



INSTITUTIONAL FRAMEWORKS FOR ENERGY EFFICIENCY IMPLEMENTATION

***Workshop on
Institutional Frameworks and Policies for Energy
Efficiency Implementation***

***Beijing, China
June 14-15, 2007***



Introduction

- ✦ **The World Bank completed a study of Institutional Frameworks for Energy Efficiency Implementation**
- ✦ **The study included a Workshop in Seoul, Korea in September 2006**
- ✦ **Findings included compendium of EE frameworks in 26 countries and development of 7 generic models**
- ✦ **ICA completed a study of EE policies in many countries**
- ✦ **Both studies concluded that research should be continued to facilitate information exchange and transfer**
- ✦ **CFC and ICA are sponsoring this Workshop to continue and expand research to address policies and legislation and global climate change issues**



Workshop Objectives

- ✿ **ICA and WB are considering establishment of the Center for the Study of Energy Efficiency Institutions and Policies to:**
 - ✿ **Be the repository of information on EE institutional structures**
 - ✿ **Update and expand the Compendium of EE Agencies**
 - ✿ **Update and expand the information and database on EE policies**
 - ✿ **Identify the linkages between EE institutional frameworks and the related legislation, regulation and policies**
 - ✿ **Identify and assess related global climate change issues**
 - ✿ **Develop a data base and a web site**
 - ✿ **Develop strategic partnerships**
 - ✿ **Prepare and disseminate papers and reports**
 - ✿ **Organize and conduct workshops**
 - ✿ **Facilitate “twinning” arrangements and study tours**
 - ✿ **This Workshop has been organized to review the concept and finalize the design of the Center**
-



World Bank Rationale

- ✦ **Recognition of Energy Efficiency (EE) as the low-cost solution to global climate change**
- ✦ **Wide range of policies and programs to improve EE**
- ✦ **Actual implementation of EE has been limited due to a number of barriers**
- ✦ **Many studies of energy efficiency policies and programs but limited assessment of the institutional frameworks to best overcome the barriers to EE**
- ✦ **The World Bank – ESMAP initiated this project to review and assess the best practices in institutional frameworks for EE**



Project Objectives

Identify, assess and develop suitable and practical public-sector institutional models for middle-income and other developing countries to effectively promote investments in demand-side energy efficiency measures.

The underlying emphasis was on institutional frameworks that could enable end-users, utilities and energy service providers, private sector, financial sector, and market intermediaries like energy service companies (ESCOs) to play an effective role in scaling up energy efficiency investments.



Summary of Approach

Conducting an analytical assessment of institutions across a wide range of industrialized, developing and emerging economies to identify the specific best practices that could potentially be adapted to, and institutionalized in, developing countries that are in the process of or will be establishing similar energy efficiency institutions.



Project Tasks

- 1. Review and assessment of institutional models and preparation of a Compendium of EE institutional structures**
- 2. International Collaborative Workshop on EE institutional Best Practices**
- 3. Finalization of the Compendium and Comparative Assessment based on the Workshop results.**



Major Activities

- ✦ **Desk Review of studies, documents, reports, etc.**
- ✦ **Discussions with EE Agencies**
- ✦ **Criteria for selecting alternative institutional structures**
- ✦ **Analytical framework and analysis of existing EE institutional structures**
- ✦ **Development of 7 typical “models”**
- ✦ **Documentation of available information on s institutional structures in 26 countries**
- ✦ **Review and discussion at Seoul Workshop**

The Seven Models

MODEL	DESCRIPTION	EXAMPLES
1	Government Agency with broad-based energy responsibilities	USA, Denmark, Thailand, China
2	Government Agency focusing on EE/RE/SE/GCC	France, Sweden, Mexico, Brazil
3	Government Agency focusing on EE only	New Zealand, India, Japan, So. Africa
4	Independent Statutory Authority focusing on EE and RE/SE	U.K., Ireland, Greece
5	Independent Corporation owned by the Government	Korea, Finland, Norway
6	Public/Private Partnership	Poland, Germany
7	Non-Governmental Organization	Austria, Croatia



Model 1 – Broad-Based National Energy Agency

- ✦ **National energy agencies with overall responsibilities for energy issues**
- ✦ **EE is included, but is generally a minor component**
- ✦ **Funding from Government budget**
- ✦ **EE roles and functions can be very broad and address the full range of policies/programs**
- ✦ **Generally, agency has many priorities that take precedence over EE**
- ✦ **Examples**
 - ✦ **USDOE has major defense-related responsibilities**
 - ✦ **Danish Energy Authority is responsible for energy supply and transportation as well as EE**



Model 2 - Government Agency Focusing on EE/RE/SE

- ✿ **National energy agency specializing in energy efficiency (EE), renewable energy (RE), and sustainable energy (SE)**
- ✿ **Generally created by special legislation**
- ✿ **Funding from Government budget**
- ✿ **Climate change is the primary focus**
- ✿ **EE is a high priority of these agencies**
- ✿ **Wide range of EE responsibilities and programs**
- ✿ **Agency generally located in a larger Government agency or Ministry**



Model 3 - Government Agency Focusing Entirely on EE

- ✦ **Specialized energy agency focusing on energy efficiency only**
- ✦ **Generally created by special legislation**
- ✦ **Funding from Government budget**
- ✦ **May address all energy forms or only specific forms (such as electricity)**
- ✦ **Broad range of policies and programs designed to meet primary mission of improving EE**
- ✦ **May be independent agencies (e.g. EECA in New Zealand) or part of a larger organization (In India BEE is a part of the Ministry of Power)**



Model 4 – Independent Statutory Authority

- ✦ **Special agencies created by the Government to focus on EE (or EE/RE/SE)**
- ✦ **Independent of government bureaucracy**
- ✦ **Managed by a Board of Directors (appointed by the Government) – generally will include non-government members**
- ✦ **Funding may come from Government budget as well as private sector**
- ✦ **May be able to leverage private sector more effectively**



Model 5 – Independent Corporation Owned by Government

- ❖ **Similar to Model 4 except that instead of an agency, a special corporation is established**
- ❖ **Corporation is owned by Government**
- ❖ **Managed by a Board appointed by Government; members include private sector representation**
- ❖ **Funding may come entirely from Government or some funds may be available from private sector**



Model 6 – Public/Private Partnership

- ✦ **Corporation owned partly by Government and partly by private sector**
- ✦ **Managed by a Board appointed by the shareholders**
- ✦ **Funding from both Government and private partners**
- ✦ **Organization may provide fee-based services to national, international and private organizations**
- ✦ **Range of programs and activities determined by Shareholders and funding sources**



Model 7 – Non-Governmental Organization (NGO)

- ❖ **Non-profit or non-governmental organization**
- ❖ **Managed by Board of Trustees appointed by Founders (generally Government)**
- ❖ **Funding may come from various sources (Government may be a major source)**
- ❖ **Organization may be eligible for grants**



Advantages and Limitations of Different Models



Model 1 – Broad-based Government Agency

Advantages

- **Greater credibility with stakeholders**
- **Larger resource availability**
- **Greater “clout” in obtaining govt. funds**
- **Ability to obtain funds for EE programs**

Limitations

- **EE may get low priority in funding and activities**
- **EE function may become a “step-child”**
- **Slower & cumbersome decision-making**
- **Difficulty in retaining staff**



Model 2 - Government Agency Focusing on EE/RE/SE

Advantages

- **Agency focus consistent with EE**
- **Commonality of goals, functions, etc. within agency**
- **Easier to attract dedicated staff**
- **Combining EE & RE provides greater “voice” in obtaining funding, staff & other resources**

Limitations

- **Smaller size provides less clout**
- **Potential decreased emphasis on EE because RE is preferred due to its more tangible and high capital intensity**
- **EE may not get adequate attention from top management**



Model 3 - Government Agency Focusing Entirely on EE

Advantages

- **Focus entirely on EE; staff dedicated to EE**
- **Ability to design program better**
- **With dynamic management, agency can leverage funds**
- **Possible leveraging of other resources**

Limitations

- **Agency likely to be located in a larger organization, with a focus other than EE**
- **Without an aggressive and dedicated top management, agency may not be successful in obtaining resources.**



Model 4 – Independent Statutory Authority

Advantages

- **Independence facilitates operation**
- **Can obtain external advice (and possibly funding)**
- **More rapid and flexible decision-making**

Limitations

- **Agency may not be viewed as “mainstream” by stakeholders**
- **May not have sufficient clout for obtaining increased funding**
- **May be difficult to change scope of activities and budget**



Model 5 – Independent Corporation Owned by Government

Advantages

- **Focus on EE leads to better program design**
- **Independence allows greater freedom and flexibility in decisions**
- **Flexibility to obtain external inputs and funds**

Limitations

- **May be more difficult to obtain govt. funding (unless allocated in the official budget)**
- **Board is generally appointed by Government and needs to be carefully selected to represent the relevant stakeholders**



Model 6 – Public/Private Partnership

Advantages

- **Flexibility in obtaining private sector inputs (and possibly funding)**
- **Independence allows greater freedom and flexibility in decisions**

Limitations

- **Potential conflicts between public and private perspectives**
- **May be more difficult to obtain govt. funding (unless allocated in the official budget)**



Model 7 – Non-Governmental Organization (NGO)

Advantages

- **Greater credibility with some stakeholders**
- **EE focus allows better program design**
- **Independence allows greater freedom and flexibility in decisions**
- **Flexibility to obtain external inputs and funding**

Limitations

- **More difficult to obtain govt. funding**
- **Difficult to take on a greater role in implementation**
- **Some stakeholders may find the NGO not credible**



Lessons Learned

- ❖ **Wide range of institutional structures, even though barriers are generally similar**
- ❖ **Trend seems to be away from the broad-based agencies to the more specialized ones and towards the independent agency structure**
- ❖ **Private sector input is being recognized as important**
- ❖ **The range of policies and programs does not vary much for the different Models**
- ❖ **Actual results are not very well documented**
- ❖ **Greater focus on EE is desirable (Models 2&3 vs. Model 1), but adequate dedicated funding needs to be assured**



Selection of Institutional Structure

- ✦ **Factors influencing selection of a particular institutional structure:**
 - ✦ **Country context including the importance of EE in national priorities**
 - ✦ **EE related roles and responsibilities of existing agencies/institutions**
 - ✦ **Need for development of new legislation, regulations, policies, etc for EE**
 - ✦ **Types of EE programs envisioned**
 - ✦ **Need for focus on EE alone vs. EE/RE/SE combined**
 - ✦ **Need for independence, flexibility and rapid decision-making**
 - ✦ **Mechanism for funding the EE agency**



Desired Characteristics of EE Agencies

- ✦ **Ability to work collaboratively with multiple government agencies involved in EE implementation**
- ✦ **Ability to leverage private sector participation in and resources for EE implementation**
- ✦ **Involvement of multiple stakeholders**
- ✦ **Independence and flexibility in decision-making**
- ✦ **Ability to engage utilities and energy companies**
- ✦ **Cooperation with energy regulatory agencies**
- ✦ **Adequate resources , including staff and funding**
- ✦ **Credibility with EE stakeholders**
- ✦ **Credible monitoring and evaluation plan**



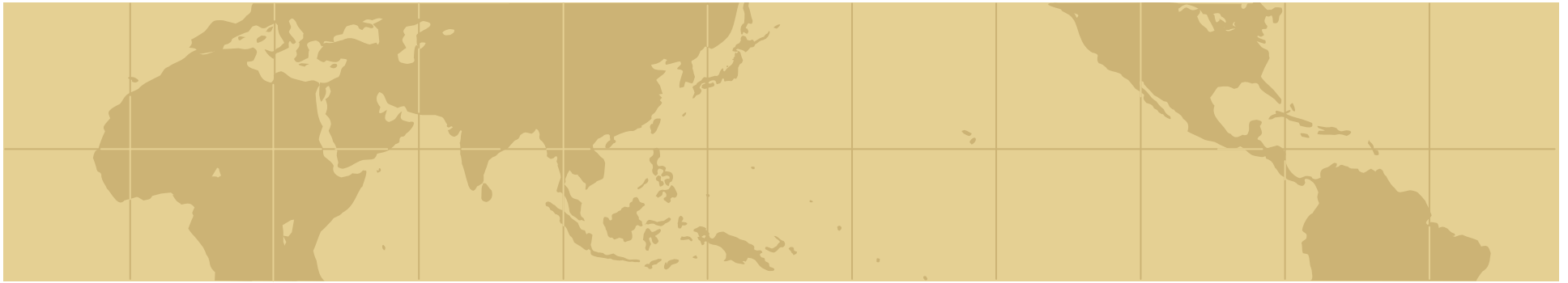
A “Road Map” for Designing a New or Modified Institutional Framework

- ✦ ***Define the country context and the need for institutional structure for EE implementation.***
- ✦ ***Define the specific objectives and or goals for the EE agency.***
- ✦ ***Define the major consuming sectors to be addressed by the agency.***
- ✦ ***Define the major barriers.***
- ✦ ***Assess the existing institutional structure(s).***
- ✦ ***Define the types of “mechanism” needed.***
- ✦ ***Determine the potential funding sources.***
- ✦ ***Define the need for a new or modified institutional framework.***
- ✦ ***Assess the legislative or other mechanisms needed.***
- ✦ ***Learn from the experience of other countries.***
- ✦ ***Develop the strategy and plan for establishing the new or modified institutional framework.***



Study Recommendations

- ✦ **Continue research on EE institutions**
- ✦ **Disseminate, critically review and discuss information**
- ✦ **Assist developing countries interested in establishing new institutional frameworks**
- ✦ **Establish mechanism for updating and maintaining information**
- ✦ **Expand research to define relation between institutional frameworks and policies/legislation**
- ✦ **Define how institutional frameworks and policies have influenced global climate change issues**



Thank you