



CITY COUNCIL STAFF REPORT

DATE: March 19, October, 2020 _____
NEW BUSINESS

SUBJECT: DISCUSSION OF CURRENT, PLANNED, AND POTENTIAL ADDITIONAL
ACTIONS TO ADDRESS CLIMATE CHANGE

FROM: David H. Ready, City Manager

BY: Office of Sustainability

SUMMARY

City Council requested a discussion of the City's efforts to address climate change. Sustainability staff and the Sustainability Commission met with Mayor Pro Tem Christy Holstege (Council Liaison) at the Commission's meeting on October 15, 2019, to discuss this request. In response, Sustainability staff worked with the Commission to develop the attached Climate Action Roadmap that summarizes current City goals related to greenhouse gas emissions reduction and current and planned activities to reduce these emissions in an effort to address the key contributors to climate change.

RECOMMENDATION

Direct staff as appropriate.

BACKGROUND

The City of Palm Springs recognizes that climate change is real and is having a dramatic impact on our environment, our economy, and our way of life. Globally, we know that sea levels are rising, polar ice is retreating, permafrost is melting, and fires are increasing. Here in the Coachella Valley, climate change is and will continue to manifest itself in the form of longer periods of drought; more frequent, above-average storm events; changes in populations of local flora and fauna; longer summers; and higher temperatures.

The City has undertaken a variety of initiatives to reduce greenhouse gas (GHG) emissions – the primary contributors to climate change – since 2008. In 2010 the City conducted an emissions inventory to assess these emissions and identify priority areas to address.

Following this inventory, the City decided to contract with an Energy Service Company (or “ESCO”) to analyze all of the City’s operations in more detail to identify certain energy savings projects to complete with the goal of reducing utility costs and the City’s carbon footprint. Reconstruction of the Municipal co-generation plant – one of the City’s largest emitters – into a more energy efficient, less polluting system was a critical goal.

Following a competitive, qualifications-based selection process, the City Council selected Chevron Energy Solutions (“CES”) as its ESCO and approved an agreement with CES. Under this agreement, CES provided energy management services to identify a range of solutions for the City to implement that would result in energy cost savings as well as GHG reductions. The cost savings were used to offset the capital expense of implementing the selected energy efficiency measures.

On June 19, 2013, the City Council approved an energy services contract with CES in the amount of \$17.8 million for a list of energy savings projects that included lighting retrofits at most City facilities and all palm-tree uprights, irrigation retrofits, and reconstruction of the Municipal co-generation plant. The Municipal co-generation plant represented the largest energy savings project at \$9.1 million of the total contract.

The older co-generation plant was completely reconstructed with newer, more efficient equipment that effectively reduced the emissions by over 95%.

In addition to these projects, the City conducted a feasibility study to assess opportunities to install solar photovoltaic systems at City properties between 2013 and 2015. Although several sites were evaluated, the City moved forward with three sites that were most technically and financially feasible. These sites included the Convention Center, the Wastewater Treatment Plant, and the Animal Shelter. These projects resulted in significant GHG reductions and energy cost savings for the City.

In recent months, there has been growing demand for increased global action to address what is often described as a climate crisis or climate emergency. Some cities in the United States and abroad have also declared climate emergencies or adopted climate emergency resolutions to further mobilize action.

On October 15, 2019, the Palm Springs Sustainability Commission met with Mayor Pro Tem Holstege to discuss how to move forward with discussions and potential further actions to address climate change. In preparation for that meeting, Sustainability staff developed a memo that described the work that was already underway or planned to address GHG emissions. At that meeting, the group agreed that City Council would benefit from this type of information to inform their discussions. Sustainability staff adapted the contents of that memo to develop the attached Climate Action Roadmap (**Attachment A**). The Roadmap acknowledges the seriousness of our current climate crisis, describes what the City has already done and plans to do to address climate change, and identifies potential additional actions.

STAFF ANALYSIS

The City's efforts to address climate change are guided by several goals in its current Sustainability Plan related to GHG reduction (**see Attachment B**). These include the following:

- Reduce GHG emissions to 1990 levels by 2020.
- Reduce to 80% below 1990 levels 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.

A GHG inventory conducted in 2010 indicated that the City had already achieved its initial goal – to reach 1990 levels by 2020. The City has experienced significant growth since then, and a new inventory is needed to determine whether or not the City continues to be on track to meet this goal. This new inventory is planned for [spring/fall](#) 2020 and will use the most current emissions data available.

The results of the updated GHG inventory will provide important information about where the City should focus its efforts to achieve the most significant GHG reductions. A variety of actions were identified in the Climate Action Plan (2013), and the City implemented several of these actions to some degree or another. Other actions may be out dated. The activities in the CAP should be revisited after the updated GHG inventory is completed. A summary of the CAP actions is included as **Attachment C**.

Independent of this reassessment, the City has already identified significant actions it is taking or will be taking that will continue positive progress as described in the Climate Action Roadmap.

- Current Actions
 - ~~Promote adoption of the 100% carbon-free option as the default for rate payers under Desert Community Energy (DCE).~~
 - Implement changes in the California Energy Code and Green Building Standards Code effective January 1, 2020.
 - Expand the network of EV charging stations installed by the City and update Zoning Code parking standards to reflect new state requirements and best practices on EV charging stations on private property.
 - Implement new incentive program for home energy assessments.
 - ~~Focus World Environment Day activities (June 7, 2020) on climate action.~~
- Planned Actions
 - Promote reusable food ware to reduce emissions from discarded disposables.
 - Implement new organics waste management requirements. These requirements will be finalized by the state in early 2020 and are designed

- reduce GHG emissions by reducing the amount of organic waste sent to landfills.
- Development of a Walkability and Safe Routes to School Master Plan to reduce traffic emissions. The City received a grant from the Southern California Association of Governments (SCAG) to hire a consultant to assist with this process. The consultant has been selected and will start in April.
- Update the General Plan to reflect climate adaptation strategies. The contract for the General Plan update has been awarded.
- Develop options to address local transportation-related emissions.

The Sustainability Commission is working with City staff to research other activities that, if supported by Council, could result in further emission reductions. These include the following:

- Investigate capture technologies for GHG emissions from wastewater treatment plant. Research is underway by Sustainability Commission members.
- ~~Develop an ordinance that would require carbon-free electricity for certain commercial buildings. Facilities could install solar or other renewable energy technologies or, more easily, continue to opt in to the 100% Carbon Free default rate plan offered by DCE.~~
- Require all new homes and buildings to be electric only – eliminating natural gas as an option for heating and other uses. This idea was presented by a member of the public at the January 30th Council meeting and was also considered by Solar and Green Building Subcommittee. ~~The City of~~ Berkley has adopted such an ordinance, and many other California cities and counties have since adopted building electrification requirements. This electric-only approach has met with significant resistance in some communities – primarily due to interest in using gas for cooking in particular. If the Council is interested in pursuing some type of electric requirements in new construction, Staff recommends that the Sustainability Commission investigate hybrid options that would ensure that all new construction is electric ready but still provides people with options to install gas as well.

The Solar and Green Building Committee of the Sustainability Commission worked with City staff to investigate additional actions related to building electrification and cool roofs, ~~although these actions are not being recommended at this time.~~ These potential actions are listed ~~below along with the rationale for why they are not being recommended~~. These actions were selected from among a variety of measures exceeding state requirements that have recently been adopted by many other California cities and counties, which are summarized in **Attachment D**. City staff and the Solar and Green Building Committee can conduct further research on these actions using cost-effectiveness data from studies prepared under the auspices of the California Energy Commission and bring them to Council for consideration, if so directed by Council. A summary analysis of these cost-effectiveness studies is set out in Attachment E.

Potential Action	Analysis
Require solar PV for new non-residential buildings and major renovations of residential and non-residential buildings.	There would be upfront costs for solar PV system, although the system is cost effective over its life cycle. Requires California Energy Commission approval.
Require energy efficiency measures for major renovations of existing single-family and multi-family residential buildings.	There would be upfront costs for energy efficiency measures, although they are <u>very</u> cost effective over their life cycle. Requires California Energy Commission approval.
Require <u>all-electric Code compliant home for new residential construction, or as an alternative, require new mixed-fuel residential buildings to be more energy efficient than all-electric buildings and/or be prewired for future electric cooking and heating homes.</u>	There would be upfront costs for energy efficiency measures, although they are cost effective over their life cycle. Requires California Energy Commission approval. There <u>would/could</u> be <u>potential</u> opposition from Southern California Gas Company and local building industry.
<u>Require new mixed-fuel buildings to be prewired for electric cooking, clothes drying, water heating and future battery storage.</u>	<u>Prepares for likely future retrofit. Small incremental cost at new construction. Does not require California Energy Commission approval.</u>
<u>Require electric heat pump water heaters in new mixed-fuel residential buildings.</u>	<u>The HVAC community would need to be educated on electric heat pump water heaters. Requires California Energy Commission approval.</u>
Require <u>an</u> electric heat pump water <u>heater heaters and/or</u> a solar thermal system for new pool construction, if the pool is to be heated.	Local market is more accustomed to gas-fueled pool heaters. Solar thermal systems work best in early spring and fall. <u>Requires California Energy Commission approval.</u>
Require more stringent cool roofs for newly constructed buildings and alterations and additions to existing buildings, subject to specified exemptions.	There would be upfront costs for cool roofs, although they are cost effective over their life cycle. <u>Many local installers are familiar with foam and other cool roof materials.</u> Requires California Energy Commission approval.
<u>Require EV supply equipment for new residential and non-residential construction.</u>	<u>Sustainability staff is already working to expand the network of EV charging stations.</u>

It is important to note that, although the City has been moving forward with efforts to reduce GHG emissions, it could enhance its efforts by developing a broader climate adaptation strategy if directed by Council. The adaptation strategy identifies specific climate impacts and corresponding mitigation actions, such as identifying community energy resiliency projects. Our two biggest potential impacts are, of course, drought and

increasing temperatures, [which also create the conditions for wildfires](#). We continue to work with DWA on water use reduction strategies such as turf buy backs and have expanded cooling center hours to address climate impacts on vulnerable populations. However, the City has not assessed or taken action to address other potential impacts such as diminishing habitats and animal populations.

Given current and planned activities, City staff is seeking Council input on the following:

- Whether to continue to with the research activities listed on [PagePages 3 - 4](#) (e.g., GHG reductions at the wastewater treatment plant, ~~carbon-free electricity requirements for commercial buildings~~, and electrification of homes and buildings).
- Whether there are any other areas the City should be exploring to further reduce GHG emissions at this time.
- What other actions the City should consider related to research, education, outreach, or community engagement on this topic.
- Whether a formal climate emergency resolution or declaration is warranted if it would add value to the City’s current and planned efforts. Examples from a few cities are included as **Attachment EF**.

FISCAL ANALYSIS:

The table below includes a brief overview of cost impacts from current or planned activities.

Action	Fiscal Impact
Promote adoption of the 100% carbon-free option as the default for rate payers under DCE.	Cost for public outreach is primarily covered by DCE staff and contracts. Some staff time will also be needed to assist with these efforts. The rates for the 100% carbon-free option will be 10%–11% above what most residents and businesses currently pay.
Implement changes in the California Energy Code and Green Building Standards Code effective January 1, 2020.	Costs for these additional requirements have been analyzed by the state and will vary greatly from project to project. They are all cost-effective over their life cycle.
Require electric or electric-ready for new construction and cool roofs for new construction and alterations and additions to existing buildings.	Costs for these additional requirements have been analyzed by the state and will vary greatly from project to project. They are all cost-effective over their life cycle.
Expand the network of City-installed EV charging stations.	The City has received over \$120,000 in grant funding and expects another \$70,000, but will need to pay an infrastructure costs to support implementation. Details on costs are

Action	Fiscal Impact
	being finalized with input from SCE and a charging station provider.
Update information packet required by AB 1236 (2015) creating expedited and streamlined permitting process for EV charging stations.	Staff time to review updated information packet drafted by Solar and Green Building Committee. The City Attorney has already drafted the implementing ordinance.
Implement new incentive program for home energy assessments.	\$10,000 has been set aside in the Sustainability budget to provide these incentives.
Promote reusable food ware to reduce waste from disposables.	Cost impacts will vary by business. However, studies have shown that the switch to reusable food ware saves businesses money after initial costs are covered.
Expand cooling center services for the homeless to address climate change impacts on vulnerable populations.	The cost of operating the cooling center is \$25,000 per month.
Implement new organics waste management requirements.	The costs associated with this will be significant but will be refined when the regulations are finalized. City staff are currently working with Palm Springs Disposal to develop cost estimates and assess impacts on rate increases.
Investigate capture technologies for GHG emissions from wastewater treatment plant.	To be determined based on additional research.
Development of a Walkability and Safe Routes to School Master Plan to reduce traffic emissions.	Contractor services are being paid for by SCAG (\$200,000). Estimates for projects will be developed and presented to Council on a project-specific basis.
Develop options for reducing local transportation-related emissions.	To be determined based on opportunities identified. Some costs could be significant (e.g., widening roads to create alternative vehicle-only pathways)
Update the General Plan to reflect climate adaptation strategies.	Costs for the contractor support for the general plan have already been approved by Council. Sustainability Staff are working to identify any additional costs that may be associated with a more robust GHG inventory to meet our more immediate needs.

ENVIRONMENTAL ASSESSMENT:

All of the actions proposed are designed to reduce the City's GHG emissions. These emissions reductions would contribute to various sustainability goals and result in positive environmental impacts such as improving air quality in our City and helping address the world's climate crisis.

There is no City Council action being considered at this time. Depending on how Council decides to move forward, actions may result in a "Project" as defined by the California Environmental Quality Act (CEQA). Pursuant to Section 15378(a), a "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

SUBMITTED:

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ATTACHMENTS:

- A. Climate Action Roadmap —~~January~~October, 2020
- B. ~~Excerpt~~Excerpts from Palm Springs Sustainability Plan
- C. 2013 Climate Action Plan Summary of Potential Savings Measures
- D. 2019 Code Cycle - Locally Adopted Energy Ordinances
- E. Summary Cost-Effectiveness Analysis
- ~~E.F.~~ Examples of Climate Emergency Resolutions or Declarations

ATTACHMENT A:
CLIMATE ACTION ROADMAP – ~~March 2,~~OCTOBER, 2020

**ATTACHMENT B:
EXCERPTS FROM PALM SPRINGS SUSTAINABILITY PLAN**

**ATTACHMENT C:
2013 CLIMATE ACTION PLAN
SUMMARY OF POTENTIAL SAVINGS MEASURES**

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**ATTACHMENT D:
2019 CODE CYCLE - LOCALLY ADOPTED ENERGY ORDINANCES**

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**ATTACHMENT E:
EXAMPLES OF CLIMATE EMERGENCY RESOLUTIONS OR
DECLARATIONS**