Newsroom

Technology Innovation fosters national clean energy education program

August 11, 2021

Taking steps to cultivate the next generation of the clean energy workforce, Bonneville Power Administration is pleased to announce the launch of a pilot for a new nationwide clean energy education outreach program, the Clean Energy Talent Development Hub. This effort stems from the “CE – Clean Energy. Bright Futures.” education program sponsored by BPA’s Technology Innovation group and run by Bonneville Environmental Foundation.

Bonneville Environmental Foundation, funded in part by BPA, will host the first Clean Energy Talent Development Hub for Water Power in the Pacific Northwest as a pilot program with the goal of serving as a model for future virtual hubs across the nation. The CETDH promotes equitable education for underrepresented communities with the goals of broadly sharing knowledge about clean energy and providing today’s youth access to resources that will foster the future clean energy workforce.

A network of collaborative partnerships, including the Hydropower Foundation, the U.S. Department of Energy’s Water Power Technologies Office and the National Renewable Energy Laboratory, made the expansion of the CE education program possible. This partnership is the crowning result of BEF’s collaborations with Pacific Northwest partners, utilities and tribes propelling equitable energy education and workforce development across BPA’s service territory, ultimately setting the stage for a national education model.

“The Clean Energy Talent Development Hub is a shining example of the types of projects Technology Innovation supports,” says Chief Technology Innovation Officer Judith Estep. “We are thrilled to see BEF’s CE program become a model for a national network of resources for energy education and underserved communities.”

Clean Energy education program laid the foundation

The CETDH pilot builds on the success of the TI-sponsored CE STEM education program, which began in 2002. In 2020, the CE program selected local teachers as Clean Energy Fellows who spent the past year developing and applying engaging action plans geared toward building the next generation of clean energy professionals in the Pacific Northwest. The fellows collaborate directly with local industry leaders to foster meaningful opportunities for students in BPA's service territory to build knowledge of energy resources, grid functions, local energy issues and available careers. Working with regional customer-owned utilities, community colleges and universities, career development organizations and K-12 educators, the CE model will transform energy education and create a pipeline of leaders that will fill jobs needed to modernize the region's power grid and operations.

Clean Energy Talent Development Hub to expand nationwide

This spring, BEF's CE program collaborated with the Hydropower Foundation, the U.S. Department of Energy's Water Power Technologies Office, and the NREL to develop a nationwide collection of virtual hubs, starting with BEF hosting a pilot hub in the Pacific Northwest. BEF's role in forming the foundation for the CETDH national launch stems from its broad service territory and strong relationship with Pacific Northwest communities, utilities and tribes. This basis will create a solid model for forming other hubs in the U.S. over the coming years.

The pilot will serve as a model that can be replicated and brought to classrooms across the nation to advance clean energy education from K-12 through college, with a special emphasis on reaching underserved communities. With BEF hosting the first CETDH, it will develop and support educators across the region in getting the word out about clean energy, starting with a focus on hydropower and marine renewable energy. The program aims to promote equitable education through local engagement while creating awareness of and access to clean energy career options for future generations.

The CETDH focuses on delivering unbiased, relevant and actionable information to create a well-rounded knowledge base of renewable energy, beginning with waterpower. CETDH educators will expand access to STEM educational tools through local hubs while increasing community knowledge to inspire the next renewable energy workforce. Members share best practices for inclusivity to reach underrepresented communities. The program will leverage regional expertise in clean energy for future hubs to more broadly share clean energy knowledge across the U.S. National-level data and resources will be customized to reflect local areas, and educators will facilitate engagement through relationships with tribes and other community members.

Early successes

The CETDH pilot is already transforming the educational landscape. The Northwest Hydroelectric Association is forming a team of hydropower ambassadors armed with effective tools to boost K-12 education on the benefits of hydropower and different forms of hydropower technology. College-level competitions are also in the works to inspire students to pursue clean energy careers. What's more, DOE's Water Power Technologies Office has created a web portal called Open Energy Information that provides resources for energy educators. This community-driven website offers a collection of information and

data from a wide variety of contributors where users can view, add or download resources for free. The Hydropower STEM Portal is available here, and the Marine Energy STEM Portal can be found here.

About BPA's Technology Innovation Program

The Technology Innovation program is BPA's in-house research and development team that solicits, evaluates, and prioritizes research proposals and projects. TI facilitates collaborative partnerships to further technological innovations for both BPA and the region. TI's sponsorship was instrumental in the development of BEF's Clean Energy education program so that it could expand into a new national program. Learn more about TI and how to submit a research project proposal on their web page.

About Bonneville Environmental Foundation

Bonneville Environmental Foundation is a non-profit organization founded in 1998 to address strategic priorities for BPA and customer-owned utilities that cannot be easily solved through current programs led by BPA or COUs. By maintaining partnerships with BPA and utilities, BEF strives to address key energy, customer, and fish and wildlife priorities that will directly serve BPA and COU interests. As a non-profit, BEF leverages private funding to significantly expand the impact generated from the BPA funding that is provided to BEF each year. BEF focuses on regional electrification, utility-led clean energy projects, and education programs to build community awareness of utility services and the value of the BPA power system. Learn more about BEF by visiting their website.

For more information

To learn more about the CETDH pilot or the CE Program, contact Chaun MacQueen or visit the CE website. The CETDH website is being updated and will soon have a new look.