

Case Study: Energy Efficiency Legislation in Morocco

Regulatory and Institutional Framework of
Morocco's EE Building Code Initiative

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• Absence of EE Standards in Construction Sector Contributes to National Energy Deficit

- Morocco imports 97% of its energy, with the building and service sectors accounting for 25% of overall energy demand
- National electricity consumption is growing by 8-9% a year
- Several EE initiatives in housing sector (e.g., solar water heaters), but otherwise few EE standards for building design and construction
- Three key sectors are being targeted:
 - Social housing: 100,000 new units built each year
 - Health: on-going renovation of 120 public hospitals
 - Tourism: 10 million tourists planned by 2010

• Policy Objectives of Moroccan Government

- Gradual introduction of EE standards and practices in construction sector through:
 - Definition and adoption of uniform standards
 - Communication, outreach and training
 - Public-private sector cooperation
 - Voluntary industry initiatives
 - Public investment programmes
 - Regulation (e.g., EE building code) and enforcement
- Target is to reduce energy consumption in buildings by up to 15%

- **New EE/RE Law Provides Regulatory Framework**

- Minimum EE standards for housing, health, educational, cultural, administrative and office buildings, including:

- Technical specifications (insulation, ventilation, heating, cooling, and hot water production, etc)

- Energy performance standards for buildings

- Objectives for solar energy and other renewable energies

- Climate zone-specific standards

- Standards and labels for building materials and equipment

- Auditing and verification measures

- **New Law Provides Institutional Framework**
 - Mandate of CDER, Morocco's RE agency, expanded to cover EE
 - CDER to ensure that builders conform to EE regulations by:
 - Issuing EE building standards through the Ministry of Housing
 - Publishing and disseminating technical information
 - Certifying energy inspection firms
 - Ensuring that penalties are applied for non-compliance
 - CDER to develop three EE programmes for:
 - New construction
 - Public sector buildings (new construction and renovations)
 - Social housing

- Close Partnership with Public and Private Stakeholders
 - National Steering Committee
 - Forum for representatives from key ministries and professional associations to jointly set priorities for CDER's EE programme
 - Ministerial Coordination Council
 - Forum for key ministries (Housing, Health, Tourism, Finance, Interior, etc.) to coordinate EE implementation in govt programmes
 - Professional associations (Nat'l Order of Architects, Nat'l Building Association, etc.) to relay information to members
 - Architecture and engineering schools to strengthen EE curriculum

- Estimated Benefits of Morocco's EE Building Initiative in the Social Housing Sector

	Over first <u>15</u> <u>years</u>
Social housing construction	100,000 units/year
Oil import savings (at \$60/barrel)	\$1,100 million
Cost of EE measures	<u>-\$600 million</u>
Net savings for Morocco's economy	\$500 million