



OFFICIAL COPY

Mar 30 2022

March 30, 2022

Shonta Dunston  
Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, NC 27699-4325

RE: NCUC Docket No. E-100, Sub 90  
NC GreenPower program amendment

Dear Ms. Dunston:

Please find attached our request to amend the NC GreenPower program (see p. 17). NC GreenPower appreciates your support and welcomes any questions you may have.

Sincerely,

Robert H. Goodson  
President

## Summary of Proposed Program Amendments

Docket #E-100 Sub 90  
March 30, 2022

### Background

In April 2019, NC GreenPower filed with the North Carolina Utilities Commission (“NCUC” or “Commission”) to modify and rebrand the Solar Schools pilot to the current Solar<sup>+</sup> Schools program; the Commission approved the revisions in October 2019. In addition to this initiative, donors could still make contributions to NC GreenPower to support in-state renewable energy and regional carbon offset projects. Customers needing Renewable Energy Certificates (RECs) and carbon offsets could continue to purchase them directly through NC GreenPower.

Solar<sup>+</sup> Schools has been well received across North Carolina and expanded from granting five schools per year initially to 10 schools in 2020, 15 schools in 2021 and up to 20 schools in 2022. Through 2021, the program has provided educational solar photovoltaic systems and STEM packages to 43,000 students at 56 schools.

### Strategic Planning Committee (SPC)

At the March 2021 NC GreenPower Board of Directors meeting, a Strategic Planning Committee (SPC) was convened to investigate new opportunities that would provide additional revenue to support the expanded Solar<sup>+</sup> Schools initiative. While Solar<sup>+</sup> Schools is popular, expenses often exceed revenue from donations. The SPC was tasked with finding revenue-positive products and services that are related to NC GreenPower’s mission and also provide financial stability.

As protecting the environment has become increasingly important, many organizations have developed or are implementing plans to “green” their operations and reduce their carbon footprint. While some groups have a clear understanding of how to reach their targets, a significant number need assistance. After months of SPC meetings and discussions with school districts, local governments and companies across the state,

we have learned that there is a need for resources to help organizations with their sustainability goals.

NC GreenPower and its parent organization, Advanced Energy, have both the expertise and experience to provide services that would be of great value to North Carolinians who seek to reduce their carbon emissions and reduce and/or improve their use of energy. NC GreenPower is overseen by the NCUC, and program revisions are filed with and approved by the Commission before they can be implemented. This process typically takes several months, as the NCUC has a significant queue of work. For us to be responsive, NC GreenPower's Board has recommended that we file amendments with the NCUC to enable flexibility within our program to adapt to the fast-changing needs of consumers.

## Areas of Interest

While there are numerous and varied needs from parties with whom we have met, there are certain services related to NC GreenPower's mission and current work that would be complementary, such as:

- 1 Larger solar installations for schools and/or community solar projects
- 2 Solar projects for affordable housing neighborhoods
- 3 Education and technical assistance for local governments, colleges/universities and companies with sustainability goals (may include energy efficiency, carbon reductions/road mapping, electric transportation [school buses, fleet vehicles])
- 4 Energy efficiency services for schools (assessments, consulting, education, etc.)
- 5 Carbon assessments and verification

Each area has the potential to provide significant impact and increase NC GreenPower's financial sustainability. Because opportunities to respond to Requests for Proposals ("RFPs") or clients' requests can be extremely time-sensitive, having the flexibility to participate in these opportunities will allow staff to act quickly without having to file a request with the NCUC each time.

## NC GreenPower Board Motion and Request

The NC GreenPower Board unanimously approved for staff to request flexibility from the NCUC to allow reasonable expansion of the program to include projects and services as mentioned above (p. 11-12 of NC GreenPower Program Plan).

## Program Timeline

NC GreenPower's request to amend our program is being filed with the NCUC on March 30, 2022. If it is approved, staff intends to immediately begin engaging with interested parties to examine potential new services. NC GreenPower will monitor the success of each new initiative, track program and administration costs and review progress with our Board.

## NC GreenPower Program Plan

Original plan filed: May 31, 2002

Last updated: March 29, 2022

### About

NC GreenPower (NCGP) is a statewide program designed to improve the quality of the environment by encouraging the development of local renewable energy resources and the mitigation of greenhouse gas emissions through consumers' voluntary funding. Headquartered in Raleigh, North Carolina, NCGP is a 501(c)(3) nonprofit improving our state's environment by supporting renewable energy and carbon offset projects and providing grants for solar installations at K-12 schools.

### Mission

NCGP's mission is to expand public knowledge and acceptance of cleaner energy technologies to all North Carolinians through local, community-based initiatives.

### Objectives

The objective is to use a statewide campaign to promote an easy way for individuals and businesses to support green power generated in North Carolina and the regional mitigation of greenhouse gases.

The main objectives of NCGP are to:

- 1) improve the quality of the environment,
- 2) increase the amount of generation from renewables,
- 3) mitigate greenhouse gases,
- 4) maximize the amount of investment in renewable generation,
- 5) maximize the number of participants, and
- 6) provide renewable energy education to communities

### Programs and Products

NCGP offers Renewable Energy Certificates (RECs), carbon offsets, and grants for solar power at schools. A REC represents the environmental attributes of one megawatt-hour of electricity generated from a renewable energy resource. A carbon offset is a certificate representing a carbon reduction of one metric ton (2,205 pounds) of carbon dioxide emissions or carbon dioxide equivalents. NCGP's Solar+ Schools

initiative uses donations to provide grants for educational solar photovoltaic (PV) packages at North Carolina K-12 schools.

All electric utilities in North Carolina participate in NCGP: Dominion Energy North Carolina, Duke Energy Carolinas, Duke Energy Progress, ElectriCities, and North Carolina's Electric Cooperatives. Although ElectriCities and North Carolina's Electric Cooperatives took part in NCGP planning, each city's and electric cooperative's participation is subject to the approval of the governing board of that organization.

### Renewable Energy Certificates (RECs)

Customers participating in the renewable energy program continue to receive electric service from their local utility and pay for energy used under the utility's applicable rate schedules. In addition to that cost, the contracted unit or "block" of renewable energy provided under NCGP is charged at the program's rate irrespective of the customer's actual monthly kilowatt-hour (kWh) usage. Block sales are used by NCGP to offset the higher cost of producing, purchasing, and/or acquiring renewable resources and for administering the program.

NCGP only pays a premium for RECs from generation suppliers (generators) that qualify to receive a power purchase agreement (PPA) from a North Carolina electric utility. Unless directed otherwise by the NCGP Board of Directors (Board), NCGP uses a request for proposals (RFP) process to select, contract with, and pay a premium to generators from revenues, in addition to the payment for electricity provided by the utility. A negotiated process may be necessary when an inadequate number of bids from generators are received.

The actual amount of electricity provided by renewable resources to the North Carolina electric grid during any specific month may vary from the number of blocks customers have purchased. However, a true-up of the delivery of the blocks to the purchase of blocks shall be completed within two years of the purchase.

The electric energy associated with the RECs that NCGP purchases from the renewable resources will not physically be delivered to the participating NCGP customers; instead, it will displace electric energy that would otherwise have been produced from traditional generating facilities for delivery to customers.

Each participating utility offers its customers the option to subscribe to tariffs supporting renewable energy. Tariffs enable customers to subsidize the delivery of renewable energy blocks to the electric grid. Each subsidized block authorizes the

program administrator, Advanced Energy (AE), to pay a premium to a generator for an equivalent block of energy supplied to the North Carolina electric grid.

### Products

NCGP provides three renewable energy offerings: a Mass Market product, a Large Volume product, and a Brokered Bids option. Each meets different needs and is intended to resolve the following issues:

- 1) Some renewable energy resources currently providing energy to the grid are at risk of closing due to financial and other implications. Existing resources, such as hydropower and clean wood waste biomass, can provide renewable energy at a lower cost because they have already met their startup costs and are just covering operating and additional capital costs.
- 2) Large companies desire to maximize the purchase of their power from renewable resources, but the price needs to be more competitive with RECs available to them from out of state.

The first offering is a Mass Market product (\$4.00 per block of 125 kWh per current utility tariffs), which is available for purchase on a monthly basis by any consumer. This block of new renewable energy will have a resource mix of solar, wind, and methane from biomass delivering power to the North Carolina electric grid on or after January 1 within the past 14 years on a rolling basis (per the Center for Resource Solutions [CRS] Green-e Energy standards). This resource mix has higher production costs, which will result in a higher-cost product than the Large Volume product. These are also renewable resources that the North Carolina environmental community favors most. When the Solar+ Schools program began in 2015, the \$4.00 Mass Market REC product changed to support both local renewable energy projects and the installation of educational solar PV systems at North Carolina K-12 schools (see p. 14-16).

The next offering is a Large Volume product, or Clean Energy Supporter REC, which offers a lower cost alternative for consumers who purchase at least 10,000 kWh (40 blocks) of the product per month. To assist a broader base of renewable energy generators and to allow high-volume electricity purchasers to maximize their support of green power, the Large Volume product will include a resource mix of solar, wind, small hydro, and all types of eligible biomass, as outlined in the Renewable Energy Resources section. Both existing and new renewable energy generation will be included in this product in order to reach a target price of \$2.50 per block of 250 kWh (per current utility tariffs) and to assist existing green power generators. Consumers do not have to purchase the Large Volume product if they perceive additional value by purchasing the Mass Market product; however, if they do, they must agree to a one-year contract minimum to qualify.

The Brokered Bids option for NCGP provides customers interested in annually spending \$15,000 or more on RECs with a more competitive local option. For this product, NCGP accepts REC bids on a continual basis. Generators provide pertinent project information, a bid amount, and a date through which the bid is available. The generator's bid is marked up to cover program and administrative expenses. These bids create a portfolio of available RECs to better compete with the open market. Customers interested in the minimum purchase criteria above have access to the portfolio and can select a piece of a project, an entire project, or multiple projects of interest to them that is within their price range. NCGP would essentially serve as a broker between the bidder and the NCGP customer to facilitate an offer and payment through NCGP. Annual prepayment of any transaction may be required for this option.

Program guidelines detailed in this NCGP Program Plan will apply to this option. For example, the acceptable resource criteria outlined will still apply, and energy must be supplied to the electric grid in North Carolina.

The Brokered Bids product increases the likelihood of achieving the NCGP objectives of improving the quality of the environment, increasing the amount of generation from renewables, maximizing the amount of investment in renewable generation, and maximizing the number of participants. A reduction in per-kWh price for customers who want to make a large investment in renewable energy will afford NCGP a better opportunity to acquire customers who base their buying decision on price and who historically have been lost to out-of-state renewable energy projects.

### REC Block Sizes and Prices

The following are current price levels and blocks sizes for the REC products (as of March 2022). NCGP may revise these prices and/or block sizes as necessary to reflect market fluctuations.

- **\$4.00 Block** (125 kWh) – offered to all customers
- **\$2.50 Block** (250 kWh) – offered to customers with a minimum monthly purchase of 40 blocks for 12 months (\$100 per month or \$1,200 per year)
- **Brokered Bids** (1 REC) – offered to customers purchasing \$15,000 or more per year

### Renewable Energy Resources

“Green power” is defined (for NCGP purposes) as renewable energy that consists of electricity provided from solar, wind, small hydro of 10 megawatts (MW) or less, landfill methane, agricultural waste, animal waste, and other biomass (wood waste)



resources that is delivered to the North Carolina electric grid. NCGP will comprise a blend of all renewable resources procured for the program.

In addition to having a PPA with a North Carolina electric utility, the green power generator will be required to enter into an agreement with NCGP for participation in the NCGP program, including receipt of premiums subsidizing renewable energy delivered to the grid. NCGP's green power resources will be qualified resources of generation from new and existing developments.

NCGP's definition of new renewables aligns with Green-e Energy's definition of "any eligible renewable facility beginning operation or repowered after the dates indicated in the following table:

Year of Sale	New Date
2016	2002
2017	2003
2018	2004
2019	2005
2020	2006
2021	2007

The New Date will continue to advance by one year each year after 2021."

For any Green-e Energy-accredited products, NCGP will follow requirements set forth by CRS to annually disclose the REC resources included in NCGP's products, marketing information, and other relevant data as necessary.

NCGP's original intent was to procure energy from each source of energy with limits on the premium allocated to each technology and additional limits on a single generator.

Initially, a minimum of 10% of NCGP funds could be allocated to each technology. This minimum was applied to purchase RECs from a technology unless the technology was not available and as long as it did not exceed the maximum price caps listed on the RFP. In that case, the funds would be used to purchase RECs from the lowest-cost technology. No one technology would receive more than 50% of the funds unless it was the only technology available. Existing resources, defined as generators with PPAs as of January 1, 2001, were capped at 30% of the total RECs purchased. By the end of year three, the program should have a minimum of 15% wind and solar RECs purchased.

Hydro generators may divide their dollar allocation among all active hydro generators in turn for a lower capped premium. With the exception of small hydro, existing renewable generators do not qualify to participate in NCGP if they have an existing PPA; however, once the current PPA expires, the generator may qualify for participation.

Solar and Wind: NCGP recognizes that solar and wind are perceived as the greenest of the green for renewable energy sources and initially set targets for maximizing the inclusion of these resources in the program. For the Mass Market product, the target for solar and wind was 15% of the energy generated in the third year of the program; for the Large Volume product, the target was 4% of the energy generated in the third year. NCGP's ability to reach these targets depended upon the cost and availability of the renewable resources in North Carolina. Because these resources were costly, NCGP set high maximum rates to be paid to the generators of these resources, subject to change by the NCGP Board. It was hoped that these payments to potential solar and wind generators would achieve these initial targets and that economies of scale would result in further installations at less cost per kWh.

In addition to offering attractive premiums to solar and wind generators, a fast-track application process was created to enable smaller solar and wind projects to apply for immediate acceptance into the NCGP generator program. As the cost for solar decreased significantly, the NCGP Board terminated the small solar program to focus on Solar+ Schools; the small wind program is still in effect.

The NCGP Board may explore including metered domestic solar thermal systems in the future (i.e., hot water heaters).

Small Hydro: Any new small hydro facilities that desire to enter the CRS-accredited (or third party-certified) program must be 10 MW or less and meet licensing standards as defined by the Federal Energy Regulatory Commission (FERC), Low Impact Hydro Institute (LIHI), and the appropriate state and local governing agencies. It is anticipated that any new hydro facilities will involve the installation of new generating capacity on existing impoundments (dams). Any new hydro generating facility that involves a new impoundment will not automatically be included in the program but will require special approval.

Wood waste: NCGP recognizes and encourages responsible and sustainable business practices for forest and wood products management. Although North Carolina has abundant forestry and wood resources, the quality and quantity of original forests are in decline due to land development. Thus, developers are creating significant amounts of

wood waste at the expense of the quality and quantity of original forests. NCGP does not intend for this type of wood waste to be included in the program. Therefore, the following guidelines have been developed for the types of wood waste that will be allowed for NCGP qualification: tree trimmings; mill residues (bark, sawdust, and fines from primary processing facilities); segregated construction and demolition wood (excluding painted, treated, glued, pressurized wood, or any wood contaminated with plastics or metals); clean wood waste from manufactured home plants, pallet recycling facilities, furniture manufacturers, finished building products, and other similar industries; wood from land clearing that would otherwise end up in landfills; and wood bedding material removed from poultry brooder houses. Wood “chips” derived from processing whole trees within forested land will not be allowed as qualifying wood waste. However, the NCGP Board may review this exclusion in the future to determine if sustainable forestry practices are being employed in connection with wood chip production, if such practices warrant the consideration of wood chips as a green power source, and if the environmental community is willing to recognize their use in such a way.

### **Project and Resource Selection/Contracting**

Green power sources of electricity will be identified and selected through an RFP process. The NCGP Board has the authority to change this process or, as stated earlier, approve negotiations with generators if the use of the RFP is limited by too few available participants. The Board may also elect to purchase RECs from reputable brokers. Selected projects will meet NCGP program requirements, and NCGP will execute agreements to procure RECs.

### **Customer Participation**

The participating utilities are responsible for enrolling customers (residential, commercial, and industrial) wishing to contribute to or make purchases from NCGP on their electric bills. Customers joining NCGP are committed to purchase a minimum of one block of renewable energy per month and have an option to increase or decrease the number of blocks. Under the Large Volume product, the customer must commit to purchase at least 40 blocks per month for one year.

The participating utilities provide their own resources to fulfill their role in enrolling, billing, and collecting premiums from NCGP customers. The utilities will help market the program with, for example, informational bill inserts, direct mailers, website information, and email marketing. In addition to forwarding to NCGP the collected revenues on a monthly basis, the utilities will also be responsible for providing NCGP with monthly and annual totals, by residential and non-residential customer groups.

The participating utilities will assist with fulfilling disclosure requirements required by law or accreditation standards.

NCGP also accepts direct contributions from the public for all programs and products. Donations to NCGP are tax deductible to the extent allowed by law.

## Carbon Offsets

A carbon offset is a certificate representing a carbon reduction of one metric ton (2,205 pounds) of carbon dioxide emissions or carbon dioxide equivalents.

Each participating utility offers its customers the option to subscribe to available tariffs to support carbon offsets. The tariffs allow customers the opportunity to subsidize the mitigation of carbon. These carbon offsets are available on a monthly basis for a premium. Each block of carbon offset subsidized will authorize AE to pay a premium to a project or carbon offset owner for an equivalent block of carbon mitigated.

## Products

There are two products offered for carbon offsets: a standard product and a Brokered Bids product. The standard product is \$4.00 per 1,000 pounds of carbon mitigated in accordance with proposed tariffs filed by the participating utilities (as of March 2022). As with RECs, there is a Brokered Bids option for customers interested in annually spending \$15,000 or more on carbon offsets (see p. 8).

While the program was initially set up to offer carbon offsets in pounds, NCGP is revising the blocks to be measured in metric tons (MT) as is typical in the industry.

## Block Size and Price

The following are proposed price levels and block sizes for the carbon offset products. NCGP may revise these prices and/or block sizes as necessary to reflect market fluctuations.

- **\$4.00 Block** (.45 MT) – offered to all customers
- **Brokered Bids** (1 MT) – offered to customers purchasing \$15,000 or more per year

## Carbon Offset Resources

Projects will mitigate carbon dioxide and carbon dioxide equivalents, not provide electricity to the grid. Examples of eligible projects include, but are not limited to, the mitigation of methane gas from landfills and hog farms, forestry projects such as reforestation and conservation, and technologies to reduce the usage of harmful gases

in manufacturing and emissions from transportation. Priority will be given to the participating utility service territories in North Carolina, South Carolina, and Virginia for acquiring resources; however, if no acceptable projects are available, other regions will be considered.

NCGP has adopted nine quality criteria for offsets originally developed by the Environmental Defense Fund.

#### NCGP's Carbon Offset Quality Criteria

1. No RECs
2. Additionality
3. Accurate Quantification
4. Clarity on Permanence
5. Appropriate Timeline
6. Demonstration of Ownership
7. Serialization and Tracking
8. Verified and Verifiable
9. Net Positive Impact

It is the intent to purchase carbon offsets and then offer them to the market. In case NCGP must follow the REC model of collecting funds first and then making purchases, the carbon offset product will have a two-year true-up period, mirroring the REC program.

#### **Project and Resource Selection/Contracting**

Like with the REC products, carbon offsets will be identified and selected through an RFP process. The NCGP Board has the authority to change this process or approve negotiations with generators if the use of the RFP is limited by too few available participants. The NCGP Board may also elect to purchase carbon offsets from reputable brokers or registries such as the American Carbon Registry, Climate Action Reserve, and The Climate Registry. Selected projects will meet NCGP program requirements, and NCGP will execute agreements to procure carbon offsets.

#### **Customer Participation**

As with the REC products, the participating utilities are responsible for enrolling customers (residential, commercial, and industrial) wishing to contribute to NCGP on their electric bills. Customers joining NCGP commit to purchasing a minimum of one block of carbon offsets per month and have an option to increase or decrease the number of blocks (see p. 11-12).

## Solar+ Schools

### Background

As costs for residential solar PV dropped significantly, donations once needed to encourage such projects were no longer critical. Because of this, the small solar program was terminated, and a focus was placed on helping schools.

The Solar+ Schools program allows NCGP to continue supporting local renewable energy projects and expands its impact by improving education with PV installations at North Carolina K-12 schools. Solar+ Schools has the potential to increase program revenues since donors often prefer to help those in their geographic area and want to feel connected to a specific project.

Solar+ Schools provides funds to schools who cannot afford solar technology nor take advantage of tax credits, and gives teachers valuable STEM tools to educate students about renewable energy. NCGP will consider expanding the initiative to include other types of renewable energy and energy storage projects in the future, as well as offering the program to other recipients.

### Process

Donations to the \$4.00 Mass Market REC product support both in-state renewable energy generators and Solar+ Schools. However, with the April 30, 2019, program changes, the specific allocation depends on whether the customer is served by Duke Energy or other utilities.

As of January 1, 2020, Duke Energy launched its own REC program, Renewable Advantage. For Duke Energy customers donating to the \$4.00 Mass Market REC product, contributions were shifted to solely support Solar+ Schools (customers could opt out if they did not want their entire donation to support Solar+ Schools). For residential and small business customers, Duke Energy no longer offers NCGP RECs and only markets Solar+ Schools. For larger customers (commercial and industrial), Duke Energy does still market NCGP RECs and they may continue donating to or purchasing the \$2.50 block of Large Volume REC product through NCGP.

For other utility customers (i.e., customers of Dominion Energy North Carolina and members of ElectriCities and North Carolina's Electric Cooperatives), the \$4.00 Mass Market REC product will continue to:

- Support both North Carolina RECs and Solar+ Schools
- Use a portion of every donation to provide a 125-kWh block of in-state RECs

- Use the balance of each donation after procuring RECs to support Solar+ Schools

As with Duke Energy customers, if contributors do not wish to support Solar+ Schools, they can contact NCGP to opt out and direct their donation to only support renewable energy generators in the current NCGP program with 125-kWh blocks.

Using these donations, NCGP will provide grants for 5-kilowatt educational solar PV systems; arrays may be single- or double-pole top-of-pole designs, roof-mounted arrays, solar awnings, or other configurations to accommodate the needs of different building styles. All solar arrays must be sited in prominent locations (e.g., at the front of the school), be clearly visible to the general public, and have access to ideal solar conditions. Larger systems are permitted, but schools would need to raise the additional funds to support the effort. The school may be responsible for raising a portion of the project costs using the my.NCGreenPower.org fundraising tool or other approved method of their choosing. Depending on the type of solar PV system installed, NCGP's Board may adjust grant funding to reduce the financial burden on the school.

All North Carolina K-12 schools are eligible to participate, but preference is given to schools with greater need, such as those in Tier 1 counties as defined by the North Carolina Department of Commerce (areas in greatest economic distress). NCGP will work with the North Carolina Department of Public Instruction and other partners to notify all schools of the opportunity to apply.

NCGP will convene a committee to review applications and select schools to receive the award. NCGP will then publicize the schools' projects via social media, press releases, and in-person events to raise awareness and funds.

The selected schools can self-promote their project and start a "campaign" through my.NCGreenPower.org; this crowdsourced funding tool will help communities raise funds to support the renewable energy project. All campaigns must be authorized by NCGP.

For the crowdsourced raised funds, NCGP will retain a small percentage to cover program costs as directed by the NCGP Board; the remaining funds will be used to support the solar PV system at the school. Because the Tier 1 community may not be able to provide substantial financial support, the project will be promoted on NCGP's website to gain assistance from other areas of the state. When enough money is raised to install the PV array, NCGP will assign the project to a qualified solar contractor and



oversee the installation process; contractors will assume all liability for the proper installation and operation of the PV system.

If a school does not raise enough funds, it will have options, such as:

1. Requesting a 30-day extension to continue fundraising
2. Decreasing the size of the solar PV array (if feasible)

If options 1 and 2 have been granted and there are still insufficient funds to install a smaller PV array, NCGP will use the funds to purchase renewable energy educational materials/kits for the school.

If a school exceeds its fundraising goal, it may use the additional funds to expand the solar array (if feasible), purchase additional educational materials, pay NCGP or a contractor to provide energy efficiency consulting/upgrades, or donate to another Tier 1 school that is raising money.

In addition to the PV array, Solar+ Schools provides educational curricula from an accredited organization, such as the National Energy Education Development (NEED) Project, to fully maximize the benefit of having the system as a teaching tool. The curricula meet North Carolina educational standards and are tailored to all grade levels to engage both teachers and students in multiple subject areas. They may also include information on other renewable energy sources, as the program may expand beyond solar PV in the future. Expenses for curricula and classroom materials will be paid for by Solar+ Schools' program funds.

Three to five teachers per school are required to attend a 6-hour curriculum training led by a NEED instructor and paid for by NCGP. Solar installers will demonstrate basic operation and maintenance (O&M) for the PV system to teachers/school staff. Although O&M should be minimal, trained staff will save the school the expense of hiring a contractor, except for more serious issues. The school's fundraising goal will include raising reserve funds for O&M repairs, so any non-warranted expenses are covered after the project installation.

NCGP will hold all contributions and pay the contractor upon satisfactorily completing the installation of the PV system. Completed projects will display the appropriate signage/recognition of NCGP, and a press release and/or event may be offered to celebrate the success of the project.

Schools' solar projects are not eligible for NCGP incentives (REC agreement), and all RECs generated from the schools' PV systems are owned by NCGP.



## New Activities

In November 2021, the NCGP Board unanimously approved to amend the program plan to include services such as:

1. Larger solar installations for schools and/or community solar projects
2. Solar projects for affordable housing neighborhoods
3. Education and technical assistance for local governments, colleges/universities, and companies with sustainability goals (may include energy efficiency, carbon reductions/road mapping, electric transportation [school buses, fleet vehicles])
4. Energy efficiency services for schools (assessments, consulting, education, etc.)
5. Carbon assessments and verification

Each new area has the potential to provide significant impact and increase NCGP's financial sustainability. However, because opportunities to respond to RFPs or clients' requests can be extremely time sensitive, NCGP is asking the North Carolina Utilities Commission (NCUC) to approve pursuit of these new activities without requiring a separate order authorizing each RFP or request. Having the flexibility to participate in these opportunities will allow staff to act quickly without the delay inherent in obtaining individual orders from the NCUC.

## Investor and Crowdsourced Renewable Energy Pilot

(Filed with NCUC in 2014 but not implemented)

### Background

The Investor and Crowdsourced Renewable Energy (ICSF) program will allow community-based projects to crowdsource funds to support renewable energy projects.

Like the Brokered Bids product, NCGP would offer a separate but related product to the Solar+ Schools program. The ICSF product is one where a renewable project already has some investors to pay for the actual equipment, labor, and installation but needs NCGP's marketing assistance to crowdsource additional funds through the my.NCGreenPower.org site.

## Process

An investor organizer will identify and recruit potential investors in a community to fund the purchase and local installation of a renewable energy system; the investor organizer manages all aspects of the investment and charges investors a fee to coordinate the legal and financial arrangements required for the initiative. Once enough investors have been secured, NCGP will be notified to assist in marketing and fundraising for the project to ensure investors receive a specific return on their investment. In addition to marketing the project via my.NCGreenPower.org and social media to raise awareness and funds, NCGP will make in-person presentations to encourage financial support. NCGP will also recruit volunteers to present to and engage the community (officials, citizens, etc.) about raising funds. As crowdsource funds accumulate, NCGP will assist in selecting contractors for the project. Contractors must meet NCGP's program requirements. The investor organizer will manage the installation of the renewable energy project, and NCGP may offer consulting services for a fee. Campaigns will be advised to raise 110% of the project cost so that O&M expenses are covered after the project installation.

Donations from community members to NCGP will be used to purchase the RECs generated from the renewable project. REC purchases may be made annually over six years or prepaid upfront, possibly at a discounted rate. NCGP will retire the RECs on behalf of the project, and after six years, the investors will donate the renewable energy system to the school/nonprofit/community. Of the raised funds, NCGP will retain a small percentage to cover program costs as directed by the NCGP Board, and the remaining funds will be used to support the purchase of RECs from the renewable project.

An unlimited number of campaigns can be started on the my.NCGreenPower.org website with two restrictions: only one campaign can be started per project, and projects for single-family homes are prohibited (exceptions may be made for Habitat for Humanity homes, supportive housing, and multifamily residences). Projects are not eligible for NCGP incentives (REC agreement) until they are donated by the investors. All campaigns and projects must be authorized by NCGP (Review Committee, Executive Committee and/or Board).

## Governance

In 2003, AE created a nonprofit named NCGP that acquired 501(c)(3) nonprofit status. NCGP has one class of members who are the members of the AE Board of Directors (Board); AE's Board bears the ultimate responsibility for NCGP. AE's Board, which is composed of four utility members and eight "public members" appointed by the

governor to staggered three-year terms, shall have oversight of voting rights on major transactions affecting NCGP, such as changes to its legal structure and yearly financial planning. AE is, in turn, governed by members of the NCUC.

NCGP's Board consists of the following 17 members:

- 4 North Carolina Utility members
- 4 NCGP Technology members
- 4 NCGP Consumer/Environmental Advocacy members
- 1 AE Board member (Treasurer of AE's Board)
- 1 President of AE
- 1 N.C. Department of Environmental Quality
- 1 Corporate Client
- 1 Energy Finance

The Treasurer of AE's Board serves as the Treasurer for the Board of NCGP to provide consistent financial controls. The President of AE shall serve as a member of the NCGP Board.

The four participating utilities each have a representative on the NCGP Board. The president of the utility being represented appoints the Board member.

The NCUC appoints the NCGP Technology members (from different technologies when available) and the Consumer/Environmental Advocacy members. Any North Carolina resident may nominate an individual for consideration and appointment by the NCUC to the NCGP Board. The NCGP Technology and Consumer/Environmental Advocacy member term appointments are for three years on a staggered schedule.

The Chair and Vice Chair of the NCGP Board were initially appointed by the NCUC. Thereafter, they are selected by a nominating committee from the current Board and appointed upon approval by the Board.

There is an Executive Committee for the NCGP Board that consists of the Chair of the Board, Vice Chair, Secretary, Treasurer, and member-at-large. The AE President serves as a voting member of the Executive Committee. The AE President and Vice President serve as officers of NCGP. Executive Committee members serve two-year appointments with elections in odd-numbered years.

The Board meets at least twice per year and annually reports its activities to the AE Board and the NCUC. This annual report coincides with AE's annual report to the NCUC.

## Administration (staffing, accounting, reserve fund)

NCGP has an arrangement with AE for AE to provide the personnel and services necessary to carry out the objectives of NCGP.

Accounting is on an accrual basis and in accordance with Generally Accepted Accounting Principles. An annual budget is prepared by staff and the President and submitted to the Board for approval. NCGP commissions an annual audit to be performed by a certified public accountant, and the report is filed with the NCUC. A copy is also available for public viewing.

An initial reserve account was established at a level of \$200,000 to enable the continuation of corporate activities should there be any interruption of funds to NCGP. The reserve account will be increased as necessary as the program grows.

In the handling of any cash reserves, the NCGP investment objective is the preservation of capital with reasonable growth until funds are needed. Investment opportunities shall be limited in scope similar to that of the state of North Carolina. Legal counsel, certified public accountants, and banking institutions are the same as appointed by AE, unless a conflict of interest is established.

## Marketing

The marketing program consists of two levels of marketing campaigns. NCGP is responsible for a statewide public awareness and education campaign designed to inform citizens about NCGP and to encourage them to participate. NCGP is funded by program and product proceeds and other contributions.

The second level of the campaign is the task of each participating utility and is designed to inform their customers how to participate. Each utility designs and funds its own campaign to be coordinated with NCGP. Messages are developed that utilities can use to co-brand NCGP in their own campaigns. It is expected but not mandatory that these utility campaigns will be coordinated with the statewide awareness campaign to maximize the marketing efforts of each.

The marketing campaign targets various groups, with different materials and messages for each. Communications to these groups include a “core” NCGP message but are tailored to the motivations and information needs of that particular group. The format of the message is important to ensure that it can be easily shared.

The target groups include large corporations which will be approached early with an opportunity to act as endorsers of the program. They will be urged to participate in NCGP as well as promote it to their employees. Other targets include government agencies; colleges, universities, and other institutions; commercial and industrial customers; residential customers; environmental/consumer advocacy groups; and K-12 students.

The statewide awareness campaign takes advantage of all free and inexpensive sources of publicity as well as affordable utilization of all media. Industrial and commercial organizations can qualify for the NCGP logo to indicate their participation.

Market research exists that will help with the development of the marketing plan. Most of these studies focus on the demographics of participants in green power programs. NCGP may do further market research to determine what motivates people to participate and what prevents them from participating.

Ongoing marketing is critical to ensure that NCGP continues into the future. It is expected that free publicity will help initially but other venues must be used to keep the public aware and continue to grow the number of participants. A customer retention program should be included in the general marketing plan.

## Accreditation

AE initially considered seeking accreditation from CRS for the Mass Market product and certification of the Large Volume product from the Environmental Resources Trust. By seeking accreditation/certification, it was believed that NCGP would be independently validated as being “green” for the benefit of consumers, further enhancing NCGP’s marketability and success.

CRS required NCGP to establish a North Carolina stakeholder group to participate in a series of accreditation meetings to determine the criteria (based on CRS’s model) by which NCGP was to be guided. The stakeholder group’s criteria were submitted to CRS for review, and CRS recommended the North Carolina criteria to the CRS Governing Board for approval. The CRS Governing Board approved the criteria pending minor wording changes. After further evaluation of the CRS requirements,

accreditation was not pursued due to annual costs and the obligation to contact customers for all program changes. Since NCGP does not have access to confidential utility customer information, this requirement could not be fulfilled.

NCGP will search the marketplace for a certification source that is cost-effective and accommodating to non-utility programs; however, the fact that the renewable generation data is produced by a third party (the utility) and submitted by the generator to NCGP serves as sufficient independent tracking and verification for NCGP of the production of the REC.

## Disclosure

It is imperative that the public be regularly informed of NCGP's progress to reassure them that their participation is making a positive difference in North Carolina. The utilities have provided informational bill inserts and updates on their webpages. NCGP also issues an annual report informing donors about its activities and upcoming initiatives.

## Governmental Issues

Legislation was not required for program implementation, but NCUC approval was necessary. NCGP makes annual reports to the NCUC. NCGP applied for and received nonprofit 501(c)(3) status from the Internal Revenue Service.

NCGP is not in conflict with state, federal, and local regulations nor is it intended to serve as a regulatory body.

## Results Assessment

NCGP is reviewed by staff throughout the year to assess items such as revenues and expenses, RECs and carbon offsets sold, number of donors/customers, direct contributions, and number of schools and students impacted.