

**Addressing the
fundamentals to achieve
sustainable good
performance of the power
sector in emerging
countries**



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**Creating the enabling
conditions for
implementation of
competitive markets**

Pillars to be addressed to achieve sustainable good performance of the power sector in an emerging country

- ❑ **Systematic least-cost generation and transmission expansion planning and optimized (competitive) implementation of investments in all segments of the supply chain**
 - ❑ **Government's responsibility**
 - ❑ **Needed to address security of supply in a context of growing demand**
 - ❑ **A specific approach is needed for electrification planning and implementation to move towards universal access**
- ❑ **Specific approach for electrification: preparation and implementation of a National Electrification Strategy (NES) and related investment plans to move towards universal access to electricity service**
- ❑ **Efficient operational performance of service providers (utilities) in all business areas: electricity supply, commercial functions, management of corporate resources, corporate planning**
 - ❑ **Electricity sector exists to serve consumers**
- ❑ **Financial sustainability: revenues (tariff + subsidies) allowing recovery of fixed, demand related, and energy related operating costs incurred for efficient service delivery across the electricity supply chain**
 - ❑ **Cost-reflective fixed, demand related, and energy related tariff charges applied to all categories of consumers able to pay them complemented by "social safety net" to protect low-income users unable to pay cost-reflective charges**



Systematic least-cost expansion generation and transmission expansion planning

- ❑ Preparation and systematic update of a Least Cost Power Development Plan (LCPDP) for a 15-20 years period for generation and transmission expansion
 - ❑ Led by sector Ministry or agency reporting to the Ministry, with technical support from System Operator
 - ❑ Starting from best available demand forecasts (existing consumers and new users to be connected through electrification plans)
 - ❑ Incorporating all aspects of Government's policies on energy, environment, security of supply (use of renewables and other indigenous resources, level of dependence on regional power and energy exchanges, etc.).



Optimized (competitive) implementation of investments

- ❑ **Timely implementation of the outcomes of the LCPDP through competitive procurement processes:**
 - ❑ **Directly by service utilities (mainly investments in network extension, rehabilitation and upgrade), using the most convenient financing arrangements available to the country (grants, loans from development partners)**
 - ❑ **By new agents (competition FOR the market):**
 - ❑ **Independent power producers (IPPs) for new electricity generation projects**
 - ❑ **Special-purpose companies (transmission service providers) for construction and operation of new transmission systems**
 - ❑ **Long term contracts (power purchase and transmission service agreements) signed with financially viable distribution and retail utilities**



Efficient operational performance of the service providers (utilities)

- ❑ **Efficient operational performance means:**
 - ❑ **Quality of service provided to customers in full compliance with applicable regulations**
 - ❑ **All amounts of energy being consumed are permanently sold (billed) and collected**
 - ❑ **Costs incurred in all business areas reflect efficiency in operations**
- ❑ **Comprehensive experience in developing countries in successful improvement of operational performance of service utilities in the electricity sector under all types of sector structures and ownership**
 - ❑ **Vertically integrated state-owned enterprises; unbundled sectors with mixed ownership (private and state-owned companies) in distribution and retail; etc.**
 - ❑ **With and without independent regulators**
- ❑ **Improvement of performance requires the definition and effective implementation of Performance Improvement Plans (PIPs) addressing operations in all business areas**



Financial sustainability

- ❑ **Tariff regulations should allow operating companies to permanently collect revenues needed to recover costs of efficient service delivery**
 - ❑ **In low-income countries, tariff revenues could be set initially to recover all operating costs (including PPAs, TSAs, cost of debt)**

- ❑ **Tariff revenues + subsidies allowing recovery of fixed, demand related, and energy related costs of efficient service delivery across the electricity supply chain**
 - ❑ **Cost-reflective fixed, demand related, and energy related tariff charges applied to all categories of consumers able to pay them**

- ❑ **A “social safety net” protecting only low-income users unable to pay cost-reflective tariff rates should be designed and put in place**
 - ❑ **Funded through tariff cross-subsidization (preferred) or external resources**
 - ❑ **The most regressive subsidization is that from low-income people (sometimes not having access to electricity service) to electricity consumers able to pay cost-reflective tariff rates**



Financial sustainability

- ❑ **Tariff regulations should be issued and systematically applied within a framework of full transparency:**
 - ❑ **Public consultation and public hearing processes should be adopted in all cases (transparency cannot exist without publicity)**

- ❑ **Tariff regulations must be complemented by others on quality of service received by electricity consumers**

- ❑ **Enforcement of regulations on quality of service requires:**
 - ❑ **Procedures to systematically record and monitor key parameters**
 - ❑ **Application of penalties (payments made to affected consumers) in cases of non-compliance**

