

## IX. Implementation

The previous chapters analyze 23 energy use, transportation, and land use reduction measures intended to reduce community emissions in San Carlos by 35% below 2005 levels by 2030. These measures were the result of extensive research, community participation, CAP subcommittee discussion, and City staff input. They represent the hard work and initiative of the City of San Carlos to go above and beyond normal practice by proactively addressing our relationship to global climate change.

This report lays a foundation that will be revised and built upon for years to come. Implementation remains the most difficult component to climate action because the field is always evolving with new technology, policy, and resources. However, having calculated the best known costs and benefits to each reduction measure, we can identify several “low hanging fruits” that bear low initial costs and large reductions in emissions.

It is recommended that one individual within the City would coordinate implementation of these reduction measures and the operation of the programs that result from implementation. Individual department leads may also be warranted to ensure efficient cross-coordination in implementing these measures.

### Suggested Prioritization of Reduction Measure Implementation

This chapter separates reduction measures into three time periods for implementation: 2005 to 2010, 2010 to 2015, and 2015 to 2030. Phases indicate when implementation of the measure begins; the reduction effects and overall maintenance of the program will extend well beyond the allotted phase. All reduction measures will begin implementation by 2020. The period of 2020 to 2030 will be for evaluation and expansion of reduction measures.

These implementation lists were generated to help identify which reduction measures are more cost effective, robust, and/or feasible and should therefore be implemented first. All of the reduction strategies are essential to reach the goals set forth in this Climate Action Plan, however some are expected to be implemented on a later timeline due to obstacles of available data, technology, or finances, as described below.

#### Phase 1: Reduction Measures to Begin Implementation 2005 to 2010

The majority of Phase 1 reduction measures are those that have already begun to be implemented. The progress of these reduction measures is explained at the end of Chapters 4 through 6.

**Table 37**  
**Phase 1 Reduction Measures for implementation before 2010**

	Reduction Measure	Emissions Reductions (Metric tons CO <sub>2</sub> e per year)	First Year Costs per Metric Ton CO <sub>2</sub> e
1	Expand energy saving opportunities to businesses	13,300	\$0.18-\$0.38
2	Improve residential energy efficiency	3,383	Negligible
3	Encourage development that is mixed-use, infill, and higher density	5,544	\$0.81-\$1.62
4	Increase housing density near transit	4,957	\$4.54 - \$9.08
5	Actively promote walking and biking as safe modes of local travel, particularly for children attending local schools	170	\$923.52
6	Create travel routes that ensure that destinations may be reached conveniently by public transit, bicycling and walking	122	Negligible
7	Convert more City vehicles to hybrid, electric, alternative fuel, or smaller vehicles	59	\$6,537 - \$7,027
8	Increase overall waste diversion by at least 1% per year	6,222	Negligible

**Phase 2: Reduction Measures to Begin Implementation 2010 - 2015**

These reduction measures are the “low hanging fruit,” or the measures that have the most return for the lowest cost.

**Table 38**  
**Phase 2 Reduction Measures to Begin Implementation 2010 – 2015**

	Reduction Measure	Emissions Reductions (Metric tons CO <sub>2</sub> e per year)	First Year Costs per Metric Ton CO <sub>2</sub> e
9	Adopt a green building standard for all new development and major remodels	9,879	Negligible
10	Create water and waste efficient landscapes.	485*	\$24.74 - \$28.87
11	Identify opportunities for on-site renewable energy generation on City and privately-owned property	394	\$1,282 - \$1,320

	Reduction Measure	Emissions Reductions (Metric tons CO <sub>2</sub> e per year)	First Year Costs per Metric Ton CO <sub>2</sub> e
12	Implement reduction strategies included in the energy audit of City facilities and continue to monitor City facility performance	160	N/A
13	Provide for increased albedo (reflectivity) of all urban surfaces including roads, driveways, sidewalks, and roofs in order to minimize the urban heat island effect	2,320	Negligible
14	Encourage tree planting	356	\$35.96 - \$71.91
15	Address and minimize vegetation that degrades access along public rights of way	Unknown	N/A
16	Increase bike parking	150	\$6 - \$12
17	Price on-street parking in high-traffic areas in order to alleviate congestion, increase motorist convenience, reduce VMT, and create a new revenue stream for the City	4,576	\$50.26
18	Support zero waste	510	Negligible
19	Increase recycling and composting at public events	255	Negligible
20	Establish an environmentally preferable purchasing program (EPP) for government operations	287	\$17.42

\* These emissions are not included in the final reduction target analysis as emissions associated with the filtration and movement of water were not included in the City's baseline Greenhouse Gas Inventory.

### Phase 3: Reduction Measures to Begin Implementation 2015 - 2020

The majority of the Phase 3 reduction measures involve changes that depend on future technology, monetary resources, or political feasibility.

**Table 39**  
**Phase 3 Reduction Measures to Begin Implementation 2015 - 2020**

	Reduction Measure	Emissions Reductions (Metric tons CO <sub>2</sub> e per year)	First Year Costs per Metric Ton CO <sub>2</sub> e
21	Provide for a shuttle service in order to increase transit ridership	1,733	\$1.15 - \$2.30
22	Promote car sharing programs	1,158	\$1.55 - \$3.11

23	Increase accommodation and promotion of alternatively fueled vehicles and hybrid vehicles	49	\$200
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### Implementation Funding

One of the main barriers to seeing through an implementation plan is lack of available funds. There are multiple grant and loan programs through State, Federal, and regional sources to combat climate change. The production of this Climate Action Plan is the result of the Climate Protection Grant program through the Bay Area Air Quality Management District (BAAQMD). With the establishment of this plan for action, San Carlos is in a position to apply for additional funding to implement the supporting measures in a timely fashion. Funding sources may include the Association of Bay Area Governments, the Energy Efficiency and Conservation Block Grant (EECBG) program, the Sustainable Skylines Initiative, and the Bay Area Air Quality Management District.

In addition, funding opportunities will increase with implementation of state legislation approved in 2008. In the energy sector, SB 1754 provides for State financial assistance for installing renewable energy projects. AB 2466, on the other hand, mandates that local governments be paid for the excess renewable energy they generate. With the funding from current State bills and future grant programs like those above, San Carlos is likely to receive assistance in seeing through its climate action goals and measures.

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