

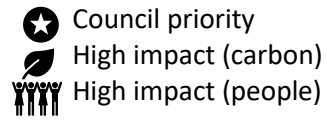












STAFF REPORT – FEBRUARY 2023 CLIMATE ACTION UPDATE TO COUNCIL




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




February 22, 2023



Buildings + Energy Actions		
Action	Benefits	Status / Target Date
1. Upgrade Library Lighting to LED	Projected savings/year: <ul style="list-style-type: none"> • \$23k utilities • 290k kWh • 206 MTCO_{2e} 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 70% CO ₂ reduction from Duke Energy NC-SC power generation by 2030 🌿	✓ August 2022
5. Support SSDN Letter 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 (Docket E-100 Sub 161)	✓ December 2022















6. Upgrade Cedar Falls Turf Lighting to LED	Projected savings/year: <ul style="list-style-type: none"> • \$3.8k utilities • \$3.9k maintenance • 17.6 MTCO₂e Project life: 25 yrs, 80k hrs	✓ December 2022
7. Scope Weatherization Gap Program 	Prepares Town to begin implementing weatherization gap program 	Scoping underway, with new support from UNC Public Policy Master's-level intern FY23, Q4 (orig. Q1)
8. Conduct Energy Burden Study 	Informs other weatherization program actions (see above) 	Scoping underway, with new support from UNC Public Policy Master's-level intern FY23, Q4 (orig. Q2)
9. Update Council's Green Building Framework 	Updates green building policy for new construction (projected benefits TBD) 	Draft to Council by April 2023, with electrification petition FY23, Q4 (orig. Q2)
10. Participate in Phase 1 of Solarize the Triangle Program	Creates more residential and commercial rooftop solar installations (projected benefits TBD)  	Campaign launched in August, over 1,500 sign-ups, 1,100 kW solar and 472 kWh battery contracted Triangle-wide; LMI program launches Q3 FY23, Q4 (phase 1)
11. Scope Green Rentals Program 	Explores the costs/benefits of creating a sustainability program for rental property 	Scoping underway, with spring support from UNC EcoStudio intern FY23, Q4


-  Council priority
-  High impact (carbon)
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<p>12. Scope Big Buildings + Parking Lots Program</p> <p></p>	<p>Explores the costs/benefits of creating a sustainability program for large buildings and parking lots</p> <p></p>	<p>Scoping underway, with spring support from UNC EcoStudio intern</p> <p>FY23, Q4</p>
<p>13. Explore Orange County Solar Farm Partnership</p> <p></p>	<p>Explores the costs/benefits/options of a county-wide partnership to build a utility-scale solar farm that helps meet municipal renewable energy goals</p>	<p>Scoping underway amongst municipal partners</p> <p><i>(new action item)</i></p> <p>FY23, Q4</p>




Transportation + Land Use		
Action	Benefits	Status / Target Date
<p>1. Develop Public EV Station Site Suitability Map + Screening Tool</p> <p></p>	<p>Prepares Town for federal infrastructure funding and zoning application reviews</p>	<p>✓ September 2022</p> <p>(click here to view the StoryMap and tool)</p>
<p>2. Fleet Electrification Analysis</p> <p></p>	<p>Represents phase 1 of accelerated fleet electrification plan, with draft investment scenarios</p>	<p>✓ August 2022</p>
<p>3. Develop Wayfinding Strategy for Mobility Plan</p>	<p>Prepares Town for building out Mobility Plan network and enhancing use of existing transportation routes for all users</p>	<p>✓ November 2022</p>
<p>4. Install 6 EV Charging Stations at Public Works</p>	<p>Supports the reduction of fleet emissions and provides operational insights into fleet electrification (projected benefits TBD)</p>	<p>✓ December 2022</p>









<p>5. Install EV Charging Station with ADA Access at Eubanks Park + Ride</p> 	<p>Enables EV charging and reduces vehicle emissions 6.8 metric tons per year by displacing gasoline</p> 	<p>✓ January 2023</p>
<p>6. Install 4 EV Charging Stations at Police Headquarters</p>	<p>Supports the reduction of fleet emissions and provides operational insights into fleet electrification (projected benefits TBD)</p>	<p>Four stations installed, Duke Energy to energize all in Q3 FY23, Q3</p>
<p>7. Complete Solar Study for Transit Facility</p> 	<p>Provides cost-benefit analysis of solar, battery storage, charging optimization for Transit facility</p> 	<p>Finalizing analysis, including new federal incentives FY23, Q3 (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>Finalized site options with Duke Energy, reviewing hosting agreement 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 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 received (Public Works, Police), 6 more on order 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 TBD</p>

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<p>12. Continue Building Out Mobility Plan Network</p> <p></p>	<p>Reduces emissions by creating a town-wide transportation network that doesn't require a car</p>	<p>Multiple projects moving forward, see slide 14 from fall presentation for details; Estes Drive project anticipated completion now winter 2023</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
<p>1. Review of Town's Plan for Flood Mitigation Facilities</p> <p></p>	<p>Understanding of impacts from flood mitigation facilities informs Council policy on stormwater infrastructure investments</p>	<p>Booker Creek Working Group developing draft report/recommendations</p> <p>FY23, Q3</p>
<p>2. Review of Town Stormwater Regulations</p> <p></p>	<p>Informs Council policy on sustainable stormwater infrastructure and regulations</p>	<p>Staff exploring review of regulations with LUMO consultant</p> <p>FY23, Q3 (orig. Q2)</p>
<p>3. Expand Flood Alert System Sensor Technology</p> <p></p>	<p>Enhances early warning system for low-lying areas of Town</p>	<p>UNC student project complete, scoping sensor project</p> <p>FY23, Q4 (orig. Q2)</p>
<p>4. Participate in Countywide Solid Waste Master Planning</p> <p></p>	<p>Prepares Orange County to meet zero waste goal by 2045</p>	<p>Project underway, consultant reviewing stakeholder feedback</p> <p>FY23, Q4</p>

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Resiliency		
Action	Benefits	Status / Target Date
1. Launch Year 2 of Leave Your Leaves 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, Q3 (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

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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	