

Sector Update

Monthly Power Generation Mix (Jan-21) - Gwh

Source	Jan-21	Jan-20	YoY	7QFY21	YoY
Hydel	1,067	868	23%	24,769	6%
RFO	974	801	22%	3,865	17%
Gas/LNG	2,250	2,611	-14%	24,032	-2%
HSD	46	1	68x	335	500x
Coal	2,560	2,501	2%	15,262	0%
Others	1,182	1,012	17%	7,863	-2%
Total	8,079	7,794	4%	76,126	3%

Exhibit: Fuel Wise Generation Mix (%)

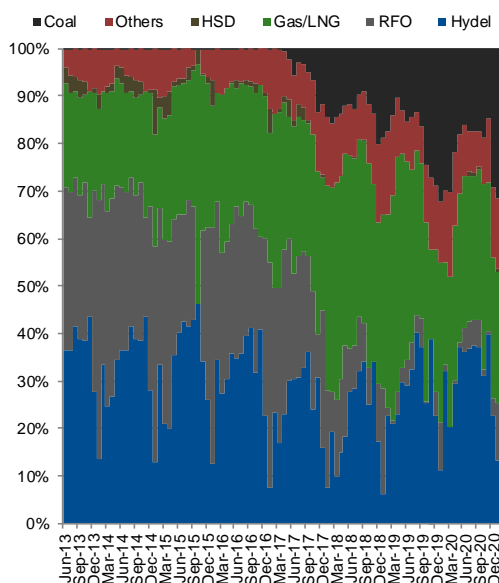
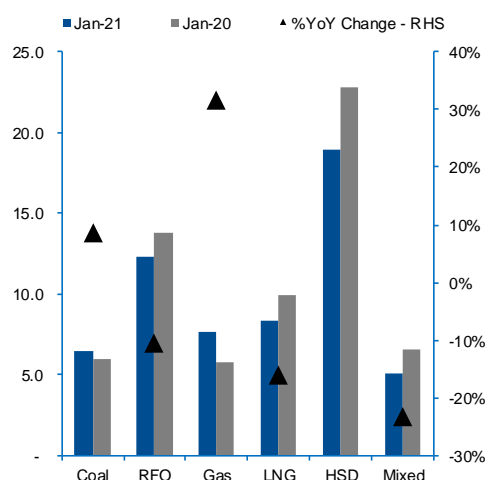


Exhibit: Fuel Wise Cost of Generation - Jan-21 (PKR/Kwh)



Source: NEPRA & IGI Research

Analyst

Abdullah Farhan

abdullah.farhan@igi.com.pk

Tel: (+92-21) 111-234-234 Ext.: 912

Power Generation & Distribution

Jan-21: Generation up by +4%YoY backed by Hydel/RFO; FO plants moved up in merit order list

- As per latest data available on NEPRA's website, overall power generation during the month of Jan-21 declined by +4%YoY to 8,079Gwh. Power production through Hydel/RFO/Coal clocked in at 1,067/974/2,560Gwh.
- Power generation through RFO in Jan-21 improved by +22%YoY (up by 173Gwh) to 974Gwh. Gas/LNG based power generation dropped by 14%YoY (361Gwh) to 2,250Gwh while Coal based power generation increased by +2%YoY (59Gwh) to 2,560Gwh during Jan-21. As per NEPRA, power cost on RFO during Jan-21 is down by 10%YoY (or up by +1%MoM) to PKR 12.35/Kwh. However, gas price increased to PKR 7.62/Kwh up by +32%YoY while generation cost through LNG stood PKR 8.32/Kwh, down by 16%YoY or up +10%MoM.
- FO plants have moved up slightly in the merit in Jan-21 on account of rise in fuel cost of generation through gas and unavailability of gas during winters. All of RFO based plants moved up the merit order list except for Attock Gen and Kohinoor Energy.

Power production increased by +4%YoY during Jan-21

As per latest data available on NEPRA's website, overall power generation during the month of Jan-21 declined by +4%YoY to 8,079Gwh. Power production through Hydel/RFO/Coal clocked in at 1,067/974/2,560Gwh up by +23%/+22%/+2%YoY, while generation through Gas-LNG decreased by 14%YoY to 2,250Gwh during Jan-21. Generation inclined by +3%MoM during Jan-21 compared to Dec-20. This brings total generation for 7MFY21 to 76,126Gwh up by +3%YoY primarily led by +17%/+6%YoY incline in production through RFO/Hydel contributing 5%/33% of the total power generation while contribution from Gas/LNG based power generation is down to 32% as compared to 33% in 7MFY20.

FO: Generation up by +22%YoY in Jan-21

Power generation through RFO in Jan-21 improved by +22%YoY (up by 173Gwh) to 974Gwh, owing to higher generation from KAPCO Block I, Lalpir, PakGen, Nishat Chunian and Nishat Power, cumulatively adding 249Gwh. This brings total generation for 7MFY21 to 3,865Gwh up by +17%YoY owing to higher generation from Atlas, KAPCO Block I, Attock Gen, Lalpir, Pakgen, Atlas, Nishat Chunian and Nishat Power.

Gas/LNG generation down by 14%YoY during Jan-21

Gas/LNG based power generation dropped by 14%YoY (361Gwh) to 2,250Gwh in Jan-21 on the back of lower generation from a) Haveli Bahadurshah (contributing 542Gwh), GENCO II (down by 298Gwh) and Orient/ Saif power (cumulatively down by 50Gwh) while generation from other smaller IPPs increased during the month of Jan-21. This brings total generation in 7MFY21 to 24,032Gwh down by 2%YoY led by lower generation from KAPCO II-III, GENCO I-III, Haveli Bahadurshah and other smaller IPPs.

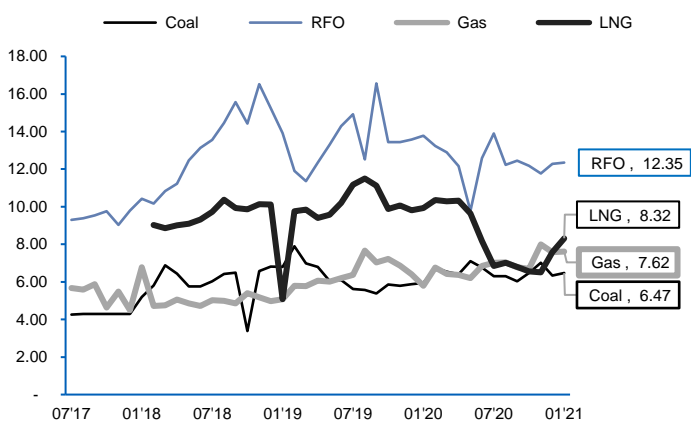
Coal based power production up by +2%YoY during Jan-21

Coal based power generation increased by +2% YoY (59Gwh) to 2,560Gwh in Jan-21 on the back of higher generation from CPHGC (up by 222Gwh) while generation from Engro, Coal Fired Power plant and Port Qasim declined during the month of Jan-21. For 7MFY21 generation remained flat at 15,262Gwh led by higher generation from CPHGC while lower generation other plants.

Generation cost on RFO down by 10%YoY to PKR 12.35/Kwh during Jan-21

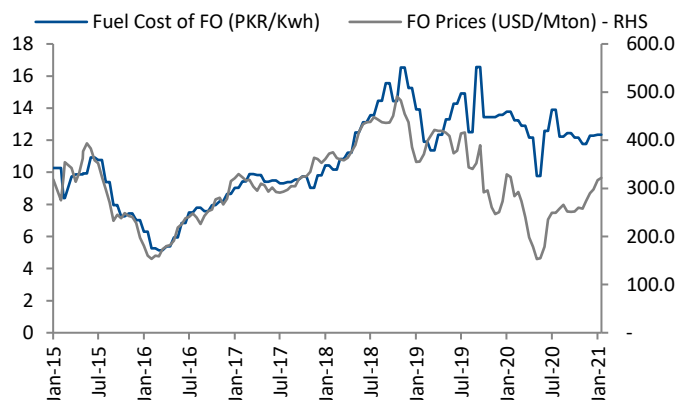
As per NEPRA, power cost on RFO during Jan-21 is down by 10%YoY (or up by +1%MoM) to PKR 12.35/Kwh. However, gas price increased to PKR 7.62/Kwh up by +32%YoY while generation cost through LNG stood PKR 8.32/Kwh, down by 16%YoY or up +10%MoM. For the month of Feb-21, international RFO (180cst bunker fuel) prices have averaged USD 353/Mton as compared to USD 319/Mton in the preceding month.

Exhibit: Cost of generation on FO and Gas (According to Data released by NEPRA)



Source: IGI Research, NEPRA

Exhibit: FO Prices (USD/Mton) and Fuel Prices (PKR/Mton)



FO plants moved up slightly on merit order list during Jan-21

FO plants have moved up slightly in the merit in Jan-21 on account of rise in fuel cost of generation through gas and unavailability of gas during winters. All of RFO based plants moved up the merit order list except for Attock Gen and Kohinoor Energy. Cost of generation remained relatively mixed on monthly basis as Lalpir, Attock Gen, and Saba Power witnessed a rise in fuel cost.

Outlook

As a result increase in prices, depleting gas reserves and unable to secure LNG cargoes, FO plants have moved up in the merit order list. RFO plants are likely to remain up in the merit order list as summer approaches while generation through gas is also likely to pick up as demand from domestic sector reduces post winters. Generation through coal is likely to remain strong owing to lowest cost of generation. Generation through LNG may gain further traction from 2022 onwards as new LNG contract at lower prices comes in to effect.

Tuesday, 09 March 2021

Exhibit: Pakistan Merit Order list

Plant	Fuel Type	Capacity (MW)	Merit Order List												
			1-Mar-21	16-Feb-21	9-Feb-21	21-Jan-21	7-Jan-21	Dec-20	Jan-21	Jun-20	Mar-20	Dec-19	Jul-19	Dec-18	Jul-18
Hub Plant	RFO	1,200	91	87	93	96	97	96	106	108	85	98	82	89	70
Narowal	RFO	214	54	55	57	56	66	63	76	86	63	70	76	70	58
Nishat Power	RFO	195	53	54	56	53	51	65	79	101	70	72	70	65	63
Nishat Chunian	RFO	196	49	50	54	41	61	66	78	84	56	71	66	64	64
Lalpir	RFO	350	68	63	58	65	63	54	48	70	52	83	81	69	76
Pakgen	RFO	349	57	57	77	61	59	64	88	87	66	90	79	76	79
Attock Gen	RFO	156	65	64	64	66	58	52	54	38	21	24	75	52	68
Kohinoor Energy	RFO	124	56	57	60	60	56	58	84	79	48	51	65	66	69
Saba Power	RFO	126	70	70	85	68	70	70	74	89	69	88	78	71	74
Atlas Power	RFO	214	52	52	55	58	67	60	72	82	59	69	68	62	65
Gulf Powergen	RFO	62	-	-	-	-	-	-	59	62	39	41	43	37	44
Liberty	RFO	196	48	49	53	54	64	67	81	63	47	66	56	61	56
CPHGC	Coal	1,220	5	5	5	5	5	5	7	9	5	6	-	-	-
Engro Power Thar	Coal	660	3	3	3	3	3	3	3	3	3	3	4	-	-
Port Qasim	Coal	1,320	4	4	4	4	4	4	4	8	6	5	6	9	15
Sahiwal Coal	Coal	1,320	12	12	11	7	7	7	9	19	12	9	16	24	25
QATPL	RLNG	1,180	23	23	20	20	19	19	10	7	25	23	39	33	31
Haveli Bahdur Shah	RLNG	1,230	19	19	17	17	16	16	6	5	22	21	36	31	29
Baloki	RLNG	1,320	20	20	18	18	17	17	8	6	24	22	38	32	30
Halmore	RLNG	199	37	37	36	36	34	33	17	13	49	43	49	40	37
Sapphire	RLNG	203	36	36	34	35	33	32	16	14	50	42	47	38	35
Saif	RLNG	204	38	38	37	37	35	34	18	15	51	44	48	39	36
Orient	RLNG	213	35	35	32	32	30	29	12	12	43	39	45	36	33
Davis	RLNG	10	69	60	62	67	62	59	44	42	88	86	84	74	67
Rousch	RLNG	395	45	46	41	42	41	40	24	22	61	53	54	54	45
Nandipur	RLNG	411	39	39	38	38	36	35	19	16	38	33	42	34	32
FKPCL	Gas	151	58	59	50	52	49	49	32	30	65	62	65	49	34

Exhibit: Fuel cost of IPPs

Plant	Fuel Type	Capacity (MW)	Fuel Cost (PKR/Kwh)												
			1-Mar-21	16-Feb-21	9-Feb-21	21-Jan-21	7-Jan-21	Dec-20	Jan-21	Jun-20	Mar-20	Dec-19	Jul-19	Dec-18	Jul-18
Hub Plant	RFO	1,200.0	17.63	17.30	17.30	17.30	17.30	17.30	17.30	17.14	17.14	17.41	17.44	-	-
Narowal	RFO	214.0	11.96	11.96	11.96	11.58	12.47	12.47	12.53	13.08	13.07	13.74	14.95	-	-
Nishat Power	RFO	195.0	11.79	11.79	11.79	11.37	10.96	12.61	12.52	14.86	13.91	13.74	14.34	-	-
Nishat Chunian	RFO	196.0	11.59	11.59	11.59	9.61	12.07	12.62	12.48	12.61	12.05	13.62	13.63	-	-
Lalpir	RFO	350.0	14.87	14.37	15.38	13.51	13.26	12.40	10.91	12.83	12.80	16.12	16.97	-	-
Pakgen	RFO	349.0	13.48	13.94	13.01	13.11	12.91	13.53	15.06	14.33	14.33	16.40	16.31	-	-
Attock Gen	RFO	156.0	13.50	12.83	12.83	12.50	11.70	11.03	10.11	8.64	8.79	8.58	14.46	-	-
Kohinoor Energy	RFO	124.0	12.56	12.60	12.53	12.37	12.02	12.56	13.85	12.60	11.93	12.10	14.18	-	-
Saba Power	RFO	126.0	15.08	15.08	15.96	14.42	14.05	14.05	13.24	14.68	14.08	16.36	16.06	-	-
Atlas Power	RFO	214.0	11.76	11.76	11.76	11.61	12.76	12.18	11.85	12.30	12.33	13.50	14.05	-	-
Gulf Powergen	RFO	62.0	-	-	-	-	-	-	9.85	9.85	9.85	9.85	9.85	-	-
Liberty	RFO	196.0	11.38	11.38	11.38	11.24	11.96	12.57	12.65	10.52	11.30	13.12	12.84	-	-
CPHGC	Coal	1,220.0	4.98	4.98	4.98	4.46	4.64	4.64	5.73	5.93	5.07	5.54	-	-	-
Engro Power Thar	Coal	660.0	2.60	2.60	2.60	2.67	2.67	2.69	2.71	2.14	2.07	2.08	3.68	-	-
Port Qasim	Coal	1,320.0	4.79	4.79	4.79	4.58	4.43	4.43	4.34	6.11	5.42	5.09	5.46	-	-
Sahiwal Coal	Coal	1,320.0	7.44	7.44	7.44	6.86	6.87	6.87	6.31	7.69	8.20	6.88	7.17	-	-
QATPL	RLNG	1,180.0	8.97	8.99	8.23	8.25	7.95	7.96	6.06	5.70	10.08	9.38	10.03	-	-
Haveli Bahdur Shah	RLNG	1,230.0	8.89	8.90	8.15	8.17	7.88	7.88	6.01	5.65	9.94	9.25	9.89	-	-
Baloki	RLNG	1,320.0	8.96	8.97	8.21	8.23	7.94	7.94	6.05	5.69	10.07	9.37	10.02	-	-
Halmore	RLNG	199.0	10.94	10.96	10.04	10.06	9.70	9.71	7.40	6.97	12.32	11.46	12.07	-	-
Sapphire	RLNG	203.0	10.94	10.96	10.04	10.06	9.70	9.71	7.40	6.98	12.35	11.46	12.07	-	-
Saif	RLNG	204.0	10.95	10.97	10.04	10.07	9.71	9.71	7.40	6.99	12.35	11.49	12.07	-	-
Orient	RLNG	213.0	10.95	10.97	10.04	10.07	9.71	9.71	7.40	6.98	12.35	11.49	12.07	-	-
Davis	RLNG	10.0	14.32	13.13	13.13	13.17	12.68	12.70	10.08	9.55	16.91	15.78	17.10	-	-
Rousch	RLNG	395.0	12.06	12.07	11.06	11.08	10.68	10.69	8.15	7.69	13.60	12.65	13.69	-	-
Nandipur	RLNG	411.0	11.10	11.12	10.18	10.20	9.84	9.84	7.50	7.08	11.30	10.52	11.38	-	-
FKPCL	Gas	151.0	12.53	12.55	11.49	11.53	11.10	11.09	8.47	7.99	13.14	13.14	13.06	-	-

Important Disclaimer and Disclosures

Research Analyst(s) Certification: The Research Analyst(s) hereby certify that the views about the company/companies and the security/securities discussed in this report accurately reflect his or her or their personal views and that he/she has not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report. The analyst(s) is principally responsible for the preparation of this research report and that he/she or his/her close family/relative does not own 1% or more of a class of common equity securities of the following company/companies covered in this report.

Disclaimer: The information and opinions contained herein are prepared by IGI Finex Securities Limited and is for information purposes only. Whilst every effort has been made to ensure that all the information (including any recommendations or opinions expressed) contained in this document (the information) is not misleading or unreliable, IGI Finex Securities Limited makes no representation as to the accuracy or completeness of the information. Neither, IGI Finex Securities Limited nor any director, officer or employee of IGI Finex Securities Limited shall in any manner be liable or responsible for any loss that may be occasioned as consequence of a party relying on the information. This document takes no account of the investment objectives, financial situation and particular needs of investors, who shall seek further professional advice before making any investment decision. The subject Company (ies) is a client of the IGI Finex Securities Limited and IGI Finex Securities offers brokerage services to subject company (ies) on a regular basis, in line with industry practice. This document and the information may not be reproduced, distributed or published by any recipient for any purpose. This report is not directed or intended for distribution to, or use by any person or entity not a client of IGI Finex Securities Limited, else directed for distribution.

Rating system: IGI Finex Securities employs three tier ratings system, depending upon expected total return (return is defined as capital gain exclusive of tax) of the security in stated time period, as follows:

Recommendation	Rating System
Buy	If target price on aforementioned security(ies) is more than 10%, from its last closing price(s)
Hold	If target price on aforementioned security(ies) is in between -10% and 10%, from its last closing price(s)
Sell	If target price on aforementioned security(ies) is less than -10%, from its last closing price(s)

Risk: Investment in securities are subject to economic risk, market risk, interest rate risks, currency risks, and credit risks, political and geopolitical risks. The performance of company (ies) covered herein might unfavorably be affected by multiple factors including, business, economic, and political conditions. Hence, there is no assurance or guarantee that estimates, recommendation, opinion, etc. given about the security (ies)/company (ies) in the report will be achieved.

Basic Definitions and Terminologies used: **Target Price:** A price target is the projected price level of a financial security stated by an investment analyst or advisor. It represents a security's price that, if achieved, results in a trader recognizing the best possible outcome for his investment, **Last Closing:** Latest closing price, **Market Cap.:** Market capitalization is calculated by multiplying a company's shares outstanding by current trading price. **EPS:** Earnings per Share. **DPS:** Dividend per Share. **ROE:** Return on equity is the amount of net income returned as a percentage of shareholders' equity. **P/E:** Price to Earnings ratio of a company's share price to its per-share earnings. **P/B:** Price to Book ratio used to compare a stock's market value to its book value. **DY:** The dividend yield is dividend per share, divided by the price per share.

IGI Finex Securities Limited

Research Analyst(s)

Research Identity Number: BRP009

© Copyright 2021 IGI Finex Securities Limited

Contact Details

Research Team

Saad Khan	Head of Research	Tel: (+92-21) 111-234-234 Ext: 810	saad.khan@igi.com.pk
Abdullah Farhan	Senior Analyst	Tel: (+92-21) 111-234-234 Ext: 912	abdullah.farhan@igi.com.pk
Shumail Rauf	Research Analyst	Tel: (+92-21) 111-234-234 Ext: 957	shumail.rauf@igi.com.pk
Areesha Ishrat	Trainee Analyst	Tel: (+92-21) 111-234-234 Ext: 810	areesha.ishrat@igi.com.pk
Bharat Kishore	Database Officer	Tel: (+92-21) 111-234-234 Ext: 974	bharat.kishore@igi.com.pk

Equity Sales

Faisal Jawed Khan	Head of Equities	Tel: (+92-21) 35301779	faisal.jawed@igi.com.pk
Zaeem Haider Khan	Regional Head (North)	Tel: (+92-42) 38303559-68	zaeem.haider@igi.com.pk
Muhammad Naveed	Regional Manager (Islamabad & Upper North)	Tel: (+92-51) 2604861-62	muhammad.naveed@igi.com.pk
Irfan Ali	Regional Manager (Faisalabad)	Tel: (+92-41) 2540843-45	irfan.ali@igi.com.pk
Asif Saleem	Branch Manager (RY Khan)	Tel: (+92-68) 5871652-56	asif.saleem@igi.com.pk
Mehtab Ali	Branch Manager (Multan)	Tel: (+92-61) 4512003	mahtab.ali@igi.com.pk

IGI Finex Securities Limited

Trading Rights Entitlement Certificate (TREC) Holder of
Pakistan Stock Exchange Limited |
Corporate member of Pakistan Mercantile Exchange Limited

Head Office

Suite No 701-713, 7th Floor, The Forum, G-20,
Khayaban-e-Jami Block-09, Clifton, Karachi-75600
UAN: (+92-21) 111-444-001 | (+92-21) 111-234-234
Fax: (+92-21) 35309169, 35301780
Website: www.igisecurities.com.pk

Stock Exchange Office

Room # 134, 3rd Floor, Stock Exchange Building,
Stock Exchange Road, Karachi.
Tel: (+92-21) 32429613-4, 32462651-2
Fax: (+92-21) 32429607

Lahore Office Shop # G-009, Ground Floor, Packages Mall Tel: (+92-42) 38303560-69 Fax: (+92-42) 38303559	Islamabad Office Mezzanine Floor, Office 5, 6 & 7, Kashmir Plaza, Block- B, Jinnah Avenue, Blue Area Tel: (+92-51) 2604861-2, 2604864, 2273439 Fax: (+92-51) 2273861
Faisalabad Office Room #: 515-516, 5th Floor, State Life Building, 2- Liaqat Road Tel: (+92-41) 2540843-45 Fax: (+92-41) 2540815	Rahim Yar Khan Office Plot # 12, Basement of Khalid Market, Model Town, Town Hall Road Tel: (+92-68) 5871652-3 Fax: (+92-68) 5871651
Multan Office Mezzanine Floor, Abdali Tower, Abdali Road Tel: (92-61) 4512003, 4571183	

IGI Finex Securities Limited

Research Analyst(s)

Research Identity Number: BRP009

© Copyright 2021 IGI Finex Securities Limited