



The Climate Protection Action Plan provides measures to reduce emission levels of the City of Columbia consistent with the commitment made in the US Conference of Mayor's Climate Protection Resolution. The City's baseline emissions will serve as the threshold for measuring the success of these efforts.



Item #	Action Items	
1	<ul style="list-style-type: none"> Conduct an energy audit of municipal facilities and implement the recommendations. 	<p>Audit completed. City Council decided against performance contract financing. Implemented lighting upgrades with ARRA/EECBG funding.</p>
2	<ul style="list-style-type: none"> Implement an energy tracking and management system. 	<p>Recommended as part of energy audit, but not implemented. Funding not available.</p>
3	<ul style="list-style-type: none"> Develop plan to install digital thermostats in city facilities. Adjust thermostats based on the industry standards to reduce consumption. 	<p>Installing Digital Thermostats as replacements needed. No mass replacement due to funding limitations. Now installed in approximately 85% of City facilities.</p>
4	<ul style="list-style-type: none"> Develop a plan to install energy efficient exit sign lightings in all city facilities over a defined period of time. 	<p>Complete.</p>
5	<ul style="list-style-type: none"> Develop a plan to perform energy-efficient lighting retrofits in all city facilities over a period of time. 	<p>Complete.</p>
6	<ul style="list-style-type: none"> Institute a lights out policy in all city facilities when not in use. 	<p>Complete.</p>
7	<ul style="list-style-type: none"> Require city employees to turn off computer monitors each evening and turn off the computer over the weekend. 	<p>Complete.</p>
8	<ul style="list-style-type: none"> Install motion detectors and/or timers that will turn lights off if room is unoccupied for a certain length of time. 	<p>Installed in some areas - focusing on conference rooms. Installed where possible during lighting upgrades.</p>
9	<ul style="list-style-type: none"> Develop plan to perform heating, cooling and ventilation system retrofits (e.g., chillers, boilers, fans, pumps, belts) based on the energy audit. Consider alternative energy resources. 	<p>Energy Efficient Units used at 1225 Laurel, Washington Sq, Municipal Ct, Fleet Services, Eau Claire, Animal Shelter (ongoing)</p>
10	<ul style="list-style-type: none"> Develop a plan to install ENERGY STAR appliances in all city facilities as deemed appropriate and feasible. 	<p>Underway as appliances are replaced</p>
11	<ul style="list-style-type: none"> Develop a plan to install green or reflective roofing on city facilities. 	<p>Using reflective roofing as roofing is replaced. Used at City Hall, Washington Square and Station 12. Three more sites are out for bid.</p>
12	<ul style="list-style-type: none"> Develop a plan to improve water pumping energy efficiency. 	<p>U&E constantly aware of need to operate system in most efficient manner possible due to meeting system demand (ongoing)</p>
13	<ul style="list-style-type: none"> Replace hot water heater units with hot water on demand systems if they are more energy efficient. 	<p>Unable to do on demand.</p>



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| 14 | <ul style="list-style-type: none"> Encourage Commission of the Blind to install energy-efficient vending machines in all city facilities that currently utilize vending machines. | Exploring options as feasible. |
| 15 | <ul style="list-style-type: none"> Require that all new construction and renovations of municipal buildings follow LEED Certified guidelines. | Parks and Rec Building (now complete) and the new Beltline Building will follow LEED guidelines. |

Outdoor Lighting

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| 16 | <ul style="list-style-type: none"> Continue to install energy-efficient traffic lights and replace all incandescent traffic signals with LED signals. | 95% of traffic signals have been converted. |
| 17 | <ul style="list-style-type: none"> Develop ordinance requiring all street lighting inside City limits to be energy-efficient street lights (e.g., high pressure sodium) – plan will accommodate normal replacement schedule of existing lights. | City leases the majority of street lights, and those are HPS. All City-owned lights are either HPS or led. Working with SCE&G to consider all options. |
| 18 | <ul style="list-style-type: none"> Evaluate street lighting to determine if the average daily time streetlights are on can be reduced without compromising public safety. City will work with SCE&G on this initiative. | Using improved photocells to reduce day-burning of lights. |
| 19 | <ul style="list-style-type: none"> Develop energy efficient lighting programs for city parks including the greenways, and city parking garages. | All parking garages have been upfitted to high efficiency linear fluorescent. |
| 20 | <ul style="list-style-type: none"> Develop and implement lighting standard to be used citywide to include specifications regarding spacing and lighting levels. | City has standards that are being followed. |

Renewable Energy

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| 21 | <ul style="list-style-type: none"> Encourage SCE&G to produce/provide Green Energy. | Conversations have taken place with SCE&G officials regarding energy efficiency. |
| 22 | <ul style="list-style-type: none"> Purchase green electricity from solar, geothermal, wind, landfill or hydroelectric sources if made available. | City now purchasing Green Power from PACE for all City Council meetings, the first City in SC to do so. |
| 23 | <ul style="list-style-type: none"> Purchase green tags / renewable energy certificates if made available. | No action to date. Former member investigating options. |
| 24 | <ul style="list-style-type: none"> Use alternative energy sources in municipal facilities when possible. | Using fuel cell battery backup at multiple generator sites. Using solar flashers for new pedestrian crossings. Looking at solar panel opportunities. |

Transportation

Vehicle Fuel Efficiency



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25	<ul style="list-style-type: none"> Continue to monitor use of take home vehicles and ensure proper justification is in place for all approved. 	Ongoing
26	<ul style="list-style-type: none"> Enforce policy to trailer equipment to job sites. 	Policy written and communicated.
27	<ul style="list-style-type: none"> Retire old and under-used vehicles and equipment. 	Implementing as resources allow
28	<ul style="list-style-type: none"> Purchase fuel efficient or electric (e.g., hybrid) and/or smaller fleet vehicles. 	Departments are encouraged to budget for such; limited by funding availability. Of 1069 licensed vehicles, the City owns 33 hybrids, nine electric and 419 flex-fuel
Alternative Fuels		
29	<ul style="list-style-type: none"> Evaluate option of using alternative fuel in City vehicles. 	Purchasing vehicles capable of using alternative fuels. Currently using B5 biofuel and E10 gasoline in entire fleet.
30	<ul style="list-style-type: none"> Evaluate option of running bio-diesel in municipal fleet. 	Complete. All diesel vehicles use biofuel.
31	<ul style="list-style-type: none"> Utilize electric vehicles in municipal fleet. 	Implementing as funding allows. CPD using electric golf carts, six Segways.
32	<ul style="list-style-type: none"> Develop and place sticker on municipal vehicles that are using alternative fuels. 	Complete. All diesel vehicles use biofuel and have Southern Fried Fuel sticker.
33	<ul style="list-style-type: none"> Educate employees regarding use of alternative fuels and encourage use in personal vehicles. 	Featuring information in Green@Works city employee newsletter.
Trip Reduction / Transportation Demand Management		
34	<ul style="list-style-type: none"> Encourage car-pooling or vanpooling by municipal employees. 	Encouraging use of employee carpooling. Green Team piloted Take a Break from Exhaust online tracking. Waiting for program revision to implement further.
35	<ul style="list-style-type: none"> Evaluate option of telecommuting by municipal employee. 	No action to date
36	<ul style="list-style-type: none"> Evaluate use of alternate work schedules by municipal employees so arrival and departure times are staggered. 	Alternate Work Scheduled implemented in Public Works and some other areas of the City.
37	<ul style="list-style-type: none"> Encourage use of mass-transit by municipal employees. Work with RTA to allow city employees to ride for free or reduced rate on mass transit. 	Initial Conversation with RTA, No Action to Date



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38	<ul style="list-style-type: none"> Evaluate police use of motorcycles and bicycles to determine suitable locations and implement accordingly. 	No action to date
39	<ul style="list-style-type: none"> Expand community bicycle infrastructure (e.g., dedicated bicycle lanes, additional bicycle parking spaces). 	<p>City designated Bronze Level Bike and Walk Friendly Community. Complete Street resolution approved by City Council. BPAC master plan in progress. Bike corrals installed in business districts. Public-private partnership underway to install specially-designed bicycle racks.</p>
40	<ul style="list-style-type: none"> Institute a “safe routes to school” program. 	<p>City has worked with Rosewood and Lyon Street Elementary Schools to secure funding for Safe Routes to School programs.</p>
Other Transportation-Related Measures		
41	<ul style="list-style-type: none"> Develop and Enforce policy to limit idling of municipal vehicles. Explore anti-idling software for older vehicles. 	Complete.
42	<ul style="list-style-type: none"> Continue studies to determine if further measures can be taken to improve traffic signal synchronization. 	<p>Signals are synchronized. Staff evaluates frequently as requests are received.</p>
43	<ul style="list-style-type: none"> Secure stable funding for Midlands Regional Transit Authority. 	<p>Complete with passage of Richland County penny sales tax referendum, November 2012; collection of which started May 2013.</p>
<u>Recycling & Waste</u>		
44	<ul style="list-style-type: none"> Enhance recycling programs in municipal facilities by offering incentives for departments/divisions and for solid waste customers. 	<p>Ongoing. Recycling bins placed in facilities as available. Employees educated via Green Team. Green@Work newsletter and other internal publications.</p>
45	<ul style="list-style-type: none"> Conduct a public relations campaign to inform the public of the details of recycling programs and encourage recycling. 	<p>Ongoing. Extensive PR with launch of new recycling roll carts, summer 2015. Outreach includes app, website, social media, presentations and other forms of outreach. Also participate in partnerships as available.</p>



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46	<ul style="list-style-type: none"> Conduct a public relations campaign to inform citizens of the City's composting operation and encourage its use. 	Included as part of CPAC initiatives and public outreach efforts
47	<ul style="list-style-type: none"> Utilize city compost material as much as possible. 	Ongoing.
48	<ul style="list-style-type: none"> Evaluate use of compost material as stabilization material for embankments. 	Not STA approved for this use. Other options being considered and evaluated for material use.
49	<ul style="list-style-type: none"> Establish internal system for reuse or recycling of construction and demolition materials. 	Options considered as feasible.
50	<ul style="list-style-type: none"> Implement solid waste reduction programs. Reduce use of paper through copying on both sides, minimize printing when information can be read on the Internet and require grant applicants to use both sides of the paper. 	Ongoing. Educating employees via Green Team, Green@Work newsletter and other internal communications.
51	<ul style="list-style-type: none"> Evaluate on-line grant applications for the city's grant programs (community promotions, accommodations, hospitality, community development block grant, etc.) 	Underway
52	<ul style="list-style-type: none"> Evaluate establishing methane recovery in local wastewater treatment plant and landfills. 	Project identified for recovery of Methane Gas generated at MWWTP
53	<ul style="list-style-type: none"> Implement Electronic Waste Recycling Program for Residential Customers (State Law limits the city's ability to provide electronic-waste services to commercial customers). 	Implemented. Collect and recycle approxi
54	<ul style="list-style-type: none"> Utilize recycled items when possible. 	Continuous Effort Citywide
55	<ul style="list-style-type: none"> Provide advice and information to commercial businesses and the public on recycling hazardous substances. 	Ongoing. The City also provides free (grant-
<u>Land Use</u>		
56	<ul style="list-style-type: none"> Educate public about the requirements of the landscape ordinance 	On-Going
57	<ul style="list-style-type: none"> Modify landscape ordinance to allow planted green rooftops as an option to meet the landscape ordinance tree density factor requirement. 	Consideration of options being identified.
58	<ul style="list-style-type: none"> Review and modify planning and zoning codes to discourage sprawl and promote green space through such practices as infill development, traditional neighborhood development and mixed use neighborhood development 	Consideration of options being identified.
59	<ul style="list-style-type: none"> Promote Forever Forest and Treasured Trees Programs 	Included as part of CPAC initiatives and public outreach efforts



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60	<ul style="list-style-type: none"> ◦ Perform Tree Survey and develop Five Year Plan for Maintenance and Replacements 	<p>Got as far as preparing RFP; unable to go further due to funding limitations. Looking at internal resource options.</p>
61	<ul style="list-style-type: none"> ◦ Institute programs to preserve open space 	<p>Consideration given when applicable.</p>
62	<ul style="list-style-type: none"> ◦ Continue to fund efforts to perform landscape maintenance and planting of shade trees 	<p>Ongoing.</p>
63	<ul style="list-style-type: none"> ◦ Encourage planting of new trees and shrubs strategically to shelter buildings and reduce fuel consumption needed to cool buildings. 	<p>Ongoing.</p>
64	<ul style="list-style-type: none"> ◦ Review existing parking lot ordinance and consider incentives for retrofitting existing parking lots. Encourage use of pervious paving and best practices to reduce runoff. 	<p>Staff evaluating possibilities, tied to Storm water Permit.</p>
65	<ul style="list-style-type: none"> ◦ Create a reward system for development projects that go beyond the tree protection requirements or in other ways demonstrate environmentally sensitive design. 	<p>Columbia Choice Awards currently available through City/Columbia Green partnership.</p>