COVER STORY

In power projects: History, Policy and Politics

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Introduction

About three decades ago, a structural change took place in Pakistan's power sector as market-oriented reforms were introduced. The objective of these reforms was to introduce competition in generation and supply and achieve cheap pricing for consumers. As a part of these reforms, Pakistan invited independent power producers (IPPs). However, neither competition nor cheap prices for consumers have been achieved so far.

Besides, since the formal commissioning of first IPP in Pakistan in 1997 to date, these IPPs have remained involved in corruption accusations, disputes/ litigations over the set rates, payments and profits. This article argues that the political environment, institutional strengths and interests of stakeholders are as important as the technical and economic considerations in attracting private investment and ensuring its positive outcome.

History of Private Energy Investments in Pakistan

Historically, the power sector in Pakistan was owned and operated by the government. It was in 1997 that the first private sector generation project entered the system. It was the one-page policy paper signed by General Zia in 1987 that paved the way for private generation companies in the country (Cheema, 2016).

The feasibility for the first private power project, HUB Power Plant (HUBCO) with a capacity of 1292 MW was completed in 1988. In

1991, HUBCO became Limited Liability Company for executing the project in Pakistan. In 1992, the plant signed an agreement with WAPDA to develop a 1292 MW power plant. The World Bank (WB) supported the project and helped in arranging the finances. The original offer was 97 paisa/ KWh; but the power purchase agreement (PPA) was signed at 6.1 cents/ KWh, equivalent to 234 paisa.

As per the PPA, the WAPDA would pay a monthly tariff in US$ for both capacity and energy consumed. HUBCO also signed an agreement with Pakistan State Oil for providing refined furnace oil (RFO). The Government of Pakistan (GOP) provided guarantees for WAPDA obligations as power purchaser and PSO as fuel supplier.

In the beginning, National Power PLC of the United Kingdom and Xenel Industries Limited of Saudi Arabia funded the project. Later, Entergy Corp of the United States became its major shareholder (Kantor, 2000). The WB got involved in arranging finances from the governments of France, Italy, Japan, United Kingdom and the United States as co-financiers in the Private Sector Energy Development Fund of Pakistan. This fund along with the WB and the Import/Export Bank of Japan jointly developed an Expanded Co-Financing Operations Programme to assist the international commercial debt funding by the provision of a partial guarantee. A significant portion of the offshore debt was also guaranteed by certain export credit agencies. A group of local banks led by the National Development Finance Corporation of Pakistan provided rupee debt (HUBCO, 2021).

The HUBCO project financing closed in 1994 and the construction started smoothly. Finally, in March 1997, the plant started selling power to WAPDA. NEPRA granted the license to the power plant in August 2003, which will expire in August 2025.
The famous Power Policy 1994, with bulk of incentives for the private generation plants, was based on experience gained during the planning of HUBCO. As documented in Alahdad (2012), the project was named as “deal of the decade” by Euromoney Institutional Investor. The global financial market cited this project as the first major private sector venture executed in any perilous developing country environment.

Power Policies and IPPs in Pakistan

Policy	Salient Features	Impact
1994	Investors free to choose site, technology &fuel; long-term contract with GOP guarantee; fuel supply contract with GOP guarantee; bulk power tariff of US Cents 6.5KWh_for first ten years, levelised tariff of US Cents 5.9/KWh over life of the project (25-30 years) and a premium of US Cents 0.25/KWh in first ten years; two part tariff_ capacity charges and energy charges, capacity charges to be paid on an annual plant factor of 60% on take or pay basis; exemption from certain taxes and import duties; and repatriation of equity along with dividends was allowed.	16 furnace oil and gas based IPPs, with capacity of 4100MW were added to the system. These IPPs invested Rs 51.8 billion and have earned (so far) Rs. 415 billion.
1995	Concession & power purchase agreement; project on BOOT basis, GOP will be the owner after 25 years; bulk tariff of US Cents 6.1/ KWh; exemption from certain taxes and import duties; and guaranteed foreign exchange conversion facility.	Insignificant response from the private sector only one project with capacity 84MW was installed with long-term contract and GOP guarantee for 25 years.
1998	Competitive bidding & tariffs, two part tariffs_ energy purchase price (EPP) and capacity purchase price (CPP); guaranteed foreign exchange conversion facility; restriction on imported fuels; and limited exemptions on taxes and duties.	Policy failed to attract new investments.
2002	Power purchase agreement & fuel supply agreement with GOP guarantees; hydro projects on BOOT & thermal projects on BOO or BOOT basis; two part tariff_ CPP & EPP; tax exemptions & financial incentives; and no restriction on imported fuels.	13 IPPs with capacity 2934MW; IRR 15%; and project life 25-30 years; furnace oil and gas based plants. These IPPs invested Rs. 57.81 billion and earned (so far) Rs. 152billion.
2006	Exemptions on taxes and import duties; permission to deport equity along with dividends; allows both cost-plus and upfront tariff regime. (In 2013, GoP expanded the 2006 policy to include bagasse, biomass etc; and issued the Framework for Power Co-generation 2013)	24 Wind IPPs with capacity 1234 MW and 7 solar IPPs with capacity 430 MW were set up. 8 IPPs with capacity of 253.7 MW have attained COD under 2013 Framework. These IPPs have earned excess profits on account of incorrect IRR calculation (18.39% instead of 17%).
2013	Reliance on less expensive fuels; upfront tariff mechanism; strengthening of NEPRA; one window operation to facilitate investors; whereas, incentives given in 2002 remained intact.	------
2015	Two part tariff; power purchase agreement with GOP guarantee; hydro projects on BOOT (30 years) and water use charge @0.425/ KWh to be paid to the province where the project is located; thermal plants on BOO basis_ both indigenous and imported fuels; three types of thermal projects_ through competitive bidding, through provincial recommendation, or based on international commitments.	7 IPPs with capacity 8253MW; IRR 15% to 17%; and project life 20-25 years; Imported coal and RLNG based plants. One imported coal power plant has already recovered 71% of its investment in two years of its operation, and second one has recovered 32 % of its investment in the same period. These plants have been offered 17%IRR in US$, which in Pakistani Rs after recent devaluation is equal to 43%.

The 1994 Power Policy resulted in projects which did not meet the „least cost" generation test because of small size, unsuitable location, excessive reliance on oil and steam turbines technology instead of more efficient combined-cycle plants.

The same mistake was repeated in the Power Policy 2002. The policy encouraged the exploitation of indigenous resources but attracted plants with the same expensive fuel mix. Similarly, in 2013 and later in 2015, despite severe criticism on the earlier policies, the new policies came up with more or less the same set of incentives for the generators.

All these policies supporting guaranteed capacity payments have pierced the cost structure of electricity generation in Pakistan. As of June 2020, the generation capacity of about 42573 MW has made contracts with CPPA against the maximum billed demand of 28317 MW, as reported in CPPA Annual Report, 2020. Installed capacity is far greater than demand, yet we are paying huge capacity payments.

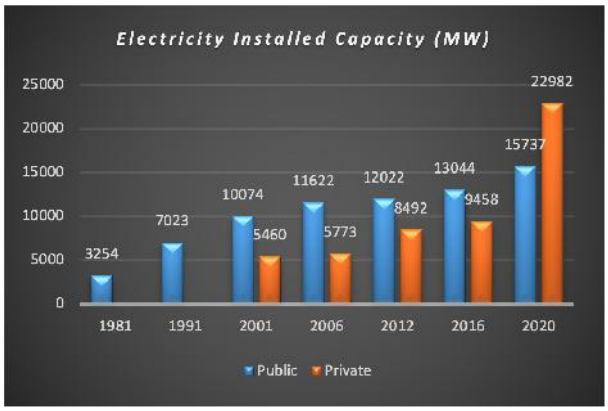
At present, all generation plants (except for renewables) are designed with capacity payments, but there is hardly any monitoring of actual capacity (as per capacity payments) and availability. Also, there is no verification of IPPs claims of power supply and what they actually supplied. Because of the lack of transparency and an independent regulatory audit, IPPs are getting paid for the electricity they have not generated. This is increasing the cost of generation.

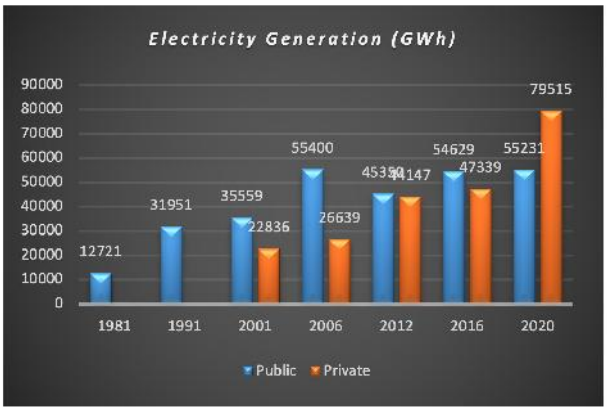
Box 1: IPPs Agreement with the Government

46 IPPs have formally signed new agreements with the GOP paving way for a discounted tariff of Rs 836 billion in the next 12 years. Federal cabinet committees as on February 08, 2021, approved the payment of dues, worth Rs. 403 billion in two instalments to these IPPs_ 40 per cent in a month (one-third in cash, one-third as Pakistan Investment Bonds (PIB) and one-third in five year Islamic Sukuk) and remaining 60 per cent in six months in similar three forms. Power companies are not happy with the development as their future earnings would decline after the removal of dollar indexation from their return on equity. It is feared and evidence also suggests that this development might hurt future energy investments.

From the power sector perspective, the agreement would not have any substantial impact on tariffs and circular debt, as it covers less than 23% of the installed capacity; power projects established under the 2015 Power Generation Policy under CPEC are not part of this agreement. Besides, the impact of dollar indexation would be on future earnings; while the projects commissioned under 1994, are about to retire in a few years.

State of Generation Sector in Pakistan





Though, historically, the generation sector was owned solely by state-owned companies, since 1997, IPPs are playing a leading role in electricity generation. In FY2020, about 59 per cent of the total electricity generation was by the private sector companies and the rest is in the public sector. In the private sector, about 11 per cent is renewables including 2 per cent of run-of-river hydro plants. The rest of the 89 per cent is thermal.

The power sector restructuring process which began in 1992 is still in transition from a vertically integrated state-owned sector to a competitive multi-buyer structure. Currently, the power system is operating as a single-buyer model where the CPPA buys power from GENCOs, IPPs and WAPDA and other producers, pools it and sells it to all the DISCOs. The single-buyer model instead of motivating efficiency transmits inefficiency to consumers through increasing tariffs.

In November 2020, NEPRA approved a detailed design and implementation roadmap of Competitive Trading and Bilateral Contract Market (CTBCM) prepared by CPPA-G through an international consultant (MRC Consultants and Transactions Advisor), with the support of Asian Development Bank. NEPRA has given 18 months to CPPA-G for its preparation and implementation. CTBCM is also vague as it ignores ground realities. The generation sector is locked in long-term contracts. In the absence of free electricity suppliers in the market, this whole exercise is immaterial.

Lack of informed long-term vision in our policymakers has cost Pakistan dearly (Alahdad, 2012). Induction of private capital via IPPs has proved to be an efficient means of increasing installed capacity around the world. Likewise in Pakistan, induction of IPPs has relieved some burden of the public sector but has increased the cost of generation considerably because of ballooned capacity payments.

Political Economy

In Pakistan, policy-making, in particular, energy policy-making, has always remained under the influence of pressure groups within the system or outside the system; thus jeopardizing the whole economic process. In the early 1990s, Pakistan (as in many other developing countries) opened its generation sector for the private investors under internal and external pressures, vested interests of those in power including powerful bureaucracy.

In 2002, Pakistan established a regulatory authority, NEPRA, but effectively with no authority. The power sector got unbundled both horizontally and vertically; whereas, privatisation (except for K-Electric and Kot Addu power plant) and the creation of competitive power markets has seen little to no progress. Government or bureaucracy is still a dominant player not only in policy-making but also in regulation, ownership of power utilities and assets.

The strategic role of the state in the process of economic development is significant (Statist Political Economy Approach). In Pakistan, the capacity of the state to adopt any structural change has remained weak. The policy-making institutions are often susceptible to political pressures from powerful actors, which could be in the government or outside the government (donor agencies or other countries).

Pakistan's political history has seen a roller coaster ride throughout the 1990s and 2000s. Evidence suggests political instability may increase macroeconomic instability, the uncertainty of demand and prices, and investment decisions. Firms can delay or cancel their investment decisions when there is macroeconomic stability. Investors' lack of trust in the ability and willingness of governments to implement good public policies also creates uncertainty; they sometimes take advantage of this uncertainty and the government's weaknesses.

Besides, the political background behind each energy policy in Pakistan is significant. In the backdrop of each policy, was some sort of political pressure to deliver at the earliest. As a result, the policymaking in Pakistan seems to be premised on short-term crisis response rather than on an informed longer-term vision and a determination to implement it. Policymakers, in particular, elected political representatives operating in a crisis mode, are forced to go for quick fixes, while ignoring the underlying structural issues like the high and unaffordable costs of electricity services that would be generated because of these short-term fixes.

In Pakistan, the induction of IPPs was under political pressures; at the back of high technical and commercial losses, weak regulatory infrastructure, tariffs below costs which resulted in high risk-adjusted costs of capital and prices.

The critical role of societal forces and non-state actors in the process of economic development is

also critical from the Pakistani perspective. Large business groups, interest groups, professional associations, labor unions, law firms, consultants and lobbyists also played a part in economic activities as happened in the case of IPPs in Pakistan (Post-statist Political Economy Approach).

Every policy initiative in Pakistan has had been under the influence of one or the other donor agency / international financial institution or any strategic partner country; with interests of their own and little knowledge of ground realities. It is critical to mention here the interests and/ or roles of multinational institutions. In the late 1980s and early 1990s, these institutions were more eager to give loans for building new power plants. It is also obvious from the support the World Bank offered in the development of HUBCO. Later they encouraged governments to privatize state-owned corporations. It was the support offered by the multinational institutes that developed interests among private investors in investing in developing countries. In Pakistan, the shortage of funds in the public sector to meet the rising electricity demand offered a golden opportunity to private investors.

Institutions and legal frameworks are also very important; as neither the government nor the market alone can manage the economy. The government needs to put in place a set of rules, property rights and regulatory bodies in the country so that the market can function properly (Neo-institutional Approach).

Overall weak institutional setup, poor governance and regulatory infrastructure, weak protection of property rights, uncertainties, corruption and rent-seeking behaviour did not allow the electricity market to develop in Pakistan. Incompetence at the government level, dis-fragmentation across various institutions involved, did not allow the competitive bidding plan to develop. Each time, they contracted IPPs with huge capacity payments and under their terms and conditions; as there was no competition involved.

The political crisis in Pakistan has affected its economic institutions. The power struggle between various actors (political parties/ military) weakened overall government strength and its ability to implement economic reforms wholeheartedly.

Weak institutions have affected the governments' capacity to plan and bid, which determines the quality and outcome of IPP projects. The price and guarantees offered by the government when accompanied by vested interests and political considerations limit the market correcting mechanism (Albouy and Bousba, 1998). In Pakistan, the lack of cost-effective planning and vested interests resulted in direct deals with IPPs (Hasan, 2010).

The absence of competitive bidding for private generation projects and non-transparent procurement processes has always raised serious concerns about the potential for corruption. Many a time, these IPPs also get involved in corruption accusations, disputes/ litigations over the set rates and payments. The guarantee clauses in power purchase agreements (PPA) with these IPPs have not only restrained the dispatching efficiency but overburdened the power sector and the government with hefty liabilities (Malik, 2020).

Pakistan's Energy Sector: From Crisis to Crisis: Breaking the Chain by Alahdad (2012) highlights the absence of coordinated planning and policy formulation as a fundamental drawback to Pakistan's energy sector. It resulted in high-cost projects, relying on relatively obsolete technology and imported fuels and domestic fossil fuels which were depleting. He lamented the neglect of the poor at the behest of vested interests in the bureaucracy and rulers throughout Pakistan's history.

"It is a continuation of the colonial legacy when even vast development initiatives, such as the Indus basin irrigation system, were put in place by the British as a means of securing colonial rule rather than promoting people's wellbeing. The prevailing regulatory and legal systems ensured that the economic benefits would be channelled largely to the rulers and their proxies. Essentially, the only difference is a change of beneficiary from colonial rulers to the country's rich and powerful." He also quoted the 1,292 MW Hub Power Project, which was welcomed globally as "a milestone in private infrastructure finance." "Pakistan achieved international recognition as a model country for private power development… in September 1994, the U.S. energy secretary referred to Pakistan's energy policy as the best in the world" (Alahdad, 2012, pp. 30-31).

However, in less than five years a notice was issued to terminate 11 IPPs, a complete U-turn in Pakistan's image. Termination notice was based on both technical considerations and allegations of corruption. It began an extremely laborious and highly controversial process of renegotiating the contracts. In hindsight, the collapse is because of flaws in the 1994 policy, which in turn can be attributed to the weak institutions, lack of political thought process, consultations, transparency; and absence of integrated energy planning.

It is unfortunate, more or less similar stories are repeated in the history of private energy projects in Pakistan, whether they are under the 1994 Power policy, 2002 power policy or 2015 generation policy. Always, there are issues of transparency in the selection of projects which led to the strong perception of bribes, role of pressure groups (local and international), and political patronage. All the time, policy makers have chosen the path of tariff ceiling to attract investors rather than competitive bidding.

The tariff ceiling approach did not provide an incentive for investors to reduce costs. All this led to the high cost of privately generated power. The tariff issue has remained in focus in the renegotiation process (as in the recent IPP agreement). This process of re-negotiation also led to mistrust among investors, and the general belief that the government no longer honoured agreed contracts.

Conclusion

Political instability, poor governance and lack of administrative capacity of the government have remained detrimental to the efficient private sector investments in Pakistan. The first best solution to the current IPP model is to go for competitive bidding for all future private investments; and in the Power Purchase Agreement (PPA), pricing should be based on marginal costs and for a shorter period. It could partially allocate demand risks to generators by allowing a long-term contract for only a part of the capacity, while balance to be traded in the spot market.

Pakistan is heading towards establishing a Competitive Trading Bilateral Contract Model (CTBCM). But the market could only be developed when there is free capacity to be traded in the market.

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