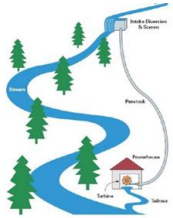
Promoting the use of RE and Hybrid Mini Grids for Off-Grid Electrification through Enabling Market Conditions: A Study of the Philippines

03 November 2016 | Abu Dhabi, UAE

Study Methodology

Literature Review

Stakeholder Consultations

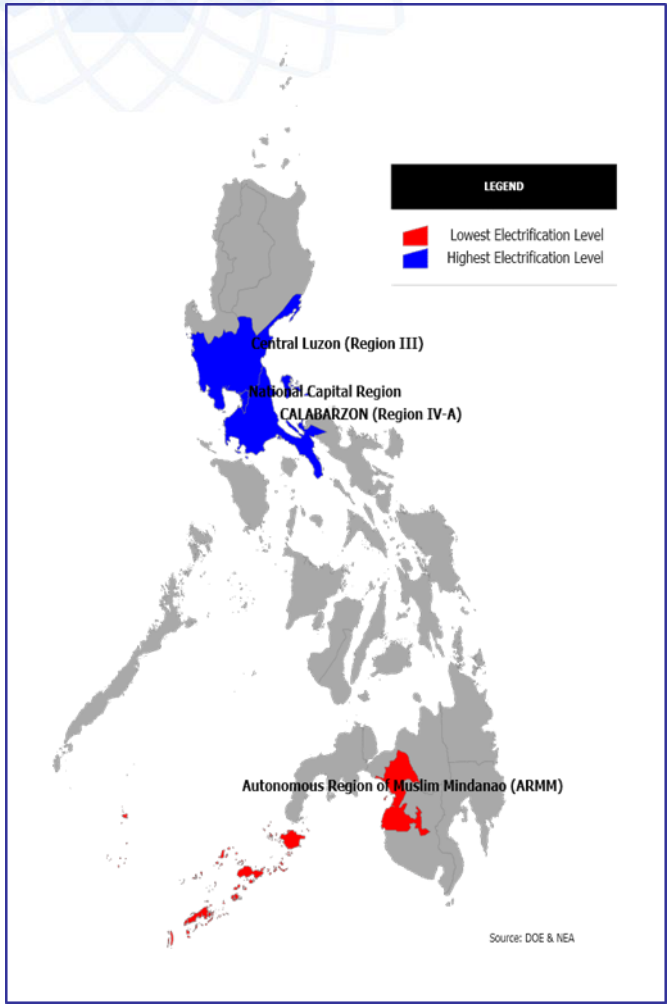


Field Visit

Consolidation & Analysis

Validation Workshop

THE PHILIPPINES: ENERGY ACCESS SCENARIO



BACKGROUND

- Archipelago of more than 7100 islands, highlighting the case for the mini-grids approach to rural electrification rate (80.1% in 2014 to 90% in 2017)
- Power generation significantly based on coal and natural gas, but also on hydro and geothermal for grid-connected power, but not in off-grid
- Varied RE potential: hydro, biomass, wind and solar
- Following RRA Philippines support for the development and implementation of the "National Renewable Energy Programme" (under review) and its decentralized component

OUTCOMES

- Strategy to accelerate the development of renewable energy mini-grids for rural electrification

STUDY OBJECTIVE

The Philippines' Department of Energy through its Energy Reform Agenda sets forth a vision of "Energy Access for More" in order to provide reliable and affordable energy that will help promote local productivity and country side development under three key guiding pillars:

1. Ensure energy security;
2. Achieve optimal energy pricing; and
3. Develop a sustainable energy plan.

IRENA, through its Technical Assistance and Advisory Services program, facilitated a study for the Philippines' DOE with an objective to provide a long-term strategy for promoting the use of RE and hybridized mini grids.

Institutional Setup

1969 – Creation of NEA "Total Electrification"

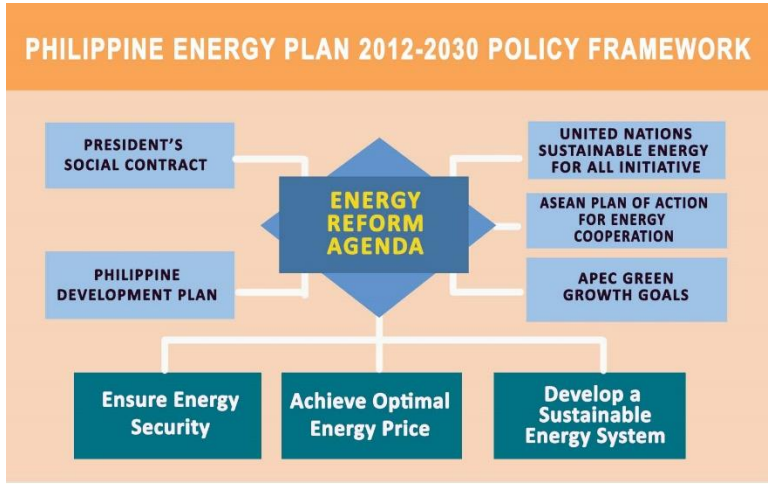
2001 – Electric Power Industry Reform Act

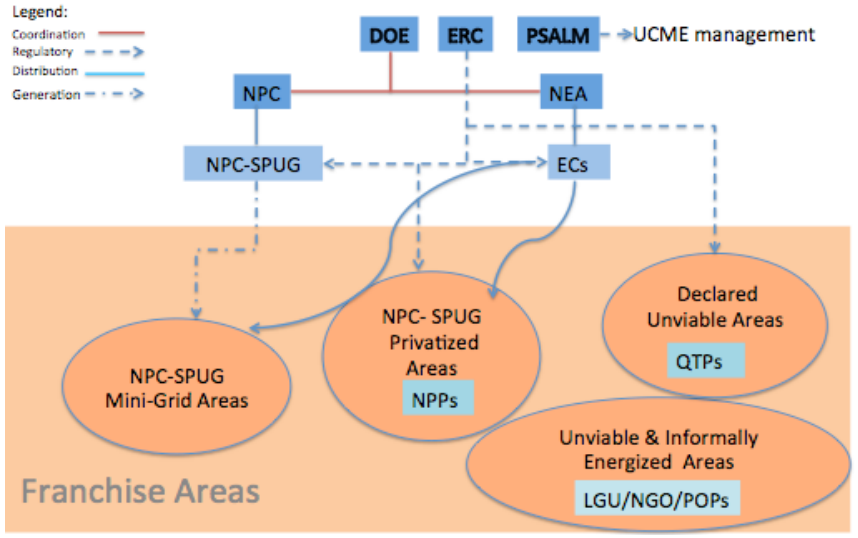
Privatization and Deregulation

2008 – Renewable Energy Act

2013 – National Electrification Act

90% of households by 2017





SUMMARY OF FINDINGS

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POLICY & PLANNING ISSUES

- Programme Strategies vs Vision of Inclusive Growth
- Terminologies in planning and programme implementation
- Role of RE in off-grid electrification
- Implementation of RE Act provisions
- Roles of rural electrification agencies
- Coordination among agencies

REGULATORY & ADMINISTRATIVE ISSUES

- Market entry not conducive for the private sector, especially small companies
- Current regulatory framework and guidelines structured for on-grid power generation
- Clear absence of rules and guidelines for RE hybrids including storage, as in capacity wise approvals and setting of tariffs

ECONOMIC/COMMERCIAL ISSUES

- Viability issues of RE for off-grid electrification
- Financing concerns of investors and bankers

INFORMATION, EDUCATION AND COMMUNICATION GAPS

- Lack of awareness
- Information for use in planning and project development
- Technology tracking and incentives for local innovation and production
- Capacity building on RE development and evaluation

PARTICIPATION BY STAKEHOLDERS AND PRIVATE SECTOR

Recommendations and Follow-Up

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Strategy to accelerate the development of renewable energy mini-grids for off-grid to follow and to be based on the following recommendations:

- Undertake comprehensive and strategic total rural electrification planning
- Clarify institutional roles, accountabilities and boundaries
- Develop specific framework for off-grid electrification
- Enhance support mechanisms for RE in off-grid electrification