

Highlights from the Lighthouse Solar Energy Camp

2021 // MAY 29 // ISSUE NUMBER 1



Halifax County Schools



WEEK ONE: SOLAR ENERGY

LIGHTHOUSE SOLAR CAMP SCHOLARS EARN WHILE YOU LEARN



Earn While You Learn --- Halifax County Schools, North Carolina State Energy Office and NC A&T State University join forces with Halifax Community College, the Governor's Office and the Center for Energy Education to produce a solar camp where juniors and seniors will receive a 96-hour training program to expand their knowledge of photovoltaic and solar energy. After the students finish the 96-hour training program, they are skilled and ready for a hands-on paid internship with a local solar company with a rate of pay of \$15 per hour for 80 hours. Students will be provided safety equipment, to include but not limited to: uniform shirts, work boots, reflective vests, hardhats, safety glasses, gloves, and personalized protective equipment kits, as well as all materials need for coursework.

LIGHTHOUSE SOLAR CAMP

MEET THE LIGHTHOUSE SOLAR CAMP SCHOLARS



Zaniya Battle



Sa'Maria Barnes



Juleyon Brinkley



Trazaya Bullock



Maria Castanon



Zas'Kya Caudle



Raven Evans



Ty'Teana Harris



Aniya Heckstall



D'Montae Hedgepeth



Jaliyah Hill



Kearston Higgs



Ulises Lubiano



Qunicy Mills



Aniya Nicholson



Marjavion Nicholson



Penelope O'Neal



Cameron Pearson



Dante' Solomon



Jayden Vinson

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Halifax County Schools



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Lighthouse Solar Camp Students inspect the fuse box on the campus of Halifax Community College as part of their field experience.



Halifax Community College President Dr. Michael Elam addresses the first inaugural class of the Lighthouse Solar Energy Camp. Twenty Halifax County Schools' students completed orientation and commenced camp on May 26, 2021 with a 96-hour training module taught by Halifax Community College faculty. Upon completion of their coursework, students will be skilled and ready for an 80-hour, hands-on paid experience at the Center for Energy Education with an emphasis on photovoltaic and solar energy.

1st Inaugural Lighthouse Solar Camp



Did you know? In 14.5 seconds, the sun gives us enough clean energy to power the world for the remainder of the day.

Mr. Thomas Mims, Photographer

LIGHTHOUSE SOLAR CAMP



Halifax County Schools' Superintendent Dr. Eric Cunningham encourages the inaugural class of the Lighthouse Solar Camp to "Strive for Five" as they "Chart A New Course" at Halifax Community College.



Mrs. Rhonda High
Halifax Community College
Lighthouse Solar Camp
Program Administrator



Dr. Tyrana Battle
Halifax County Schools
Assistant Superintendent
Solar Camp Program Liaison



Meet the Instructor – Week One



Mr. Jason Bone
Halifax Community College

Halifax Community College Instructor Jason Bone teaches twenty Halifax County Schools' Lighthouse Solar Camp students about solar energy and photovoltaic systems.

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IN THIS ISSUE – WEEK ONE

Introduction to Solar & Solar Fundamentals (30 hours): The course covered the following topics:

- Solar Education
- Solar Photovoltaic Modules
- Racking and Mounting
- Electrical Connections
- Use of Small Tools
- Hands-On Installation
- Industry Visits

Photovoltaic (PV) Energy

Definition: Photovoltaic (PV) is the conversion of light into electricity directly from photons of sunlight.

Advantages	Disadvantages
Solar energy available in most places	Variability of available sunlight
No fuel costs	High initial cost
No emissions	Energy storage
Easily scalable	Available of qualified installers
Low maintenance	Legal complexities



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Question of the Day

Solve: If there are 10 PV modules that produce 30 volts and 7 amps at full (peak) sun, how much direct current (dc) energy (kWh) would one expect on average per day if the modules were installed in an area with 5 hours of peak sun per day?

Procedure:

30 volts X 7Amps = 210 watts

210 W X 10 modules = 2100 Watts

2100 Watts x 5 hours of peak sun per day = 10,500 Wh/day

10,500/1,000 = 10.5kWh/day

Answer: 10.5 kWh/day