



Energy

Water and Power

One of the major problems inherited by the People's Government upon taking charge was power shortage and load shedding. Shortages are caused mainly by the obsolete and outdated transmission and distribution system as well as lack of sufficient power generation. Not a single MW was added to the national grid during the almost decade-long last authoritarian regime.

Sensing the magnitude of the challenge, the Government went into action mode with short-, medium- and long-term plans to overcome the problem of power outages in the country. A four-pronged approach was adopted to address these issues:

- Improvement in corporate governance of power companies
- Actions initiated to attain financial sustainability for the power sector
- Initiated supply and demand side measures for capacity additions to mitigate shortages and to meet the growing demand in future
- Mobilized investment of international financial institutions (IFIs) for development of the power sector

Corporate Governance

The Government selected professionals for key assignments having vast experience of power sector to improve governance. Performance contracts were executed with the power companies giving them stringent targets for reduction in losses and improvement in recoveries.

New system of Monthly Fuel Price Adjustments and Quarterly Tariff Determinations has been put in place through an amendment in National Electric Power Regulatory Authority (NEPRA) Act whereby fuel cost fluctuations can be passed on to the customers transparently.

Financial Sustainability

Inter corporate circular debt involving fuel suppliers, distribution companies and public sector consumers emerged as a big problem during the last regime. The People's Government has resolved the matter through creation of a Debt-Co (Power Holding Company) in Ministry of Water and Power. The corporate debt worth Rs.216 billion has been taken from the 'books' of the power companies and parked in the Debt-Co.

Improving Generation

Thermal Projects

The Government started addressing the power crisis in a bold and realistic manner. Public Sector Power Generation Enhancement Plan (2010-2015) has been firmed up in order to add 10,000MW generation capacity in the system. While 600MW of new independent power producers (IPPs) were added during 2009, another 1,000MW is in the final stages of completion and would hopefully be available for power supply to the public very soon. Three rental power plants (RPPs) are also in the offing through which another 250MW will be added to the National Grid System. The fast pace for new projects for implementation have been adversely impacted due to strong media and political opposition. However, efforts are still vigorously being made for early completion of projects in pipeline.

The Government has expedited work on long stalled 525MW Chichoki Malian Power Project and 425MW Nandipur Power Project in the Public Sector for completion by late 2011. Similarly negotiations and signing of contract for 747MW Guddu Combined Cycle Power Plant, has been completed. This will replace the long outlived Units 1-4 for the same fuel. This would be an efficient plant as compared to other power plants in Pakistan and would start generating power in early 2012.

The Government has also started implementation of long stalled IPPs projects. As a result of this effort three out of nine IPPs have been inaugurated and the rest will be commissioned by June 2010.

The portfolio of projects currently being processed by PPIB comprises 39 multiple fuel (oil, coal, gas and hydel) power projects having a cumulative capacity of 10,211MW, which are expected to be commissioned from year 2009 to 2017. Thirteen IPPs totaling 2,487MW of power generation capacity have already achieved financial close and started construction, while other sponsors are proactively working to achieve the same.

To exploit Thar coal reserves, a number of projects under Thar Coal Energy Board have been initiated. These include Thar Area Infrastructure Development, Underground Gasification of Coal, Technical Assistance for feasibility study of Thar Coal etc.

Hydel Projects

Pakistan has so far tapped only 6,700MW out of its total hydel potential of more than 50,000MW. PPIB is processing 17 hydel projects with a cumulative capacity of 5,025MW. The Government has initiated work on Neelum-Jhelum Hydro Power Project costing Rs.13 billion. Likewise, Basha Diامر Dam with a total cost of Rs.894 billion has been launched. It would generate 4500MW

power and store 6.4 acre feet of water.

The Government has achieved financial close on country's first ever hydropower project in the private sector. This hydropower project assumes further importance because with its financial close, hydropower security package prepared by PPIB has been accepted by international investors and lenders, and will now form the basis for other hydropower projects to come.

The Government has also planned to construct 32 small and medium dams (eight in each province) at a cost of about Rs.250 billion. The water storage capacity of these dams would be around 6-7 million feet of water. Work on construction of six dams has been launched. In addition rehabilitation work on Khanki Barrage costing Rs.25 billion and rehabilitation of Sukkur Barrage at the cost Rs.2.5 billion has been started.

Improving Transmission and Distribution

The Government has developed a plan for upgrading the distribution network of the power distribution companies (DISCOs) over a period of five years to reduce transmission and distribution losses. The Government has entered into a framework financing agreement (FFA) with Asian Development Bank (ADB) to obtain the resources through individual loans and then lend these to each DISCO in order to improve the financial and infrastructure conditions of the DISCOs.

The immediate priority for investment in the distribution system is to address capacity shortfalls that currently result in regular system outages and supply interruptions to customers. The first tranche would, therefore, cover these priorities and include addition of circuit and transformer capacity, loss reduction and refurbishment of distribution networks. In addition the technical assistance

component would improve professional skills of the DISCOs' staff.

Reduction in Technical Losses

The Government is implementing Performance Management Contracts with all the DISCOs and also generation companies (GENCOs), so as to arrange fulfillment of the NEPRA performance standards. Consequently, technical losses will be reduced by 1% against just 0.4% in 2008-2009, while Rs.12.8 billion will be saved out of other efficiency improvement measures, besides 100% recovery against current billing. Once DISCOs' efficiency and revenue earnings increase, its benefit shall be passed on to the consumers.

Conservation

A successful Public Awareness Campaign was launched and implemented during 2009, which resulted in the saving of 1,000 MW, thus mitigating the negative effects of ongoing power crisis.

Oil and Gas

The Oil & Gas Regulatory Authority (OGRA) has enforced the benchmark on human resource cost of utilities to ensure containing expenditure within reasonable limits and attracted investment in the liquified petroleum gas (LPG) supply with the help of distribution infrastructure in the compressed natural gas (CNG) sector.

It introduced UFG benchmark in line with international trends and giving allowance for local conditions. The disallowances on account of UFG benchmark benefitted consumers to the tune of Rs8.11 per MMBTU (total Rs7.308 billion) during 2008-2009. The step saved Rs8.14 billion.

During the same period, OGRA decided eight cases relating to revenue requirements of two

gas utilities. OGRA issued four notifications of prescribed prices for each category of consumers for 2008-2009 on the basis of Estimated Revenue Requirement of Sui Southern Gas Company Limited and Sui Northern Gas Pipeline Limited. In the same period, it issued 89 well-head gas price notifications for 47 gas fields, and 19 notifications of petroleum products during the same period. It approved major projects of SSGCL and SNGPL of transmission and distribution development in all four provinces.

There were 10 LPG producers and 83 LPG marketing companies in Pakistan till November 30, 2009, having more than 5,000 authorized distributors. An estimated investment of Rs.14 billion has been made in the LPG sector due to OGRA's policy. The Authority issued 11 licenses during March 2008 and November 2009 for LPG marketing, and 16 licenses issued for construction of LPG storage and filling facilities.

Since March 2008, Rs.1 billion investment has been made in LPG supply infrastructure and about 3,000 direct, indirect employment opportunities created in this sector. The regulatory framework for LPG use in automotive vehicles opened new avenues for investment to set up LPG auto-refueling stations across the country.

The Federal Government empowered OGRA on July 14, 2009 to notify CNG sale price through amendment in OGRA Ordinance. Subsequently, it notified maximum sale price of CNG on July 31, 2009. There are 3,064 operational CNG stations in the country investing Rs.12 billion in 2009 with an overall investment of Rs.81 billion. The authority also granted seven licences for construction and establishment of CNG stations in Balochistan.

A major success of the People's Government has been the signing of Inter-Governmental Framework Declaration, Gas Sales and Purchase Agreement (GSPA) and subsidiary

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agreements on the Iran-Pakistan Gas Pipeline between the two countries. The GSPA was signed between Inter-State Gas System of Pakistan and National Iranian Oil Company in June 2009. Construction of the project will start this year, provided all the documents are implemented as scheduled.

Alternative Energy: Wind and Solar

Pakistan is gifted with immense wind resources and the wind map indicates that Pakistan has a potential to generate over 132,000MW of electricity. Keeping in view the huge potential and anticipated future needs, the Government has set a target of at least 5% of the total national power generation capacity (i.e., 9,700MW) to be generated through renewable energy by the year 2030.

Currently, 22 projects of 50MW each are at various stages of development and out of these, 11 developers have so far completed their feasibility studies. IPPs have acquired generation license from NEPRA and three have been awarded tariff by NEPRA. Three IPPs are negotiating Energy Purchase Agreement and implementation agreements with concerned authorities

Under the Solar Rural Electrification Program, over 7,800 remote villages will be electrified by using solar home system.

Minister for Water and Power, Raja Pervaiz Ashraf, informed the National Assembly that 30 million energy saver bulbs would be distributed free of cost throughout the country with the financial assistance of Asian Development Bank. Under a pilot project, 125,000 energy savers have so far been distributed amongst the public free of cost since March, 2008.