



USAID
FROM THE AMERICAN PEOPLE

CLEAN ENERGY

GLOBAL CLIMATE CHANGE INITIATIVE

CLEAN ENERGY

SUPPORTING SUSTAINABLE LOW EMISSION GROWTH



Countries and communities rely on energy to drive human and economic development. But the fossil fuels we depend on today have a tradeoff: they are the main source of greenhouse gas (GHG) emissions caused by humans and linked to climate change. Displacing fossil fuels with clean energy sources is one of the most promising ways to curb global GHG emissions—as well as other pollutants harmful to human health. Investing in clean technologies can support economic growth while also providing for the clean environment we need for human development.

USAID works in more than 20 countries on four continents to support the development of clean energy, including renewable energy and energy efficiency technologies for industry, transportation, and buildings. By supporting both clean energy sources and clean technologies to make energy use more efficient, USAID aims to reduce emissions, support human health, and spur economic growth and business profitability, ultimately creating a virtuous circle that drives more investment in clean energy.

According to the International Energy Agency, global energy demand will rise 30 percent by 2035, yet nearly one billion people will still lack access to electricity. Renewable energy can help supply this growing demand and ensure we can continue to extend modern energy services to those who most need them. Energy efficiency, meantime, could lower global demand for fossil fuels, while also generating significant savings to consumers, governments, and businesses.

CLEAN ENERGY PROGRAMS

U.S.-India Clean Energy Partnership

The U.S.-India Partnership to Advance Clean Energy (PACE) supports clean technologies, low-carbon growth, energy access, and energy security in India, using policy, regulatory, institutional, financial, and market-based approaches. Since 2012, PACE is working directly with clean energy developers, researchers, and financiers to accelerate deployment and uptake of clean technologies. For example, USAID's Development Credit Authority is partnering with Northern Lights Capital Group to help guarantee a \$100 million private investment fund. This investment could eventually add 300–400 megawatts of sustainable energy capacity, enough to light the homes of tens of thousands of Indian families.

The Africa Infrastructure Program (AIP)

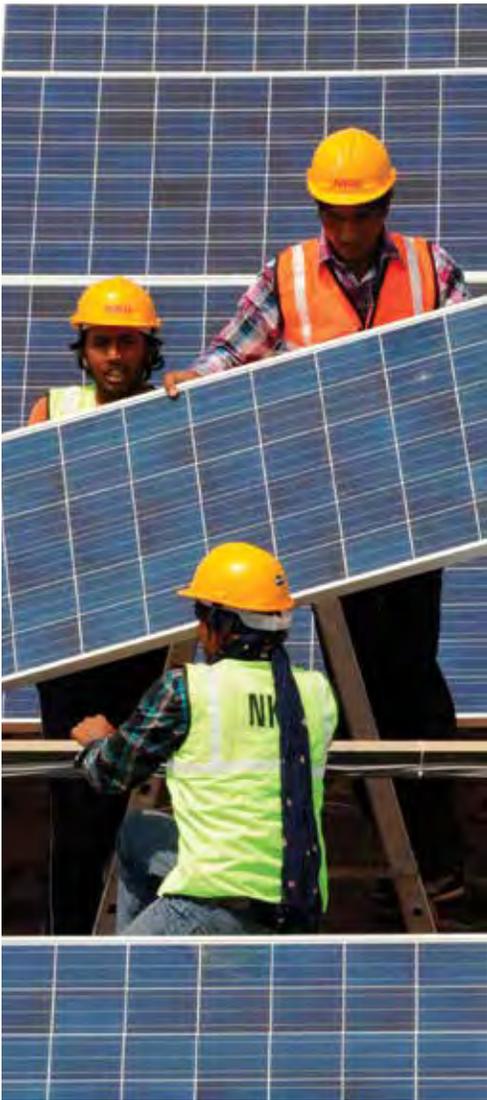
AIP supports clean energy capacity building and transaction advisory services across sub-Saharan Africa, working with Ethiopia, Ghana, Kenya, Lesotho, Nigeria, South Africa, and other countries to plan and implement the institutional, commercial, and regulatory reforms needed to unlock private investment in clean energy. AIP also provides technical support to bring specific clean energy projects to

WHAT IS CLEAN ENERGY?

Clean energy includes both renewable energy and energy efficiency. Renewable energy is generated from naturally replenished sources like geothermal, solar or wind. Energy efficiency makes more efficient use of all energy sources, often generating significant cost savings.

Energy efficiency investments can help developing countries curb reliance on fossil fuels and lower costs by generating more energy from existing energy infrastructure. Renewable energy investments can help expand energy access without a spike in greenhouse gas emissions and other pollutants. Small-scale renewable energy projects can spur development in rural or remote areas.

USAID has supported on- and off-grid clean energy efforts for more than two decades. To ensure these efforts are sustainable, USAID focuses on helping countries build smart policies and robust human and institutional capacity so they can attract increasing private investment to the clean energy sector and continue to expand clean energy access, today and in the future.



financial closure and construction. In Kenya, AIP helped the KETRACO transmission company negotiate purchase contracts linked to the 300 megawatt, 350-turbine Lake Turkana Wind Power project, with the potential to supply up to one-fifth of Kenya's power needs.

Black Sea Regional Transmission System Planning Project (BSTP)

The Black Sea project works with national transmission companies in Eastern Europe to create a cleaner and more robust local power market. Local transmission companies and engineers are building capacity for advanced transmission modeling, mapping of renewable resources, and integration of clean energy into grids. Transmission companies in Ukraine, Moldova, Georgia, and Armenia are working with neighboring countries to develop a shared system of tariffs and regulations to facilitate clean energy transfer across borders, creating a larger regional market for renewable energy.

MOBILIZING CLEAN ENERGY INVESTMENT

We know government investments alone can't meet the growing demand for clean energy, so we must mobilize private investment to help meet the challenge. USAID participates in several global alliances that mobilize private investment. USAID also works with governments to improve policies and regulations to unlock private investment in local markets, and in some cases, provides direct support to clean energy projects to ensure the best projects can get the financing they need.

Power Africa

Power Africa is a U.S. Government Initiative that aims to double electricity access in sub-Saharan Africa, a region with significant potential for geothermal, hydro, wind, and solar energy, but where more than 69 percent of all people are without electricity. The initiative will mobilize public and private sector finance to add more than 10,000 megawatts of cleaner, more efficient generation capacity and enable new electricity access for up to 20 million households. In September, Power Africa announced the first independent power project in Ethiopia's history—the 1,000 megawatt Corbetti geothermal plant to be developed by Reykjavik Geothermal with an estimated \$4 billion investment over 8–10 years.

The Private Finance Advisory Network (PFAN)

With business experts on four continents, PFAN helps clean energy entrepreneurs in developing countries secure private financing for their projects. Entrepreneurs can get help with business plans and meet potential investors at PFAN clean energy forums. So far, PFAN has helped nearly 40 projects secure more than \$400 million in private finance and has over 150 more projects in the pipeline, working to secure nearly \$5 billion. For example, Uganda's Barefoot Power raised over \$13 million since 2010 for its business distributing clean, efficient solar lighting and electronics in poor rural areas of Africa.

Powering Agriculture: An Energy Grand Challenge for Development

The Powering Agriculture Grand Challenge promotes affordable clean energy solutions for millions of poor farmers who have little or no access to grid power. Supported by USAID, the U.S. Department of Agriculture, the Overseas Private Investment Corporation, Duke Energy, the governments of Sweden and Germany, and others, the initiative aims to expand clean energy solutions in areas like irrigation, food processing, and on-farm applications, enhancing incomes and opportunities for small farmers and businesses.

LOW EMISSION DEVELOPMENT STRATEGIES

The Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program works with more than 20 partner countries developing and implementing LEDs, including Bangladesh, Colombia, Gabon, Indonesia, South Africa, Ukraine, and others. Under the program, USAID supports economic analysis and planning, renewable resource mapping, and GHG inventory development across economic sectors to map out portfolios of actions to promote sustainable social and economic development while curbing GHG emissions. In Colombia, for example, USAID is supporting low-carbon planning in power, transport, industry, agriculture, and forestry.