

Carbon Reduction and Resilience Recommendations

Focus Area	Specific Recommendation	Who will need to take action?	Additional Information	Source of Recommendation
Strengthen resilience and flexibility of the grid	Update the State Energy Assurance Plan to reflect 1) existing reporting requirements (fed, state, local, etc.) to reduce redundancies. 2) cybersecurity concerns and publicly available data	State agencies, Universities, Utilities		Memo
	Coordinate resilience planning with DROC (disaster recovery operations center) and require NC Emergency Management's Recovery Support Functions to address cybersecurity concerns in conjunction with energy resiliency issues.	Governor, NC Office of Recovery and Resiliency, DEQ		Other
	Develop an active energy Resilience Planning Resource to assist local governments and disadvantaged communities	Universities, Governor, Local Government, State Agencies		Memo
	Use defense in depth or a layered grid approach to increase reliability and improve resilience	NCUC, Utilities		Memo
	Develop a system that formalizes how to quantify human costs of power outages	NCUC, Universities, Governor		Memo

	Create pilots that offer DER & community energy solutions and microgrids at state facilities and critical facilities (e.g., emergency responder stations, public shelters, medical facilities)	Governor, State agencies, Utilities, NCUC, Local government		Memo
Develop pathways to further decarbonize the electric power sector	Set carbon mass cap on the electric power sector for 2030, 2040 and 2050	Legislature NCUC	Amend Chapter 62 of the N.C. General Statutes to allow NCUC to consider additional objectives such as carbon emissions reduction. Establish measurement methods and tools to track the progress.	Memo
	Require addition of carbon pricing when considering least cost resources for IRP	Legislature, NCUC	Amend Chapter 62 of the N.C. General Statutes to allow NCUC to consider additional objectives such as carbon reduction. For example, require economic costs and risks associated with climate change in least cost utility system planning.	Memo
	Increase renewable energy and energy efficiency targets in state renewable portfolio standard for 2030.	Legislature		Other

	Use innovative rate design to encourage customer behavior that helps achieve clean energy goals, such as “clean peak” generation and storage deployment	Legislature, NCUC	Can offer reduced dependence on gas combustion turbines (CTs) for peaking and encourage solar/storage pairing	Memo
	Evaluate benefits and disadvantages of establishing an instate carbon (GHG) emissions trading program or NC joining a regional carbon (GHG) emissions trading program	Governor, Legislature Environmental Management Commission, DEQ		Memo
	Incorporate GHG scoring for state funded projects (e.g. State Transportation Improvement Program, Clean Water State Revolving Fund, Drinking Water State Revolving Fund)	Governor, Legislature, state agencies, local government	<ol style="list-style-type: none"> 1. Add GHG impact to project scoring formulas 2. State should ask for guidance on the scoring formula from cities with carbon goals or policies 	Cities Initiative
	Develop implementation pathways for policy measures identified in a study currently underway that will determine the extent and location of available biogas/biomethane resources in the state and the percentage of NC’s GHG reductions that can be met with biomethane	Duke University, RTI, East Carolina University	RTI, International is leading an analysis between Itself, Duke University and East Carolina University to measure available biomethane and the probabilities, based on technical and economic factors, for its development. The analysis will include determining the climate, environmental, societal, and economic effects of the use	

			of biogas and will recommend policy measures to accelerate biomethane development, and the best uses for the gas (ie, transportation fuel, RNG/pipeline, on-site energy generation).	
	Facilitate renewable natural gas (RNG) transport to end users and buyers to accelerate development / accelerate GHG reductions from in-state biomethane sources	NCUC, Local Distribution Companies, Dept. of Transportation, Commerce, and Agriculture		
	Create technical support services for biomethane development, particularly for suppliers who own the waste but are not engaged in biomethane production for their primary income.	Governor, DOT, Dept. of Transportation, Commerce, and Agriculture		
Create strategies for electrification in transportation and consumer energy use sectors	Conduct an analysis of the costs and benefits of using electrification to reduce energy burden and GHG emissions in consumer end-use sectors in NC, such as in homes, buildings, transportation and agriculture sectors	DEQ, DOT, DOC, Universities,		

	Develop rate structures that help make charging EVs economic and encourage off-peak charging of vehicles (e.g. time of use pricing)	NCUC, Governor, Legislature	Rate design can make it economically viable to install charging in locations like multi-family dwellings, workplaces, and other public places. It can also help EV drivers save money as well as reduce overall power system costs and emissions	Other
	Amend building codes and standards to support EV adoption	Governor, NC Building Code Council, Legislature	For example, new multi-family and single family homes could be required to be EV-infrastructure ready	
	Increase the use of EVs in public transportation and evaluate options for transitioning public transit, public and private fleet transportation, and other modes of transport to higher utilization of EVs.	Public transit districts, local governments, private fleet managers, utilities		
	Increase electric transportation access for low-income consumers.	Utilities, NCUC, Legislature		
	Adopt EV bulk purchasing programs to address EV adoption obstacles	DOA, DOC, Local government	Bring together local governments, nonprofits, electric utilities, auto dealerships, and auto manufacturers to boost EV sales through a combination of community engagement and EV purchasing incentives.	

	Adopt procurement policies for all state agencies to purchase a certain number of EVs based on operational and economically feasible options for the agency.	Governor's office, DOA		
	Encourage public and private entities to promote EV adoption by offering EV charging infrastructure at the workplace.	Local and state government, private businesses	Private business owners can offer EV charging at workplaces, the state government could incentivize infrastructure at private locations, or the utilities can help by adopting rate design that encourages this, or they can offer incentives to get infrastructure installed.	