

## **NEW and PENDING EMISSIONS REDUCTION MEASURES**

After completing efforts to identify and quantify the greenhouse gas reduction benefit of existing actions, the Staff Technical Team and Citizen Advisory Committee developed a list of potential New actions to reduce greenhouse gases. A variety of approaches were used to develop a list of measures for consideration, including formal brain-storming, talking with various professionals and experts, discussion with Council advisory boards, and soliciting public input through open houses and the internet.

Appendix C lists the range of measures that were initially introduced for consideration. Information was compiled, to the extent possible, on the costs and impacts of the measures under consideration. Based on available information about the technical, economic, and political/social aspects of the measures, a final list of measures was developed that was considered acceptable to the Staff Team and Citizen Committee. These measures are identified as “New” or “Pending”, based on the definitions given below.

**NEW MEASURES = Measures that emerged initially through Cites for Climate Protection discussions, having the primary intent to reduce greenhouse gases.**

**PENDING MEASURES = Measures that are not yet approved by the City, but that would be brought forward for departmental or Council consideration anyway under a normal course of business, regardless of their greenhouse gas reducing capabilities.**

**EXISTING MEASURES = Measures in the community and measures that already exist in the City organization because they stem from an adopted goal or policy, or would be conducted in the normal course of business, despite any GHG reduction benefits. “Existing” does not necessarily mean completed or guaranteed.**

The New and Pending measures that are recommended in this plan would result in a CO<sub>2</sub> reduction of 0.509 millions tons in 2010, if fully implemented. Figure 15 shows the reduction from New and Pending measures apportioned to different reduction areas. Table 6 identifies these measures along with their estimated CO<sub>2</sub> reduction potential and the ratings developed by the Staff Team and the Citizen Advisory Committee.

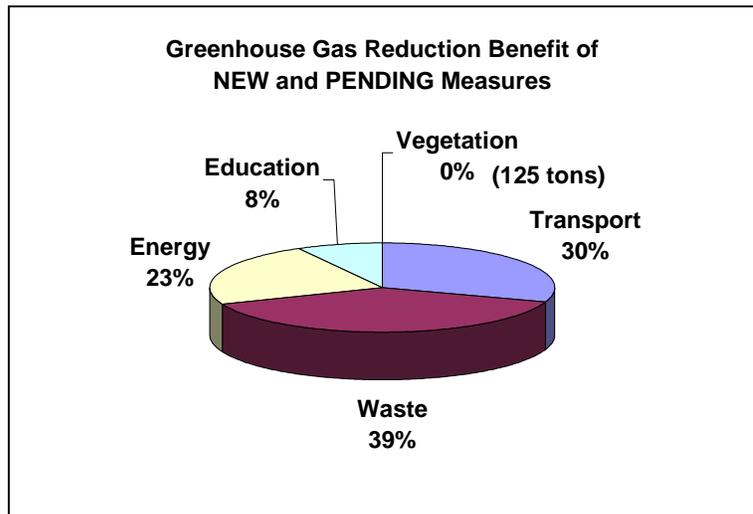


Figure 15. Estimated CO<sub>2</sub> reduction from “New and Pending” Measures

## NEW AND PENDING MEASURES

Table 6. New and Pending Measures recommended to reduce greenhouse gas emissions.

	TYPE	Tons Co2 reduced in 2010	Staff Team Rank*	Citizen Comm. Rank*
<b>NEW MEASURES (12)</b>				
Replace Traffic Signals with LEDs	Energy	3,137	1	1
Continuation of wind program (5 more turbines)	Energy	10,255	3	2
Climate Change Education and Outreach	Education	40,553	2	5
Optimization of WasteWater Treatment motors/pumps	Energy	961	4	4
Reduce City Gov. Building Energy Use 15% below 1990 levels (per SqFt)	Energy	3,129	7	3
City Gov purchase a portion of wind for own elec needs (1 turbines)	Energy	2,051	5	7
Increase awareness of fuel consumption, by dept.	Transportation	62	6	10
Green building program - Commercial	Energy	3,186	8	8
4% Mandatory Renewable in Electric Deregulation or Comparable Energy Conservation	Energy	71,561	11	6
Increase citywide tree planting (3600 more trees)	Vegetation	125	9	9
Distribute bids and proposals electronically	Purchasing	3	10	11
Increase mortality age of City owned trees	Vegetation	??	12	12
<b>SUM NEW MEASURES</b>		<b>135,023</b>		
<b>PENDING MEASURES (12)</b>				
50% Diversion Goal	Waste	112,787	2	1
Push for tighter fuel efficiency (CAFÉ) standards	Transportation	120,750	5	2
Second centralized recycling drop-off site	Waste	1095	1	7
Fort Collins-Denver Commuter Rail	Transportation	32,500	3	6
Expand line capacity at Larimer County Recycling Center	Waste	18,834	6	3
Landfill Gas to Energy	Waste	84,307	7	4
Increase energy efficiency training for builders	Energy	20,840	4	9
Green-Building program for residences	Energy	1,665	8	5
Trash Districting	Transportation	292	12	8
Parks Satellite Shop	Transportation	13	9	12
Construction and Demolition Pilot	Waste	??	10	11
Work with MAPO to encourage bulk purchasing	Purchasing	??	11	10
<b>SUM PENDING MEASURES</b>		<b>373,154</b>		
<b>SUM EXISTING MEASURES (see page23)</b>		<b>603,124</b>		
<b>SUM ALL MEASURES</b>		<b>1,111,301</b>		

\* New and Pending measures were rank-ordered by the Staff Team and the Citizen Committee, where # 1 = Best.

**Fort Collins Local Action Plan to Reduce Greenhouse Gas Emissions**

Table 7. Greenhouse Gas Reduction Potential of all Measures

	<b>Greenhouse Gas Reductions Tons CO2 reduced in 2010</b>	<b>Cumulative Greenhouse Gas Reductions Tons CO2 reduced in 2010</b>	<b>2010 Emissions Rate Tons CO2 in 2010</b>	<b>Cumulative Percent Reduction from 2010 predicted emissions levels</b>
<b>In the Absence of Actions</b>	<b>0</b>	<b>0</b>	<b>3,523,000</b>	<b>0 %</b>
<b>EXISTING</b>	<b>603,000</b>	<b>603,000</b>	<b>2,920,000</b>	<b>17 %</b>
<b>PENDING</b>	<b>373,000</b>	<b>976,000</b>	<b>2,547,000</b>	<b>28 %</b>
<b>NEW</b>	<b>135,000</b>	<b>1,111,000</b>	<b>2,412,000</b>	<b>32 %</b>

Table 7 and Figure 16 identify the greenhouse gas reduction potential of Existing, Pending, and New measures, if they are successfully implemented by 2010. Full implementation of all measures is estimated to result in a 32% reduction of Fort Collins' predicted 2010 emissions levels.

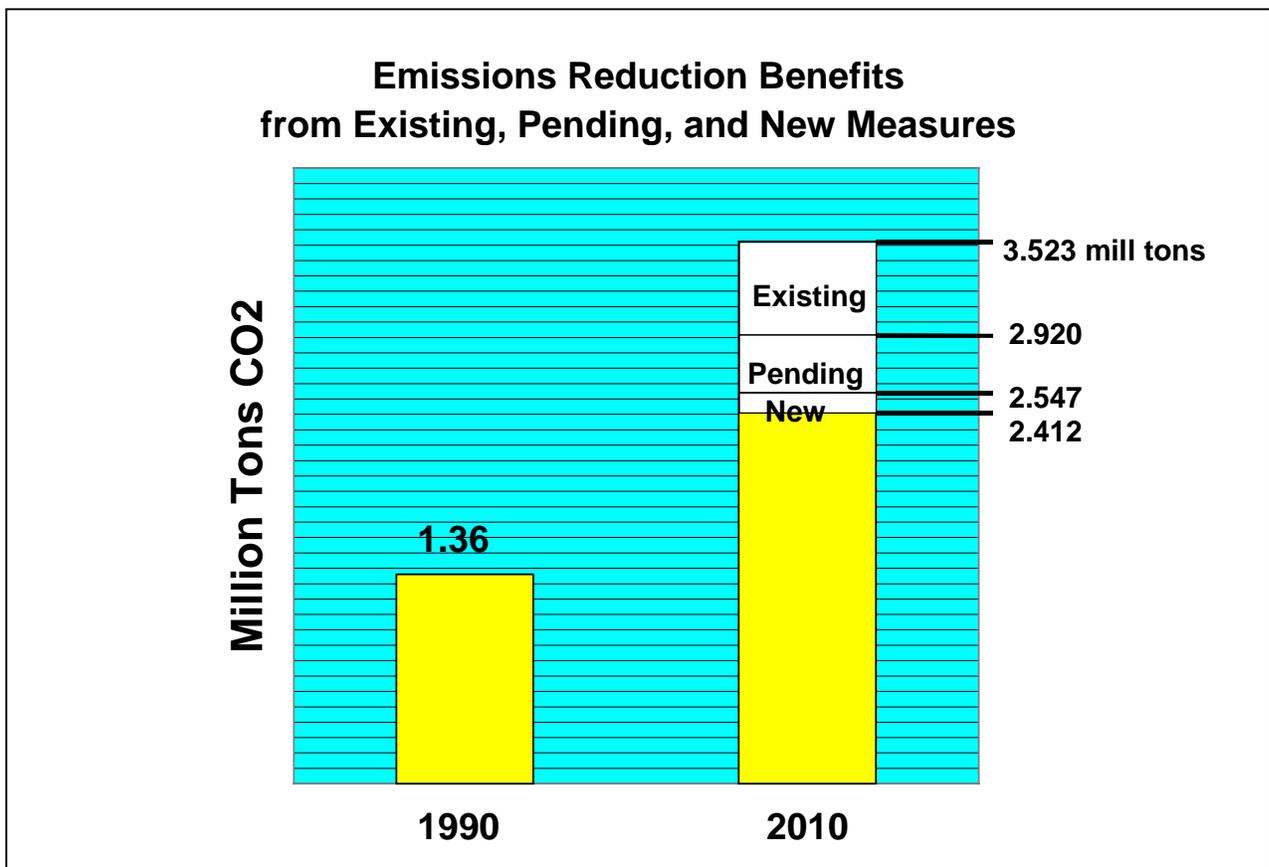


Figure 16. Emissions Reduction Benefits from Existing, Pending, and New Measures.

**GENERAL BENEFITS OF NEW AND PENDING MEASURES**

There are numerous other benefits that accompany the reduction of carbon dioxide and methane emissions. In the transportation sector, reductions in gasoline consumption also serve to reduce our nation's dependence on foreign fuel, preserve the remaining supplies of petroleum fuel, and reduce the rate of environmental damage that results from fuel production. Measures that reduce natural gas and electricity consumption from non-renewable energy sources can serve to postpone the area's need to build more electricity-generating capacity from coal-fired sources and reduce the rate of environmental damage that results from fuel production. Measures that reduce waste going to the landfill serve to lengthen the landfill's useful life. Many measures also result in reductions of criteria air pollutants that affect our city's ability to comply with federal air quality standards. Some of the measures proposed in the plan have an initial capital cost that may be higher than the "business as usual" scenario, but most often, these costs are repaid in short time, resulting in long-term cost savings for the city government, businesses, and citizens. These measures serve to enhance the "sustainability" of our community by reducing our overall environmental footprint.

**GENERAL DISADVANTAGES OF NEW AND PENDING MEASURES**

There are also costs associated with implementing these measures. The plan would not present a fair picture of the measures without an effort to examine economic and social costs of implementing the measures. In the case of municipal governments, revenue that is made available to cover large capital costs of certain measures would not be available for the immediate provision of other goods or services to the public. In the energy sector, promotion of renewable energy does have social implications due to the (current) higher direct costs of renewable energy. Any type of mandatory "Green Building" program could possibly impose higher initial costs for new construction, and thus adversely affect the affordability of local housing. (It is hoped those consumer costs would be offset by lower ongoing utility costs.) In the transportation sector, efforts that are effective in promoting regional transit may result in environmentally negative consequences for cities in the north front range if they become bedroom communities for Denver. Any entity having a vested interest in the extraction, development, and delivery of non-renewable energy fuels could be adversely impacted by reduced consumption of these fuels.

Any policy or program that is mandated as a result of this plan will result in the reduction of certain freedoms and opportunities, while preserving other freedoms and opportunities. As an example, a policy requiring a districted trash service would limit market-driven opportunities for trash haulers. Therefore, the cost and benefits of any mandatory program must be weighed, and input from all affected interests fairly evaluated, before the decision is made to approve such programs.