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Jamaican Energy Resilience Alliance Program Statement

The Caribbean region is expected to warm by 1°C to 1.4°C in the next 30 years¹, leading to rising sea levels, more frequent drought, and stronger hurricanes. These natural hazards are causing significant damage to Caribbean islands, including Jamaica which has had several close calls in recent years. Island economies are finding themselves in a perpetual state of preparing for and recovering from disasters.

A resilient power sector plays a critical role in ensuring a safe, healthy and prosperous Jamaica. Currently, Jamaica's centralized energy infrastructure and dependence primarily on imported fuels for electricity generation makes the sector especially susceptible to disruption caused by disasters. Damage to the energy system can lead to sudden increases in the price of fuel and reduce access to affordable electricity, including for the country's most vulnerable populations. This can have widespread and lasting economic impacts by straining the country's economic resources and production, threatening livelihoods, and impeding access to critical services. Improving the resilience of Jamaica's energy sector by increasing distributed generation and decreasing dependence on imported fuels is therefore critical to the long-term welfare and safety of Jamaica's citizens and residents.

In response to this issue and with the encouragement of the Government of Jamaica, the Jamaica Mission of the United States Agency for International Development (USAID) has awarded US\$4 million to an alliance of Jamaican and international private sector and non-profit organizations for a 3-year initiative to accelerate the adoption of distributed solar energy to increase energy resilience in Jamaica. Led by The Cadmus Group LLC, an international consultancy focusing on energy, climate change, water, transportation, and emergency response services, the alliance includes solar energy developers with up to US\$50 million in investment funds to support solar project implementation to build resilient, distributed energy for Jamaican businesses and industries, with a focus on in the tourism sector.

Under the program's largest activity, the alliance will engage with large and small businesses that want to install solar photovoltaic (PV) electricity systems with battery storage (PV+) at their facilities. By bundling many projects together, developers can reduce costs for all participants through various efficiencies and economies of scale. This process is called demand aggregation. With funding from USAID, the alliance will drive PV and storage demand through outreach and awareness efforts, reduce barriers to navigating PV+ regulatory and administrative processes, develop the local PV+ workforce through training programs, install a pilot demonstration project featuring utility-scale batteries, and map suitable sites for renewable energy development.

The solar and storage developers in this alliance are:

- WRB Energy, which develops renewable energy solutions designed to stabilize power prices and reduce dependence on imported fuels to drive economic growth and sustainability in the Caribbean and Latin America.
- Wigton Wind Farms Limited (WWF), which runs the largest wind energy facility in the English-speaking Caribbean and is located in Rose Hill, Manchester. WWF is a developer of renewable electricity generation including solar power with battery storage. Xergy Energy, a developer of solar and battery systems for fleet electrification and building owners, is a partner of WWF and will also be involved.

To support project implementation, WRB Energy and WWF have pledged to invest up to \$50 million of combined sponsor equity and project finance, subject to the demand for investment quality projects among Jamaica's

¹ USAID. Climate Risk Profile: Jamaica.



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commercial and industrial sectors. Under these arrangements, WRB Energy and WWF will build and operate projects at business locations, and then lease back the PV and battery storage systems to the owners. Costs are expected to be the same or lower than standard tariffs. When the systems are paid off, they will convey to the business.

Cadmus and the Rocky Mountain Institute (RMI), a leading non-profit which works with island partners to develop clean energy pathways to meet national goals and development objectives, have extensive experience with demand aggregation programs in the U.S., India, and the Caribbean, and will support program design, outreach, and a review of Jamaica's regulatory environment in conjunction with the Government of Jamaica and key stakeholders.

The Jamaica Hotel and Tourist Association (JHTA), which represents Jamaican hotels, other visitor accommodations, and suppliers of goods and services to the hospitality industry, will be the principal channel to the industry, Jamaica's largest economic and employment sector. The JHTA will be a conduit for its members to access information on the business case for PV and battery storage development as well as options for financing.

Another major part of the alliance's program is the development of a pilot demonstration project conceived by the University of the West Indies-Mona (UWI), a premier university in the Caribbean, and LASCO Manufacturing and Distribution (LASCO), one of the largest food products manufacturers and distribution companies in Jamaica. UWI will design and LASCO will install a 500kWPV and battery storage system at a LASCO facility in Kingston. LASCO will pay for the solar panels, while USAID will offset the cost of matched batteries. The completed system will be among the largest PV plus battery installation of this sort in the private sector in Jamaica and will provide experience-in-use to address key technical questions regarding the use of utility scale batteries in Jamaica in distributive generation. Once the installation is completed, UWI will monitor the system to evaluate and report on its performance. UWI and LASCO will also install a small PV and storage system for a local community center adjacent to the LASCO site to provide enough power for lighting, computers, and phone charging, including during emergencies.

In parallel, UWI will study possible sites for utility and distributed solar and wind energy development to provide critical information to renewable energy developers. Site factors that will be considered include Jamaica's total energy needs in electricity and transportation, preservation of prime agricultural land, wind and solar resources, proximity to a substation for centralized generation, proximity to a community for distributed energy, protected areas, and ownership of the land, among others. The study will be completed in 2022.

Green Solutions International SKN Incorporated (GSI), in association with Wigton Windfarm Limited and UWI, will support PV+ workforce development and training under the program. GSI's mission is to foster the integration of industry-leading technical training, education and public service in green technology and sustainability; to enable economic development by providing capacity building, infrastructural improvements and energy solutions to support communities and businesses throughout the Caribbean region. The program will offer scholarships, funded by USAID, for disadvantaged students interested in becoming certified solar and battery system installers. Workforce development will enable faster growth in the industry as demand for solar power and batteries increases.

To learn more about the program and your options for getting a PV/PV+ system installed at your location, receiving accredited training, or participating as an installer, please visit: www.cadmusgroup.com/jamaicaenergy

