

NC GreenPower Annual Report to the NC Utilities Commission

Docket No. E-100 Sub 90

December 1, 2022

Background

In November 2021, the NC GreenPower Board of Directors gave approval for staff to request flexibility from the NC Utilities Commission (NCUC) to allow reasonable expansion of the program. New projects and services would support NC GreenPower's current mission to expand public knowledge and acceptance of cleaner energy technologies to all North Carolinians through local, community-based initiatives. On May 31, 2022, the NCUC approved NC GreenPower's request to amend its program, enabling the pursuit of interests such as:

- Larger solar for schools and/or community solar projects
- Solar projects for affordable housing neighborhoods
- Education and technical assistance for local governments, colleges/universities and companies with sustainability goals
- Energy efficiency services for schools (assessments, consulting, education, etc.)
- Carbon assessments and verification

While NC GreenPower does not need to file for approval to work in new areas, the NCUC requested that an annual report be submitted on or before December 1 describing NC GreenPower's ongoing and planned programs and services. The report shall also include performance targets, goals and metrics being used to monitor financial and mission impacts for each program and service.

2022 Activities

Legacy Programs

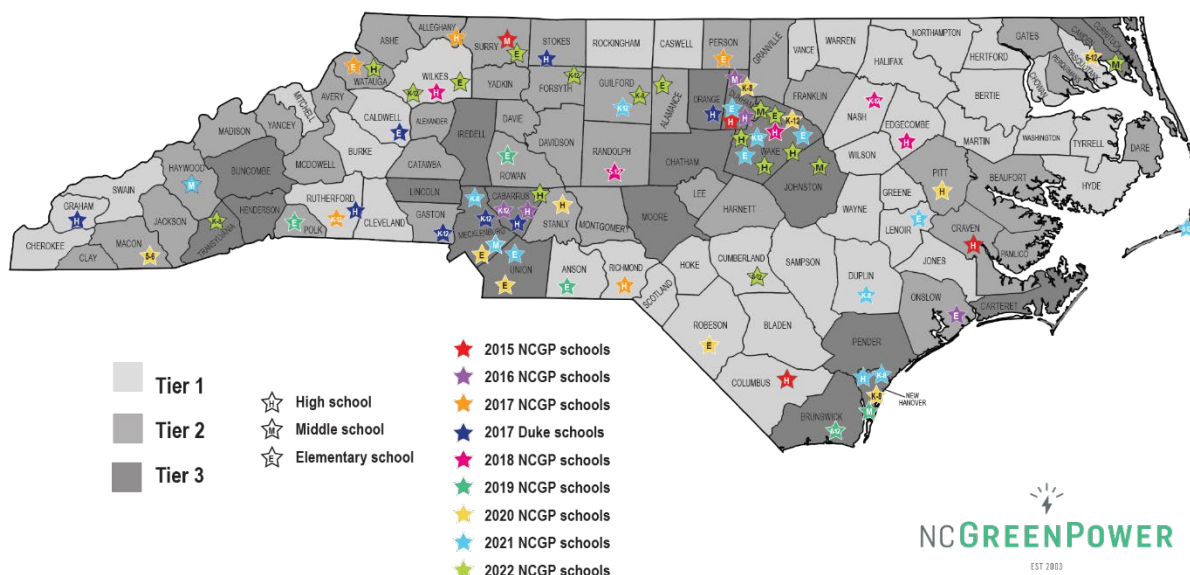
NC GreenPower continued administering its three main programs: Renewable Energy Certificates (RECs), carbon offsets (COs) and Solar+ Schools. Utilizing monthly reports from participating electric utilities, NC GreenPower tracked donors who support these programs as well as customers who purchased RECs and COs. While donations for RECs and COs have declined over the years, there has been a recent increase in clients wanting to purchase products to meet their sustainability goals.

In the September financial report presented to the Board, RECs were ahead of budget by nearly \$49,000, and COs were behind budget by about \$23,000, primarily due to the significant increase in market prices. Solar+ Schools was ahead of budget by \$114,000, but additional expenses expected by year's end will fully utilize the excess revenue. Reserve funds will be used to pay for expenses, as directed by the Board.

This year's Solar+ Schools goal was to provide educational solar arrays and STEM education to 20 schools. Three schools dropped out of the program, but 17 expect to

receive systems. With Program Year 2022's efforts, Solar+ Schools reached six new counties, impacted 11,600 additional students and trained 72 teachers.

NC GreenPower Solar+ Schools



New Initiatives and Pilots

NC GreenPower began a new pilot program working with towns, counties and private companies to discuss sustainability planning and carbon reductions, though this work was funded through its parent company, Advanced Energy. The initiative may remain as an Advanced Energy-funded pilot until more is learned about clients' needs and services can be better defined for inclusion under NC GreenPower. The goal to engage with three to five groups was met and work continues with three organizations.

In 2021, NC GreenPower began exploring energy efficiency opportunities at K-12 schools through another Advanced Energy pilot. Applications were accepted from schools in Tier 1 and Tier 2 counties, which are the 40 most economically distressed counties in the state as defined by the North Carolina Department of Commerce's County Distress Rankings. Three schools were selected to participate in no-cost energy audits of their campus. An Advanced Energy engineer conducted on-site assessments of the school buildings and analyzed energy usage; a report was developed to identify issues, recommendations and returns on investment for improvements. Of the three participants, only one was able to provide enough relevant information to prepare a final report. The report was delivered in person so that both staff and students were educated about the findings and benefits of energy efficiency. Recognizing the

challenges of getting information from maintenance departments that already have many obligations, only one school was selected this year to participate in the pilot.

The largest new endeavor in 2022 was an LED lighting project funded by the American Rescue Plan Act (ARPA) through the North Carolina Department of Environmental Quality (DEQ). NC GreenPower was awarded nearly \$800,000 to upgrade inefficient gymnasium lights in 20-40 high-energy-using K-8 public schools in 11 Tier 1 and Tier 2 counties. NC GreenPower was able to provide LED upgrades to 60 schools and emergency HVAC assistance for a school that serves minority students in Durham County. These 61 projects are estimated to save the participating schools \$86,800 collectively each year.

Building on experience from this DEQ project, NC GreenPower is using reserve funding to provide nine additional schools with interior and exterior LED upgrades by the end of December. Based on lighting contractors' estimates, awarded schools may realize an average savings of \$9,980 each in annual energy costs or \$91,600 collectively. The savings range from \$4,130 to \$15,200 per school and depend on school size, light quantities and eligibility for LED rebates from electric utilities.

2023 Activities

In addition to continuing all current programs, NC GreenPower will work with schools to plan for electric buses, electric fleet vehicles and the installation of charging stations. NC GreenPower will remain engaged with towns and cities to help them prepare for and/or achieve sustainability goals.

Summary

NC GreenPower's primary focus remains helping North Carolina's K-12 schools, whether it be through installing solar systems, supporting energy efficiency with assessments and technology upgrades, or assisting with electric vehicle planning, and educating students about these services.

NC GreenPower's initial goal in 2022 was to provide solar arrays with STEM education to 20 schools; the end result will be 87 schools that received solar/STEM education systems or energy efficiency initiatives (assessments, LED lighting and HVAC upgrades).