

Mr. Syed Safeer Hussain,
Registrar,
National Electric Power Regulatory Authority,
NEPRA Tower, Attaturk Avenue (East),
Sector G-5/1,
Islamabad.

Ref No. KE/BPR/NEPRA/2020/225
February 25, 2020

Subject: Quarterly variation for the quarter October 2019 to December 2019 under Multi-Year Tariff 2017 – 2023

Dear Sir,

This is with reference to the mechanism for monthly and quarterly variations provided in the Multi-Year Tariff Determination of K-Electric Limited (KE) dated July 5, 2018 (MYT), notified vide SRO No. 576 (I)/2019 dated May 22, 2019.

In this regard, please find attached calculation of quarterly variation for the quarter October 2019 to December 2019 along with relevant supports, for Authority's approval.

| Quarter | Quarterly Variation per unit (PKR / kWh) |
|---------------------------|--|
| October to December, 2019 | (0.115) |

Economic Dispatch Order

KE dispatches as per Economic Merit Order from its own generating units (with the available fuel resources) and import from external sources. It is also certified that the cost of fuel and power purchase claim does not include any amount of late payment surcharge / mark-up / interest. Requisite details including generation statistic sheets and invoices have already been submitted with monthly cost variations for the months of October to December 2019.

Heat Rate

In the MYT, NEPRA has determined provisional Heat rates for KE's generating plants and has directed KE to conduct fresh Heat rate test for its plants, based on which final Heat rates will be determined by NEPRA.

In this regard, NEPRA has issued its decision on Heat rate for BQPS – II plant on January 1, 2020 and accordingly the calculations are based on Heat rates determined therein. Further, impact of change in heat rates on tariff variations for the period already passed is included in this quarterly variation.

Further, Heat rate test of KCCP, KGTPS and SGTPS Plants have been conducted during June and July 2019. Whereas, heat rate test of BQPS-I plant was conducted in November 2019 and working for required adjustment will be submitted to NEPRA after determination of final Heat rates for these plants based on the test results.

KE would humbly request NEPRA for expeditious processing of pending monthly variations for July 2019 to January 2020 and quarterly tariff variations for the period April 2019 to September 2019.

Sincerely,



Ayaz Jaffar Ahmed
Director – Finance & Regulations

Enclosed:

- Calculation sheet of quarterly adjustment – October 2019 to December-2019
- Supporting Documents for the quarter October 2019 to December-2019

K ELECTRIC LIMITED

| | |
|---|-------------------------------|
| QUARTERLY ADJUSTMENT IN TARIFF DUE TO VARIATION IN FUEL AND POWER PURCHASE COST INCLUDING O&M AND CAPACITY CHARGES | Quarter ended Dec 2019 |
|---|-------------------------------|

| | | Dec-19 |
|---|---------------|-----------------|
| Required adjustment in Tariff | | |
| Quarterly Revision to reset price levels | Rs/kWh | (1.104) |
| Unrecovered Cost for current quarter | Rs/kWh | 1.399 |
| Reversal of unrecovered cost of previous quarter - Note 1 | Rs/kWh | (0.410) |
| Total Required adjustment in KE's Tariff | Rs/kWh | (0.115) |
| Total Required adjustment in KE's Tariff | Ps/kWh | (11.505) |

Quarterly Revision to reset price levels

| | | |
|--------------------|-----|-----------|
| Units Sent Out | GWh | 1,021.007 |
| T&D Losses allowed | GWh | 17.76% |
| Units billed | GWh | 839.676 |

| | | |
|--------------------------|----------------|------------------|
| Cost of Fuel - KE | Mill Rs | 4,835.576 |
|--------------------------|----------------|------------------|

| | Sep-19 | Dec-19 | Variation |
|--|--------|--------|----------------|
| Weighted Average Fuel cost per unit billed | 9.035 | 5.759 | (3.276) |

| | | Dec-19 |
|---------------------------------|---------|------------------|
| Cost of Power Purchases | | |
| - Fuel Cost | Mill Rs | 3,579.172 |
| - O&M and Capacity Cost | Mill Rs | 3,494.437 |
| - Total Cost of Power Purchases | Mill Rs | 7,073.609 |

| | | Sep-19 | Dec-19 | |
|--|--------|--------------|--------------|--------------|
| Weighted Average Cost of Power Purchases (cost per unit billed) | | | | |
| - Fuel Cost | Rs/kWh | 3.843 | 4.263 | 0.420 |
| - O&M Cost and capacity cost | Rs/kWh | 2.409 | 4.162 | 1.752 |
| - Total Cost of Power Purchases | Rs/kWh | 6.252 | 8.424 | 2.172 |

| | | Dec-19 |
|--|---------------|----------------|
| QUARTERLY INCREASE/DECREASE IN COST PER UNIT BILLED | | |
| - Cost of Fuel - KE | Rs/kWh | (3.276) |
| - Cost of Power Purchases - Total | Rs/kWh | 2.172 |
| - Total Cost Variation | Rs/kWh | (1.104) |

Note: Please note that the latest SoT determined by NERPA, applicable for the quarter April to June 2019, is based on sales mix of FY 17 to 19. However, post MYT notification on May 22, 2019 updated terms and conditions have been applied including changes in definition of lifeline consumers and conversion of eligible consumers to "A3" category along with enabling of Time of Use (ToU) metering for Residential and Commercial consumers etc. Accordingly, KE would request NEPRA to adjust the impact while issuing determination of Quarterly SoTs

K ELECTRIC LIMITED

| QUARTERLY ADJUSTMENT IN TARIFF DUE TO VARIATION IN FUEL AND POWER PURCHASE COST INCLUDING O&M AND CAPACITY CHARGES | | | Quarter ended Dec 2019 | | | | |
|--|----------------|------------------|-------------------------|---------------------------|---------------------------|--------------------|-----|
| | | | Sep-19 | Oct-19 | Nov-19 | Dec-19 | QTR |
| ADJUSTMENT IN TARIFF DUE TO UNRECOVERED COST | | | Reference | | | | |
| Units Sent Out | GWh | a | 1,737.673 | 1,268.821 | 1,021.007 | | |
| T&D Losses allowed | | b | 17.8% | 17.8% | 17.7600% | | |
| Units billed | GWh | c = a x (1-b) | 1,429.062 | 1,043.478 | 839.676 | 3,312.217 | |
| a. O&M and Capacity cost of Power purchases | | | | | | | |
| O&M and Capacity cost of Power purchases | Mill Rs | d | 4,110.750 | 4,264.153 | 3,494.437 | | |
| O&M and Capacity cost of power purchases (per unit billed) | Rs/kWh | e = d/c | 2.409 | 2.877 | 4.086 | 4.162 | |
| Increase or decrease in O&M and Capacity cost (over Reference) | Rs/kWh | f | 0.467 | 1.677 | 1.752 | | |
| O&M and Capacity Cost of Power Purchases - Monthly variations Amount | Mill Rs | g = f x c | <u>667.516</u> | <u>1,749.959</u> | <u>1,471.291</u> | 3,888.766 | |
| b. Unrecovered Cost of FCA due to non adjustment of T&D losses | | | | | | | |
| i Monthly variation in Fuel Cost (FCA) - Per unit | | | | | | | |
| Cost of Fuel - KE | Rs/kWh | h | (0.137) | (1.592) | (2.699) | | |
| Cost of Fuel - Power Purchases | Rs/kWh | i | <u>(0.061)</u> | <u>(0.309)</u> | <u>0.345</u> | | |
| Total | Rs/kWh | j = h + i | <u>(0.198)</u> | <u>(1.901)</u> | <u>(2.354)</u> | | |
| ii Monthly variation in Fuel Cost (FCA) - Amount | | | | | | | |
| Cost of Fuel - KE | Mill Rs | k = h x a | (238.348) | (2,019.655) | (2,755.882) | (5,013.885) | |
| Cost of Fuel - Power Purchases | Mill Rs | l = i x a | <u>(105.236)</u> | <u>(392.030)</u> | <u>352.669</u> | (144.597) | |
| Total | Mill Rs | m = k + l | <u>(343.584)</u> | <u>(2,411.685)</u> | <u>(2,403.213)</u> | (5,158.482) | |
| iii Unrecovered Cost of FCA due to non adjustment of T&D losses | | | | | | | |
| Cost of Fuel - KE | Mill Rs | n = k x b | (42.331) | (358.691) | (489.445) | (890.466) | |
| Cost of Fuel - Power Purchases | Mill Rs | o = l x b | <u>(18.690)</u> | <u>(69.624)</u> | <u>62.634</u> | <u>(25.680)</u> | |
| Total | Mill Rs | p = n + o | <u>(61.021)</u> | <u>(428.315)</u> | <u>(426.811)</u> | (916.146) | |
| Summary of Unrecovered cost for the quarter | | | | | | | |
| a. O&M and Capacity cost of Power purchases | Mill Rs | | | | | 3,888.766 | |
| b. Unrecovered Cost of FCA due to non adjustment of T&D losses | Mill Rs | | | | | (916.146) | |
| c. Other Adjustments | | | | | | | |
| WPPF to IPPs and other adjustments - Note 1 | Mill Rs | | | | | 846.979 | |
| Total Unrecovered cost for the quarter | Mill Rs | q | | | | 3,819.599 | |
| Estimated Units to be sold in next quarter at allowed T&D losses | GWh | r | | | | 2,730.143 | |
| Unrecovered Cost per unit for current quarter | Rs/kWh | s = q / r | | | | 1.399 | |

Notes:

- 1 Tapal Energy WPPF Rs.88.951 million, Tapal Energy Limited adjustments for the period June 2019 to October 2019 as per tariff determination Rs. 319.893 million, Anoud deduction Rs. - 9.440 million, FPCL FPA PKR 52.411 million, CPPA-G 650 UoSC adjustment relating to FY 16 PKR 43.964 million, KE's WPPF Rs. 446.961, Impact of change in Heat Rate of BQPS II plant as per review decision dated January 1, 2020 (July 2011 to June 2016 Rs. -1,348 million and July 2016 to November 2019 Rs. 1,252)
- 2 NEPRA has issued the decision for Heat rates of BQPS II on January 01, 2020. Therefore, December 2019 cost is based on the revised heat rates. The impact of change in heat rates till November 2019 has been included in Unrecovered cost.

Work Sheet- Power Purchase Cost Variation

| DESCRIPTION | | Sep-19 | Oct-19 | Nov-19 | Dec-19 | |
|--|--------------------------|----------|------------------|------------------|------------------|------------------|
| 1 O&M COST | | | | | | |
| a | KANUPP | Mill Rs. | - | - | 22.418 | 23.405 |
| b | TAPAL | Mill Rs. | 25.727 | 45.981 | 21.408 | 15.415 |
| c | GUL AHMED | Mill Rs. | 71.043 | 55.826 | 12.677 | 8.888 |
| d | CPPA-G - Note 1 | Mill Rs. | 134.780 | 156.684 | 127.939 | 122.183 |
| e | ANOUD POWER | Mill Rs. | 8.844 | 12.022 | 12.545 | 9.466 |
| f | INT IND (IIL) | Mill Rs. | 7.490 | 10.061 | 12.457 | 9.688 |
| g | FFBL | Mill Rs. | 19.057 | 22.952 | 19.226 | 19.951 |
| h | SNPC - Note 2 & 3 | Mill Rs. | 64.915 | 64.990 | 59.930 | 52.141 |
| i | OURSUN | Mill Rs. | 12.383 | 12.666 | 9.957 | 11.928 |
| j | CPPA-G - 150 MW - Note 1 | Mill Rs. | 7.338 | 6.513 | 10.103 | 12.214 |
| k | Gharo Solar | Mill Rs. | - | - | - | 2.812 |
| TOTAL | | Mill Rs. | 351.577 | 387.696 | 308.660 | 288.092 |
| 2 CAPACITY COST | | | | | | |
| a | KANUPP | Mill Rs. | - | - | - | - |
| b | TAPAL | Mill Rs. | - | 88.402 | 40.874 | 29.619 |
| c | GUL AHMED | Mill Rs. | 190.773 | 193.424 | 28.706 | 14.655 |
| d | CPPA-G | Mill Rs. | 2,093.352 | 2,301.748 | 2,783.678 | 2,176.656 |
| e | ANOUD POWER | Mill Rs. | - | - | - | - |
| f | INT IND (IIL) | Mill Rs. | - | - | - | - |
| g | FFBL | Mill Rs. | 203.739 | 247.706 | 207.493 | 215.316 |
| h | SNPC - Note 2 & 3 | Mill Rs. | 293.196 | 307.782 | 300.401 | 195.491 |
| i | OURSUN | Mill Rs. | 84.468 | 86.398 | 67.919 | 81.366 |
| j | CPPA-G - 150 MW | Mill Rs. | 325.030 | 497.594 | 526.422 | 472.960 |
| k | Gharo Solar | Mill Rs. | - | - | - | 20.282 |
| TOTAL | | Mill Rs. | 3,190.559 | 3,723.054 | 3,955.493 | 3,206.344 |
| 3 TOTAL O&M & CAPACITY COST | | | | | | |
| a | KANUPP | Mill Rs. | - | - | 22.418 | 23.405 |
| b | TAPAL | Mill Rs. | 25.727 | 134.383 | 62.283 | 45.034 |
| c | GUL AHMED | Mill Rs. | 261.817 | 249.250 | 41.383 | 23.543 |
| d | CPPA-G | Mill Rs. | 2,228.132 | 2,458.432 | 2,911.617 | 2,298.839 |
| e | ANOUD POWER | Mill Rs. | 8.844 | 12.022 | 12.545 | 9.466 |
| f | INT IND (IIL) | Mill Rs. | 7.490 | 10.061 | 12.457 | 9.688 |
| g | FFBL | Mill Rs. | 222.796 | 270.658 | 226.719 | 235.267 |
| h | SNPC - Note 2 & 3 | Mill Rs. | 358.110 | 372.771 | 360.330 | 247.632 |
| i | OURSUN | Mill Rs. | 96.851 | 99.064 | 77.876 | 93.294 |
| j | CPPA-G - 150 MW | Mill Rs. | 332.369 | 504.108 | 536.524 | 485.174 |
| k | Gharo Solar | Mill Rs. | - | - | - | 23.094 |
| TOTAL | | Mill Rs. | 3,542.135 | 4,110.750 | 4,264.153 | 3,494.437 |

Note 1: O&M rate for December 2019 is provisional and based on November 2019 O&M rate

Note 2: STDC wheeling charges included above are provisional as the invoices are yet to be received

Note 3: SNPC capacity charges for the month of December 2019 include O&M expenses at indexed rates determined by NEPRA whereas other components are included at reference rates, and are subject to change based on NEPRA's decision on SNPC's review motion dated January 17, 2020.