



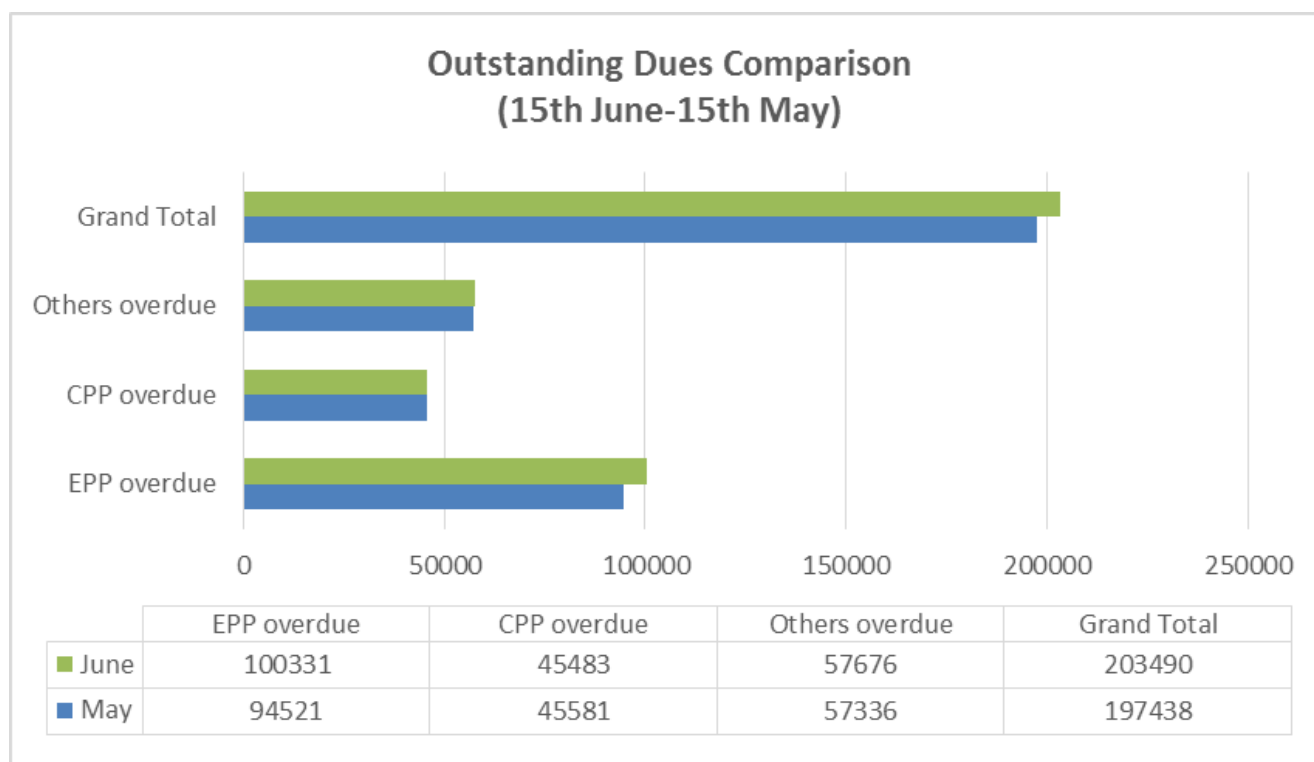
INDEPENDENT POWER PRODUCERS ADVISORY COUNCIL

MONTHLY NEWSLETTER

Welcome to the fourth edition of Independent Power Producers Advisory Council (IPPAC) Newsletter. The newsletter is published on a monthly basis to ensure regular dissemination of information to Member IPPs and other stakeholders, and also to provide a platform to discuss issues pertinent to the energy sector of Pakistan. We would like you to send us your feedback and comments on how to improve the monthly newsletter.

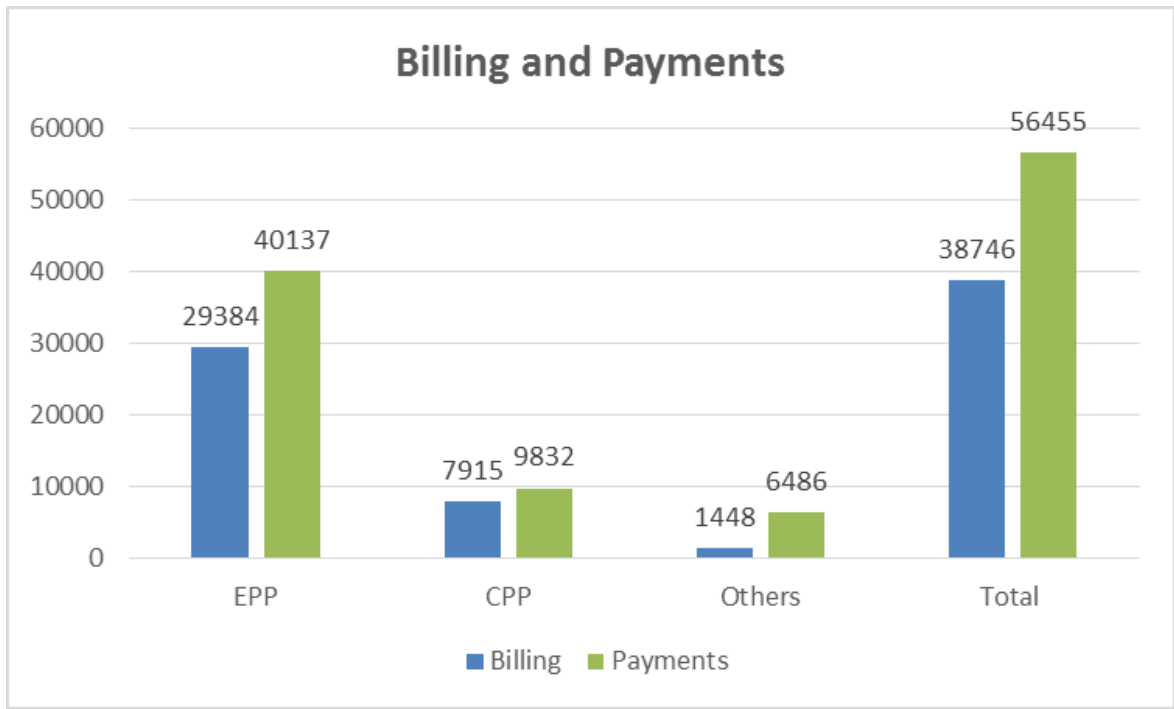
Monthly Infographics

Outstanding Dues as of 15th June, 2017 in PKR Millions

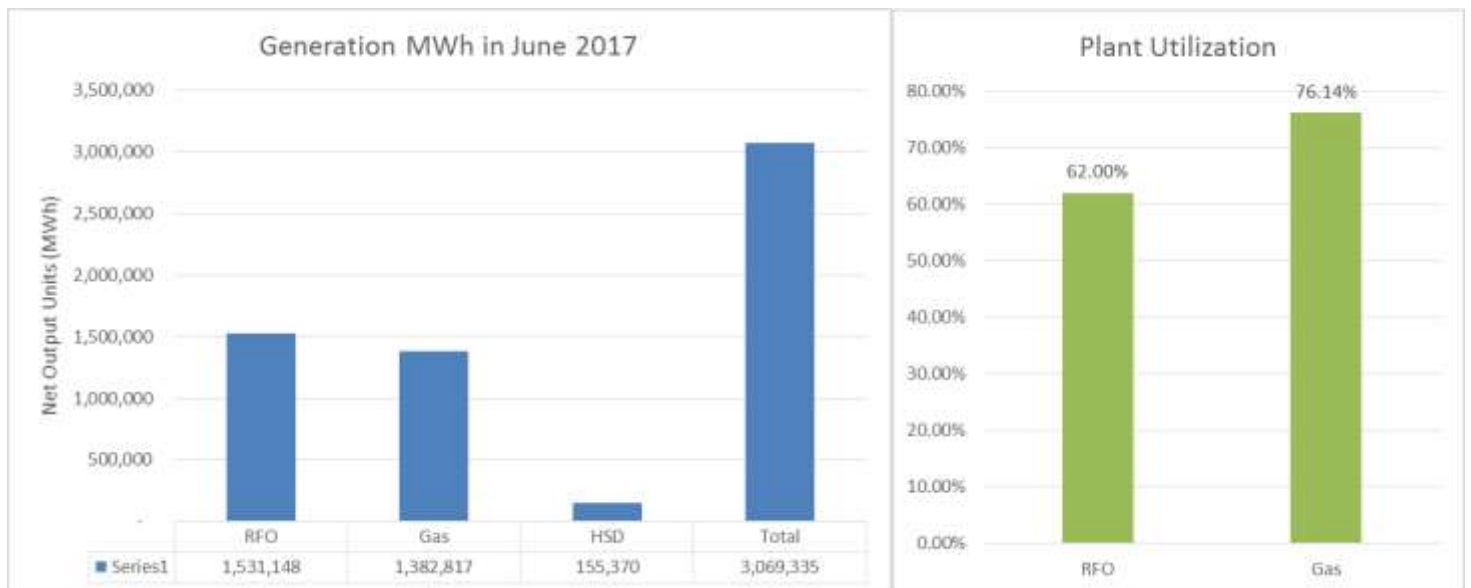


Monthly Infographics

Billing and Payments in June 2017 in PKR Millions



Net Generation and Plant Utilization in June 2017



Discussion: Comparison of GENCOs and IPPs

Pakistan has been experiencing a power crisis for more than a decade. As discussed in the May Newsletter, the core issue underlying this crisis is lack of funds in the power sector. There are several factors which lead to this gap in funds. Among these, the inefficiency of government owned generation companies (GENCOs) is a major contributing factor. Although both GENCOs and Independent Power Producers (IPPs) are operating thermal power plants, however, there is a significant difference between their performances.

Currently, the following GENCOs are operational in Pakistan:

Table 1: List of GENCOs

GENCO #	Company Name	Net Capacity (MW)
1.	Jamshoro Power Company Limited	1974.56
2.	Central Power Generation Company Limited	2140.61
3.	Northern Power Generation Company Limited	2001.19
4.	Lakhra Power Generation Company Limited	93

Maintenance

In contrast to IPPs, GENCOs often fail to operate and maintain the power plants in compliance to standard procedures and practices. First, the machines are not operated and maintained as per the recommendations of the Original Equipment Manufacturer. Second, GENCOs sometimes refuse to shutdown plants for maintenance despite the approval of shutdown schedule by National Power Control Centre (NPCC). For instance, Central Power Generation Company Limited (GENCO II) did not shut down during 2013-14 (NEPRA State of Industry Report 2016). To make matters worse, as regular repair and maintenance is not carried out, GENCOs exceed the limit of unplanned outages specified in Power Purchase Agreement (Performance Evaluation Report of GENCOs 2012-14). Resultantly, higher cost of repair and maintenance disrupts the demand and supply management of electricity, resulting in increased load shedding and financial loss

Heat Rate

Heat Rate refers to the efficiency of the power plants. It is the ratio of input energy and output power. The imprudence in operation and maintenance adversely affects the performance of these GENCOs. This leads to a heat rate higher than the National Electric Power Regulatory Authority

(NEPRA) approved limit. For example, during most of 2013-2016, the heat rate of Central Power Generation Company Limited (GENCO II) was 500 to 1000 Btu/kWh above the specified limit (NEPRA State of Industry Report 2016). This means that more input energy was used to produce each unit of electricity. Resultantly, the cost of production of electricity increased, which added to the problem of lack of funds.

Dependable Capacity

In continuation, lack of proper Operation and Maintenance (O&M) also lead to fall in the dependable capacity of power plants. If the plants follow the prescribed O&M procedures then the gross capacity is expected to fall by no more than 2-3 % (NEPRA State of Industry Report 2016). In contrast to thermal IPPs (Table 2), GENCOs (Table 3) have experienced a dramatic decrease in the dependable capacity. Not only does it cause financial loss due deterioration in dependable capacity of those power plants but also the gap between demand and generation capacity increases. Resultantly, more resources are needed to increase the generation capacity.

Table 2: IPPs Ratio of Dependency Capacity and Installed Capacity

Time Period	Roush Power	Lalpir Power	Uch Power	Liberty Power
2013-14	0.96	0.97	0.94	0.97
2014-15	0.96	0.97	0.94	0.97
2015-16	0.96	0.97	0.94	0.97

Source: NEPRA State of Industry Report 2016

Table 3: GENCOs Ratio of Dependency Capacity and Installed Capacity

Time Period	GENCO I (JPCL)	GENCO II (CPGCL)	GENCO III (NPGCL)	GENCO IV (LPGCL)
2013-14	0.81	0.70	0.78	0.26
2014-15	0.81	0.80	0.80	0.26
2015-16	0.81	0.55	0.85	0.26

Source: NEPRA State of Industry Report 2016

Auxiliary Consumption

The set limit of auxiliary consumption is specified by NEPRA in the power purchase agreement (PPA). Table 4 and Table 5 presents the data on auxiliary consumption of few IPPs and GENCOs respectively. It can be observed that overall, the IPPs' auxiliary consumption percentage is lower than GENCOs. This excessive use of auxiliary consumption by GENCOs translates in to financial losses thereby increasing the gaps in funds.

Table 4: Auxiliary Consumption of IPPs (2015-16)

Power Station	Auxiliary Consumption	
	GWh	%
HUBCO	524.11	6.49
Kohinoor Energy	26.41	3.01
Saba Power	4.52	6.41
TNB Liberty Power	25.32	1.67
Uch Power	69.1	1.61
Attock Gen	26.36	2.18
Atlas Power	47.99	3.63
Nishat Power	35.13	2.69
Liberty Power Tech	27.53	2.16

Source: NEPRA State of Industry Report 2016

Table 5: Auxiliary Consumption of GENCOs (2015-16)

Power Station	Auxiliary Consumption	
	GWh	%
TPS Jomshoro (GENCO-I)	354.02	9.83
GTPS Kotri (GENCO-I)	21.28	3.53
TPS Guddu (Units 1-4) (GENCO-II)	12.51	8.42
TPS Guddu (Units 5-13) (GENCO-II)	77.35	1.17
TPS Quetta (Isolated Generation) (GENCO-II)	1.57	1.41
TPS Muzaffargarh (GENCO-III)	502.85	9.77
SPS Faisalabad (GENCO-III)	10.90	11.31
GTPS Faisalabad (GENCO-III)	123.12	43.94
Nandipur (GENCO-III)	54.49	4.12
FBC Lakhra (GENCO-IV)	43.19	29.15

Source: NEPRA State of Industry Report 2016

Recommendation

To effectively deal with the power crisis, it is important to eliminate leakages from the power sector. The power sector of Pakistan cannot continue to bear the financial losses of GENCOs. During 2012-14, excess auxiliary consumption during service mode alone resulted in a loss of Rs.11.69 billion (Performance Evaluation Report of GENCOs 2012-14). Therefore, there is an urgent need to either strictly monitor and enforce regulations across the board in government and private power plants or move towards privatization of GENCOs.

Our Members

	Member IPPs	Primary Fuel	Alternate Fuel	Gross Capacity (MW)	Net Capacity (MW)
1	The Hub Power Company (Tehsil Hub)	RFO	HSD	1292	1200
2	Pakgen Private Limited	RFO	-	365	350
3	Lalpir Private Limited	RFO	-	362	350
4	Kohinoor Energy Limited	RFO	-	131	126
5	TNB Liberty Power Limited	GAS	HSD	235	211
6	Uch Power (Private) Limited	GAS	-	586	551
7	Rousch (Pakistan) Power Limited	GAS	HSD	412	395
8	Habibullah Coastal Power (Pvt.) Co.	GAS	HSD	140	126
9	Attock Gen Limited	RFO	HSD	165	156
10	Atlas Power Limited	RFO	HSD	225	214
11	Nishat Power Limited	RFO	HSD	200	195
12	Nishat Chunain Limited	RFO	HSD	200	195.6
13	Liberty Power Tech. Limited	RFO	HSD	200	195
14	Orient Power Company Limited	GAS	HSD	229	213
15	Saif Power Limited	GAS	HSD	229	209
16	Sapphire Electric Company Limited	GAS	HSD	225	209
17	Halmore Power Generation Co. Ltd.	GAS	HSD	225	209
18	Engro Powergen Qadirpur Limited	GAS	HSD	227	217
Subsidiary IPPs					
19	Hub Power Company Ltd (Narowal)	RFO	-	220	214
20	Uch-II Power (Pvt) Ltd	GAS	-	404	375.2
21	Saba Power Company (Private) Limited	RFO	-	134	125.5

Upcoming Topics

August

Taxation Issue in Pakistan

September

What is the Real Position of the Power Sector?

October

Is Electricity Trading a viable option for Pakistan's Power Sector?

November

De-Risking the Power Sector for Lower Pricing

Established in 2010, IPPAC serves as an advisory body for Independent Power Producers (IPPs) in Pakistan. IPPAC liaises with the government and related departments such as NEPRA, SECP, WAPDA, CPPA-G, NTDC and PPIB and also serves as a facilitator between various IPPs and stakeholders within the power sector.

If you have any suggestions or feedback, kindly write to us at ippac@live.com