

An Exercise for Wind Energy Roadmap Development for Afghanistan

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Overview

- In 2010, ADB's QLW program initiated the development of a Roadmap for the Philippine Wind Power Sector to assist the country achieve a quantum leap in wind power utilization
- Philippines used as pilot case:
 - First in the region to have on-grid wind farm
 - Established policy (Renewable Energy Law)
 - Wind resource potential commercially proven

Preparing a Wind Power Sector Roadmap

Philippine Experience

1. Determine the purpose
 - Accelerate wind power development?
 - Enhance energy self-sufficiency?
 - Address climate change?
2. Review wind power potential
 - Based on existing studies, is there commercial potential?
3. Consult with stakeholders to determine installation target and identify barriers
 - Conduct workshops involving Government agencies (Energy Ministry, Regulatory Commission, Local Government, etc.) wind power developers/investors, international aid agencies (USAID, GTZ, KfW, GEF, etc.), transmission company, distribution utilities, financial institutions, consumers
 - QLW forum is a good platform to start the consultation
4. Prepare the Roadmap

Major Components of a Roadmap

- Philippine Wind Power Roadmap is organized into 5 major sections
 1. Rationale and Scope
 - i. Purpose
 - ii. Coverage
 2. Current State of the Wind Power Sector
 - i. Resource potential (based on existing studies)
 - ii. Government policy and targets
 - iii. Existing projects (Status and Performance)
 - iv. Process flow for establishing wind power projects in the Philippines
 - v. Industry players / stakeholders

Major Components of a Roadmap

3. Issues and Barriers to Wind Power Development
 - Legal / Regulatory Framework; Resource Assessment; Transmission Interconnection and other Technical Barriers; Incentives; Financing; Institutional Capacity; Social Acceptability
4. Roadmap for each area:
 - i. Policy Framework
 - ii. Resource Assessment and Development
 - iii. Technical and Technological Support Measures
 - iv. Infrastructure
 - v. Financing
 - vi. Social Acceptability
5. Conclusion and Recommendations

Roadmap for Resource Assessment and Development

(from Philippine Wind Power Development Roadmap)

Roadmap Component	Definition / Formulation of each component	Roadmap
Objective	Broad statement of what you want to achieve	<i>Reduce development cost of private investors; Easier access to data</i>
Goal	Should be specific and measurable	<i>Develop a Philippine Wind Resource Atlas; Establish a central database for wind resources</i>
Strategy	Should be actionable / implementable	<i>Conduct ground-based resource mapping</i>
Milestone	Timeframe for completion	2013
Key Players	Who will implement the tasks	<i>Department of Energy International Donor / Aid agencies</i>

Wind Energy Roadmap Development

Key Points to Remember

- The roadmap is a collaborative process
 - Inputs and commitments of wind industry stakeholders are critical to preparing /implementing the roadmap
- The roadmap should serve as a guide for all the stakeholders of the wind power industry
 - Targets, Tasks, Timetable, Key Player should be clearly defined
 - Recommendations should be actionable
- The roadmap is a work in progress
 - Market, technology, policy/regulatory environment for the wind power industry continuously evolve. Updates and additional tasks should be introduced
- The roadmap should be kept alive
 - Continuous collaboration among wind industry players is needed to enhance/sustain the growth of the wind power industry
- International donor / aid agencies can provide great assistance in developing / implementing a wind power development roadmap.
 - Technical expertise and financial resources