

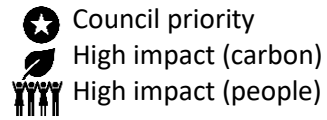









## STAFF REPORT – MAY 2023 CLIMATE ACTION UPDATE TO COUNCIL

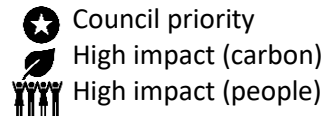
The actions are implemented across several Town departments. This report was produced by the Town’s Office of Sustainability and Resilience, with department support.










May 10, 2023

Buildings + Energy Actions		
Action	Benefits	Status / Target Date
1. Upgrade Library Lighting to LED	Projected savings/year: <ul style="list-style-type: none"> <li>• \$23k utilities</li> <li>• 290k kWh</li> <li>• 206 MTCO<sub>2e</sub></li> </ul> 18-month payback Maintenance savings	✓ June 2022
2. Energy Assessment for Public Housing Units ★	Provides assessment indicating that existing energy and water saving measures are efficient	✓ June 2022
3. Create Solar Fact Sheet ★	Prepares Town for high-impact utility-scale solar investment opportunities 🌿	✓ September 2022
4. Submit Joint Letter to Utilities Commission re: Duke Energy Carbon Plan ★	Provides local government interests to help share a plan that is projected to achieve a 70% CO <sub>2</sub> reduction from Duke Energy NC-SC power generation by 2030 🌿	✓ August 2022
5. Support SSDN <a href="#">Letter</a> to North Carolina Utilities Commission re: Data Access	Voices local government interests re: utility data access, and how increased access can advance/support local climate action ( <a href="#">Docket E-100 Sub 161</a> )	✓ December 2022











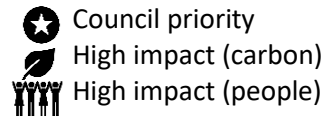
<p>6. Upgrade Cedar Falls Athletic Fields Lighting to LED</p>	<p>The LED lighting uses 40% less energy and is projected to reduce emissions 28k pounds per year or 320 metric tons over the 25-year life of the project</p>	<p>✓ December 2022</p>
<p>7. Submit Comments to NC Building Code Council in Support of Proposed Energy Efficiency Amendments to the State’s Energy Conservation Code</p>	<p>If approved, the proposed code is projected to lead to statewide energy savings of 16.3%, annual household utility savings of over \$300, and 34 million metric tons of emissions avoided over 30 years</p> 	<p>✓ April 2023</p>
<p>8. Participate in 2022 Solarize the Triangle Program</p>	<p>Creates more residential and commercial rooftop solar installations. 2022 triangle campaign annual benefits:</p> <ul style="list-style-type: none"> <li>• 2.4M kWh produced</li> <li>• \$300,500 in utility savings</li> <li>• 3.25M lbs of carbon avoided</li> </ul>  	<p><a href="#">2022 campaign</a> ending and 2023 campaign launching in May, along with program to install solar on LMI-eligible homes</p> <p>FY23, Q4</p>
<p>9. Scope Weatherization Gap Program</p> 	<p>Prepares Town to begin implementing weatherization gap program</p> 	<p>Scoping underway, with support from UNC Public Policy Master’s-level intern</p> <p>FY23, Q4 (orig. Q1)</p>
<p>10. Conduct Energy Burden Study</p> 	<p>Informs other weatherization program actions (see above)</p> 	<p>Scoping underway, with support from UNC Public Policy Master’s-level intern</p> <p>FY23, Q4 (orig. Q2)</p>














<p>11. Update Council's Green Building Framework</p> 	<p>Updates green building policy for new construction (projected benefits TBD)</p> 	<p>Draft to Council on June 14, 2023, with electrification petition</p> <p>FY23, Q4 (orig. Q2)</p>
<p>12. Scope Green Rentals Program</p> 	<p>Explores the costs/benefits of creating a sustainability program for rental property</p> 	<p>Scoping underway, with spring support from UNC EcoStudio intern; engaging with Duke Energy and Chamber</p> <p>FY23, Q4</p>
<p>13. Scope Big Buildings + Parking Lots Program</p> 	<p>Explores the costs/benefits of creating a sustainability program for large buildings and parking lots</p> 	<p>Scoping underway, with spring support from UNC EcoStudio intern</p> <p>FY23, Q4</p>
<p>14. Explore Orange County Solar Farm Partnership</p> 	<p>Explores the costs/benefits/options of a countywide partnership to build a utility-scale solar farm that helps meet municipal renewable energy goals</p>	<p>Scoping underway in collaboration with municipal partner staff</p> <p>FY24, Q1 (orig. FY23 Q4)</p>
<p>15. Participate in 2023 Solarize the Triangle Program</p>	<p>Creates more residential and commercial rooftop solar installations. (Projected benefits TBD)</p>  	<p>2023 campaign launching in May, along with program to install solar on LMI-eligible homes</p> <p>FY24, Q4</p>

Transportation + Land Use		
Action	Benefits	Status / Target Date
1. Develop Public EV Station Site Suitability Map + Screening Tool 	Prepares Town for federal infrastructure funding and zoning application reviews	✓ September 2022 (click <a href="#">here</a> to view the StoryMap and tool)
2. Fleet Electrification Analysis 	Represents phase 1 of accelerated fleet electrification plan, with draft investment scenarios	✓ August 2022
3. Develop Wayfinding Strategy for Mobility Plan	Prepares Town for building out Mobility Plan network and enhancing use of existing transportation routes for all users	✓ November 2022
4. Install 6 EV Charging Stations at Public Works	Supports the reduction of fleet emissions and provides operational insights into fleet electrification (projected benefits TBD)	✓ December 2022
5. Install <a href="#">EV Charging Station with ADA Access at Eubanks Park + Ride</a> 	Enables EV charging and reduces vehicle emissions by 6.8 metric tons per year by displacing gasoline 	✓ January 2023
6. Install 4 EV Charging Stations at Police Headquarters	Supports the reduction of fleet emissions and provides operational insights into fleet electrification (projected benefits TBD)	✓ March 2023

<p>7. Complete Solar Study for Transit Facility</p> 	<p>Provides cost-benefit analysis of solar, battery storage, and charging optimization for Transit facility</p> 	<p>Draft report under review by staff</p> <p>FY23, Q4 (orig. Q2)</p>
<p>8. Host Duke Energy Charging Stations at Town facilities</p> 	<p>Enables EV charging and reduces vehicle emissions by displacing gasoline (projected benefits TBD)</p> 	<p>Hosting agreement complete; permit applications under review for 3 locations</p> <p>FY23, Q3 (orig. Q2)</p>
<p>9. Fleet Electrification Planning</p> 	<p>Phase 2 of accelerated fleet electrification, with 5-year investment; prepares Town for continued transition to EVs and EV infrastructure</p>	<p>Staff review complete, final summary underway</p> <p>FY23, Q4</p>
<p>10. Purchase 4-8 Electric Vehicles for Town</p>	<p>Reduces fleet emissions and provides operational insights into fleet electrification (projected benefits TBD)</p>	<p>2 EVs in operation (Public Works, Police), 2 arriving in June (Public Works, Fire), 4 more on order</p> <p>FY23, Q4</p>
<p>11. Install 20 EV Charging Stations at New Rosemary Parking Deck</p> 	<p>Enables EV charging and reduces vehicle emissions by displacing gasoline (projected benefits TBD)</p> 	<p>Grant funds secured (\$25k), coordinating installation with Duke Energy</p> <p>TBD</p>
<p>12. Continue Building Out Mobility Plan Network</p> 	<p>Reduces emissions by creating a town-wide transportation network that doesn't require a car</p>	<p>Multiple projects moving forward, see presentation slide for more details</p> <p>Ongoing</p>
<p>13. Participate in TOD and LUMO Rewrite Visioning</p>	<p>Positions town with updated sustainable development and redevelopment practices (projected benefits TBD)</p>	<p>UNC EcoStudio intern researching model ordinances</p> <p>FY24</p>







Water, Wastewater & Natural Resources		
Action	Benefits	Status / Target Date
1. Review of Town's Plan for Flood Mitigation Facilities 	Understanding of impacts from flood mitigation facilities informs Council policy on stormwater infrastructure investments	Booker Creek Working Group has finalized their recommendations report and will present to Council no later than fall  FY24, Q2 (orig. FY23, Q3)
2. Review of Town Stormwater Regulations 	Informs Council policy on sustainable stormwater infrastructure and regulations	Staff preparing to present to Council  FY23, Q4 (orig. Q2)
3. Expand Flood Alert System Sensor Technology 	Enhances early warning system for low-lying areas of Town	UNC student project complete, scoping sensor project  FY24, Q2 (orig. FY23, Q2)
4. Participate in Countywide Solid Waste Master Planning 	Prepares Orange County to meet zero waste goal by 2045	Draft plan released to SWAG review by end of June  FY24, Q2 (orig. FY23, Q4)

Resiliency		
Action	Benefits	Status / Target Date
1. Launch Year 2 of <a href="#">Leave Your Leaves</a> Campaign 	Creates fertile soil and healthy trees, supports local wildlife, reduces flooding and improves water quality, and reduces emissions	✓ December 2022
2. Plant 200 or More Canopy Species Trees 	Increases public and environmental health, sequesters carbon (projected benefits TBD) 	Grant funding secured, coordinating with Parks & Rec to plant in fall FY24, Q2 (orig. FY23 Q2)
3. Determine Who is Most Affected by Climate Stressors 	Prepares Town for localized programming that builds sustainability and resiliency within communities that stand to benefit the most 	Developing more granular GIS analysis of most impacted areas FY23, Q4 (orig. Q2)
4. Launch New Interactive Climate Action Web Portal 	Becomes a one-stop shop for climate communication, education and engagement 	Scoping project FY24, Q2 (orig. FY23 Q2)

Grants Management				
Grant	Grantor	Amount	Match	Status
1. Install 2 EV Charging Stations at Town Hall 	NCDEQ, VW Settlement Program	\$18,000	\$11,968	✓  Installed: October 2021  Reporting: thru 2025
2. Upgrade Library Lighting to LED 	Duke Energy Small Business Energy Saver Program (utility incentive)	\$67,114	\$34,855	✓  Installed: June 2022  Reporting: NA
3. Fleet Electrification Planning Internship 	Environmental Defense Fund Climate Corps Fellow	\$11,250	N/A	✓  Completed: August 2022  Reporting: NA
4. Upgrade Cedar Falls Turf Lighting to LED	Orange County Community Climate Action Grant Program	\$128,057	\$79,211	✓  Installed: December 2022  Reporting: NA
5. Install EV Charging Station at Eubanks Park + Ride 	Orange County Community Climate Action Grant Program	\$18,500	\$9,518	✓  Installed: January 2023  Reporting: NA



-  Council priority
-  High impact (carbon)
-  High impact (people)

6. Plant 200 or More Canopy Species Trees 	Orange County Community Climate Action Grant Program	\$40,000	N/A	Active  Estimated Completion: FY24 Q2  Reporting: TBD
7. Install 10 EV Charging Stations at the Rosemary Parking Deck	NCDEQ, VW Settlement Program	\$25,000	TBD	Awarded  Estimated Completion: TBD  Reporting: TBD
		\$307,921	\$135,552	