

Pakistan Power Sector

Power generation at 47 months low

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Muhammad Amad

D: +92 21 32461106

UAN: +92 21 111 245 111, Ext: 242

F: +92 21 32420742

E: muhammad.amad@arifhabibltd.com

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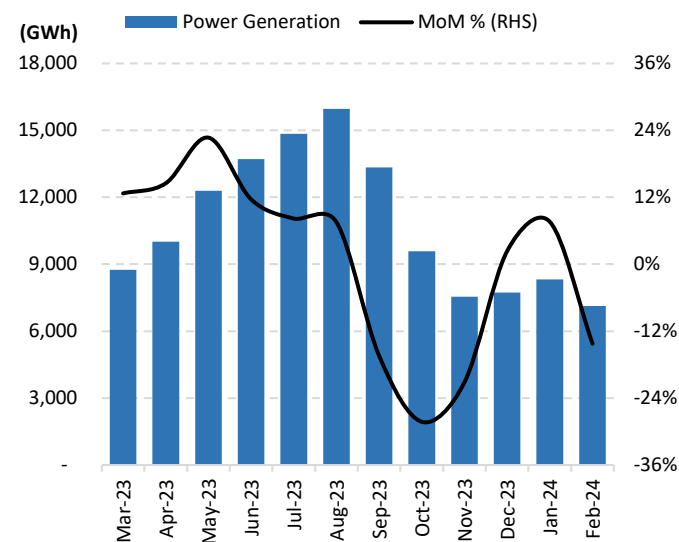
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Pakistan Power Sector

Power Generation down by 8.1% YoY during Feb'24

- Power generation went down by 8.1% YoY to 7,130 GWh (10,244 MW) during Feb'24, compared to 7,755 GWh (11,541 MW) during Feb'23. On MoM basis power generation declined by 14.2%. During 8MFY24, power generation decreased by 0.5% YoY to 84,427 GWh (14,417 MW) compared to 84,840 GWh (14,547 MW) in SPLY.
- During Feb'24, the actual power generation was 14.6% lower than the reference generation. This decline in generation is expected to result in higher capacity charges for the 4QFY24 QTA.
- During Feb'24, fuel cost for power generation increased by 8.5% YoY to an average of PKR 8.70/KWh compared with an average cost of PKR 8.01/KWh during SPLY. The increase in fuel cost is primarily attributed to higher cost of generation from local coal (+50% YoY), gas (+23% YoY), and imported coal (+3.3% YoY). Moreover, the generation of power from relatively economical sources decreased, with hydel and nuclear declining by 13.9% YoY, and 11.8% YoY. However, it is pertinent to note that, on MoM basis fuel cost declined by 36.9%.
- The load factor of CPHGC arrived at zero during Feb'24, due to subdued demand from power purchaser, we view. The overall load factor of imported coal-based power plants clocked in at 4% during the month as compared to 11% during the same period last year. The load factor of TEL and TNPL settled at 17% and 74% during Feb'24, respectively, and the overall load factor of local coal-based plants came at 54%.
- The hydel-based generation fell by 14% YoY to 1,766 GWh during Feb'24. The decrease in the generation has been witnessed, primarily because of 12% YoY dip in generation from WAPDA.

Exhibit: Monthly Trend of Power Generation



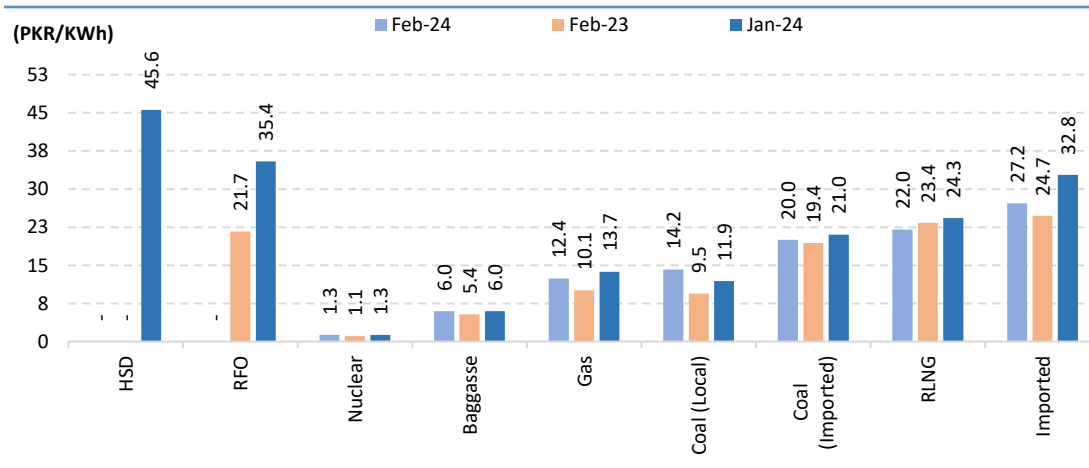
Source (s): NEPRA, AHL Research

Pakistan Power Sector

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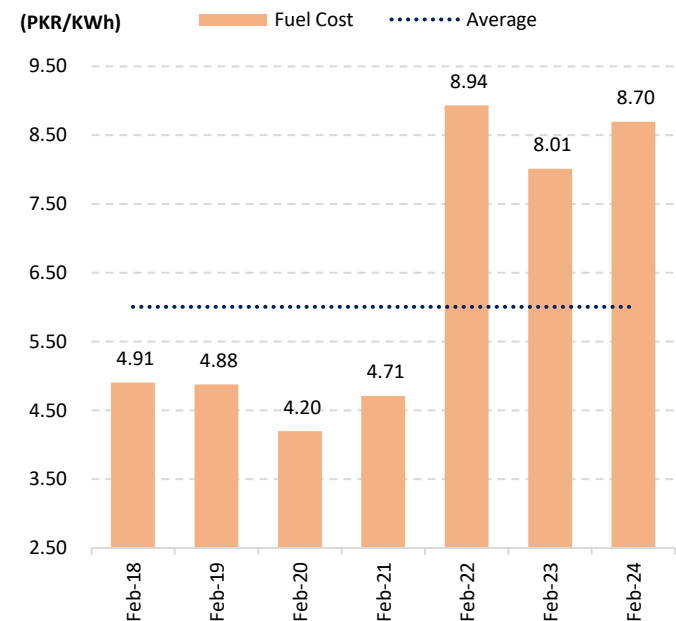
- The cost of power generation arrived at PKR 8.70/KWh during Feb'24 while including transmission losses and previous adjustments, the fuel cost grew to PKR 9.43/KWh. As a result of this, there is a projected rise of PKR 5.0/KWh in fuel charge adjustment which will be charged to customers with the Apr'24 bills. This Fuel cost adjustment is forecasted to increase the inflation by 89bps in May'24.

Exhibit: Source wise fuel cost during Feb'24, Feb'23 and Jan'24



Source (s): NEPRA, AHL Research

Exhibit: Historical Trend of Fuel Cost during February



Source (s): NEPRA, AHL Research

Pakistan Power Sector

Fuel Cost Trend

Exhibit: Source wise Fuel Cost

	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
PKR/KWh													
Imported	24.73	23.39	23.45	23.53	23.63	23.62	25.10	23.80	23.17	27.73	33.13	32.80	27.20
RLNG	23.36	24.31	23.83	24.46	24.07	24.43	23.71	24.19	23.70	23.72	26.22	24.30	22.03
Coal (Imported)	19.37	11.74	19.78	14.31	21.79	19.86	20.14	15.79	13.27	14.53	17.25	21.05	20.02
Coal (Local)	9.46	7.90	7.43	8.31	7.87	7.59	7.01	7.62	12.10	15.27	12.33	11.92	14.19
Gas	10.07	11.26	11.86	12.46	11.74	13.68	13.22	13.52	13.61	14.62	14.60	13.75	12.38
Baggasse	5.36	5.98	5.98	5.98	5.98	5.98	5.98	5.98	5.98	5.98	5.98	5.98	5.98
Nuclear	1.07	1.08	1.06	1.15	1.07	1.17	1.17	1.20	1.23	1.21	1.32	1.33	1.32
HSD	-	-	-	-	30.45	-	-	-	-	-	42.15	45.61	-
RFO	21.67	21.28	23.14	23.24	26.10	28.73	33.32	37.05	38.70	46.71	38.55	35.44	-
Mixed	6.01	5.27	4.06	5.66	6.29	-	-	-	-	-	-	-	-
Hydel	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	8.01	8.22	10.24	9.72	9.63	8.34	8.27	7.42	8.26	7.17	10.13	13.79	8.70

PKR mn

Imported	815	739	714	812	590	681	658	577	522	824	934	954	698
RLNG	34,161	43,383	57,627	73,086	61,241	71,293	64,992	51,467	45,946	18,926	33,250	36,792	31,933
Coal (Imported)	6,634	3,190	14,090	10,896	23,544	13,938	14,489	10,173	4,461	7,057	6,619	12,126	2,728
Coal (Local)	7,082	8,384	8,222	10,804	10,654	11,226	11,478	11,270	16,147	15,078	16,148	16,366	14,099
Gas	8,554	12,467	14,112	15,829	13,752	15,440	16,043	13,592	9,576	10,157	12,061	14,235	9,743
Baggasse	536	627	486	448	398	239	226	206	172	160	606	636	601
Nuclear	2,010	2,163	2,022	1,771	1,991	2,458	2,392	2,738	2,241	1,897	1,926	2,295	2,194
HSD	-	-	-	-	312	-	-	-	-	-	266	4,642	-
RFO	2,336	862	5,151	5,600	19,427	8,461	21,632	8,914	3	13	6,485	26,593	-
Mixed	11	19	54	157	170	-	-	-	-	-	-	-	-
Hydel	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	62,140	71,834	102,478	119,402	132,078	123,736	131,911	98,938	79,066	54,113	78,298	114,640	61,996

Source (s): NEPRA, AHL Research

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Load Factor of Major Power Plants

Exhibit: Load Factor of Major Power Plants

	Capacity (MW)	Feb-24 Generation*	Load Factor	Jan-24 Generation*	Load Factor	Feb-23 Generation*	Load Factor
RLNG Power Plants							
QATPL	1,180	271	33%	299	34%	401	51%
Haveli Bahadur Shah	1,230	593	69%	726	79%	521	63%
Balloki	1,223	584	69%	526	58%	506	62%
Punjab Thermal Power	1,320	-	-	-	0%	4	0.4%
RLNG Total	4,953	1,447	42%	1,551	42%	1,431	43%
Imported Coal Power Plants							
Sahiwal Power Plant	1,320	128	14%	567	58%	101	11%
Port Qasim Power Plant	1,320	-	-	-	0%	13	1%
China Power Hub Generation	1,320	-	-	-	0%	-	0%
Lucky Electric Power Co. Ltd.	660	7	1%	8	2%	228	51%
Imported Coal Total	4,620	135	4%	575	17%	342	11%
Local Coal Power Plants							
Engro PowerGen Thar	660	169	37%	179	36%	112	25%
Thar Energy Ltd.	330	39	17%	169	69%	-	0%
Thar Coal Block-1 Power Gen Company	1,320	615	67%	855	87%	505	57%
ThalNova Power Thar	330	170	74%	172	70%	132	59%
Local Coal Total	2,640	994	54%	1,375	70%	749	42%
Nuclear Power Plants							
Chashma Nuclear	300	80	38%	-	0%	192	95%
Chashma Nuclear-II	315	199	91%	233	100%	201	95%
Chashma Nuclear-III	340	193	82%	235	93%	201	88%
Chashma Nuclear-IV	340	213	90%	232	92%	158	69%
Karachi Nuclear Power Plant-2	1,140	453	57%	453	1	588	77%
Karachi Nuclear Power Plant-3	1,145	522	66%	575	67%	544	71%
Nuclear Total	3,580	1,660	67%	1,728	65%	1,883	78%
Major Listed IPPs							
KAPCO	1,336	-	-	-	-	-	0.0%
HUBC (Hub Plant)	1,281	-	-	-	-	-	-
HUBC (Narowal Plant)	214	-	-	69	43%	25	17%
NPL	195	-	-	68	47%	-	0%
NCPL	196	-	-	52	36%	12	9%
KOHE	124	-	-	68	74%	20	24%
LPL	350	-	-	154	59%	-	0%
PKGP	345	-	-	58	23%	-	0%
ALTN (Rousch)	395	-	-	-	-	-	0%
ALTN (Altern)	27	-	-	-	-	-	-
SPWL	204	-	-	-	-	-	0%
EPQL	213	75	51%	65	41%	81	57%

Source (s): NEPRA, AHL Research, *GWh

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Exhibit: Source wise Power Generation

GWh	24-Feb	23-Feb	YoY	24-Jan	MoM	8MFY24	8MFY23	YoY
Hydel	1,766	2,052	-14%	924	91%	26,950	24,935	8%
Nuclear	1,660	1,883	-12%	1,728	-4%	14,684	16,737	-12%
RLNG	1,450	1,462	-1%	1,514	-4%	14,755	12,454	18%
Coal (Local)	994	749	33%	1,373	-28%	10,593	4,977	113%
Gas	787	850	-7%	1,035	-24%	7,394	9,742	-24%
Coal (Imported)	135	342	-61%	576	-77%	3,982	8,125	-51%
Wind	108	92	17%	128	-16%	2,489	2,347	6%
Baggasse	101	100	1%	106	-5%	476	518	-8%
Solar	90	82	9%	48	88%	564	608	-7%
Imported	26	33	nm	29	-10%	215	357	-40%
Mixed	14	2	647%	-	nm	14	78	-82%
HSD	-	-	nm	102	nm	108	206	-48%
RFO	-	108	nm	750	nm	2,103	3,756	-44%
Total	7,130	7,755	-8.10%	8,314	-14.20%	84,428	84,840	-0.50%
 <i>Fuel Cost*</i>	 8.7	 8.01	 8.50%	 13.79	 -36.90%	 8.8	 9.24	 -4.70%

Source (s): NEPRA, AHL Research

Exhibit: Source Wise Share

	24-Feb	23-Feb	24-Jan	8MFY24	8MFY23
Hydel	24.80%	26.50%	11.10%	31.90%	29.40%
Nuclear	23.30%	24.30%	20.80%	17.40%	19.70%
RLNG	20.30%	18.90%	18.20%	17.50%	14.70%
Coal (Local)	13.90%	9.70%	16.50%	12.50%	5.90%
Gas	11.00%	11.00%	12.40%	8.80%	11.50%
Coal (Imported)	1.90%	4.40%	6.90%	4.70%	9.60%
Wind	1.50%	1.20%	1.50%	2.90%	2.80%
Baggasse	1.40%	1.30%	1.30%	0.60%	0.60%
Solar	1.30%	1.10%	0.60%	0.70%	0.70%
Imported	0.40%	0.40%	0.30%	0.30%	0.40%
Mixed	0.20%	0.00%	0.00%	0.00%	0.10%
HSD	0.00%	0.00%	1.20%	0.10%	0.20%
RFO	0.00%	1.40%	9.00%	2.50%	4.40%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Source (s): NEPRA, AHL Research

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Rating	Description
BUY	Upside of subject security(ies) is more than +15% from last closing of market price(s)
HOLD	Upside of subject security(ies) is between -15% and +15% from last closing of market price(s)
SELL	Upside of subject security(ies) is less than -15% from last closing of market price(s)

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AHL Research uses the following valuation technique(s) to arrive at the period end target prices;

- Discounted Cash Flow (DCF)
- Dividend Discount Model (DDM)
- Sum of the Parts (SoTP)
- Justified Price to Book (JPTB)
- Reserved Base Valuation (RBV)

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- Market risk
- Interest Rate Risk
- Exchange Rate (Currency) Risk

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