

The RE-Charge Tacloban facility

Promoting transformational resilience

RE-Charge Tacloban is a community center for information, training and practical initiatives that show how renewable energy can power better development and help in disaster response and reconstruction.

The center is designed to promote the concept of “transformational adaptation and resilience.” Climate change provides an opportunity to promote lasting changes in the way local development is designed and directed. It is not enough to just cope with global warming. Transforming society—through the pursuit of more sustainable pathways of development—will ultimately make communities more resilient.


There are a number of ways in which RE-Charge Tacloban is helping promote resilience and the concept of transformational adaptation. Here are some of its more important features:

Power from the Sun and Hot Rocks: The RE-Charge facility is powered entirely by renewable energy. Up to 90 percent of the facility's power is from a hybrid 9.75 kW solar array. When the battery bank begins to run low, the system taps into grid-based geothermal power to provide electricity while the solar array recharges. The system thus ensures uninterrupted power supply, particularly in the event of power outages. The facility is always able to provide energy for light, mobility and communications.

The Re-Charge Tacloban project has also initiated the conversion of multicabs whose engines were damaged by the typhoon, but which are now in the process of being re-fitted with electric motors. One will be retrofitted into a mobile power station that can be deployed to different areas that still lack power to provide access to energy for lighting, communication and emergency needs.

Resilient facility: Many elements in the facility have been designed with resilience in mind, to make it stronger and able to withstand the shocks of natural disasters. For instance, the solar array and motor pool roofs have been strengthened with additional support beams. The solar array was also installed to withstand gusts of up to 200 kph. It can also be easily dismantled when needed.

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Parts of the facility have been built several feet higher than the road to anticipate possible future flooding. The facility also has in place protocols and procedures designed to secure critical equipment during natural disasters. In addition to the multicab that serves as a mobile power station, the eJeepneys can be deployed to serve as transport and temporary power sources to assist designated evacuation centers.

Recycle and reuse is a tenet adopted by the Re-Charge facility. The commercial space by the roadside is built out of shipping containers used to bring in relief goods. Wooden frames and furniture used for the office space and staff quarters are from trees felled by Yolanda or wood salvaged after the storm. The facility has a rain water catchment system to collect and store rain water that can be used for cleaning eJeepneys and the facility toilets.

Energy efficient architecture: a Tacloban-based architect, working on concepts supplied by the RE-Charge team, used numerous green elements in the facility. High roofs provide natural ventilation while dramatically reducing dependency on artificial light. Flower boxes/trellises installed on top of the shipping containers provide a natural cooling system. Vertical gardens planted with herbs and other green produce will help cool the facility and at the same time provide cooking ingredients and fragrance. Bicycle racks will be installed using recycled wood.

RE programs, research and development: The RE-Charge facility is home to the Solar Scholars training program, which aims to enhance the response capacity of humanitarian workers in local government units and communities. RE-Charge Tacloban will also help promote sustainable livelihoods and renewable energy-powered social enterprise.

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