

## **Appendix D: Climate Action Plan Progress**

Estimated reductions in greenhouse gas emissions are made by entering available 2015 data residential and commercial energy usage and available 2014 data for transportation and waste emissions into ICLEI's ClearPath Programs. The result shows **about a 3.6% total reduction compared to 2007 levels**

**Residential Energy Emissions** ↓ by 7.0%

**Transportation Emissions** ↓ by 2.5%

**Commercial Energy Emissions** ↑ by 1.3%

**Waste Emissions** ↓ by 1.2%

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### **48 Actions in City's Plan to Complete by 2020**

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#### **Short-Term Action Progress**

##### 15 Short-Term Actions

- All have been implemented
- 14 of 15 actions are mostly complete or completed
- 1 action is 40% complete

#### **Mid-Term Action Progress**

##### 20 Mid-Term Actions

- 3 are currently in progress
- 9 have been implemented
- 8 are planned for FY 2017

#### **Long-Term Action Progress**

##### 13 Long-Term Actions

- 2 currently in progress
- 9 planned for FY 2018
- 2 planned for FY 2019

SECTOR: Energy	Action	Time-Frame	Status
	<i>Goal A. Promote and expand new and existing <u>residential</u> energy efficiency and conservation programs</i>		
	1. Enhance outreach efforts and increase participation in existing low-income energy audit and weatherization assistance programs.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal 230 energy audits and weatherization projects</li> <li>- 130 audits/weatherization completed for seniors through the City's Residential Energy Efficiency Program, updated with FY 2015 info. and corrected, about 30 participants currently in process for FY 2016</li> <li>- 47 audits/weatherization projects completed with MEA Municipal Collaboration, updated with FY 2015 info. About 20 participants currently in process for FY 2016</li> </ul> <p><b>About 99% Complete (227 out of 230 projects underway or completed)</b></p>
	2. Provide financial incentives for City residents that complete energy audits on their homes.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal 1,000 households to complete BGE energy audits/assessments</li> <li>- 248 BGE energy audits completed through incentive program</li> <li>- About 1,000 BGE QHECS and HPWES audits completed in Bowie since 2009 (used Bowie area percentage and zip code only data)</li> </ul> <p><b>Complete (achieved 1,000 assessments)</b></p>
	3. Promote residential energy audits at Green Team events and on City website.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Residential energy audit webpage created</li> <li>- Residential energy audits promoted at 3 City events in FY 2014, 4 City events in FY 2015, and 7 City events in FY 2016</li> <li>- Residential energy audits will continue to be promoted at future City events along with Bowie's Energy Audit Program</li> </ul> <p><b>Mostly Complete</b></p>
	4. Develop common energy efficiency improvement recommendations for Levitt house designs. Distribute information to Levitt community homeowners.	Mid-Term	<ul style="list-style-type: none"> <li>- Goal is to have 770 homes make improvements</li> <li>- 18 residents that have participated in the Bowie Energy Audit Program ended up completing home improvements, most from Levitt area</li> <li>- Energy Audit Reports from Levitt homeowners were collected as part of the FY 2016 energy audit incentive program</li> <li>- An informational handout about common energy efficiency improvements for Levitt homes is in development</li> <li>- Need to send out mailing with handout in FY 2017 and track responses to mailing</li> </ul> <p><b>In Progress</b></p>
	5. Work with homeowner and condo association management companies that have properties to educate residents about energy efficiency.	Mid-Term	<ul style="list-style-type: none"> <li>- Goal to educate 1,034 households</li> <li>- Set up meetings in FY 2016 and track number of households reached</li> </ul> <p><b>To Be Implemented – Moved to FY 2017</b></p>
	6. Promote energy efficiency programs available for rental and multi-family residence buildings.	Mid-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Contacted 7 identified multi-family/apartment buildings and gave each information about BGE's multi-family energy saving programs</li> <li>- About 602 units completed as part of BGE multi-family program (used area percentage and zip code data)</li> </ul> <p><b>Mostly Complete</b></p>

SECTOR: Energy (cont)	Action	Time-Frame	Status
	7. Provide information to potential homebuyers regarding the County’s program for an Energy Efficiency Mortgage and utility bill disclosure ordinance.	Mid-Term	<ul style="list-style-type: none"> <li>- Add Energy Efficiency Improvement Info to City Welcome Packets</li> <li>- Set up meeting with local real estate agencies and track number of meetings.</li> </ul> <b>To Be Implemented – Moved to FY 2017</b>
	8. Work with energy providers and the County and State to maximize use of existing financial incentives and other resources that assist residents in promoting energy efficiency.	Mid-Term	<ul style="list-style-type: none"> <li>- Set up meetings with State/County and track number of meetings</li> <li>- Publicize State/County Programs</li> </ul> <b>To Be Implemented – FY 2017</b>
	<b><i>Goal B. Promote and expand new and existing commercial energy efficiency and conservation programs</i></b>		
	1. Establish a Green Bowie business recognition program that promotes energy and greenhouse gas reduction efforts of local businesses.	Mid-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal is to certify 65 businesses</li> <li>- 2 businesses certified since 2015</li> </ul> <b>About 3% Complete (2 out of 65 businesses)</b>
	2. Promote the State of Maryland’s Green Registry for businesses.	Mid-Term	<ul style="list-style-type: none"> <li>- 4 City Businesses on Maryland Green Registry as of June 2016</li> <li>- Link to Green Registry Program on City website</li> <li>- Requirement of Green Bowie Business Certification</li> </ul> <b>Mostly Complete</b>
	3. Work with energy providers and the County and State to maximize use of existing financial incentives and other resources that assist businesses in improving energy efficiency.	Mid-Term	<b>To Be Implemented – FY 2017</b>
	4. Benchmark and disclose energy performance and improvements of commercial buildings.	Long-Term	<ul style="list-style-type: none"> <li>-Track number of businesses using Portfolio Manager</li> </ul> <b>To Be Implemented – FY 2018</b>
	<b><i>Goal C. Increase green building projects for new and existing buildings</i></b>		
1. Establish a City policy regarding green building standards for commercial and residential buildings.	Long-Term	<ul style="list-style-type: none"> <li>- Policy to affect 1,870,812 sq. ft. of building space</li> </ul> <b>To Be Implemented – FY 2018</b>	
2. Track and showcase green building projects throughout the community.	Mid-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- City green buildings highlighted on City website</li> <li>- Green schools and businesses highlighted on City website</li> <li>- Investigate Green Building Tour</li> </ul> <b>- Partially Complete</b>	

SECTOR: Energy (cont)	Action	Time-Frame	Status	
	<i>Goal D. Increase installation of renewable energy projects</i>			
	1. Track and showcase innovative renewable energy projects throughout the community (city, schools, businesses, individuals).	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>All renewable energy projects are tracked and showcased on the City's website</li> <li>- MWCOG solar presentation on November 20, 2015</li> <li>- January and March Solar Co-op information sessions attended by Bowie residents who already installed solar on their home</li> <li>-Notified Green Team Volunteers about hosting for DC Metro Solar Tour in October</li> </ul> <p><b>Mostly Complete</b></p>	
	2. Increase number of residential and commercial solar systems installed by promoting solar technology.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Heavily promoted solar co-op from January through April 2015</li> <li>- Worked with resident on solar opinion piece in March/April 2015</li> <li>- Solar Co-op Completed. 53 solar installations achieved</li> <li>- As of June 2016, there are 1,046 residential solar systems that are, on average, 8 kW in capacity, and two businesses (Target and Macy's) with combined 1.613 MW of capacity.</li> <li>- Goal is 24,758 kW of capacity</li> <li>- Solar installations have been increasing by over 50% every year since 2010</li> <li>- County property incentive funds spent into 2017</li> </ul> <p><b>About 40% Complete</b> (9,981 of 24,758 kW goal)</p>	
3. Complete Solar Roadmap goals.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Remaining goal to encourage financial stakeholders to provide solar loan programs</li> </ul> <p><b>About 89% Complete</b> (8 of 9 goals met)</p>		
<i>Goal E. Decrease use of natural gas lawn mowers</i>				
1. Incentivize purchasing of electric and push reel lawn mowers.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Publicized on City website, Facebook page, Green Bowie e-newsletter, and at Green Bowie events</li> <li>- As of June 2016, there were 12 push reel mower rebates issued and 18 electric mower rebates issued</li> </ul> <p><b>Mostly Complete</b></p>		

SECTOR: Transportation	Action	Time-Frame	Status
	<i>Goal F. Reduce single occupant vehicle trips</i>		
	1. Work with major employers in the City to promote multiple-occupant commuting. Encourage car-sharing, Dial-a-Ride, RideSmart, RideFinders, preferred parking for carpooling employees.	Mid-Term	- Goal is 349 people carpooling/vanpooling - Track number of businesses and employees that participate in multiple occupant commuting - Publicize available programs <b>To Be Implemented – FY 2017</b>
	2. Investigate opportunities for additional commuter parking lots and more effective use of the existing park and ride lot on Northview Drive.	Long-Term	- Investigate/install additional commuter parking lots - Get data of usage for Northview Park and Ride <b>To Be Implemented - FY 2019</b>
	3. Consider expanding shuttle services for senior and disabled residents.	Long-Term	- Goal is 174 daily ridership increase from 2007 number - Get ridership data from Community Services <b>To Be Implemented - FY 2018</b>
	<i>Goal G. Reduce vehicle miles of travel</i>		
	1. Work with WMATA and Prince George’s County to evaluate route restructuring for City areas, and expand new service, including The Bus, to employment areas and other generators.	Long-Term	- Goal is 523 additional daily riders from 2007 number - Get ridership data updated data from WMATA <b>To Be Implemented - FY 2018</b>
	2. Promote walking and biking through events such as Bike to Work Day and Car Free Day.	Short-Term	- Implemented - Bike to Work Day event held every year since 2004 with about 500 total participants - Both promoted through City resolutions and City media sources using flyers, Facebook, Twitter, website, local newspapers, and cable ads <b>Mostly Complete</b>
	3. Apply the City’s Development Review Guidelines and Policies in land use and planning and urban design, in order to create bike and pedestrian friendly communities.	Short-Term	- Implemented - Guidelines are being used - Bike and pedestrian guidelines applied when reviewing 4 development projects in FY15 <b>Mostly Complete</b>
	4. Increase bicycle and pedestrian mode share through bike-sharing systems, bike racks, bike lanes, pedestrian trails, reprogrammed traffic signals, and improved pedestrian access to bus stops, rail stations.	Long-Term	- Goal is 3,489 additional weekly bike trips from 2007 number <b>To Be Implemented – FY 2018</b>
5. Continue to inventory pedestrian and bicycle facilities and identify pedestrian safety projects, (e.g. Safe Routes to School), sidewalk linkages and hiker-biker trail improvements to encourage walking and bicycling.	Short-Term	- Implemented - City staff currently completes these inventories - In 2015, the City completed an inventory and condition rating of the City’s hiker-biker trail system. The inventory shows a listing of trails needing to undergo repair/reconstruction and missing links in the existing trail network - <b>Mostly Complete</b>	

SECTOR: Transportation (cont)	Action	Time-Frame	Status
	6. Encourage Transit Oriented Development at Melford and Bowie Regional Center.	Long-Term	- Currently working with Melford developers - About 2,623 Melford/Regional Center units being created <b>In Progress</b>
	7. Work with WMATA to expand transit service along the MD 450 Corridor and to Old Town Bowie as identified by the Bowie and Vicinity Master Plan.	Long-Term	<b>To Be Implemented - FY 2018</b>
	8. Work with the State, County, and M-NCPPC to implement roadway infrastructure priorities identified by the Bowie and Vicinity Master Plan.	Long-Term	<b>To Be Implemented - FY 2018</b>
	<i>H. Increase electric vehicle use and the efficiency of existing transportation</i>		
	1. Partner with MWCOG and other stakeholders to develop and increase electric vehicle and other alternative fuel vehicle infrastructure.	Short-Term	- Implemented - Goal to have 5 electric charging stations in the City - State incentives available for purchasing electric vehicle stations and charging stations - State electric vehicle incentives highlighted at Nissan of Bowie booth at Bowie Green Expo - 4 electric charging stations installed within City limits as of June 2015 – Bowie Town Center, Semaconnect, City Hall, Nissan of Bowie <b>About 80% Complete (4 out of 5 installed)</b>
	2. Promote the locations of alternative fuel charging stations.	Short-Term	- Implemented - City website has link to EPA map of electric charging stations in the U.S. - Bowie Town Center and City Hall electric charging stations promoted on City Facebook page - 2 marketing strategies utilized to promote charging station locations <b>Mostly Complete</b>
	3. Explore the possibility of a Zipcar drop off point at the Northview Park and Ride.	Long-Term	-Goal to have 1,117 participants <b>To Be Implemented - FY 2018</b>
	4. Educate the public about eco-driving techniques.	Mid-Term	-Implemented - Ordered 350 Green Bowie tire gauges, distributed with eco-driving tip flyer <b>Mostly Complete</b>
5. Explore the potential for reserving hybrid vehicle parking spaces at shopping centers.	Mid-Term	-Reserved hybrid spots currently at City Hall <b>To Be Implemented - FY 2017</b>	
6. Investigate and apply Transportation Systems Management.	Long-Term	<b>To Be Implemented –FY 2019</b>	

SECTOR: Waste	Action	Time-Frame	Status
	<i>Goal I. Increase recycling rate, reduce the generation of waste, and promote reuse of materials</i>		
	1. Provide additional opportunities for residents and businesses to recycle cardboard, glass, paper, and plastic products in the community, such as once-a-month paper shredding and Styrofoam collection events at revolving locations throughout the City.	Mid-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal to divert 300 lbs per person per year</li> <li>- Larger recycling bins provided to all Bowie households</li> <li>- By increasing recycling tonnage from 23% to 35% of the waste stream by 2014, it was estimated that the City would avoid 396 metric tons of CO<sub>2</sub> equivalent emissions – this is included in the municipal climate actions, however anything beyond 35% rate should be included in community climate reductions</li> <li>- One paper shredding event was held on Sept. 12, 2015 by County, promoted on City Facebook page, others held by City on June 20, 2015 and June 18, 2016 for Styrofoam and paper. 5 tons were collected for shredding in 2015</li> </ul> <p><b>Partially Complete</b></p>
	2. Initiate a backyard composting program that provides rebates to residents for composting bins and rebates to homeowner or condo associations that create and use compost piles.	Mid-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal to divert 300 lbs per person per year</li> <li>- Sold 320 discounted backyard compost bins to City residents who wanted to start composting</li> <li>- Ordered 280 more to sell in 2016</li> </ul> <p><b>Partially Complete</b></p>
	3. Encourage use of reusable grocery bags.	Short-Term	<ul style="list-style-type: none"> <li>- City webpage created with info about reusable bags</li> <li>- Green Team participated in baseline study for reusable bag use in FY14 – 8% reusable bag use as of 2014</li> <li>- Highlighted reusable bag use in the May 2014 Bowie Spotlight</li> <li>- Large signs promoting reusable bag use at FY14 and FY15 Green Expo events</li> <li>- Nearly 500 bag tags encouraging reusable bags used were passed out at various Green Bowie events</li> <li>- Over 100 reusable bags passed out at each FY14, FY15, and FY16 Green Expo events. over 300 passed out in total</li> <li>- Farmers’ Market reusable bags distributed annually</li> <li>- Highlighted in city-wide mailing about new County Plastic Bag Recycling Law</li> </ul> <p><b>Mostly Complete</b></p>
	4. Give educational notices to residents that are not recycling large items.	Mid-Term	<b>To Be Implemented - FY 2017</b>

SECTOR: Waste (cont)	Action	Time-Frame	Status
	<i>Goal I. Increase recycling rate, reduce the generation of waste, and promote reuse of materials</i>		
	5. Work with the County to conduct one or more hazardous household waste collection days per year.	Mid-Term	- Implemented - An electronics recycling event was held on Saturday, December 6, 2014, at Public Works with the County. Over 200 vehicles arrived at Public Works and approximately 6.25 tons of electronic equipment was collected and recycled - The County also held other electronics recycling events on February 28 <sup>th</sup> , and March 7 <sup>th</sup> , 2015, and on Nov. 14 <sup>th</sup> , 2016 - City received grant to host an electronics recycling event in Fall 2016 <b>In Progress</b>
	6. Educate public on services such as electronics recycling, hazardous waste collection and disposal, batteries, old paint and other hard to dispose of or recycle items for which the county offers services.	Mid-Term	-Implemented -A City-wide mailing that detailed new recycling laws as well as electronics recycling and hazardous waste collection went out in June 2015 <b>Partially Complete</b>
	7. Explore cooperation with Prince George’s County in enforcing aspects of the Solid Waste Master Plan.	Long-Term	<b>To Be Implemented - FY 2018</b>
	8. Work with the Greater Bowie Chamber of Commerce to advise local businesses of County recycling requirements.	Mid-Term	- Working with County and Chamber to host webinar about Styrofoam ban and businesses recycling <b>In Progress</b>
	<i>J. Improve the carbon footprint of the waste collection system</i>		
	1. Gain support from residents for once a week trash and recycling pick up.	Long-Term	- Public Works Dept. study moved to FY 2017 <b>In Progress</b>
	2. Install a solar power trash compactor at Jericho Park as a demonstration project and promote this technology to commercial businesses.	Mid-Term	- Solar powered self-contained compacting/recycling receptacles were proposed/investigated for City Hall and the Ice Arena in FY 2016 but were not completed - Need to investigate possible grant opportunities <b>To Be Implemented - FY 2017</b>



SECTOR: Land Use	Action	Time-Frame	Status
	<i>K. Increase tree canopy</i>		
	1. Increase tree canopy by providing financial incentives to residents, HOAs, and organizations for planting trees.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Goal 1,800 trees including street trees planted</li> <li>- 40 trees planted at All Saints Church in May 2014</li> <li>- 86 trees planted as part of the City tree rebate program as of June 2016, the program began in FY14</li> <li>- No Bowie participants in Tree ReLeaf as of June 2016</li> <li>- 1,890 street trees planted in Bowie from FY 2008 - FY16 (including 35 trees planted at Yellowstone Place in October 2015 as part of the County's Tree ReLeaf program), and the number of trees planted in FY15 to FY16 nearly doubled</li> </ul> <p><b>Complete (achieved over 1,800 trees planted), but need to continue to increase resident, HOA, and organization tree plantings</b></p>
	2. Encourage the replacement of trees removed from residential properties.	Mid-Term	<ul style="list-style-type: none"> <li>- Work with Chesapeake Bay Trust to receive marketing grant for tree plantings/replacements in Bowie</li> <li>- \$12,500 grant received in 2016 to support the creation of a marketing campaign</li> </ul> <p><b>In Progress</b></p>
	3. Publicize local tree planting grants available for businesses, churches, and local organizations.	Short-Term	<ul style="list-style-type: none"> <li>- Implemented</li> <li>- Provided Tree ReLeaf information to Northridge HOA in 2015 and to Princeton Square Townhouses HOA</li> <li>- Included information about Tree ReLeaf program in Green Bowie e-newsletter</li> <li>- No participants from Bowie yet in Tree ReLeaf as of June 2016</li> </ul> <p><b>Mostly Completed</b></p>

