





Solar 4R Schools™

inspiring the next generation of clean energy leaders

At BEF, we believe education plays a critical role in solving the world's most pressing energy challenges. Our Solar 4R Schools™ program delivers one of the most comprehensive K-12 renewable energy STEM education experiences in the nation. Through teacher training, science kits, teacher-generated activities, and real-time access to energy generation data from 200+ solar systems nationwide, we are directly empowering the next generation of clean energy leaders. With the help of funding partners like you, we strive to integrate renewable energy STEM education into every classroom in the nation.

In addition to directly supporting education and solar energy development, our school projects provide funding partners with an exceptional opportunity to engage students, school administrators, media, community members and other stakeholders. Through a range of engineering challenges, interactive kiosks and co-branded educational displays, our funding partners authentically connect with local communities of interest, creating an invaluable platform to share their broader sustainability story.

"Perhaps no ecological issue is more urgent than the need to shift away from our reliance on fossil fuels."

—ALLEN HERSHKOWITZ, PH.D., NATURAL RESOURCES DEFENSE COUNCIL

helping fill the STEM education gap

The occupations projected to grow most rapidly over the next decade are in science, technology and engineering fields, yet in 2013 the U.S. ranked 49th globally for science and math education. In fact, there is an alarming level of illiteracy in STEM (science, technology, engineering and mathematics) education and energy topics in our nation's schools. In fact, recent studies indicate that less than one-third of U.S. eighth graders showed proficiency in mathematics and science.

"STEM education will determine whether the U.S. will be able to solve immense challenges in such areas as energy, health, environmental protection and national security."

-PRESIDENT'S COUNCIL ON SCIENCE AND TECHNOLOGY

When teachers have the right mix of educational tools and engaging classroom activities they can bring energy topics to life for their students while preparing them for the jobs and challenges of the 21st century. Unfortunately, these tools are often expensive and difficult to find, or worse, they are challenging for educators to efficiently integrate into existing science requirements. Cutbacks to education budgets have made it even more difficult for teachers to access and utilize STEM curricula that include renewable energy education.

funding options—core packages



renewable classroom

The **Renewable Classroom** package is designed to build a dedicated community of renewable energy educators within a single school or district. To optimize classroom integration over time, every aspect of the package is customized to meet the unique needs of educators and the district including recommendations for custom activities and science kit materials designed to augment existing curricula. Funding partners are matched with a school from our approved applicant pool and have the valuable benefit of directly aligning their investment and impact with an educational community in a key market or area of interest. *OPTIONAL: Additional science kit materials and/or additional teacher trainings can be added to this package for an additional fee.* **REACHES UP TO 15 CLASSROOMS**



renewable school

In our most complete package, *Renewable School* projects combine our customized *Renewable Classroom* education project with the installation of a new on-site photovoltaic (PV) system on the K-12 school facility (typically starting at 4-kilowatts in size), as well as energy monitoring and system performance display of the PV system at Solar4RSchools.org. With this robust package, funding partners directly support the generation of clean energy, leverage the system's prominent installation and design into an interactive classroom tool, and help build a dedicated community of teachers prepared to bring energy topics to life within a single school or school district. Funding partners are matched with a school from our approved applicant pool within a market or community of interest. *OPTIONAL—A touchscreen kiosk and/or outdoor interpretive signage placed near the project's PV system are optional add-ons to this package at an additional fee. The system size can be increased to meet the school or funding partner's goals for an additional fee. REACHES UP TO 15 CLASSROOMS*



educators' workshop

The *Educators' Workshop* provides hands-on training and STEM resources that empower up to 20 teachers within a single region to bring renewable energy-based STEM education to their classrooms. Educators receive our renewable energy education package including a general teacher training and limited science kit materials. This package is an excellent option for funding partners that wish to achieve both maximum educational impact and broad market penetration in areas where our Solar 4R Schools™ applicant pool is limited, or in regions where no program presence currently exists. This package can help provide a stepping-stone to encourage schools to apply for a *Renewable Classroom* or *Renewable School* projects in the future. *OPTIONAL:* Energy monitoring of funder's existing PV system, a touchscreen kiosk, and/or outdoor interpretive signage placed near the funder's existing PV system are optional add-ons to this package for an additional fee. **REACHES UP TO 20 CLASSROOMS**

add-on services

energy monitoring

Funding partners that are supporting one or more *Educators' Workshops* can add energy monitoring of their photovoltaic system and system performance display at the Solar4RSchools.org website for an additional fee. Includes a minimum of 5-years operations and maintenance support.

touchscreen kiosk

Funding partners can add an upright or wall-mounted, co-branded touchscreen kiosk to any core package for the purpose of displaying real-time energy performance data from a project that is already being monitored in the Solar 4R Schools™ system. The touch-activated interface allows users to chart and graph real-time solar energy performance data, learn key facts about how solar energy works, read details about the project or learn more about the project funder's commitment to clean energy.

Co-branding options are based on the funding level associated with the project and kiosk placement is determined by several technical factors in partnership with the Solar 4R SchoolsTM team and the facility owner. Support includes a minimum of 5-years operations and maintenance support.



WALL-MOUNTED TOUCHSCREEN KIOSK

outdoor, co-branded interpretive signage

Outdoor, co-branded interpretive signage can be added to any core package to further engage your community and/or stakeholders around your commitment to renewable energy and renewable energy education. Signage is pre-designed by our technical team with designated co-branding options and is installed in a high traffic location to maximize impact.

education development fund

Funders can sponsor the ongoing Solar 4R Schools™ Education Development Fund by providing a donation at any financial level. This fund is used to support the program's ongoing Teacher Activity Development Stipend Program as well as other program activities related to the development of new renewable energy education resources for educators nationwide.



UPRIGHT TOUCHSCREEN KIOSK



A STUDENT AT JOURNEYS SCHOOL OF TETON SCIENCE SCHOOLS IN JACKSON, WYOMING INTERACTS WITH A PHOTOVOLTAIC SYSTEM AND IRRADIANCE SENSOR





THE TRANSPORTABLE, INDOOR SOLAR CAR ENGINEERING CHALLENGE TRACK SHOWN ABOVE WAS USED TO PILOT BEF'S FIRST SOLAR CAR DERBY AT SAFECO FIELD IN EARLY 2014.



let's build a meaningful partnership

contact us today to schedule a consultation

To learn more about how becoming a Solar 4R Schools[™] funding partner can help your organization achieve meaningful sustainability, education and communication engagement goals, contact us to schedule a consultation with one of our team members.

Val Fishman

Vice President, Corporate Partnerships 503-553-3946 vfishman@b-e-f.org

view current projects at: www.Solar4RSchools.org

{ Renewable energy is part of our commitment to a balanced, reliable energy future. We've supported Solar 4R Schools™ for several years because it introduces renewable resources into the classroom. Students can see for themselves how sunlight can be converted into clean energy. }

- PATTI BEST, IDAHO POWER



STUDENTS INTERACT WITH PHOTOCHROMIC PAPER TO DISCOVER THE POWER OF SUNLIGHT

{ Leading kids to discover the 'hows and whys' behind energy production propels them into some of the real problems with which our country is faced. In the not-too-distant future, we will be looking to these kids to solve our energy challenges. }

-MICHELLE, TEACHER AT HELMAN ELEMENTARY SCHOOL, ASHLAND, OR

honneville environmental foundation

240 southwest 1st ave. 503.248.190 portland, oregon 97204 www.b-e-f.org

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To learn more about how funding one or more Solar 4R Schools™ program packages can help your organization achieve meaningful sustainability, education and communication engagement goals, contact our team for a complimentary consultation.

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empowering business to be in balance.