



WATER POWER CLEAN ENERGY FELLOWS

Program Details

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ABOUT CE

CE is a national clean energy, career connected education program from Bonneville Environmental Foundation. Together with schools, educators and industry, we strive to build a clean energy future to ensure that our communities and the environment are thriving and resilient. We focus on solutions-oriented energy education that engages industry, is driven by equity, and seeks to amplify local leadership. We work to expand access to opportunities for all students regardless of their geography, gender, race, ethnicity, or socioeconomic status.

CE is funded by corporations, regional utilities, and philanthropic organizations. To date, our funders have impacted more than 250,000 students nationwide through CE programming.



CE'S CLEAN ENERGY FELLOWS

CE is committed to transforming education for the next ten years through fostering sustained educator leadership. To successfully transition to an equitable and clean energy economy, we must set up all students for success, as they will be the future energy leaders and solutions architects. CE's Clean Energy Fellows programs are designed to harness the genius of both educators and students to support this next generation of leaders. Clean Energy Fellows facilitate the delivery of justice-centered, career-connected programming that eliminates barriers for students that are unrelated to their actual potential for success.

2021-2022 will see the launch of three Fellows cohorts: The Pacific Northwest Clean Energy Fellows, and the industry-specific EV and Water Power Fellows cohorts. While these cohorts differ in their intended impact and focus, each of them aligns the needs of students, industry partners, local communities, and the education system to deliver the highest impact with the highest likelihood for longevity.

CE's Pacific Northwest Clean Energy Fellows as well as its Water Power and EV Clean Energy Fellows programs operate as part of a broader national collaborative of energy education leaders. Water Power Fellows contribute to a regional network focusing on building the next generation's water power workforce, committed to ensuring principles of equity and resiliency drive future growth nationwide.

CE JUSTICE STATEMENT

CE is committed to ensuring all students have access to opportunities in energy. As such, we have developed a [Justice Statement](#) that highlights our approach and actions in our equity and justice work in this program.

CE'S PEDAGOGY PHILOSOPHY

CE's [Pedagogical Foundations document](#) highlights CE's approach to curriculum development in more depth. CE strives to embody the best practice and most equitable pedagogies to ensure that all students have access to future energy careers and leadership opportunities. CE engages with the following approaches:

- Three-Dimensional Learning (as modeled by Next Generation Science Standards)
- Justice-Centered
- Culturally-Sustaining
- Critical Skills Development
- Real World Context
- Locally-Relevant Phenomena and Problems
- Industry-Informed and Career-Connected learning



WATER POWER CLEAN ENERGY FELLOWS COHORT

The primary objective of the Water Power Clean Energy Fellows program is for Fellows to develop a K-12 storyline and full units from grades K-12 on water power technology, to be utilized by a national audience of educators.

This cohort consisting leaders from across the Pacific Northwest (BPA territory) is tasked with building innovative and equitable tools for engaging students in the rapidly innovating water power sector. Primarily taking the form of curriculum development, this process will leverage the expertise of regional industry leaders as well as the localized educational knowledge of Fellows to broaden public understanding of the critical role that water power technologies have played in the Northwest in shaping the economy both past and present.

Curriculum Development: Fellows will work in a small cohort to collaboratively plan classroom activities and school programming that builds connections between students, the water power workforce, and the advanced grid. Fellows will utilize a K-12 storyline developed in an initial Institute, with essential questions and learning goals, to serve as a foundation for replicable activities to be shared broadly to educators with a variety of needs. Educators will align with CE's [Pedagogical Foundations](#), incorporating place-based issues of justice in their final product.

Amplifying Impact: Fellows will complete this experience equipped with the capacity to share findings and products they developed with national educator and industry audiences. Starting with professional development in their home districts, Fellows will continue to expand the reach of the program and tools through additional trainings and conversations in educational conferences, industry circles, CE trainings, and Fellow mentorship opportunities.



WATER POWER CLEAN ENERGY FELLOWS OUTCOMES

This Clean Energy Fellows model, committed to a deep investigation of a specific technology area, intends to achieve the following outcomes:

1. National educator networks have access to justice-centered, industry-informed, and flexible curriculum that engages their students in exploration of water power's role within the broader power grid structure.
2. Clean Energy Fellows are identified as leaders both by educational institutions as well as industry groups, participating in opportunities to develop more educators into experts and communicators of advanced energy technologies.
3. Industry groups have the opportunity to house and showcase best practices in water power education have inroads to inform career pathways and workforce development opportunities in the field.
4. A broader national understanding of our grid infrastructure is developed as students and their broader communities explore the role that unique water power technologies play within the local and national energy ecosystem.

FELLOWS SUPPORT

In participating as a Pacific Northwest Clean Energy Fellow, educators will receive:

- A \$3,000 stipend (per team of 1-2 individuals)
- A \$2,000 materials budget to procure classroom resources
- Compensation for additional training, presenting at conferences, and travel as opportunities arise
- Access to leading subject matter experts in the region, as well coaching from CE staff
- Support with connection to local industry and community partners
- Upon completion of the Fellows year, Fellows will be included in the Fellows Leadership Network and identified for specific leadership and funding opportunities

REGIONAL COLLABORATION AND PARTNERSHIP DEVELOPMENT

Water Power Clean Energy Fellows will meet consistently with the Fellows cohort to collaborate on a K-12 water power storyline, provide peer-to-peer feedback, build content knowledge, and identify equitable pedagogy to guide the development of their new programming. Beginning with the August Leadership Institute, this collaborative approach continues throughout the rest of the cohort's first year and beyond, through follow-up consultation and participation in a Fellows Leadership Network.



Throughout this process, CE will recruit regional industry and community partners to provide expertise on specific topic areas and support Fellows in their delivery. This partnership development will also take place at a community level, with supports in place to build relationships between Fellows and their local utilities, energy-adjacent industries, educational networks, and other community partners.

WATER POWER CLEAN ENERGY FELLOWS ACTIVITIES

In this engagement, Clean Energy Fellows will:

- Participate in a four-day Leadership Institute with broader Fellows cohort (including Pacific Northwest Regional and Water Power Fellows, with engagement from Renewable Fuels Fellows and Fellows Leaders)
- Complete an initial draft unit concept
- Build understanding of content background
- As a cohort, develop an Water Power K-12 Storyline featuring overarching questions and learning goals by grade band
- Undergo multiple synchronous curriculum development sessions to build alignment between grade levels in writing cohesive, classroom-ready curriculum

FELLOWS ACTIVITIES (CONT.)

- Test curriculum in the classroom, sharing results with peers and incorporating learnings into updates in the activities.
- Co-develop training with CE staff to ensure that regional educators are equipped to implement new water power curriculum in their own classroom and make connections to the future PNW grid.

FELLOWS ELIGIBILITY

1. Clean Energy Fellows must be an **employed educator (classroom or out-of-school time) or district support staff (TOSA, Coach, Instructional Facilitator, etc.)** that serves students within customer-owned utility territory (Bonneville Power Administration service area) in Washington, Oregon, Idaho, or Montana.
2. Fellows can apply individually or in pairs. (Stipend will be divided each Fellow in the pair).
3. The ideal Fellow will have:
 - a role serving students from minoritized identities in STEM (Black, Indigenous, LatinX, LGBTQ+, womxn), or rural populations
 - experience in curriculum design and educational leadership
 - demonstrated knowledge of career-connected learning strategies
 - strong knowledge of and some experience in teaching three-dimensional STEM as modeled by the Next Generation Science Standards
 - experience and training in pedagogical approaches that support equitable learning, and a personal commitment to equity and justice that includes an honest examination of their own identity and role in current systems of power
 - awareness of successful approaches to PD in their district

How do I know if my school/organization is in an eligible area?

Does a customer-owned utility (PUD, cooperative, Tribal utility) provide electric service to the district? To find out you can either consult the [BPA service territory maps](#) (link), or ask your administrator.

Note: educators in districts/regions served by the following electric utilities are **NOT** eligible:

- Portland General Electric
- Pacific Power/Pacific Corp/Rocky Mountain Power
- Puget Sound Energy
- Avista Energy
- Northwestern Energy
- Idaho Power

SELECTION PROCESS

Fellows will be selected by CE staff, with partner input. Questions around eligibility and the application process can be directed to Parker Mullins, Program Director for CE (pmullins@b-e-f.org) or Jonathan Strunin, Curriculum Design and Training Manager for CE (jstrunin@b-e-f.org).

LEADERSHIP INSTITUTE

All Fellows will be required to attend a virtual four-day (24 hours total) Leadership Institute (currently scheduled August 9-10, 16-17). During this Institute, the Fellows will:

- Engage in cohort community development
- Collaborate and learn from industry and community experts about regional energy system and issues, particularly issues related to energy and water justice
- Engage in learning on justice-centered, culturally-sustaining, and career-connected pedagogies to apply to their curriculum
- Apply pedagogical frameworks above to development of a K-12 storyline and first cut of a Unit Concept



TIMELINE

Activity	Dates/Timeline
CE Outreach and Recruitment	January-May 2021
Application Window	February 1 - May 1, 2021
Cohort Decisions Communicated	June 1, 2021
Leadership Institute*	August 9, 10, 16, & 17, 2021
Curriculum Development	Fall 2021 - Winter 2022
Curriculum Testing and Refinement	Winter/Spring 2022
Regional Training	Spring/Summer 2022
Showcase	June 2022

*Leadership Institute is expected to be virtual for 2021/2022. All other cohort meetings will be conducted virtually.