Case Study

Clean Energy on the Ground

The Philippines

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Quick facts	
Zone	National territory
Topic	The Expanded Rural Electrification Program
Time Frame	2011 to 2017
Implementing Agency	Department of Energy
Website	http://www.doe.gov.ph/ep/ER_Strategies.htm

The Philippine Government has implemented various programs and projects geared towards the electrification of the entire country. The Expanded Rural Electrification Program of the Department of Energy was created in 2003 to manage and integrate both rural electrification and missionary electrification programs. In addition to government participation, the program also encourages the involvement of the private sector in the use of renewable energy in rural electrification activities. The Government has partnered with the private sector and Non-Government Organizations, with several donor funded projects, to carry out barangay[1] electrification.

In mid-2011, out of 36,030 potential barangays, 36,013 were energized and 17 barangays[2] remain; 33,667 barangays or 93.5% are connected on-grid[3]. Currently, the average household electrification level stands between 72 percent and 75 percent, (more than 3 million households have no electricity). The Government intends to achieve 70 percent household electrification by 2017.

A considerable portion of the remaining barangays and households without electricity are found in remote areas like islands, mountain and forest areas. These are more difficult to en-

1: A barangay is a village, district or ward.
2: 17 barangays are from the towns of the following provinces of Quezon, Albay, Aklan, Samar, Tawi-tawi, Sharif Kabunsuan and Maguindanao.
3: A barangay is considered on-grid "energized" if and when the distribution backbone line passes through the coverage area.

ergize due to their geographical configuration (small islands and isolated mountain areas). In addition, the absence of a strong sustainable mechanism in electrification projects in many of the previously electrified areas contributed to the isolated areas remaining without electricity.

The Philippine Government has committed to implementing the policy mechanisms enshrined in the Renewable Energy Act of 2008 (Republic Act 9513). The National Renewable Energy Program (NREP) was also launched in June of 2011, aiming to remove the barriers to RE implementation, including providing capacity building on RE application and inventory and identification of RE sources, among others. Based on the NREP 9,865 MW of additional mixed RE are targeted to be connected to the grid by 2030. Among the key strategies of the said program are the folllowing:

a. Implementation of resource assessment;
b. Research and development, as well as demonstration;
c. Application of appropriate technology;
d. Provision of capacity development; and
e. Conduct of impact studies on sustainability.

On the other hand, challenges have been identified in the implementation of RE, such as the following:

a. Harmonization of Indigenous Rights Act of 1997 (R.A. 8371) and National Integrated Protected Areas System of 1992 (R.A. 7586) in RE exploration and development;
b. Provision of uniform local tax, specifically on real property tax;
c. Conduct of capacity building training for Local Government Units (LGUs) for resource assessment;
d. Increase awareness of RE advantages and benefits at the local level;
e. Prioritize the development of the cheapest RE source; and
f. Granting of support in conducting feasibility studies of RE implementation.

Various projects have been developed and implemented to provide RE energy sources for off-grid communities to address the energy-poverty gap in remote and rural poor areas. One noteworthy system is the community-based RE system, wherein the community would lead, manage and own a power plant, and direct its purpose for community development. This has proven successful in some areas where the community has shown pride and has continued to sustain their RE systems.

The Department of Energy has also proposed the "Mainstreaming Renewable Energy to LGUs and Civil Society" Project which intends to undertake the following:

a. Provide capacity development to LGUs, NGOs and Civil Societies (CSs) on the benefits of RE to increase technology appreciation and develop potential RE sources in the country;
b. Educate the LGUs and CSs to increase awareness and expedite issuance of permits and licenses in relation to commercial applications of RE resources;
c. Conduct training on planning and infrastructure development to incorporate RE development in Provincial and Municipal Development Plans of target LGUs; and
d. Enhance rural electrification by implementing sustainable electrification models suited for cultural acceptability.

In the struggle to expand the government's electrification program, sustainability in RE is the most important hurdle that has to be overcome. Even as the government acknowledges the challenges in mainstreaming RE to the people, the people will need to be educated on RE and have their sense of ownership strengthened. Careful planning should be undertaken, considering the above challenges, and once RE systems are in place, there should a reduction of negative effects on the environment.

References:

http://www.doe.gov.ph/ep/ER_Strategies.htm

http://www.neda.gov.ph/references/Guidelines/DRR/Guidelines%20on%20Mainstreaming%20DRR%20in%20Subnational%20Development%20Land%20Use%20Planning.pdf