RENEWABLE EDUCATOR LEADERSHIP INSTITUTE APPLICATION Solar 4R Schools Program at the Bonneville Environmental Foundation

240 SW First Avenue Portland, Oregon (503) 248-1905

www.solar4rschools.org www.b-e-f.org

PROPOSAL APPLICATION DUE May 30, 2016 - STILL ACCEPTING APPLICATIONS



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About the Renewable Educator Leadership Institute

The Renewable Educator Leadership Institute is an innovative teacher professional development opportunity for *Pierce, Snohomish, and King County K-12 educators* who seek to meaningfully engage students in preparation for STEM careers. The weeklong summer institute leverages two major change elements of our society – the emergence and growth of clean energy generation and the changing power grid – as demonstrations of real-world systems that can facilitate impactful, interactive learning experiences for students.

According to a Center for the New Energy Economy report,¹ "America's transition to a clean energy economy is not just a job for the future; it's already underway." The timing is ideal to capture the emerging market for renewable energy technologies, but this will require a large commitment across the economy to catalyze the implementation of renewable energy technologies that will diversify our energy mix and reduce climate impacts. A complete reworking of the economy will require more than legislation; all U.S. citizens must develop new knowledge, starting with our teachers. The Center recommends that the U.S. Department of Education actively "educate for tomorrow's energy systems…[by] incorporating these topics into science, engineering and management curricula."

About this Request for Proposals

The purpose of this Request for Proposals (RFP) is to solicit competitive proposals from K-12 educators interested in becoming a leader for STEM-focused renewable energy education in their school district. We will select one teacher-leader from each of 10 school districts in the Pierce, Snohomish and King county areas. Educators will participate in this intensive teacher institute, learning about renewable energy, electricity and engineering through Next Generation Science Standards ("NGSS")-aligned, handson, inquiry-based tasks. Teachers will walk away prepared to implement numerous classroom activities (NGSS "tasks"), including a new lesson that they develop.

Educators will then serve as leaders of their schools and districts, bringing lesson plans, science kits and renewable energy knowledge back to colleagues in their districts. Educators selected to participate in this summer leadership institute will receive free tuition for the entire program, science and engineering materials valued at \$3500, and Washington Clock hours, in addition to curricular resources and ongoing support from Solar 4R Schools.

Questions about this RFP should be addressed to the Solar 4R Schools program:

Parker Mullins Program Manager, Energy Education Solar 4R Schools program Bonneville Environmental Foundation 240 SW First Ave. Portland, OR 97204 (503) 553-3950 pmullins@b-e-f.org

¹ 2014. Center for the New Energy Economy, Colorado State University. Powering Forward: Presidential and Executive Agency Actions to Drive Clean Energy in America. p. 125. <u>http://cnee.colostate.edu/p/powering-forward</u>.

About BEF Solar 4R Schools

At BEF, we believe education plays a critical role in solving the world's most pressing energy challenges. Solar 4R Schools fosters educator leadership focused on integration of renewable energy science and technology into STEM education. Our innovative approach makes our program uniquely able to address critical issues around climate change, energy generation and national security, STEM workforce development and teacher preparation. Solar 4R Schools leverages the emergence and growth of distributed energy solutions to demonstrate a real-world example that facilitates interactive learning experiences for students while increasing energy literacy and preparing them for STEM related careers.

In response to evolving distribution systems and energy needs, the U.S. is deploying renewable energy technologies that will continue to require skilled talent, which currently is at a deficit. Today's teachers have the daunting task of ramping up to more rigorous standards while preparing students for future challenges and addressing opportunity gaps – particularly in under-resourced communities.

Our Goal: The next generation of clean energy leaders is a diverse, creative group of intellectually prepared people motivated to lead the development of energy solutions that replace fossil fuel based energy generation with resilient, innovative, and renewable energy solutions.

To get there we've developed one of the most comprehensive, teacher-driven renewable energy education programs available to K-12 teachers nationwide. Our customized teacher trainings, **teacher-generated classroom activities**, cutting-edge online **Energy Exploration Center**, and **hands-on science kits** bridge the gap between a demand for STEM education, teacher skill development and seamless integration of these interactive STEM resources into the classroom.

Sponsors

The Renewable Energy Educator Leadership Institute is provided by the Bonneville Environmental Foundation (BEF) Solar 4R Schools program with generous support from the Boeing Foundation, M.J. Murdock Charitable Trust, and Bonneville Power Administration.

Leadership Institute Description

Renewable energy is changing the nature of the power grid from a relatively simple model of one-way supply and demand to a more complicated system of consumers who are also producers. These rapid, nationwide changes to a critical infrastructure require teams of innovative workers ready to transcend traditional disciplines. Our hope is that students today will be hired for positions for these systems-based careers, including many that may not yet exist. This comes in the context of a changing utility employee base; A 2013 white paper from PricewaterhouseCoopers indicates that nearly half of

utility employees are eligible for retirement by 2017². Additionally, the 2015 National Solar Jobs Census "found that the [solar] industry continues to exceed growth expectations, adding workers at a rate nearly 12 times faster than the overall economy and accounting for 1.2% of all jobs created in the U.S. over the past year."³ These factors add to the urgency for energy literacy and innovative thinking in our communities.

The Renewable Educator Leadership Institute is designed to bring innovative and forward-thinking leaders of the classroom together, creating a team of professional teachers who will pave the way towards a more sustainable tomorrow. Participants will spend a week immersed in a STEM curriculum, using NGSS tools to experience and understand renewable energy and the power grid. Educators will learn about the science and technology of renewable energy while exploring engineering challenges and mathematical applications. Participants will bring their innovative ideas to life at the institute and return back to their school districts with durable science kits and training resources to share with their districts. After this Leadership Institute, participants will help other teachers prepare their students to better understand current and future energy challenges in the world.

Next Generation Science Standards align well with Solar 4R Schools' goal to prepare the next generation of energy leaders. The week of activities and instruction will model methods to bring renewable energy topics into the classroom using NGSS, and will help teachers become NGSS leaders as well. The Leadership Institute will additionally foster collaboration and peer evaluation to strengthen pedagogical development of energy, engineering and NGSS tasks. As a result of this training, interested teachers will receive up to 32 hours of WAC-180 Clock Hours at no charge.

Leadership Institute Schedule

July 18 – 22, 2016 University of Washington - Bothell ~ 8:30 am – 3:30 pm Daily

The power grid is a central component in the clean energy revolution, and it provides a relevant example of complex system components interacting across traditional disciplines. This transdisciplinary⁴, systems-based approach provides the basis for the entire week's leadership training. By incorporating systems-based content, participating teacher-leaders will develop a frame of reference for how renewable energy and other traditional energy sources interact. Topics and activities are aligned with elements of the power grid to synthesize knowledge in a new way and build understanding.

During the course of the week, there will be opportunities to engage in NGSS tasks and background content information, as well as time to collaborate with the leadership cohort to develop new NGSS tasks each day.

² 2013. PricewaterhouseCoopers. Power and utilities changing workforce: Keeping the lights on. <u>https://www.pwc.com/us/en/power-and-utilities/publications/assets/pwc-power-utilities-changing-workforce.pdf</u>

³ 2016. The Solar Foundation. 2015 National Solar Jobs Census. http://www.thesolarfoundation.org/national/

⁴ 2012. Washington STEM. What is STEM? — Interdisciplinary? Transdisciplinary? What's the difference? <u>http://blog.washingtonstem.org/2012/07/17/2123/</u>

Topics and content areas are organized under the main elements of the power grid as follows:

- Monday Generation
- Tuesday Transmission/Distribution
- Wednesday Consumption
- Thursday Storage
- Friday Systems/Systems Thinking and the Power Grid

See the week-long training map for the Renewable Educator Leadership Institute in Appendix B.

Program Details

The Renewable Educator Leadership Development Institute is a professional development and curriculum design opportunity for formal K-12 educators teaching in *Pierce, Snohomish or King* counties. The Institute will empower teacher-leaders to bring increased capacity and knowledge back to their districts.

Participants will be fully immersed in the NGSS framework as they explore content ranging from solar circuits to energy distribution and storage. Teachers will work in teams to refine and develop NGSS tasks based on the idea or ideas submitted in their proposals. There will be plenty of engagement with science materials throughout the week. Solar 4R Schools will provide each participating school district with \$3,500 worth of science and engineering materials. Logistics of these kits will be determined in consultation with selected teacher-leaders.

The Leadership Institute will bring together teacher-leaders from 10 school districts in Pierce, Snohomish, and King counties to serve as the leaders in exploratory renewable energy content for their district. These teacher-leaders will be prepared to teach both colleagues and students about important energy concepts and will be able to facilitate the district-wide sharing of renewable energy science and engineering materials.

Teachers will collaborate with their peers throughout the week to develop classroom activities focused on various aspects of renewable energy. These efforts are geared towards developing effective three-dimensional NGSS curriculum. Tasks will build upon ideas submitted in teacher proposals. In addition to creating new classroom content, the week will include a hands-on progression through the elements of the electrical grid system, designed to facilitate questions and an inquiry-based investigation of energy, electricity and engineering concepts.

The Leadership Institute will focus on using NGSS as a lens to understand renewable energy and to develop curricula that will be ready for classroom use by the end of the week. The Solar 4R Schools team will provide a series of pre-developed hands-on tasks to model the implementation of NGSS curriculum. These tasks, developed collaboratively with other educators and the Solar 4R Schools team, will provide participants the opportunity to discuss the three-dimensionality of exploratory projects. This analysis will be conducted through two lenses. Teachers engage in activities, as students, and will be given the opportunity to work through "productive struggle" via projects and tasks. Teachers will harness the benefit of productive struggle in conjunction with the use of the EQuIP Rubric to apply a critical lens to their own curricular development as they refine tasks for implementation in their classroom. After participating in the Leadership Institute, teacher-leaders will walk away with classroom activities and/or engineering challenges aligned to NGSS, including NGSS tasks developed during the Leadership Institute itself. They will receive \$3,500 worth of science materials for their district and enough of a background in renewable energy STEM topics that they are empowered to bring renewable energy and systems-based energy curriculum back to their district. The take-home piece of this experience is critical, as this institute is designed to bolster regional leadership skills among selected educators in the Puget Sound area. Solar 4R Schools will follow up during the school year to evaluate the effectiveness of the Leadership Institute. The information will be used to improve our future performance and demonstrate to our sponsors how this experience can empower educators and engage students in the region.

The table below summarizes the details of the Renewable Educator Leadership Development Institute.

Benefits	Expectations	Who Should Apply?
 Teacher-leaders (and Districts) Receive: Access to new student projects \$3,500 worth of durable, reusable cutting-edge, science and engineering kit materials Opportunity to expand the resource base for your local educator network Collaboration time with teacher-leaders from other districts in the area Up to 32 WAC-180 Clock Hours Access to solar industry professionals and remote support from Solar 4R Schools Support integrating renewable energy content into NGSS and classroom-ready tasks 	 Before You Apply Determine a renewable energy, electricity, engineering, or other energy-related topic that you hope to cover through NGSS-aligned tasks in your classroom. Ensure that there is a strong need for this curriculum in your district Determine materials you would use to implement this curriculum, perhaps using the Solar 4R Schools website as guidance During/After the Institute Develop an outline for an NGSS-aligned hands-on task Attend a weeklong training from 8:30 a.m. to 3:30 p.m. each day Expand and polish your task over the course of the week Provide professional development to your network of teachers that demonstrates takeaways from this workshop experience Participate in follow-up feedback surveys reporting and program improvement 	 Calling All Experienced and Emerging Teacher-leaders! You should apply if: You are frequently involved in local professional development activities in your district You have a strong desire to bring NGSS curriculum back to your district Teachers in your network would greatly benefit from receiving new renewable energy and engineering materials You love to collaborate with others and share your expertise You want to learn more about renewable energy You love to explore and test new ideas You enjoy taking a leadership role in connecting students in your district to the rapidly growing clean energy economy This opportunity meets your own professional development and career goals

We realize that many schools are participating in various PD, STEM or NGSS activities. We are excited to leverage technology and other opportunities that your school or district is pursuing. For instance, if you are leveraging platforms such as Iris Connect from WA STEM, please indicate this in your proposal. If there is any other unique technology or programming in place within your educator network, or if you are interested in learning about specific technologies, please let us know.

Timeline

April 1, 2016 – RFP Posted May 30, 2016 – Proposal Due June 6, 2016 – Communication of Decisions July 18-22, 2016 – Renewable Educator Leadership Institute Fall 2016 – Follow up/reporting results

RFP Requirements

The overall elements of the Leadership Institute itself are described above. This section outlines the minimum prerequisites for qualification of an applicant to the Leadership Institute.

Qualifications

This opportunity is open to applicants who meet the following criteria:

- Formal K-12 educator working in a school district in either *Pierce, Snohomish* or *King Counties in Washington*
- Prepared and available to participate in the 5-day Institute in its entirety
- Demonstrated (or strong desire to become) leaders within their communities
- Prepared and able to train up to 20 teachers within their respective districts on STEM renewable energy topics and activities
- Able to manage or facilitate a district-level renewable energy science kit (or kits)
- Ready with an idea to develop into an NGSS-aligned task or project related to renewable energy

Elements of a Successful Proposal

While the specific requirements for this opportunity are outlined above, the narrative sections of the application will help us determine the ability of each applicant to implement or develop leadership in the area.

Proposal Cover Page

Please fill out the coversheet provided Appendix C and include in your proposal. All fields must be filled in order for your application to be considered complete.

Proposal

As a part of your proposal, please address your *qualifications* for being selected, your plans for increasing the *impact* of this training on your community, and any ideas that you have regarding the development of a renewable energy *curriculum or task*. While we do not expect you to be experts in renewable energy or NGSS, we do require lesson ideas that can be developed into a full NGSS task with a few hours of work per day over the course of the five day training. The following questions should provide you with an idea of what the review committee will be looking for, and to help guide the preparation of your responses for your narrative.

A. Qualifications and Leadership Skills

- 1) Classroom Leadership:
 - a. Provide example(s) of hands-on projects that you have used and/or developed in the classroom.
 - b. Describe a time when you experienced a perceived failure.
 - c. How do you create an environment in which failure is accepted or even celebrated as a part of the learning and problem-solving process?
 - d. What are your familiarities (and gaps) with NGSS, energy, electricity and/or engineering?
- 2) Community/Peer Leadership:
 - a. Provide example(s) of ways that you have been involved with professional development in your school and/or community.
 - b. How have you supportively guided a colleague through a perceived failure?
- 3) Science Kit Management:
 - a. Does your school district already have a lending library for materials such as science kits?
 - b. How will you facilitate the lending of science materials to teachers throughout your district? How will you ensure that those teachers understand how to use the materials?

B. Curriculum

Tell us about your idea! Over the course of the weeklong Institute, teachers will finalize NGSS-aligned renewable energy lesson plans. In order to successfully complete the creation of these NGSS "tasks", we are looking for teachers who have already come up with at least one proposal that they would like to develop during the week. The Solar 4R Schools staff is prepared to provide extensive technical help during these development times, and peer collaboration will be an important step to vet ideas and help with activity flow planning. We encourage the development of ideas that would not otherwise be feasible for a particular teacher without support. How do you anticipate that we can support your idea development? A successful proposal will be developed enough to answer the following questions:

- Provide a brief description (250 words) of an NGSS-aligned project or unit that you want to develop for your students that involves one or a combination of the following topics: energy transformation, fundamentals of electricity, renewable energy, solar energy, or the power grid.
- 2) What type of physical output do you hope for your students to produce through the implementation of this product?
- 3) How do you expect your students to grow academically as a result of this project?
- 4) More specifically, how will you incorporate engineering standards or principles into this project?
- 5) How will this lesson plan be Three-Dimensional, according to NGSS?
- 6) How will students be driving the course of their own learning process? In other words, explain how this project or unit is exploratory rather than confirmatory in nature.
- 7) How will this project be designed in a manner that is accessible and replicable for other teachers interested in these topics?
- 8) How does your lesson plan address the needs of a variety of learning styles, for instance those of English Language Learners and special needs students?

9) What are you looking for from us to help develop the content relating to these ideas? Provide a description of both curricular support as well as that from materials.

Each teacher-leader will submit at least one well-formulated idea for a lesson plan ("task") that they would like to develop collaboratively with regional teachers at the Leadership Institute. These ideas will be further refined during the week with technical oversight and support provided by Solar 4R Schools Energy Educators, culminating in up to 10 fully developed NGSS tasks at the week's end. While applicants are not limited to submitting one idea only, preference will be given to ideas that are robust enough that they may be a) fully developed over the course of one week b) engaging to students of all learning types and c) will supplement Solar 4R Schools' existing online Educator Library (http://www.solar4rschools.org/teach/teacher-activity-center).

C. Impact

- 1) How you will engage your students, and students in your school district?
- 2) How will you leverage your leadership skills and capacity to assist others to utilize and/or modify the renewable energy curricular resources and science kits in your district?
- 3) How will you ensure equity of access to the resources you develop to effectively engage traditionally underserved students in your district?
- 4) How many teachers do you anticipate that you will be able to reach (share information/coach/mentor/train) after this participation in this summer leadership institute?
- 5) What is your strategy for teacher engagement and support in your district?
- 6) How will you sustain the impact of your work (e.g. getting district buy-in for longterm sustainability)? How will you integrate your efforts with existing district-wide initiatives?

Submitting Your Proposal

A successful proposal will include strong narratives a solid strategy for engaging with other teachers and allowing for the sharing of science kit materials.

Required Application Sections

<u>Please use the cover page (Appendix C) document for the first page of your proposal.</u> Be sure to include the three parts outlined below in your narrative.

Part A: Qualifications & Leadership Skills

- Qualification and Leadership Narrative
- Part B: Impact
 - Community Need & Expected Reach Narrative
 - Science Kit Lending Narrative
- Part C: Curriculum
 - Curriculum Narrative
- Part D (optional, recommended)
 - Letter of support from administration, colleagues, or others who you intend to collaborate with to execute your plan

Application Instructions for Submission

Please email the application file and any supporting documents to <u>solar4Rschools@b-</u> e-f.org no later than 11:59 pm, May 30, 2016 – STILL ACCEPTING APPLICATIONS.

Decision Timeline

We will notify you of the committee's decision no later than June 6, 2016 via email.

Solar 4R Schools Program Staff

Chaun MacQueen Program Director <u>cmacqueen@b-e-f.org</u> 503-553-3925 Parker Mullins Program Manager pmullins@b-e-f.org 503-553-3950

Laura Nicholson Program Manager Inicholson@b-e-f.org 503-553-3955

Appendix A – Scoring Guide The table below illustrates the scoring guide that the review committee will use for all applications.

Sections/Guiding Questions	High Scoring Response	Middle Scoring Response	Low Scoring Response	
A. Qualifications and Leadership Skills (40%)				
A. Qualification and Leadership Skills – <i>In</i> <i>the Classroom</i> 15%	Extensive classroom leadership experience demonstrated, especially with respect to hands-on problem- solving Extensive experience and demonstrated success in providing successful STEM programming for students in a wide range of grades Moderate experience with NGSS, energy and engineering	Demonstrable classroom leadership, especially with respect to hands-on and problem-solving Applicant demonstrates a high level of commitment to increasing the efficacy and reach of their STEM programming Some experience with NGSS and energy	Classroom leadership skills are not clearly demonstrated, or do not include problem-solving Applicant provides some STEM programming in the classroom, commitment not clearly addressed No experience with NGSS, energy and engineering	
A. Qualification and Leadership Skills – <i>Outside the Classroom</i> 10%	Applicant is heavily involved in arranging and attending professional development or other opportunities within the community Extensive experiencing coaching peers or colleagues through various troubles or tasks; other teachers clearly view this teacher as a leader	Applicant is moderately involved in attending and/or planning professional development or other opportunities within the community Experience working with colleagues and/or community members in a leadership role, informal or official	Applicant has little experience with professional development or other opportunities within their community Slight experience leading colleagues or community members	
A. Qualification and Leadership Skills – <i>Managing a District- Level Science Kit</i> 15%	Extensive experience or capacity working with other district leaders to coordinate or manage supplies or activities Clear strategy for ensuring equitable access to kits; even if it requires creating a new mechanism for sharing	Some experience or capacity working with other district leaders to coordinate or manage supplies or activities Clear strategy for ensuring equitable access to kits	Little experience working with other district leaders to coordinate or manage supplies or activities No mention of how to ensure equitable access to science kit materials across district	

Extensive experience planning and creating curriculum	Demonstrated experience designing curriculum	Applicant is a teacher and therefore has planned curriculum
Extensive experience collaborating to create or build upon curriculum	Demonstrated experience working with peers, though not necessarily for writing lesson plans	Little to no demonstrated experience collaborating with other teachers
Applicant's idea is well-enough developed that it could probably be created within a week, especially with collaboration	Applicant's idea is solid and could feasibly be fleshed out within the week of the Institute	Applicant's idea lack details that demonstrate it could be fully developed during the Leadership Institute
Extensive experience building NGSS curriculum	Understands the basics of NGSS and how a "task" might look different from a traditional lesson plan	No demonstrated understanding of the difference between a normal lesson plan and an NGSS task
Applicant's curriculum ideas are well hought out with clear NGSS ties	Curriculum ideas are good and connect (or could easily) to NGSS	Curriculum ideas are vague with little to no ties to NGSS
Inseen in the Solar 4R Schools Educator Library	Applicant's ideas are new to the Solar 4R Schools Educator library, at least for a given grade level range	Applicant's ideas are very similar to existing lessons within the Educator Library
School or school district is demonstrably underserved	School or school district lacks resources	Little detail in the impact section
Applicant has strong proposed plan to ncrease impact of this Leadership nstitute to their district	Applicant has a good proposed plan to increase impact of this training, but it isn't anticipated to reach the whole district	Applicant makes assumptions without peer feedback or references to experience at the district
Applicant has strong strategies for getting teachers trained to use the science materials and for getting those	Applicant relies on gauging the	impact beyond their personal experience at the training
naterials to them	about best use of the science kits	
Extensive planning for sustained eacher impacts; already has ideas for expanding, repairing, or replacing items	Applicant has a plan for long-term impacts and longevity of the resources	
	xtensive experience planning and eating curriculum xtensive experience collaborating to eate or build upon curriculum pplicant's idea is well-enough eveloped that it could probably be reated within a week, especially with ollaboration xtensive experience building NGSS urriculum pplicant's curriculum ideas are well ought out with clear NGSS ties pplicant is offering an idea as-of-yet nseen in the Solar 4R Schools ducator Library chool or school district is emonstrably underserved pplicant has strong proposed plan to icrease impact of this Leadership istitute to their district pplicant has strong strategies for etting teachers trained to use the cience materials and for getting those naterials to them xtensive planning for sustained eacher impacts; already has ideas for xpanding, repairing, or replacing items	xtensive experience planning and eating curriculumDemonstrated experience designing curriculumxtensive experience collaborating to reate or build upon curriculumDemonstrated experience working with peers, though not necessarily for writing lesson planspplicant's idea is well-enough eveloped that it could probably be reated within a week, especially with plicant's curriculumDemonstrated experience working with peers, though not necessarily for writing lesson plansxtensive experience building NGSS urriculumUnderstands the basics of NGSS and how a "task" might look different from a traditional lesson planpplicant's curriculum ideas are well ought out with clear NGSS tiesUnderstands the basics of NGSS and how a "task" might look different from a traditional lesson planpplicant's offering an idea as-of-yet nseen in the Solar 4R Schools ducator LibrarySchool or school district is emonstrably underservedchool or school district is eplicant has strong proposed plan to icrease impact of this Leadership istitute to their districtSchool or school district lacks resourcespplicant has strong strategies for eting teachers trained to use the cience materials and for getting those laterials to themApplicant has a plan for long-term impacts and longevity of the resourcesxtensive planning for sustained pacher impacts; already has ideas for xpanding, repairing, or replacing itemsApplicant has a plan for long-term impacts and longevity of the resources

Appendix B – Solar 4R Schools Leadership Institute Training Map

Monday	Tuesday	Wednesday	Thursday	Friday
Generation	Transmission/Distribution	Consumption	Storage	The Grid/Systems
AM Session Introductions, Week plan and NGSS Passive solar energy task – Using Copenhagen- style Sun Ovens to investigate energy fundamentals and solar energy NGSS three dimensions	AM Session MiniChallenge warm-up Task: Using Simple Circuits to investigate electricity fundamentals, circuits and energy transmission and distribution Discussion: three dimensions application	AM Session MiniChallenge warm-up Task: Using Kill-a-Watt meters to investigate energy efficiency and electricity consumption calculations Discussion: EQuIP Rubric and three dimensions application	AM Session MiniChallenge warm-up Task: Using Solar Battery Charging to investigate the photovoltaic effect, storage calculations, photovoltaic efficiency, and constraints and opportunities for renewables	AM Session MiniChallenge warm-up Task: The Power Grid - Using background materials for "quick research" on an energy source, develop mini presentation on cost/benefits and other considerations, then BUILD a group power grid!
 PM Session Active renewable energy generation task – Using <i>Windgineering</i> to investigate energy transformations and electricity generation PM Curriculum Lab Presenting your innovative task ideas and getting initial feedback 	 PM Session Discussion: Using the EQuIP Rubric to guide our practice and integration of new renewable energy content Discussion: three dimensions application PM Curriculum Lab Task Planning and discussion 	PM Session Discussion: Assessment Techniques PM Curriculum Lab Task Planning; scaffolding, data collection techniques and lab procedures	 PM Session Forming peer-review groups (self-determined) for testing and finalizing new task plans PM Curriculum Lab Task Planning; materials testing, research, and check in with Solar 4R Schools Staff Peer review and feedback process, EQuIP Rubric 	PM Session Grid Task Debrief and discussion about synchronicity with systems thinking, engineering, inquiry, sustainability and other cross-disciplinary connections per NGSS PM Curriculum Lab Final Task Presentations Wrap up/Distribution (and/or ordering) of science kit materials



Renewable Educator Leadership Institute

Appendix C – Application Cover Sheet

Name	Title	-
Brief description of the	reat idea you intend to develop at the institute:	
Work phone	Work email	_
Summer phone	Summer email	
(Optional) Work-related	website/blog, and/or social media links/handles:	
School Name	Phone Website	
Name of School District	(must be located in Pierce, Snohomish, or King County, Washington):	
District	Address	
Anticipated Reach		
 Number of indivi 	dual students you teach (total across all classes/clubs/etc.)	
 Number of class (e.g. primary grades) 	es with unique students: de educators will likely be 1, while high school educators may have several)	
 Number of collemnaterials you de 	agues in your school district that you intend to train/mentor or share the resour- velop through this institute:	ces and
Science Kit Materials Will you leverage an ex back to your district for Leverage existin Create a new sy	Distribution sting system or create one to ensure equitable access to the materials that you use by you and your colleagues? g system/library stem/library	u bring

Comments: _____

Use of PD Technology

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- □ I am currently utilizing the IRIS Connect PD platform via WA-STEM
- □ I utilize (or intend to utilize) other online PD platforms or technology
- District Buy-in
 - □ I am empowered and authorized to take on a leadership role in your district
 - □ I have notified your administration of your application and plan
 - □ I have support from my administration to act in a leadership for renewable energy education

Name/Title and contact information for your administrator:

We encourage submitting letters of support from your district administration and/or colleagues.

Renewable Educator Leadership Institute

Timeline

April 1, 2016 – RFP Posted May 30, 2016 – Proposal Due June 6, 2016 – Communication of Decisions July 18-22, 2016 – Renewable Educator Leadership Institute Fall 2016 – Follow up/reporting results

Application Instructions for Submission

Please email the application file and any supporting documents to <u>solar4Rschools@b-e-f.org</u> no later than 11:59 pm, May 30, 2016 – STILL ACCEPTING APPLICATIONS.

Decision Timeline

All applications will be reviewed by committee following the rubric described in the RFP document. We will notify you of our decision no later than June 6, 2016 via email.

Questions about Application?

Parker Mullins Program Manager, Energy Education pmullins@b-e-f.org 503-553-3950