



Dominion Energy and the Dominion Energy Charitable Foundation have partnered with The National Energy Development Project (NEED) for over 3 decades to offer energy education curriculum and training to teachers and students. In 2015, the Dominion Energy Charitable Foundation and NEED partnered to bring Virginia schools, museums, and educational institutions the Dominion Energy Solar for Students program that installs photovoltaic installations and provides hands-on solar kits and teacher workshops. Over the last several years 34 schools and educational institutions across Virginia, North Carolina, and South Carolina have received solar installations.

As the Coastal Virginia Offshore Wind (CVOW) project advances, the Dominion Energy Charitable Foundation and NEED are working together to bring curriculum, teacher training and hands-on kits to Virginia's schools. In 2022, two schools or educational institutions will be selected to receive a wind installation. In 2022, two schools or educational institutions will be selected to receive a micro-wind turbine installation that also includes solar and storage. The installation will be an ARIS Remote Power Unit (RPU) similar to the ones pictured below:



Dominion Energy and NEED are currently accepting applications to the Dominion Energy Wind for Students Program to provide:

- An ARIS RPU described as “A renewable off-grid lighting solution with the power, efficiency & reliability to work in a wide range of environments & remote locations. The off-grid RPU is the natural choice for providing reliable, independent lighting on roadways, walkways, parking lots and recreation areas.”
- Renewable and storage technology included:
  - Wind Power
    - Rated power output 300w
    - Rated wind speed 9 m/s (20 mph)
    - Cut in wind speed 2 m/s (4.5 mph)
    - Height of tower: Approximately 30 feet
  - Solar Power
    - 1 or 2 mono or polycrystalline panel
    - 250w per panel
  - Storage
    - (2) 12v batteries for 24v storage
    - Capacity: 150/200/230 amp hour
- An online monitoring tool, to provide real-time data on the system’s activity and the amount of electricity generated.
- An online data display to show teachers, students, parents, and school visitors the output of the system.
- Wind Energy training for classroom teachers and personnel at the school or institution.
- Standards of Learning, State Standards, and Next Generation Science Standards (NGSS) aligned wind curriculum and hands-on kits that will teach students how wind energy works and how energy, the environment and economics are all part of energy decision making.
- A Celebration to cut the ribbon and showcase the institution’s new installation for the local community
- Connections to other Wind for Students program participants to share data, partner on projects and expand learning.

For more info on the ARIS system:

[https://secureservercdn.net/166.62.112.107/ik8.6cb.myftpupload.com/wp-content/uploads/2021/02/RPU-Off-Grid-Wind\\_Solar-Lighting-Solution-Brochure.pdf](https://secureservercdn.net/166.62.112.107/ik8.6cb.myftpupload.com/wp-content/uploads/2021/02/RPU-Off-Grid-Wind_Solar-Lighting-Solution-Brochure.pdf)

**Eligibility:**

- K-12 public schools or educational non-profit institutions served by Dominion Energy Virginia with STEM (science/technology/engineering/math) programming in following Virginia localities: Virginia Beach, Hampton, Norfolk, Newport News, Chesapeake, Suffolk, Portsmouth, Isle of Wight, Gloucester, Poquoson, York County, James City County, Williamsburg, and Surry County.
- Schools and institutions that have full support from their board and leadership for both the installation of the micro-wind turbine installation, as well as curriculum and teacher training. For schools this includes school board, superintendent and school administration.

- Teaching staff who are committed to teaching students about the value of wind energy and exploring energy in class, monitoring the data from the installation, and integrating a deeper understanding of energy into the institution.
- Please note: To be selected to receive a micro-wind turbine installation, an applicant's site must be evaluated for technical feasibility. Before final selection decisions are made, site visits will take place to evaluate technical feasibility including space of installation area, access to wind resources, soil type, safety, and security.

**A completed application includes the following:**

1. Narrative in (word or pdf) to include:
  - Current energy and environmental efforts that may include clubs, facilities upgrades, parent organization support and classroom teaching;
  - The vision that the entire school/institution community has for wind power\* and energy education in the school/institution;
  - Participant commitment that may include educators (and specific grade levels); faculty and facilities team at the school/institution; students, and community and parent support;
  - A description of where you propose the micro-wind turbine installation could be installed;
  - Proximity to Wi-Fi, installation communicates via Wi-Fi network connection and needs either a good Wi-Fi signal or ethernet port to be plugged into the local area network;
  - The plan for utilizing the curriculum and data in the classroom/outreach efforts.
  - Be sure to name the file for your school/institution InstitutionNameApplication.pdf.
2. Photos of the proposed site (jpg, png, gif or pdf). At least one photo is required, up to three may be included. Name the file InstitutionNamePhoto.jpg, InstitutionNamePhoto2.jpg.
3. Letter of commitment (word doc or pdf) indicating administrative (Principal, Superintendent, Facilities Director) commitment to the project. Be sure to name the file for your school/institution: InstitutionNameCommitmentLetter.pdf.

\*Please note: It is important to have the support and approval from the entire school or institution team, so before submitting the application, please share this information with relevant teams at your school or institution, such as your principal and facilities team.

**Site selection:**

When proposing the site for installation at schools or museums/cultural institutions the following should be considered:

- **Good wind access**
- **Highly visibility:** We want students, parents, and your community to be excited, and learn about wind energy so it is important to choose a site with lots of foot traffic - close to the institution's entrance or a courtyard.  
If your school or institution is selected to move forward in the process, NEED will work with licensed contractors to do a site survey with facilities personnel to confirm the selected location and to check for any possible technical or construction difficulties.
- **Proximity to Wi-Fi:** The installation communicates via Wi-Fi network connection and needs either a good Wi-Fi signal or ethernet port to be plugged into the local area network.
- **No underground utility lines (power or gas)** that will impede the trenching and digging needed for the installation.

Please note: To be selected to receive a micro-wind turbine installation, an applicant's site must be evaluated for technical feasibility. Before final selection decisions are made, site visits will take place to evaluate technical feasibility including space of installation area, access to wind resources, soil type, safety and security.

**Tentative Timeline:**

February 21, 2022	Application period opens
May 20, 2022	Application period ends
May 27, 2022	Preliminary Selection pending site visits
Summer/Fall 2022	Installations completed and Dominion Energy Wind for Students Ribbon Cuttings

**Selected applicants will be asked to provide:**

- One designated person at the school or institution with “signatory authority” to sign an agreement.
- A copy of the insurance policy for the school or institution.
- Final inspection letter signed, once the installation is completed.
- Signature of team members on the application, any other information that would be beneficial (ownership of building might be a factor in a few cases – is it space that is rented vs owned by the district, etc.,).