Knowledge Sharing and Capacity Building on Promoting Successful Public-Private Partnerships in the UNECE region

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PUBLIC PRIVATE PARTNERSHIP

In

RENEWABLE ENERGY and

ENERGY EFFICIENCY SECTOR

Experience of a Private Investor

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Introduction

- Regulation, subsidies and PPP
- Past problems and solutions for overcoming hurdles:
  - Renewables competing against fossil fuels for financing
- Future challenges:
  - Biofuels competing with food production for water and land

Ormat Experience

- Constructed over 900 MW of power plants, both geothermal and energy efficient, as BOT, BTO and BOO
- Experience with IFIs, MFIs and ECAs in 250 MW of projects (the Philippines, Guatemala, Nicaragua, Kenya)
- Owns and operates ~ 400 MW for renewable power plants
- Third largest geothermal producer in the US
- Financed over $1 Billion of projects
- Investment and disinvestment in a 400 MW CHP (generation and distribution) in FSU

Hurdles for Private Investment in the Electricity Sector

Hurdles for Private Investments in the Electricity Sector in Emerging Economies

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- STRUCTURAL WEAKNESS IN THE SECTOR
  - Entitlement for tariffs below costs
  - Non payment
- RISKS
  - Political
  - Off-takers
  - Technical
- DEFICIENCIES OF THE LEGAL INFRASTRUCTURE
- "PRIVATIZATION" OF WELFARE
- REVIEW: COSTLY AND TIME CONSUMING

PPP Success Story in a Poor Country

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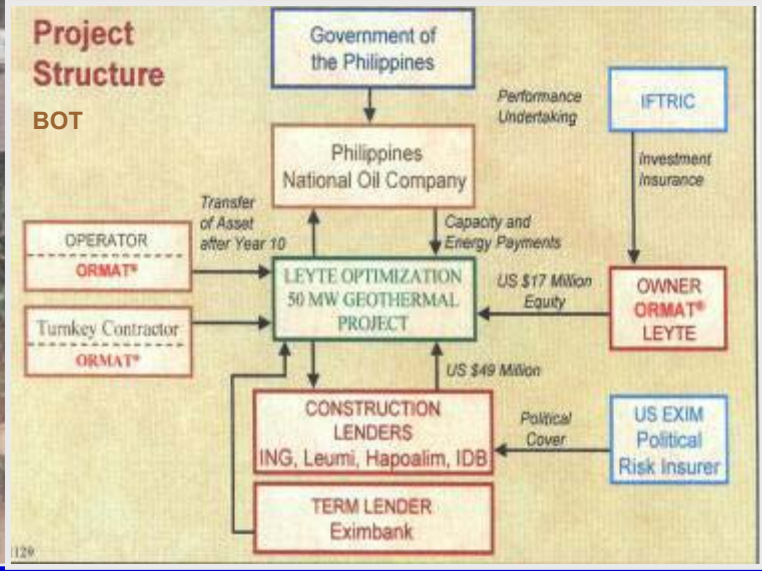
- 1000 MW of renewable energy in ten years:
  - The Philippine Geothermal Program
- The right division of tasks in the correct sequence
  - UNITAR / UNDP (exploration)
  - GEF / WBG (drilling of wells)
  - PRIVATE IPPs supported by ECA (power plants)

Example of BOT Projects
49 MW Ormat Geothermal Power Plant, the Philippines

ECA = US EXIMBANK (PUBLIC)

Award	*June 1995*
Contract Effectivity	*Aug. 1995*
Financial Closing	*May 1996*
Construction Started	*Jan. 1997*
Commercial Operation	*Nov. 1997*



Sad Story in a Wealthy Country

- PRIVATIZATION: Generation and Distribution of 400 MW of electricity and 1000 Gcal/h of heat in Karaganda, Kazakhstan (population: 400 000)
- Private Investment $40 M (Ormat & International Power of UK);
  IFI (EBRD) $22.5 M
- Main Reason for Failure:
  - "Independent" regulator
  - "Privatization" of welfare
  - "Legal" system
  - Obstacles for foreign investors (No export)
- Result:
  - System rehabilitated
  - Managing Billing Collection resulted in 90% collection rate
  - Foreign Investors "Disinvested", loosing all equity
  - Take over by local "investors"

PPP Requirements for Renewable Energy in Emerging Economies

- Developing the understanding of why countries need private investment in Renewable Energy (RE)
- Implementing policies and measures needed for private infrastructure and RE development
  - regulatory
  - technical capacity – building
  - financial incentives, especially for RE
  - enabling financiability of projects
- Developing institutional ability and strength of purpose to focus on long-term solutions, as the project development cycle, problems and benefits are also long term
- Relevant for both national government agencies and multilateral institutions

Public Sector - Private Sector Harmonization

Need for Level Playing Field

- True costs of private vs. public projects
- Competition between private developers and state-owned developers in soft costs, financing costs, insurance and required return on investment
- Competition between renewables and fossil fuel power – true prices taking into account difference in project scales

Public-Private Partnerships
Key Points for Success

- **Risk Sharing**
  - Industry to underwrite risks in construction, performance, and operation
  - MFIs and ECAs and national agencies to underwrite other risks: country, payment
  - Resource development risks: if borne by private sector leads to expensive power
- **Financial institutions to seek innovative FAST TRACK solutions**
  - Streamline the review process – avoid micro-management
  - One stop financing - one lead agency to act as financing coordinator
  - Innovative technologies should be welcomed (guaranteed by private sector)
  - Resolve the internal competition in IFIs between public and private sector departments
- **National Policy Legislation: level the playing field**
  - Price should reflect value of environmental worth of energy mix (WB Carbon Fund), base load dependability, price stability (no oil imports)
  - Educate the stake-holders (important role for UNEP)
  - Set asides for renewable energy technologies, e.g. RPS
  - Adapt deregulation to renewables (merchant plant issue)

Future Challenges
Role of PPP Beyond Financing

- Correcting market deficiencies (for long term)
- Managing the competition for water and land between biofuels and food production
- Addressing NIMBY and NGOs