RENEWABLE ENERGY

Supporting the planning, integration and operation of renewable energy in Colombia.

OVERVIEW

USAID helps integrate low cost, renewable energy into the Colombian market. Traditionally, Colombia’s energy investment focused on hydro power and fossil fuel generation. This caused greenhouse gas emissions to increase by 58 percent, and energy prices to go up 400 percent, during periods of drought when hydro energy production declined. Lack of infrastructure and the high cost of energy generation has also excluded rural and conflict-affected communities from accessing the power grid.

Colombia did not open its market to non-conventional renewable energy (NCRE) until 2017. The Government of Colombia (GOC) is now prioritizing diversified energy generation by promoting private sector investment and by eliminating NCRE regulatory and institutional barriers. President Duque also established a target of producing 10 percent of Colombia’s total energy with NCRE sources.
COMPONENTS

DESIGNING ENERGY AUCTIONS

USAID helps the GOC design a long-term contracts auction program to competitively procure energy and generate private investment in wind and solar power through 15-year contracts.

EXPANDING SOLAR POWER DISTRIBUTION

USAID supports new regulatory packages for energy produced on a small scale through tools like solar panels on homes and businesses. USAID also assists the State Department’s Clean Energy Investment Accelerator (CEIA) program in Colombia. This program encourages rooftop solar panel energy generation and the sale of surplus energy to the grid by ports, airports, communities, industrial firms, large institutions and free trade zones.

STRENGTHENING LOCAL CAPACITIES

USAID improves the Colombian energy sector’s knowledge of renewable energy management through site visits, seminars, technical events and access to advanced tools and research. USAID also supports the GOC’s development of efficient regulatory models to integrate renewable energy and provides renewable energy job training to indigenous communities in northern Colombia.

PROMOTING PEACE THROUGH RENEWABLE ENERGY SOLUTIONS

USAID works with the GOC and private sector actors to develop sustainable energy investment models in conflict-affected regions as part of Colombia’s transition to peace. USAID will support investment in strategic zones where access to stable, low cost energy can improve livelihoods, security, education and health services.

RESULTS

- Assisted the Colombian national electricity market operator in planning, integrating and dispatching NCRE in national energy markets;
- Provided renewable energy training to 65 professionals nominated by Colombia’s energy sector, 68% of which were women;
- Helped the GOC hold its second renewable energy auction which resulted in the GOC awarding 15-year power purchase agreements to nine new solar and wind projects;
- Assisted Colombia’s new competitive procurement process resulting in historically low average energy prices of approximately USD $28 per megawatt hour (MWh);
- Supported 150 wind and solar energy projects’ registration with the National Energy Planning Unit;
- Contributed to the design of Colombia’s first procurement of large-scale battery systems for an interconnected power grid, expected to occur in early 2021; and
- Supported MME to design and implement a renewable energy auction model that increased Colombia’s renewable energy generation by 2,531 MW and that will leverage USD $2 billion in private sector investment by 2023.