

Action Plan

Privatization

1. The privatization of a vertically integrated utility (KE), which includes the distribution and supply of electricity, marked a pioneering step in Pakistan's energy sector.
2. Initially hailed as potential role model for future privatizations, it has encountered challenges from very beginning for reasons including but not limited to ad-hoc arrangements.
 - a. These circumstances raise questions regarding the efficacy of the privatization endeavor.
 - b. Regrettably, the anticipated benefits have not been fully realized, posing concerns for all stakeholders, including the national exchequer and the electricity consumers.
 - c. A thorough reevaluation is imperative to ensure privatization aligned with its intended objectives and to provide substantial relief to all concerned parties.
3. The NEPRA Amendment Act, 2018 has also entirely changed the concept of DISCOs' exclusivity to distribute electricity to consumers in their respective service territories.
 - o Continuity of those inefficiencies, which were accumulated earlier by DISCOs, cannot be allowed as such, with their new roles under the Amendment Act, 2018.
4. Per State of Industry Report 2019
 - o "The real dilemma of the sector is that due to continued centralized control at every level, the DISCOs tend to seek shield against any measure, which leads to competition and opening of the sector".
 - d. Persisting with this model would only reinforce the failure.
5. Therefore, for any recovery of the sector, DISCOs have to be made independent, while total or partial privatization of DISCOs undertaken forthwith.
 - o It requires restructuring and in country solution as privatization continues to fail
 - o Since years, government has been considering privatising public Discos under different modes. It is about time the government finalizes an approach including reviving them under PIDC or PPMC and moving on priority.

- Optimization of skills, merger of regional distribution companies (maximum of 2 per Province) followed 5-7years later by formation of newly formed public sector vertical integrating power generating and distribution companies under 3P.

Increase Utilization Factor by Removal of System Constraints

1. During FY 2022-23
 - a. Utilization factor of de-rated thermal electric power generation capacity remained 34.68%. PPA is based on 60%.
 - b. According to estimates, in financial year 2022–23, around 15 to 30 percentage was electricity pilferage valued at Rs 380 billion; estimated in FY 2023-24 is up to Rs 520 billion
 - c. System constraints resulted in a loss of Rs. 20.203 bn, which was disallowed and contributed towards accumulation of circular debt.
 - d. Power plants had to be operated on RFO/HSD due to system constraints or shortage of RLNG/Gas. This cost Rs. 164 bn.
 - e. Payment obligation on Account of Non-Project Missed Volume due to grid constraints, scheduled maintenance and other potential issues including RE projects was Rs. 10.517 bn.
 - f. PLAC, if plants are operated below full load especially base load power plants at Part load results in lower efficiency and higher generation costs in the monthly FPA. Amount of Rs. 46.59 bn.
 - g. HVDC transmission line established to efficiently transport electric power mainly from the southern region to the central and northern load center with the average utilization at approximately 1,584 MW, 39.6% of its designed capacity of 4,000 MW and thus has impact on Circular Debt due take or pay liability.
 - h. The existing interconnection capacity between NTDC and KE, which relies heavily on supplies from the National Grid, is limited to about 1,100 MW. KE investment plan proposing the establishment of two 500 kV grid stations at KKI and Dhabeji and augmentation of the 500 kV NKI grid station be expedited
 - i. Under PPA(s), power dispersal arrangements must be completed within agreed timelines (ranging from sixty to one hundred twenty days before the Scheduled Commercial Operation). In majority cases, NTDC failed to complete these dispersal arrangements within time and budget.

2. NEPRA has granted license to Provincial Grid Companies authorized to engage in transmission of electric power within the territorial limits of the Province.
 - a. Sindh one has started developing off take infrastructure for solar projects and connecting with KE. Other Provinces are limited as CPPA-G is not a credit worthy buyer as is KE
 - b. They need to develop off take infrastructure within the timelines specified in PPAs for REs and other generation projects needs as a reliable subcontractor of PPIB
 - c. Human capital and project management skills needed to timely execute transmission and distribution projects needs development.
 - d. Such licenses would promote competition in the transmission sector, generally considered as a monopoly function.

IPP Bashing Needs to STOP

▪ Hypothesis

1. Repeating ad nauseam misinformation and half cooked facts by detractors is confusing and is not providing a way out or suggesting practical solutions

▪ Facts

1. Industry

- Independent Power Producers are the same around the globe.
- Even the (PPA) Power Purchase Agreements and IA Implementation Agreements are the same.
- Pakistan pioneer in 1994. KSA and BD copied in 1997 and 1999.
- The upfront tariff regime started during Musharraf regime has benefitted local industrialists and lobbied against competitive bidding over the years
- Post loan payment, tariff is reduced and being 30 year plus PPA, upfront loan payment is justifiable

2. DISCOs, PPIB, NEPRA, CPPA-G

- Improved energy mix has changed from gas and Furnace Oil/HSD to Nuclear, Thar Coal and Hydel, thereby reducing our dependence on imported fuel .2023-2024, indigenization ratio of energy is 74.2%
- FX rate was Rs 65.95 vs USD and reference tariffs were 7.2883 cents for first 10 years and 6.0482 cents for the next 20 years in case of Hubco Narowal. Today it is Rs 280 and tariff has increased from Rs 3.989 to Rs 16.93 per unit

- FX rate was Rs 97.1 vs USD and reference tariffs were 10.7608 cents for first 10 years and 8.7567 cents for the next 20 years for China Hub Power. At Rs 280 and tariff has increased from Rs10.44 to Rs 29.25 per unit
 - Have contained tariff in cents
3. Fiscal Deficit has had an Impact
- Pakistan has seen significant impact on consumer price due to devaluation of Rs 183 in 6 years; Rs 130 was in last 3 years
 - 1 US\$ was Rs 104 in 2017, 157.66 Rs in 2021, 1 US\$ to 204.85 Rs in 2022 and 1 US\$ to Rs 287.50 in 2023
4. Behind circular debt of Rs 5.4 trillion
- Is inability to recover charges, pass actual cost of generation and transmission or provision of matching funds to cover subsidies, years of mis-governance facilitated by changes of CEOs, BOD, lack of capacity building and with NEPRA hopium based target setting for losses and recovery without performance accountability.
5. Tariff Structure contains Rs 37-44 per unit add ons
- Our average per-unit power purchase price of Discos due Capacity charges works out as Rs17.66 per unit whereas energy charges are Rs 9.69 per unit- totaling Rs 27.35 per unit for 2024-25 for national average power purchase price of around at Rs27 per unit
 - Due to losses and distribution margins (Rs 8.15 per unit), 18pc general sales tax (Rs 6.5 per unit) and (Rs 23-30 per unit), the final tariff after inclusion of surcharges, taxes, duties and levies is between Rs 65 and 72 per unit vs Rs 27 average DISCO purchase price
 - Adjustments related to monthly fuel and quarterly tariff will occur
 - 96% of total system cost is recovered on units consumed whereas capacity charges are fixed and account for about 70% of total revenue of DISCOs, irrespective of consumption
 - Charges billed to DISCOs by CPPA-G remain consistently over Rs. 4,000 per kW/month on sanctioned load and that only around 2-4% of the recovery structure is variable whereas 67% of power sector charges are fixed and 33 % variable. They need to be aligned
 - NEPRA had allowed 1000-2000kwh/month for non residential consumers and Rs 200-1000 for residential consumers but has been requested to be reduce

- Fixed charges at 50 % Maximum Demand Indicator, yet reduction sought to 25 % of sanctioned load or actual MDI
6. Subsidy is not matched by provisions in Budget
 - Negative revenue impact of Rs10.69 per unit cut to industry of Rs200bn. This amount would have stand transferred to domestic, commercial, bulk power consumers, etc
 - Funding is now being made by reduction in PSDP.
 - Rs 50bn additional subsidy for only 1QFY25 to 25m (NTDC and KE or 94 % of domestic consumers) protected and non protected consumers using up to 200 units, would be given Rs 4-7 per unit relief
 - To be paid out of PSDP now.
- **We are not Learning from History nor Improving**
 1. Government Policies and Subsidies (1950s - 1990s)
WAPDA's power sector was mandated to operate on a self-financing basis in 1959, but rates were set below the actual marginal cost due to social and political considerations.
 2. Expansion and Debt (1950s - 1990s)
WAPDA undertook extensive expansions of its transmission and distribution networks, financed through loans with high interest rates, hampering the rehabilitation of the power network and the construction of additional powerhouses.
 3. Increased Load and Demand (1959 - 1997)
The load on WAPDA's power system surged from 119 MW to approximately 9,000 MW, and the number of consumers grew from around 300,000 to nearly 9.9 million, requiring substantial investments in infrastructure.
 4. Financing and Loans (1950s - 1990s)
WAPDA relied on government-provided funds and high-interest loans from federal and foreign sources, escalating debt servicing costs to about Rs. 23 billion per annum by the 1990s.
 5. Private Power Houses (1990s)
The Energy Policy of 1994 encouraged the construction of private powerhouses, which produced electricity at a significantly higher cost than WAPDA's own powerhouses.
 6. Financial Shortfall (1995-1996)
WAPDA faced a financial shortfall of Rs. 31 billion in 1995-96, primarily due to the high costs associated with private power houses and debt servicing.

7. Analysis
Financial problems of WAPDA stemmed from multiple interrelated factors, including subsidized rates, high-interest loans, expansion without grants, increased operational costs, and inefficient private powerhouses.
8. Debt and Interest Repayment
Were serviced through WAPDA's revenues, which came from tariffs charged to consumers, leading to financial shortfalls and increased tariffs.
9. Major generation expansion plans have been formulated by the then WAPDA and now NTDC, with assistance of foreign/local consultants coupled with in-house efforts:
 - National Power Plan (NPP 1994-2018) developed by Canadian Consultant; M/s ACRES International Limited
 - National Power System Expansion Plan (NPSEP 2011-2030) developed by Canadian Consultant; M/s SNC Lavalin
 - Least Cost Plan (LCP 2016-2035) developed by Japanese Consultant; M/s International Institute of Electric Power, Ltd. (IIEP)
 - Indicative Generation Capacity Expansion Plan (IGCEP 2018-40), IGCEP 2020-47, IGCEP 2021-30, IGCEP 2022-31, IGCEP 2024-34
 - And Transmission System Expansion Plan (TSEP) 2024-34 draft by NTDC is first per MoE Year Book 2022-23
10. Conclusion was that the financial problems of WAPDA resulted from several factors, including government policies, reliance on high-interest loans, the cost of expansion without federal grants, and the inefficiency of private power houses, ultimately borne by consumers.