

City of Chico's

Commitment to Reduce Global Warming



What's Happening in Chico, Progress & Plans

League of Women Voters Fall Speakers Series

November 14, 2019

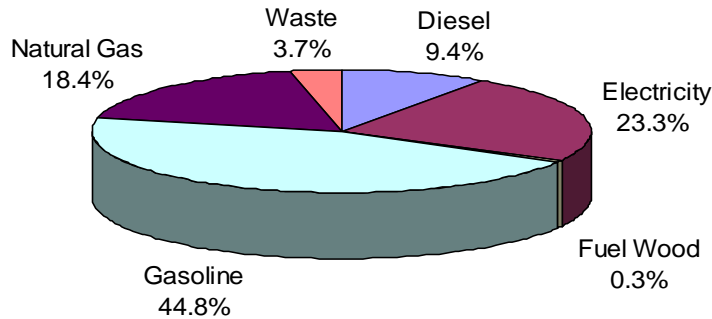
What We've Accomplished

- Mayor Gruendl signed US Mayor's Climate Control Agreement
- Established Sustainability Task Force
- Green House Gas Inventory
- Climate Action Plan
- Measured Progress

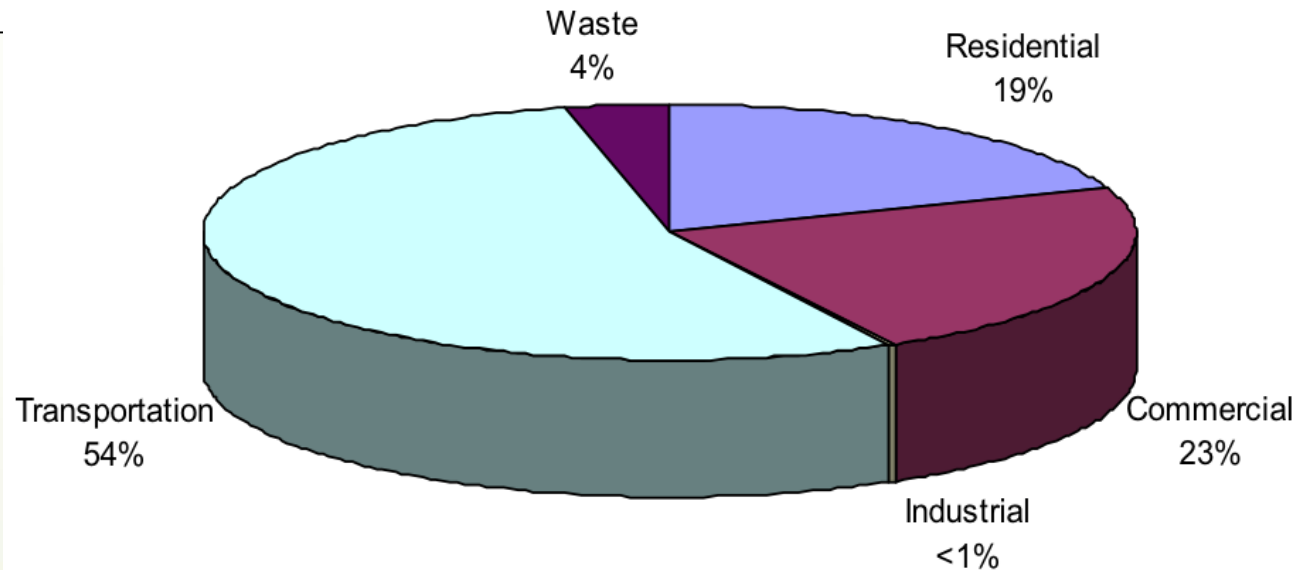


City GHG Emissions Audit

City of Chico Community GHG Emissions by Source (2005)



The transportation sector generates more GHG emissions than all other community sectors combined.





Climate Action Plan

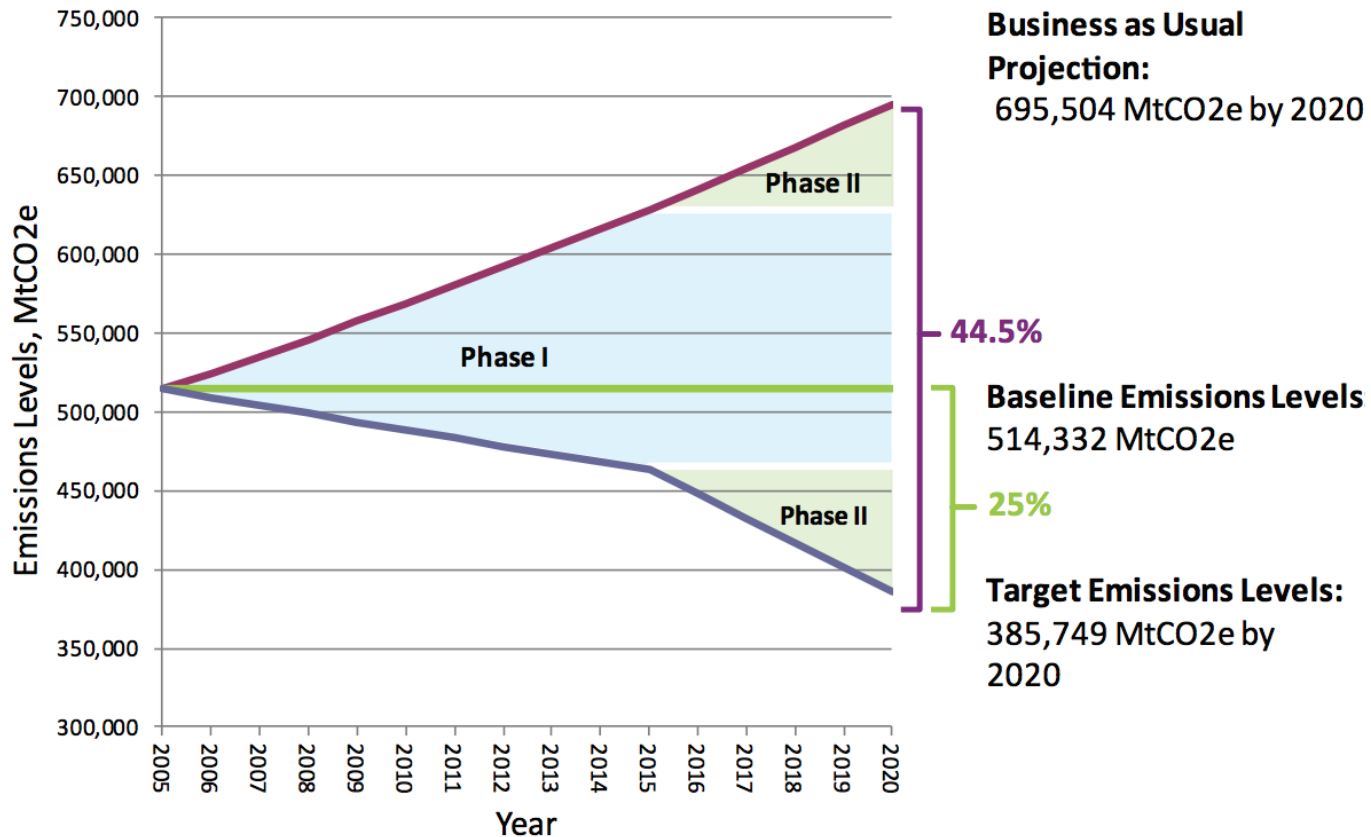
- The CAP was broken into Phase I and Phase 2 actions.
 - Phase I actions were to be implemented prior to 2015 and are projected to reduce GHG emissions to 10% below 2005 levels
 - Phase 2 actions to be implemented between 2016 and 2020 and are projected to reduce GHG emissions the remaining 15% of the 25% goal.

Goal Setting: Forecast/Backcast

GHG Emissions & Targets

Business as Usual Projections

FIGURE 1.5



Cost Benefit Analyst of CAP Actions

	Energy and Water Actions	Up-Front Costs/Unit	Simple Payback (Years)	Net Cost/MteCO2 Mitigated
1	Low Maintenance Landscaping	\$0	0.0	-\$793
2	Central Irrigation Control System	\$1,500	4.4	-\$784
4	Occupancy Sensors	\$0	0.2	-\$354
30	Efficient/Affordable New Housing	\$3,000	6.4	-\$129
38	Solar Hot Water Heaters	\$3,000	15.4	\$67
40	Install Solar PV	\$7,800	29.7	\$207

General Plan 2030

- In 2030, Chico is a sustainable community that maintains a balance between the environment, the economy, and social equity
 - Compact land use pattern
 - Transportation and energy choices
 - Green building practices
 - Technological advancements
 - Ample supply of jobs, including those in green businesses



Use Solar Power Where Feasible

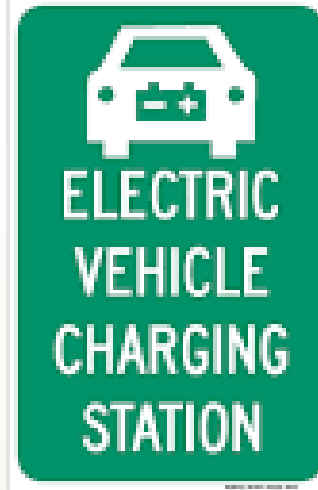


City of Chico solar tracking facility at the Waste Water Treatment Plant was the largest in the country when it was installed in 2005. The facility has reduced energy consumption by approximately 50-55%.



GREEN POWER
Leadership Awards

Fuel Efficiency



Motion sensors at traffic lights reduce idling.



Bicycle Facilities



Water Quality and Conservation



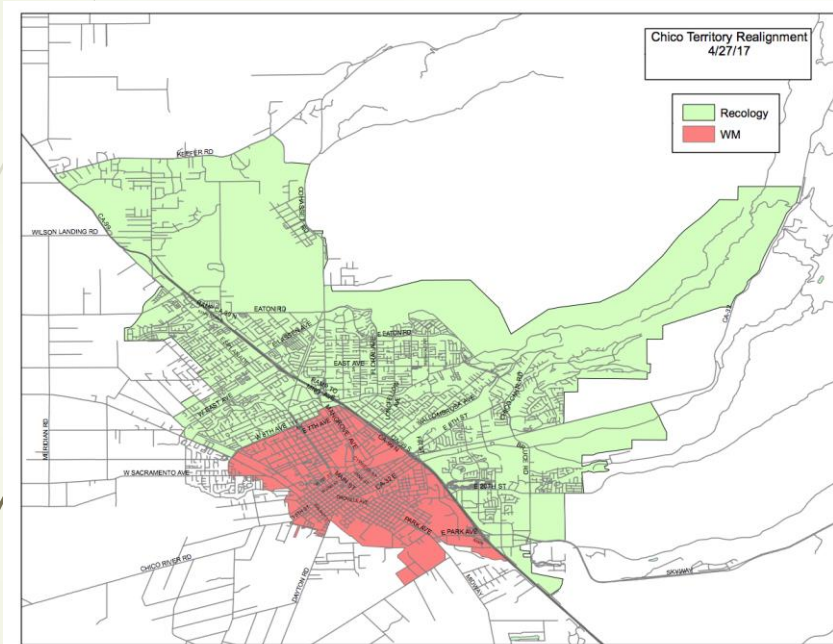
Active storm water protection and education program.



Vina Sub Basin Groundwater Sustainability Agency

Waste Reduction

Waste Hauler Franchise



- Zoned collection reduces wear and tear to roadways
- Required record keeping
- Accountable to meet solid waste diversion goals

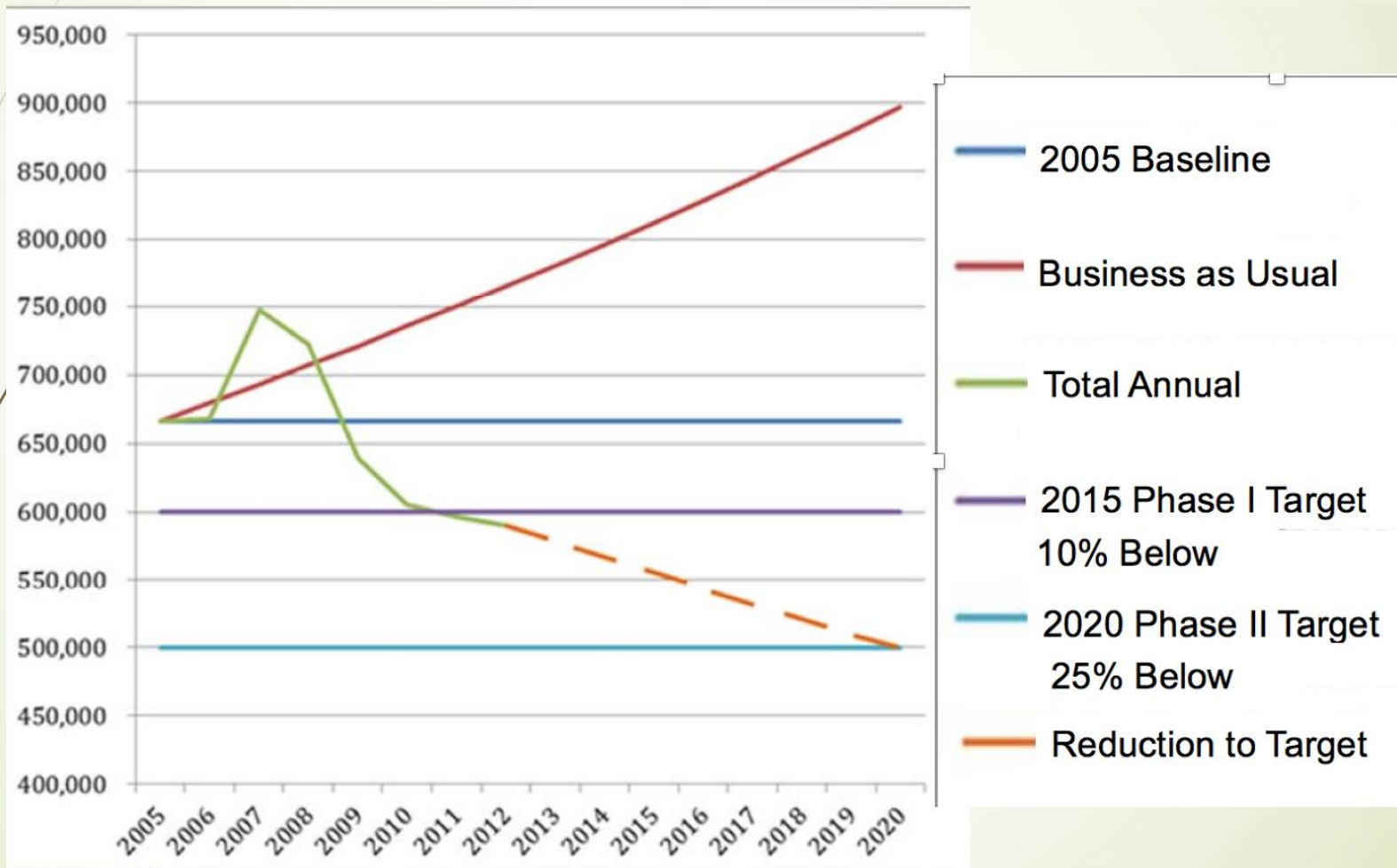
Plastic Bottle and Bag Bans



- City purchase of single use plastic bottles banned in budget policy in 2010
- Plastic bags banned January 2015

Results 2020

Overall GHG emissions of approximately 23% from the baseline year of 2005 to 2017.





Where We Go Now

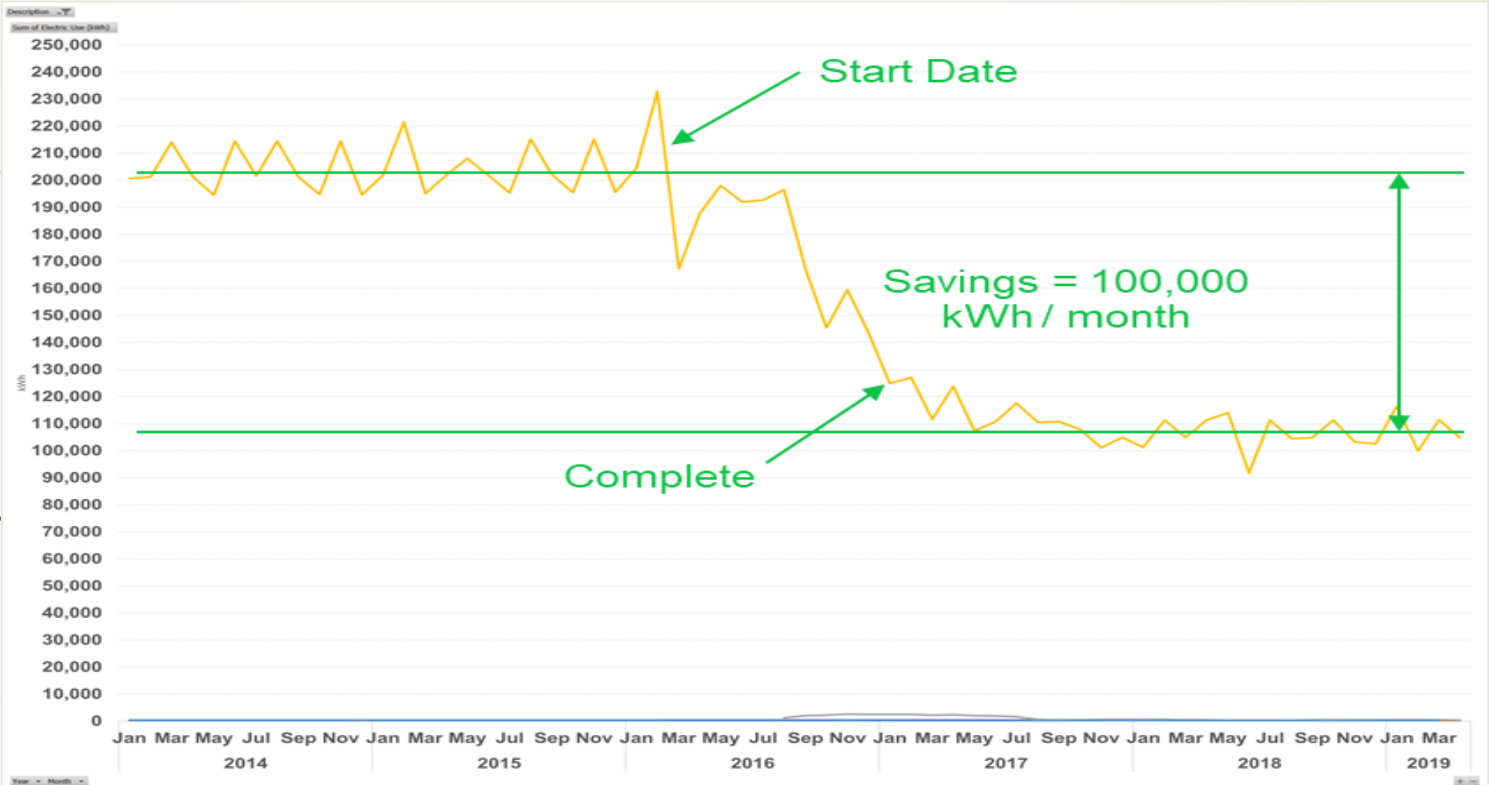
- Climate Emergency Declared
- Adopt the State of California's new GHG emissions reduction targets for 2030 and 2050;
- Direct preparation of a new Climate Action Plan (CAP) to achieve the new GHG emissions reduction goals;
- Transform the ad hoc STF into a “standing” City Commission (the Climate Action Commission) with direction to implement the CAP; and
- Provide staff support for the Commission and towards implementation of the CAP.
 - Hire Long-Range/Sustainability Planner

City Energy Audit

Facility Name	Electric (kWh)	Electric (kW)	Electric (\$)
Wastewater Treatment Plant	2,342,401	826	\$ 529,032
Street Lights	1,591,593	-	\$ 558,059
City Hall	763,367	286	\$ 150,402
Various A6 Accounts (10 Locations)	494,774	250	\$ 119,416
Police Station	368,855	108	\$ 66,592
Traffic Signals	342,232	2	\$ 79,428
Municipal Services Center	270,816	165	\$ 81,980

- Annual utility costs are ~ **\$2,200,000** / yr.
- WWTP and Street Lights are over **60%** of total electric consumption and **65%** of electric cost
- WWTP is **45%** of peak demand
- WWTP consumes over **80%** of the City's annual natural gas usage

Case Study - Street Light Retrofit



- Retrofitted 2,690 fixtures
- Saved > 1,000,000 kWh / yr.
- Reduced energy costs by approximately **\$170,000** / yr.
- Reduced maintenance costs by approximately \$18,000 / yr.
- Procured **\$100,000** of rebates

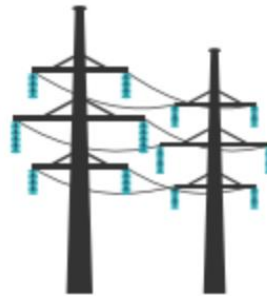
Community Choice Aggregation

POWERBUTTE

A Place for Energy Choice



CCA Purchases/Generates Power



PG&E Delivers Power, Maintains
Lines/Infrastructure & Bills Customers



Residents Receive Power at
Competitive or Lower Rates,
Have More Local Control