

# NC GreenPower Solar+ Schools 2024 20-kW Installation Information

*Information for NC K-12 Schools Regarding the  
NC GreenPower Solar+ Schools Grant Application*

Application Period Closes **Thursday, February 29, 2024, 11:59 PM EST**

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## Introduction

This document serves to notify educators, administrators, and facility managers at public K-12 schools in North Carolina that NC GreenPower is providing grant funding for the installation of a 20-kilowatt (“kW”) solar photovoltaic (“PV”) system with a weather station, data monitoring equipment, STEM curriculum and teacher training. Now in the tenth year of the Solar+ Schools program, NC GreenPower estimates that there will be funding for up to 10 school grants. This document provides information on the program, eligibility criteria, funding details, application process, and estimated timeline. (See page 3 for additional eligibility information.)

## NC GreenPower’s Mission

NC GreenPower’s mission is to expand public knowledge and acceptance of cleaner energy technologies to all North Carolinians through local, community-based initiatives. The nonprofit was founded in 2003 as a statewide program to connect consumers with renewable energy and carbon offset providers, creating positive environmental and economic impacts for our state. All projects supported by the program are located in North Carolina.

In 2015, NC GreenPower launched Solar+ Schools, a grant program to support solar PV installations at North Carolina K-12 schools. Contributions to NC GreenPower are tax deductible to the extent allowed by law. For more information, visit [www.ncgreenpower.org](http://www.ncgreenpower.org).

## About the Solar+ Schools Program

The addition of the Solar+ Schools program came after 20 months of development and with approvals by both the NC GreenPower and Advanced Energy boards of directors and the North Carolina Utilities Commission (“NCUC”). This program provides financial support to schools that cannot afford a PV system and/or take advantage of tax credits. The Solar+ Schools grant covers all of the PV system construction costs; the selected schools should fundraise to cover any future operations and maintenance (“O&M”) costs. The Solar+ Schools program also enables NC GreenPower to continue education and awareness efforts around renewable energy in communities and provide solar technology and curriculum to both educators and students in North Carolina.

## Eligible Applicants

Public K-12 schools in North Carolina that are exempt from federal income tax under section 501(c)(3) or 170(c)(1) of the Internal Revenue Code are eligible to apply for the NC GreenPower Solar+ Schools grant.

We expect that applicants will have the ability to demonstrate the effectiveness of solar technology across a broad range of subject areas/classes. Applicants must own the property on which the project will be installed or have *written* prior approval from the property owner when applying.



Email the approval document to [solarschools@ncgreenpower.org](mailto:solarschools@ncgreenpower.org). **Applicants should not already have solar PV technology installed on the property.**

Applying schools should have the full support of their school board, administration, superintendent, etc. for both the installation of the PV system and teachers attending curriculum training.

Applicants should demonstrate that the school has educators committed to teaching students about energy and the benefits of solar/renewable energy, monitoring the data from the PV system, and integrating a deeper understanding of energy throughout the school.

Schools must be located in North Carolina and be served by one of these North Carolina electric utilities:

- Investor-owned utilities (Duke Energy Carolinas, Duke Energy Progress, or Dominion Energy North Carolina)
- North Carolina's Electric Cooperatives
- ElectriCities of North Carolina members

## Evaluation Process and Criteria

All applications will be evaluated by NC GreenPower to determine whether the project and fundraising are feasible at the school. Selections will be made based on the following criteria:

- Applicant schools should not already have solar technology installed on school property.
- Applicant schools are required to be in Tier 1 or Tier 2 counties as defined by the [NC Department of Commerce](#) as those that are most economically distressed.
- Applicant schools should be highly motivated to teach about energy and renewables.
- Applicant schools should be able to demonstrate their ability to integrate the solar PV project into their curriculum.
- Applicant schools will be required to do a Post-Installation Solar Evaluation to assess both the environmental and educational benefits from the solar PV system.
- The NC GreenPower Board Review Committee will strive to achieve geographic balance and diversity among grant awardees, if possible.

Applicants selected for the Solar+ Schools program will receive an award notice via email. Schools should contact their district facilities office and/or local school boards/commissions in advance of the award notice for approval to participate, as schools will only have two to three weeks to accept the grant.



## Funding

NC GreenPower estimates that there will be funding for up to 10 school grants for this year's program. The total number of awards will be dependent on donations made to the program. NC GreenPower's grant will pay for **all of** the project's construction costs. Schools should raise \$3,500 to cover any future O&M costs. The school or PTA will need to raise and collect the funds and then retain them for future use for O&M.

Donations to NC GreenPower are non-refundable, tax deductible, and used to support only in-state projects.

Projects are not eligible for NC GreenPower incentives (renewable energy certificate, or "REC," agreement). Any RECs generated by the school's solar PV system will be owned by NC GreenPower.

## Application Process

NC GreenPower, in its sole and absolute discretion, may accept or reject an application for any reason. Please submit the completed NC GreenPower Solar+ Schools application via the below link by **11:59 PM EST on Thursday, February 29, 2024**. Questions should be emailed to NC GreenPower at [solarschools@ncgreenpower.org](mailto:solarschools@ncgreenpower.org) with the subject line "**Solar+ Schools Question – [insert school name]**."

**To apply for the NC GreenPower Solar+ Schools grant, [please click here](#).**

## Site Selection

The NC GreenPower Solar+ Schools program is currently installing roof-mounted arrays with approximately 47 panels. The system must be installed in prominent, visible locations at the school (e.g., front of the school, carpool line). More information can be found in this article: <https://understandsolar.com/big-expensive-20-kw-solar-system/>.

NC GreenPower's solar installer will assist the school with site selection. An ideal location will maximize solar energy production, have good visibility of the array for both the public and the school, have convenient access to an electrical and IT connection, and ensure safety to the students. Based on these criteria, and considering the school's preferences, NC GreenPower reserves the right to make the final decision for the location of the solar installation. Any changes to the site location may result in additional cost to the school.



## Installation and Management Process

NC GreenPower’s qualified installer, NC Solar Now, will manage the installation process for awarded schools. The installer will be responsible for obtaining necessary licenses and/or permits and for complying with all applicable federal, state, and municipal laws, codes, and regulations in connection with the solar PV installation. To increase reliability and reduce maintenance requirements, the solar PV system should be grid-tied and not battery-based. Additional wiring and equipment related to the solar installation may be placed on the exterior walls of buildings.

The system planning process must begin within ninety (90) days of execution of our contract, unless approved by NC GreenPower. If any solar PV system construction or installation occurs before application acceptance, then NC GreenPower may, in its sole and absolute discretion, determine that the applicant’s system is ineligible. In such event, NC GreenPower shall have no obligation to make any grant payment to or on behalf of the applicant.

NC GreenPower’s solar installer will work with school representatives to execute an Interconnection Agreement with the appropriate electric utility. Power output from the solar installation that is placed on the electrical grid may be purchased by the electric utility currently serving the school. Alternatively, depending on the utility, the school may be allowed to use the solar power output on-site through a net-metering arrangement. The installer and the school will be responsible for working with the utility to determine which options are available.

NC GreenPower will pay the installer upon satisfactory construction of the solar PV system. Curriculum will also be provided to the school upon completion of the solar PV installation.

School staff members should be trained by NC GreenPower’s installer to serve as the primary providers of O&M services; O&M services should be minimal, and having trained staff will save the school the expense of hiring a contractor except for more serious, non-warranted issues.

Completed projects will permanently display the appropriate signage/recognition of NC GreenPower and any corporate sponsors who donated to support the project, such as the State Employees’ Credit Union (SECU) Foundation.

## Curriculum

NC GreenPower will provide educational materials from the National Energy Education Development (“NEED”) Project on solar PV for the schools to fully maximize the benefit of having the system as a teaching tool. The developed curriculum will consist of appropriate materials to engage both teachers and students in multiple subject areas. All NEED curriculum is approved to meet North Carolina Essential Standards for Science as adopted by the NC Department of Public Instruction. The curriculum may include information on other renewable energy sources, as Solar+ Schools may expand beyond solar PV in the future.



NC GreenPower will also provide curriculum training to educators from each awarded school; training will be a mandatory requirement for a minimum of three and up to five teachers per school. Educators will be requested to provide feedback and recommendations on curriculum semi-annually through the school year so continual program improvements can be made.

## Post-Installation Evaluation Report

Applicants will be assessed on the strength of their plan for evaluating the success of the project, including how well the Solar+ Schools program achieved educational goals. Within one year of completion of the project installation, awarded schools must provide a Post-Installation Evaluation to NC GreenPower, including the following:

- Monthly output of the solar PV system, compared with monthly total energy consumed by the school since the solar PV project came online.
- Summary of any technical lessons learned during the installation process.
- Report of educational benefits of the on-site solar PV installation, such as a summary of the ways in which the project has become a part of the learning/teaching mission of the school or any curriculum developed as a result of the installation.
- Summary of the environmental benefits of the solar PV installation shown in terms of greenhouse gas emissions avoided, metric tons of CO<sub>2</sub> displaced, number of equivalent miles not driven, etc.

NOTE: Students are encouraged to prepare the Post-Installation Evaluation as a learning experience in gathering relevant data and report writing.

## Other Important Information

**System Requirements:** The solar PV system must be: (1) installed on real property owned by applying school, located in North Carolina with electric service to the site being supplied by aforementioned utilities from “Eligible Applicants” section, (2) installed and operated in accordance with governmental and industry standards and comply with the National Electrical Code requirements, and (3) twenty (20) kilowatts (kW) DC capacity rating (on an aggregate basis). If applying school does not own the real property upon which the solar PV system is to be installed, applying school must have written authorized approval by property owner.

## Timeline



The following are dates associated with the NC GreenPower Solar+ Schools program:

|   |                                    |
|---|------------------------------------|
| Application period opens .....                          | Fall 2023                          |
| Applications due to NC GreenPower .....                 | February 29, 2024, by 11:59 PM EST |
| NC GreenPower notifies selected schools .....           | March 2024                         |
| Deadline for schools' acceptance of award .....         | March 29, 2024                     |
| NC GreenPower announces selected schools.....           | April 2024                         |
| School site walks with solar installer .....            | Q2-Q3 2024                         |
| Expected start/end dates for solar PV construction..... | Q1 2025-Q1 2026                    |

**The full application can be found online here:**  
[2024 NC GreenPower Solar+ Schools Application](#)