

# Renewable Energy for Island and Other Remote Communities in Mindanao: The Alliance for Mindanao Off-Grid Renewable Energy

USAID-Philippines

Mindanao is a region in the Southern Philippines that includes both the main island of Mindanao, and many islands in the Sulu Archipelago stretching from the main island of Mindanao down to Sabah. Half of Mindanao's 20 million people live below the poverty line. The region is characterized by widespread lack of economic opportunities, limited access to crucial infrastructure services, including electricity, clean water, and telecommunications, is limited, and need for improved rural health and education services. Southern, South Western, and Central Mindanao in particular are areas of extreme poverty, high social and political unrest, and military conflict

Since 2002 Winrock International has led the implementation of the Alliance for Mindanao and Multi-Regional Off-Grid Renewable Energy (AMORE) Program in collaboration with USAID, the Philippine Department of Energy (DOE), and private sector funders, principally Mirant Philippines and SunPower Corporation. The AMORE program is designed to (1) assist the Government of the Philippines in extending renewable energy-based rural electricity services to unserved and underserved households in rural communities in Mindanao; (2) expand use of clean energy technologies to support social and economic development through vital services to rural communities; and (4) support peace and development initiatives in Mindanao through provision of electrification and related services to disadvantaged communities in conflict-affected and post-conflict areas.

This program has brought electricity to more than 12,000 households in 400 remote barangays in conflict-affected provinces in Mindanao, and electrified over 150 schools to make it possible for over 35,000 rural students to access video-based distance education programs. The household and school electrification activities and related water supply projects have had a significant positive impact on quality of life and social and economic development in Mindanao. Over the next four years, the AMORE program will electrify at least 12,000 additional households with approximately 77,000 individual beneficiaries, and electrify 150 schools serving at least 35,000 students.



The renewable energy power generation technologies employed in off-grid communities are primarily solar photovoltaic (PV) for solar home systems, community battery charging stations, and community infrastructure such as schools and streetlights, with use of micro-hydropower where sufficient hydropower resource exists. The selection of these renewable energy technologies has been driven by resource availability.

Community-level organizations known as Barangay Renewable Energy and Community Development Associations (BRECDAs) have played a key role in the program, serving as the link with participating households, collecting fees for maintenance and spare parts (and battery charging fees, where applicable), and employing technicians. As the general mode of electrification changed over the course of the projects – from battery charging stations, to solar household systems of varying capacities, to sustainable solar market packages – a uniform approach was used for BRECDA development and operation, and BRECDA roles were uniform across large numbers of barangays.

The presentation will include an example of a solar-electrified barangay, including an electrified school enabling distance education programs, and discussion of the role of BRECDAs in rural communities.