

## NORTH CAROLINA

- RPS: 12.5% renewable energy or energy efficiency by 2021
- 2.31% of US carbon emissions
- 2.8% of US GDP

## FINANCE

- *Performance Contracting* – Provides project delivery as well as financing for utility efficiency upgrades in publicly owned buildings.
- *North Carolina's Energy Improvement Loan Program* – Provides low-interest loans, secured by a bank letter of credit, for eligible energy conservation and renewable energy measures. Loans with interest rates between zero and three percent are available for some renewable energy projects, energy recycling projects, and projects that demonstrate energy efficiency, energy cost-savings or reduced energy demand. The loan program can support the

following energy conservation measures: lighting systems; boiler efficiency systems; energy management systems; HVAC systems; industrial process or fabrication systems; load management systems; building envelope - doors, windows, roofs, etc.; alternate/renewable energy systems; electrical distribution systems - motors, variable speed drives, and fans; energy recovery systems, including on-site generation of electricity; fuel conservation projects; and other cost-effective demand or rate-based improvements.

## POWER SECTOR

- *North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard* – Requires investor-owned utilities in the state to supply 12.5% of 2020 retail electricity sales in North Carolina from eligible energy resources by 2021. Municipal utilities and electric cooperatives must meet a target of 10% by 2018 and are subject to slightly different rules. Eligible energy resources include solar-electric, solar thermal, wind, hydropower up to 10 megawatts (MW), ocean current or wave energy, biomass that uses Best Available Control Technology for air emissions, landfill gas, combined heat and power (CHP) using waste heat from renewables, hydrogen derived from renewables, and electricity demand reduction. Up to 25% of the requirement may be met through energy efficiency technologies, including CHP systems powered by non-renewable fuels. After 2021, up to 40% of the standard may be met through energy efficiency.

## TRANSPORTATION

- *The Energy Policy Act State and Alternative Fuel Provider Rule* – Requires state government and alternative fuel provider fleets that operate, lease, or control 50 or more light-duty vehicles (LDV) within the United States to acquire alternative fuel vehicles (AFV). Since 2001, as a covered fleet, 75% of North Carolina State Government new LDV acquisitions must be AFVs. The State Energy Office is the designated entity to report acquisition activity to the U.S. Department of Energy (DOE) by December 31<sup>st</sup> of each calendar year.
- *Energy Policy Act Credit Banking and Selling Program: Provisions for the Energy Credit Banking and Selling Program* – Establishes and manages a banking and selling program to use monies generated by the sale of federal Energy Policy Act credits to purchase alternative fuel, to develop related refueling infrastructure and to purchase alternative fuel vehicles. An Alternative Fuel Revolving Fund was generated and is used to purchase alternative fuel, to develop related refueling infrastructure and to purchase alternative fuel vehicles for use by North Carolina state departments, state institutions, and state agencies.

## EFFICIENCY

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- *Utility Savings* – Initiative program for public buildings assesses the entire stock of state buildings enrolled in the better buildings challenge.
- *N.C. Weatherization Assistance Program* – Enhances the wellbeing of low-income residents, particularly the elderly, handicapped and children, through the installation of energy efficient and energy-related health and safety measures. These clients are benefited through reduced energy bills, enhanced comfort, and a reduction in energy-related health risks. The program works with twenty sub-grantees statewide that install these measures, which include insulation, air sealing, duct sealing, Energy Star refrigerators and energy-related health and safety issues like minor electrical or plumbing repairs, indoor air quality, and leaking or unsafe water heaters. Repair or replacement of non-functioning heating/cooling systems is also part of the program. Most of these system replacements are heat pumps, which reduce electricity usage. Clients boast of lower utility bills and home comfort. In fiscal year 2017, this program weatherized 1,438 homes in North Carolina. The program celebrated a 40-year anniversary in 2016.

## CLIMATE RESILIENCE

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- *Coastal Resiliency* – North Carolina is addressing sea level rise through several research, planning, and policy initiatives. The N.C. Division of Coastal Management provides staff support to the state's Coastal Resource Commission Science Panel, which develops a 5-Year Sea Level Rise Synthesis and Assessment Report to monitor changing conditions, evaluate state-specific data, and guide coastal policy development by the NC Coastal Resources Commission. The North Carolina National Estuarine Research Reserve, which is housed within the division, also conducts site-specific and regional monitoring and research focused on coastal habitat changes in response to sea level rise and other stressors, and collaborates with academic institutions and federal and state agencies through a NOAA Sentinel Sites initiative. The division also provides technical and financial support for resilience and adaptation planning initiatives undertaken by coastal communities.