

Power Generation Industry

Payments to IPPs and Gencos by the Govt. are a step towards resolving the inter-corporate debt issue....

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Electricity sector in Pakistan can be broadly classified into three categories namely; generation, transmission and distribution. Over the years, the dynamics of the power sector has undergone significant changes in that it has become a public private partnership. WAPDA remains the major electricity producer in the country. The National Electric Power Regulatory Authority (NEPRA) is the regulatory body that issues licenses for generation, transmission and distribution of power and is also responsible for determining tariffs. As per NEPRA, there are more than 25 independent power producers currently operating in the country. During FY12, the private sector contributed a total of 39,674 GWh to the system which is around 65% of the total thermal power generation.

The power shortfall ranges around 4,000MW to 6,000MW in summers and represents one third of the total demand. The government has embarked upon resolving the inter-corporate debt issue. Recent payments to IPPs and Gencos are a step towards resolving this issue. Moreover, the government has announced the Power Policy 2013 which aims to end the load shedding by 2017. Some of the notable provisions of the new policy include increase in power tariff for residential, commercial and industrial customers. The government is also looking to add more electricity in the system through cheaper means rather than relying heavily on thermal plants. Power generation by 325MW Chashma Nuclear Power Plant (CHASNUPP-2) which started functioning in FY11 and produced 468 GWh was higher at around 2,500 GWh in FY12 as the plant achieved full year operations.

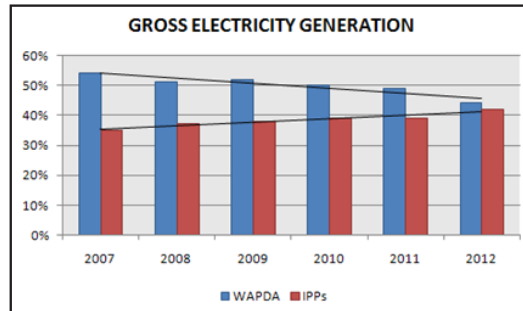
Oil and gas continue to be the major source of power generation in Pakistan. Power producers in the country are facing acute gas shortage and as a result are increasingly relying on the more expensive fuel i.e., furnace oil and diesel. The data available for FY12 reveals that electricity generation through gas has slowed down over the years (5-yr CAGR: -5%) due to gas shortage while electricity generation through oil has increased (5-yr CAGR: 4%). Power generated through oil and gas stood at 61,212 GWh, which is around 65% of the total electricity generated. The following table depicts electricity generation through various sources:

Source	FY08	FY09	FY10	FY11	FY12
Oil	32%	35%	39%	35%	35%
Gas	34%	32%	29%	27%	29%
Hydel	30%	30%	29%	34%	30%
Nuclear 3%	3%	2%	3%	4%	6%
Coal	0.1%	0.1%	0.1%	0.1%	0.1%

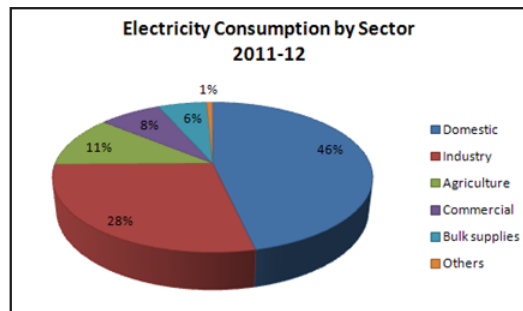
The introduction of IPPs and involvement of private sector in power generation has added to the total installed capacity. WAPDA still ranks highest with an installed capacity of 11,276 MW. At end-FY07, IPPs reported a combined capacity of 5,822 MW which increased to 8,353 MW by end-FY12. The market share in terms of installed capacity over the last three years is as follows:

Installed Capacity	FY10		FY11		FY12	
	MW	%	MW	%	MW	%
WAPDA	11,381	55%	11,381	51%	11,276	50%
IPPs	7,123	34%	8,363	37%	8,353	37%
KESC	1,955	9%	1,946	9%	2,381	10%
Nuclear	462	2%	787	3%	787	3%
Total	20,921	100%	22,477	100%	22,797	100%

Increase in total installed capacity of IPPs has reflected positively in the share of electricity produced by these entities, replacing some of the share of WAPDA.



Punjab continues to be the largest consumer of electricity. During FY12, it consumed over 60% of total electricity generated. Sector wise, domestic consumption remains at the top while industrial sector is the second largest consumer.



Jahangir Kothari Parade (Lady Lloyd Pier)

Inspired by Her Excellency, The Honorable Lady Lloyd, this promenade pier and pavillion was constructed at a cost of 3 Lakhs and donated to the public of Karachi by Jahangir Kothari to whose genrosity and public spirit the gift is due. Foundation stone laid on January 5, 1920. Opened by Her Excellency, The Honorable Lady Lloyd on March 21, 1921.

Dome: A roof or vault, usually hemispherical in form. Until the 19th century, domes were constructed of masonry, of wood, or of combinations of the two, frequently reinforced with iron chains around the base to counteract the outward thrust of the structure.

Origins: The dome seems to have developed as roofing for circular mud-brick huts in ancient Mesopotamia about 6000 years ago. In the 14th century B.C. the Mycenaean Greeks built tombs roofed with steep corbeled domes in the shape of pointed beehives (tholos tombs).

Otherwise, the dome was not important in ancient Greek architecture. The Romans developed the masonry dome in its purest form, culminating in a temple built by the emperor Hadrian. Set on a massive circular drum the coffered dome forms a perfect hemisphere on the interior, with a large oculus (eye) in its center to admit light.



Jahangir Kothari
Parade

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