Technical Foundation and Work Program

Climate Action Plan for Community Recovery

slocity.org/climateactionplan
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The City of San Luis Obispo Climate Action Plan for Community Recovery is intended to inform, inspire, and guide action, while also providing sufficient detail to illustrate consistency with regulatory guidance, provide transparency to interested parties, and to allow the City Council to make fully informed decisions. With two volumes and five technical appendices, the City’s 2020 Climate Action Plan is over 200 pages long. To allow the plan to be more accessible, the City has organized it as follows:

- **Volume 1: Stories from 2035** – provides a summary of the Climate Action Plan through stories told from the future about a post-COVID 19 carbon neutral San Luis Obispo and the foundational actions that were undertaken to get there.

- **Volume 2: Technical Foundation and Work Program** – describes the Climate Action Plan update process, provides a greenhouse gas emissions inventory summary, and lays out the foundational actions required to achieve deep reductions in greenhouse gas emissions while addressing issues of equity and economic recovery.

- **Technical Appendices**
  - Appendix A – Greenhouse Gas Emissions Inventory and Forecast
  - Appendix B – Reduction Measure Quantification
  - Appendix C – Greenhouse Gas Emissions Threshold Guidance and Consistency Checklist for New Development

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**How to Use This Plan**

<table>
<thead>
<tr>
<th>How to Use This Plan</th>
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</thead>
<tbody>
<tr>
<td>Volume 1: Stories from 2035</td>
</tr>
<tr>
<td>Recommended for community members and local organizations that are interested in a short and engaging overview of climate action.</td>
</tr>
<tr>
<td>Volume 2: Technical Foundation and Work Program</td>
</tr>
<tr>
<td>Recommended for stakeholders and decision makers interested in the technical components and supporting details of the City’s approach to climate action.</td>
</tr>
<tr>
<td>Technical Appendices</td>
</tr>
<tr>
<td>Provided for transparency and recommended for implementers, regulatory review, and anyone seeking more information.</td>
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1. INTRODUCTION

A Time for Transformational Climate Action

Due to decades of rapidly increasing global greenhouse gas (GHG) emissions and insufficient climate action at all levels of government and industry, atmospheric GHG concentrations have reached a level that guarantees substantial and unavoidable impacts for the foreseeable future.

California’s recent historic wildfires, droughts, floods, mudslides, and public safety power shutoffs represent the types of climate change impacts that will be experienced with increasing frequency and severity. These impacts threaten to make all the significant issues currently faced by the City (e.g., economic recovery, the housing crisis, homelessness, equity, sustainable water supply, etc.) more critical, challenging, and expensive. To limit global warming to 1.5°C Celsius, annual global emissions need to decrease 45 percent by 2030, and be “net zero” by 2050.¹

Addressing climate change presents the City and community with an opportunity to use resources more effectively, improve community equity and well-being, and develop an economy that is set to recover from the impacts of COVID-19 and thrive in a rapidly changing 21st century.

In response to the need for ambitious climate action, this Climate Action Plan establishes a communitywide goal of carbon neutrality by 2035, adopts sector specific goals, and provides foundational actions to establish a trajectory towards achieving that goal.

Climate Action and COVID-19 Recovery

The COVID-19 pandemic abruptly impacted San Luis Obispo and the surrounding region. While the community recovers from the near-term health crisis, the longer-term economic impacts are expected to remain for the foreseeable future. Climate action will play an integral role in the City’s

recovery from the socioeconomic impacts of COVID-19. This Plan address the near-term needs of economic and community recovery while also setting the community on a long-term trajectory towards carbon neutrality.

The City is not alone in seeing climate action as an organizing principle for community recovery. Leading economists\(^2\) and governments ranging from cities\(^3\) to the European Union\(^4\) believe that COVID-19 recovery focused on creating a low carbon economy can provide enduring economic benefit, address issues of health and equity, and enable communities to thrive in a rapidly changing world.\(^5\)

In addition to economic recovery, this Climate Action Plan also supports public health improvements that increase community resilience and reduce community risk from this pandemic and from future public health threats. From focusing on local economic development to increasing active transportation safety and accessibility\(^6\) to reducing combustion of fossil fuels to improve outdoor and indoor air quality, the foundational actions in this plan provide for a cleaner, healthier, and safer San Luis Obispo.

### Guiding Principles

Since the adoption of the City’s first Climate Action Plan in 2012, numerous lessons have been learned about the feasibility and effectiveness of local climate action efforts. Since the goal of carbon neutrality was first discussed by the City Council in 2018, the City has met with staff from cities and reviewed ambitious climate action plans from around the world. The lessons learned from local implementation and through review of global best practices have guided the development of this Climate Action Plan and are summarized in Figure 1.1.

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3. For example, over 30 mayors recently pledged to focusing COVID Recovery on health, equity, and sustainability. See: https://www.c40.org/press_releases/taskforce-principles


6. For example, Giles-Corti et al. (2010) find, “Policies promoting the use of both energy-efficient motor vehicles and increased active transportation would […] reduce disease burden by increasing physical activity.” Retrieved from: https://pubmed.ncbi.nlm.nih.gov/20637168/

7. For example, a Rocky Mountain Institute literature review report provides substantial evidence linking onsite natural gas combustion with poor indoor air quality and public health impacts. See: https://rmi.org/insight/gas-stoves-pollution-health
Figure 1.1 Climate Action Guiding Principles

KEY LESSONS LEARNED
IN CLIMATE ACTION PLANNING

SYSTEMS ARE RESPONSIBLE
for the climate crisis
Transformative change to a low carbon, equitable, and sustainable community requires changes to the systems in which a community functions.

CLIMATE CRISIS AND SOCIAL EQUITY
must be addressed together
Low greenhouse gas emissions, equity, and resilience are the organizing principles required for communities to thrive in the 21st century.

ORGANIZATIONS ARE UNIQUELY CAPABLE
of certain actions
For structural change to occur, local governments should focus on their unique capabilities and responsibilities while partnering with and empowering other agencies and organizations to focus on their unique capabilities.

LEADERSHIP IS NEEDED
and the world is watching
Our community’s leadership is influencing how cities throughout the world are addressing their greenhouse gas emissions. Staff are active participants in regional, statewide, national and international networks of cities; many of which are watching us closely to see what is possible.

CLIMATE ACTION IS A PATH FORWARD
for enduring community recovery
Approaching climate action with a focus on public health and economic development allows local governments to strategically tackle two concurrent crises: climate change and the COVID-19 pandemic.
The Climate Action Plan Process

The climate action planning process is a five-part cycle as outlined in Figure 1.2. This Climate Action Plan includes the greenhouse gas emissions inventory (summarized in this chapter and provided in full as Appendix A), establishes 2030 and 2035 greenhouse gas emissions targets, provides substantial evidence that the targets are achievable (summarized in this chapter and provided in full as Appendix B), and an includes an action plan, including identified foundational actions (Chapter 3) and a staff work program (Chapter 4). The implementation of the action plan and evaluation of progress to the GHG reduction targets will occur at regular intervals following the adoption of the Climate Action Plan, as described in Chapter 4.

![Figure 1.2 Climate Action Planning Process](image)

Greenhouse Gas Emissions Inventory and Forecast

A greenhouse gas (GHG) inventory is a comprehensive measure of GHG emissions that have occurred as the result of activity in a jurisdiction or a geographic area in a calendar year. The greenhouse gas emissions inventories and related emissions forecasts are the foundation for the technical work required to complete a climate action plan. For this Climate Action Plan Update, the City updated its 2005 baseline inventory, completed a 2016 inventory, and forecast emissions for 2020, 2030, and 2035.
Table 1.1 provides the emissions for inventory and forecast years by emissions sector. Due to actions taken by the State and the City prior to the adoption of this plan, as well as observed reductions in emissions from community activity, even without this Climate Action Plan, emissions are forecast to reduce 33 percent from 2005 levels by 2035. A detailed description of accounting methods, protocols, progress towards state emissions reduction targets, and the full inventories and forecasts are provided in Appendix A.

Table 1.1 Forecasted GHG emissions with state reductions, 2005-2050 (MTCO\textsubscript{2}e).

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<thead>
<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>225,390</td>
<td>212,980</td>
<td>198,210</td>
<td>161,290</td>
<td>142,830</td>
<td>-37%</td>
</tr>
<tr>
<td>Nonresidential Energy</td>
<td>58,050</td>
<td>44,270</td>
<td>30,430</td>
<td>33,690</td>
<td>27,720</td>
<td>-47%</td>
</tr>
<tr>
<td>Residential Energy</td>
<td>55,450</td>
<td>39,410</td>
<td>33,760</td>
<td>35,660</td>
<td>33,180</td>
<td>-39%</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>47,740</td>
<td>42,630</td>
<td>44,890</td>
<td>49,880</td>
<td>52,560</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>386,630</td>
<td>339,290</td>
<td>307,290</td>
<td>280,520</td>
<td>256,290</td>
<td>-33%</td>
</tr>
<tr>
<td>Change from 2005</td>
<td>-12%</td>
<td>-21%</td>
<td>-29%</td>
<td>-33%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GHG Measurement

This plan addresses three greenhouse gas emissions: carbon dioxide, methane, and nitrous oxide. Emissions are presented as metric tons of carbon dioxide equivalent, or MTCO\textsubscript{2}e.
Emissions Reduction Targets

In September of 2018, City Council received an update on the Climate Action Plan process with a request to provide direction on a long-term GHG reduction goal. Following a presentation, public comment, and deliberation about goals that cities throughout California and the world are committing to, Council directed staff to develop a roadmap to carbon neutrality by 2035. This target goes above and beyond the 2020 target set by Assembly Bill 32 and the 2030 target in Senate Bill 32 (see sidebar).

Carbon Neutral by 2035

“Carbon neutrality” applies to the net emissions of the inventoried sectors reported in Table 1.1, above, minus emissions captured through carbon sequestration efforts. Achieving carbon neutrality in a modern advanced economy is an unprecedented challenge and will require that the City and the community implement foundational actions now and conduct additional research to assess and monitor new developments in the ongoing and evolving field of climate action planning. Achieving carbon neutrality as a community is contingent on numerous outside factors, such as increased state funding for climate action, the federal government taking responsibility for climate action and supporting local action, and a regional approach to supporting the clean energy economy. At the same time, the City’s experience has been that an ambitious reduction target invites resources for the work and puts the City in position to pursue and accept funds from external funding sources.

For regulatory guidance purposes, adoption of this Climate Action Plan Update adopts the SB 32 target for 2030 and the carbon neutrality target for 2035. Table 1.2 provides the 2030, and 2035 greenhouse gas targets presented as annual greenhouse gas emissions in MTCO₂e. The Climate Action Plan Update also includes six sub-targets for adoption, as described in Chapter 3.

### Table 1.2 Greenhouse Gas Emissions Target Summary

<table>
<thead>
<tr>
<th>Target</th>
<th>Annual GHG Emissions Target (MTCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Baseline Emissions</td>
<td>386,630</td>
</tr>
<tr>
<td>AB32 – 1990 levels (15% below baseline) by 2020</td>
<td>328,640</td>
</tr>
<tr>
<td>SB 32 – 40% below 1990 levels by 2030</td>
<td>197,180</td>
</tr>
<tr>
<td>Carbon Neutral by 2035</td>
<td>0</td>
</tr>
</tbody>
</table>

California Climate Law

Assembly Bill 32 (AB 32) (Nuñez, Chapter 488, Statutes of 2006) established a target of reducing GHG emissions to 1990 levels by 2020 with maintained and continued reductions post 2020. Given the challenge of estimating 1990 GHG emissions, standard best practice is to use 15 percent reduction of a base line year (2005) as a proxy. The City’s previous adopted targets are consistent with AB 32. Based on participation in Monterey Bay Community Power, the City is expected to achieve its 2020 target.

Senate Bill 32 (SB 32) (Pavley, Chapter 249, Statutes of 2016) codifies into statute the GHG emissions reduction target of at least 40 percent below 1990 levels by 2030. The 2030 target reflects the same science that informs the agreement reached by the Paris Agreement aimed at keeping the global temperature increase below 2 degrees Celsius (°C).

In 2019, California Governor Jerry Brown issued Executive Order B-55-18, which establishes a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve net negative emissions thereafter.
New Development Consistency with the Climate Action Plan

California Environmental Quality Act (CEQA) Guidelines Section 15183.5(b)(1) establishes criteria to guide the preparation of a “plan for the reduction of greenhouse gas emissions.” A City can make findings that its plan is consistent with these guidelines and can use the CEQA document for the Climate Action Plan to allow future environmental review streamlining. This Climate Action Plan has undergone CEQA review and the City finds that it is a qualified greenhouse gas emissions reduction strategy consistent with state law. As illustrated in Figure 1.3, development that triggers CEQA review may use the CEQA GHG Emissions Analysis Compliance Checklist provided in Appendix C to illustrate consistency with this Climate Action Plan and will not be required to conduct additional greenhouse gas emissions review. Should a project be unable to comply with the checklist, it would be required to illustrate compliance with the City’s project efficiency threshold, also provided in Appendix C. A project that can illustrate compliance with the checklist or achievement of the City’s efficiency thresholds will be consistent with the Climate Action Plan and will not require further greenhouse gas emissions review.

Figure 1.3. New Development Consistency with the Climate Action Plan

Is the project consistent with 2014 General Plan land use and zoning designations?

NO

YES

Can the project tier from the City’s CAP by illustrating compliance with the CEQA GHG Emissions Analysis Compliance Checklist?

YES

NO

Is the project equal or less GHG intensive than existing on-site development?

NO

YES

Analysis Complete

Use CEQA GHG Emissions Analysis Quantitative Thresholds
2. COMMUNITY OUTREACH

A Community Driven Process

San Luis Obispo residents and businesses routinely rank climate change as an important issue. In 2019, thousands of people in San Luis Obispo contributed to the City's budget process that resulted in City Council adopting Climate Action as a Major City Goal for the second straight Financial Plan cycle. Public input, community engagement, and local capacity building are essential components of this Climate Action Plan. Dozens of outreach events and engagement with thousands of community members support this Climate Action Plan Update. The events and activities were designed to empower a variety of residents, stakeholders, City staff, and decision-makers throughout the process to craft the Climate Action Plan Update and to be ready to implement it after adoption. This chapter provides outreach objectives and an overview of the events conducted to collect information and develop this Climate Action plan.

Outreach Objectives

The City established specific outreach goals and objectives to ensure that the Climate Action Plan is reflective of the values of San Luis Obispo. The City began the planning process with the following objectives (and achieved each of them):

- Provide an open and transparent process
- Educate the community about the importance and urgency of climate action
- Engage and empower a broad cross-section of San Luis Obispo residents, business owners, students, stakeholders, and decision-makers to take meaningful climate action within their own roles in the community
- Gather input at strategic points in the planning process to inform the Climate Action Plan
- Gather meaningful input and feedback from the community about the Climate Action Plan
- Achieve broad demographic and geographic representation from stakeholders including participants who are typically not engaged and traditionally under-represented in planning processes.
- Engage at least 1,000 community members.
Outreach Events

The City, in partnership with community organizations, held dozens of events that ranged from traditional City Council meetings, to “pop up” events, to on-line information gathering tools. This section outlines the events conducted in support of this Climate Action Plan.

City Council Meetings

Staff presented information regarding the Climate Action Plan, collected feedback from community members through public comment, and received direction from City Council at three public meetings.

2018 Study Session - On September 18, 2018, Staff presented to Council on the status of the Climate Action Plan Update, the results of the Community Greenhouse Gas Emissions Inventory, and emissions reduction target options. Council directed staff to pursue carbon neutrality by 2035; a greenhouse gas reduction measure more aggressive than that outlined in SB 32. This Study Session laid the foundation for the 2020 Climate Action Plan Update.

2019-21 Strategic Budget Community Meeting and Public Hearing - As part of the 2019-21 Financial Plan development, the City hosted a community meeting and public hearing on April 16, 2019. Through the process, staff received climate action feedback and ideas from hundreds of residents. This event included 300 in-person participants.

2019 Study Session - On December 3, 2019, Staff presented to Council the proposed approach to the Climate Action Plan. City Staff proposed the approach to carbon neutrality outlined in Chapter 3 and received unanimous support to continue with the proposed approach.

Climate Solution Speaker Series

At the beginning of the Climate Action Plan Update process, the City considered ways for outreach to be accessible, different, and fun. The City conceived of public educational events with regional and national experts available to provide information and answer questions. Named, “Climate Solutions Speaker Series”, the City partnered with the SLO Climate Coalition to host several educational events related to climate action.

Climate Solution Speaker Series I - The kickoff event on April 30, 2019 was a celebration of San Luis Obispo’s decision to pursue a goal of carbon neutrality by 2035. The event featured booths from local organizations including ECOSLO, Monterey Bay Community Power, the Sierra Club, and SLO Transit, as well as panel discussion with Mayor Harmon and representatives from the SLO Chamber of Commerce and California Polytechnic State University. The kickoff event had 250 attendees.
Climate Solution Speaker Series II – On June 25, 2019, the second speaker series event included a presentation by Hal Harvey—CEO of Energy Innovation, a San Francisco-based energy and environmental policy firm—discussing the effectiveness and benefits of potential policies as climate solutions. The presentation was followed by a forum where leaders from community organizations representing environmental justice, racial justice, and equity concerns shared their climate policy-priorities. The event had 110 participants.

Climate Solution Speaker Series III - This two-part event on August 22, 2019 included a panel discussion on building decarbonization and a Building Expo at the Thursday Farmers’ Market featuring appliances, technologies, and materials in support of building decarbonization. The panel discussion was attended by 85 participants; the expo was attended by hundreds of Farmers’ Market attendees.

Community Workshops and Open Houses

The City held workshops and open house events in central locations and organized them to inform the community about the Climate Action Plan, collect feedback, provide opportunities to answer questions about the Climate Action Plan, and share the proposed approach to carbon neutrality.

Workshop #1 - On May 16, 2019, the City hosted the first Climate Action Plan workshop. The event consisted of an overview presentation and workshop inviting participants to share their “big ideas” for achieving carbon neutrality. The workshop guided participants through each of the pillars to the Climate Action Plan and provided opportunity for comments on each. Key takeaways from each board ranged from “Establish parking maximums” to “Update City tree list to focus on native species.” The workshop culminated with a community open mic where participants shared stories, thoughts, ideas and actions related to climate change in 30 seconds or less. This workshop had 35 participants.

California Polytechnic State University Workshop - On October 8, 2019, the City hosted an interactive workshop on the California Polytechnic State University campus. The workshop consisted of an overview presentation and workshop inviting students and faculty to share their “big ideas” for achieving carbon neutrality. This workshop had 20 participants.

Open House - On December 3, 2019, the City hosted an Open House for the public to learn more about the Climate Action Plan Update. The Open House showcased the six proposed
pillars for the Climate Action Plan and concluded with a “visioning” activity. This event had 70 participants.

**Community Meetings**

The City hosted several community meetings to discuss specific focus areas related to the Climate Action Plan, such as building decarbonization and how local organizations can take leadership in climate action.

**Business Roundtable** - On May 16, 2019, City Staff invited members of the business community to share initial ideas for how they can take ownership of business-related climate action initiatives. The meeting had 25 participants.

**Community Collaboration for Climate Action Meeting** - On January 15, 2020, the City hosted a meeting for members of local non-profits, government organizations, businesses, and community service groups to connect and collaborate for climate action. The event consisted of an overview presentation of the City’s Climate Action Plan and a breakout session of small groups to brainstorm and discuss actions their organizations can take. This meeting elicited 23 participants.

**Tabling**

City staff travelled to several locations throughout the city to allow community members the opportunity to engage with the Climate Action Plan in a convenient and streamlined manner.
Farmers’ Market Booths - On October 10 and November 7, 2019, City Staff tabled at the Downtown Farmers’ Market to update the public on the Climate Action Plan and provide opportunity for questions and comments. Staff engaged participants in interactive activities to facilitate learning about the Climate Action Plan. Staff also invited participants to share their “big ideas” for climate action at home, in their neighborhoods, at work, and city-wide. Each event engaged approximately 20 participants.

Short Story Collection - In January 2020, City Staff tabled at California Fresh (771 Foothill Blvd.), Assistance League (667 Marsh St.) and Nautical Bean (2010 Parker St.) to share information about the Climate Action Plan Update and encourage community members to submit a “short story” about their vision of carbon neutral San Luis Obispo in 2035. These stories were used as inspiration for the stories shared in Volume 1 of the Climate Action Plan. These events engaged 90 participants.

Online Outreach

Staff provided online opportunities for community members to learn about and contribute to the development of the Climate Action Plan through various online platforms.

Social Media – The City used its social media channels to provide information about outreach events, opportunities to provide feedback to drafts, and general education.

2019-21 Budget Open City Hall - Participants were shown current “Major City Goals and Other Important Objectives” and asked to choose the top 5 they think the City should prioritize. Climate Action ranked #4 out of 14. This event was released in January 2019 and had 1,587 participants.

Emissions Reductions “Big Ideas” Open City Hall - Participants were invited to share their “big ideas” for reducing greenhouse gas emissions in the City. Responses ranged from “Re-roof homes in white” to “Turn off non-commercial streetlights between 1:30-5:30 a.m.” This online activity was released in concurrence with Workshop #1 in May 2019 and had 71 participants.

Conclusion

As discussed in Chapter 3 and Chapter 4, the path to carbon neutrality is one that involves continued learning, reflection, and innovation. As the City implements this Climate Action Plan and works on future updates, this spirit of learning, reflection, and innovation will be carried to the community outreach process where new voices and new ideas will be heard.
3. THE PATH TO CARBON NEUTRALITY

The City’s Approach to Carbon Neutrality

The City’s approach to carbon neutrality is based on the guiding principles and greenhouse gas emissions inventories and forecasts described in Chapter 1, and the conversations that occurred with the community described in Chapter 2. The City’s approach to carbon neutrality is organized into the six pillars, as shown in Figure 3.1, each with a long-term goal and foundational actions to be initiated or completed by 2023.

Estimated Greenhouse Gas Emissions Reductions

In partnership with technical consultants, the City identified a pathway to achieve quantified GHG reductions consistent with state regulation and local policy. The resulting GHG reductions estimates and underlying calculations show substantial evidence that the City can achieve consistency with SB32’s target of 40 percent below 1990 by 2030, and that the foundational actions in this Climate Action Plan create the conditions to make significant progress toward achieving its carbon neutral by 2035 goal.

The combined local reductions from the Climate Action Plan pillars and their foundational actions could result in an annual reduction of 124,270 MTCO₂e in 2030 and 184,270 MTCO₂e in 2035, as shown in Table 1.1. This represents a total reduction in annual greenhouse gas emissions of 204,330 MTCO₂e in 2030, or 53 percent from the 2005 baseline, and 275,600 MTCO₂e in 2035, or 71 percent from the 2005 baseline with a remaining gap of 111,030 MTCO₂e.
Figure 3.1 Six Pillars to Carbon Neutrality

PILLAR 1
Lead By Example
GOAL: Carbon neutral government operations by 2030

PILLAR 2
Clean Energy Systems
GOAL: 100 percent carbon free electricity by 2020

PILLAR 3
Green Buildings
GOAL: No net new emissions from buildings' onsite energy use by 2020; 50 percent reduction in existing building onsite emissions by 2030

PILLAR 4
Connected Community
GOAL: Achieve General Plan mode split objective by 2030; 40 percent of vehicle miles traveled by electric vehicles by 2030

PILLAR 5
Circular Economy
GOAL: 75 percent diversion of landfilled organic waste by 2025; 50 percent by 2035

PILLAR 6
Natural Solutions
GOAL: Increase carbon sequestration on the San Luis Obispo Greenbelt and Urban Forest through compost application-based carbon farming activities and tree planting; ongoing through 2035
*The quantified reduction estimates for the “Lead By Example” pillar will be included in the forthcoming municipal climate action plan and are not counted in this community climate action plan.

Taken together, these six pillars could reduce community greenhouse gas emissions by approximately 71 percent below annual baseline emissions by 2035, with the largest reductions occurring in the Connected Community and Circular Economy pillars. Table 3.1 and Figure 3.3 provide overviews of greenhouse gas emissions reductions by pillar.

Table 3.1 GHG Emissions Reductions Estimates (MTCO2e, 2030 and 2035)

<table>
<thead>
<tr>
<th>Pillar</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillar 1: Lead by Example</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Pillar 2: Clean Energy Systems</td>
<td>26,050</td>
<td>39,010</td>
</tr>
<tr>
<td>Pillar 3: Green Buildings</td>
<td>11,960</td>
<td>26,740</td>
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<tr>
<td>Pillar 4: Connected Community</td>
<td>45,240</td>
<td>64,170</td>
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<tr>
<td>Pillar 5: Circular Economy</td>
<td>37,410</td>
<td>47,300</td>
</tr>
<tr>
<td>Pillar 6: Natural Solutions</td>
<td>3,610</td>
<td>7,050</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124,270</strong></td>
<td><strong>184,270</strong></td>
</tr>
</tbody>
</table>
**Figure 3.3. Greenhouse Gas Emissions Reductions by Decarbonization Pillar**
(Annual MTCO$_2$e in 2035)

![Bar chart showing greenhouse gas emissions reductions by decarbonization pillar.]

- **State Law and Programs**: -102,410 MTCO$_2$e
- **Clean Energy Systems (Monterey Bay Community Power)**: -39,010 MTCO$_2$e
- **2035 Emissions Forecast**: 256,290 MTCO$_2$e
- **Green Buildings**: -26,740 MTCO$_2$e
- **Connected Community**: -64,170 MTCO$_2$e
- **Circular Economy**: -47,300 MTCO$_2$e
- **Natural Solutions**: -7,050 MTCO$_2$e
- **2035 Emissions Remaining**: 111,030 MTCO$_2$e

**Note:** The Clean Energy Systems pillar action (launch Monterey Bay Community Power service) is expected to be significantly underway at the adoption of the Climate Action Plan, and therefore is included in the GHG inventory forecast. For this reason, it is illustrated in Figure 1.1 as emissions avoided in the forecast.

**Getting to True Carbon Neutrality**

The approach to reducing greenhouse gas emissions provided in this Climate Action Plan would leave approximately 111,030 MTCO$_2$e in annual emissions in 2035 to reduce or offset to achieve true carbon neutrality. Chapter 4 provides additional administrative actions that the City commits to for the purpose of continuing the learning process and to better understand how to address the remaining emissions.

The methods used to quantify these reductions are provided in detail as Appendix B, and they demonstrate one of several viable paths enabled by the foundational actions in this Climate Action Plan. As these foundational actions are initiated and transition from pilots to fully implemented programs operating at the appropriate speed and scale, the specifics may vary, which is why a monitoring and reporting program is also provided in Chapter 4.

It is important to note that although the analysis does not demonstrate that San Luis Obispo is able to achieve carbon neutrality by 2035, the total emissions reductions that can be achieved across the six pillars that are within the City’s authority or influence shows the massive potential...
for the City to reduce local greenhouse gas emissions, while recovering from the economic impacts of COVID 19 and creating a healthier, cleaner, and more connected community.

Having a carbon neutrality framework in place will allow the City to capitalize on private foundation investments and federal and state funding sources as they become available. Additionally, the gap in GHG reductions illustrates that if true carbon neutrality is to be achieved, substantial support from the federal government and the State of California is required.

**Foundational Actions**

The six pillars in this Climate Action Plan include specific foundational actions to be initiated or completed by 2023. Each of these actions present critical first steps in pursuing community-wide carbon neutrality by 2035. The Office of Sustainability has worked closely with departmental staff throughout the City, the community, key stakeholders, technical consultants, and other cities to develop and refine each of the following actions to ensure consistency with Council objectives, feasibility, and equitable community impacts and benefits.

Many of the actions can be completed with existing staff time and budgeted resources. However, many other actions will require future funding allocations or obtaining grant resources. Given the financial impacts of COVID 19, there is less certainty about available resources and as a result, staff will pursue additional grant funding opportunities.8

The remainder of this chapter provides an overview of each pillar and a detailed description of each foundational action, including the following points of information (note that the pillar sections are color coded for ease of reading):

- Detailed action description
- Responsible department
- Timeline
- Funding and financing options
- Equity considerations
- Economic development considerations
- Case studies

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8 The City partnered with the Urban Sustainability Director’s Network to develop a comprehensive funding and financing map that identifies the various ways climate action measures can be paid for. This financing map informed the vetting of actions included in this plan.
PILLAR 1:
LEAD BY EXAMPLE

Like many organizations, the City owns vehicles, operates buildings, and has employees that commute to work. Municipal operations contribute greenhouse gas emissions by using electricity and natural gas and fossil fueled vehicles for its fleet and commuting employees, as well as generating solid waste. Accelerating and expanding the City’s traditional approach to the wise use of resources and organizational resilience will simultaneously reduce greenhouse gas emissions and serve as an example to residents and businesses in the community that organizational carbon neutrality is possible. The City also plays a key role in economic development and support of community partnerships. By centering climate action in these efforts, the city can support local and regional organizations in achieving their own climate action goals while also developing the economy to thrive in a rapidly changing world.

City Leadership

The City is already a municipal leader in sustainability initiatives and is currently working on, or is planning to work on, the following projects:

- Implementing the Water Treatment Plant Energy Efficiency project
- Ongoing evaluation of recycled water system expansion
- Evaluation of onsite energy generation at the Water Resource Recovery Facility, including feasibility of a fuel cell powered microgrid.
- Lighting energy efficiency projects at the City’s parking garages
- Electric vehicle chargers for fleet vehicles at the Palm Street Garage
- Electric vehicle chargers at City Hall
- Developing Purchase Power Agreement (PPA) for solar projects

Foundational Actions

The foundational actions in this pillar are summarized here and described in detail below:

- Leadership 1.1 – Adopt a municipal carbon neutrality plan in 2021.
- Leadership 2.1 – Include carbon neutrality, social equity, and a focus on developing a green local economy in the updated Economic Development Strategic Plan.
- Leadership 2.2 – Research methods to support local contractors and labor.
- Leadership 3.1 – Create a formal approach to support and empower community collaboration for climate action.
Leadership 1.1 Adopt a municipal carbon neutrality plan in 2021.

The City will develop and complete a plan to achieve carbon neutral municipal operations by 2030. The plan will build on already completed work to inventory municipal greenhouse gas emissions and ongoing and concurrent work to reduce operational greenhouse gas emissions.

City facilities include water treatment and wastewater treatment plants, office buildings, parking garages, the maintenance yard, and transit operations, among others. A municipal carbon neutrality plan, including the following components, would establish a technical and financial approach to reduce organizational emissions to net neutral by 2030. As a highly visible organization in the community, the City would illustrate the viability of low carbon operations and would be able to share lessons learned and resources with other local and regional organizations.

- Develop a ten-year work program through staff collaboration to achieve carbon neutrality, including:
  - Detailed action descriptions
  - Order of magnitude costs and cash flow assessments
  - An overall loading and phasing approach, including a description of how the proposed actions are synched with the biennial financial planning process and the capital improvement program
  - Responsible department and explanation of how the action integrates with in-process or planned City projects
  - For particularly innovative, complicated, or collaborative actions, advice on procuring appropriate technical and project implementation partners

- Review of City administrative practices and organizational policies, and development of recommendations to integrate and prioritize climate decision making

- Development of necessary policy statements via resolution for consideration by City Council including, but not limited to, commitments to not procure or construct assets that consume fossil fuels

**Responsible Department**

Administration will manage the administrative components of the project; Public Works and Utilities will be responsible for supporting the plan development and proposing, vetting, finalizing, and implementing the actions in the plan.
Timeline
The Municipal Climate Action Plan will be initiated in Fiscal Year 2019-20 and will conclude in July 2021. Implementation of the plan will occur through 2030.

GHG Reduction Estimates
Carbon neutral municipal operations would equate to approximately 7,500 MTCO\(_2\)e per year in 2035. It is important to note that these emissions are a subset of community emissions and the reductions from this pillar are not included in the community total to ensure the reductions are not double counted.

Funding and Financing Options
The plan is currently funded through an existing encumbered carryover funding amount of $45,000. However, this funding has been put on hold as the City assesses COVID 19 budget impacts. City staff has identified a way to complete the plan using staff resources only.

Equity Considerations
The City provides equal access to facilities, transit, transportation, recreation, water, and wastewater, among many other services. It will be critical that pursuit of carbon neutrality in government operations will not affect access to services for low income households and individuals.

Economic Development Considerations:
The development of the City’s organizational approach to carbon neutrality can be used by local and regional organizations and businesses. As a living laboratory for clean innovation, the City’s operational initiatives align closely with the economic development initiatives outlined in Leadership 2.1, below.

Case Studies
- City of Ft. Collins, CO, Municipal Operations Sustainability Plan
- City of Austin, TX, Carbon Neutral Operations Resolution
- City of Lancaster, PA, Municipal Operations Decarbonization Plan

Tracking Progress
The City will report on plan development progress until adoption and will report on implementation progress thereafter.
Leadership 2.1 Include carbon neutrality, social equity, and a focus on developing a green local economy in the updated Economic Development Strategic Plan.

Adopted in 2012 and updated in 2015, the City’s Economic Development Strategic Plan provides a framework for economic growth. The Economic Development Strategic Plan includes strategies to break down barriers to job creation, actively support knowledge and innovation, promote and enhance the San Luis Obispo quality of life, and build on existing efforts and strengthen regional partnerships.

Since 2015, awareness of the need to achieve ambitious greenhouse gas emissions reductions has coincided with findings that the transition to a low carbon economy is itself an economic development and wealth generating opportunity. At the same time, Council has affirmed that these growth opportunities must benefit all of the community and should include a focus on providing opportunity for low income or historically underrepresented communities.

The region is facing changes, including the closure of Diablo Power Plant, the introduction of Monterey Bay Community Power, and recovery from the COVID-19 pandemic and has several overlapping regional economic development projects ongoing, including REACH (formerly Hourglass) and the regional Housing Action Team. Barriers to the development of a low carbon and equitable model of economic growth continue to persist, including cost of housing, adequate infrastructure, and access to investment capital. The updated Economic Development Strategic Plan will focus on supporting efforts that lower these barriers and will develop a program that leads to low carbon equitable growth for a thriving community and region.

Responsible Department - Administration

Timeline

The Economic Development Strategic Plan will be initiated in 2020 with a planned completion of 2022 and implementation thereafter.
GHG Reduction Estimates
The strategic approach to developing a low carbon economy is supportive of the carbon neutrality goal but does not itself reduce greenhouse gas emissions.

Funding and Financing Options
The City will pursue grant funding for the plan update.

Equity Considerations
Through intentional economic development planning, economic growth can be harnessed to achieve community goals related to quality of life, equity, and climate action. Clean-tech innovation and other tech sector jobs will continue to be important, however other skillsets related to building trades, textile, production, and building materials production and reuse, agriculture, and many other fields will also be needed to achieve the objectives of the Climate Action Plan while growing economic opportunities for all.

Economic Development Considerations
Economic development is the primary focus of this action.

Case Studies
- East Bay Community Energy Local Development Business Plan
- City of Riverside – Economic Prosperity Action Plan and Climate Action Plan
- Smart & Clean Helsinki
- City-Business Climate Alliances
- VentureLab

Tracking Progress
The City will report on the progress of plan development through adoption and implementation progress thereafter.
Leadership 2.2 Research methods to support local contractors and labor.

The concept of a “Green New Deal” was first presented nationally in early 2019. Since then, local versions of it have appeared across the US, including in Los Angeles and New York. While the “green” part of the Green New Deal is central, equally important is the “new deal” part, which asks how the effort to decarbonize the economy can be used to support workers and families through job training and wages that allow people to live where they work. The resources of a City like San Luis Obispo are a small fraction of those available to federal, state, or major metropolitan governments. However, the City is still interested in finding ways to support local businesses and workers to achieve quality of life, equity, and climate action objectives. City staff will conduct a review of existing and proposed local government programs that focus on local business and labor, identify areas of regulatory authority, and research opportunities and barriers to implementation of a program that would support local contractors and labor.

Responsible Department – Administration

Timeline

The City will seek partnership with Cal Poly for the effort to be completed as part of academic research and will return in the 2023 Climate Action Plan with specific recommendations for implementation.

GHG Reduction Estimates

The strategic approach to developing a low carbon economy is supportive of the carbon neutrality goal but does not itself reduce greenhouse gas emissions.

Funding and Financing Options

Staff will complete this research within existing budgeted staffing resources.

Equity Considerations

Support for local labor, particularly in the building trades, could provide more diverse head of household jobs, which could benefit low- and moderate-income residents.

Economic Development Considerations

Investment in local contractors and workers could increase the amount of money that stays in the community and region and could promote a virtuous cycle of increased local work, increased local wages, and increased economic growth.

Case Studies

- City of San Luis Obispo Project Labor Agreement

Tracking Progress

The City will report on the progress of completed research by 2021 and inclusion in the 2023 Climate Action Plan.
Leadership 3.1 Create a formal approach to support and empower community collaboration for climate action.

As discussed in Chapter 1, local governments are uniquely capable of certain actions to influence climate outcomes. Similarly, local organizations and businesses throughout the community and region are also uniquely suited to achieve certain climate actions. For the community to achieve its climate action goals, all of these different types of organizations need to coordinate and collaborate.

This action seeks to establish a process for coordination and collaboration to ensure those organizations that take action receive community attention and praise and those organizations that want to achieve action are supported through connections to information and other resources. It is envisioned that this will initially be a program to publicly recognize organizations that have or are taking actions to achieve the community’s climate targets. Depending on the success of that program, it could shift over time to a program where the City facilitates collaboration and coordination between organizations.

Responsible Department – Administration

Timeline

The City will begin the first public recognition of local climate action accomplishments immediately following adoption of this Climate Action Plan. The City will consider more formal coordination structures in 2021.

GHG Reduction Estimates

The strategic approach to developing a low carbon economy is supportive of the carbon neutrality goal but does not itself reduce greenhouse gas emissions.

Funding and Financing Options

This action will be completed with existing staff resources.

Equity Considerations

The program will include a focus on publicly celebrating actions from community organizations that aren’t traditionally considered “environmental” organizations and will seek to provide access to external resources to these organizations.

Case Studies

- SLO County Green Business Network
- City of Austin Green Business Leaders

Tracking Progress

The City will track progress by reporting the number of organizations formally acknowledged.
PILLAR 2: CLEAN ENERGY SYSTEMS

Affordable, accessible, abundant, and clean energy systems are the foundation of a low carbon economy that equitably thrives in a changing climate. Rapid transitions to carbon neutral electricity that supports local economic development is possible through community choice energy and partnerships with the city’s energy utility providers. The Clean Energy Systems pillar focuses on grid-based energy sources (electricity and natural gas). The goal for this pillar is carbon free electricity by 2020, with additional efforts to understand natural gas decarbonization technologies, support affordable and equitable access to clean energy, and coordinate utility investments in electrical and natural gas grid reliability.

Equity, Quality of Life, and Economic Development Opportunities

With new renewable energy projects proposing prices that are comparable with or cheaper than fossil fuel resources, a carbon neutral and increasingly renewable electricity supply will provide continued costs savings on the electricity generation component of local electricity bills. System wide, the transition of energy procurement to a value-driven public agency provides local accountability, accelerated transition to clean energy, and the ability to retain the money spent on energy in the region through local energy programs.

City Leadership

The City exhibited leadership in this pillar by joining Monterey Bay Community Power.

Foundational Actions

The Foundational Actions in this pillar are:

- Energy 1.1 – Launch Monterey Bay Community Power and achieve a 98% participation rate while advocating for programs that support equity and achieve maximum local benefit.
- Energy 2.1 – Work with MBCP and PG&E to develop a regional grid reliability strategy.
- Energy 3.1 – Partner with SoCal Gas to research options for reducing greenhouse gas emissions associated with the existing natural gas grid.
Clean Energy Systems 1.1 – Launch Monterey Bay Community Power and achieve a 98% participation rate while advocating for programs that support equity and achieve maximum local benefit.

Grid based electricity accounts for approximately 9.5 percent of the City’s 2016 greenhouse gas emissions inventory. On January 1, 2020, the City began receiving energy from Monterey Bay Community Power (MBCP), a Community Choice Energy (CCE) program that provides 100 percent carbon free electricity with a rate savings relative to PG&E. CCEs bring local control, freedom of choice and competition into the electricity marketplace by allowing local governments to pool the electricity demand of their communities and purchase power with higher renewable content and lower greenhouse gas emissions. Energy from MBCP is delivered the City’s existing grid with PG&E.

California CCEs are “opt-out” by statute, meaning that every electricity meter in the community is automatically enrolled, but has the option to opt-out of the CCE at any time. As of February 17, 2020, the City has a total MBCP enrollment opt-out rate of 1.79 percent, meaning that 98.21 percent of accounts were participating in the program. To maximize enrollment, City staff have allocated ongoing time to support local participation in MBCP.

Partnering with MBCP has allowed the City to achieve its Clean Energy Systems pillar goal of 100 percent carbon free electricity by 2020.

Responsible Department - Administration

Timeline

The City began receiving service from MBCP on January 1, 2020.

GHG Reduction Estimates

Based on the assumption of a 2 percent opt-out rate for residential accounts observed above, it is estimated that participation in MBCP will reduce forecast emissions by 26,050 MTCO$_2$e in 2030 and 39,010 MTCO$_2$e and in 2035.

Funding and Financing Options

The City currently hosts remote locations for Policy Board and Operations Board meetings and provides staff to support the region’s Policy Board and Operations Board members (currently, the Mayor and City Manager).

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10 Opt-out information was provided via email from MBCP staff on February 17, 2020.
Equity Considerations

MBCP will purchase cleaner energy at a lower cost than the existing Investor Owned Utility, which supports low-income rate payers while reducing greenhouse gas emissions. More important than rate savings, though, is the potential of equity focused energy programs. The City will continue to advocate for policy and energy program design that center benefits on low income and disadvantaged communities to ensure access to electric vehicles, clean energy in homes, solar energy systems, and resilient energy systems.

Economic Development Considerations

As a mission driven local government organization, MBCP helps to support economic vitality because money from rates paid by local customers stays in the Central Coast. Surplus revenues that would normally leave the community in a for-profit corporation will instead stay in the community to help fund regional renewable energy programs and projects, create jobs, and stimulate the economy.

Tracking Progress

The City will annually obtain the agency’s “power content label” from MBCP, which discloses the power portfolio sources and confirms the carbon neutral power supply. The City will also receive annual opt-out rate updates.
Clean Energy Systems 2.1 – Work with MBCP and PG&E to develop a regional grid reliability strategy.

The City recognizes that a low carbon contemporary economy depends on a reliable, resilient, and safe electric power system. Recent power shut offs in the state of California have had concerning economic repercussions and highlighted income inequalities that will likely be exacerbated as climates continue to shift. The City will partner with MBCP and PG&E to develop a strategy to maximize its regional grid reliability.

**Responsible Department** - Administration

**Timeline**

The development of the regional grid reliability plan will be initiated as part of the Safety Element Update of the General Plan project (initiated in Fiscal Year 2019-2020 and be completed by 2023). Implementation of the strategy will begin in concurrence with the 2023-25 Financial Plan and will be ongoing through 2035 and beyond.

**GHG Reduction Estimates**

Grid reliability does not reduce greenhouse gas emissions on its own, but it does allow for continued access to affordable carbon neutral electricity, which is the foundation of the Green Buildings Pillar, and includes components of the Connected Community Pillar.

**Funding and Financing Options**

Staff time for the effort will occur as part of existing budgeted resources. Funding for community vulnerability is included in a grant from Caltrans to conduct a comprehensive community vulnerability assessment to the impacts of climate change that is already underway. Funding and financing for improvements to local and regional grid infrastructure will be identified and will depend strongly on financial investments from PG&E and MBCP.

**Equity Considerations**

Power outages present additional risk to already vulnerable populations. Individuals who depend on electrical medical equipment at home are susceptible to increased health concerns and medical bills when unable to access power. Additionally, low-income individuals are disproportionally burdened when power outages cause workplace closures and may face food insecurity without refrigeration. Minimizing the frequencies and durations of power outages will reduce these threats.

**Economic Development Considerations**

Grid reliability affects buildings such as hospitals, storefronts, restaurants, telecommunications systems, and government buildings – all of which are integral to a functioning economy.

**Case Studies**

- [MBCP Community Resilience Programs](#)
- [PG&E and East Bay Community Power Collaboration](#)

**Tracking Progress**

The City will track the number and nature of meetings with each utility in the first year of implementation. Thereafter, the City will report on progress towards grid resilience and reliability.
Clean Energy Systems 3.1 – Partner with SoCal Gas to research options for reducing greenhouse gas emissions associated with the existing natural gas grid.

Many buildings in San Luis Obispo use natural gas for space heating, water heating, and cooking. The combustion of natural gas emits CO$_2$. For San Luis Obispo in 2019, this accounted for 51,310 MTCO$_2$e, or approximately 15 percent of inventoried emissions. Direct methane leaks at extraction and processing facilities, along transmission and distribution routes, and in the end use location means that the emissions from natural gas use are likely substantially higher than those reported in the inventory.

The existing natural gas grid serves most of the community, and regardless of the Clean Energy Choice Program for New Buildings encouraging all-electric new buildings (See Green Buildings 1.1), the natural gas grid will continue to grow in San Luis Obispo for the next several years. Due to the extremely potent global warming potential of methane, the City will request to work with SoCal Gas to better understand distribution system, lateral connections, and on-site system leaks in the community and identify ways to reduce them.

Additionally, SoCal Gas has provided presentations that biogas can be used to lower the overall greenhouse gas emissions from grid-based natural gas. In meetings with the utility, SoCal Gas staff confirmed that there are no unused sources of biogas in the community that currently could be used for grid applications, however, the City is interested in further exploration of potential biogas pilot projects. Additionally, City staff has met with SoCal Gas on several occasions to discuss developing methods for quantifying the impacts of fugitive methane emissions and related savings from biogas, as well as searching for innovative pilot projects for low carbon fossil fuel technologies.

**Responsible Department** - Administration

**Timeline**

The City has already met with SoCal Gas’s sustainability and project development staff in late 2019 and again in February 2020. The City will plan on establishing a regular meeting schedule with SoCal Gas’s sustainability staff to further pursue local leak assessment and reduction research, biogas resources, and accounting for introduction of biogas into the natural gas distribution and transmission system with the expectation that work could begin on these topics as early as Fiscal Year 2020-21.

**GHG Reduction Estimates**

Due to insufficient accounting protocols for methane leakage, this action does not include any greenhouse gas emissions reductions. However, the action allows the City to better understand these emissions sources and identify ways to reduce them in future Climate Action Plans.

**Funding and Financing Options**

Office of Sustainability staff will coordinate with SoCal Gas to implement this action as part of its standard operating budget and staff capacity.

**Tracking Progress**

The City will track the number and nature of meetings with each utility in the first year of implementation. Thereafter, the City will report on progress towards grid resilience and reliability.
PILLAR 3: GREEN BUILDINGS

Advances in on-site solar energy systems, electrical appliances, and grid-based energy provide a significant opportunity. These advances provide for all-electric buildings to maintain all the conveniences and comforts of standard buildings without the climate pollution caused through the use of fossil fuels. Rapid transitions to low carbon buildings is possible through a two-pronged approach: by identifying the largest energy users and working to provide cash positive financing mechanisms; while also working with homeowners and building owners to subsidize and support onsite solar, energy storage, and transitioning high energy use appliances (e.g., water heating and space conditioning) to high efficiency electric alternatives.

The Green Buildings pillar focuses on emissions from energy (electricity and natural gas) used in buildings, facilities, and outdoor lighting in the community. The goal for this pillar is to add no new net emissions from new buildings starting in 2020 and reduce emissions from the remaining building stock by 50 percent (after accounting for savings from carbon free electricity) by 2030.

With clean electricity as the foundation of a carbon neutral community, and with rapid advances and cost reductions in onsite solar generation, onsite energy storage, and electric appliances, the potential exists to equitably and affordably transition to fossil fuel free buildings.

This pillar focuses on high impact programs that: produce carbon neutral new buildings; leverage existing programs; provide funding sources for income qualified households; and develop financing mechanisms to address the communities largest natural gas users by assisting building owners to increase efficiency and retrofit natural gas water heating and space conditioning to electric appliances.

Rapid transitions to low-carbon new buildings (from onsite energy use) is possible via the City’s Clean Energy Choice Program for New Buildings and the 2019 California Energy Code (and standard triennial updates to both). Existing buildings will be a substantially more challenging issue as every building is unique and many existing buildings may require costly electrical system upgrades to transition to lower carbon buildings.

The emissions from electricity are primarily reduced by joining Monterey Bay Community Power, as described in “Clean Energy Systems”, above. Natural gas consumption occurs in buildings and facilities primarily for water heating, space heating, cooking, clothes drying, and decorative space...
heating (e.g., gas fireplaces). While some natural gas end uses may always require fossil fuels to operate (e.g., industrial processes for manufacturing), all common residential and commercial natural gas end uses have high quality, high efficiency, and typically cost-effective electric alternatives. As buildings become more efficient and as building owners choose to transition from fossil fueled to electric appliances, the emissions associated with onsite energy use will rapidly decline.

**Equity, Quality of Life, and Economic Development Opportunities**

As described below, although the generation costs associated with electricity are projected to stay flat or decrease as the result of low cost new renewable energy facilities, transmission costs are likely to fluctuate substantially as climate change exposes the statewide grid to ever increasing natural hazards. As the state moves towards decarbonization and the state’s natural gas system ages, natural gas utility costs are also expected to increase and fluctuate. A focus on supporting low income households in installing rooftop solar and pairing that with high efficiency electric appliances for space and water heating allows enhanced comfort and insulation from fluctuating electricity and natural gas grid costs.

A rapid mobilization in the solar installations, energy efficiency installations, and appliance switching is a "win-win" in that there are typical lifetime savings associated with the work for the building owner while also creating a substantial demand for skilled labor. Additionally, transitioning existing buildings at speed and scale will require technological innovations. By partnering with organizations that support entrepreneurs, local business can pair their innovation and ingenuity with emerging needs, creating additional head of household jobs and local economic stimulus.

**City Leadership**

The City has already begun strategically retrofitting existing buildings to electric appliances. One example is the planned retirement of the natural gas co-generation system at the SLO Swim Center and replacement with onsite solar generation to replace the lost generation capacity of the existing system. As described in the “Lead by Action” section, above, the City will also develop a plan to achieve carbon neutral operations, including in building and energy use, by 2030. The City will exhibit regional leadership as an advocate by continuing to influence Monterey Bay Community Power energy program development and implementation and partnering with existing entities to maximize local resources for building retrofits.

**Foundational Actions**

The Foundational Actions in this pillar are:

- **Buildings 1.1** – Adopt and implement the Clean Energy Choice Program for New Buildings and review opportunities for improvement in the 2022 code cycle.
- **Buildings 2.1** – Conduct comprehensive retrofit program study and develop and implement a strategic and equity focused building retrofit program by 2021.
Green Buildings 1.1 Adopt and implement the Clean Energy Choice Program for New Buildings and review opportunities for improvement in the 2022 code cycle.

The City developed the Clean Energy Choice for New Buildings, a package of incentives and local amendments to the 2019 California Energy Code, that encourages all-electric new buildings. When paired with the carbon free electricity purchased by Monterey Bay Community Power, all electric new buildings are carbon free and avoid health and safety issues associated with fossil fuels.

The Clean Energy Choice Program for New Buildings includes the following incentives: technical support, financial incentives, regulatory flexibility, and information sharing support. The City is providing ongoing staffing to support successful implementation of the program.

The City has also developed a Carbon Offset Program to support the Clean Energy Choice Program for New Buildings. City Staff will present program performance to City Council in June of 2021, and if needed, will also provide the Carbon Offset Program for Council consideration and potential adoption.

**Responsible Department** – Community Development and Administration

**Timeline**

The Clean Energy Choice Program for New Buildings will be brought before Council in 2020 and is expected to include implementation of building code amendments in September of 2020. The Carbon Offset Program could be brought to Council in June of 2021 depending on program performance. City staff will participate in statewide efforts to enhance the 2022 Building Code and will incorporate lessons learned into proposed local amendments when that code is enforceable in 2023.

**GHG Reduction Estimates**

Assuming General Plan Buildout by 2035, and greenhouse gas emissions reductions estimates for Climate Zone 5 used in the 2019 Cost Effectiveness Studies, and assuming that 85 percent of applicable new buildings comply through 2030, and 95 percent of buildings comply through 2035, the City expects to avoid 3,780 MTCO$_2$e in 2030 and 6,250 MTCO$_2$e from this action annually in 2035.

**Funding and Financing Options**

The City has completed technical work for the local amendments to the 2019 California Energy Code and expects to begin implementing the program in September of 2020. Direct incentives...
through the incentive program are provided by MBCP and staff has issued a work order for on-call technical support as part of the 2019-20 mid-year budget adjustment.

**Equity Considerations**

The future of grid-based energy costs (electric and natural gas) is highly uncertain in a rapidly changing climate and regulatory structure. New all electric buildings use net energy metering with their solar energy systems to insulate themselves from grid energy costs. To ensure limited exposure to cost uncertainties as designers and builders build capacity, the City successfully advocated to Monterey Bay Community Power to provide direct financial incentives for all-electric multi-family and affordable housing units.

**Economic Development Considerations**

By transferring energy bills in new development from a natural gas utility to PG&E and the City’s community choice energy provider (Monterey Bay Community Power), money spent on energy will be retained in the region and reinvested through regional energy projects, lower rates, and enhanced energy programs (as a local government agency that is mission driven, rather than profit driven, Monterey Bay Community Power can retain capital in the region and with further advocacy, can support the City’s green economic development initiatives as identified in Pillar 1). Additionally, a recent study out of UCLA noted that the transition to all electric development will lead to a net increase in jobs, particularly for skilled workers in construction, manufacturing, and energy. An intentional effort in Economic Development Strategic Plan (see Pillar 1) could help maximize these benefits locally and regionally.

**Tracking Progress**

Through the City’s permit tracking program, the City will record and report the number and type of permits for all-electric buildings and mixed-fuel buildings.

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Green Buildings 2.1 Conduct comprehensive retrofit program study and develop and implement a strategic and equity focused building retrofit program by 2021.

Energy use in existing buildings will continue to contribute substantial amounts of greenhouse gas emissions. The retrofit program study and proposed retrofit program will convene all relevant stakeholders, inventory existing building stock and energy use, and identify a program that will equitably and strategically achieve the community’s emissions reductions objectives. The program will review potential policy measures, including adding renewable energy systems, replacing fossil fuel appliances with clean electric appliances, improving comfort and efficiency of buildings mechanical and lighting systems, and improving building envelopes. The City will consider a wide range of implementation methods, including benchmarking or energy score requirements, potential ordinances, incentives, voluntary actions, education, and workforce development.

The quantification for this action is included in Table 5.1 and Appendix B and shows one path to achieving the City’s targeted reduction, with roughly 60 percent of existing energy load in existing buildings participating in some form. However, there are many paths to achieve the reductions presented in this action and the development of the retrofit program should be tied to the emissions reduction outcomes while retaining flexibility in how they are achieved.

While the development of a transformational program of this nature does not have many examples to build from, it should be noted that the proposed parameters of the program are consistent with the state’s 2019 Energy Retrofit Action Plan\(^\text{12}\), SB 350’s target of 50 percent increase in existing building energy efficiency by 2035, the CPUC’s decision to open up the state’s $1 billion in energy efficiency funding for electrification measures, and the CPUC’s decision to invest $44 million in electrification retrofit incentives and research in electrification retrofit programs.

**Responsible Department** – Community Development and Administration

**Timeline**

The City will initiate the project in Fall 2020 and will complete the plan and adopting resolutions or ordinances by summer of 2021. The City will begin implementing the program in 2021 and will continue through 2035.

**GHG Reduction Estimates**

The plan itself will not reduce greenhouse gas emissions, however it sets the foundations for deep reductions in existing building emissions that will occur through implementation of the plan starting in 2021 and continuing through 2035. Table 3.3 provides a summary of the quantification and while the total emissions reductions should be viewed as the goal for the City as it collaboratively develops the program, the emissions by each retrofit type may vary substantially.

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Table 3.3 Projected MT$CO_{2e}$ Savings by Retrofit Type, 2030 and 2035

<table>
<thead>
<tr>
<th>Retrofit Type</th>
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<th>2035</th>
</tr>
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<tbody>
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<tr>
<td><strong>Energy Retrofits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>950</td>
<td>1,710</td>
</tr>
<tr>
<td>Residential</td>
<td>830</td>
<td>1,900</td>
</tr>
<tr>
<td><strong>Commercial Benchmarking</strong></td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,180</td>
<td>20,490</td>
</tr>
</tbody>
</table>

**Funding and Financing Options**

The 2019-21 Financial Plan includes $50,000 for the development of the Building Electrification Program. The City is in talks with a national organization to partner with several Central Coast cities to collaboratively develop a decarbonization retrofit program and to expand the technical and financial resources available to the City for planning. Funding and financing for implementation will be a substantial challenge and will include leveraging public programs through MBCP, 3C-REN, PG&E, and SoCal Gas, identifying ways to enhance existing financing mechanisms such as Property Assessed Clean Energy, advocating for retrofit programs through MBCP, and monitoring state programs for funding opportunities.

**Equity Considerations**

When developing the retrofit program, the City will consider the needs of all residents and property owners. The City will focus initial program efforts on the largest and least efficient buildings to maximize immediate program impacts. In addition, the City will focus incentives and subsidies on low-income and disadvantage communities to ensure the program helps reduce utility bills.

**Economic Development Considerations**

Investment in local contractors and workers to lead the study and program development could increase the amount of money that stays in the community and region and promote a cycle of increased local work, increased local wages, and increased economic growth.

**Case Studies**

- [California Energy Efficiency Retrofit Plan](#)
- “City Energy Project” for Developing Retrofit Programs
- Tri-County Regional Energy Network
- City of San Francisco Building Energy Benchmarking Program
- City of New York Building Energy Grades
- State of California Energy Benchmarking Program

**Tracking Progress**

The City will report on plan development progress until adoption. Starting in 2021, implementation progress that triggers a permit will be tracked through the Community Development Department’s permit tracking system.
PILLAR 4: CONNECTED COMMUNITY

An increase in active transportation investment coordinated with more housing production, enhanced transit, and mobility innovations can significantly reduce cost of living and increase quality of life. This additionally reduces vehicle miles travelled (VMT) and associated greenhouse gas emissions. For the many local and regional households that will still depend on a vehicle for transportation, electric vehicles coupled with carbon neutral electricity can provide a low emissions alternative.

Transportation is the single largest source of greenhouse gas emissions in the City of San Luis Obispo. Transportation emissions primarily occur as the result of single occupancy fossil fueled vehicles. The goal for this pillar is to achieve the General Plan Mode Split Objective by 2030 and have 40 percent of the remaining automotive vehicle miles travelled occur through electric vehicles.\(^{13}\) Table 3.4 provides the baseline 2020 mode split and the 2030 objectives.

### Connected Community Goals:
Achieve General Plan Mode Split Objective by 2030; 40 percent VMT by electric vehicles by 2030

**Total Emissions Reductions in 2030:**
45,240 MTCO\(_2\)e

**Total Emissions Reductions in 2035:**
64,170 MTCO\(_2\)e

<table>
<thead>
<tr>
<th>Table 3.4 Mode Split Objectives, 2020 and 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
</tr>
<tr>
<td>Single-occupancy vehicle</td>
</tr>
<tr>
<td>Walking, carpool, and other</td>
</tr>
<tr>
<td>Transit</td>
</tr>
<tr>
<td>Bicycle</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

\(^{13}\) The General Plan set the following mode split objective for city resident trips: 50% of trips occur via motor vehicles, 12% of trips occur via transit, 20% of trips occur via bicycles, and 18% of trips occur via walking, carpools and other forms.
Rapid transitions to achieve the Circulation Element of the General Plan’s mode share target five years early will require increased density and housing production, innovative parking management approaches, further commitments to transit, and a process to allow for rapid construction of active transportation infrastructure. In all cases, equity and accessibility must be a top priority to ensure residents can conveniently and affordably move about the City without the use of a fossil fueled vehicle.

It should be noted that reducing emissions from regional commute trips is especially difficult as the activity of commuting to and from City requires the crossing of multiple jurisdictional boundaries and is induced by a lack of affordable housing options in the city. The City will focus on internal trips first, with secondary high priority focus supporting reducing emissions from regional trips through addressing the City’s job/housing imbalance, housing affordability, and access to electric vehicles and charging infrastructure.

Equity, Quality of Life, and Economic Development Opportunities

Cities and regions built for cars accommodate long commute times, which are expensive, isolating, and polluting. This pillar looks to provide affordable, safe, and convenient access through the community so that income is not a limiting factor in mobility. Additionally, for households that must or choose to live somewhere that requires a personal vehicle, electric vehicles have low operational costs and can lead to substantial total cost of ownership savings relative to a fossil fuel vehicle.

City Leadership

The City will play a major leadership role in this effort through the construction and maintenance of active transportation infrastructure, prioritization of streets and public rights of way for people before automobiles, enhancement of transit services to include all electric buses and to increase bus frequency, introduction of a micro-mobility “bike share” program, and further installation and innovative management of electric vehicle charging infrastructure. The City will also lead through continued purchasing of plug-in hybrid vehicles and electric bicycles for its fleet.

Foundational Actions

The foundational actions of this pillar are:

- Connected 1.1 – Establish a consistent method for tracking and reporting mode split metrics.
- Connected 1.2 – Research and develop an approach to a “Mobility as a Service” platform for people to easily use all modes of low carbon mobility in the City.
- Connected 2.1 – Complete Active Transportation plan and begin implementation immediately.
- Connected 2.2 – Launch micro mobility program by 2021.
- Connected 3.1 – Establish a policy and strategic approach to leveraging existing and new parking garages for downtown residential and visitor serving uses and to allow for further implementation of the Downtown Concept Plan.
- Connected 4.2 – Shorten transit headways through accelerated implementation of the existing Short-Range Transit Plan.
- Connected 4.3 – Explore additional innovative transit options in the 2022 Short-Range Transit Plan (e.g., on-demand deviated routes, electric fleet expansion, micro transit, Bus Rapid Transit, Transit Signal Priority).
• Connected 4.4 – Assess feasibility of a “free to the user” transit ridership program.
• Connected 5.1 – Complete the 2019-21 Housing Element of the General Plan Update and Flexible Zoning Requirements for Downtown.
• Connected 6.1 – Develop and begin implementing electric mobility plan to achieve a goal of 40 percent electric vehicle miles traveled (VMT) by 2035.

Greenhouse Gas Emissions and Tracking Progress

Unlike the other sectors in this Climate Action Plan, actions related to mobility and mode share have a less direct correlation to a desired outcome. For example, it is relatively straightforward to estimate the savings of switching an incandescent lightbulb to an LED lightbulb, but estimating the savings that could occur from a mile of bicycle lane, increased accessibility via a bike share program, or increased transit service is substantially more challenging. For this reason, the overall mode split will be monitored through a method established in Connected 1.1 and the effectiveness of individual actions will be evaluated in light of this monitoring.

Specific actions in this pillar that can be directly associated with greenhouse gas emissions are reported as such, but generally the actions in this pillar are intended to create systems of clean transportation that lead to the estimated emissions reductions. For reference, Table 3.5 provides the estimated emissions reductions by activity.

Table 3.5 Connected Community Greenhouse Gas Emissions Reductions, 2030 and 2035 (MTCO2e)

<table>
<thead>
<tr>
<th>Activity</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Vehicles (All VMT)</td>
<td>22,180</td>
<td>34,920</td>
</tr>
<tr>
<td>Mode Shift (Internal VMT Only)</td>
<td>23,060</td>
<td>29,250</td>
</tr>
<tr>
<td>- Carpool and Walking</td>
<td>5,100</td>
<td>5,100</td>
</tr>
<tr>
<td>- Transit</td>
<td>5,340</td>
<td>8,750</td>
</tr>
<tr>
<td>- Bicycle</td>
<td>12,620</td>
<td>15,400</td>
</tr>
<tr>
<td>Total GHG Emission Reductions</td>
<td>45,240</td>
<td>64,170</td>
</tr>
</tbody>
</table>
Establish a consistent method for tracking and reporting mode split metrics.

The Land Use and Circulation Element of the General Plan and its Environmental Impact Report set the following mode split objective for city resident trips: 50 percent of trips occur via motor vehicles, 12 percent of trips occur via transit, 20 percent of trips occur via bicycles, and 18 percent of trips occur via walking, carpools and other forms. The City has informally used several points of reference to estimate mode share over time, including the US Census’s American Community Survey commute data, the city’s biennial traffic data collection program, and local travel survey data; however, the city has not yet established a formal methodology for tracking and reporting mode split progress. A more detailed, regularly updated, locally conducted travel survey would allow for progress to be more adequately tracked. A professional survey or study requires outside expertise and this action would provide direction to pursue funds through grant resources or via future Financial Plans to establish a repeatable method.

Responsible Department – Public Works

Timeline

This action will be initiated in the 2021-23 Financial Plan funding cycle.

GHG Reduction Estimates

The action does not reduce emissions itself, however, it would provide an approach to track the GHG reductions occurring as the result of actions in this Climate Action Plan.

Funding and Financing Options

Similar work completed for the City of Santa Monica was contracted for approximately $40,000. City staff would pursue funding for this approximate amount via grant funding or as part of the 2021-23 Financial Plan funding cycle.

Equity Considerations

A defensible and consistent method for tracking mode splits would ensure participation from groups that typically do not participate in surveys or may be missed in past efforts.

Case Studies

- Santa Monica Transportation Survey
- City of Boulder: Mode Shift in the Boulder Valley

Tracking Progress

The City will report on action development and implementation progress through its inclusion in the 2021-23 Financial Plan.
Connected 1.2 Research and develop an approach to a “Mobility as a Service” platform for people to easily use all modes of low carbon mobility in the City.

Transportation is responsible for the majority of carbon emissions in the City of San Luis Obispo. The City currently operates an award-winning bus system and plans to facilitate a variety of external partnerships to bring more mobility options into the community. In order to effectively encourage residents and visitors to utilize these better modes of low-carbon transportation and make them as accessible and convenient as possible, this action would initiate research of options for establishing an (or leveraging an existing) online platform where users are able to access information about each type of mobility offered in San Luis Obispo. The platform would include specific access locations and routes on an interactive map, and a centralized payment hub.

In addition to lowering barriers of entry to transit, the forthcoming bicycle share program, and other emerging mobility options, a centralized platform would also allow the City to incorporate equity considerations such as providing no cost or reduced cost access for income qualified residents. Similarly, a centralized platform could be used to support alternative mobility options for employees or residents in a new development as a condition of development approval or could be used by hotels and downtown businesses to help visitors access alternative forms of transportation.

**Responsible Department** – Public Works and Administration

**Timeline**

This action will be initiated in the 2021-23 Financial Plan funding cycle.

**GHG Reduction Estimates**

The action does not reduce emissions itself, however, it would provide a foundation to facilitate rapid, equitable, and convenient transition to active transportation and transit options.

**Funding and Financing Options**

Funding for initial research and technical feasibility will be requested in the 2021-23 Financial Plan. In that process, the specific development pathways, associated costs, and funding and financing options will be identified. It is expected that major funding pathways include state and regional grants or public-private partnerships.

**Equity Considerations**

A major benefit of a centralized platform is that, if feasible, the City could provide lower or no cost access for income qualified residents. Should this be feasible, users from low-income households will be able to freely and easily access information about the suite of low-carbon mobility services found within the City. Additionally, those who do not own cars in and around San Luis Obispo will benefit from the platform connecting them with alternative transportation methods. The platform
could also feature a series of filters for users to determine which service is appropriate for their needs based on the service’s fee, the distance from the user to service access, and more.

**Economic Development Considerations**

The development of a “Mobility as a Service” platform inherently creates space for the City to pursue strategic external partnerships with alternative mobility companies. The opportunity for these partners to invest money and resources into the community will bring new jobs into the community, especially as the demand for low-carbon alternative mobility continues to expand over the next decade. The platform will also help expand physical connections between users and critical areas of local business, especially those that are parking-restricted, like downtown. By securing and promoting new opportunities for consumers to reach places of business around San Luis Obispo, previously under-served revenue sources are engaged and mobilized.

**Case Studies**

- Whim App (Helsinki, Finland)
- Hopthru (Bay Area)
- Google Maps allows purchase of transit and bikeshare tickets in Denver

**Tracking Progress**

The City will report on action development and implementation progress through its inclusion in the 2021-23 Financial Plan.
Connected 2.1 Complete Active Transportation Plan and begin implementation immediately.

The City is updating the Bicycle Transportation Plan and transforming it into an Active Transportation Plan to include both bicycling and walking needs. The last major update of the City's bicycle plan was in 2013 and this current update is an opportunity to include new innovations in bikeway facilities with a focus on designing an efficient, intuitive and safe bicycle and pedestrian transportation network for users of all ages all ability levels. This effort will also launch the City's first comprehensive document on pedestrian policies and identify ways to increase walking for transportation in the City and will consider how active transportation and transit are interconnected. The effort will present prioritization strategies to meet mode share targets for bicycling and walking and maximize the return on investments.

A key component of the plan will include developing a short list of the highest priority bicycle and pedestrian projects—projects that offer the greatest potential to increase walking and cycling mode share—and inclusion of a quick-build strategy to streamline implementation of these high priority projects. One of the largest barriers between the identification, proposal, and implementation of priority bicycle and pedestrian infrastructure is the traditional strategy in which the City funds, approves, and allocates materials for such projects. By utilizing a “quick-build” strategy, the City can make improvements with lower-cost, semi-permanent materials on a relatively quick timeline with the intent of actualizing the safety and connectivity benefits of these improvements in the short-term, while evaluating the success of the project after a given period and making changes prior to installation of permanent features in the long-term. For example, if the City was going to create a new protected bike lane, the traditional strategy would involve the appropriation of City funds or grants, intensive construction with permanent materials (asphalt, concrete, thermoplastic striping, etc.), and a completion date up to 2-3 years after project initiation, and often much longer depending on funding. However, with a quick-build strategy, designation of the bike lane would involve lower-cost materials within the City's current budget (paint, flexible posts and prefabricated barriers, etc.), and a completion date around or within a year of project initiation.

Responsible Department – Public Works

Timeline

The development of the Active Transportation Plan is currently underway, and adoption and implementation will initiate in coordination with the 2020-21 funding cycle.

GHG Reduction Estimates

It is estimated that the GHG reductions occurring as the result of achieving the active transportation mode split objectives is 12,620 MTCO2e in 2030 and 15,400 MTCO2e in 2035.
Funding and Financing Options
Funding for this action is ongoing and accounted for in the City’s annual budget through 2023. Additional funding is possible through state and federal grant sources as well as development fees.

Equity Considerations
Prioritization of quick build bicycle and pedestrian projects in the Active Transportation Plan will include community equity as a key consideration. The Plan will result in more infrastructure and opportunities to safely walk and bike within the City. This will be especially beneficial for low-income residents as the Plan creates more venues for low or no-cost travel. Additionally, those who do not own cars or are able to become a single car household will be able to enjoy the same benefits and the need for car ownership will lessen.

Economic Development Considerations
Enhanced mobility options for community members to reach various parts of the city, including downtown and other commerce hubs, will stimulate the local economy.

Case Studies
- City of Santa Cruz Active Transportation Plan
- County of San Diego Active Transportation Plan
- Monterey County Active Transportation Plan
- People for Bikes Quick Builds for Better Streets
- San Francisco Municipal Transportation Agency (SFMTA) Vision-Zero Quick Build Strategy
- San Francisco County Transportation Authority Funds $5 million in Quick Build Safety Projects

Tracking Progress
The City will monitor the development of the plan through adoption and implementation progress thereafter.
Connected 2.2 Launch micro mobility program by 2021.

Micro mobility is a type of transport that is provided by light vehicles including shared bicycles. Integration of various offerings of micro mobility into the transportation network of San Luis Obispo is critical in decreasing carbon emissions as it essentially “fills in the gaps” for trips that utilize public transit that cannot take riders “door to door”. To stimulate transit ridership and encourage community members to utilize low-carbon mobility options for short distance trips, micro mobility is key. The primary goal of the micro mobility program is to introduce a new bike share program and ultimately remove barriers to other sustainable, human-scale transportation options. City staff conducted a City Council study session in Fall 2019 and were provided direction to return with a mobility program focused on bicycles and e-bicycles. This program is included as a work task in the 2019-21 Financial Plan.

Responsible Department – Public Works

Timeline

The City will begin the process of identifying partners and vendors in the Fall of 2020 and will begin implementing the program in 2021.

GHG Reduction Estimates

This action is supportive of overall mode shift.

Funding and Financing Options:

Programs are either directly funded by an agency, operated through a cost sharing model with a partner, or leased out to a third party who owns and operates the programs. As a result of the differing models, significant cost ranges exist. Potential funding sources include State/Regional grants, public/private partnerships or sponsorships.

Equity Considerations

Introducing micro mobility options within the City will allow low-income and non-motor vehicle owning residents enhanced access to public transit and short-distance travel. Additionally, this will help alleviate geographic restrictions on employment opportunities for those who use transit to travel into the city for work.

Economic Development Considerations

As previously stated, enhanced mobility options for community members to reach various parts of the city, especially downtown and other commerce hubs, will stimulate the local economy.

Case Studies

- Bike Share in Fremont
- Zagster Bike Share in Santa Clarita
- Bike Share Santa Cruz

Tracking Progress

The City will report on the launch of the program initially and on ridership and utilization metrics thereafter.
Connected 3.1 Establish policy and strategic approach to leveraging existing and new parking garages for downtown residential and visitor serving uses and to allow for further implementation of the Downtown Concept Plan.

The City owns and operates three parking garages downtown and is expected to begin construction on a fourth garage when funds are available. The new parking garage would contain 404 parking spots and include approximately 43 electric vehicle charging stations and additional bicycle spots. Additional electric vehicle chargers are available at the Marsh Street Parking Garage, which includes 19 Level 2 chargers.

The parking garages allow for additional density and active transportation focus downtown, while also providing access to electric vehicle charging for regional travelers. However, to realize the potential of these garages, the City needs to develop an intentional strategic policy approach to issues such as cost recovery for electric vehicles, prioritization of low emissions vehicles, overnight access for residents and hotel guests, access to electric vehicle chargers for downtown employees, and ensuring that pass through electric vehicles charge downtown to drive traffic to local businesses.

It should be noted that there is overlap with the Mobility as a Service platform as described in Connected Community 1.1.

**Responsible Department** – Public Works and Administration

**Timeline**

This action will be initiated in summer of 2020 and any implementing actions will be contemplated in the 2021-23 Financial Plan.

**GHG Reduction Estimates**

This action is supportive of emissions reductions quantified for electric vehicle adoption and mode shift.

**Funding and Financing Options**

The City will seek to complete the work using existing staff budget time. Additional consultant support may be needed, and although the cost total is unknown at this time, it would be expected to be less than $50,000. Should additional funding be needed, the City would seek access to funds through grant funding or in the 2021-23 Financial Plan.

**Equity Considerations**

By ensuring the capacity and function of new and existing parking garages is utilized to serve the needs of both Downtown visitors and surrounding residents, equity considerations about who uses these structures, when, and at what cost will be built into relevant policy and planning.
Additionally, parking and other services needs of those who live, work, and recreate in the western portion of Downtown will be served in a way that was not previously. Lastly, employees of adjacent businesses and other organizations will have new and enhanced access to subsidized parking and safe bicycle storage.

**Economic Development Considerations**

Expanding access to businesses Downtown will result in increased patronage and, potentially, stimulate further economic development. Additionally, revenue from parking garage rates will be re-invested into the community through City-facilitated programming.

**Tracking Progress**

The City will track and report on the number of internal meetings convened to develop a scope of work in calendar year 2020 and a firm approach to achieving that scope of work in calendar year 2021 and 2022.
Connected 4.1 Develop a transit electrification strategic plan and begin implementing in 2020.

In December of 2018, the California Air Resources Board (CARB) approved the Innovative Clean Transit regulation that sets a statewide goal for public transit agencies to gradually transition to 100 percent zero emission bus fleets by 2040. As stated by CARB in the regulation’s press release, “The transition to zero-emission technologies, where feasible, is essential to meeting California’s air quality and climate goals.” The City of San Luis Obispo intends to exceed this goal by planning and implementing the transition far in advance of the state goal. To do this, the City will develop a transit electrification strategic plan to map out the timeline, costs, funding sources, and vendor selection pathway that will be undertaken beginning in 2020.

Initial work is underway with an in-process bus yard optimization study, an executed agreement for onsite solar generating assets, a planning grant awarded from the Air Pollution Control District, and tentative agreements with PG&E for cost covering related to electric vehicle charging infrastructure.

Responsible Department – Public Works and Administration

Timeline

The transit electrification strategic plan is currently being developed and implementation will begin in 2020 with work to install solar generating assets occurring in 2020 and charging infrastructure being installed in 2021 and 2022. Initial electric vehicle bus purchases may occur as early as 2020 with delivery slated for 2021.

GHG Reduction Estimates

This action is supportive of increased transit mode share and is not directly quantified.

Funding and Financing Options

A direct quote from the ICT Regulation states: “California transit agencies will be faced with higher capital costs during the early years of implementation of the proposed ICT regulation but will ultimately see reduced operational spending in later years…” An electric transit bus costs around $250,000-300,000 more than a diesel transit bus. However, an electric bus is expected to save money over the lifetime of the vehicles because of reduced fuel and maintenance costs. The City is seeking to take advantage of low to no-cost programs and external financial assistance programs to help with these costs.

Funding opportunities for transit electrification include Federal/State grants, cross-sector partnerships (utility incentives), revolving loans (State Acquisition Finance Program), Green/Municipal bonds, and funds from the City Budget (Group Asset Purchasing Marketplace).

Equity Considerations

Transportation – whether by car or public transit – is often a significant expense for households. Transportation investments have historically reinforced patterns of inequality and exclusion by failing to provide clean, efficient, and affordable options for individuals travelling between urban

City of San Luis Obispo

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job hubs and surrounding sprawl. Electric vehicles offer a potentially clean mode of automobile transit but are currently sold at a much higher price than gas-powered cars. Additionally, the lack of adequate long-distance commute options disproportionally affects low-income individuals who cannot afford to live closer to their jobs. As a result, low-income populations have less access to clean mobility and higher mobility costs. Public transit options are available, but traditionally diesel-powered busses emit particulate matter associated with harmful health impacts. Affordable, clean bus transit can provide opportunity to bridge some of these economic and health inequalities.

**Economic Development Considerations**

The electric bus fleet will be charged using electricity from Monterey Bay Community Power (MBCP). Revenues from energy purchased from MBCP are retained for regional reinvestment. Therefore, money spent to fuel our transit fleet will be kept in the local economy rather than given to third party diesel providers.

**Case Studies**

- [Santa Monica Electric Fleet](#)
- Grant helps Muni prepare facilities for electrified future
- [Pittsburg School District Rolls Out New Electric Transit Style School Bus](#)
- Electric Vehicles and the City of New Bedford, MA
- [LeasePlan Issues $500M Green Bond to Fund Zero Emission Goal](#)
- Municipal Fleet Electrification in Chula Vista, CA
- California City Adopts Zero-Emission Fleet Conversion Plan

**Tracking Progress**

The City will report on implementation of the electrification strategic plan.
**Connected 4.2 Shorten transit headways through accelerated implementation of the existing Short-Range Transit Plan.**

Developing a multimodal transit network that encourages residents to use energy efficient transit options like the bus system are critical to reducing emissions in this sector. One of the challenges with encouraging people to adopt alternative forms of transportation is the level of access and convenience of the transit options. One way to address this is by increasing the headways of the existing bus transit system to halve the time it takes between bus arrivals.

**Responsible Department** – Public Works

**Timeline**

The recommendations in the City’s adopted 2017-22 Short Range Transit plan already calls for double the current transit frequency (i.e. 20-30-minute headways) within the plan’s planning horizon. There is a need for additional vehicles and operating financial assistance to enact these recommendations. Staff is engaging stake-holder groups and seeking grant assistance to help meet these goals.

**GHG Reduction Estimates**

This action is supportive of achieving the mode split target of transit accounting for seven percent of trips in the city by 2030, and 12 percent by 2035. If achieved, that mode split change is estimated to result in an annual reduction of 5,340 MTCO2e in 2030 and 8,750 MTCO2e in 2035.

**Funding and Financing Options**

Transit data suggest that no less than six additional transit vehicles are needed in service to achieve the greater headways. At an average of $775,000 per electric bus, $4,650,000 in one-time capital expenditures are needed. An additional $1.8 million will also be needed in the annual transit operating budget to the support ongoing operating costs.

Several external financial assistance and no-to-low cost program options are being identified in transit’s Electric Vehicle Roll Out Plan. Transit agencies may tap into these to help overcome the initial hurdle of the purchase price and begin to make the transition to electric buses. Many of the options presented can be used in conjunction with one another to lower the overall costs.

**Equity Considerations**

Those who would benefit most from increased headways include non-car owning students and low-income community members who rely on transit to access housing, campus, centers of employment, and other necessary resources. Increases in transit frequency can contribute to a more reliable system overall and alleviate the need for car ownership.

**Economic Development Considerations**

A more reliable and frequent transit system will encourage ridership, notably to areas like downtown and other parking-restricted areas of commerce, which will help stimulate the local economy.

**Tracking Progress**

The City will report on annual transit system headways.
Connected 4.3 Explore additional innovative transit options in the 2022 Short-Range Transit Plan (e.g., on-demand deviated routes, electric fleet expansion, micro transit, Bus Rapid Transit, Transit Signal Priority, etc.).

The existing Short-Range Transit Plan is planned to be updated in 2022. In order to increase the capacity of the existing transit system while taking advantage of innovative, low-carbon options, the 2022 Short-Range Transit Plan will explore various innovative strategies to increase ridership, including on-demand deviated routes, electric fleet expansion, micro-transit, Bus Rapid Transit feasibility, and transit signal priority, etc.

**Responsible Department** – Public Works

**Timeline**

This action will be initiated and implemented in coordination with the 2021-23 Financial Plan.

**GHG Reduction Estimates**

This action is supportive of achieving the mode split target of transit accounting for seven percent of trips in the city by 2030, and 12 percent by 2035. If achieved, that mode split change is estimated to result in an annual reduction of 5,340 MTCO2e in 2030 and 8,750 MTCO2e in 2035.

**Funding and Financing Options**

Funding for this action will be sourced from the City's Transit Fund.

**Equity Considerations**

Expanding current options to include more innovative, low-carbon, low-cost modes in the 2022 Short-Range Transit Plan will allow for more opportunities for residents, community members, and visitors to utilize public transit services. With the introduction of on-demand deviated routes, bus rapid transit, and other options, those who rely on transit are able to use such services with more convenience to get from their homes to work and other areas around the City. Additionally, more innovative public transit will result in increased mobility of low-income community members and decrease the need for vehicle ownership.

**Economic Development Considerations**

External partnerships needed for various innovative transit options to be realized in San Luis Obispo creates vast opportunity for economic development through local and regional contracts and labor. Additionally, expanded transit options allows for enhanced access to downtown and other commerce centers for community members and visitors.

**Tracking Progress**

The City will report on action development and implementation progress through its inclusion in the 2021-23 Financial Plan.
Connected 4.4 Assess feasibility of a “free to the user” transit ridership program.

Cities throughout the world are currently assessing the viability of providing “free to the user’ transit ridership. This program has taken different forms in different places and includes organizations pre-paying for their employees or members to ride in advance of their riding (similar to how Cal Poly pays in advance for student riders). The transit system requires certain levels of revenue to operate and in its assessment of the feasibility of this program, the City will carefully analyze potential financial system impacts and potential unintended consequences on service.

Responsible Department - Public Works

Timeline

The City will assess feasibility through 2020 and will include a discussion of potential rate options in the 2021-23 Financial Plan.

GHG Reduction Estimates

This action is supportive of achieving the mode split target of transit accounting for seven percent of trips in the city by 2030, and 12 percent by 2035. If achieved, that mode split change is estimated to result in an annual reduction of 5,340 MTCO2e in 2030 and 8,750 MTCO2e in 2035.

Funding and Financing Options:

Cost estimates as well as funding and financing options are forthcoming and will be identified in the feasibility analysis.

Equity Considerations

Eliminating the cost barrier to public transit would allow for the system to be used by all. This would have an especially positive impact on low-income community members and non-car owners who rely on transit to get from their homes to work, run errands, and engage socially.

Economic Development Considerations

Increased transit ridership as a result of free fare for users would enable visitors and community members to visit downtown and other commerce centers easily and frequently. Without having to consider the costs of gas or parking, access to these spaces will be significantly expanded.

Case Studies

- CityLab – How Free Transit Works in the United States
- Natural So
- Chapel Hill, North Carolina Free Transit
- Sacramento Region to Launch Free Transit Pass for Youth

Tracking Progress

The City will report annual transit rates and related programs.
Connected 5.1 Complete the 2019-21 Housing Major City Goal, including the Housing Element of the General Plan Update and Flexible Zoning Requirements for Downtown.

Active transportation and transit are important alternatives to single occupancy vehicles. However, even the best bicycle and transit systems in the world must be supported by land use and development patterns that allow people to live close to where they work and play. Underscoring the importance of housing on quality of life, affordability, and sustainability, housing is included as a Major City Goal in the 2019-21 Financial Plan. The work program for the Major City Goal includes updating the Housing Element of the General Plan and establishing flexible zoning requirements for downtown, both of which would make sustainable housing easier to build.

**Responsible Department** – Community Development

**Timeline**

The Major City Goal work program items are expected to be completed by June 2021.

**GHG Reduction Estimates:**

This action is supportive of achieving the mode split target of single occupancy vehicles only accounting for 50 percent of trips in the city by 2030 and 40 percent by 2035. If achieved, that mode split change is estimated to result in an annual reduction of 23,060 MTCO2e in 2030 and 29,250 MTCO2e in 2035.

**Funding and Financing Options:**

The Major City Goal work program funding is included in the 2019-21 Financial Plan.

**Equity Considerations**

Implementing the work program for the Housing Major City Goal, including the establishment for flexible zoning requirements downtown, creates a critical opportunity to bring more affordable housing to San Luis Obispo. Higher-density smaller units built downtown not only allows for more in-town employees to live close to work, it enables wider utilization of active transportation in place of car travel and other carbon-intensive, high cost modes.

**Economic Development Considerations**

Not only will the development of more housing—especially new units within and adjacent to downtown—create more jobs in building and construction, anchoring residents downtown near retail, restaurants, and other businesses will create more foot traffic in the main commerce corridor of San Luis Obispo and stimulate the local economy.

**Tracking Progress**

The City will report on action development and implementation progress via the standard Major City Goal progress report.
Connected 6.1 Develop and begin implementing electric mobility plan to achieve a goal of 40 percent electric vehicle miles traveled (VMT) by 2035.

In the 2017 Climate Change Scoping Plan, the State of California laid out aggressive electric vehicle targets, aiming to have 1.5 million electric vehicles on the road by 2025 and more than 4.2 million by 2030. While these numbers at one time seemed unreachable, rapid increases in investments by traditional and new automakers and rapidly declining prices for battery storage have led global analysts to predict rapid adoption of electric vehicles through the next decade.

Electrification of our community's transportation systems, coupled with decarbonization of the electrical grid, is the key to reducing and eventually eliminating greenhouse gas emissions from the state and City of San Luis Obispo’s largest source. By developing and implementing an electric mobility plan, the City will be able to effectively blueprint the infrastructure, resources, and funding needed to promote and accommodate growth in electric transportation.

The most recent electric vehicle outlook published by Bloomberg NEF notes, “By 2040 we expect 57 percent of all passenger vehicle sales, and over 30 percent of the global passenger vehicle fleet, will be electric.” In 2019, there were approximately 200,000 registered light duty vehicles and 67,000 trucks registered in San Luis Obispo County.

The success of this plan requires expansion of necessary infrastructure to support growth in local electric vehicles (EVs) and electric VMT. Recently, the City has taken significant regulatory steps to increase the community’s capacity for EVs. Section 17.72.040 of The City of San Luis Obispo’s Zoning Regulations details the minimum required number of EV ready and EV capable spots for new buildings. These new standards require substantially more publicly accessible chargers than the state building codes and will result in additional public investment in chargers throughout the community. Additionally, the City will continue to invest in public charging infrastructure. Implementation of this action will ensure that the infrastructure is focused in a strategic way to ensure maximum and equitable adoption of electric vehicles.

**Responsible Department** – Administration, Public Works, and Community Development

**Timeline**

This action will be initiated in 2020 and implemented beginning in 2021.
GHG Reduction Estimates

This action is supportive of increased electric vehicle usage and ownership by residents, commercial fleets, and by regional residents and business that travel to the city. Electric vehicle ownership is expected to reduce annual emissions by 22,180 MTCO2e in 2030 and 34,920 in 2035.

Funding and Financing Options

Funding opportunities for the implementation of the electric mobility plan and installation of electric vehicle chargers around the City include California State Grants (Clean Transportation Fund, ARFVTP, and APCD), partnerships with major employers/institutions (MindBody, Cal Poly, and Charge Point), Green/Conduit Bonds (California iBank), Group Asset Purchasing Marketplaces (Sourcewell and Climate Mayors), and New Transport User Fees (SLO Public Works).

Equity Considerations

In their current state, most electric mobility options—especially electric vehicles—are not economically accessible. Costs associated with the purchase of an electric vehicle in addition to the time and financial resources needed for charging makes ownership infeasible for many low-income community members. The electric mobility plan will include a suite of policies and incentives that will allow for easier, more affordable access to different types of electric mobility and ensure that a robust network of electric vehicle infrastructure—including public charging stations—will be deployed so that lower-income community members have the tools they need as the market for electric vehicles expands and prices lower.

Economic Development Considerations

Expanding and promoting electric mobility within the City of San Luis Obispo will create many opportunities for external partnerships. By seeking out regional contracts and utilizing local labor, the City can bolster the development of this aspect of the green economy while ensuring maximized local benefit.

Case Studies

- Fort Collins EV Readiness Roadmap

Tracking Progress

The City will track and report total electric vehicles registered in the county, number of publicly available chargers in the city, and progress toward adoption of electrification strategic plan.
PILLAR 5: CIRCULAR ECONOMY

A “Circular Economy” is an economic system aimed at eliminating waste and the continual use of resources. Circular systems practice reuse, sharing, repair, refurbishment, remanufacturing and recycling to create a closed-loop system, minimizing the use of resource inputs and the creation of waste, pollution and carbon emissions. Whereas, a traditional extractive economy can be thought of as a straight line from extraction to consumption to disposal, a circular economy looks to use ‘waste’ as ‘food’ for other processes.

One example of this is organic waste that had traditionally been sent to a landfill. In 2016, Greenhouse gas emissions from organic material decomposing in Cold Canyon Landfill account for over ten percent of the community’s greenhouse gas emissions. As organic materials decompose in a landfill, they release methane, a powerful greenhouse gas. Although Cold Canyon Landfill includes methane capture provisions, methane capture is a challenge at landfills because of the natural movement of the Earth’s surface beneath the tarped waste. As a result, methane can escape into the atmosphere over time. By first reducing the amount of organics being disposed of through edible food rescue, and then focusing efforts on diversion of landfilled organics to the regional anaerobic digester, the City will be providing access to food for those in need and will also be fully capturing methane and converting it to biogas via the regional anaerobic digester. The outputs of the anaerobic digester are clean electricity and high-quality compost, both of which can be delivered back to the community.

The foundational actions in this pillar focus on the area the City has direct responsibility for: diversion of organic waste from the landfill and achieving the methane reductions required by California’s recently adopted Short-lived Climate Pollutants law (SB 1383).

Emissions from organic waste are only a portion of the overall greenhouse gas emissions that occur as the result of consumption: single use plastics, product shipping, and emissions intensive diets all create greenhouse gas emissions and are emerging topics in the field of climate action planning. A move to a more circular economy, where goods and materials are created in the region, consumed in the region, and reused in the region would grow local and regional wealth, reduce emissions and would also indirectly resolve lifecycle emissions issues. However, these topics sit outside the traditional fields the City engages in and will require substantial time and resource investments from community groups, businesses, and partners to achieve. The City will

Circular Economy Goals:
75 percent diversion of landfilled organic waste by 2025; 90 percent diversion by 2035

Total Emissions Reductions in 2030:
37,410 MTCO$_2$e

Total Emissions Reductions in 2035:
47,300 MTCO$_2$e
monitor regional activities in this space and will consider including more detailed information on these additional topics in the 2022 Climate Action Plan.

City Leadership

The City has exhibited leadership by working with IWMA to implement, publicize and support the development of one of the only anaerobic digesters in the nation. This already achieved foundational action allows the community’s green waste to create clean electricity and high-quality compost which is returned to the community.

Foundational Actions

The foundational actions for this pillar are:

- Circular Economy 1.1 – Adopt an ordinance requiring organic waste subscription for all residential and commercial customers by 2022.
- Circular Economy 1.2 – Develop and implement programs to increase edible food rescue by 20 percent.
- Circular Economy 1.3 – Develop and implement a waste stream education program for HOA/Property Managers and the commercial sector.
- Circular Economy 2.1 – Update the Municipal Code solid waste section and bin enclosure standards.
- Circular Economy 2.2 – Develop and expand funding for a Solid Waste section in the Utilities Department.
Circular Economy 1.1 Adopt an ordinance requiring organic waste subscription for all residential and commercial customers by 2022.

The City will require all residential and commercial customers to subscribe to organic waste service by 2022. In San Luis Obispo, solid waste processing and disposal generates more greenhouse gas emissions than residential energy use. When organic waste decomposes in a landfill, it emits methane (CH$_4$), a powerful greenhouse gas more than 30 times as potent as carbon dioxide (CO$_2$). By diverting these materials to the local anaerobic digester, these organic materials are recycled into valuable soil amendments or safely burned to create energy (biofuel). The City currently offers businesses and residents optional weekly organic waste collection for disposal at the large anaerobic digester near the San Luis Obispo Airport. The ordinance would require that all businesses and residents opt-in to the service by 2022.

**Responsible Department** Utilities

**Timeline**

The City will adopt an ordinance requiring organic waste subscription for all residents and businesses by 2022.

**GHG Reduction Estimates**

This action is supportive of large-scale diversion of organic waste that could repurposed into high-quality compost through the City’s anaerobic digester in place of contributing to landfilled greenhouse gas emissions. An ordinance requiring organic waste subscription is expected to reduce annual emissions by 37,410 MTCO$_2$e in 2030 and 47,300 MTCO$_2$e in 2035.

**Funding and Financing Options**

There will be no additional funding or financing required for ordinance adoption, however, for the franchised hauler to accommodate a major increase in the organic customer base, solid waste service rates are likely to increase.

**Equity Considerations**

City-wide mandatory organic waste pickup will ensure that residential and commercial customers alike will have equal opportunity to reduce their GHG emissions through diversion of methane-producing organics from the landfill. Additionally, the City plans to work with IWMA to identify, consider, and mitigate as feasible the financial impacts of potential rate increases on low-income customers.

**Case Studies**

- [Seattle Public Utilities](#)
- [San Francisco Zero Waste](#)
- [Portland Garbage, Recycling and Composting](#)

**Tracking Progress**

The City will present a draft ordinance before the City Council and will report on subscription numbers and success of the program via the standard Major City Goal progress report.
Circular Economy 1.2 Develop and implement program to increase edible food rescue by 20%.

In compliance with California SB 1383 as codified in California Government Code 42652.5.(a).2, the City will support programs to ensure that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025. Most grocery stores, farms, restaurants and other dining facilities are unable to sell food past its “sell-by” date, even if the food is edible and in good condition. Food recovery diverts this otherwise wasted food to local emergency food programs. The City will partner with the Integrated Waste Management Authority, local food banks, and the SLO County Food System Coalition to achieve program expansion.

**Responsible Department** – Utilities

**Timeline**

The development and implementation of the edible food rescue programs will be performed in collaboration with existing efforts by the IWMA. In 2020, the focus will be on establishing data with focus on an overall 20% increase in food rescue by 2025.

**GHG Reduction Estimates**

This action is supportive of large-scale diversion of organic waste through intercepting and redistributing edible food before it becomes otherwise landfilled waste. Developing and implementing an edible food rescue program is expected to reduce annual emissions by 37,410 MTCO₂e in 2030 and 47,300 MTCO₂e in 2035.

**Funding and Financing Options**

Funding needs will be assessed in year 2020 when establishing baseline data and potential costs. The food banks will be a primary resource for distributing rescued edible foods, and a potential increase in services may require additional funding.

**Equity Considerations**

Food rescue programs provide food at low- or no-cost to food insecure families and individuals.

**Economic Development Considerations**

Increased food rescue could help to reduce the number of food insecure households in San Luis Obispo. When adults have consistent access to healthy food, their work ability and productivity can increase, and healthcare bills can decrease. Additionally, food insecurity in children can hinder physical development and the ability to learn – impacts that can last into adulthood and potentially affect future participation in the workforce.

**Tracking Progress**

The City will report on action development and implementation progress via the standard Major City Goal progress report.
Circular Economy 1.3 Develop and implement a waste stream education program for HOA/Property Managers and the commercial sector.

The City will develop and implement a program to inform the public on how to properly dispose of waste locally. Clear and easily accessible public information about the waste stream – what items should go in the trash, recycling and organic waste bins, or other special facilities such as the e-waste facility and construction and demolition recycling facility – can help increase landfill diversion and prevent contamination of each waste stream. The IWMA has an existing outreach program for local businesses, and the City will partner with, and expand on, an education program for the City’s Homeowners Associations, property managers, and commercial businesses. The City will partner with the Integrated Waste Management Authority to ensure successful implementation.

Responsible Department – Utilities

Timeline

The City will work with the IWMA in building an HOA/property manager waste stream education program in January of 2021, a year before requiring all commercial and residential solid waste customers to enlist in organics service. Once established, outreach and educational campaigns will be sent out to the community at least annually to help manage the influx of new tenants.

GHG Reduction Estimates

This measure in itself will not reduce greenhouse gas emissions, but promotion of zero waste practices and education around organic waste diversion have potential to reduce the City’s greenhouse gas emissions by reducing waste sent to the landfill.

Funding and Financing Options

The duties of outreach and education fall under the scope of work of the Solid Waste & Recycling Coordinator in the Utilities Department. There should be no additional costs.

Equity Considerations

It will be critical to ensure that the waste stream education program is digestible and accessible to all residents. The program should have both audio and visual formats and be produced in both English and Spanish.

Economic Development Considerations

Improved waste stream education can increase the amount of waste diverted from the landfill to recycling and composting centers. Finding alternatives to landflling material contributes to added longevity of the landfill, postponed expansion, and ultimately a cost savings, buying time to find permanent alternatives to burying and landfilling waste. Additionally, recycling and composting facilities create jobs and the sale of recycled materials and compost can bring money into the local economy.

Tracking Progress

The City will report on the number and nature of meetings with each utility in the first year of implementation.
Circular Economy 2.1 Update the Municipal Code solid waste section and bin enclosure standards.

The City will update the Municipal Code solid waste section and bin enclosure development standards to support organics composting for all residents and ensure that adequate space is created for organic waste bins at all residential and commercial properties. The solid waste sections of the Municipal Code benefit the San Luis Obispo community by supporting waste reduction and diversion of recyclables from our local landfill, preserving the beauty of our neighborhoods through waste disposal requirements, and making sure residents receive solid waste services in a timely and regular manner. By using the City’s updated waste bin enclosure standards which will reflect capacity design for all three waste streams, developers create opportunity for future tenants to dispose of their waste in accordance with local and state law. Updates to the City Municipal Code and bin enclosure development standards are necessary to best support the newly established goals of the City Council and of the State of California. Once these guiding documents are updated and published, the City will promote and educate community members on best methods of compliance.

**Responsible Department** – Utilities

**Timeline**

Municipal Code and bin enclosure standard updates will be presented by December 2020

**GHG Reduction Estimates**

This measure in itself will not reduce greenhouse gas emissions, but promotion of zero waste practices and education around organic waste diversion have potential to reduce the City’s greenhouse gas emissions by reducing waste sent to the landfill.

**Funding and Financing Options**

Municipal Code and bin enclosure standard updates will fall under the scope of the City’s Solid Waste & Recycling Coordinator, funded by AB939 fees and supplemented with general fund monies.

**Equity Considerations**

Many residential and commercial properties currently cannot accommodate bins, which inhibits users’ ability to practice responsible and informed disposal. All residents and community members will be able to contribute to the diversion of organic waste and recyclable materials without worrying about individual buy-in by property owners and managers.

**Economic Development Considerations**

Updated bin enclosure standards and Municipal Code sections will improve public cleanliness for citizens and visitors of the City of San Luis Obispo. Additionally, preventing contamination (of one waste stream by another waste stream’s materials) through adequate accommodation for all three streams may reduce sorting costs and therefore help manage rates.

**Tracking Progress**

The City will report on action development and implementation progress via the standard Major City Goal progress report.
Circular Economy 2.2 Develop a Solid Waste section in the Utilities Department.

The City’s Utilities Department will develop a section exclusively focused on solid waste. This focused effort will enable the City to better manage and regulate solid waste disposal practices in the City, to ensure rates are equitable and reflect the cost of service community members receive, to manage contracts and compliance with franchised haulers, to promote overall reduction of waste, to provide resources to residents, and as a result, to reduce greenhouse gas emissions. The Solid Waste section will oversee all recycling, landfilled waste, organic waste, and zero waste programs.

Responsible Department – Utilities

Timeline

The Solid Waste program plan will be established by July 2020.

GHG Reduction Estimates

This measure in itself will not reduce greenhouse gas emissions, but promotion of zero waste practices and education around organic waste diversion have potential to reduce the City’s greenhouse gas emissions by reducing waste sent to the landfill.

Funding and Financing Options

The Solid Waste section is currently funded by existing fees collected for the purpose of recycling and diversion related programs. Supplemental funding may be required for expansion of the program.

Equity Considerations

The City will take action to ensure that the creation of this section will not impact residents’ and property owners’ solid waste collection fees.

Economic Development Considerations

The establishment and eventual expansion of the Solid Waste section of the City’s Utilities Department has the potential to create a number of local jobs.

Case Studies

- San Francisco Solid Waste Program
- Curb It – Boise’s trash, recycling, compost and other solid waste program
- County of Marin Waste Management Division

Tracking Progress

The City will report on action development and implementation progress via the standard Major City Goal progress report.
PILLAR 6: NATURAL SOLUTIONS

The City’s Greenbelt and Urban Forest provide valuable benefits to the community, including the conservation of natural resources and maintenance of ecosystem services, nearby access to passive recreation opportunities, compact urban form, climate resilience benefits, and storing carbon in the soil.

Peer-reviewed research indicates substantial carbon sequestration can accrue in grassland systems with compost application\(^\text{14}\) and emerging research suggests even more significant results may be achieved through regenerative farming practices.

Emissions Sector Addressed

A Carbon Farm Plan will be developed for the City’s Johnson Ranch Open Space and Calle Joaquin Agricultural Reserve (“City Farm”) in 2021, with pilot implementation of compost application and monitoring conducted beginning in 2022. Following this initial period, it is anticipated that an additional 100 acres per year could receive compost applications on lands within the San Luis Obispo Greenbelt through partnerships with local farmers and ranchers. The modeled cumulative effect of this action sequesters 33,000 MTCO\(_2\)e by 2035.

A group of local citizens have also approached the City with an ambitious tree planting campaign, preliminarily being called 10 Tall: An Initiative to Plant 10,000 Trees in San Luis Obispo by 2035. While some of these trees can be planted in existing vacant tree wells and City parks, the vast majority would need to be low-cost, one gallon starts of native trees to be planted in City open space properties and other natural or rangeland areas. An ambitious tree planting program of this size would need to rely on substantial partnerships and resources. The modeled cumulative effect of this action sequesters 24,000 MTCO\(_2\)e by 2035. Several key unknowns exist including a

standard protocol for accounting for emissions already sequestered or emitted from the City’s urban forest or open spaces, the effectiveness of sequestration practices in the climatic and soil conditions present in and around the city, and protocol for accounting for emissions savings that occur outside of city limits. In future Climate Action Plan updates, the City could choose to include emissions sectors for natural systems in the greenhouse gas emissions inventory and account for existing carbon stocks through land conservation and negative emissions associated with carbon farming and tree planting.

**Equity, Quality of Life, and Economic Development Opportunities**

The City’s Greenbelt Protection Program is typically identified by residents as a top priority. This system of protected natural resources and conserved landscapes is central to maintaining the City’s identity and unique sense of place. Over 50 miles of trails are available to all and provide access to no-cost passive recreation. Urban forests, green space, and open space have well documented mental health benefits and property value benefits. In addition to carbon sequestration, the City’s Greenbelt and Urban Forest provide tremendous climate resilience benefits including shading and cooling, stormwater management and watershed protection, and buffering from catastrophic flooding and wildfires. The operation and maintenance of these programs supports jobs, enhances property values, and results in economic multiplier effects across numerous sectors. Carbon farming activities also support local farmers and ranchers and the agricultural economy.

**City Leadership**

The City has been participating in national and international carbon sequestration working groups through the Urban Sustainability Directors Network (USDN) and the Carbon Neutral Cities Alliance (CNCA). The City looks to be at the forefront of research to better understand how to manage healthy natural resources in a changing climate while also removing climate pollution from the atmosphere and storing it in the soil. The City’s next leadership steps are to participate in a forthcoming USDN Innovation Fund grant in partnership with numerous other leading cities.

**Foundational Actions**

The foundational actions of this pillar are:

- **Natural Solutions 1.1** – Conduct Carbon Farming Study and Pilot Project in 2021. If feasible, begin implementation by 2023.
- **Natural Solutions 2.1** – Prepare the City’s first Urban Forest Master Plan by 2021 and plant and maintain 10,000 new trees by 2035.
Natural Solutions 1.1 – Conduct Carbon Farming Study and Pilot Project in 2021 and if feasible, begin implementation by 2023.

A Carbon Farm Plan will be developed for the City’s Johnson Ranch Open Space and Calle Joaquin Agricultural Reserve (“City Farm”) in 2021 with pilot implementation of compost application and monitoring conducted beginning in 2022. Following this initial period, it is anticipated that an additional 100 acres per year could receive compost applications on lands within the San Luis Obispo Greenbelt through partnerships with local farmers and ranchers.

Responsible Department – Administration

Timeline

The Carbon Farming Study and Pilot Project will start in 2021 and, if feasible, long-term implementation will begin in 2023.

GHG Sequestration Estimates

Carbon farming activities based on the timeline and objectives outlined, above, have been modeled to reduce annual emissions by 5,560 MTCO$_2$e in 2035.

Funding and Financing Options

Funding for the preliminary Carbon Farming Study and Pilot Project are currently deferred due to the economic impacts resulting from COVID-19. However, the City will also pursue a demonstration project grant through the Healthy Soils Program administered by the California Department of Food and Agriculture (CDFA) to build additional capacity and resources when this program is next available. Other state and federal funding opportunities are also available that the City will pursue [e.g. Natural Resources Conservation Service (NRCS)].

Equity Considerations

Johnson Ranch Open Space and the Calle Joaquin Agricultural Reserve (locally known as “City Farm”) are both a part of City’s Greenbelt Protection Program. This system of protected natural resources and conserved landscapes is central to maintaining the City’s identity and unique sense of place and access is provided at no-cost. The non-profit partner City Farm SLO is providing sustainable agricultural education for all ages, with special focus on continuing education high school students, while also producing healthy and nutrient dense local food. In addition to carbon sequestration, the City’s Greenbelt provides tremendous climate resilience benefits including shading and cooling, stormwater management and watershed protection, as well as buffering from extreme heat events, catastrophic flooding, and wildfires.

Economic Development Considerations

The operation and maintenance of carbon farming and regenerative agriculture supports jobs, enhances property values, and results in economic multiplier effects across numerous sectors. Over the long-term, carbon farming activities will also support local farmers and ranchers and the agricultural economy through with public-private partnerships and increased agricultural productivity.
Case Studies

- Marin Carbon Project
- Urban Drawdown Initiative
- Coastal San Luis and Cachuma Resource Conservation Districts

Tracking Progress

The Carbon Farm Plan will include and identify monitoring and tracking methods. The monitoring plan will be based on established state adopted protocols for monitoring soil health indicators and may be adapted to meet requirements identified by additional funding sources (i.e. CDFA Healthy Soils Demonstration funds). Over the long-term, it is anticipated that the resource conditions that will be evaluated are as follows:

<table>
<thead>
<tr>
<th>Johnson Ranch Open Space</th>
<th>City Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rangeland Management</td>
<td>Crop Management</td>
</tr>
<tr>
<td>Carbon Sink + Sequestration</td>
<td>Carbon Sink + Sequestration</td>
</tr>
<tr>
<td>Soil Health</td>
<td>Soil Health</td>
</tr>
<tr>
<td>Vegetation Communities &amp; Rare Plants</td>
<td>Food Nutrient Density</td>
</tr>
<tr>
<td>Wildlife Habitat</td>
<td>Wildlife Habitat</td>
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<tr>
<td>Riparian Function</td>
<td>Riparian Function</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Water Quality</td>
</tr>
<tr>
<td>Public Access - Trails</td>
<td>Public Access – Educational Programming</td>
</tr>
</tbody>
</table>
**Natural Solutions 2.1 – Prepare the City’s first Urban Forest Master Plan by 2021 and plant and maintain 10,000 new trees by 2035.**

The City will prepare its first Urban Forest Master Plan that updates the existing tree inventory and identifies future tree planting opportunities with climate-ready tree species, as well as strategies for ongoing operations and maintenance. The Urban Forest Master Plan will also include a feasibility study to propose and assess an ambitious tree planting campaign called *10 Tall: An Initiative to Plant 10,000 Trees in San Luis Obispo by 2035*. While some of these new trees can be planted in existing vacant tree wells and City parks, the vast majority would need to be low-cost, one-gallon container stock of native trees to be planted in City open space properties as well as creeks and riparian areas. Trees that are planted in creeks and riparian areas grow rapidly and sequester carbon at higher rates, while also providing valued habitat, water quality protection, and erosion control. An ambitious tree planting program of this size will need to rely on substantial community partnerships and external resources.

**Responsible Department** – Administration and Public Works

**Timeline**

The Urban Forest Master Plan will be completed by the end of 2021. Tree planting and maintenance are ongoing on an annual basis.

**GHG Reduction Estimates**

Tree planting activities based on the timeline and objectives outlined, above, have been modeled to reduce annual emissions by 1,490 MTCO₂e in 2035.

**Funding and Financing Options**

Funding for the Urban Forest Master Plan effort is currently deferred due to the economic impacts resulting from COVID-19. However, the City’s long-standing community partner, ECOSLO, is currently implementing a California ReLeaf grant for tree planting in the City in the amount of $24,000 and is also a partner in a $1,000,000 grant that includes a significant tree planting component. Additional grant funding opportunities are anticipated through Cal Fire and the Urban Greening Grant Program administered through the California Natural Resources Agency. Numerous grants also exist that can support creek restoration and riparian habitat enhancement. It is anticipated that working with community partners to activate volunteer networks for tree planting implementation could result in local business sponsorships and participation, as well as revenue through “gift tree” donations.

**Equity Considerations**

As the climate continues to change, the state, region, and City of San Luis Obispo face increased risks, including extreme heat days and floods. Those most vulnerable to such changes notably include low-income and transient community members. The City’s Urban Forest provide tremendous climate resilience benefits including shading and cooling, stormwater management and watershed protection, and documented mental health benefits.
Economic Development Considerations

The City's Urban Forest provides overall beautification of the city and documented property value enhancement benefits. Urban Forestry provides local jobs and business opportunities such as tree nurseries and reclaimed lumber for furniture and landscaping. As street trees grow larger, their shading and cooling effects have a measurable effect of reducing costs associated with air conditioning use in buildings.

Case Studies

- City of Davis – Community Forest Management Plan
- City of Santa Monica – Urban Forest Master Plan
- Portland Friends of Trees

Tracking Progress

The City will track street trees planted in the urban environment using its tree inventory database software (ArborPro™ or similar) and ensure that these trees receive periodic care and maintenance on a rotating basis and as emergency needs arise. Native trees planted in City open space or within creek and riparian environments can also be tracked using a tree inventory database based on tree planting events and occurrences and the total number of trees planted on those occasions. Grant funding opportunities that support tree planting typically carry monitoring and tracking requirements, as well as specific success criteria for tree survival and other benefits accrued.
4. ACHIEVING OUR GOALS

Administrative Actions

In addition to the foundational actions listed in Chapter 5, this Chapter includes a number of actions required by City staff to ensure the Climate Action Plan is being implemented, that implementation of the Climate Action Plan is effective, and that lessons learned along the way are being recorded in support of regular Climate Action Plan updates.

Administrative Action 1 – Implement Climate Action Plan with an Equity Lens

The City commits to implementing the Climate Action Plan with an equity lens. Staff will continue to learn best practices and evolve and grow over time. As an initial commitment, every action implemented in the CAP that requires an internal project plan will also include an assessment of equity that includes a detailed description of how the project will incorporate:

- Representational equity – a focus on having diverse voices guide the project’s definition and implementation.
- Distributional equity – a focus on the costs and benefits of a project and how they are distributed to different demographics in the community.
- Generational equity - a focus on the costs and benefits of a project and how they are distributed to different demographics over time.
- Structural equity – a focus on how the project creates systems that reinforce representational, distributional, and generational equity after the project has been implemented.

Administrative Action 2 – Monitor and Report Plan Implementation

Using the “Tracking Progress” metrics provided in Chapter 3 and the work program provided in this Chapter, the City will develop a greenhouse gas emissions inventory update in every odd year and will develop a monitoring and reporting protocol and provide an update to City Council on progress every other year starting in the Summer of 2022. Consistent with Administrative Action 1, the City will also identify an approach to evaluate and report equity metrics related to Climate Action Plan implementation.
Administrative Action 3 – Regularly Update the Climate Action Plan

The City will update the Climate Action Plan for adoption in the Fall prior to every other Financial Plan. This allows for certainty in the update schedule, ensures that carbon neutrality work is directly tied to the City’s financial decision making and prioritization process, and allows for constant integration of learning and best practices into the City’s climate action program. The proposed update schedule is provided as Figure 4.1.

![Figure 4.1. Climate Action Plan Update Schedule](image)

Administrative Action 4 – Ensure Transparency by Reporting Greenhouse Gas and Climate Action Information to Public Disclosure Programs

Several state, national, and international disclosure platforms exist with the purpose of providing transparency and access to sustainability related information. The City will review available programs, such as the Carbon Disclosure Program and SEEC Clear Path, and report on the platforms that have no or minimal costs to participate in.

Administrative Action 5 – Develop Mitigation Program for New Development to Illustrate Consistency with the Climate Action Plan

The City will coordinate with the San Luis Obispo Air Pollution Control District, 3C-REN, and regional resource conservation districts to identify and evaluate possible local and regional offset mitigation projects for new development to use to illustrate consistency with this Climate Action Plan.

Staff Work Program

Table 4.1, referred to as the “Staff Work Program” summarizes the foundational actions and administrative actions provided in Chapter 2 and 3. The Staff Work Program is intended to be used for assigning tasks to City staff, as well as for monitoring implementation progress. The table also exists as part of a Microsoft Excel based monitoring tool that will be used to provide updates to City Council on a biennial basis.
<table>
<thead>
<tr>
<th>Foundational Action</th>
<th>Action Description</th>
<th>Responsible Department</th>
<th>Budgeted?</th>
<th>Action Start Date</th>
<th>Action Progress Tracker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead by Example 1.1</strong></td>
<td>Adopt a municipal carbon neutrality plan in 2021</td>
<td>Administration</td>
<td>Yes, On Hold</td>
<td>2020, Q4</td>
<td>Plan development and implementation progress</td>
</tr>
<tr>
<td><strong>Lead by Example 2.1</strong></td>
<td>Include carbon neutrality, social equity, and a focus on developing a green local economy in the updated Economic Development Strategic Plan</td>
<td>Administration</td>
<td>No</td>
<td>2021, Q1</td>
<td>Plan development and implementation progress</td>
</tr>
<tr>
<td><strong>Lead by Example 3.1</strong></td>
<td>Research methods to support local contractors and labor</td>
<td>Administration</td>
<td>No</td>
<td>2021, Q3</td>
<td>Completed research progress; inclusion in 2023 Climate Action Plan</td>
</tr>
<tr>
<td><strong>Lead by Example 4.1</strong></td>
<td>Create a formal approach to support and empower community collaboration for climate action</td>
<td>Administration</td>
<td>No</td>
<td>2021, Q3</td>
<td>Number of organizations formally acknowledged</td>
</tr>
<tr>
<td><strong>Energy 1.1</strong></td>
<td>Launch Monterey Bay Community Power and achieve a 98% participation rate while advocating for programs that support equity and achieve maximum local benefit</td>
<td>Community Development</td>
<td>Yes</td>
<td>2020, Q1</td>
<td>MBCP electricity emissions coefficient; MBCP opt-out rate</td>
</tr>
<tr>
<td><strong>Energy 2.1</strong></td>
<td>Work with MBCP and PG&amp;E to develop a regional grid reliability strategy</td>
<td>Administration</td>
<td>Yes</td>
<td>2020, Q1</td>
<td>Number of meetings with each utility</td>
</tr>
<tr>
<td><strong>Energy 3.1</strong></td>
<td>Partner with SoCal Gas to research options for reducing greenhouse gas emissions associated with the existing natural gas grid</td>
<td>Administration</td>
<td>Yes</td>
<td>2021, Q1</td>
<td>Number of meetings with each utility</td>
</tr>
<tr>
<td><strong>Buildings 1.1</strong></td>
<td>Adopt and implement the Clean Energy Choice Program for New Buildings and review opportunities for improvement in the 2022 code cycle</td>
<td>Administration, Community Development</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Number and type of permits for all-electric and mixed-fuel buildings</td>
</tr>
<tr>
<td><strong>Buildings 2.1</strong></td>
<td>Conduct comprehensive retrofit program study and develop and implement a strategic and equity focused building retrofit program by 2021</td>
<td>Administration, Community Development</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Plan development; permits</td>
</tr>
<tr>
<td><strong>Connected 1.1</strong></td>
<td>Establish a consistent method for tracking and reporting mode split metrics</td>
<td>Public Works</td>
<td>No</td>
<td>2021, Q1</td>
<td>Plan development and implementation progress; inclusion in the 2021-23 Financial Plan</td>
</tr>
<tr>
<td><strong>Connected 1.2</strong></td>
<td>Research and develop an approach to a “Mobility as a Service” platform for people to easily use all modes of low carbon mobility in the City</td>
<td>Administration, Public Works</td>
<td>No</td>
<td>2021, Q1</td>
<td>Plan development and implementation progress; inclusion in the 2021-23 Financial Plan</td>
</tr>
<tr>
<td><strong>Connected 2.1</strong></td>
<td>Complete Active Transportation plan and begin implementation immediately</td>
<td>Public Works</td>
<td>Yes</td>
<td>2020, Q1</td>
<td>Plan development and implementation progress</td>
</tr>
<tr>
<td><strong>Connected 2.2</strong></td>
<td>Launch micro mobility program by 2021</td>
<td>Public Works</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Program launch; ridership and utilization metrics</td>
</tr>
<tr>
<td>Foundational Action</td>
<td>Action Description</td>
<td>Responsible Department</td>
<td>Budgeted?</td>
<td>Action Start Date</td>
<td>Action Progress Tracker</td>
</tr>
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</tr>
<tr>
<td>Connected 3.1</td>
<td>Establish a policy and strategic approach to leveraging existing and new parking garages for downtown residential and visitor serving uses and to allow for further implementation of the Downtown Concept Plan</td>
<td>Administration, Public Works</td>
<td>No</td>
<td>2020, Q3</td>
<td>Number of internal meetings</td>
</tr>
<tr>
<td>Connected 4.1</td>
<td>Develop transit electrification strategic plan and begin implementing in 2020</td>
<td>Public Works, Administration</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Implementation of the electrification strategic plan</td>
</tr>
<tr>
<td>Connected 4.2</td>
<td>Shorten transit headways through accelerated implementation of the existing Short-Range Transit Plan</td>
<td>Public Works</td>
<td>Yes</td>
<td>2020, Q1</td>
<td>Annual transit system headways</td>
</tr>
<tr>
<td>Connected 4.3</td>
<td>Explore additional innovative transit options in the 2022 Short-Range Transit Plan (e.g., on-demand deviated routes, electric fleet expansion, micro transit, Bus Rapid Transit, Transit Signal Priority)</td>
<td>Public Works</td>
<td>No</td>
<td>2021, Q1</td>
<td>Plan development and implementation progress; inclusion in the 2021-23 Financial Plan</td>
</tr>
<tr>
<td>Connected 4.4</td>
<td>Assess feasibility of a “free to the user” transit ridership program</td>
<td>Administration, Public Works</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Annual transit rates and related programs</td>
</tr>
<tr>
<td>Connected 5.1</td>
<td>Complete the 2019-21 Housing Element of the General Plan Update and Flexible Zoning Requirements for Downtown</td>
<td>Community Development</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Major City Goal progress report</td>
</tr>
<tr>
<td>Connected 6.1</td>
<td>Develop and begin implementing electric mobility plan to achieve a goal of 40 percent electric vehicle miles traveled (VMT) by 2035</td>
<td>Administration, Public Works</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Total number of electric vehicles registered in the county and publicly available chargers in the city; implementation of the electrification strategic plan</td>
</tr>
<tr>
<td>Circular Economy 1.1</td>
<td>Adopt an ordinance requiring organic waste subscription for all residential and commercial customers by 2022</td>
<td>Utilities</td>
<td>No</td>
<td>2022, Q1</td>
<td>Ordinance; Major City Goal progress report</td>
</tr>
<tr>
<td>Circular Economy 1.2</td>
<td>Develop and implement program to increase edible food rescue by 20 percent</td>
<td>Utilities</td>
<td>No</td>
<td>2020, Q3</td>
<td>Major City Goal progress report</td>
</tr>
<tr>
<td>Circular Economy 1.3</td>
<td>Develop and implement a waste stream education program for HOA/Property Managers and the commercial sector</td>
<td>Utilities</td>
<td>Yes</td>
<td>2021, Q1</td>
<td>Number of meetings with each utility</td>
</tr>
<tr>
<td>Circular Economy 2.1</td>
<td>Update the Municipal Code solid waste section and bin enclosure standards</td>
<td>Utilities</td>
<td>Yes</td>
<td>2021, Q1</td>
<td>Major City Goal progress report</td>
</tr>
<tr>
<td>Circular Economy 2.2</td>
<td>Develop and expand funding for a Solid Waste section in the Utilities Department</td>
<td>Utilities</td>
<td>Yes</td>
<td>2020, Q3</td>
<td>Major City Goal progress report</td>
</tr>
<tr>
<td>Foundational Action</td>
<td>Action Description</td>
<td>Responsible Department</td>
<td>Budgeted?</td>
<td>Action Start Date</td>
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</tr>
<tr>
<td>Natural Solutions 1.1</td>
<td>Conduct Carbon Farming Study and Pilot Project in 2021. If feasible, begin implementation by 2023</td>
<td>Administration</td>
<td>No</td>
<td>2021, Q4</td>
<td>Monitoring and tracking methods will be identified in the Carbon Farm Plan (forthcoming)</td>
</tr>
<tr>
<td>Natural Solutions 2.1</td>
<td>Prepare the City's first Urban Forest Master Plan by 2021 and plant and maintain 10,000 new trees by 2035</td>
<td>Administration, Public Works</td>
<td>No</td>
<td>2021, Q1</td>
<td>Tree inventory database software</td>
</tr>
<tr>
<td>Administrative Action 1</td>
<td>Implement Climate Action Plan with an Equity Lens</td>
<td>All Departments</td>
<td>No</td>
<td>Ongoing</td>
<td>Inclusion of equity lens in implementation project plans.</td>
</tr>
<tr>
<td>Administrative Action 2</td>
<td>Monitor and Report Plan Implementation</td>
<td>Administration, All Departments</td>
<td>No</td>
<td>2021, Q2</td>
<td>GHG emissions inventory update annually; City Council update every other year</td>
</tr>
<tr>
<td>Administrative Action 3</td>
<td>Regularly Update the Climate Action Plan</td>
<td>Administration</td>
<td>No</td>
<td>2022, Q2</td>
<td>Inclusion in the 2021-23 Financial Plan</td>
</tr>
<tr>
<td>Administrative Action 4</td>
<td>Ensure Transparency by Reporting Greenhouse Gas and Climate Action Information to Public Disclosure Programs</td>
<td>Administration</td>
<td>No</td>
<td>2020, Q3</td>
<td>State, national, and international disclosure platforms</td>
</tr>
<tr>
<td>Administrative Action 5</td>
<td>– Develop Mitigation Program for New Development to Illustrate Consistency with the Climate Action Plan</td>
<td>Community Development, Administration</td>
<td>No</td>
<td>2021, Q2</td>
<td>Tracking Progress metrics</td>
</tr>
</tbody>
</table>