



bonneville environmental foundation

Before You Apply to Solar 4R Schools

Please read this information thoroughly to ensure that you fully understand the Solar 4R Schools program and that your school is eligible to participate.

About BEF

The Bonneville Environmental Foundation (BEF), a non-profit organization, was established in 1998 to restore watershed ecosystems and further the development and use of new renewable energy resources. Through revenues generated from the sales of green power products, BEF funds projects that restore damaged watersheds and support new renewable energy projects from solar, wind and biomass. BEF pioneered the sale of Green Tags in 2000 and has helped establish national standards for certification and trading. Created by regional environmental groups and the Bonneville Power Administration, the Foundation operates collaboratively with but independent of both. More information is available at www.b-e-f.org.

About Solar 4R Schools

The Solar 4R Schools* program (S4RS), developed and managed by the Bonneville Environmental Foundation, educates school community members about the functions and benefits of solar electric power, an increasingly popular renewable resource. Solar electric (also known as photovoltaic or PV) systems and educational tools are offered at no financial cost to the schools. The schools commit to integrating the solar power system as a learning tool, and they agree to own and maintain the completed system including all of the clean, renewable electricity it produces. *BEF also provides PV systems to other public and educational institutions.

Program Components

Funding Partners - BEF actively markets Solar 4R Schools to potential funding partners. Sponsoring a Solar 4R Schools project is a great way for our partners to demonstrate their commitment to renewable energy education. We strive to link funding partners with excellent schools within a geographic region selected by the partner.

Excellent Schools - Support and enthusiasm from teachers and schools is essential to the success of the project. BEF works with funding partners to identify excellent schools within a specific funding region or that meet other requirements set forth by the funding partner.

Project Management - BEF is recognized nationally as a trusted developer of renewable energy resources. Our project management team guides each school through the installation process, reducing the burden on school administrators and facility personnel. We work with the local electric utility, contractors, and community organizations to install highly visible, reliable, and low-maintenance renewable energy projects.

The Photovoltaic System - The solar PV system is the centerpiece of the S4RS program. BEF collaborates with utilities and other funding partners to install demonstration-scale projects on schools and other educational facilities throughout the country. Most schools will receive a 1.1 kW, grid-tied system.

Advanced Data Monitoring and Display - BEF offers data monitoring and display equipment with each of its installations. This state-of-the-art equipment provides real-time data on the systems' energy production and related weather conditions. This data is then transmitted through the web, and is accessible through any internet-enabled computer. This data is a key part of the education program. Some projects may also receive an on-site kiosk that displays the live data and educational materials.

Education - BEF offers a comprehensive educational program to help students and teachers learn about the benefits of renewable energy and how it works. Teachers and other staff/faculty are invited to attend a training workshop to learn about solar power and how to use their PV system, data monitoring, and other educational tools provided in the program.

Community Outreach - The program also includes a community outreach and public education plan. BEF's experienced and creative marketing team will help plan and organize an opening celebration. BEF provides support and guidance, but ultimately the project host determines the style of the event. We also write press releases and communicate with the media to showcase each school's unique commitment to sustainability.

Goal

BEF hopes **to increase the visibility and public understanding of renewable energy generation technologies**. Just as many adults now recycle because the concept was introduced to them in school, **we hope that today's students will gain an understanding of solar technology and develop a commitment to renewable energy** that will engender their leadership in a sustainable future.

Solar 4R Schools is primarily, but not solely, for students. While high cost is the most obvious barrier to the widespread adoption of solar power generation, it is not necessarily the most profound challenge in mainstreaming this technology. As solar electricity becomes more economical, communities must still develop hands-on, practical familiarity with it in order for it to become widely adopted. **Solar 4R Schools provides faculty and facility personnel, parents, community members, installers, and city permitting officials with direct experience implementing solar electricity**, including consideration for such factors as safety, roof penetrations, grid-connection, reliability, maintenance, etc.

Benefits

- Parents, teachers, school administrators and other community members will all have **the opportunity to see, experience and learn about solar power**. It is our hope at BEF that these community members will be inspired to conserve energy at home and maybe even install their own PV systems.
- Project owners, facility managers and city permitting officials **learn that this technology is safe and reliable, the equipment is low-maintenance**, and there is very little risk of structural problems, roof damage or liability issues when a PV system is designed and installed correctly.
- **Contractors learn to install systems in a more cost-effective manner** by gaining experience working with different components and installing different types of projects. We have worked with several electrical contractors in remote locations who had no prior experience with PV systems and helped them learn what they needed to know in order to install the system correctly.
- **Electric utilities gain experience net metering, interconnecting, and inspecting this technology**. The PV system is “grid-tied” and needs to be connected to the utility grid in a safe and efficient manner. BEF has actually worked with several utilities to develop and streamline their interconnection rules.
- These projects **give BEF the experience and benchmarks to develop financial models for large systems**. As solar becomes more cost-effective, BEF will be looking to install large-scale solar projects on schools, which will offset a large portion of the schools’ electricity load and reduce their electricity costs.
- As solar becomes an economically viable alternative to fossil fuels, **communities that have experience with solar electricity will be prepared to embrace and implement this technology** in their homes, businesses and municipal buildings.

Eligibility Requirements

Since the majority of our funding comes from Cowlitz Public Utilities District, Puget Sound Energy, and Idaho Power Company, schools or institutions located in these regions are encouraged to apply. **However, any elementary, middle or high school or other organization with a significant youth education emphasis in any region is encouraged to submit an application to BEF. Currently, we only fund grid-tied projects, and it is essential for funding purposes to include your Interconnecting Utility information in your application.** Grants typically do not exceed \$20,000 for standard demonstration-scale PV projects or 33% of the total cost for larger projects. **BEF does not provide funding for residential or technology research and development projects.** No BEF funds will be available for any political activity, including lobbying government institutions or advocating political or statutory change.

Additionally, BEF does not provide or fund informational or educational activities or conference support except when such activities are integral to a renewable energy project that generates power and/or heat. All recipients are expected and assumed to be in compliance with equal opportunity, environmental and other laws. BEF further expects that recipients carry out their activities in a manner that reflects a broad concern for environmental values.

Identifying Excellent Schools

Support and enthusiasm from teachers and schools is essential to the success of the project. BEF works with funding partners to identify excellent schools within a specific funding region or schools that meet other specific requirements set forth by the funding partner.

What defines an excellent school?

- A dedicated Project Champion
- Strong support from school administrators and facility personnel
- Active pursuit of energy conservation measures; student groups like Watt Watchers and Earth Savers are highly regarded
- Prior success with other sustainability initiatives such as recycling programs, using recycled paper, re-usable cafeteria dishes and utensils, composting, earth clubs etc.
- A suitable site for the system installation, which is highly visible, has good solar access and is in close proximity to an electrical panel and Internet network

Who is the Project Champion?

The Project Champion is the primary contact for BEF at the school. The Project Champion will lead the application process, encourage participation in the program with other faculty and staff, and implement the Solar 4R Schools education program. The Project Champion does not need a strong science or technology background, but he or she should be a superb educator passionate about bringing renewable energy education to the school. Because the Project Champion's efforts affect the success of the project, it is important that he or she be enthusiastic, organized, creative, and well respected within the school community. While it is crucial to the success of the project that a single individual be identified as the Project Champion and primary contact person for BEF, a school may decide upon its own discretion to share the actual duties/responsibilities among multiple teachers.

Application Process

Educators who are interested in participating in the Solar 4R Schools program should first read this guide as well as **How to Apply** in order to fully understand the scope of the program. Interested schools should also explore www.b-e-f.org and www.solar4Rschools.org. By reading the websites, schools may determine whether they fit into any of the regions or categories of currently funded projects and decide if they should apply for the program.

Once the Project Champion has read all of the relevant information and determined eligibility to participate in the program, the next step is for he or she to share information about Solar 4R

Schools with other members of the school community. The school principal or headmaster is a good place to start. Gaining support from other teachers and students is also a good idea. **Remember: Education about solar power is easy to implement into a science curriculum, but the subject of renewable energy can be integrated into the arts and social science curriculums as well.**

Once support for the program has been established at the school, the Project Champion can download the application form from the BEF website. **To apply for a 1 kW installation, Project Champions should complete the Renewable Energy Grant Application form by following the link for the school's utilities provider. If the utility is not listed, follow the link for the Renewable Energy Grant standard application.** Other educational facilities with a focus on youth education, which meet the current funding requirements, should also complete the Renewable Energy Grant Application Form. This form can be downloaded from: <http://www.b-e-f.org/grants>

Please refer to the document How to Apply, which contains detailed instructions for completing the application. The application form should be completed electronically and emailed to: grants@b-e-f.org

Application Calendar

BEF accepts applications on a rolling basis and reviews them periodically according to the funding cycle listed below. Please note that utilities with whom we have established funding partner relationships may have separate and specific deadlines for applications within their service regions. They are as follows:

Cowlitz PUD: Grants are awarded once per year. To be considered, applications must be submitted by 5/21. Applicants will be notified in June of the same year.

Idaho Power Company: Grants are awarded once per year. To be considered, applications must be submitted by 3/1. Applicants will be notified in April of the same year.

Puget Sound Energy: Grants are awarded once per year on May 1. PSE accepts applications year round, and will be issuing a formal RFP to schools in its service area in February 2009. In order to be eligible for funding, the applicant school or district must have a Resource Conservation Manager. Complete applications should be emailed to grants@b-e-f.org and micah.haman@pse.com. For questions, please contact Micah Haman at PSE at (425) 456-2992.

The General BEF Funding Cycle is as follows:

Q1:	Applications received between 12/16 and 3/15	Notification on or before 6/30
Q2:	Applications received between 3/16 and 6/15	Notification on or before 9/29
Q3:	Applications received between 6/16 and 9/15	Notification on or before 12/28
Q4:	Applications received between 9/16 and 12/15	Notification on or before 3/31