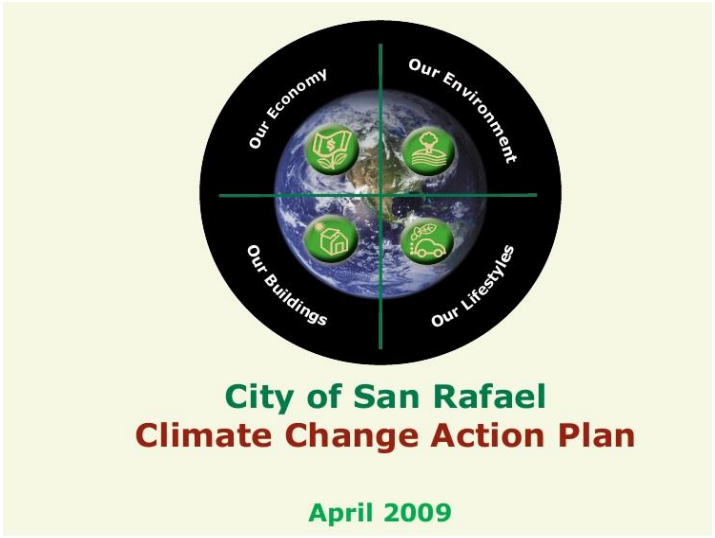
Draft Climate Change Action Plan 2030

General Plan Steering Committee, November 14, 2018

Background



25% x 2020

REDUCTIONS

40/48

MEASURES

2020 SAN RAFAEL GENERAL PLAN

New Interim State Targets

40% x 2030

2009 CCAP Status: 18% Reduction

COMPLETED

AllianceNRG Program

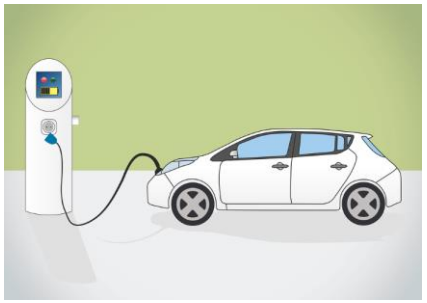
hero
Your energy efficient future, today.

CaliforniaFIRST
by RENEW FINANCIAL

Figtree FINANCING

Igrene ENERGY FUND

IN PROGRESS

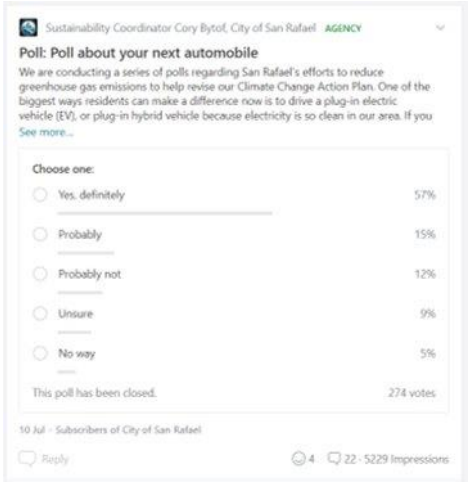


ONGOING

SAFE ROUTES TO SCHOOLS
MARIN COUNTY
www.saferoutestoschools.org

NOT STARTED

CCAP 2030 Process



Plan Structure: Local Actions

Low Carbon Transportation

Energy Efficiency

Renewable Energy

Waste Reduction

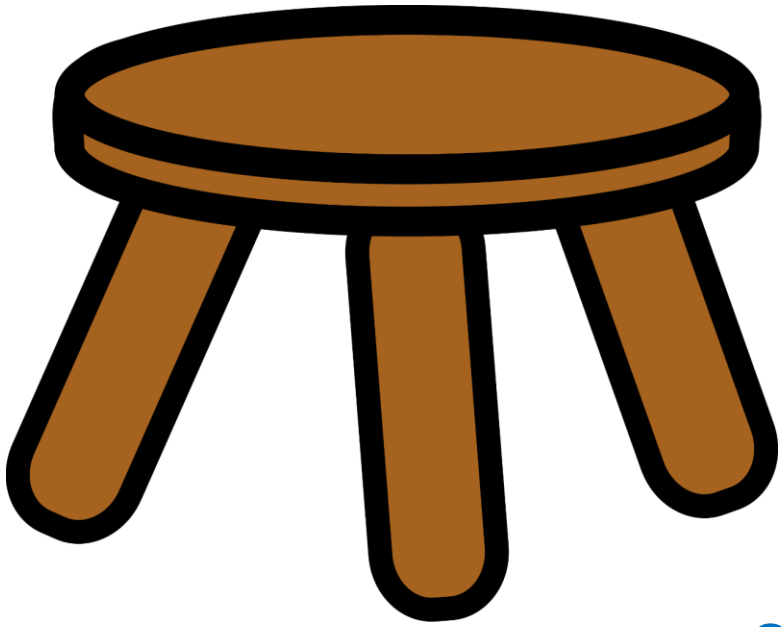
Water Conservation

Sequestration and Adaptation

Community Engagement

Implementation and Monitoring

Economy and Equity

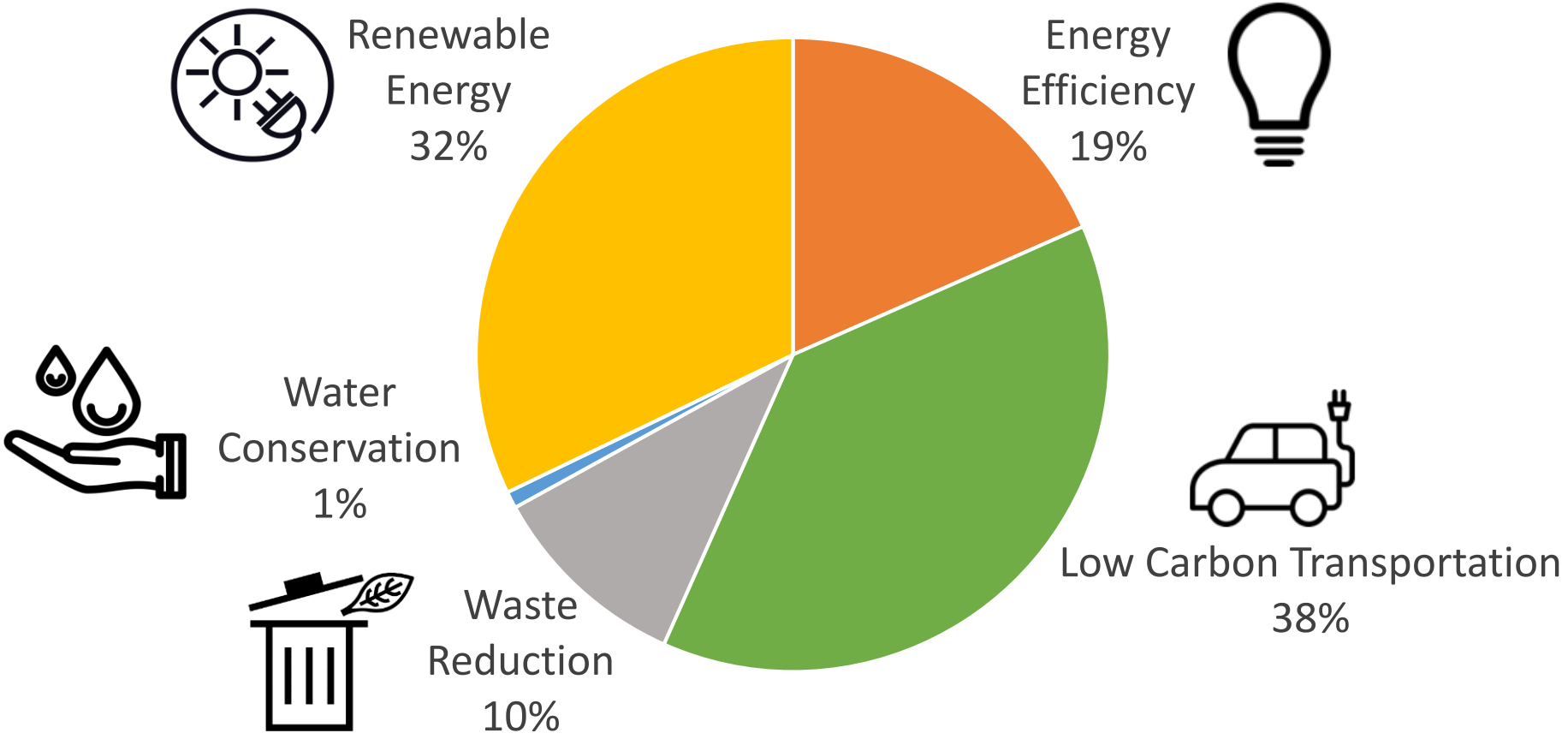


ECONOMY

SOCIAL EQUITY

ENVIRONMENT

Local Actions: 97,100 MTCO2e



Key Actions

Key Actions:

1. Energy Efficiency
2. Benchmarking building energy use
3. Apply EE to smaller projects
4. EE financial benefits & streamlining
5. Solar
6. Green electricity
7. Mandatory recycling/composting
8. Recycling equipment
9. Greywater/recycled water
10. Sequestration (plants, trees, soil)
11. Adaptation (lightly: plan!)

Low Carbon Transportation

Key Actions:

1. Expand the City's EV charging network.
2. Develop policies and programs to encourage ZEV's.
3. Create more bicycle/pedestrian infrastructure.
4. Encourage public transportation and electric buses.
5. Work with rideshare and carshare programs to utilize ZEV's.
6. Transition City fleet to ZEV's.

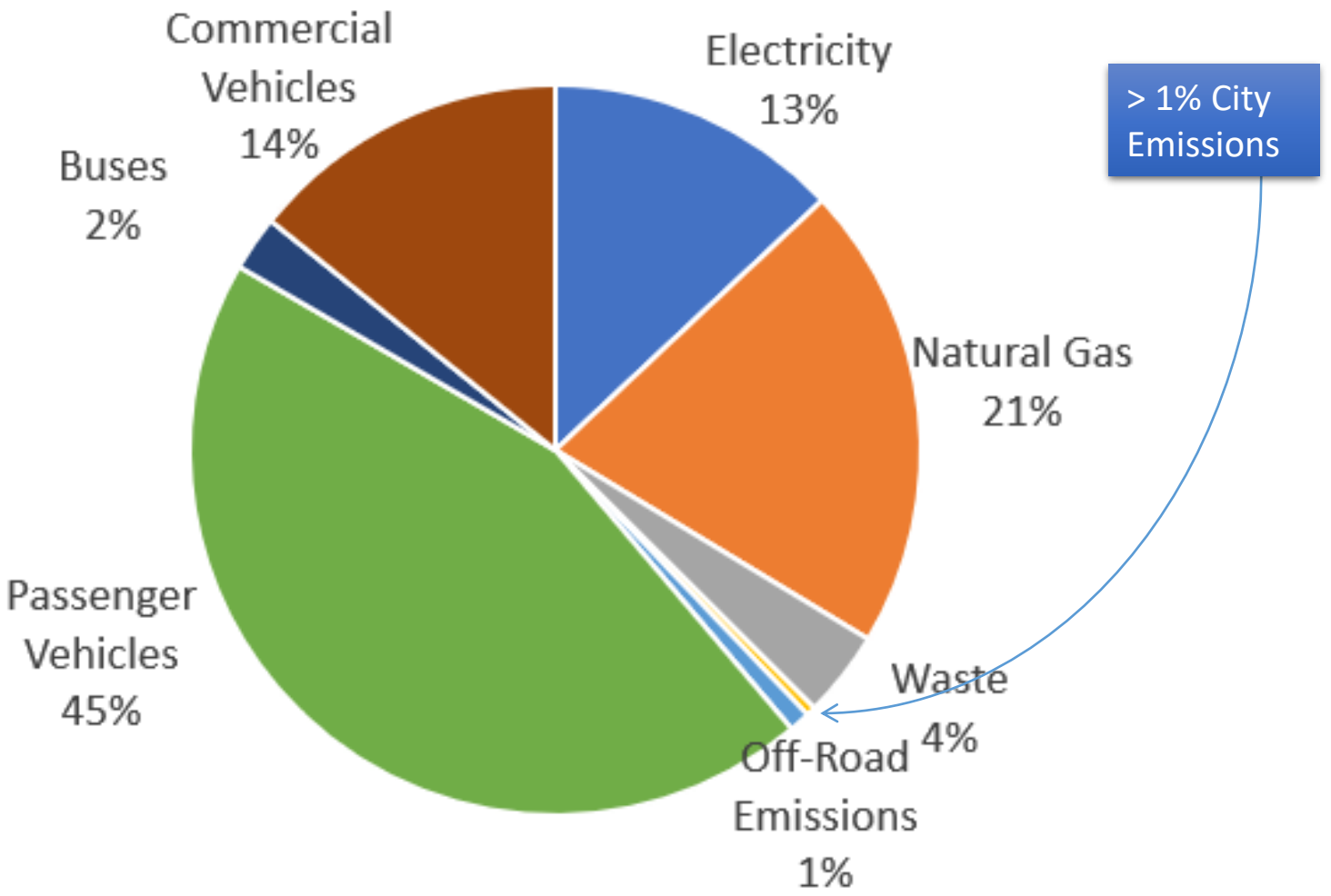
Low Carbon Transportation

TABLE 3: LOW CARBON TRANSPORTATION MEASURES TO REDUCE COMMUNITY EMISSIONS

ID	Measure	GHG Reduction by 2030 ($MTCO_2e$)	Share of Reductions
LCT-C1	Zero Emission Vehicles	30,935	84%
LCT-C2	Bicycling	1,910	5%
LCT-C3	Walking	580	2%
LCT-C4	Safe Routes to School	320	1%
LCT-C5	Public Transit	1,035	3%
LCT-C6	Employee Trip Reduction	1,030	3%
LCT-C7	Traffic System Management and Vehicle Idling	1,075	3%
LCT-C8	Parking Requirements	55	<1%
LCT-C9	Smart Growth Development	n/a*	n/a
LCT-C10	Electric Landscape Equipment	110	<1%
TOTAL		37,040	100%

**Emissions reductions due to smart growth development are embedded in vehicle miles traveled projections utilized in the development of the emissions forecast. In order to avoid double-counting, they are not included here*

Where our emissions come from



Community Engagement

What You Can Do

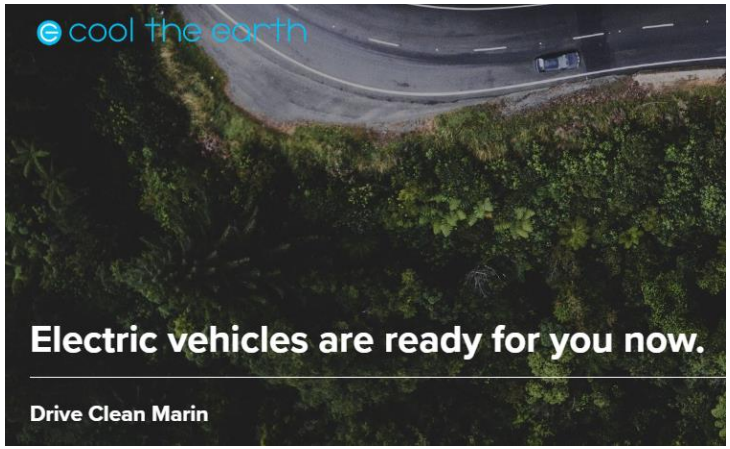
#1 Buy only as much as you need.

#2 Buy locally grown food and eat less meat.

#3 Put your food scraps in the green can and/or compost them at home.

#4 Donate extra food and used clothing and housewares to charities.

#5 Don't be a "wishful" recycler. Be scrupulous about how you sort your recyclables.

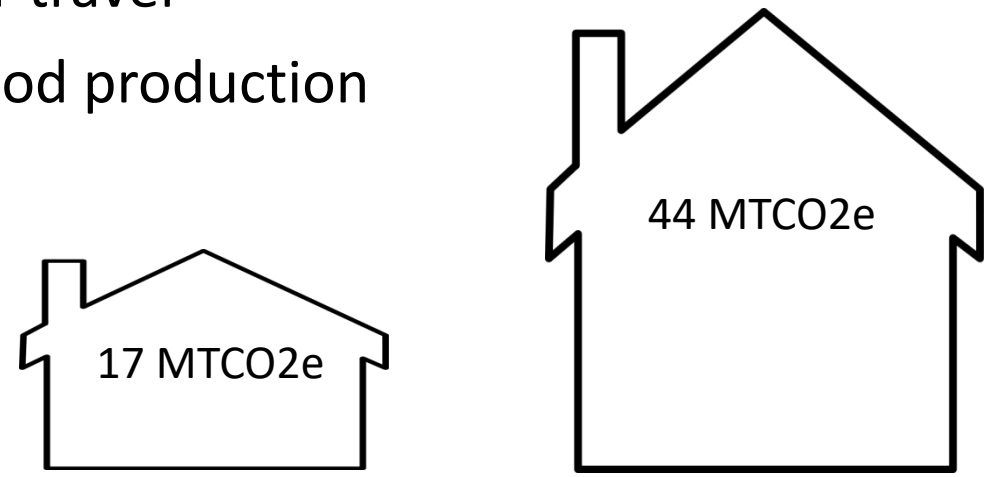


CHAMBERS FOR INNOVATION & CLEAN ENERGY

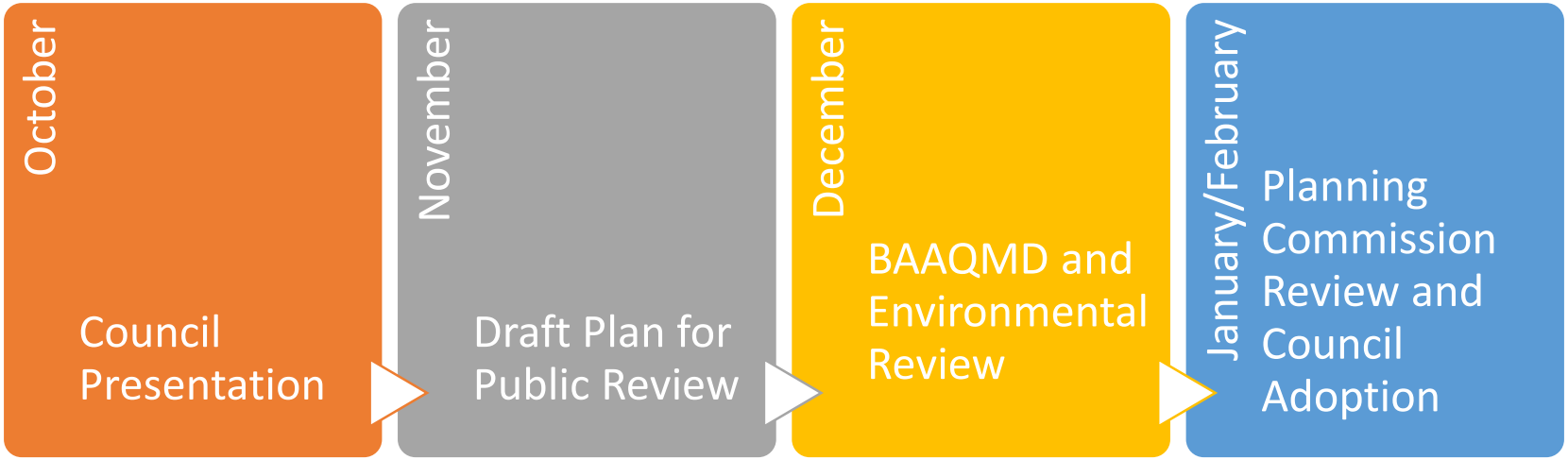
Community Energy Services Corporation
CESC
SmartLights
Brighten Your Bottom Line

Consumption

- In-boundary vs. consumption
- Consumption-based:
  - Upstream emissions
  - Mining, growing, producing, packaging, shipping
  - Air travel
  - Food production



Timeline



Then develop the online platform & Implement!

QUESTIONS?

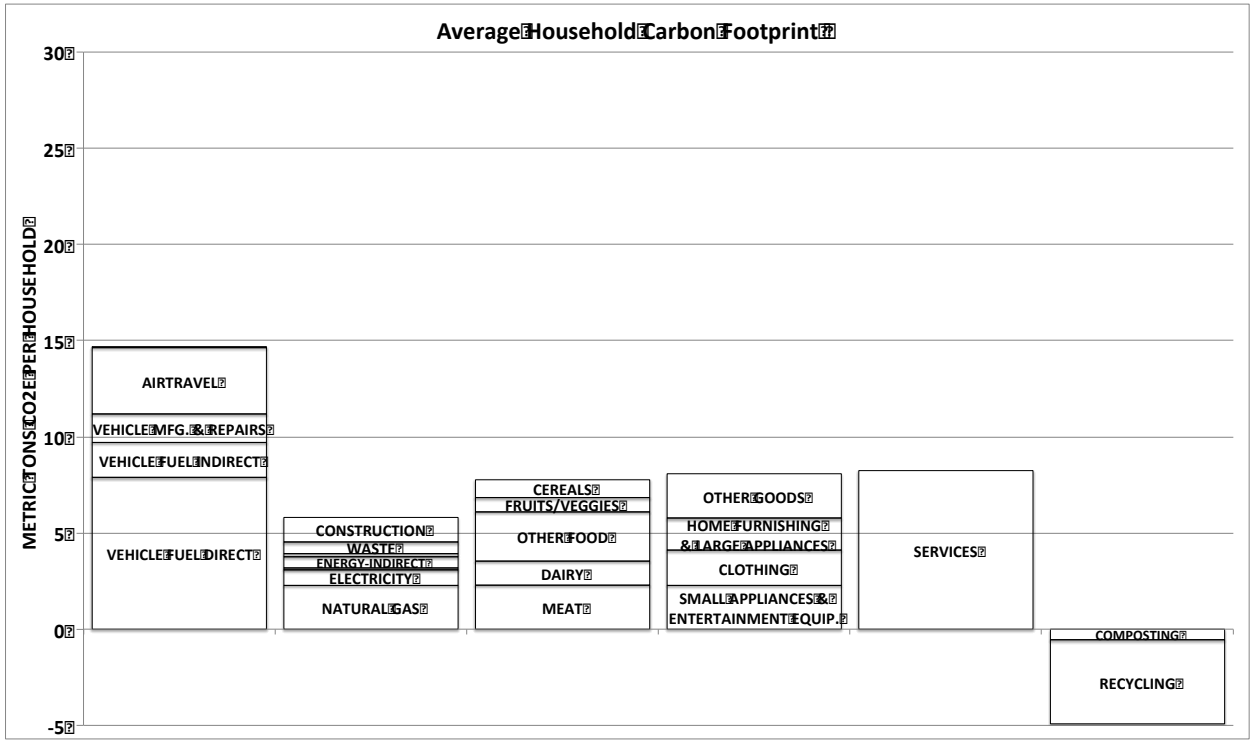




Early Priority Items

- ✓ Expand EV charging network
- ✓ Develop policies and programs to encourage ZEV's
- ✓ Incentivize building energy reductions
- ✓ Increase promotion of rooftop solar and renewable electricity
- ✓ Explore early adoption of mandatory recycling
- ✓ Begin adaptation planning
- ✓ Initiate local business engagement

Consumption Inventory



https://baaqmd.maps.arcgis.com/apps/MapSeries/index.html?appid=94b9eff6547f459fba27a6853327e1a2

Summary of State Actions

The Climate Change Action Plan incorporates State reduction strategies that have been approved, programmed and/or adopted and will reduce local community emissions from 2016 levels. These programs require no local actions. As such, the State actions are first quantified and deducted from projected community emissions in order to provide a better picture of what still needs to be reduced at the local level to get to the overall reduction targets. State actions and emissions reductions are shown in Table 1 and detailed in the appendix.

TABLE 1: EMISSIONS REDUCTIONS FROM STATE ACTIONS

State Action	Emissions Reductions by 2030 (MTO_2e)
Light and Heavy-Duty Vehicle Regulations	56,700
Renewable Portfolio Standard	5,415
Title 24 Energy Efficiency Standards	2,690
Lighting Efficiency	980
Residential Solar Water Heaters	30
Total	**65,810**

Note: Numbers may not total due to rounding.

Summary of Local Strategies

The local mitigation measures presented in the following sections, and as summarized in Table 2 below, achieve greenhouse gas emissions reductions in the community of approximately 28,105 $MTCO_2e$ in 2020 and 98,510 $MTCO_2e$ in 2030.

TABLE 2: LOCAL EMISSIONS REDUCTION STRATEGIES

Strategy	GHG Reductions by 2030 ($MTCO_2e$)	Percent of Reductions
Low Carbon Transportation	37,615	38%
Energy Efficiency	18,055	18%
Renewable Energy	31,985	32%
Waste Reduction	10,025	10%
Water Conservation	830	1%
Sequestration and Adaptation	n/a	n/a
Community Engagement	n/a	n/a
Implementation and Monitoring	n/a	n/a
Total	**98,510**	**100%**

These local strategies will be detailed in the following sections. Together, the projected reductions from State and local actions total 164,315 $MTCO_2e$ by 2030, which exceeds the 40% reduction target set by the State.

Greenhouse Gas Status

- 2016, emissions reduced 18%
- 2009 CCAP: goal to reduce emissions 25% by 2020
- 2030 target: 40% reduction
- 2050 target: 80% reduction