



Western Branch High School in Chesapeake, Virginia

## SOLAR ENERGY FOR SCHOOLS

Your school system can take advantage of opportunities to generate solar energy onsite to reduce energy costs and to serve as a tool to educate students about the benefits of solar energy.

### DID YOU KNOW?

#### Solar Energy:

- Has grown in Virginia from 1 MW in 2010 to over 220 MW today
- Has dropped in price from \$8.00/watt in 2009 to just under \$2.00/watt today
- Accounted for 22% of all new capacity installed in the first half of 2017
- Employs nearly 260,000 people at more than 9,000 companies in every U.S. state

#### **Schools are increasingly using third-party Power Purchase Agreements (PPAs) to benefit from solar**

- No money down from school
- Third party installs, owns and maintains the system
- School enters into a contract to purchase solar output
- Serves as a hedge against rising electric costs
- Net savings over the term of the contract

### Where can I Find More Information?

#### Contact:

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#### [Brighter Future: A Study on Solar in U.S. Schools](#)

Looks at why schools are going solar, where these systems are being installed, how they are being financed, as well as other information relevant to nonprofits, solar companies, and individuals interested in supporting solar on K-12 schools.

#### [NEED – National Energy Education Development Project](#)

For over 35 years, NEED has kept its Kids Teaching Kids philosophy as a fundamental principle of NEED programming – encouraging students to explore, experiment, and engage, and encouraging teachers to embrace student leadership in the classroom. NEED trains and assists teachers in harnessing the energy of the classroom – **the energy of students.**

# CASE STUDY

## SCHOOLS GOING SOLAR



# Middlesex County Public Schools

### System Information

System Size: 1.08MW      Number of Modules: 2,970      Energy Offset: 100%  
**PPA Rate: 6.84¢/kWh**  
**Amount Saved: \$2,570,627**

### About the Project



Middlesex County Public School (MCPS) entered into a Power Purchase Agreement (PPA) with Charlottesville's Sun Tribe Solar, who will install, own and maintain a 1.08 megawatt ground mount solar energy system which will supply 100% of the electricity needed to power St. Clair Walker Middle School and Middlesex Elementary School with clean, renewable energy. After working the technical and financial aspects of the system, Sun Tribe Solar was able to respond to an RFP for solar issued by MCPS with a PPA rate of 6.84 cents per kilowatt-hour. This low PPA rate will ultimately save MCPS over \$2.5 million over the life of the agreement.

It is estimated that the solar energy system will offset the school's carbon footprint by more than 1,300 tons annually. The 2,970 solar panels will help to reduce the school's impact on the environment while also serving as a learning tool for its students.



### Curriculum Integration



Sun Tribe Solar will partner with the NEED Project to hold a free workshop for the science and math teachers at the schools and provide them with kits and activities in order to incorporate the installed array and solar energy more broadly into their curriculum.

*"I think that the NEED solar training will really benefit our school. The NEED program is clearly well-run, with organized materials, thorough content-related curricular support, and well-rehearsed training. Their services really do seem to do what you are hoping to provide to schools."*  
- Pam Grosch, Science Department Chair, St. Anne's-Belfield School