

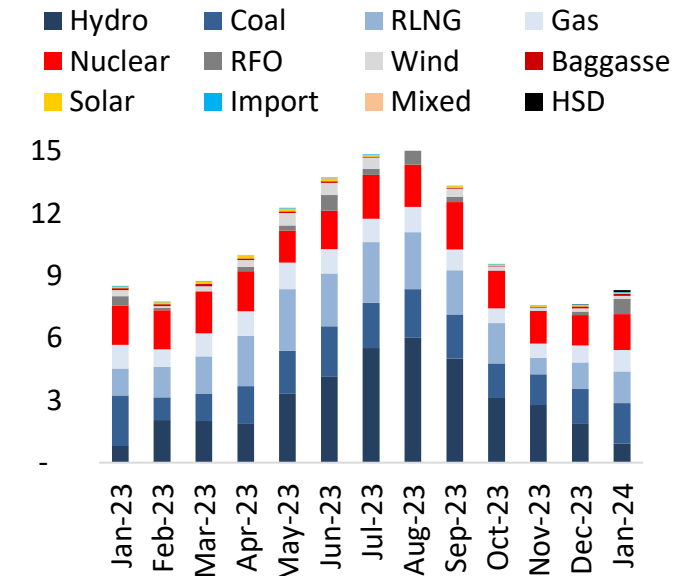
Power Generation

Power Transfer Limitations Escalates Fuel Cost in Jan-24

21 February 2024

- **Generation down 2.4% Y/Y.** In Jan-24, power production declined to 8,314 GWh (vs 8,515 GWh in Jan-23). This decrease is accredited to 1) reduced output from coal based power plants (1,949 GWh in Jan-24 vs 2,444 GWh SPLY) and 2) lesser output from nuclear power plants (1,728 GWh in Jan-24 vs 1,876 GWh SPLY). This is attributed to power evacuation constraints from south to north.
- **Disco's seek FCA of PKR 7.13/KWh in Mar-24.** The fuel cost for the month of Jan-24 was PKR 13.79/KWh (+23% Y/Y), still remaining above the reference cost of PKR 7.49/KWh, resulting in Disco's to pursue FCA of PKR 7.13/KWh in Mar-24. The 36.1% M/M rise is mainly on account of increased RFO based power generation mix, amid lower hydel generation and transmission constraints.
- **FO power plants face high utilization in Jan-24.** In Jan-24, the utilization of PKGP, LPL, and NCPL increased to 22%, 59%, and 36% respectively, leading to higher fuel losses. NEL/NPL/KOHE generated 58.6/87.9/68.0 GWh at 37/61/74% load factor resulting in fuel savings. Meanwhile, SPWL and the HUB base plant remained unutilized.
- **CPHGC remained unutilized during Jan-24.** In Jan-24, CPHGC's remained unutilized, as a result of aforementioned reasons. The load factor for TEL/TNTPL fell slightly to 75.8/77.0% vs 79.3/86.2% in the previous month.
- **Outlook.** In Feb-24, we anticipate power generation to decline, due to lower seasonal demand. Moreover, generation from gas based power plants is likely to remain low with UPL-I on ATA during the first ten days of Feb-24. Additionally, we anticipate a reduction in fuel costs as a result of the seasonal increase in hydel flows in Feb-24 compared to Jan-24, leading to increased hydropower generation.

Power generation trend '000' GWh



Source: NEPRA, Optimus Research

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7MFY24 Generation Remained Largely Stable at 0.3% Y/Y

| (GWh) | Jan-24 | Dec-23 | M/M | Jan-23 | Y/Y | 7MFY24 | 7MFY23 | Y/Y |
|--------------|--------------|--------------|-------------|--------------|--------------|---------------|---------------|-------------|
| Hydel | 924 | 1,859 | -50% | 800 | 15% | 25,205 | 22,883 | 10% |
| Coal | 1,949 | 1,694 | 15% | 2,444 | -20% | 13,446 | 12,011 | 12% |
| HSD | 102 | 6 | 1600% | - | n.m | 108 | 206 | -48% |
| RFO | 750 | 168 | 346% | 463 | 62% | 2,104 | 3,649 | -42% |
| Gas | 1,035 | 826 | 25% | 1,146 | -10% | 6,608 | 8,715 | -24% |
| RLNG | 1,514 | 1,268 | 19% | 1,286 | 18% | 13,306 | 11,169 | 19% |
| Nuclear | 1,728 | 1,464 | 18% | 1,876 | -8% | 13,023 | 14,854 | -12% |
| Import | 29 | 28 | 4% | 37 | -22% | 189 | 324 | -42% |
| Mixed | - | - | n.m | 2 | -100% | - | 77 | -100% |
| Wind | 128 | 150 | -15% | 287 | -55% | 2,381 | 2,255 | 6% |
| Baggasse | 106 | 101 | 5% | 101 | 4% | 376 | 418 | -10% |
| Solar | 48 | 62 | -23% | 72 | -33% | 474 | 525 | -10% |
| Total | 8,314 | 7,726 | 7.6% | 8,515 | -2.4% | 77,296 | 77,085 | 0.3% |

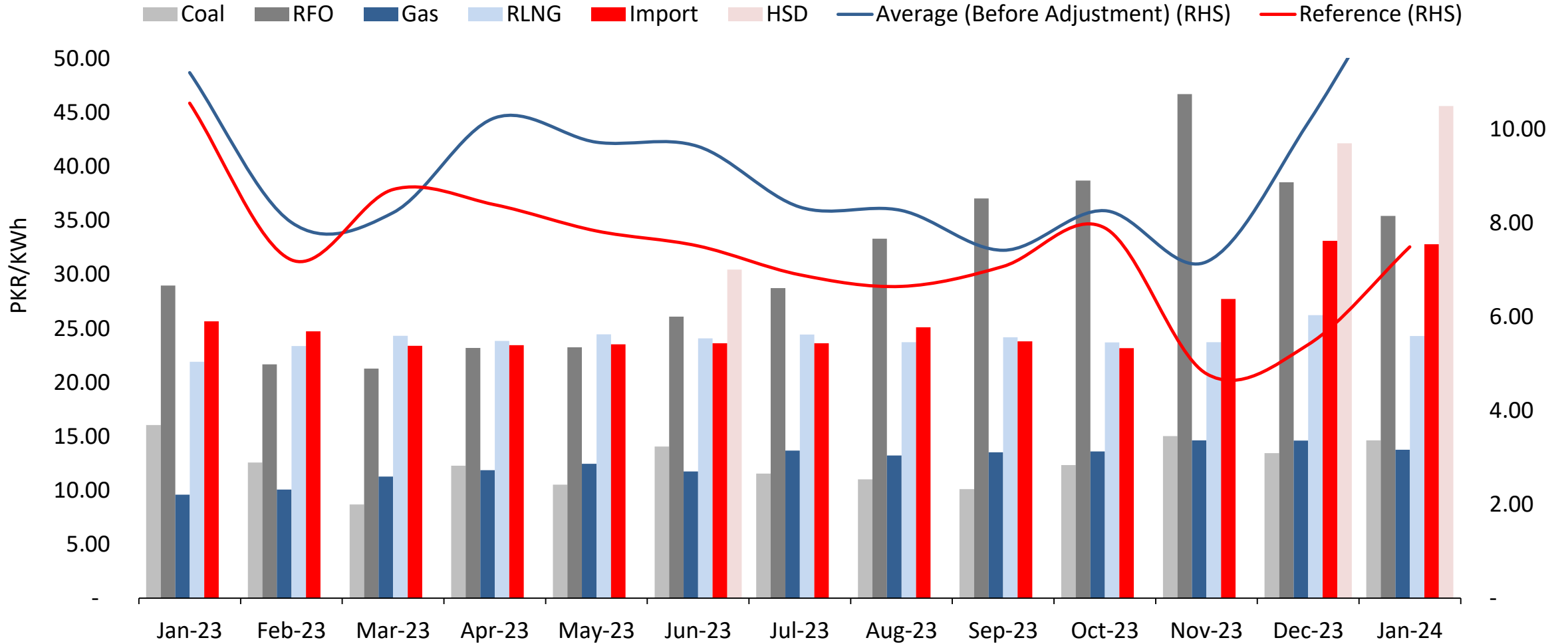
Source: NEPRA, Optimus Research

Demanded FCA of PKR 7.13/KWh in Mar-24

| | Jan-24 | Dec-23 | M/M | Jan-23 | Y/Y |
|------------------------|--------------|--------------|---------------|--------------|---------------|
| | PKR/KWh | | | | |
| Hydel | - | - | 0.0% | - | 0.0% |
| Coal | 14.62 | 13.45 | 8.7% | 16.05 | -8.9% |
| <i>Coal - Local</i> | <i>11.92</i> | <i>15.27</i> | <i>-21.9%</i> | <i>n.m</i> | <i>n.m</i> |
| <i>Coal - Imported</i> | <i>21.05</i> | <i>14.53</i> | <i>44.9%</i> | <i>n.m</i> | <i>n.m</i> |
| HSD | 45.61 | 42.15 | 8.2% | - | 0.0% |
| RFO | 35.44 | 38.55 | -8.1% | 28.97 | 22.3% |
| Gas | 13.75 | 14.60 | -5.9% | 9.59 | 43.4% |
| RLNG | 24.30 | 26.22 | -7.4% | 21.91 | 10.9% |
| Nuclear | 1.33 | 1.32 | 0.9% | 1.07 | 23.7% |
| Import | 32.80 | 33.13 | -1.0% | 25.66 | 27.8% |
| Mixed | - | - | 0.0% | 6.04 | -100.0% |
| Wind | - | - | 0.0% | - | 0.0% |
| Baggasse | 5.98 | 5.98 | 0.0% | 5.98 | 0.0% |
| Solar | - | - | 0.0% | - | 0.0% |
| Total | 13.79 | 10.13 | 36.1% | 11.20 | 23.1% |
| Total (Final) | 14.62 | 11.02 | 32.6% | 11.73 | 24.7% |
| Reference | 7.49 | 5.40 | 38.6% | 10.55 | -29.0% |
| FCA | 7.13 | 5.62 | 27% | 1.17 | 508.0% |

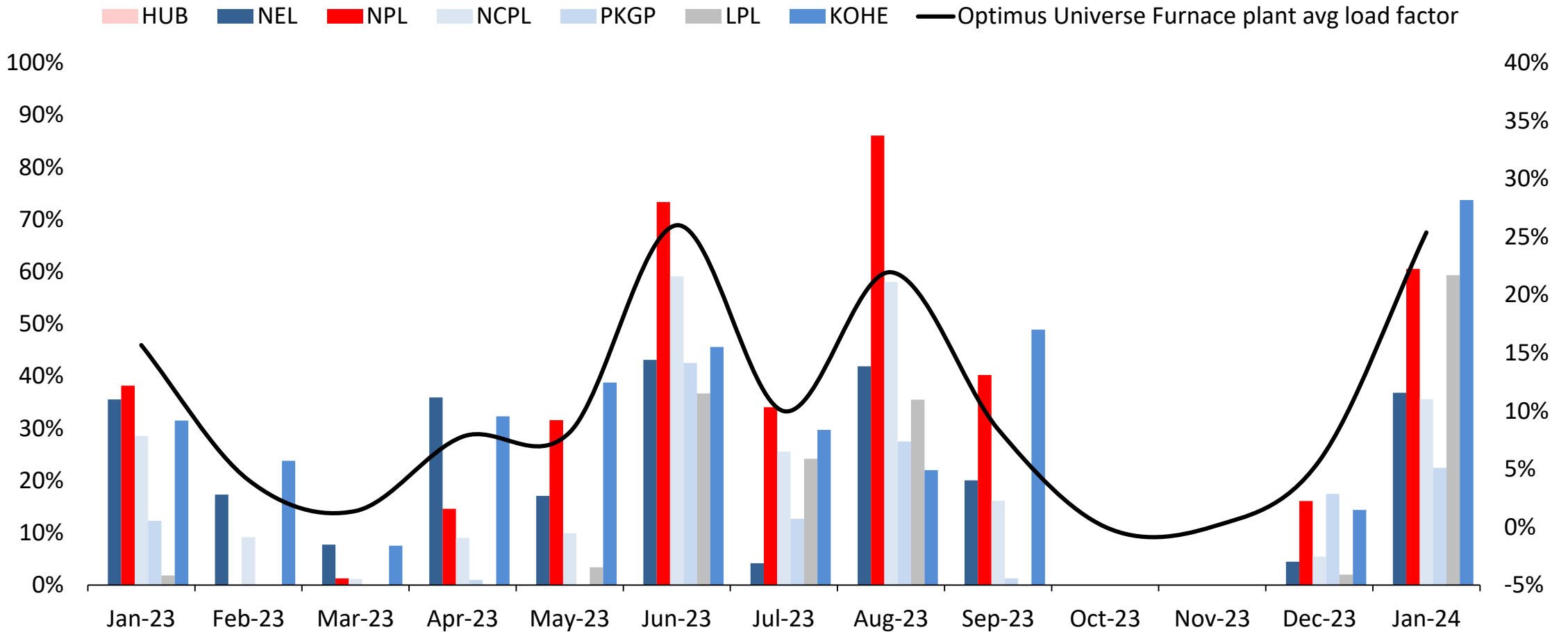
Source: NEPRA, Optimus Research

PKR/USD Weakening Pulled Up Generation Costs Y/Y



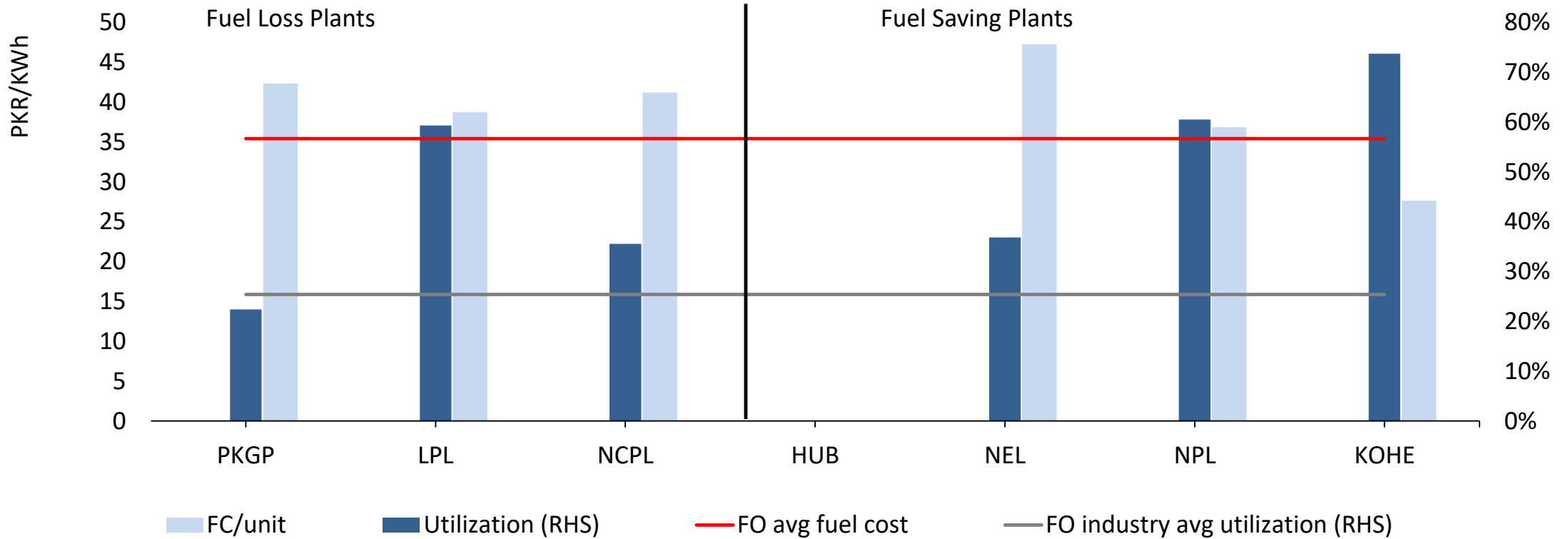
Source: NEPRA, Optimus Research

FO Plants Face High Utilization During Jan-24



Source: NEPRA, Optimus Research

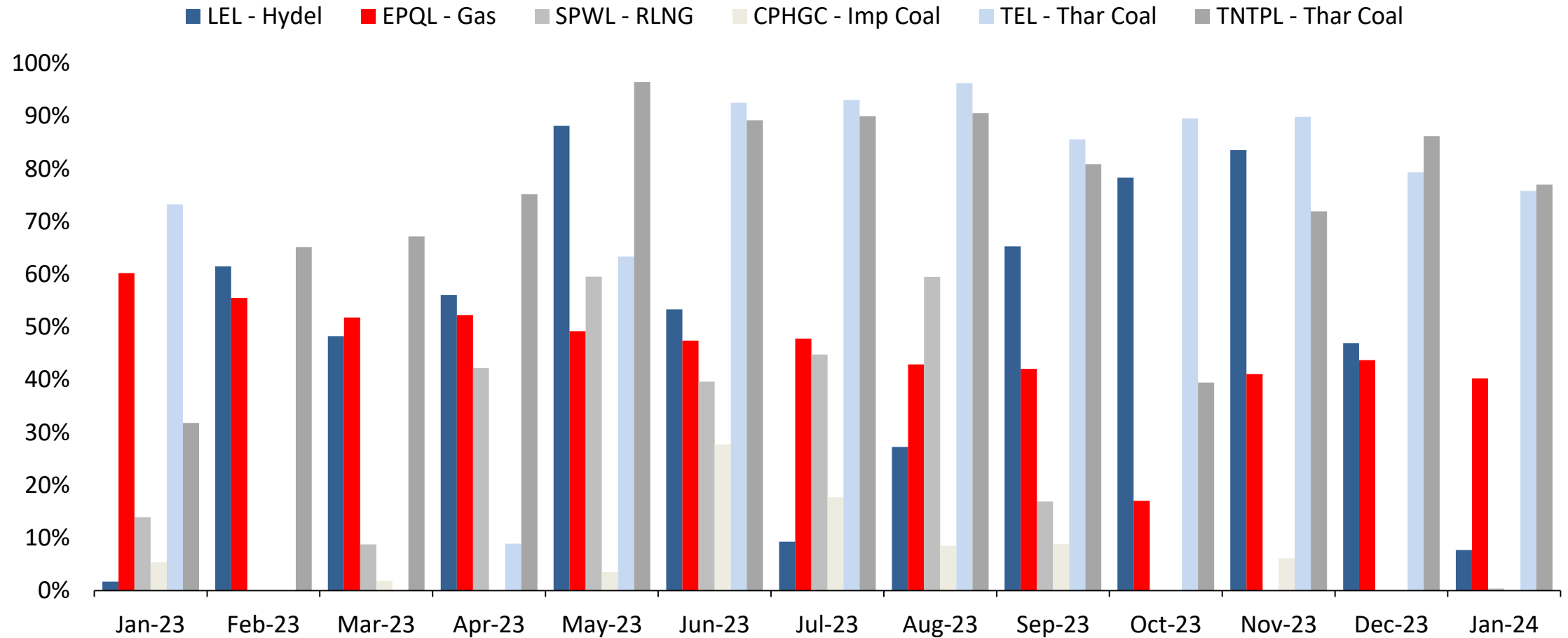
PKGP/LPL's Load Factor Increased M/M, Incurring Fuel Losses



*Industry includes all FO plants installed in Pakistan

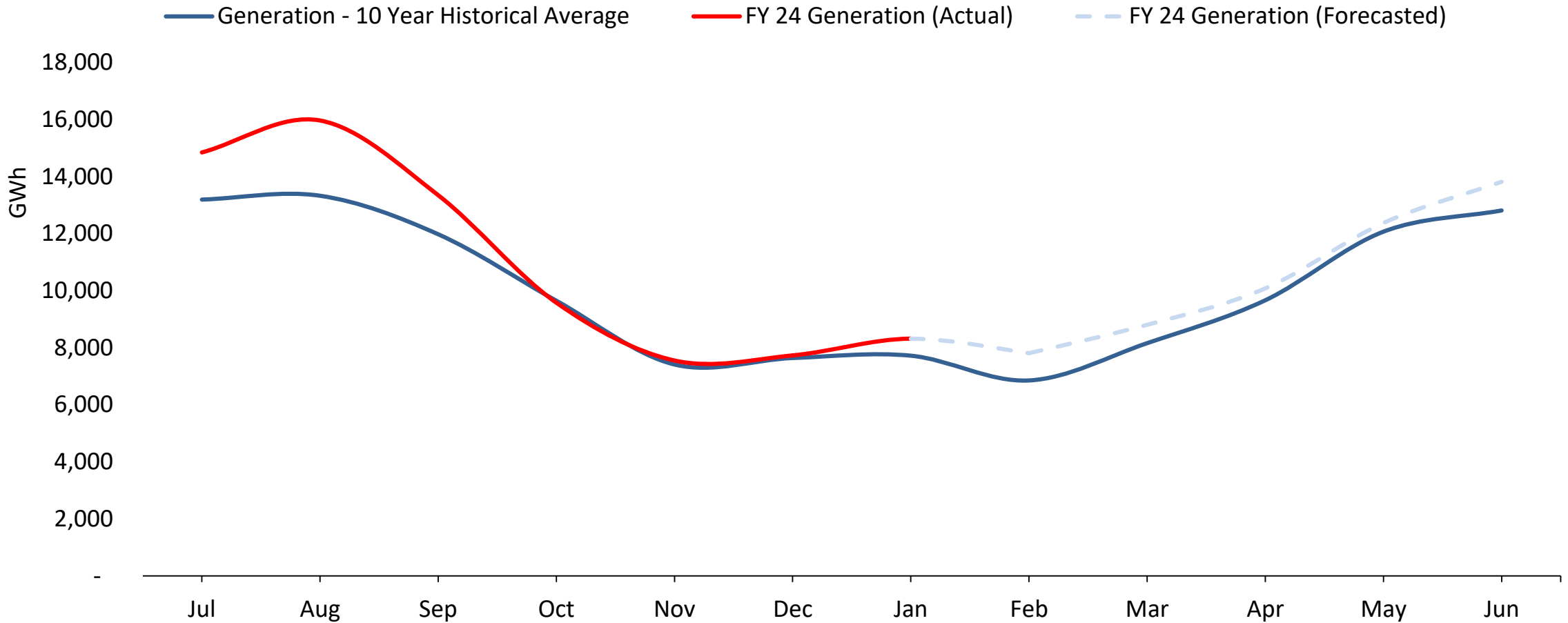
Source: NEPRA, Optimus Research

Local Fuel Plants (Except CPHGC) Running at High Utilizations



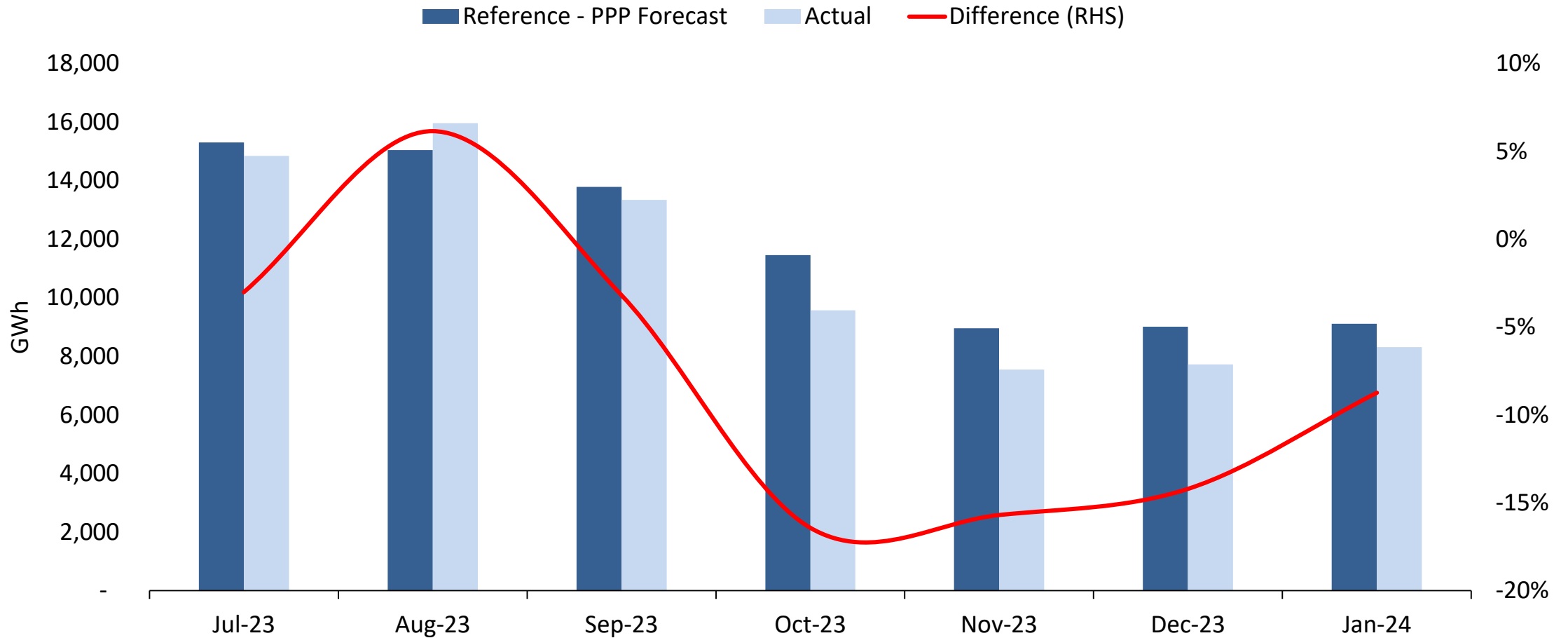
Source: NEPRA, Optimus Research

Power Generation Expected to Decline in Feb-24



Source: NEPRA, Optimus Research

During Jan-24, Power Generation was 9% Lower than the Reference Generation



Source: NEPRA, Optimus Research

Analyst Certification

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