



2017 Puget Sound Renewable Leadership Institute Online Application

Online Application Must Be Submitted By 11:59 pm, Wednesday, April 26, 2017.

We are looking for elementary, middle, and high school educational leaders in Pierce, Snohomish and King counties with a passion for CTE/STEM who are interested in bringing in or increasing renewable energy education to their school and district. The selected teacher leaders will participate in a 5-day leadership institute in order to:

- Build capacity and leadership in renewable energy and electricity from a systems perspective
- Create new curricula in collaboration with fellow teacher leaders and energy experts
- Design a science kit to take back for their district, valued at \$3,500
- Meet energy experts from secondary education and industry as it relates to education

To download a copy of the application packet, go to: solar4rschools.org/leadership

About Solar 4R Schools

Solar 4R Schools empowers educators to integrate the latest renewable energy science and technology into their lesson plans. We provide professional training, teacher-generated lesson plans, interactive science kits and materials, and access to energy experts and real-time solar energy data to help bring renewable energy topics to life.

<http://www.solar4rschools.org>

With the help of corporate, philanthropic, utility and community partners, our mission is to inspire a new generation of clean energy leaders with the skills and innovative thinking needed to solve the world's biggest energy challenges. Our vision is to bring interactive renewable energy education into every classroom in the nation. As a program of the Bonneville Environmental Foundation (BEF), Solar 4R Schools provides one of the most comprehensive, teacher-tested renewable energy educational programs available nationwide. In fact, [Solar 4R Schools](#) earned the Leadership in Green Power Education award from the Center for Resource Solutions and the EPA in 2015.

Institute Overview

The Puget Sound Renewable Leadership Institute, sponsored by Boeing and BEF, is a 5-day teacher training program focused on renewable energy and electrical systems. This intensive training program frames renewable energy as one element in the increasingly complex system that will be tomorrow's power grid. Teachers will practice Next Generation Science Standards (NGSS) skills through a blend of hands-on activity participation and activity design. By incorporating systems-based content, participating teacher-leaders will develop a frame of reference for how renewable energy and other traditional energy sources interact on the grid. Topics and activities are aligned throughout the week with elements of the power grid to synthesize knowledge in new ways and build understanding.

The Leadership Institute will provide opportunities to connect teacher leaders in education to STEM and energy experts from the industry and academia through a variety of interactive experiences. The week of activities and instruction will model methods to bring renewable energy topics into the classroom using NGSS and will support teachers on their path to becoming Washington State Science Standards leaders as well. The Leadership Institute has been designed with input

from Washington Alliance for Better Schools (WABS), Washington State LASER, and Puget Sound ESD to additionally foster collaboration and peer evaluation to strengthen the pedagogical development of energy, engineering within the Washington State Science Standards framework.

University of Washington – Bothell is hosting the Leadership Institute on their campus from 7/24/17 to 7/28/2017. UW–Bothell, the UW Clean Energy Institute, and Snohomish County PUD are providing some of the energy experts, career and secondary education linkages, and field trip experience for teacher leaders.

Timeline

March 3, 2017	Application Packet Posted Online
April 26, 2017	Applications Due (11:59 pm)
May 12, 2017	Selected Participants Notified
July 24–28, 2017	Leadership Institute Dates (8:30 am – 3:30 pm daily)
2017–2018	Continued Engagement and Support For Implementation
Spring 2018	Participants Expected to Participate in Follow-up Survey

Institute Highlights

- Daily Hands-on Inquiry and Engineering Activities
 - Explore cutting-edge technology with energy experts from UW Clean Energy Institute
 - Experience engineering challenges and discuss implementation for all students
- Hydropower Field Trip – provided by Snohomish County PUD
- Higher Education Panel: Student, Faculty, and Alumni – UW Bothell School of STEM
- Peer Collaboration during daily curriculum development opportunities through peer collaboration
- Build a model electrical power grid

Career-Connected Learning

Renewable energy provides an opportunity to engage students in the emerging new energy economy as it unfolds right before our eyes. Adding new sources of energy to the mix is changing the nature of the power grid from a relatively simple model of one-way supply and demand to a more interactive system featuring distributed energy generation and storage, where energy consumers can also be producers. These rapid, nationwide changes to a critical infrastructure require teams of innovative workers ready to transcend traditional disciplines. In addition, nearly half of utility employees are eligible for retirement by 2020. Students with multidisciplinary skills who understand the complexity of systems and have a robust set of skills will be increasingly needed to replace the careers of yesterday.

By linking problem and project-based learning to local phenomena directly relating to the subject matter, and fostering industry connections to students, we engage the community in education as much as we engage students in the possibilities of their future. Through this institute, teacher leaders will begin to develop connections to utilities, higher learning, and other industry connections that help round out the “real world” applications of the content, as well as a pathway to success in a future career.

Eligibility

This opportunity is available to K–12 educators in Pierce, Snohomish, or King counties. Applicants must have support from their administration to share this new content in their district (formally or informally) and be ready and able to use this experience to bring new renewable energy content and associated science kits to their local professional learning communities. Teachers may apply individually or as teacher pairs from the same District.

Not a Puget Sound, WA teacher? Check out our PNW Renewable Energy Leadership Lab opportunity here:

<http://www.solar4rschools.org/RELL>

Benefits

Teachers will leave the Institute with:

- A foundational set of science and engineering materials (one per teacher-team/district)
- A budget to customize and supplement their renewable energy science kit
- A peer-reviewed, NGSS-aligned lesson ready for classroom testing
- Up to 9 additional peer-reviewed NGSS lessons from the cohort that may be suitable or adaptable to the teacher's classroom
- A professional learning community to aid in continued implementation of renewable energy and STEM content
- Up to 32 hours of WAC–180 STEM Clock Hours
- Mileage reimbursement corresponding with distance traveled

Expectations

All participating teachers are expected to:

1. Arrange and provide own lodging and transportation to and from the Institute (mileage reimbursement available).

2. Participate in the Renewable Leadership Institute in its entirety.
3. Disseminate knowledge and resources gained with district peers in formal and/or informal settings during the 2017–2018 school year.
4. Facilitate access and sharing of renewable energy science materials with district colleagues.
5. Develop a classroom-ready lesson relevant to renewable energy and/or the electric grid over the course of the Institute, in collaboration with peers.
6. Participate in a follow-up survey in Spring 2018 which will help us report to funders.

Questions about this application? Contact us at solar4Rschools@b-e-f.org

2017 Puget Sound Renewable Leadership Institute Online Application

This application is divided into four sections:

1. Personal Information
2. Applicant Statement & Qualifications
3. Curricular Interests
4. Supplemental Documents

Note: If you are applying as a teacher pair, each teacher should fill out an application. Each application should include elements that demonstrate your commitment to working together.

Questions about this application? Contact us at solar4Rschools@b-e-f.org.

Part I. Personal Information

Are you applying as a teacher pair? *

- Yes
 No

Name *

<input type="text"/>	<input type="text"/>
First Name	Last Name

E-mail *

Phone Number

<input type="text"/>	-	<input type="text"/>
Area Code		Phone Number

I teach in... *

- Pierce County
 Snohomish County
 King County
 Other (Note: this opportunity is only available for the above counties)

School Address *

School Name

Street Address

City State / Province

Postal / Zip Code Country

School District *

- | Subject Area(s) * | Grade Level(s) * |
|---|-----------------------------|
| <input type="checkbox"/> All | <input type="checkbox"/> K |
| <input type="checkbox"/> General Science | <input type="checkbox"/> 1 |
| <input type="checkbox"/> Physical Science | <input type="checkbox"/> 2 |
| <input type="checkbox"/> Life Science | <input type="checkbox"/> 3 |
| <input type="checkbox"/> Biology | <input type="checkbox"/> 4 |
| <input type="checkbox"/> Chemistry | <input type="checkbox"/> 5 |
| <input type="checkbox"/> Physics | <input type="checkbox"/> 6 |
| <input type="checkbox"/> Environmental Science | <input type="checkbox"/> 7 |
| <input type="checkbox"/> Computer Science | <input type="checkbox"/> 8 |
| <input type="checkbox"/> Math | <input type="checkbox"/> 9 |
| <input type="checkbox"/> STEM | <input type="checkbox"/> 10 |
| <input type="checkbox"/> CTE | <input type="checkbox"/> 11 |
| <input type="checkbox"/> <input type="text" value="Other"/> | <input type="checkbox"/> 12 |

Anticipated Student Reach: Over the course of the 2017–2018 school year, please indicate:

Number of individual students you expect to teach (total across all classes, clubs, etc.) *

Please enter a single number. If necessary, provide an estimate.

Number of unique classes you expect to teach

Please enter a single number.

Number of colleagues in your school district that you intend to train/mentor with the resources and materials from the Institute *

Please enter a number. If necessary, provide an estimate.

District Support

Please select all that apply *

- I am empowered and authorized to take on a leadership role in my district
- I have notified my administration of my application and how it may impact my school/district community
- I have support from my administration to act in a leadership for renewable energy education
- I am working on gaining permission from my administration to implement new lesson plans

Name of Administrator *

First Name	Last Name

Administrator Title

Administrator E-mail

Administrator Phone

	-	
Area Code		Phone Number

Part II. Applicant Statement and Qualifications

BEF seeks to support and amplify the efforts of existing and new teacher leaders in renewable energy who will lead the way in their respective districts to increase access of this exciting new content for all students in the Puget Sound. Please tell us about your interest, plans and qualifications as they relate to this opportunity. Potential points to address in this section include:

- o Demonstrated need for this information and material for students in your community
- o How many people you intend to engage in your professional learning community
- o Evidence that you will be successful as an energy leader in your community
- o Evidence that you are prepared to manage a collection of science materials intended for your community (note: this could include coordination with a lending library in your district)
- o A clear plan to ensure that teachers will understand how to use the materials, once given access

A. How do you intend to utilize your experience in the leadership institute to support other teachers in your professional learning community and students in your district? How does this fill a gap in STEM/CTE in your district?

B. What qualifications and/or leadership skills have you demonstrated in your professional learning community? What skills do you seek to build through this experience?

C. Some Districts or other STEM organizations provide science kit lending libraries, some Districts provide access through appointing one teacher to keep track of specific materials, while others may have a more “organic” way of lending materials. If selected, how will you ensure that the \$3,500 worth of science materials will be shared equitably with other teachers in your district?

Part III. Curricular Interests

Over the course of the five-day institute, you will work individually or in a group to develop a new activity for your classroom. By the end of the week, we will expect to receive your ready-for-classroom-testing lesson plan. Solar 4R Schools staff will be available to support you through implementation and lesson plan refinement. We will post completed lessons to the Solar 4R Schools online educator library (attributed to you) for use by any teacher in the Pacific Northwest and nationwide.

We are really excited for your fresh, new ideas! To help prompt new ideas, the list below includes topic areas that are not well represented in our online Educator Library (solar4rschools.org/teach/teacher-activity-center). In this section, please select which topics interest you.

A. Subject Areas of Interest

- Aerospace and Energy (e.g. satellites, rovers)
- Chemistry and Energy (e.g. Materials Science, Semiconductors, Batteries)
- Computer Programming and Energy
- Energy in Early Childhood Education
- Energy Generation (e.g. photovoltaic effect, AC/DC generators)
- Energy Storage
- Life Science and Energy (e.g. greenhouses and botany)
- Off-Grid Applications
- Power Grid
- Systems Thinking in Energy
- Other

B. Why are you excited to bring your selected area(s) of interest to the classroom? How do you plan to integrate these subject areas?

Font Size...Font Family..Font Format

Part IV. Supporting Document Requirements

Please upload supporting documents with your application.

Required:

One documented learning progression such as a unit or lesson plan that provides evidence of your curricular/pedagogical strengths and leadership in the classroom. Please highlight some or all of the following in your

submitted document:

- NGSS/3-Dimensionality
- Project/Problem Based Learning
- Career Connections/CTE
- Replicability

Optional, but encouraged:

- Letter(s) of support from school/district administrator and/or colleagues demonstrating their support for your ideas and leadership in your professional learning community/District.

Upload supporting document(s) here *

Upload a File

Applicant Scoring Guide

Qualification and Leadership Skills	40%
Curriculum	30%
Impact	30%

<http://www.solar4rschools.org/leadership>

Submit

Powered by JotForm