

Promoting Clean Energy Education in Ecodistricts to Enact Sustainable Development

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I. Background and Objective

The Eco District Hampton Roads Project, based in Portsmouth, VA, brings together one of the largest African American communities in the country. In the United States, African-Americans have had disproportionate wealth gaps in comparison to their white counterparts. This injustice has been further exacerbated by our climate crisis, where African-Americans have less access to climate resources and education such as clean energy. A large proportion of residents from the Hampton Roads Ecodistrict, including many senior citizens, rely solely on their fixed incomes. Climbing utility rates coupled with a lack of energy efficiency initiatives and solutions have strained this community with increased financial burdens. As a result, a higher proportion of their income is directed to energy production to keep their homes warm rather than groceries, water, or health care. According to the United Nations Sustainable Development Goals, clean energy, education, and reducing inequalities are 3 of the 17 practices for sustainable development. Since solar energy is the most abundant and emerging renewable energy source in the present day, equipping underserved communities with a dynamic background will propel their future aspirations as it relates to their passions surrounding clean energy development. As African-American women, we are dedicated to carrying out initiatives that expand educational opportunities for disenfranchised populations and advocate for the advancement of marginalized communities. The goal of this project is to empower over 10,000 individuals worldwide on the necessity of clean energy and environmental justice initiatives.

II. Proposal Overview

Our project has the following two components:

a. Education: We propose to create a program called REESD, *Renewable Energy Education and Sustainable Development*. We will partner with CEIRT certified associates to educate low-income, high-school aged women on renewable energy. CEIRT is a new workforce development program hosted by Center for Sustainable Communities. It educates students attending community colleges and HBCUs, equipping them with solar related certifications and job opportunities. REESD will be a 4-week, 12 hours per week course featuring a speaker series of professionals engaged in the renewable energy sector, group collaboration on sustainability and environmental justice initiatives, as well as immersive solar energy-based projects. Students participating in this program will be matched with mentors from the Ecological Justice Initiative who will assist with résumé workshops and professional development support for academic success. We will recruit for the program through the EcoDistrict's partnership with local high school students interested in environmental initiatives. Each student will be given a \$250 stipend to participate and food will be included.

b. Home Inspections: We propose to conduct 24 home energy efficiency surveys within the span of 5 weeks to educate the community on energy efficient practices. Under the supervision of the Center for Sustainable Communities, we will examine energy efficiency in homes within the EcoDistrict and perform mitigative measures. As a result of participating in our survey, each home will be gifted LED light bulbs, surge protector power strips, reusable bags, and composting bins. Participants will additionally receive sustainability improvement gifts along with brochures providing detailed energy efficient resources.

III. Partnerships and Applicable Background

We have secured partnerships which will help us to carry out our project. Our partners include: Center for Sustainable Communities, EcoDistricts Hampton Roads, WISE-E (Women in Solar Energy and Environment), CEIRT (Center for Energy Infrastructure and Renewable

Technology), the inaugural Inspire and Empower Global Webcast by Juliet Hall, and The Ecological Justice Initiative.

Both project participants have professional experience and related academic coursework that qualify them for this project. Indya and McKenna are certified EcoDistrict Accredited Professionals. This certification provides training on scalable, accessible, and affordable means for planning cities around renewable energy sources with a focus on equity, resiliency, and climate protection. In spring 2021, additional certifications in *Energy and The Environment* and *Solar Energy Systems* will be gained to further solidify our knowledge in the specific topics. Indya has worked as an Environmental Planner at PlanRVA, Richmond's Planning Commission. She brings knowledge on sustainable practices and implementing grants while emphasizing the voices and needs of a community. McKenna's experiences as a Renewable Energy Education Researcher, an Environmental Justice Grant Developer, and an Environmental Marketing Specialist have provided her awareness on how to tackle environmental topics.

IV. Expected Outcomes and Sustainability

This Davis Project for Peace grant will propel an environmental education program that emphasizes sustainable actions and clean energy efficiency throughout the Hampton Roads EcoDistrict. The project will act to maintain social welfare and sustain quality of life. Specifically, the project will have the following outcomes:

a. **Education:** The REESD program will empower high school students to make tangible changes in their local environments while also providing them with the educational resources they need to understand the interplay of environmental justice initiatives and topics in renewable energy. After the REESD program, low-income and minority high-school students will be prepared to go into the CEIRT certification program. If they choose to pursue this program in the future, they will gain related certifications and connections with job opportunities.

b. **Home Inspections:** The home inspection surveys and efficiency installments will educate residents on energy efficient practices and the making eco-conscious decisions for their homes. We will return to the 24 homes in the final week of the project, August 9-13, to assess this outcome. We expect to find a 4% reduction in energy burdens through reductions on energy bills.

In summary, this project recognizes the importance of community as it relates to sustainability initiatives and promoting a safe and healthy natural environment. McKenna and Indya have multiple plans of action for the future sustainability of the project:

- Maintain monthly contact with REESD students for 18 months after the project and provide them with networking opportunities, mentoring, and academic resources.
- Host a monthly webinar series in partnership with The Ecological Justice Initiative to communicate about environmental justice, community health, and renewable energy.
- Create energy efficiency brochures for local residents.
- Produce, edit, and process a full-length documentary emphasizing the opportunities for accessible, sustainable energy practices in communities. Through advertisement with partners, we hope this documentary will reach 3,000-5,000 individuals worldwide.
- Partner with Juliet Hall's Inspire and Empower Global Webinar communicating the necessity of environmental justice, reducing inequalities for women, and renewable energy implementations, reaching over 5,000 individuals worldwide.