



CHICO
CLIMATE ACTION COMMISSION
REGULAR MEETING AGENDA
THURSDAY, JUNE 10TH, 2021 - 6:00 P.M.
MUNICIPAL CENTER – 421 MAIN STREET – COUNCIL CHAMBERS
(VIRTUAL MEETING)

Chico

CLIMATE ACTION COMMISSION

Cheri Chastain, Chair
Mark Stemen, Vice Chair
David Donnan
Kirk Monfort
Michael Nelson
Rebekah Casey
Vacant

**Copies of this agenda
available from:**
Community Development Department
411 Main Street, 2nd Floor
Chico, CA 95928
(530) 879-6800

Or

www.chico.ca.us

Posted: June 3rd, 2021
Prior to: 5:00 p.m.

The Commission appreciates your cooperation in turning off all cell phones during this meeting.

City Staff

Brendan Vieg – Community Development Director
Molly Marcussen – Associate Planner



Please contact the City Clerk at (530) 896-7250 should you require an agenda in an alternative format or if you need to request a disability-related modification or accommodation in order to participate in a meeting. This request should be received at least three working days prior to the meeting in order to accommodate your request.

Information and Procedures Concerning Climate Action Commission Meetings

Public Participation:

All members of the public may address the Climate Action Commission on any item listed on the agenda. Public participation in the hearing process is encouraged.

Please step up to the podium microphone when addressing the Commission.

Each speaker will be asked to voluntarily state his/her name before speaking, and after speaking to voluntarily write his/her name on a record to be maintained by the City Staff.

The Commission and City staff will ensure order and decorum during all Commission meetings. Persons demonstrating rude, boisterous or profane behavior will be called to order by the Chair. If such conduct continues, the Chair may call a recess, requesting the removal of such person(s) from the Council Chamber, adjourn the meeting or take other appropriate action.

Time Limit:

Presentations should be limited to a maximum of three (3) minutes, unless otherwise determined by the Chair.

A speaker may not defer his/her time to other speakers.

Groups or organizations are encouraged to select a spokesperson to speak on their behalf. Each subsequent speaker is encouraged to submit new information, rather than repeating comments made by prior speakers.

Written Material:

The Climate Action Commission may not have sufficient time to fully review written materials presented at the public hearing. Interested parties are encouraged to provide written materials at least eight (8) days prior to the public hearing to allow distribution with the Climate Action Commission's agenda packet to provide adequate time for review by the Climate Action Commission. Written materials submitted in advance of the public hearing must be submitted to the City of Chico, Community Development Department, 411 Main Street, 2nd Floor, or by mail to: P. O. Box 3420, Chico, CA 95927. Materials related to an item on this agenda submitted to the Climate Action Commission after distribution of the agenda packet are available for public inspection in the Community Development Department at 411 Main Street, 2nd Floor, Chico, CA 95928 during normal business hours.

Hearing Impaired:

Anyone who has difficulty hearing the proceedings of a meeting may be provided with a portable listening device by requesting one from the City Staff. The device works directly from the public-address system, and the listener can hear all speakers who are using a microphone.

Special Presentations:

Special presentations which include slides, films, etc. during the course of a meeting will only be allowed with **prior** approval of the Climate Action Commission.

Business from the Floor:

The Chair will invite anyone in the audience wishing to speak to the Climate Action Commission to identify themselves and the matter

they wish to discuss which would involve matters not already on the posted agenda.

The Commission may also be direct that a matter be placed on a future agenda, provide direction to staff, or request that staff research a particular issue. No action may be taken until a subsequent meeting.

Agenda Copies are:

-Available at the meeting.

-May be mailed by subscription, at an annual cost set forth in the City of Chico Fee Schedule.

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-Available on the internet at www.chico.ca.us

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-Copies may be obtained after payment of applicable copy fees.

Agenda Items:

The agenda items will be considered in the order listed unless the Commission requests a change. In order that all items may be considered, any item may be continued to another meeting if it appears there will be insufficient time for full consideration of the item.

Items Not Appearing on Posted Agenda:

This agenda was posted on the Council Chamber bulletin board at least 72 hours in advance of this meeting. For each item not appearing on the posted agenda, upon which the Climate Action Commission wishes to take action, the Commission must make one of the following determinations:

1. Determine by a majority vote that an emergency exists as defined in Government Code Sec. 54956.5.
2. Determine by a two-thirds vote, or by a unanimous vote if less than two-thirds of the Climate Action Commission is present, that need to take immediate action and that the need for action came to the attention of the City subsequent to the agenda being posted.

Use of Cell Phones During Meetings:

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Appeal of Climate Action Commission Decision:

Any aggrieved person or persons dissatisfied with a Climate Action *Commission* decision may appeal that decision to the City Council within 10 calendar days. In accordance with Government Code Section 65009, if any person(s) challenges the action of the Climate Action *Commission*, said person(s) may be limited to raising only those issues that were raised at the public hearing described in this notice, or in written correspondence delivered to the Climate Action *Commission* at, or prior to, the public hearing.

CITY OF CHICO
CLIMATE ACTION COMMISSION
REGULAR MEETING OF THURSDAY, JUNE 10, 2021
Municipal Center - 421 Main Street - Council Chambers - 6:00 pm
(Virtual Meeting)

PUBLIC PARTICIPATION: *This meeting is being conducted in accordance with Executive Order N-29-20. Members of the public may virtually attend the meeting using the City’s Zoom platform.*

Zoom public participants may use the following information to remotely view and participate in the Climate Action Commission meeting online:

Event Name: Climate Action Commission meeting

Date/Time: Thursday, June 10th, 2021, at 6:00 PM

Event URL: <https://zoom.us/j/97032093345?pwd=YUt3YytKYiV4SHpJZHFwU3pBVctHdz09>

Password: Climate21

Meeting ID: 970 3209 3345

Call-in #: 1 408 638 0968 or +1 669 900 6833 **Call-in Password:** 480053145

1. CALL TO ORDER

1.1. Roll Call

2. CONSENT AGENDA

*All matters listed under the Consent Agenda are considered routine and will be enacted by one motion. There will be no separate discussion of these items unless requested by a member of the Climate Action Commission. A member of the public may request that an item be removed, provided the item does not relate to a noticed hearing which has been closed to further public comment. **Items removed from the Consent Agenda will be considered immediately following the approval of the Consent Agenda.***

2.1. Approval of Minutes

May 13, 2021 (**Attachment A**).

3. ITEMS TO BE DISCUSSED

3.1. CAP Section 2.0 and 3.0 Review

The commission will review and provide feedback on the draft Climate Action Plan Sections 2.0 and 3.0 (**Attachment B**).

3.2. CAP Community GHG Reduction Actions and Resources Preliminary Review

The commission will review and provide feedback on the draft Climate Action Plan Community GHG Reduction Actions and Resources section. (**Attachment C**).

4. BUSINESS FROM THE FLOOR/PUBLIC COMMENT

Members of the public may address the Commission at this time on any matter not already listed on the agenda, with comments being limited to three minutes. The Commission cannot take any action at this meeting on requests made under this section of the agenda.

5. REPORTS & COMMUNICATIONS

These items are provided for the Commission 's information. Although the Commission may discuss the items, no action can be taken at this meeting. Should the Commission determine that action is required, the item or items may be included for action on a subsequent posted agenda.

6. ADJOURNMENT

Adjourn to the Adjourned Regular Meeting of Thursday, July 8th, 2021.

CITY OF CHICO
CLIMATE ACTION COMMISSION
REGULAR MEETING OF THURSDAY, MAY 13th, 2021
Municipal Center - 421 Main Street - Council Chambers - 6:00 pm

Commissioners Present: Cheri Chastain, Chair
Mark Stemen, Vice Chair
Dave Donnan
Kirk Monfort

Commissioners Absent: Michael Nelson
Rebekah Casey

Staff Members Present: Molly Marcussen, Associate Planner
Austin Powell, CivicSpark Fellow

1. CALL TO ORDER

1.1. Commissioners and staff were present as noted above.

2. CONSENT AGENDA

2.1. Approval of Minutes

Vice Chair Stemen moved to approve the minutes. Commissioner Donnan seconded. Minutes approved 3-2-0.

3. ITEMS TO BE DISCUSSED

3.1. CAP Introduction Review

The commission provided feedback on the draft Climate Action Plan Introduction as well as the document's design and layout.

3.2. CivicSpark Initiative Update

CivicSpark Fellow Austin Powell provided an update on the effort to develop long-term strategies for mitigating anticipated local impacts of climate change consistent with SB 379.

4. BUSINESS FROM THE FLOOR/PUBLIC COMMENT

None.

5. REPORTS & COMMUNICATIONS

Associate Planner Molly Marcussen informed the commission that City Council was provided an overview of the Climate Action Commission's purpose and efforts over the past year and half at its May 4th meeting. The Clerk was directed by Council to complete the CAC recruitment and bring the candidates back to a future Council meeting. The new CAC candidates are slated to be appointed at the June 15th City Council meeting.

6. ADJOURNMENT

Adjourned at 6:44 to the Adjourned Regular Meeting of Thursday, June 10, 2021.

Greenhouse Gas Emissions in Chico

Conducting a GHG Emissions Inventory

Conducting a GHG emissions inventory for a community consists of identifying the major GHG-generating activities from residents and businesses operating in the community, collecting summary data on those activities for a calendar year, then converting the collected data to GHG emissions using science-based GHG emissions factors. Inventories measure GHG emissions in units of metric tons of CO₂e, or MT CO₂e. One MT is equivalent to 2,205 pounds, roughly the weight of 220 house cats. The average car produces one MT of CO₂e by driving from Chico to Atlanta. Charging 127,000 smartphones also produces roughly one MT of CO₂e. Alternatively, growing 16.5 tree seedlings in Bidwell Park for 10 years removes 1 MT of CO₂e from the atmosphere.¹

Various protocols currently exist to guide the development of GHG emissions inventories. Chico's inventory methods rely on the U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions (Version 1.2) and are consistent with the methodologies employed by the State of California and other cities throughout the State.

The U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions (Version 1.2) separates a city's GHG-generating activities into categories known as emissions sectors. These emissions sectors broadly describe where GHG emissions are coming from within a city and are under some level of the city's jurisdictional control. For example, large emissions sectors for cities include the transportation sector (which captures combustion emissions from cars and other vehicles operating within the city), the building sector (which captures emissions from electricity, natural gas, and other energy source usage within the city), and the waste sector (which captures emissions from sending solid waste to the landfill).

Not all GHG-generating activities within a city are included in a GHG emissions inventory for a CAP. Excluded activities are generally those that cannot be controlled or influenced by city policies, and are therefore of little relevance to a city planning document such as a CAP. For example, the emissions associated with the production and manufacture of goods coming into the community are often excluded from inventories because the choice of which goods to buy is entirely up to the individual consumer, and is typically not influenced by a local government. Combustion emissions from cars travelling through a city, whose origins and destinations are outside of city limits, are also typically excluded because a local government cannot reasonably influence this pass-through travel activity.

Chico's GHG Emissions Inventory

The City of Chico has conducted a GHG emissions inventory of community-wide GHG emissions for each year between 2005 and 2017. The 2017 inventory was used for this CAP as the most up-to-date picture of GHG emissions in Chico.

Chico's annual inventories include emissions from gasoline and diesel sales, electricity and natural gas usage in homes, offices, and other residential and commercial buildings, and waste sent to the landfill from all residential and commercial properties. Typically, water and wastewater are included in community inventories, but these sources of GHG emissions were captured by the electricity sector. See

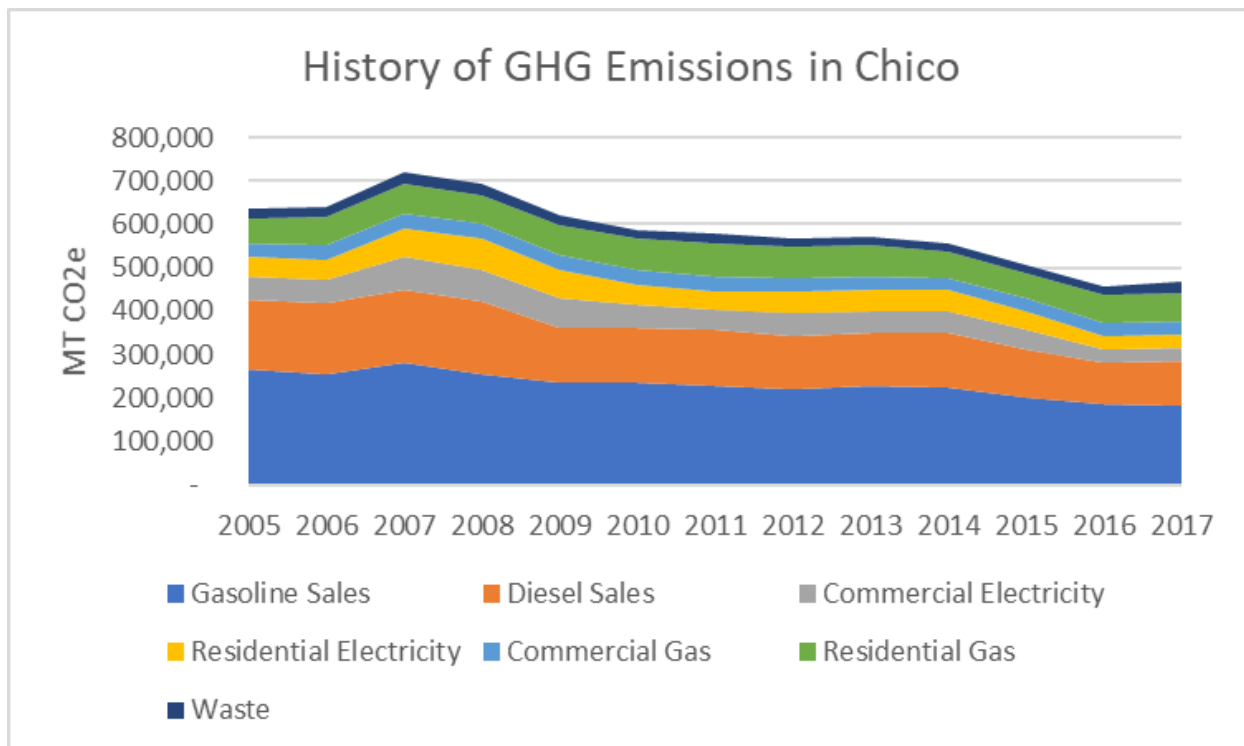
¹ <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Appendix B for more information about the data used and how GHG emissions were calculated for Chico's 2017 inventory.

GHG Emissions Over time

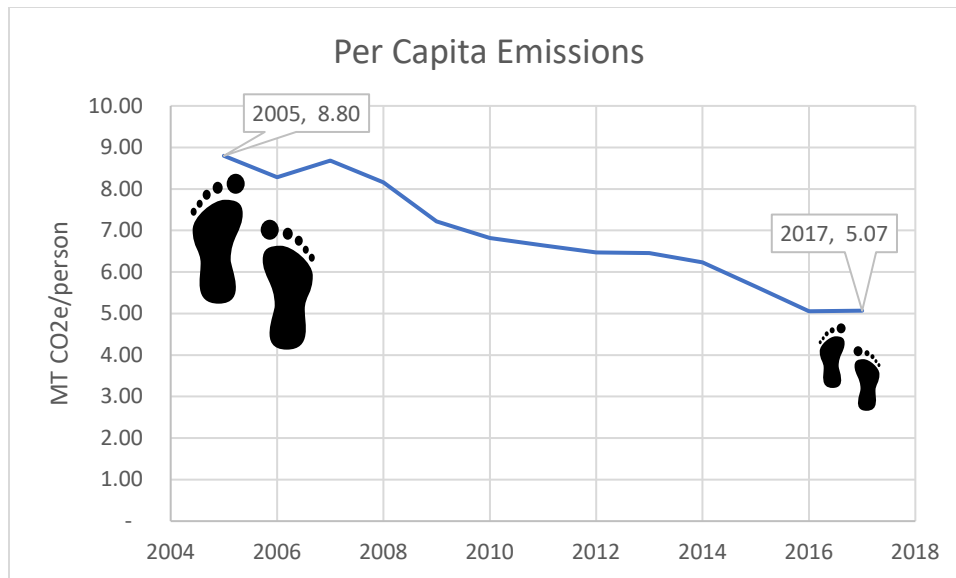
The results of the GHG emissions inventories completed for 2005 through 2017 show a strong decreasing trend in Chico's emissions over time, as shown in Figure 1. In fact, Chico's GHG emissions have decreased 27% overall since 2005, despite a population increase of approximately 27%. With this GHG emissions reduction, Chico has exceeded its goal to reduce its GHG emissions in 2020 by 25%, the equivalent of taking 9,326 passenger vehicles off the road for one year, or preserving 292 acres of U.S. forest from conversion to cropland.

Figure 1



Looking at total, or absolute, emissions shows that Chico's emissions have decreased over time. In some cases, a more telling metric can be emissions per person, or per capita emissions. Per capita emissions divide the City's total annual emissions by the City's population in that year. Over time, as emissions decreased and population increased in Chico, this resulted in an even greater decrease in per capita emissions. In fact, per capita emissions have decreased 42% between 2005 and 2017 – an even larger percent decrease than absolute emissions (Figure 2).

Figure 2

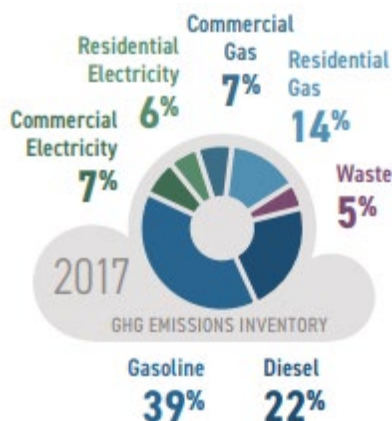


Since 2005, emissions in Chico have decreased 27% overall and 42% per person, despite a large population increase.

Current GHG Emissions in Chico – 2017 Inventory Results

While Chico has done a good job reducing its GHG emissions overall, gasoline and diesel sales for passenger and commercial vehicles were still the largest contributors to Chico's GHG emissions in 2017, followed by natural gas usage by commercial and residential buildings, electricity by commercial and residential buildings, and waste sent to the landfill (Figure 3). Total emissions in Chico in 2017 were **466,366 MT CO₂e**, equivalent to **5.07 MT CO₂e per person**. The 2017 inventory is the most up-to-date reference point for Chico's GHG emissions, and was considered the baseline for the GHG emissions analysis in this CAP. See Appendix B for a full accounting of the data and methods used for Chico's inventory.

Figure 3



2017 GHG Emissions	
Emissions Sector	(MT CO ₂ e)
Residential Electricity	30,757
Commercial Electricity	32,658
Residential Natural Gas	64,769
Commercial Natural Gas	31,926
Gasoline	181,031
Diesel	101,854
Landfilled Waste	23,372
Total Emissions	466,366
Emissions per person	5.07

GHG Emissions Forecast – Future Emissions in Chico

Using the 2017 inventory, the City developed a GHG emissions forecast. The forecast provides an estimate for how Chico’s GHG emissions will look in the future, based primarily on projected population and job growth in the City.² This allows the City to see where it is headed, and how much it will need to reduce emissions in order to meet GHG emissions reduction targets for 2030 and 2045 (Figure 5).

In order to clearly demonstrate how Chico’s emissions will look in the future, two forecasts were developed – a business-as-usual (BAU) and Adjusted forecast. The BAU forecast shows what Chico’s emissions would look like if population and job growth were the only drivers for GHG-generating activities, essentially assuming that per capita emissions will stay the same over time. The Adjusted forecast adjusts the BAU forecast to account for State-level legislation and policies that are expected to reduce emissions for all jurisdictions in California.

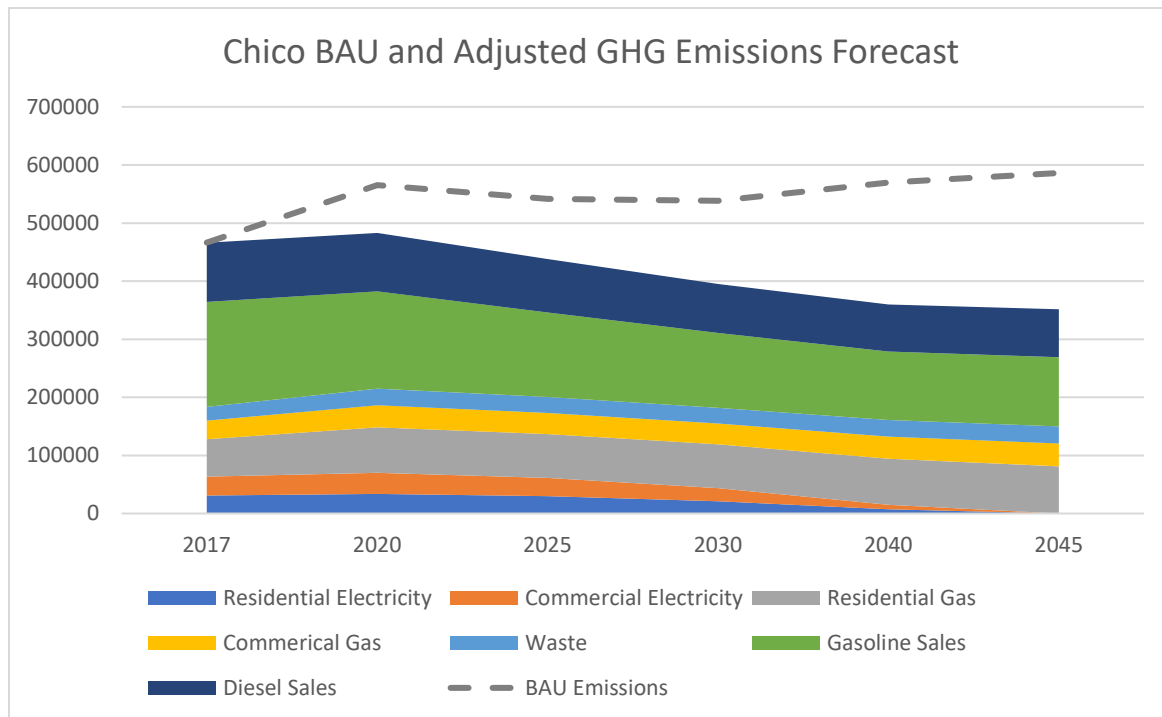
The State legislation and policies included in the Adjusted forecast are the Advanced Clean Cars Program, Title 24 Building Energy Efficiency Standards, and California Renewable Portfolio Standard (RPS). The Advanced Clean Cars Program is a comprehensive car emissions control program which regulates smog, soot causing pollutants, and GHG emissions into a single coordinated package of requirements for passenger cars and light trucks model years 2017 through 2025 to reduce California’s GHG emissions by 34 percent in 2025.³ Title 24 Building Energy Efficiency Standards regulate new residential and commercial development in California by requiring increased efficiency related to space heating and cooling, lighting, and water heating. The California RPS program requires investor-owned utilities, publicly owned utilities, electric service providers, and community choice aggregators to increase procurement from renewable energy resources. For example, electricity service providers must procure electricity from 50% renewable resources by 2026, 60% by 2030, and 100% by 2045, leading to significant statewide decreases in electricity emissions. See Appendix B for more information on these programs and policies.

The Adjusted forecast is considered a more realistic picture of what Chico’s emissions will look like in the future. The BAU and Adjusted forecasts can be compared to show the extent to which State-level policies and programs will help to reduce GHG emissions in Chico (Figure 5).

² Job and population growth were provided by Butte County Association of Governments (BCAG)

³ <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>

Figure 5



	2017	2025	2030	2045
Population	92,022	107,593	107,712	116,420
Jobs	32,429	37,124	36,251	40,162
BAU Emissions (MT CO2e)	466,366	541,754	538,282	586,167
Advanced Clean Cars Program Savings (MT CO2e)	0	-91,496	-113,662	-154,322
Title 24 Savings (MT CO2e)	0	-1,579	-1,282	-4,705
California RPS Savings (MT CO2e)	0	-10,717	-28,021	-75,628
Adjusted Emissions (MT CO2e)	466,366	437,961	395,317	351,512
Adjusted Per Capita Emissions (MT CO2e/person)	5.07	4.07	3.67	3.02

Impacts from the Camp Fire

The 2018 Camp Fire resulted in mass displacement of the residents of the Town of Paradise and unincorporated areas on the Ridge, many of whom moved to Chico after their homes were destroyed. The Butte County Association of Governments (BCAG) estimates that Chico's population grew 20.7% as a result of this climate migration. This is reflected in Chico's GHG emissions forecast, as the large bump from 2017 to 2020. As displaced people gradually move away from Chico, the population is expected to decline through 2030, then grow normally from 2040 through 2045. These trends are also visible in the forecast. **Lessons from the Camp Fire highlight the need for energy and transportation infrastructure, waste services, and development patterns that are resilient to future climate change impacts.**

GHG Emissions Targets

Climate Action at the State Level

California is a global leader in climate change action, having established extensive legislation, policies, and programs to reduce GHG emissions within the State over the last ten years. The primary drivers of climate action at the State level are Assembly Bill (AB) 32, Senate Bill (SB) 32, and Executive Order (EO) B-55-18. These regulations chart a path towards a carbon neutral California by 2045, as explained below.

Assembly Bill (AB) 32 – Codified the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires the California Air Resources Board (CARB) to prepare a Scoping Plan that outlines the main strategies the State will employ to meet the 2020 target. The AB 32 Scoping Plan was adopted in 2014.

Senate Bill (SB) 32 – The successor to AB 32 and requires the State of California to achieve a statewide reduction in GHG emissions of 40% below 1990 levels by 2030. The SB 32 Scoping Plan was adopted in 2017.

Executive Order (EO) B-55-18 – Established a new statewide goal of achieving and maintaining carbon neutrality as soon as possible, and no later than 2045. Executive orders have not been codified by the State but are binding for State agencies and must therefore be addressed by qualified GHG reduction plans.

Programs and policies that support the goals established in the above bills include Title 24 Energy Efficiency Standards, which increase energy efficiency in new development, the Advanced Clean Cars Program, which improves fuel efficiency in new vehicles, and the California Renewable Portfolio Standard (RPS), which, through SB 100, requires electricity providers to procure 100% renewable electricity by 2045. A full list of relevant State-level legislation is included in Appendix C.

Chico's GHG Emissions Targets

This CAP adopts a GHG emissions target for 2030 – a required part of a CEQA “qualified” CAP – and a long-term GHG emissions goal for 2045. Chico's targets are to reduce mass emissions 45% below 1990 levels by 2030 and to achieve carbon neutrality¹ by 2045. The adopted 2030 target therefore exceeds SB 32 (40% reduction in GHG emissions from 1990 levels by 2030) by 5% while the adopted 2045 goal aligns with EO B-55-18, the State's current long-term GHG reduction goal.

Chico has converted these targets into per capita emissions which take into account population growth and help provide flexibility for the City to grow (or shrink) over time without impacting the City's ability to meet its GHG emissions targets. This methodology aligns with the California Air Resources Board's (CARB) recommendations in the 2017 Climate Change Scoping Plan Update² and is especially important for Chico given the recent and potential future population fluxes due to fire and other disasters.

A 2030 GHG reduction target that exceeds SB 32 was chosen to provide additional flexibility to the City and to provide some protection against the uncertainty surrounding GHG reductions. This goal also better aligns Chico to begin the process of achieving carbon neutrality in the long-term by reducing the

¹ Carbon neutrality refers to achieving net-zero CO₂e emissions, such that any GHG emissions created are offset by GHG emissions sequestering activities

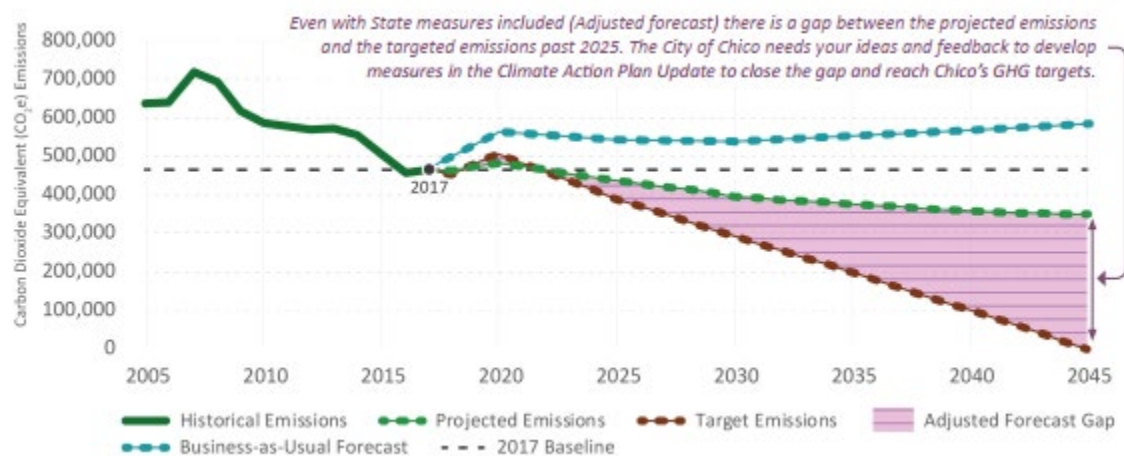
² https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf

work required after 2030 and allowing the City to capitalize on cost-effective opportunities available today. The targets adopted by Chico were developed in order to provide consistency with the State's 2030 targets and to provide the City with substantial progress towards meeting the 2045 goal of carbon neutrality. The target emissions trajectory in absolute emissions is shown in Figure 6, relative to the BAU forecast, adjusted forecast, and 2017 baseline inventory.

Target Description	2030	2045	
Minimum State Targets	% Reduction from 1990	40%	100%
	Per Capita Emissions (MT CO ₂ e/person)	3.00	0.00
	Absolute Emissions (MT CO ₂ e)	325,135	0
Chico Targets	% Reduction from 1990 (absolute emission)	45%	100%
	% Reduction from 1990 (per capita)	80% per person	100% per person
	Per Capita Emissions (MT CO ₂ e/person)	2.76	0.00
	Absolute Emissions (MT CO ₂ e)	297,386	0

Note: Chico has adopted per capita targets. For reference, the per capita targets have been translated to absolute emissions in units of MT CO₂e, but these values do not represent Chico's official targets. The final absolute emission targets for future years will be calculated once the population numbers are known.

Figure 6: Greenhouse Gas Emissions Forecast and Targets



GHG Emissions Gap

As shown in Figure 6, a gap remains between the projected emissions (green line) and the target emissions (red line), even after accounting for reductions that will result from state regulations. **This gap is equal to 0.91 MT CO₂e per person in 2030 and 3.02 MT CO₂e per person in 2045.** In absolute emissions, this is equal to 97,931 MT CO₂e in 2030 and 351,512 MT CO₂e in 2045. This gap is how much

Chico will need to reduce its emissions to meet its targets. These reductions will be achieved through implementation of the GHG reduction strategies contained in this CAP. The strategies consist of local actions the City will undertake to achieve emissions reductions in a **cost-effective, equitable, and transparent** way. The strategies were developed based on planned efforts and best practices of other similar and neighboring jurisdictions, which were then vetted by City staff, community organizations, local businesses, and individual community members. Chico's GHG reduction strategies and the specific measures and actions that will reduce Chico's emissions are detailed in the following sections.

Community GHG Reduction Actions and Resources - Preliminary

The CAP will include a chapter that provides guidance to community members (i.e., residents and developers) on actions they can take to reduce their GHG emissions in alignment with the CAP' targets and measures. Below is a preliminary list of actions that residents and developers can take and locally relevant resources that contain more information.

Residents

- Install solar panels and/or battery storage
 - Resources
 - [PG&E's steps to install and connect renewable energy](#)
 - [Use PG&E's solar calculator tool to estimate your solar savings potential](#)
 - [Apply for a residential solar permit online](#)
 - [Grid Alternatives Energy for All Program provides no-cost solar for families with limited or fixed incomes](#)
- Install an electric water heater, heat pump HVAC, and/or stovetop
 - Resources
 - **Currently investigating; if you know of any services in or near Chico that install this equipment, we would like to include them**
- Bike, walk, take the bus, or carpool when possible
 - Resources
 - [Chico's bike path map \(186 rideable bike paths\)](#)
 - [Chico Velo's guide to bike routes in Chico](#)
 - [Chico's guide to bike safety](#)
 - [B-Line route and schedules](#)
- Work from home when/if you can
 - Resources
 - None
- Buy an electric vehicle when its time for a new car
 - Resources
 - [Evaluate the climate change footprint of different cars](#)
 - [Affordable electric cars on the market](#)
- Compost yard and food waste
 - Resources
 - [Curbside yard waste recycling program](#)
 - [Compost at home](#)
 - [Compost drop off at CSU Chico](#)
 - Use local compost for gardening. Finished compost is available for sale at the City's compost facility @441 Cohasset Rd, Chico

City of xxx
Project Name

- [Recycling resources](#)
- Reduce water usage
 - Resources
 - [Tune up your irrigation system for free](#)
 - [CalWater rebates for water conservation appliances](#)

Developers

- Build all-electric multifamily and single family homes
 - Resources
 - [Building Decarbonization Coalition’s best practices for designing decarbonized buildings](#)
 - [Redwood Energy’s Guide to zero emissions all-electric single family construction](#)
 - [Redwood Energy’s guide to zero emissions all-electric multifamily construction](#)
- Build EV charging infrastructures
 - Resources
 - **Currently investigating**