

Power Generation up by 9.0% YoY during 5MFY22

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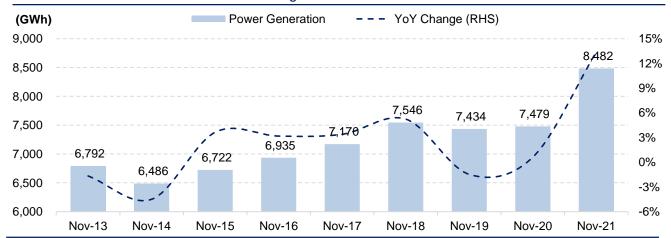


Best Equity Research Analyst: 2021

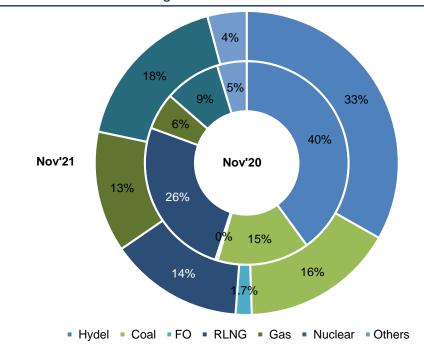
# Power Generation up by 13.4% YoY during Nov'21

- Power generation went up by 13.4% YoY to 8,482 GWh (11,780 MW) during Nov'21, compared to 7,479 GWh (10,388 MW) during Nov'20. The rise in generation was owed to higher generation from Nuclear, Coal, Gas, FO and Solar.
- Major contributors during Nov'21 were Hydel (share: 33%), Nuclear (share: 18%), Coal (share: 16%), RLNG (share: 14%), Gas (share: 13%), Wind (share: 2%), FO (share: 2%), and Bagasse (share: 1%).
- During the month, FO, Gas, Nuclear and Coal based power generation went up by 424%, 150%, 124% and 26%, respectively. However, RLNG, Hydel and Wind based generation decline by 37%, 6% and 5% YoY, respectively.
- During Nov'21, fuel cost for power generation increased by 85% YoY to PKR 6.32/KWh mainly due to rise in FO, coal and RLNG based cost of generation. In addition to this hydel and wind based generation decreased by 6% YoY and 5% YoY, respectively.

#### Exhibit: Historical Power Generation during the month of November



### Exhibit: Power Mix During Nov'21 and Nov'20



Source (s): NEPRA, AHL Research

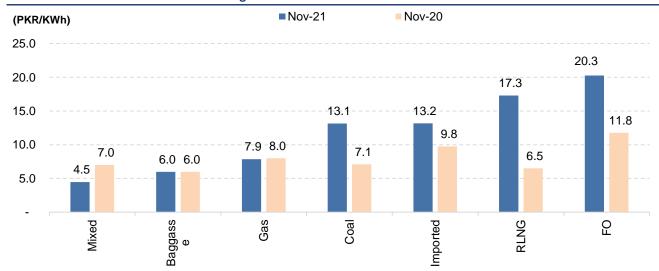
Source (s): NEPRA, AHL Research



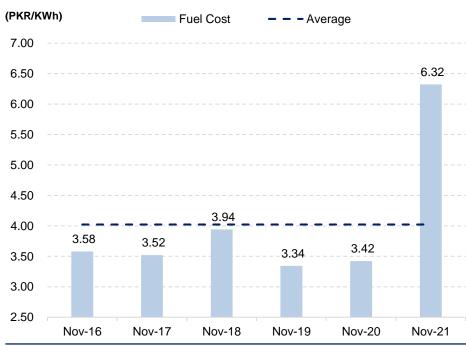
# Fuel Cost up by 85% YoY during Nov'21

- The rise in fuel cost by 85% YoY to PKR 6.32/KWh during Nov'21 was led by the following reasons:
  - RLNG-based cost of generation increased by 166% YoY to PKR 17.29/KWh due to 123% YoY rise in RLNG prices to PKR 2,720/mmbtu (USD 15.68/mmbtu).
  - Coal-based cost of generation went up by 85% YoY to PKR 13.14/KWh during Nov'21 due to 121% YoY rise in coal prices.
  - o FO-based cost of generation increased by 72% YoY to PKR 20.27/KWh.
  - Hydel based generation decreased by 6% YoY.
  - Wind based generation decreased by 5% YoY.

### Exhibit: Source wise fuel cost during Nov'21 and Nov'20



### Exhibit: Historical Trend of Fuel Cost during November



Source (s): NEPRA, AHL Research

Source (s): NEPRA, AHL Research



# Power Generation up by 9.0% during 5MFY22

| Exhibit: Source | wise | Power | Generation |
|-----------------|------|-------|------------|
|-----------------|------|-------|------------|

| GWh        | Nov-21 | Nov-20 | YoY    | Oct-21 | MoM    | 5MFY22 | 5MFY21 | YoY    |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Hydel      | 2,816  | 2,990  | -5.8%  | 2,627  | 7.2%   | 20,818 | 21,913 | -5.0%  |
| Nuclear    | 1,485  | 663    | 123.9% | 1,393  | 6.6%   | 7,450  | 3,588  | 107.6% |
| Coal       | 1,379  | 1,095  | 25.9%  | 1,886  | -26.9% | 10,335 | 10,405 | -0.7%  |
| RLNG       | 1,209  | 1,914  | -36.8% | 2,703  | -55.3% | 12,598 | 13,660 | -7.8%  |
| Gas        | 1,093  | 437    | 150.1% | 1,093  | 0.0%   | 6,109  | 5,788  | 5.5%   |
| Wind       | 175    | 185    | -5.3%  | 185    | -5.2%  | 1,691  | 1,149  | 47.2%  |
| FO         | 145    | 28     | 423.6% | 1,229  | -88.2% | 5,611  | 2,597  | 116.1% |
| Bagasse    | 54     | 60     | -9.4%  | 7      | 661.3% | 147    | 150    | -2.0%  |
| Solar      | 51     | 47     | 7.7%   | 63     | -19.9% | 303    | 293    | 3.7%   |
| Imported   | 37     | 33     | 9.7%   | 41     | -11.4% | 212    | 223    | -5.0%  |
| HSD        | 25     | -      | nm     | 57     | -56.2% | 228    | 289    | -21.2% |
| Mixed      | 12     | 26.13  | -54.7% | 12     | -0.3%  | 67     | 112    | -40.5% |
| Total      | 8,482  | 7,479  | 13.4%  | 11,296 | -24.9% | 65,568 | 60,167 | 9.0%   |
|            |        |        |        |        |        |        |        |        |
| Fuel Cost* | 6.32   | 3.42   | 84.8%  | 9.30   | -32.0% | 6.99   | 4.07   | 72.0%  |

**Exhibit:** Source Wise Share

|          | Nov-21 | Nov-20 | Oct-21 | 5MFY22 | 5MFY21 |
|----------|--------|--------|--------|--------|--------|
| Hydel    | 33.2%  | 40.0%  | 23.3%  | 31.8%  | 36.4%  |
| Nuclear  | 17.5%  | 8.9%   | 12.3%  | 11.4%  | 6.0%   |
| Coal     | 16.3%  | 14.6%  | 16.7%  | 15.8%  | 17.3%  |
| RLNG     | 14.3%  | 25.6%  | 23.9%  | 19.2%  | 22.7%  |
| Gas      | 12.9%  | 5.8%   | 9.7%   | 9.3%   | 9.6%   |
| Wind     | 2.1%   | 2.5%   | 1.6%   | 2.6%   | 1.9%   |
| FO       | 1.7%   | 0.4%   | 10.9%  | 8.6%   | 4.3%   |
| Bagasse  | 0.6%   | 0.8%   | 0.1%   | 0.2%   | 0.2%   |
| Solar    | 0.6%   | 0.6%   | 0.6%   | 0.5%   | 0.5%   |
| Imported | 0.4%   | 0.4%   | 0.4%   | 0.3%   | 0.4%   |
| HSD      | 0.3%   | 0.0%   | 0.5%   | 0.3%   | 0.5%   |
| Mixed    | 0.1%   | 0.3%   | 0.1%   | 0.1%   | 0.2%   |
| Total    | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
|          |        |        |        |        |        |

Source (s): NEPRA, AHL Research, \* PKR/KWh

Source (s): NEPRA, AHL Research



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Risks

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