



The Business Case for Energy Efficiency: How Investing in *Less* Creates *More* for North Carolina

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Utility and Regulatory Environment

Expand and modernize utility energy efficiency programs and the regulatory environment that regulates them to achieve at least 1% net utility energy efficiency savings by 2023

	<p>Establish a Goal of at Least 1% Net Utility Energy Efficiency Savings by 2023</p> <ul style="list-style-type: none"> • Establish a mandate for regulated utilities to achieve at least 1% annual energy savings target based on prior year sales by 2023. • Add a “public goods charge” (PGC) on ratepayer electricity to create a public benefits fund. • Establish a carbon tax focused on commercial and industrial buildings.
	<p>Renewable Energy and Energy Efficiency Portfolio Standard (REPS)</p> <ul style="list-style-type: none"> • Increase or remove current REPS energy efficiency limits. • Prioritize energy efficiency before renewables. • Incorporate annual energy reduction standards. • Pass into law 2017’s HB401 “Supporting Clean Energy/Creating Green Jobs.”
	<p>Enable Utility Supported Consumer Financing Programs</p> <ul style="list-style-type: none"> • Increase state support and utility requirements to enable PAYS and OBF. • Work with utilities to establish qualification and participation policies. • Ensure that program participation supports utility compliance to REPS requirements.
	<p>Improve Cost Effectiveness Testing for Utility Programs</p> <ul style="list-style-type: none"> • Overhaul and modernize Utilities Commission energy efficiency cost effectiveness protocols. • Support the creation of performance-based energy efficiency utility and state incentive programs. • Assist municipal utilities and electric cooperatives in offering energy saving programs in ways that aid their transition to a future business model that rewards energy efficiency. • Research the costs and benefits of utility energy efficiency programs that focus on consumer behavioral change over incentivizing retrofits. • Recognize the measurable monetary value of individual and community non-energy and societal benefits provided through energy efficiency projects by modernizing cost effectiveness testing requirements. • Incorporate higher cost effectiveness scoring for programs that incentivize energy efficient design or that serve low-income households.

	<p>Commercial Buildings Energy Efficiency Opt-Out Allowance</p> <ul style="list-style-type: none"> • Significantly raise the threshold for the opt-out option or eliminate it altogether. • If the threshold remains in place, establish a self-direct option and create necessary state level EM&V policies and procedures at the Utilities Commission. • Develop new energy efficiency programs that benefit large industrial and commercial building owners and operators, as well as utilities.
	<p>Enable Tiered Electricity Rates and Support Financing and Incentive Programs</p> <ul style="list-style-type: none"> • Create an Energy Efficiency or “Green” Bank to support financing of energy efficiency and renewable energy projects in the state. • Pass into law 2017’s SB236 “Efficient and Affordable Energy Rates” with some modifications: <ul style="list-style-type: none"> ○ Incorporate provisions that prevent low-income customers from increased utility burden by these types of inverted rate structures, which have occurred in other states. ○ Exempt customers that fall significantly below the poverty line. ○ Allow utility bill repayment history, or an indicator other than the customer’s credit score, to be used to qualify individuals for the loans. • Pilot tiered electricity rates and time-of-use rates with aggressive utility marketing of the programs. • Incentivize the purchase of ENERGY STAR labeled appliances with an annual sales tax-free holiday. • Incentivize the purchase or retrofit of energy efficient manufactured homes (certified to ENERGY STAR® standards) via state or utility funded tax credits or rebates.
<p>Building and Energy Codes</p> <p>Adopt and provide education on improved building and energy codes, add an energy seat to the NC Building Code Council and promote above-code utility energy efficiency incentive programs</p>	
	<p>Support Transitioning to 2018 NC Building and Energy Code</p> <ul style="list-style-type: none"> • Support proper training and implementation of the new code via educational workshops to builders, contractors, code officials and others involved in residential and commercial construction. • Transition to the full 2015 IECC as soon as possible.
	<p>Add an Energy Seat to Building Code Council</p> <ul style="list-style-type: none"> • Add an energy seat to the NC Building Code Council as soon as possible. This would require legislation to amend the Building Code Council makeup and a Governor appointment to the new position(s).
	<p>Key Energy Stakeholder Education</p> <p>Educate key stakeholders on:</p> <ul style="list-style-type: none"> • Understanding the benefits of energy, water and performance benchmarking programs being added to future code requirements. • Improving residential and commercial energy code compliance, inspection and enforcement policies and procedures in the field. • How energy rating systems like the Energy Rating Index (ERI) and third-party verification offer new opportunities to streamline code official inspections and administrative processes. • Energy efficiency code requirements for existing home and building repairs and retrofits.
	<p>Implement Key Energy Efficiency Code Changes</p> <ul style="list-style-type: none"> • Make the new optional ERI pathway a requirement to achieving energy code compliance in all new home construction. • Require the Department of Insurance to develop minimum ERI standards via a market analysis. • Develop policies and procedures for code officials to pass homes using the new ERI option, as well as for homes that do not. • Perform a study of commercial energy code compliance and code official enforcement to better understand and address gaps and weaknesses across the state. • Examine opportunities to increase minimum energy code requirements for existing residential and commercial buildings.

Reduce Market and Regulatory Barriers to Entry

Support increased consumer education, decreased regulatory hurdles and offer public/private consumer financing programs to enable increased participation in energy efficient construction

Support Low-Cost Consumer Education Opportunities

- Form a task force through the Governor's office aimed at developing an effective energy efficiency consumer education campaign highlighting the state's renewed investment and resources for energy efficiency.
- Offer educational workshops to drastically increase consumer participation in energy efficiency projects.
- Incorporate budgeting and financial management into weatherization programs to help recipients further improve their housing affordability and living conditions once their homes have been weatherized and they begin receiving monetary savings through lower utility bills.
- Develop new or update existing booklets that can be provided to weatherization recipients to aid in their continued path to housing affordability and energy savings.

Permit-Based Incentives

- Support local government efforts to offer an expedited permit process or reduced permit fees for homes and buildings that meet locally-approved energy efficiency standards.

Energy Saving Requirements for Public Schools

- Pass into law 2017's HB 786, NC Energy and Water Efficient Schools Act.
- Establish a state-run program like DEACS or USI within the State Energy Office that provides support to school administrators and local governments that need assistance obtaining and evaluating proposals for new and retrofit energy efficiency school projects that offer long-lasting financial returns and educational opportunities for students.

State-Funded Capital and Infrastructure Funding

- Pass into law 2017's HB 583 (H583), Pay-As-You-Go Capital and Infrastructure Fund.

Enable Commercial Property Assessed Clean Energy (C-PACE) Legislation

- Pass into law of 2017's SB493, Commercial Property Assessed Capital Expenditures, "C-PACE Program".

Energy, Water and Performance Benchmarking

Create and implement a statewide plan that establishes voluntary and mandatory energy, water and performance benchmarking in homes and buildings

Single Family Residential Benchmarking Programs

- Make plans to require the Department of Energy's Home Energy Score, RESNET's Home Energy Rating System (HERS) Index, RESNET's Water Efficiency Rating System (WERS) Index or other rating systems to establish benchmarking programs for energy and water usage in all new and resale single and multifamily homes in the state.

Multifamily, Commercial and Public Building Benchmarking Programs

- Require the use of ENERGY STAR's Portfolio Manager for all buildings over 50,000 square feet.
- Fund and implement the state's proposed North Carolina Water and Wastewater Energy Initiative.

Making Energy and Performance Usage Public Record

- Pass legislation to update Chapter 47E-4 of the North Carolina General Statutes to mandate that energy and water usage and rating data be made available through public records and disclosed during sales transactions.

	<p>Third Party Access to Utility Usage Data</p> <ul style="list-style-type: none"> • Allow third party access to energy and water usage data currently restricted by utilities. • Develop statewide guidelines that remove potential barriers to benchmarking and transparency initiatives. Utilities, ratepayer advocates, building owners and managers, and technology companies should be invited to actively participate in these efforts.
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Multifamily and Low-Income Financial Barriers

Reduce the financial barriers that prevent builders, owners, occupants and federally-funded programs from participating in energy efficient construction in multifamily and low-income homes and buildings

	<p>Using Local Ordinances and State-Run Programs</p> <ul style="list-style-type: none"> • Support municipalities in initiating local education, audit and retrofit programs through local ordinances. • Increase the minimum requirements of the Qualified Action Plan program to ENERGY STAR 3.0. • Ensure effective coordination between utility and state low-income programs. • Increase available federal and state funding for HOME and CDBG and remove burdensome regulations. • Create programs that incentivize developers, owners and managers to improve the energy efficiency of their low-income multifamily properties. • Educate Utility Commission and Public Staff on effective low-income programs. • Support appointments of nominees who are knowledgeable in energy efficiency to the Utilities Commission and Public Staff.
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	<p>Addressing the Split-Incentive Financial Barrier</p> <ul style="list-style-type: none"> • Create energy efficiency incentive programs based on whole-building retrofits to properly address the split-incentive financial barrier.
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	<p>Incentives for Builders and Developers</p> <ul style="list-style-type: none"> • Support local expedited permit procedures for energy efficient multifamily and low-income homes. • Support programs that offer cash incentives to owners, developers and property managers for making energy efficiency improvements. • Reintroduce tax credits and rebates for builders and owners of energy efficient manufactured homes that meet ENERGY STAR guidelines or that are built to be ready for heat pump or other energy saving technology installation.
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	<p>Implementing Energy Efficiency Requirements for Rental Units</p> <ul style="list-style-type: none"> • Combine efforts to require minimum energy efficiency code requirements in multifamily and low-income buildings with housing rehabilitation and weatherization programs. • Study the City of Memphis’ program to see if successful implementation in North Carolina cities is possible.
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	<p>State Funding Issues Limit Authorized Home Weatherization for Low-Income Families</p> <ul style="list-style-type: none"> • Initiate an audit of the federal to state to community action agency funding process to improve the pipeline of authorized funding available to needy and deserving North Carolina residents and families. • Improve state weatherization funding rules to allow for increased funding of health and safety repairs that oftentimes need to be completed prior to available energy efficiency upgrades. • Utilities Commission should require Duke Energy to allocate at least \$3M per year in weatherization funding to provide a stable source for weatherization agencies.
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Strategic State Support and Resources

Reinforce and increase the current low-level of state support for public entities involved with energy efficiency and establish an energy roadmap that prioritizes using less before creating new

	<p>Adopt Energy Efficiency First Resolution</p> <ul style="list-style-type: none"> • Adopt an “Energy Efficiency First” resolution at the North Carolina legislature that mandates the use of energy efficiency first in addressing the state’s current and future energy needs. • Through the State Energy Office, form a public/private task force to engage industry and the public in efforts to create a State Energy Plan that prioritizes energy efficiency before traditional and renewable generation sources.
	<p>Technical Assistance Available to Municipalities</p> <ul style="list-style-type: none"> • Provide grant funding, supportive resources and program opportunities to municipalities to engage them in energy efficiency opportunities including energy and performance audits of public buildings.
	<p>Increase State Funding of State Energy Office and Energy Centers</p> <ul style="list-style-type: none"> • Commit to increased and sustaining state funding of State Energy Office and Energy Centers.
	<p>Increase State Funding for Performance Contracting</p> <ul style="list-style-type: none"> • Support the Energy Policy Council’s (EPC) 2016 recommendation to the Governor and the General Assembly to increase our state’s goal to reduce energy and water consumption in state-owned buildings by 40% by 2025. • Mandate that all state agencies and universities that have not achieved the S668-2007 goal of 30% energy reduction by 2015 do so or risk a 10% utility budget reduction as determined by OSBM. • Allow Performance Contracting to be used for new public building construction to provide for more energy efficient systems that are paid for by resulting guaranteed savings. • Create an Energy Efficiency Bank or Revolving Green Loan Fund that offers funding for ongoing and deferred maintenance projects. • Incorporate performance contracting mandate into the state’s \$2B Connect NC infrastructure fund. • Support the creation of new, practical and cost-saving behavioral change programs that encourage state government employees to reduce energy and water usage. • Expand H1292-2009 into state government energy policies and activities to those available or needed in the UNC system. • Improve availability and usability of public building utility data managed by Duke Energy and other utilities. • Implement smart meters in all new and existing public buildings greater than 10,000 sqft and manage an in-house sub-metering operation that allows a state government organization to monitor and improve energy usage at all state buildings.
<p>Workforce Development</p> <p>Expand state and local support for workforce development programs that train students and displaced workers to fill the vital need for more skilled workers in the state’s energy efficiency trades</p>	
	<p>Fund State Education and Training Programs</p> <ul style="list-style-type: none"> • Support programs that inform students, non-college educated workers and recent college graduates about the career opportunities available to them in the state’s energy efficiency trades. • Incorporate energy efficiency curriculum in schools and universities/colleges with support from Duke Energy’s workforce development efforts funded by recent mergers and acquisitions. • A virtual career center and jobs board for skilled labor construction jobs available in North Carolina would help recruit industry professionals from other states to relocate to North Carolina, further helping to meet our shortage of available workers. • Create a construction training center that provides around-the-clock training for a variety of construction trades including heating and air conditioning, plumbing, framing, electrical and energy efficiency. • Create and support energy efficiency apprenticeship, co-op, internship and on-the-job training programs that are coordinated with high school, community college, university and local workforce training programs. • Leverage Duke Energy’s 2016 merger settlement fund distribution that provides \$5M to a Community College Grant Program to fund apprenticeship programs and four-year grants to community colleges.