

## North Carolina Energy Efficiency Roadmap Executive Summary

Jennifer Weiss

### Executive Summary

Energy efficiency (EE) is widely considered a least cost option for meeting energy demand while reducing energy costs and carbon emissions. While EE has experienced slow and steady growth in North Carolina, much more can be done to maximize the full potential of this least cost resource. As such, leading EE and energy experts—including academic experts, consumer advocates, environmental nonprofits, commercial entities, state agencies, and utilities—participated in a series of meetings to determine where and how to deploy EE at a significantly greater rate. This report makes recommendations for increased and effective EE deployment in North Carolina.

Despite bipartisan support for the economic and environmental benefits of EE and an increasing focus by advocates, utilities, and big energy users, there are still barriers blocking the realization of EE's potential. With a greater understanding of these barriers, there are multiple opportunities for increased EE in the state. This EE Roadmap report collects the expertise and ideas from over 100 EE stakeholders in the region and maps out the shared objectives and strategies that can help the state implement new solutions, remove barriers, and achieve its EE potential.

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## ***Objectives of Roadmap***

To capitalize on the EE opportunities in the state, the Nicholas Institute, in partnership with North Carolina's Department of Environmental Quality (NC DEQ), initiated a process to develop a comprehensive state EE Roadmap. This initiative, launched in August 2018, convened stakeholders from separate EE working group discussions to think collectively about this issue. Recognizing that considerable EE work was already being done within the state, the objective of the Roadmap is to build on the collective priorities and strengths of the state's energy stakeholders to identify and achieve a shared set of EE policy goals and inform the statewide Clean Energy Plan.<sup>1</sup>

The EE Roadmap strives to include diverse voices from across the state and identify a variety of paths forward to help all stakeholders seize the EE opportunities in the state. Some of the discussions generated substantial debate and disagreement among various parties that could be impacted by a new paradigm for EE. These discussions, particularly as they relate to statewide mandates, third-party administrators, utility incentives, and non-energy benefits, did not always garner consensus from all participants and are worthy of additional discussion from a broader group of EE stakeholders. Participation in this effort by any stakeholder should not necessarily be represented as an agreement with the final recommendations.

## ***The Energy Efficiency Roadmap Framework***

In September 2018, the Nicholas Institute formed the EE Steering Committee, a group of EE leaders in the state with diverse organizational perspectives. The steering committee met regularly from September 2018 through July 2019 to provide critical guidance and input to the Nicholas Institute as progress on the EE Roadmap evolved. A final list of recommendations on specific EE-related areas has been provided to NC DEQ and is outlined in this final report.

Through a series of workshops and working groups, over 100 EE stakeholders from state, regional, and national organizations participated in the roadmap process. These included representatives from academia, consumer groups, environmental nonprofits, financial institutions, industrial associations, regulators, state agencies, utilities, and others. Each participant voluntarily selected a role; some led working groups, others provided subject matter expertise or research into solutions, and others observed or participated in an advisory role. Whenever possible, a diverse set of voices was sought to ensure that a balanced and thoughtful approach was taken for all recommendations. The final recommendations outlined in this report represent impactful and largely agreed upon ideas, but not all recommendations had consensus from all parties.

During the first EE stakeholder workshop in October 2018, the group established a set of shared objectives that would be the foundation for the evaluation of all recommendations.

## ***Shared Energy Efficiency Roadmap Objectives***

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***Objective 1: Align interests to create an EE-conducive climate***

***Objective 2: Increase access for hard to reach sectors***

***Objective 3: Develop a uniform standard for tracking/benchmarking EE costs and benefits***

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<sup>1</sup> The North Carolina Clean Energy Plan stakeholder process was initiative by Governor Roy Cooper as part of Executive Order 80. It includes a broad set of stakeholder engagement focused on policy, regulatory, administrative and program recommendations to achieve EO80's climate goals. Additional information on the plan and the collaborative process can be found on NC DEQ's website: <https://deq.nc.gov/energy-climate/climate-change/nc-climate-change-interagency-council/climate-change-clean-energy-2>.

## Objective 1—Align Interests to Create an EE-Conducive Climate

- Theme 1: EE Education Campaign
- Theme 2: Workforce Training
- Theme 3: Building Code Improvement
- Theme 4: Centralized Administration and Cross-Collaboration
- Theme 5: EE Portfolio Standard or Target

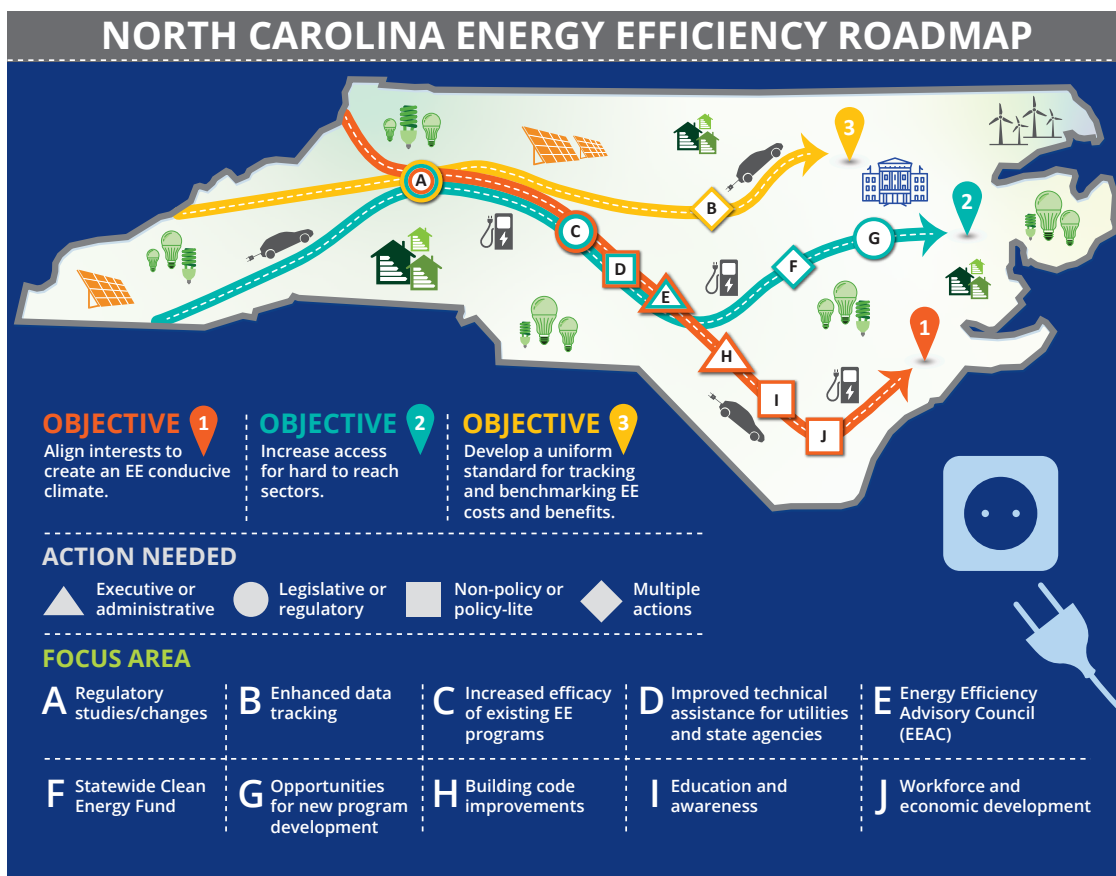
## Objective 2—Increase Access for Hard to Reach Sectors

- Theme 6: Address Energy Poverty
- Theme 7: Equitable EE Programs for All Sectors
- Theme 8: Equitable and Accessible EE Financing Programs

## Objective 3—Develop a Uniform Standard for Tracking/Benchmarking EE Costs and Benefits

- Theme 9: Cost/Benefit Analysis—EE Impacts on Grid and Societal Cost Inclusion
- Theme 10: Data Access and Analysis
- Theme 11: Standardized Tracking of EE

Over the course of ten months, the steering committee and working groups narrowed down a set of recommendations to 32 which were prioritized by their impact and feasibility. The result is a list of 10 EE focus areas for North Carolina. Additional detail on each of the recommendations can be found in Appendix A.



## Summary of Energy Efficiency Recommendations for North Carolina

Focus Area	Short-Term (1–3 years) Recommendation	Who should take the lead?	Longer Term (3+ years) Discussion
Energy Efficiency Advisory Council (EEAC)	Establish an EEAC to oversee the implementation of the EE Roadmap recommendations	Governor	
Enhanced Data Tracking	Collect data from existing sources and apply methodology to state buildings	Universities, NC State Agencies	Develop a data repository and enable voluntary reporting of certain metrics
	Enable “Download My Data” functionality for electric, natural gas, and water utilities	NCUC (IOU), Legislature (Munis/ Co-ops)	Evaluate automatic Energy Data Transfer
	Develop a database of utility rates	NCUC (IOU), Legislature (Munis/ Co-ops)	
Education and Awareness	Launch Energy Efficiency Everywhere (E3) campaign—educational materials for K–12 and community colleges	Academic Institutions	
	Develop sector-specific EE Toolkit from existing and new online resources	University or Nonprofit	
Workforce and Economic Development	Include EE jobs in the Dept. of Commerce’s workforce development assessment	Dept. of Commerce	
	Collaborate with ApprenticeshipNC to launch an EE Apprenticeship program	Nonprofit	
Building Code Improvements	Increase energy awareness and action on NC Building Code Council	Governor	Establish a defined pathway to net-zero energy-ready homes and buildings
Statewide Clean Energy Fund	Create NC Clean Energy Fund to include utility financing programs	Nonprofit	Add in fuel-neutral EE funding source to Clean Energy Fund
Regulatory (NCUC) Changes/Studies for Evaluating EE Programs	Commence a cost-effectiveness study to include evaluation of non-energy benefits	NCUC	
	Develop new NCUC evaluation criteria for evaluation of all energy programs to include equity and economic development criteria	NCUC	
Improved EE Program Efficacy	Establish minimum EE goals within existing REPS	Legislature	Develop a required/mandatory EERS target
	Allow flexible NC Agency Funding for EE projects (through NC OSBM)	Legislature	
Opportunities for New Program Development	Develop new programs (utility and nonutility) to address needs in underserved markets to include Hot Water Heat Pump (HWHP) rental program	NCUC, Utilities	Utilize DSM savings for low-income programs
	Increase funding for NC Housing Trust Fund to improve energy efficient affordable housing options in the state	Legislature	

Focus Area	Short-Term (1–3 years) Recommendation	Who should take the lead?	Longer Term (3+ years) Discussion
Improved Technical Assistance for Utilities and State Agencies	Develop a third-party “EE Technical Assistance” administrator to assist municipal utilities, co-ops, and state agencies with EE program development and administration	Nonprofits, Utilities	
	Improve project management coordination for weatherization, urgent repair with improved measurement, and verification of programs	Nonprofits, Universities, Utilities	

By continuing to work together on the EE focus areas and recommendations outlined in this roadmap, North Carolinians will be well on the way to meeting the clean energy goals outlined in EO80 as well as increasing grid resiliency and improving the health and economic well-being of all North Carolina energy consumers.