

Global Partnership for Climate-Smart Infrastructure



U.S. Solutions for Building Resilient and Net-Zero Infrastructure

“Nations that work together to invest in the cleaner economy will reap rewards for their citizens. The United States is committed – we are committed to making those investments to grow our economy here at home while connecting with markets around the world. For example, we are launching a new Global Partnership for Climate-Smart Infrastructure. This will create good-paying jobs here in America by supporting development of new, clean infrastructure in our partner countries. These are the sort of partnerships that are going to be good for all of us.”

***President Joseph R. Biden Jr.
April 23, 2021***

In April 2021, President Biden announced the launch of the U.S. Trade and Development Agency’s (USTDA) **Global Partnership for Climate-Smart Infrastructure** (Global Climate Partnership) to connect U.S. industry to major clean energy and transportation infrastructure projects in emerging economies. Through the Global Climate Partnership, USTDA has already funded more than 50 project preparation and partnership-building activities that will help our partners achieve their energy and transportation sector climate mitigation and adaptation goals. These activities are designed to help unlock more than \$65 billion in climate finance and support more than \$15 billion in U.S. exports.

The Global Climate Partnership leverages USTDA’s three decades of project preparation experience – through grants for feasibility studies, technical assistance, and pilot projects, and through partnership-building activities such as reverse trade missions, workshops, and business forums – to advance the use of U.S. technologies and services in overseas climate-smart infrastructure projects in the energy and transportation sectors. The Global Climate Partnership also supports the Climate and Energy Security pillar of the Partnership for Global Infrastructure and Investment, the values-driven, high-impact, and transparent infrastructure partnership announced by the G-7 to meet the infrastructure needs of low- and middle-income countries.

USTDA partners with an array of private and public sector partners through the Global Climate Partnership, including the American Clean Power Association, Intelligent Transportation Society of America, National Electrical Manufacturers Association, the Nuclear Energy Institute, Solar Energy Industries Association, the U.S. Chamber of Commerce, the United States Nuclear Industry Council, the U.S. Departments of Commerce, Energy and Transportation, and the Export-Import Bank of the United States.

USTDA’s commitments to date under the Global Climate Partnership include:

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Worldwide

- **Multiple Countries:** USTDA is advancing best practices for methane abatement in the oil, gas, and waste sectors by funding a series of three reverse trade missions, to take place during 2023, that will familiarize public and private sector leaders from emerging economies with the latest U.S. methane abatement technologies and services.

Indo-Pacific

Bangladesh: USTDA is funding technical assistance for Power Cell, a government department responsible for power sector reform, to develop a 10-year roadmap for incorporating smart grid elements into Bangladesh's electric grid.

India: USTDA has funded several activities to help India meet its climate goals:

- USTDA funded a series of 10 virtual workshops focused on the decarbonization of the Indian energy sector through the deployment of new technologies, such as carbon capture, hydrogen, and renewables integration.
- USTDA is funding a feasibility study for Shivman Wind Energy Private Limited to help develop a state-of-the-art 300 megawatt (MW) renewable power facility utilizing solar, wind, and battery storage in Gujarat, India. The project's hybrid design will mitigate renewable energy variability to help stabilize the electricity grid, increase overall efficiency, and lower the cost of electricity.
- USTDA is helping BYPL, a private distribution company that serves Delhi, India, to improve its energy efficiency and reduce energy losses through technical assistance to develop a digital technology roadmap and platform for centralized energy data integration.
- USTDA is funding a pilot of a cloud-based emergency management and operations system at airports managed by the Airports Authority of India, enabling these airports to better adapt to the effects of climate change.
- USTDA's Global Procurement Initiative will assist up to six Indian states with integrating best value determinations and international best practices in public procurements in the clean energy sector.

Pakistan: USTDA is funding a feasibility study for Times Group, an engineering and construction company, for a renewable biofuels project that will improve environmental conditions in Karachi.

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Philippines: USTDA has funded several activities to promote clean energy and transportation in the Philippines:

- USTDA-funded technical assistance for the Philippines' Department of Transportation will help improve mobility and reduce traffic congestion in Metro Cebu through the development of a comprehensive plan to deploy intelligent transportation systems, reducing congestion and emissions.
- USTDA is funding a feasibility study to advance the development of three utility-scale solar generation plants, totaling 50 MW, for Sun Keeper Initiative, a solar implementation program developed by several electric cooperatives in the Philippines
- A USTDA-funded feasibility study, to be undertaken by the U.S. organization RMI, will assist the Philippines' Aboitiz Renewables, Inc. in developing up to three gigawatts of offshore wind projects in the Philippines, capable of providing power to more than two million households.
- USTDA is funding a feasibility study to enable Energy Development Corporation, a Philippines-based private energy company, to develop a 50 MW geothermal plant in Amacan, on the island of Mindanao.
- A USTDA-funded feasibility study will allow Eramen Minerals Inc. to assess the viability of developing an ore-to-nickel and cobalt processing facility, supporting the production of critical minerals that are key elements in the supply chain for batteries and energy storage systems.

Thailand: USTDA has funded several activities to help Thailand meet its climate goals:

- USTDA is funding a feasibility study to support SCG International, one of the largest conglomerates in Thailand, in developing a roadmap for the transition of its industrial and commercial fleet to electric vehicles and installation of EV charging infrastructure over 600 sites.
- A USTDA-funded feasibility study will enable Thailand's VAO Energy Co., Ltd. to develop a large plastic recycling facility that will strengthen Thailand's waste management efforts and reduce greenhouse gas emissions.

Tonga: USTDA is funding a feasibility study for the state-owned utility Tonga Power Limited (TPL) to support decarbonization of the power sector by improving efficiency and increasing renewable energy generation penetration in TPL's service area through the implementation of distributed energy resources.

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Vietnam: USTDA has funded several activities to support Vietnam in meeting its climate goals:

- A USTDA-funded feasibility study will enable Mekong Clean Energy Interconnection Company Ltd. to develop a high-voltage transmission line in southern Vietnam's Bac Lieu province that is needed to connect renewable energy generation sources to Vietnam's electrical grid.
- USTDA is funding an updated roadmap for Vietnam's National Power Transmission Corporation to modernize its information technology, communications, and power transmission systems, and enable smart grid technology investments.
- USTDA is providing technical assistance to help the Vietnam Air Traffic Management Corporation (VATM) strengthen aviation safety using advanced weather forecasting technologies that can help VATM become more resilient to the effects of climate change, such as an increase in severe weather events.

Indo-Pacific Regional: USTDA has funded several regional activities that will help countries throughout the Indo-Pacific region meet their climate goals:

- In October 2021, USTDA co-hosted the 4th Indo-Pacific Business Forum, which covered themes related to energy innovation, climate-smart transportation, the role of the private sector in climate action, green economic recovery, and climate and clean energy financing. USTDA is also funding the 5th Indo-Pacific Business Forum, which will cover themes such as clean energy and climate-smart transportation and take place in early 2023.
- In September 2022, USTDA funded a reverse trade mission to familiarize delegates from Southeast Asia with U.S. technologies, services, and best practices to improve the safety, efficiency, and sustainability of transportation infrastructure, with a focus on decarbonization of the transportation sector.
- USTDA's Global Procurement Initiative will provide technical assistance to teach procurement officials in Maldives, Nepal, and Sri Lanka about best practices in renewable energy procurement.

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Latin America and the Caribbean

Brazil: USTDA has funded several activities in clean energy and climate-smart transportation in Brazil:

- USTDA-funded technical assistance for Brazil's National Association of Passenger Rail Operators will help reduce costs and improve energy efficiency across their rail systems. The assistance will assess energy efficiency solutions such as energy storage and automation software that reduce emissions.
- USTDA is funding technical assistance for the Brazilian Association of Electricity Distributors to support and enable further smart grid deployments in Brazil. The assistance will facilitate further investments and encourage the modernization of electricity distribution networks across Brazil.
- USTDA is providing a technical assistance grant to Brazilian electric distribution utility CEMIG Distribuição S.A. that will facilitate the growth of renewable power generation across the State of Minas Gerais.

Costa Rica: A USTDA-funded technical assistance grant will help the Costa Rican Electricity Institute (ICE) strengthen the stability and reliability of the country's power sector, minimizing energy losses throughout the grid.

Dominican Republic: USTDA-funded technical assistance is supporting the Dominican Republic's electricity regulator in the development of regulations to enable the deployment of battery energy storage systems.

Ecuador: USTDA has funded several activities to help Ecuador meet its climate goals:

- USTDA-funded technical assistance is supporting the development of an airport sustainability and energy efficiency plan for the new Guayaquil International Airport, with the goal of adopting energy-efficient technologies to reduce energy and water use and reduce greenhouse gas emissions.
- USTDA is funding technical assistance to enable Quito's public transit management company to modernize its bus fleet with electric buses and implement related intelligent transportation system technologies.
- USTDA technical assistance grant will help the Electricity Corporation of Ecuador develop a master plan to advance the digital transformation and modernization of Ecuador's national electricity transmission system, reducing power losses and improving the overall efficiency of the grid.
- A USTDA technical assistance grant will provide the Provincial Government of Manabí with an assessment of intelligent transportation system technologies to help modernize and integrate the road network, promoting the more-efficient movement of vehicles, passengers, and cargo.

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El Salvador: A USTDA-funded technical assistance grant will enable the National Administration of Aqueducts and Sewers (ANDA), the national water utility in El Salvador, to implement energy efficiency measures and develop onsite renewable power generation.

Mexico: USTDA has funded several activities to support clean energy and climate-smart transportation projects in Mexico:

- USTDA is funding a feasibility study to help Mexican solar company ENERMUN S.A. de C.V. develop a 100 MW solar power plant in Michoacan.
- A USTDA-funded technical assistance grant to the State of Yucatán's Institute of Mobility and Territorial Urban Development (IMDUT) will enable the modernization of the public transportation system in Mérida through the deployment of intelligent transportation system technologies that will reduce congestion and emissions and promote environmentally friendly public transportation solutions.
- USTDA sponsored a reverse trade mission in October 2022 to familiarize Mexican delegates with state-of-the-art U.S. technologies and services to support priority water infrastructure projects in Mexico, including energy efficiency technologies.

St. Lucia: A USTDA technical assistance grant to St. Lucia will help the National Utilities Regulatory deploy six resilient microgrids that will use solar photovoltaic power generation and battery storage.

Latin America Regional: USTDA has funded several regional activities that will help countries across the Latin America and Caribbean region meet their climate goals:

- USTDA held a four-part virtual reverse trade mission series focused on U.S. technologies and best practices to support priority water and wastewater infrastructure development projects across Latin America, including incorporating energy efficiency technologies and treating wastewater to reduce greenhouse gas emissions.
- USTDA is funding a reverse trade mission to familiarize delegates from Colombia, Costa Rica, and Mexico with best practices, regulatory advances, and technologies to support emissions reductions and climate resiliency for freight and passenger rail infrastructure projects.
- A USTDA-funded virtual workshop series focused on the information and communications technologies sector in the Caribbean will support climate change mitigation and adaptation by addressing smart grid and other climate-related technologies that reduce greenhouse gas emissions and enhance resilience.

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Middle East, North Africa, Europe & Eurasia

Algeria: USTDA is funding technical assistance to help Algeria's transmission system operator, SONELGAZ GRTE, develop a distributed control system upgrade plan. The assistance will enable Algeria to better manage grid intermittency stemming from the transition to renewable energy sources and enhance control over distributed generation.

Morocco: A USTDA-funded feasibility study will enable the Régie Autonome de Distribution d'Eau et d'Electricité de Marrakech (RADEEMA), the state-owned water and electricity utility company in Marrakech, to transform the power distribution infrastructure in Marrakech into a smart grid.

Poland: USTDA is advancing Poland's most ambitious and consequential power sector investment in a generation through grant funding for a front-end engineering and design study to develop the country's first nuclear power plant. Poland selected Pennsylvania-based Westinghouse Electric Company to supply the technology for the plant's first three reactors. This project will facilitate Poland's transition away from coal-fired power and strengthen its efforts to ensure long-term clean energy security.

Romania: USTDA is funding a front-end engineering and design study to enable RoPower Nuclear S.A., a subsidiary of Romania's national nuclear energy producer, to develop the country's first small modular reactor (SMR) nuclear power plant. The SMR plant, which would also be the first in Europe, will advance Romania's clean energy transition and energy security goals.

Ukraine: A USTDA-funded technical assistance grant is supporting Ukraine through a small modular reactor licensing gap analysis, which will facilitate the production of clean and affordable energy.

Sub-Saharan Africa

Benin: USTDA is furthering energy access and the deployment of clean energy resources through funding for a pilot of a U.S.-made digitalized system for solar minigrid management.

Nigeria: USTDA has funded several activities to help Nigeria meet its climate goals:

- A USTDA-funded grant to Nigeria's Sosai Renewable Energies Company is advancing the development of approximately 100 solar minigrids and associated low voltage distribution networks in central and northern Nigeria.
- USTDA is further developing Nigeria's minigrid sector through a grant to EM-ONE Energy Solutions that will facilitate the deployment of up to 150 solar hybrid minigrid systems for healthcare sites and their neighboring communities.

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- USTDA is providing grant funding to Nigeria’s Daybreak Power Solutions Limited for a feasibility study to help optimize clean energy supply to commercial and industrial entities in the country through deployment of solar-powered minigrids.

Sierra Leone: USTDA is funding a feasibility study on behalf of the Ministry of Energy to evaluate the viability of a proposed 192 MW hybrid power generation plant near the village of Nitti. The study is assessing how best to maximize the use of solar photovoltaic energy and provide reliable power generation.

South Africa: USTDA is hosting a series of reverse trade missions and workshops to support South Africa's decarbonization efforts through the Just Energy Transition Partnership. The first workshop – on green hydrogen – took place October 31 and November 1, 2022, in Cape Town.

West Africa Regional: A USTDA-funded feasibility study is evaluating the viability of a 400-mile 225 kV transmission line, including associated substation and distribution equipment, from Côte d’Ivoire to Liberia, in support of the West African Power Pool’s efforts to expand electricity access across the region.