Home achieves a Home Energy Score (HES) score of at least 8 out of 10
- Home has on-site photovoltaics (PV) offsetting at least 95% of the annual electricity and gas-equivalent usage
- An alternative, voluntary, set of energy measures is concurrently being completed that will achieve equivalent energy savings to the prescriptive packages

**What if These Upgrades Will Not Work for My Project:** Due to unique characteristics of some homes, these upgrades may not work as intended for all residents. To help ensure that residents are not negatively impacted by this requirement the following additional exemptions are also allowed.

- Low-Income Resident – Applicants who can demonstrate they qualify as a low-income household are exempt
- Project Value Cutoff - If the cost of completing energy efficiency measures required under this policy exceeds 20% of the overall project cost without those measures, permit applicants can propose a more limited set from among the required measures which does not exceed 20%
- A measure is beyond the authority of the homeowner due to HOA covenant
- Prescribed measures would be technically infeasible or not be cost-effective due to unique characteristics of home or other special circumstances

**Resources:** Please review the resources listed below for information about home energy performance or energy efficiency resources.

- SDG&E Energy Savings Assistance Program – The ESAP is an income qualified program that can make minor improvements to your home at no cost to you, such as insulation and appliance replacement, to help save energy. For full ESAP program eligibility requirements and application information, please visit [www.sdge.com/esap](http://www.sdge.com/esap) or call 619-387-4757.
- Federal Weatherization Assistance – A income qualified program can provide you with no cost weatherization to help you save energy and make your home more energy efficient. If you would like to find out if you qualify for this program please call (619) 409-7588 or visit MAAC's website [www.maacproject.org/main/impact/healthy-homes-health-services/weatherization-services/](http://www.maacproject.org/main/impact/healthy-homes-health-services/weatherization-services/).



- Home Energy Score – Developed by the Department of Energy (DOE) and its national laboratories, the Home Energy Score provides homeowners, buyers and renters directly comparable and credible information about a home’s energy use. Like a miles-per-gallon rating for a car, the Home Energy Score is based on a standard assessment of energy-related assets to easily compare energy use across the housing market. For more information please visit: [www.homeenergyscore.gov](http://www.homeenergyscore.gov).
- Go Green Financing – To help residents find financing for energy saving projects the state created the Go Green Financing website: [www.gogreenfinancing.com](http://www.gogreenfinancing.com). This allows California residents and businesses to create a custom energy action plan, find rebates and incentives and find a financing option.

**Questions?** Contact the City of Chula Vista’s Conservation Section at 619-409-3893 or [conservation@chulavistaca.gov](mailto:conservation@chulavistaca.gov).

## 3.2 Efficiency Measures

The methodology used in the analyses for each of the prototypical building types begins with a design that matches the specifications as described in Table 2 for each of the three vintages. Prospective energy efficiency measures were modeled in each of the prototypes to determine the projected electricity and natural gas energy savings relative to the baseline vintage. In some cases, where logical, measures were packaged together. Unless specified otherwise, all measures were evaluated using CBECC-Res.

All measures are evaluated assuming they are not otherwise required by Title 24. For example, duct sealing is required by code whenever HVAC equipment is altered. For this analysis duct sealing was evaluated for those projects where it is not already triggered by code (i.e., no changes to the heating or cooling equipment). Where appropriate, measure requirements align with those defined in Title 24. In some cases, cost-effective measures were identified that exceed Title 24 requirements, such as attic insulation, cool roofs, and duct sealing.

Following are descriptions of each of the efficiency upgrade measures applied in this analysis.

### 3.2.1 Building Envelope/Non-Preempted Measures

**Attic Insulation:** Add attic insulation in buildings with vented attic spaces to meet R-49. For pre-1992 vintage homes this measure was also evaluated to include retrofitting of existing recessed can luminaires that are not rated for insulation contact (IC) to be airtight and allow for insulation contact. This can be accomplished by installing a recessed light cover over existing non-compliant luminaires and sealing the covers to the ceiling plane with foam or replacing non-IC-rated luminaires with IC-rated luminaires. The energy analysis includes savings from adding insulation and upgrading compact fluorescent lamp (CFL) recessed cans to LED lighting but does not include any reduced infiltration benefits. Newer vintage homes are assumed to have IC-rated recessed light luminaires that can be covered in insulation.

**Air Sealing and Weather-stripping:** Apply air sealing practices throughout all accessible areas of the building. For this study, it was assumed that older vintage homes would be leakier than newer buildings and that approximately 30 percent improvement in air leakage was achievable through air sealing of all accessible areas. For modeling purposes, it was assumed that air sealing can reduce infiltration levels from 15 to ten air changes per hour at 50 Pascals pressure difference (ACH50) in the oldest vintages (pre-1978), from ten to seven ACH50 for the 1978 to 1991 vintage, and from seven to five ACH50 in the 1992 to 2010 vintage.

**Cool Roof:** For steep slope roofs, install a roofing product rated by the Cool Roof Rating Council (CRRC) with an aged solar reflectance of 0.25 or higher and thermal emittance of 0.75 or higher. This measure only applies to buildings that are installing a new roof as part of the scope of the remodel; the cost and energy savings associated with this upgrade reflects the incremental step between a standard roofing product with one that is CRRC rated with an aged solar reflectance of 0.25. This is similar to cool roof requirements in 2019 Title 24 Section 150.2(b)1li but assumes a higher solar reflectance.

**Raised Floor Insulation:** In existing homes with raised floors and no insulation, add R-19 insulation.

**Wall Insulation:** Blow-in R-13 wall insulation in existing homes that currently have no insulation in the walls (pre-1978 vintages).

**Window Replacement:** Replace existing metal-frame windows with a non-metal dual-pane product, which has a U-factor equal to 0.30 Btu/hour-ft<sup>2</sup>-°F or lower and a Solar Heat Gain Coefficient (SHGC) equal to 0.23 or lower, except in heating dominated climates (Climate Zones 1, 3, 5, and 16) where an SHGC of 0.35 was evaluated. This measure was only evaluated for the two older vintages, pre-1992, which are assumed to have either single- or dual-pane, metal-frame windows. This aligns with new window requirements in 2019 Title 24.

**Duct Sealing, New Ducts, and Duct Insulation:** Air seal all ductwork to meet the requirements of the 2019 Title 24, Part 6 Section 150.2(b)1E. For this analysis, final duct leakage values of both 15 percent (which corresponds to Option i in the Title 24 section referenced), and ten percent (proposed revised leakage rate for 2022 Title 24) were evaluated. Replacing existing ductwork with entirely new ductwork to meet Sections 150.2(b)1Di and 150.2(b)1Diia of the 2019 Title 24 was also evaluated. This assumed new ducts meet five percent duct leakage and R-8 duct insulation in all climates.

**Water Heater Blanket:** Add R-6 insulation to the exterior of existing residential tank storage water heaters. For the analysis, the water heater was modeled within conditioned space, which is a typical configuration for older homes. This assumption is conservative since a water heater located in unconditioned space will tend to have higher tank losses and installing a water heater blanket in those situations will result in additional savings. The energy savings for this measure reflect water heating energy savings only, and do not include any impacts to the space conditioning load, which reduces space cooling loads and increases space heating loads. The impact on space conditioning energy used is minimal and in most climate zones, except for heating dominated ones, the combination of these two impacts results in net energy savings. This measure was evaluated using EnergyPlus for individual water heaters only and does not apply to central water heating systems.

**Hot Water Pipe Insulation:** Insulate all accessible hot water pipes with R-3 pipe insulation. In certain buildings such as those with slab on grade construction where the majority of pipes are located either underground or within the walls, most of the pipes are inaccessible. For the purposes of this analysis a conservative assumption that only ten percent of the pipes could be insulated was applied. In buildings where pipes are located in the attic, crawlspace, or are otherwise more accessible, energy savings will be higher than those presented in this analysis. This measure was evaluated using BEopt and EnergyPlus.

**Low-Flow Fixtures:** Upgrade sink and shower fittings to meet current Title 24, Part 11 (CALGreen) requirements, which require maximum flow rates of 1.8 gallons per minute (gpm) for showerheads and kitchen faucets, and 1.2 gpm for bathroom faucets. Baseline whole house hot water use was based on BEopt assumptions and this measure assumed the upgraded fixtures reduce flow rates by ten percent for showerheads and 20 percent for all faucets based on a 2010 water use study (ConSol, 2010). This measure was evaluated using BEopt and EnergyPlus.

**LED Lighting:** Replace screw-in (A-based for lamps) incandescent lamps and CFLs with light-emitting diode (LED) A-lamps. This analysis was conducted external to the energy model and evaluated replacement of a 13 W CFL lamp with an 11 W LED lamp operating 620 hours annually. Annual hour estimates were based on whole building average hours of operation from a 2010 lighting study by KEMA (KEMA, 2010). Lifetime assumptions were 10,000 hours for CFLs and 25,000 hours for LED lamps. For incremental cost calculations it was assumed CFLs have a lifetime of 15 years, are installed five years prior to the retrofit, and would need to be replaced at year ten and 25.

**Exterior Lighting Controls:** Evaluation of exterior lighting controls was completed on a per-luminaire basis external to the energy model and assumes a screw-in photosensor control is installed in outdoor lighting luminaires. Energy savings of 12.1 kWh per year was applied based on analysis done by the Consortium for Energy Efficiency, assuming LED lamps, 2.6 hours per day of operation, and that photosensor controls reduce operating hours on average 20 percent each day (CEE, 2014). Energy savings will be higher for incandescent or CFL luminaires.

### 3.2.2 Equipment Fuel Substitution Measures – Heat Pump Replacements

The baseline for the retrofit analysis assumed a mixed-fuel baseline for all cases, with natural gas-fired furnaces for space heating and natural gas storage tank water heaters for domestic hot water (DHW). For fuel substitution cases, the natural gas appliances were assumed to be replaced with heat pump technology at the end of equipment life, when the equipment is being replaced.

**Ducted Heat Pump:** Replace existing ducted natural gas furnace and air conditioner (AC) with an electric heat pump. Minimum federal efficiency (14 SEER, 11.7 EER, 8.2 HSPF) and higher efficiency (16 SEER, 13 EER, 9 HSPF) heat pumps were evaluated as replacements to existing equipment. Savings are relative to a new ducted natural gas furnace/AC (14 SEER, 11.7 EER, 80 AFUE).

**Heat Pump Water Heater (HPWH):** Replace existing natural gas storage tank water heater with either a minimum efficiency (UEF 2.0) 50-gallon HPWH, or a HPWH that meets the Northwest Energy Efficiency Alliance

(NEEA)<sup>3</sup> Tier 3 rating. The evaluated NEEA HPWH is an 80-gallon unit with a UEF of 3.45. Savings are relative to a new 50-gallon natural gas storage water heater (UEF 0.63).

### 3.2.3 Photovoltaics (PV) and Battery Measures

**PV:** Installation of on-site PV is required in the 2019 residential code for new construction but not for additions or alterations to existing buildings. This report does not focus on optimizing PV system sizing for each prototype and climate zone. For this study, a PV system sized to the 2019 new construction standards for a 1,665 ft<sup>2</sup> home was evaluated. Based on prior studies, PV system cost effectiveness was not sensitive to system sizing up to 90 percent of annual electricity use (Statewide Reach Codes Team, 2019). The system is sized to offset annual building electricity use for a new construction home and avoid oversizing which would violate net energy metering (NEM) rules. In all cases, PV is evaluated in CBECC-Res according to the California Flexible Installation (CFI) assumptions. Table 3 summarizes the PV sizing used in the analysis.

**Table 3: Single Family PV Sizing for 1,665 ft<sup>2</sup> home by Climate Zone (kW<sub>DC</sub>)**

CA Climate Zone	PV Capacity (kW <sub>DC</sub> ) <sup>a</sup>	CA Climate Zone	PV Capacity (kW <sub>DC</sub> ) <sup>a</sup>
1	2.59	9	2.38
2	2.25	10	2.45
3	2.17	11	2.83
4	2.19	12	2.42
5	2.03	13	3.00
6	2.22	14	2.49
7	2.10	15	4.07
8	2.35	16	2.20

<sup>a</sup> PV system sized using residential new construction sizing methodology based on climate zone and house size.

**Energy Storage (Batteries):** This measure includes installation of batteries to allow energy generated through PV to be stored and used later, providing energy cost and resiliency benefits. This report does not focus on optimizing battery sizes or controls for each prototype and climate zone. A ten kWh battery system was evaluated in CBECC-Res in conjunction with a PV system sized to the 2019 new construction standards, with control type set to “Time of Use” (TOU) and with default efficiencies of 95 percent for both charging and discharging (round trip efficiency of 90 percent). The TOU option assumes batteries are charged anytime PV generation is greater than the house load but controls when the battery storage system discharges. During the summer months (July – September) the battery begins to discharge at the beginning of the peak period at a maximum rate until fully discharged. During discharge the battery first serves the house load but will discharge to the electric grid if there is excess energy available. During other months, the battery discharges whenever the PV system does not cover the entire house load and does not discharge to the electric grid. This control option is considered to be most reflective of the current products on the market. This control option requires an input for the “First Hour of the Summer Peak” and the Statewide Reach Codes Team applied the default hour in CBECC-Res which differs by climate zone (either a 6pm or 7pm start).

<sup>3</sup> Based on operational challenges experienced in the past, NEEA established rating test criteria to ensure newly installed HPWHs perform adequately, especially in colder climates. The NEEA rating requires an Energy Factor equal to the ENERGY STAR® performance level and includes requirements regarding noise and prioritizing heat pump use over supplemental electric resistance heating.

### 3.2.4 Additional Measures: High Efficiency Equipment – Federally Preempted Measures

The following additional measures were evaluated, but because these measures require upgrading appliances that are federally regulated to high-efficiency models, they cannot be used to show cost effectiveness in a local ordinance. In addition, an ordinance cannot specifically require installation of high efficiency equipment. Although the ordinance may not require it, many applicants use high efficiency equipment to comply in practice. The measures and packages are presented here to show that there are several options for builders to meet the performance targets. Heating and cooling capacities are auto-sized by CBECC-Res in all cases.

**High Efficiency Gas Furnace:** Replace existing natural gas furnace with a 90 AFUE gas furnace.

**High Efficiency AC:** In climates with cooling, replace existing AC with a single-speed 16 SEER, 13 EER unit.

**High Efficiency Gas Water Heater:** Replace existing natural gas storage tank water heater with either a condensing tankless water heater with a UEF of 0.92, or condensing storage water heater with a UEF of 0.83.

## 3.3 Efficiency Packages

Some of the measures described above were also evaluated as packages.

### 3.3.1 Envelope and Duct Packages

Five envelope and duct packages were developed as described below. Air sealing and attic insulation are very often applied as a package in building retrofits. From a performance perspective, air sealing of the boundary between the attic and living space should be addressed any time there is significant work in the attic, such as adding attic insulation and sealing or replacing ductwork. When the building shell is being improved, air sealing is an important component to be addressed. The boundary between the living space and vented attics is where a significant amount of building air leakage can occur and sealing these areas prior to covering the attic floor with insulation is both practical and effective. These measures also directly address occupant comfort, as they reduce heat transfer, and result in more even temperatures within the building. When ductwork is located in the attic there are synergies with addressing all three of these building aspects at the same time.

1. **R-49 Attic Insulation and Air Sealing:** This package includes attic insulation and air sealing measures, as described below:
  - R-49 attic insulation installed in attic.
  - Air sealing and weatherstripping to reduce total building air leakage by 30 percent. Target air leakage assumptions are ten ACH50 for pre-1978 vintage, seven ACH50 for 1978 to 1991 vintage, and five ACH50 for the 1992 to 2010 vintage.
  - Retrofitting all non-IC-rated recessed light luminaires to be airtight and allow for coverage by insulation. This submeasure only applies to homes without IC-rated recessed can luminaires.
2. **R-49 Attic Insulation and Duct Sealing:** This package includes attic insulation and duct sealing measures, as described below:
  - R-49 attic insulation installed in attic.
  - Ductwork sealed to ten percent of nominal airflow.
  - Retrofitting all non-IC-rated recessed light luminaires to be airtight and allow for coverage by insulation. This submeasure only applies to homes without IC-rated recessed can luminaires.
3. **R-49 Attic Insulation, Air Sealing, and Duct Sealing:** This package includes attic insulation, air sealing, and duct sealing measures, as described below:
  - R-49 attic insulation installed in attic.
  - Ductwork sealed to ten percent of nominal airflow.
  - Air sealing and weatherstripping to reduce total building air leakage by 30 percent. Target air leakage assumptions are ten ACH50 for pre-1978 vintage, seven ACH50 for 1978 to 1991 vintage, and five ACH50 for the 1992 to 2010 vintage.

- Retrofitting all non-IC-rated recessed light luminaires to be airtight and allow for coverage by insulation. This submeasure only applies to homes without IC-rated recessed can luminaires.
  - This combination of measures is common when a whole building performance upgrade is done in combination with HVAC equipment replacement. Incorporating these measures can allow for contractor to downsize HVAC equipment by lowering heating and cooling loads in the house.
4. **R-49 Attic Insulation, Air Sealing, and Entirely New Ducts:** This package is similar to Package 3 above but assumes that all existing ductwork is replaced with new R-8 ducts and sealed to new construction standards (five percent total leakage). This package assumes that if an existing HVAC system is being replaced with new ductwork, the area between the vented attic and conditioned space be air sealed and insulation added to the attic.
- R-49 attic insulation installed in attic.
  - New R-8 ductwork sealed to five percent of nominal airflow.
  - Air sealing and weatherstripping to reduce total building air leakage by 30 percent. Target air leakage assumptions are ten ACH50 for pre-1978 vintage, seven ACH50 for 1978 to 1991 vintage, and five ACH50 for the 1992 to 2010 vintage.
  - Retrofitting all non-IC-rated recessed light luminaires to be airtight and allow for coverage by insulation. This submeasure only applies to homes without IC-rated recessed can luminaires.
  - This combination of measures is common when a whole building performance upgrade is done in combination with HVAC equipment replacement. Incorporating these measures can allow for contractor to downsize HVAC equipment by lowering heating and cooling loads in the house.
5. **Advanced Envelope Package: Attic Insulation, Recessed Cans, Air and Duct Sealing, plus Wall Insulation and New Windows:** This package includes all the measures in Package 3, in addition to insulating exterior walls, and replacing existing single-pane windows with improved high-performance windows. This package only applies to older vintage homes with no wall cavity insulation and single-pane windows.
- R-49 attic insulation installed in attic.
  - Ductwork sealed to ten percent of nominal airflow.
  - Air sealing and weatherstripping to reduce total building air leakage by 30 percent. Target air leakage assumptions are ten ACH50 for pre-1978 vintage, seven ACH50 for 1978 to 1991 vintage, and five ACH50 for the 1992 to 2010 vintage.
  - Retrofitting all non-IC-rated recessed light luminaires to be airtight and allow for coverage by insulation. This submeasure only applies to homes without IC-rated recessed can luminaires.
  - Insulate exterior walls to R-13.
  - New windows with 0.30 U-factor and 0.23 SHGC (0.35 SHGC in Climate Zones 1, 3, 5, and 16).
  - This combination of measures is common when a whole building performance upgrade is done in combination with HVAC equipment replacement. Incorporating these measures can allow for contractor to downsize HVAC equipment by lowering heating and cooling loads in the house.

### 3.3.2 Additional Packages

**Water Heating Package:** Includes water heater blanket, hot water pipe insulation, and low-flow fixtures: These three water heating measures are all relatively low cost and work together to reduce building hot water energy use. Additional water savings measures and model language are documented on the LocalEnergyCodes.com website.<sup>4</sup>

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<sup>4</sup> <https://localenergycodes.com/>

**PV plus Batteries:** PV sized to Residential New Construction Standards and a ten kWh battery system with TOU control.

**PV plus Electric Ready Measures:** Includes adding electric ready measures for future replacement of natural gas furnace and water heater with heat pumps, along with installation of an on-site PV system. The electric ready measures include rewiring 240 V power to the furnace location in the attic and the water heater location in the garage, and panel upgrade to allow for installation of future electric appliances at a future date.

### 3.4 Measure Cost

Measure costs were obtained from various sources, including prior reach code studies, past Title 24 Codes and Standards Enhancement (CASE) work, local contractors, internet searches, past projects, and technical reports.

#### 3.4.1 Building Envelope/Non-Preempted Measures

Table 4 summarizes the cost assumptions for the building envelope and non-preempted HVAC measures evaluated.

#### 3.4.2 PV and Battery Measures

The costs for installing PV and batteries are summarized in Table 5. For PV, they include first cost to purchase and install the system, inverter replacement costs, and annual maintenance costs. Upfront solar PV system costs are reduced by the federal income tax credit (ITC) by 26 percent based on renewal of the credit through the year 2023.

Costs for batteries include first cost and replacement at year 10 and 20, assuming a 10 year battery life. Batteries are also eligible for the ITC if they are installed at the same time as the renewable generation source and at least 75 percent of the energy used to charge the battery comes from a renewable source.

**Climate Zone 15:**

Note: Values in red and grey rows indicate option is not cost-effective with B/C ratio less than 1. Cells with "n/a" reflect lighting and water heating efficiency measures and packages that did not look at TDV cost effectiveness or GHG impacts.

**Table 104: CZ 15 - Single Family Efficiency Upgrade Cost-Effectiveness Results**

Measure	Vintage	Measure Cost (\$)	Electricity Savings (kWh)	Gas Savings (therm)	GHG Savings (lb CO <sub>2</sub> e)	Utility Cost Savings		Customer On-Bill		2019 TDV		2022 TDV	
						Year 1	Avg Annual	B/C Ratio	NPV	B/C Ratio	NPV	B/C Ratio	NPV
R-49 Attic Insulation	Pre-1978	\$3,332	1,824	10	257	\$536	\$424	3.40	\$8,992	3.33	\$7,766	3.26	\$7,518
	1978-1991	\$2,874	996	5	140	\$293	\$232	2.16	\$3,738	2.12	\$3,206	1.98	\$2,803
	1992-2010	\$1,852	296	2	44	\$89	\$70	1.01	\$23	1.09	\$167	1.03	\$60
Reduced Infiltration	Pre-1978	\$1,474	219	3	38	\$65	\$52	0.94	-\$96	1.15	\$214	1.12	\$179
	1978-1991		142	2	42	\$43	\$34	0.62	-\$635	0.79	-\$313	0.56	-\$642
	1992-2010		84	1	22	\$25	\$20	0.36	-\$1,060	0.51	-\$728	0.38	-\$918
Duct Sealing	Pre-1978	\$683	2,634	4	325	\$795	\$628	24.55	\$18,061	27.36	\$18,002	25.02	\$16,407
	1978-1991	\$683	1,696	1	243	\$519	\$410	16.03	\$11,531	18.21	\$11,758	16.21	\$10,389
	1992-2010	\$423	356	0	63	\$109	\$86	5.44	\$2,107	6.99	\$2,532	5.97	\$2,100
New Ducts	Pre-1978	\$3,986	4,230	7	577	\$1,285	\$1,015	6.80	\$25,977	7.53	\$26,043	6.90	\$23,514
	1978-1991		3,252	4	486	\$1,002	\$791	5.30	\$19,264	6.01	\$19,985	5.40	\$17,537
	1992-2010		1,016	1	178	\$313	\$247	1.66	\$2,933	2.08	\$4,324	1.84	\$3,356
Cool Roof	Pre-1978	\$778	883	-1	56	\$257	\$203	6.96	\$5,208	6.20	\$4,044	6.13	\$3,992
	1978-1991		659	-1	65	\$196	\$154	5.31	\$3,761	4.85	\$2,996	4.58	\$2,785
	1992-2010		311	0	26	\$93	\$74	2.53	\$1,334	2.52	\$1,184	2.61	\$1,250
R-13 Wall Insulation	Pre-1978	\$3,360	1,020	10	259	\$310	\$246	1.95	\$3,596	2.40	\$4,717	2.02	\$3,432
Windows	Pre-1978	\$9,810	3,358	2	347	\$978	\$772	2.10	\$12,145	2.15	\$11,315	1.88	\$8,668
	1978-1991		2,702	2	284	\$792	\$625	1.70	\$7,749	1.71	\$6,989	1.52	\$5,108
LED lamp vs CFL	All	\$2.26	1.2	0	n/a	\$0.32	\$0.25	3.37	\$5.34	n/a	n/a	n/a	n/a
Exterior Photosensor	All	\$42.58	12.1	0	n/a	\$2.00	\$1.58	1.11	\$4.84	n/a	n/a	n/a	n/a



**Table 105: CZ 15 - Single Family Efficiency Packages Cost-Effectiveness Results**

Measure	Vintage	Measure Cost (\$)	Electricity Savings (kWh)	Gas Savings (therm)	GHG Savings (lb CO <sub>2</sub> e)	Utility Cost Savings		Customer On-Bill		2019 TDV		2022 TDV	
						Year 1	Avg Annual	B/C Ratio	NPV	B/C Ratio	NPV	B/C Ratio	NPV
R49 Attic & Air Sealing Package	Pre-1978	\$4,806	2,056	13	322	\$606	\$480	2.67	\$9,000	2.70	\$8,167	2.55	\$7,450
	1978-1991	\$4,348	1,133	6	154	\$335	\$265	1.63	\$3,062	1.64	\$2,764	1.57	\$2,469
	1992-2010	\$3,326	379	3	67	\$113	\$90	0.72	-\$1,044	0.83	-\$564	0.74	-\$881
R49 Attic & Duct Sealing Package	Pre-1978	\$4,015	4,283	13	617	\$1,285	\$1,016	6.76	\$25,963	7.23	\$25,008	6.65	\$22,669
	1978-1991	\$3,557	2,574	6	374	\$780	\$616	4.63	\$14,486	5.06	\$14,449	4.54	\$12,581
	1992-2010	\$2,275	636	2	108	\$193	\$153	1.79	\$2,021	2.15	\$2,627	1.89	\$2,019
R49 Attic, Air Sealing & Duct Sealing Package	Pre-1978	\$5,489	4,496	15	676	\$1,350	\$1,067	5.19	\$25,850	5.64	\$25,467	5.12	\$22,592
	1978-1991	\$5,031	2,706	7	408	\$819	\$648	3.44	\$13,780	3.81	\$14,138	3.38	\$11,986
	1992-2010	\$3,749	710	3	123	\$216	\$170	1.21	\$904	1.50	\$1,862	1.31	\$1,159
R49 Attic, Air Sealing & New Ducts Package	Pre-1978	\$8,792	6,122	18	920	\$1,856	\$1,467	4.46	\$34,131	4.90	\$34,297	4.49	\$30,658
	1978-1991	\$8,334	4,241	8	648	\$1,300	\$1,027	3.29	\$21,450	3.71	\$22,585	3.32	\$19,312
	1992-2010	\$7,312	1,353	3	242	\$411	\$325	1.19	\$1,537	1.49	\$3,607	1.31	\$2,285
Advanced Envelope Package	Pre-1978	\$18,659	7,579	28	1,156	\$2,277	\$1,801	2.58	\$33,078	2.87	\$34,978	2.55	\$28,977
Water Heating Package	All Vintages	\$208	n/a	n/a	n/a	\$32	\$321	1.37	\$87	n/a	n/a	n/a	n/a



## Cost-Effectiveness Results Summary

# City of Palm Springs

## Climate Zone 15

## EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built before 1978 (5,956 units)**

Table 1 of 2

Measure	Cost-Effectiveness		Per Home Results			
	On-Bill Benefit/Cost Ratio	Simple Payback	Incremental Cost	Annual Bill Savings	Emissions Savings	Lifecycle Savings
Envelope & Duct Package	9.67	2.37	\$1,054	\$445.25	0.44 (9.95%)	\$10,568
R38 Attic Insulation	6	3.82	\$593.78	\$155.58	0.155 (3.49%)	\$3,695
Duct Sealing	57.1	0.401	\$120.00	\$299.43	0.289 (6.53%)	\$7,101
Cool Roof	14	1.63	\$183.74	\$112.77	0.103 (2.32%)	\$2,666
Windows	2.26	10.1	\$5,873	\$581.09	0.559 (12.6%)	\$13,772
Water Heating Package	2.92	8.91	\$168.20	\$18.87	0.088 (1.98%)	\$508.68
LED Lamp vs. CFL	4.52	5.05	\$9.12	\$1.81	0.002 (0.007%)	\$42.77
LED Lamp vs. Incandescent	∞	Immediate	-\$29.94	\$31.64	0.03 (0.115%)	\$749.09

EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built before 1978 (5,956 units)**

Table 2 of 2

Measure	Per Home Results	
	Electricity Savings	Gas Savings
Envelope & Duct Package	1,663	7.44
R38 Attic Insulation	574	3.07
Duct Sealing	1,128	3.33
Cool Roof	455	-1.23
Windows	2,237	3.83
Water Heating Package	0	16.1
LED Lamp vs. CFL	7.23	0
LED Lamp vs. Incandescent	127	0

## EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built from 1978 to 1991 (3,053 units)**

Table 1 of 2

Measure	Cost-Effectiveness		Per Home Results			
	On-Bill Benefit/Cost Ratio	Simple Payback	Incremental Cost	Annual Bill Savings	Emissions Savings	Lifecycle Savings
Envelope & Duct Package	5.26	4.35	\$986.62	\$226.99	0.219 (6.38%)	\$5,382
R38 Attic Insulation	3.33	6.87	\$525.92	\$76.54	0.074 (2.16%)	\$1,816
Duct Sealing	28.2	0.812	\$120.00	\$147.81	0.138 (4.01%)	\$3,501
Cool Roof	10.9	2.09	\$183.74	\$87.91	0.082 (2.38%)	\$2,080
Water Heating Package	2.92	8.91	\$168.20	\$18.87	0.088 (2.55%)	\$508.68
LED Lamp vs. CFL	4.52	5.05	\$9.12	\$1.81	0.002 (0.008%)	\$42.77
LED Lamp vs. Incandescent	∞	Immediate	-\$29.94	\$31.64	0.03 (0.148%)	\$749.09

EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built from 1978 to 1991 (3,053 units)**

Table 2 of 2

Measure	Per Home Results	
	Electricity Savings	Gas Savings
Envelope & Duct Package	863	2.09
R38 Attic Insulation	285	1.02
Duct Sealing	565	0.336
Cool Roof	351	-0.493
Water Heating Package	0	16.1
LED Lamp vs. CFL	7.23	0
LED Lamp vs. Incandescent	127	0

## EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built from 1992 to 2005 (231 units)**

Table 1 of 2

Measure	Cost-Effectiveness		Per Home Results			
	On-Bill Benefit/Cost Ratio	Simple Payback	Incremental Cost	Annual Bill Savings	Emissions Savings	Lifecycle Savings
Envelope & Duct Package	4.51	5.07	\$986.62	\$194.60	0.191 (6.27%)	\$4,613
R38 Attic Insulation	2.79	8.2	\$525.92	\$64.13	0.066 (2.15%)	\$1,521
Duct Sealing	24.5	0.931	\$120.00	\$128.84	0.122 (3.99%)	\$3,051
Cool Roof	9	2.54	\$183.74	\$72.46	0.069 (2.26%)	\$1,714
Water Heating Package	2.92	8.91	\$168.20	\$18.87	0.088 (2.87%)	\$508.68
LED Lamp vs. CFL	4.52	5.05	\$9.12	\$1.81	0.002 (0.009%)	\$42.77
LED Lamp vs. Incandescent	∞	Immediate	-\$29.94	\$31.64	0.03 (0.166%)	\$749.09

EXISTING LOW-RISE RESIDENTIAL BUILDINGS (2019)

**Multifamily Units | Built from 1992 to 2005 (231 units)**

Table 2 of 2

Measure	Per Home Results	
	Electricity Savings	Gas Savings
Envelope & Duct Package	762	1.45
R38 Attic Insulation	254	0.853
Duct Sealing	501	0.203
Cool Roof	296	-0.452
Water Heating Package	0	16.1
LED Lamp vs. CFL	7.23	0
LED Lamp vs. Incandescent	127	0



## Sources

### 2019 Cost-Effectiveness Study: Existing Low-Rise Residential Building Efficiency Upgrade

California Energy Codes and Standards Program, PG&E. Produced by: Frontier Energy, Inc, Misti Bruceri & Associates.

### 2019 Cost-Effectiveness Study: Low-Rise Residential New Construction

California Energy Codes and Standards Program, PG&E. Produced by: Frontier Energy, Inc, Misti Bruceri & Associates.

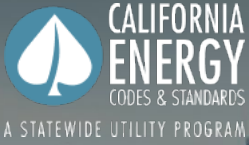
### 2019 Nonresidential New Construction Reach Code Cost-Effectiveness Study

California Energy Codes and Standards Program, SoCal Edison. Produced by: TRC, EnergySoft.

This document has been generated from [https://explorer.localenergycodes.com/palm-springs-city/forecast/15-SCE/studies/1,2,3?exclude\\_prototypes=5](https://explorer.localenergycodes.com/palm-springs-city/forecast/15-SCE/studies/1,2,3?exclude_prototypes=5),

Find more reach code resources at [localenergycodes.com](https://localenergycodes.com)





2019 COOL ROOF REACH CODE  
LOW-RISE NEW CONSTRUCTION COST-EFFECTIVENESS ANALYSIS:  
**City of Palm Springs**

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

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



## Legal Notice

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## Acronym List

ASR – Aged Solar Reflectance

B/C – Benefit-to-Cost Ratio

BSC – Building Standards Commission

CASE - Codes and Standards Enhancement

CBECC – California Building Energy Code Compliance

CEC – California Energy Commission

CZ – Climate Zone

GHG – Greenhouse Gas

IOU – Investor-Owned Utility

kWh – Kilowatt Hour

NPV – Net Present Value

PG&E – Pacific Gas & Electric (utility)

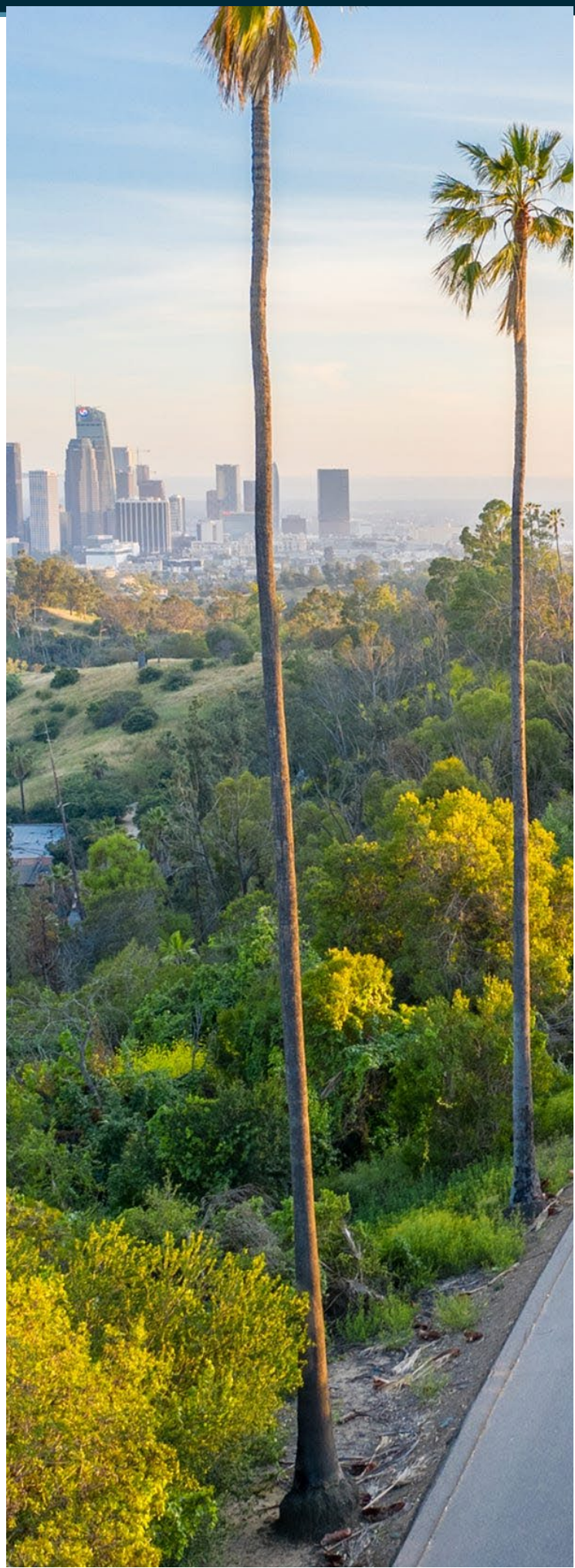
SCE – Southern California Edison (utility)

SCG – Southern California Gas (utility)

SDG&E – San Diego Gas & Electric (utility)

TDV - Time Dependent Valuation

Title 24 – California Code of Regulations Title 24, Part 6



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## 1 Introduction

The California Codes and Standards Reach Codes program provides technical support to local governments considering adopting a local ordinance (reach code) intended to support meeting local and/or statewide energy and greenhouse gas (GHG) reduction goals. The program facilitates adoption and implementation of the code when requested by local jurisdictions by providing resources such as cost-effectiveness studies, model language, sample findings, and other supporting documentation. Local jurisdictions that are considering adopting ordinances may contact the program for support through its website, [LocalEnergyCodes.com](http://LocalEnergyCodes.com).

The California Building Energy Efficiency Standards Title 24, Part 6 (Title 24) (CEC, 2019) is maintained and updated every three years by two state agencies: the California Energy Commission (the Energy Commission) and the Building Standards Commission (BSC). In addition to enforcing the code, local jurisdictions have the authority to adopt local energy efficiency ordinances—or reach codes—that exceed the minimum standards defined by Title 24 (as established by Public Resources Code Section 25402.1(h)2 and Section 10-106 of the Building Energy Efficiency Standards). Local jurisdictions must demonstrate that the requirements of the proposed ordinance are cost-effective and do not result in buildings consuming more energy than is permitted by Title 24. In addition, the jurisdiction must obtain approval from the Energy Commission and file the ordinance with the BSC for the ordinance to be legally enforceable.

This analysis builds upon the results of the 2019 Cost-effectiveness Study: Low-Rise Residential New Construction (Statewide Reach Code Team, 2019), last modified August 1, 2019, which evaluated the feasibility and cost-effectiveness of upgrade measures in new homes built to the 2019 California Building Energy Efficiency Standards Title 24, Part 6 (Title 24) (California Energy Commission, 2018). This report presents results from analysis conducted in response to a request from the City of Palm Springs to evaluate the cost effectiveness of cool roofs in new construction homes as a stand-alone efficiency measure. Results are also reported here for existing single family homes based on the 2019 Cost-Effectiveness Study: Existing Single Family Residential Building Upgrades (Statewide Reach Code Team, 2021)

Cost-effectiveness is reported for California Climate Zone 15. This report was developed in coordination with the California Statewide Investor Owned Utilities (IOUs) Codes and Standards Program, key consultants, and engaged cities—collectively known as the Reach Code Team.

## 2 Methodology and Assumptions

For the new construction analysis, the same methodology used in the statewide analysis (Statewide Reach Code Team, 2019) is applied to this analysis with the following exceptions:

- Energy analysis was re-evaluated using the most recent approved version of CBECC-Res for the 2019 Title 24 code, CBECC-Res 2019.1.3 SP1.
- Utility costs were calculated based on recent utility costs for Southern California Edison (SCE) and Southern California Gas (SoCalGas). See Appendix 5.1 for details.
- Incremental costs were updated based on more recent information.

Analysis evaluated a steep-sloped cool roof that is rated by the Cool Roof Rating Council to have an aged solar reflectance (ASR) of 0.25 and a thermal emittance of 0.85. This is higher performance than the Title 24 prescriptive cool roof requirement in Climate Zone 15 for an ASR of 0.20 and emittance of 0.75.<sup>1</sup>

Incremental costs were updated based on data from the 2022 Codes and Standards Enhancement (CASE) report on Nonresidential High Performance Envelope (Statewide CASE Team, 2020). The report evaluated incremental costs for a 0.25 ASR versus a 0.20 ASR steep-sloped roof. Even though the report analysis was for nonresidential buildings, steep-sloped roofing products for residential and small commercial buildings are the same (large commercial buildings are not typically steep-sloped). Table 1 presents incremental cost data by roofing product. Tile roofing products were not found to have cost variation within the ASR range of 0.20 to 0.25. An incremental first cost of \$0.07/square foot was found for asphalt shingle products. Total lifecycle costs include replacement at year 20 and the value of the remaining useful life of the roof at the end of the analysis period at year 30. The costs for asphalt shingles were used in this analysis to demonstrate the results based on the product with a higher incremental cost.

**Table 1: New Construction Cool Roof Incremental Cost**

	Tile	Asphalt Shingle
<b>First Cost</b>	\$0.00/square foot	\$0.07/square foot
<b>Effective Useful Life</b>	20 years	20 years
<b>Total Lifecycle Cost</b>	\$0.00/square foot	\$0.094/square foot

No additional analysis was done for the 1,665 square foot existing home. Results are copied directly from the statewide report. The existing home analysis evaluated a steep-sloped cool roof that is rated by the Cool Roof Rating Council to have an ASR of 0.25 compared to an existing non-cool roof with an ASR of 0.10. Table 2 presents incremental cost data for replacing an existing roof assuming an asphalt roofing product and assumes replacement at year 20 and the value of the remaining useful life at year 30. This retrofit measure applies to buildings that are installing a new roof as part of the scope of the remodel; the cost and energy savings associated with this upgrade reflects the incremental step between a standard non-cool roof product with one that is CRRC rated with an ASR of 0.25.

**Table 2: Retrofit Cool Roof Incremental Cost**

	Asphalt Shingle
<b>First Cost</b>	\$0.32/square foot
<b>Effective Useful Life</b>	20 years
<b>Total Lifecycle Cost</b>	\$0.431/square foot

Refer to the statewide studies for further details.

<sup>1</sup> The base case Standard Design in the CBECC-Res software applies an ASR of 0.20 and emittance of 0.85. Therefore, the energy savings reported are from increasing the ASR from 0.20 to 0.25 and no change in emittance.

### 3 Results

Table 3 and Table 4 summarize cost-effectiveness of the cool roof measures for new construction and existing homes, respectively. For new homes, upgrading from a cool roof with an ASR of 0.20 to one with an ASR of 0.25 was found to be cost effective for both single family and multifamily buildings. For existing single family homes, at time of roof replacement, upgrading from a non-cool roof to one with an ASR of 0.25 was also found to be cost effective for all vintages.

**Table 3: New Construction Cool Roof Cost-Effectiveness Results per Dwelling Unit**

Prototype	Fuel Type	Measure Cost	Electricity Savings (kWh)	Gas Savings (therm)	GHG Savings (lb CO <sub>2</sub> e)	Utility Cost Savings		Customer On-Bill	
						Year 1	Avg Annual	B/C Ratio	NPV
Single Family	Mixed Fuel	\$197	42.6	-0.40	16.28	\$12	\$9	1.40	\$78
	All-Electric	\$197	39.16	0.00	20.22	\$12	\$9	1.39	\$77
Multifamily	Mixed Fuel	\$49	21.6	0.00	9.89	\$6	\$5	2.90	\$93
	All-Electric	\$49	21.5	0.00	9.82	\$6	\$4	2.65	\$81

Note: Values shaded in red indicate option is not cost-effective with B/C ratio less than 1. Values shaded in green indicate option is cost-effective with B/C ratio greater than or equal to 1.

**Table 4: Existing Home Cool Roof Cost-Effectiveness Results per Dwelling Unit**

Vintage	Measure Cost	Electricity Savings (kWh)	Gas Savings (therm)	GHG Savings (lb CO <sub>2</sub> e)	Utility Cost Savings		Customer On-Bill	
					Year 1	Avg Annual	B/C Ratio	NPV
Pre-1978	\$778	883	-1	56	\$280	\$221	7.82	\$5,788
1978-1991		659	-1	65	\$214	\$169	5.96	\$4,209
1992-2010		311	0	26	\$102	\$81	2.85	\$1,568



## 4 References

- California Energy Commission. (2018). *2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*. Retrieved from <https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf>
- Statewide CASE Team. (2020). *Codes and Standards Enhancement (CASE) Initiative 2022 California Energy Code. Nonresidential High Performance Envelope*. Retrieved from <https://title24stakeholders.com/wp-content/uploads/2020/10/2020-T24-NR-HP-Envelope-Final-CASE-Report.pdf>
- Statewide Reach Code Team. (2019). *Title 24, Parts 6 and 11 Local Energy Efficiency Ordinances. 2019 Cost-effectiveness Study: Low-rise Residential New Construction*. Last modified August 1, 2019. Retrieved from [https://localenergycodes.com/download/800/file\\_path/fieldList/2019%20Res%20NC%20Reach%20Codes](https://localenergycodes.com/download/800/file_path/fieldList/2019%20Res%20NC%20Reach%20Codes)
- Statewide Reach Code Team. (2021). *2019 Cost-Effectiveness Study: Existing Single Family Residential Building Upgrades*. Updated 2021. Not yet published. Prepared by Frontier Energy.

## 5 Appendices

### 5.1 Utility Tariff Details

#### SoCalGas

Following are the SoCalGas natural gas tariffs applied in this study. Table 5 describes the baseline territories that were assumed for each climate zone.

**Table 5: SoCalGas Baseline Territory by Climate Zone**

	<b>Baseline Territory</b>
CZ05	2
CZ06	1
CZ08	1
CZ09	1
CZ10	1
CZ14	2
CZ15	1

The SoCalGas monthly gas rate in \$/therm was applied on a monthly basis for the 12-month period ending March 2021 according to the rates shown in Table 6. Historical natural gas rate data was only available for SoCalGas’ procurement charges.<sup>2</sup> To estimate total costs by month, the baseline and excess transmission charges were assumed to be relatively consistent and applied for the entire year based on January 2021 costs.

**Table 6: SoCalGas Monthly Gas Rate (\$/therm)**

<b>Month</b>	<b>Procurement Charge</b>	<b>Transportation Charge</b>		<b>Total Charge</b>	
		<b>Baseline</b>	<b>Excess</b>	<b>Baseline</b>	<b>Excess</b>
Jan 2021	\$0.39764	\$0.82358	\$1.21382	\$1.22122	\$1.61146
Feb 2021	\$0.36766	\$0.82358	\$1.21382	\$1.19124	\$1.58148
Mar 2021	\$0.36982	\$0.82358	\$1.21382	\$1.19340	\$1.58364
Apr 2020	\$0.20307	\$0.82358	\$1.21382	\$1.02665	\$1.41689
May 2020	\$0.25654	\$0.82358	\$1.21382	\$1.08012	\$1.47036
June 2020	\$0.2758	\$0.82358	\$1.21382	\$1.09938	\$1.48962
July 2020	\$0.26816	\$0.82358	\$1.21382	\$1.09174	\$1.48198
Aug 2020	\$0.26239	\$0.82358	\$1.21382	\$1.08597	\$1.47621
Sept 2020	\$0.25498	\$0.82358	\$1.21382	\$1.07856	\$1.4688
Oct 2020	\$0.25268	\$0.82358	\$1.21382	\$1.07626	\$1.4665
Nov 2020	\$0.3432	\$0.82358	\$1.21382	\$1.16678	\$1.55702
Dec 2020	\$0.36159	\$0.82358	\$1.21382	\$1.18517	\$1.57541

<sup>2</sup> The SoCalGas procurement and transmission charges were obtained from the following site:  
<https://www.socalgas.com/for-your-business/energy-market-services/gas-prices>

**SOUTHERN CALIFORNIA GAS COMPANY** Revised CAL. P.U.C. SHEET NO. 57456-G  
 LOS ANGELES, CALIFORNIA CANCELING Revised CAL. P.U.C. SHEET NO. 57430-G

Schedule No. GR  
RESIDENTIAL SERVICE  
 (Includes GR, GR-C and GT-R Rates)

Sheet 1

APPLICABILITY

The GR rate is applicable to natural gas procurement service to individually metered residential customers.

The GR-C, cross-over rate, is a core procurement option for individually metered residential core transportation customers with annual consumption over 50,000 therms, as set forth in Special Condition 10.

The GT-R rate is applicable to Core Aggregation Transportation (CAT) service to individually metered residential customers, as set forth in Special Condition 11.

The California Alternate Rates for Energy (CARE) discount of 20%, reflected as a separate line item on the bill, is applicable to income-qualified households that meet the requirements for the CARE program as set forth in Schedule No. G-CARE.

TERRITORY

Applicable throughout the service territory.

RATES

<u>RATES</u>	<u>GR</u>	<u>GR-C</u>	<u>GT-R</u>
<u>Customer Charge</u> , per meter per day:.....	16.438¢	16.438¢	16.438¢
For "Space Heating Only" customers, a daily Customer Charge applies during the winter period from November 1 through April 30 <sup>1/2</sup> : .....	33.149¢	33.149¢	33.149¢

### Southern California Edison

Following are the SCE electricity tariffs applied in this study for non-generation rates. The electricity baseline territory used for Climate Zone 15 is 15.

**Table 7: SCE Baseline Territory by Climate Zone**

Climate Zone	Baseline Territory
6	6
8	8
9	9
10	10
14	14
15	15

Summer Daily Allocations (June through September)

Baseline Region Number	Daily kWh Allocation	All-Electric Allocation
5	17.2	17.9
6	11.4	8.8
8	12.6	9.8
9	16.5	12.4
10	18.9	15.8
13	22.0	24.6
14	18.7	18.3
15	46.4	24.1
16	14.4	13.5

Winter Daily Allocations (October through May)

Baseline Region Number	Daily kWh Allocation	All-Electric Allocation
5	18.7	29.1
6	11.3	13.0
8	10.6	12.7
9	12.3	14.3
10	12.5	17.0
13	12.6	24.3
14	12.0	21.3
15	9.9	18.2
16	12.6	23.1

Schedule TOU-D  
TIME-OF-USE  
DOMESTIC  
 (Continued)

Sheet 12 (T)

**SPECIAL CONDITIONS**

1. Applicable rate time periods are defined as follows:

Option 4-9 PM, Option 4-9 PM-CPP, Option PRIME, Option PRIME-CPP :

TOU Period	Weekdays		Weekends and Holidays	
	Summer	Winter	Summer	Winter
On-Peak	4 p.m. - 9 p.m.	N/A	N/A	N/A
Mid-Peak	N/A	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.
Off-Peak	All other hours	9 p.m. - 8 a.m.	All other hours	9 p.m. - 8 a.m.
Super-Off-Peak	N/A	8 a.m. - 4 p.m.	N/A	8 a.m. - 4 p.m.
CPP Event Period	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.	N/A	N/A

(T)



Southern California Edison  
Rosemead, California (U 338-E)

Revised Cal. PUC Sheet No. 70277-E  
Cancelling Revised Cal. PUC Sheet No. 69597-E

**Schedule TOU-D**  
**TIME-OF-USE**  
**DOMESTIC**  
(Continued)

Sheet 2

**RATES**

Customers receiving service under this Schedule will be charged the applicable rates under Option 4-9 PM, Option 4-9 PM-CPP, Option 5-8 PM, Option 5-8 PM-CPP, Option PRIME, Option PRIME-CPP Option A, Option A-CPP, Option B, or Option B-CPP, as listed below. CPP Event Charges will apply to all energy usage during CPP Event Energy Charge periods and CPP Non-Event Energy Credits will apply as a reduction on CPP Non-Event Energy Credit Periods during Summer Season weekdays, 4:00 p.m. to 9:00 p.m., as described in Special Conditions 1 and 3, below:

	Delivery Service Total <sup>1</sup>	Generation <sup>2</sup>	
		UG <sup>***</sup>	DWREC <sup>3</sup>
<b>Option 4-9 PM / Option 4-9 PM-CPP</b>			
Energy Charge - \$/kWh			
Summer Season - On-Peak	0.24845 (I)	0.18143 (R)	0.00000 (I)
Mid-Peak	0.24845 (I)	0.10036 (R)	0.00000 (I)
Off-Peak	0.19495 (I)	0.07403 (R)	0.00000 (I)
Winter Season - Mid-Peak	0.24845 (I)	0.12593 (R)	0.00000 (I)
Off-Peak	0.19495 (I)	0.08893 (R)	0.00000 (I)
Super-Off-Peak	0.18859 (I)	0.06926 (R)	0.00000 (I)
Baseline Credit <sup>****</sup> - \$/kWh	(0.07228) (R)	0.00000	
Basic Charge - \$/day			
Single-Family Residence	0.031		
Multi-Family Residence	0.024		
Minimum Charge <sup>**</sup> - \$/day			
Single Family Residence	0.346		
Multi-Family Residence	0.346		
Minimum Charge (Medical Baseline) <sup>**</sup> - \$/day			
Single Family Residence	0.173		
Multi-Family Residence	0.173		
California Climate Credit <sup>4</sup>	(29.00) (R)		
California Alternate Rates for Energy Discount - %	100.00*		
Family Electric Rate Assistance Discount - %	100.00		
<b>Option 4-9 PM-CPP</b>			
CPP Event Energy Charge - \$/kWh		0.80000	
Summer CPP Non-Event Credit		(0.15170)	
On-Peak Energy Credit - \$/kWh			
Maximum Available Credit - \$/kWh <sup>*****</sup>			
Summer Season		(0.58115) (I)	

\* Represents 100% of the discount percentage as shown in the applicable Special Condition of this Schedule.  
 \*\* The Minimum Charge is applicable when the Delivery Service Energy Charge, plus the applicable Basic Charge is less than the Minimum Charge.  
 \*\*\* The ongoing Competition Transition Charge CTC of (\$0.00002) per kWh is recovered in the UG component of Generation. (R)  
 \*\*\*\* The Baseline Credit applies up to 100% of the Baseline Allocation, regardless of Time of Use. The Baseline Allocation is set forth in Preliminary Statement, Part H.  
 \*\*\*\*\* The Maximum Available Credit is the capped credit amount for CPP Customers dual participating in other demand response programs.  
 1 Total = Total Delivery Service rates are applicable to Bundled Service, Direct Access (DA) and Community Choice Aggregation Service (CCA Service) Customers, except DA and CCA Service Customers are not subject to the DWRBC rate component of this Schedule but instead pay the DWRBC as provided by Schedule DA-CRS or Schedule CCA-CRS.  
 2 Generation = The Gen rates are applicable only to Bundled Service Customers.  
 3 DWREC = Department of Water Resources (DWR) Energy Credit - For more information on the DWR Energy Credit, see the Billing Calculation Special Condition of this Schedule.  
 4 Applied on an equal basis, per household, semi-annually. See the Special Conditions of this Schedule for more information.

(Continued)

(To be inserted by utility)  
 Advice 4377-E-A  
 Decision \_\_\_\_\_  
 2C11

Issued by  
Carla Peterman  
Senior Vice President

(To be inserted by Cal. PUC)  
 Date Submitted Jan 11, 2021  
 Effective Feb 1, 2021  
 Resolution \_\_\_\_\_

## Get In Touch

The adoption of reach codes can differentiate jurisdictions as efficiency leaders and help accelerate the adoption of new equipment, technologies, code compliance, and energy savings strategies.

As part of the Statewide Codes & Standards Program, the Reach Codes Subprogram is a resource available to any local jurisdiction located throughout the state of California.

Our experts develop robust toolkits as well as provide specific technical assistance to local jurisdictions (cities and counties) considering adopting energy reach codes. These include cost-effectiveness research and analysis, model ordinance language and other code development and implementation tools, and specific technical assistance throughout the code adoption process.

If you are interested in finding out more about local energy reach codes, the Reach Codes Team stands ready to assist jurisdictions at any stage of a reach code project.



Visit [LocalEnergyCodes.com](https://LocalEnergyCodes.com) to access our resources and sign up for newsletters



Contact [info@localenergycodes.com](mailto:info@localenergycodes.com) for no-charge assistance from expert Reach Code advisors



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Policy Impacts	Affected Units Per Year	Total Affected Units	Aggregate Compliance Cost	Aggregate Bill Savings	Net Emissions Savings (mtco2e)	Net Emissions Savings from Gas (mtco2e)	Net Emissions Savings from Electricity (mtco2e)	Gas Saved (therms)	Electricity Saved (kWh)
								All	All
<b>[+] Single Family Measures</b>									
LED vs. CFL	833	4,163	\$56,455	\$59,952	5	0	5	0	224,820
Water Heating Package	750	3,749	\$780,868	\$1,732,972	7,151	7,151	0	1,311,031	0
Duct Sealing	151	753	\$468,477	\$3,197,669	318	72	246	13,111	10,554,809
[NET] Duct Sealing + R-49 Attic Insulation	19	93	\$265,768	\$641,765	100	66	34	12,087	2,158,383
[NET] Duct Sealing + R-49 Attic Insulation + Air Sealing	34	172	\$286,094	\$172,140	38	29	9	5,363	566,633
<b>SF Total</b>	<b>833</b>	<b>7,912</b>	<b>\$1,857,662</b>	<b>\$5,804,498</b>	<b>7,612</b>	<b>7,318</b>	<b>295</b>	<b>1,341,592</b>	<b>13,504,644</b>
<b>[+] Multifamily Measures</b>									
LED vs. CFL	320	1,598	\$14,571	\$21,689	2	0	2	0	86,638
Water Heating Package	144	719	\$120,845	\$272,818	1,270	1,270	0	232,770	0
Duct Sealing	29	144	\$17,336	\$265,238	37	13	23	2,452	1,003,677
[NET] Duct Sealing + R-49 Attic Insulation	7	36	\$21,013	\$75,821	14	10	4	1,827	278,890
[NET] Duct Sealing + R-49 Attic Insulation + Air Sealing	13	66	\$21,040	\$24,271	7	6	1	1,017	90,372
<b>MF Total</b>	<b>320</b>	<b>1,598</b>	<b>\$194,805</b>	<b>\$659,838</b>	<b>1,330</b>	<b>1,299</b>	<b>31</b>	<b>238,065</b>	<b>1,459,578</b>
<b>[+] Combined Measures</b>									
LED vs. CFL	1152	5,761	\$71,026	\$81,641	7	0	7	0	311,457
Water Heating Package	894	4,468	\$901,713	\$2,005,790	8,421	8,421	0	1,543,801	0
Duct Sealing	179	897	\$485,814	\$3,462,907	354	85	269	15,563	11,558,487
[NET] Duct Sealing + R-49 Attic Insulation	26	128	\$286,781	\$717,586	115	76	39	13,914	2,437,273
[NET] Duct Sealing + R-49 Attic Insulation + Air Sealing	48	238	\$307,134	\$196,411	45	35	10	6,380	657,005
<b>SF &amp; MF Total</b>	<b>1152</b>	<b>9,510</b>	<b>\$2,052,467</b>	<b>\$6,464,336</b>	<b>8,942</b>	<b>8,616</b>	<b>326</b>	<b>1,579,658</b>	<b>14,964,222</b>

# Assumptions

Building Stock Values (dwelling units, zone 15)	Pre-1978	1978-1991	1992-2010	2011+	All
Single Family	12,485	5,964	5,628	4,248.9	28,326
Multifamily	5,956	3,053	231	169	9,409
Total					37,735

## Global Assumptions

Policy Takes Effect	2023
Active Policy Duration (years)	5
Current Renewable Electricity Share	88.26%
Natural Gas Emissions Factor (mtco2e)	0.0054544

Measure Assumptions	Cost Effectiveness	Policy Trigger	Penetration Rate	Applicability Rate	Baseline Installation Rate		
					Yrs 1-10	Yrs 11-20	Yrs 21-30
<u>Single Family Measures</u>							
LED vs. CFL	3 vintages	All Permits	6.92%	50%	50%	75%	100%
Water Heating Package	3 vintages	\$10K+	6.23%	50%	0%	33%	66%
Duct Sealing	3 vintages	\$25K+ (WH + Lighting + 1 measures)	0.78%	80%	50%	75%	100%
[NET] Duct Sealing + R-49 Attic Insulation	3 vintages	\$50K+ (WH + Lighting + 2 measures)	0.38%	20%	15%	30%	50%
[NET] Duct Sealing + R-49 Attic Insulation + Air Sealing	3 vintages	\$100K+ (WH + Lighting + 3 measures)	0.16%	90%	15%	30%	50%
<u>Multifamily Measures</u>							
LED vs. CFL	3 vintages	All Permits	6.92%	50%	50%	75%	100%
Water Heating Package	3 vintages	\$10K+	6.23%	25%	0%	33%	66%
Duct Sealing	3 vintages	\$25K+ (WH + Lighting + 1 measures)	0.78%	40%	50%	75%	100%
[NET] Duct Sealing + R-49 Attic Insulation	3 vintages	\$50K+ (WH + Lighting + 2 measures)	0.38%	20%	15%	30%	50%
[NET] Duct Sealing + R-49 Attic Insulation + Air Sealing	3 vintages	\$100K+ (WH + Lighting + 3 measures)	0.16%	90%	15%	30%	50%





# Subcommittee Report

PRESENTED FOR COMMISSION MEETING DATE: June 15, 2021	SUBMITTED BY: Patrick Tallarico
SUBCOMMITTEE NAME: Standing Subcommittee on Waste Reduction (SSCoWR)	SUBMITTED DATE: June 10, 2021
LAST SUBCOMMITTEE MEETING DATE: June 3, 2021	NEXT SUBCOMMITTEE MEETING DATE: July 1, 2021

**Subcommittee Goal:**

Divert 90% of waste generated by the City of Palm Springs from landfill by 2030.

**Summary:**

1. Reducing Single-use Plastic Food Ware and Plastic Straws by Food Service Establishments.
  - The group discussed the expected changes the food ware ordinance and the feedback from the Council Subcommittee. In particular, the Subcommittee recommended eliminating allowances for compostable bio-plastics and including a requirement that all non-reusable food ware be fiber-based compostable by January 1, 2023, when the City should have its residential compost collection program underway.
  - Commissioner Miller requested that we invite Burrtec to a future meeting to describe their new organic waste processing facility at Edom Hill.
2. Battery Recycling Project
  - Staff have collected and shipped two containers of batteries (approximately 70 pounds) since the last report.
  - City facilities reopened in June and we expect regular battery collection to resume.
3. Toward a Public Spaces Recycling Program for the City of Palm Springs.
  - City staff will be posting the recycling signs on the downtown recycling containers before the June 15<sup>th</sup> return of Village Fest.
  - Sustainability Staff will work with Maintenance staff to review the proposed changes at Ruth Hardy Park and determine a path forward.
4. Outreach
  - Nothing to report.
5. Non-compliance with Commercial Recycling and Organics Requirements
  - Manager Tallarico sent out 60-day notice letters to commercial properties that are non-compliant for both organics and recycling. The City and PSDS have started to receive responses and will follow up with individual property owners as needed. Additional notices will be sent out to businesses that are either non-compliant for either recycling or organics.
6. Wastewater Treatment Plant (WWTP)
  - Nothing to report. The City is still investigating the feasibility of improvements to the WWTP to accommodate food waste in the future as detailed in the April Capital Improvements Project Staff report to City Council. No specific plans are in place at this time, but the City will take advantage of that potential waste treatment process for food waste when it becomes available.

7. SB 1383 Planning

- The City continues to have discussions with Palm Springs Disposal about the updates needed to the Franchise Agreement to incorporate SB 13838 requirements. These talks are taking longer than anticipated.

8. Composting Grant

- The Composting Coalition continues to meet to discuss opportunities for a community composting pilot and program. City staff met with representatives of the group in May and discussed changes needed to the Franchise Agreement to accommodate community composting. The representatives provided an example of some potential language, but it was not necessarily consistent with the language in the current Agreement. Manager Tallarico is working on draft language and will share it with the Commission when it is ready.
- Representatives of the Composting Coalition also met with Staci Schafer, head of facilities maintenance at the City to update her on the project concept and identify any questions she may have. One suggestion that was made at the meeting was that the group may want to consider integrating the project into the new Whitewater Park being planned at the north end of Sunrise Way. Another meeting is being planned with the Director of Parks & Recreation in June.

9. Sustainability Scholarships

- Sustainability scholarships continue to be requested. The status of that program is reported under a separate Sustainability Commission meeting agenda item monthly.

**Recommendation/Request**

Subcommittee members will continue to conduct research and refine products to improve recycling rates and report on progress at future Commission meetings.

<b>ACTION ITEMS REQUEST TO COMMISSION</b>	None
<b>ACTION ITEMS REQUEST TO OFFICE OF SUSTAINABILITY</b>	Follow up with businesses using the downtown trash enclosure. Continue Franchise Agreement discussions with PSDS. Follow up on community composting idea. Follow up on organics compliance efforts.
<b>POTENTIAL FISCAL IMPACT/REQUEST IF ANY:</b>	N/A

## Ad Hoc Subcommittee on Biking

On Sunday, June 6, 2021, Jim Flanagan, Jake Torrens, Vic Yepello, Brett Klein and Robin Abrahams met at Ruth Hardy Park to discuss long term bike planning. The goal of the meeting was to strategize on how to prioritize goals and work on implementation:

1. Success in other cities, what we can use to help us.
2. Bike path usage, how can we gather data and counts to get hard usage figures to set goals and show progress.
3. Survey data, what do we need and how do we gather it?
4. Prioritization, we have many wants, which is most important

### Meeting Discussion:

A wide ranging discussion ensued over past bike plan, bike plans for other cities, updates and outcome from Palm Springs adoption of the bike plan found in the Active Transportation Plan put together by CVAG and PS in 2001, updated in 2010 and again in 2016. Concerns over producing another shelf study were expressed. Past history and city involvement were examined, and an approach was put together that might result in implementation of our goals. Recognition of the momentum achieved after the plan update in 2016 and how it resulted in a number of new bike lanes and road diet restriping and many new bikers on the road seemed to be a good path for getting back on track for 2021.

A number of goals were discussed including:

- Bike Share
- CV Link connections and funding
- Tribal involvement in planning
- CTC - California Transportation Commission involvement
- Cycle Tracks proposal through downtown,
- Alternative routing for a downtown cycle track (Indian Canyon, Palm Canyon or Belardo)
- Building awareness and getting on city calendars
- Hosting a town hall, to raise awareness and gather data on priorities
- Running an online survey to gather rider input
- Installing counting equipment to gather usage and baseline data

Priorities agreed upon were short term: finish the South Palm Class 2 bike lanes originally planned and longer term: begin planning for implementation of a two way bike path in the downtown area.

### Recommendation:

- Subcommittee to work with City staff to develop and run an online survey to gather data about community needs and safety issues, gather fall/winter usage data at various bike lanes and routes through automated counters. Prepare for and host a bicycle town hall in the fall of 2021 with City Staff. This data to be used to update City bicycle plan as necessary and secure city funding as identified and adopted in past plans but since dropped.
- Request to Sustainability Commission:
- Request a subcommittee budget for Town Hall Meeting, online survey and bike counter data gathering, NTE \$4,000.

- Provide a budget for Town Hall Meeting, online survey and bike counter data gathering, NTE \$4,000.
- Downtown bike path on Palm Canyon currently identified as PS180 in the 2016 CVAG update, is budgeted at \$44,352. South Palm Canyon, similarly, identified as PS201 is estimated at \$253,440. Remaining capital costs, signage, maintenance, and parking budgets can be found in the CVAG report on page 4-121.