



E² Energy to EducateSM

As part of our commitment to education, E² Energy to Educate grant awards support projects that are team oriented, hands-on projects with specific results. E² Energy to Educate projects enhance student understanding of the science and technology needed to address energy issues, and reach and inspire students to think differently about energy.

2020 E² Energy to Educate – Highlights

- **22 projects awarded more than \$500,000, reaching more than 22,000 students nationwide**
- Student projects include carbon reduction projects, building and racing electric and solar-powered cars, , summer camps exploring renewable energy, and game-based learning for STEM and energy concepts.

2020 E² Energy to Educate – Awardees

Bonneville Environmental Foundation

Portland, OR

Project Title: Clean Energy Empowerment through At-Home STEM

Project Description: To equip educators to engage their students in hands-on STEM activities through at-home STEM kits paired with curricula for hybrid and distanced learning formats.

Clarkson University

Potsdam, NY

Project Title: Food-to-Energy, Expanding our Reach: Promoting Resource Recovery in Schools and Community through a K-12/University Partnership

Project Description: To operate its food digester more reliably and allow it to serve as a teaching facility, and to expand and improve its current food waste program.

Consumer Energy Education Foundation

Houston, TX

Project Title: Zero Waste Virtual STEM Summer Camp

Project Description: To create an engaging and workforce-driven learning event that will connect high school students with Zero Waste Virtual STEM experiences and real-world opportunities in clean energy sources and energy storage, and to explore the future of the energy sector.

Coppin State University Development Foundation Inc.

Baltimore, MD

Project Title: Enhancing the understanding of high school and undergraduate students in renewable energy through the synthesis of carbon dots and applications in electricity production

Project Description: For local middle and high school students to design and fabricate carbon dot modified dye sensitized solar cells.

Dickinson College

Carlisle, PA

Project Title: Clean Energy From Waste Education Program

Project Description: To construct a waste to energy system that converts cow manure and cafeteria food waste into clean energy.

East Carolina University

Greenville, NC

Project Title: Design and Build a Mobile Solar Driven Reverse Osmosis Desalination Unit for Sustainable Communities

Project Description: To educate students on the global issue of water scarcity and how using a clean energy source with low carbon emission, such as solar energy, can solve the problem and help to develop sustainable communities.

EcoRise

Austin, TX

Project Title: Envisioning a Low Carbon Energy Future

Project Description: Develop real-world solutions through project-based activities, design labs, and campus eco-audits.

Georgia Southern University

Statesboro, GA

Project Title: Engaging Students in Engineering Education

Project Description: To bring engineering education to students in Georgia through the lens of Smart Homes.

Irvington Public School District

Irvington, NJ

Project Title: Facilitating the Urban Pipeline to Science, Engineering, and Design

Project Description: To create a new Engineering course and new unit of study within the Earth Systems and Space Science course (two problem-based projects: wind turbines and solar heater/oven).

Kean University Foundation

Union, NJ

Project Title: Promoting Remote Learning in Sustainability: Developing and Offering Virtual Renewable Energy Workshops for students in K-12 schools and colleges

Project Description: An outreach program offering virtual renewable energy workshops for high school students primarily from underserved communities.

Legends of Learning

Washington, DC

Project Title: National STEM Game-Design Competition

Project Description: To run a game-based learning design competition for K-12 students focused on solar installation and energy storage installation best practices.

Open Connections Inc.

Newtown Square, PA

Project Title: Off-Grid Program Space

Project Description: To imagine, design and build an off-grid program space in the form of a solar and biogas powered yurt.

Para Los Ninos

Los Angeles, CA

Project Title: STEAM FAIR: Renewable Energy and You

Project Description: To develop an early STEAM pipeline/ curriculum that will encourage innovative scientific mindsets and competencies in their students.

Redwood Cooperative School

Lexington, KY

Project Title: Student Powered: Exploring the Energy of the Future

Project Description: Utilize STEM solar education kits to build solar panels and test their effectiveness in producing energy to power various items around the school.

Rochester Institute of Technology

Rochester, NY

Project Title: Clean Energy Generation Using Fuel Cells: Training Sessions for High School Teachers and Students

Project Description: To further expand and develop their high school education program on Renewable/Clean Energy and Electricity Generation Using Fuel Cells by using a mix of online and if possible in-person training sessions.

Salvadori Center, Ltd.

New York, NY

Project Title: Building Green: Collaborative, Hands-on STEAM Education for Under-resourced Students

Project Description: The Building Green curriculum introduces students to energy efficiency, active and passive solar, energy transfer and designing and constructing a scale model of a green building.

Solar One

New York, NY

Project Title: Green Design Lab

Project Description: K-12 environmental education program that explores urban environmental sustainability and climate change through hands-on and interactive activities, for a hybrid of remote and in-person learning.

Solhomes Inc.

Chevy Chase, MD

Project Title: Adapthaus

Project Description: An adaptable net-zero, energy efficient, solar powered smart home project entry to the 2020 US Solar Decathlon Build Challenge.

South Union Community Development Foundation

Houston, TX

Project Title: Sunshine in Sunnyside

Project Description: To create a Solar "Indoor" Classroom, for a climate-controlled learning facility.

The Cooper Union for the Advancement of Science and Art

New York, NY

Project Title: Cooper Union Motorsports Electric Vehicle Transition

Project Description: To transition their combustion-based vehicle, a high performance, open wheel formula-style race car, to electric in order to compete in the 2022 Formula SAE Electric event.

The Science and Math Investigative Learning Experiences (SMILE) Program

Kingston, RI

Project Title: The SMILE Program 2020-21 Middle and High School Electrification Clean Energy Powering the Future

Project Description: To engage young students in curriculum focused on clean energy and technology, through an engineering challenge and a focus on electrification.

University of Miami

Coral Gables, FL

Project Title: An Educational Program on Low Carbon and Green Infrastructure Concrete

Project Description: To develop low carbon and green concrete through the STEM Challenge.