

The Registrar
NEPRA
Islamabad

Ref. No. KE/BPR/NEPRA/2017/012

Dated: January 16th, 2017

Subject: **PROVISIONAL MONTHLY FUEL COST ADJUSTMENT (FCA) DUE TO VARIATION IN FUEL AND POWER PURCHASE PRICE FOR THE MONTH OF DECEMBER 2016**

Dear Sir,

This is with reference to fuel cost adjustment based on units sent out for the month of December 2016, as per the Multi Year Tariff Petition (I-MYT) filed by K-Electric (KE) for the period commencing from July 01, 2016 to June 30, 2026.

Required Monthly Adjustment (Provisional):

This submission is based on the provisional power purchase rate of NTDC. The units sent out on Gas and Furnace oil at BQPS-I have been worked out in the ratio of actual units generated on Gas & Furnace Oil at BQPS-I. Variation of BQPS-II has not been worked out as its heat rate has not been determined by NEPRA, once determined adjustment request will be submitted by KE. The summarized position is as under:

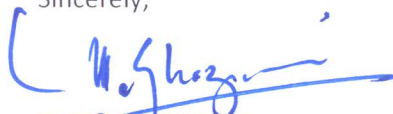
| DESCRIPTION | DEC 2016 (Over Sept-16) | |
|------------------------------------|----------------------------|---------------|
| | (Mill. Rs.) | (Ps./kWh) |
| Fuel Price Variation | 270.698 | 23.856 |
| Power Purchase Price Variation | 187.394 | 16.515 |
| Total Fuel Costs Adjustment | 458.092 | 40.371 |

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/ markup/ interest. All the requisite details including generating statistic sheets and invoices are attached.

As the I-MYT petition, is in the process of approval, this submission is provisional and in case of any adjustment, if required, revised petition will be filed accordingly.

Sincerely,



M. Aamir Ghaziani
Director (Finance & Regulations)
Encl.

K-Electric Limited

KE House, 39-B, Sunset Boulevard, Phase II (Ext), DHA, Karachi, Pakistan.

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K Electric Limited (Formerly KESC Ltd.)

FCA for the month of December-2016

SUMMARY OF REQUIRED ADJUSTMENT ON ACCOUNT OF VARIATION IN COST OF FUEL AND POWER PURCHASES

| DESCRIPTION | | Unit | Sep-16 | Dec-16 |
|-------------|--|----------|------------------|------------------|
| I | a. Monthly Variation in | | | |
| | i Fuel Price | Mill Rs. | 173.353 | 270.698 |
| | ii Power Purchase Price - Fuel component | Mill Rs. | (165.855) | 187.394 |
| | iii Total Monthly Variation (i + ii) - Over Reference Tariff | Mill Rs. | 7.497 | 458.092 |
| | b. Units Sent Out | Mill kWh | 1,477.099 | 1,134.720 |
| II | a. Monthly Variation in FSA - due to | | | |
| | i Fuel Price | Ps/kWh | 11.736 | 23.856 |
| | ii Power Purchase Price - Fuel component | Ps/kWh | (11.228) | 16.515 |
| | b. Monthly increase/decrease to be passed to Consumers (i+ii) | Ps/kWh | 0.508 | 40.371 |

Work Sheet- Generation Fuel Cost Variation

| DESCRIPTION | | Sep-16 | Dec-16 | |
|---------------------------------|-----------------------------|----------|-----------|-----------|
| 1 UNITS SENT OUT - KE | | | | |
| 1a UNITS SENT OUT ON GAS | | | | |
| i | Bin Qasim | Mill kWh | 119.263 | 38.034 |
| ii | Bin Qasim II - CCPP | Mill kWh | 334.196 | 192.765 |
| iii | Korangi Gas 2 | Mill kWh | 45.561 | 10.207 |
| iv | Site Gas 2 | Mill kWh | 39.476 | 2.060 |
| v | Korangi combined | Mill kWh | 109.570 | 45.703 |
| | Total | Mill kWh | 648.065 | 288.768 |
| 1b UNITS SENT OUT ON F. OIL | | | | |
| i | Bin Qasim | Mill kWh | 242.559 | 254.808 |
| | Total | Mill kWh | 242.559 | 254.808 |
| 1c TOTAL UNITS SENT OUT (1 + 2) | | | | |
| i | Bin Qasim | Mill kWh | 361.823 | 292.842 |
| ii | Bin Qasim II - CCPP | Mill kWh | 334.196 | 192.765 |
| iii | Korangi Gas 2 | Mill kWh | 45.561 | 10.207 |
| iv | Site Gas 2 | Mill kWh | 39.476 | 2.060 |
| v | Korangi combined | Mill kWh | 109.570 | 45.703 |
| | Total | Mill kWh | 890.625 | 543.577 |
| 2 HEAT RATE AT BUS BAR | | | | |
| 2a Heat Rate of GAS - of item 1 | | | | |
| i | Bin Qasim | Btu/kWh | 10,650 | 10,650 |
| ii | Bin Qasim II - CCPP | Btu/kWh | 8,605 | 8,605 |
| iii | Korangi Gas 2 | Btu/kWh | 9,500 | 9,500 |
| iv | Site Gas 2 | Btu/kWh | 9,500 | 9,500 |
| v | Korangi combined | Btu/kWh | 9,110 | 9,110 |
| 2b Conversion Factor | | | | |
| i | Bin Qasim | Kg/kWh | 0.264 | 0.264 |
| ii | Korangi Thermal | Kg/kWh | 0.340 | 0.340 |
| 3 FUEL PRICES | | | | |
| a. | Fuel Prices- Gas (Rs/MMBTu) | Rs/MMBTu | 613 | 496 |
| b. | Fuel Price -F.O (Rs/Kg) | Rs/Kg | 30,520 | 34,843 |
| 4 COST OF FUEL | | | | |
| 4a COST OF GAS | | | | |
| i | Bin Qasim | Mill Rs | 778.605 | 200.997 |
| ii | Bin Qasim II - CCPP | Mill Rs | 1,762.839 | 823.090 |
| iii | Korangi Gas 2 | Mill Rs | 265.322 | 48.115 |
| iv | Site Gas 2 | Mill Rs | 229.887 | 9.709 |
| v | Korangi combined | Mill Rs | 611.884 | 206.600 |
| | Total | Mill Rs | 3,648.537 | 1,288.512 |
| 4b COST OF FURNACE OIL | | | | |
| i | Bin Qasim | Mill Rs | 1,954.338 | 2,343.851 |
| | Total | Mill Rs | 1,954.338 | 2,343.851 |
| 4c TOTAL COST OF FUEL | | | | |
| i | Bin Qasim | Mill Rs | 2,732.943 | 2,544.848 |
| ii | Bin Qasim II - CCPP | Mill Rs | 1,762.839 | 823.090 |
| iii | Korangi Gas 2 | Mill Rs | 265.322 | 48.115 |
| iv | Site Gas 2 | Mill Rs | 229.887 | 9.709 |
| v | Korangi combined | Mill Rs | 611.884 | 206.600 |
| | Total | Mill Rs | 5,602.875 | 3,632.363 |

Work Sheet- Generation Fuel Cost Variation

| DESCRIPTION | | Sep-16 | Dec-16 |
|-------------|--|----------------|----------------|
| 5 | <u>COST OF FUEL PER KWH</u> | | |
| a | Bin Qasim Rs/kWh | 7.553 | 8.690 |
| b | Bin Qasim II - CCP | 5.275 | 4.270 |
| c | Korangi Gas 2 Rs/kWh | 5.824 | 4.714 |
| d | Site Gas 2 Rs/kWh | 5.824 | 4.714 |
| e | Korangi combined Rs/kWh | 5.584 | 4.521 |
| 6 | <u>INCREASE/DECREASE IN COST OF FUEL PER KWH</u> | | |
| a | Bin Qasim Rs/kWh | 0.479 | 1.137 |
| b | Bin Qasim II - CCP | - | - |
| c | Korangi Gas 2 Rs/kWh | - | (1.109) |
| d | Site Gas 2 Rs/kWh | - | (1.109) |
| e | Korangi combined Rs/kWh | - | (1.064) |
| 7 | <u>INCREASE / DECREASE IN FUEL COST OVER PREVIOUS MONTH</u> | | |
| a | Bin Qasim Mill Rs | 173.353 | 332.932 |
| b | Bin Qasim II - CCP | - | - |
| c | Korangi Gas 2 Mill Rs | - | (11.324) |
| d | Site Gas 2 Mill Rs | - | (2.285) |
| e | Korangi combined Mill Rs | - | (48.625) |
| | Total Mill Rs | 173.353 | 270.698 |
| 8 | <u>INCREASE / DECREASE IN TARIFF</u> | | |
| | <u>TO BE PASSED IN THE MONTHLY BILLS</u> | | |
| a | Fuel price variation Mill Rs | 173.353 | 270.698 |
| b | Units Sent Out - KE Mill kWh | 890.625 | 543.577 |
| c | Power Purchase Mill kWh | 586.475 | 591.144 |
| d | Total Units Sent Out (b + c) Mill kWh | 1,477.099 | 1,134.720 |
| e | Increase / Decrease in Tariff | | |
| | To be passed on to the consumers - FSA Ps/kWh | 11.736 | 23.856 |

Work Sheet- Power Purchase Cost Variation

| DESCRIPTION | | Sep-16 | Dec-16 |
|--|---|------------------|------------------|
| 1 POWER PURCHASES | | | |
| a | KANUPP Mill kWh | 24.926 | 34.325 |
| b | TAPAL Mill kWh | 59.462 | 56.295 |
| c | GUL AHMED Mill kWh | 63.200 | 56.653 |
| d | NTDC/WAPDA Mill kWh | 428.146 | 433.525 |
| e | ANOUD POWER Mill kWh | 4.934 | 4.508 |
| f | INT IND (IIL) Mill kWh | 5.807 | 5.836 |
| | TOTAL Mill kWh | 586.475 | 591.144 |
| 2 COST OF POWER PURCHASE - FUEL COST | | | |
| a | KANUPP Mill Rs | 166.610 | 272.563 |
| b | TAPAL Mill Rs | 387.033 | 419.724 |
| c | GUL AHMED Mill Rs | 428.100 | 461.418 |
| d | NTDC/WAPDA Mill Rs | 1,566.672 | 1,602.135 |
| e | ANOUD POWER Mill Rs | 32.111 | 32.676 |
| f | INT IND (IIL) Mill Rs | 33.747 | 33.965 |
| | TOTAL Mill Rs | 2,614.274 | 2,822.479 |
| 3 COST OF POWER PURCHASE- Fuel Cost/kWh | | | |
| a | KANUPP Rs/kWh | 6.684 | 7.941 |
| b | TAPAL Rs/kWh | 6.509 | 7.456 |
| c | GUL AHMED Rs/kWh | 6.774 | 8.145 |
| d | NTDC/WAPDA Rs/kWh | 3.659 | 3.696 |
| e | ANOUD POWER Rs/kWh | 6.508 | 7.248 |
| f | INT IND (IIL) Rs/kWh | 5.811 | 5.819 |
| | AVERAGE Rs/kWh | 4.458 | 4.775 |
| 4 INCREASE / DECREASE IN FUEL COMPONENT OF POWER PURCHASE - TO BE PASSED IN THE MONTHLY BILLS | | | |
| a | Average Monthly Fuel cost Rs/kWh | 4.458 | 4.775 |
| b | Reference Rate - Previous Month Rs/kWh | 4.740 | 4.458 |
| c | Increase / Decrease in Avg. Rate Rs/kWh | (0.283) | 0.317 |
| d | Total Power Purchase Mill kWh | 586.475 | 591.144 |
| e | Increase / Decrease in Fuel Cost Mill Rs | (165.855) | 187.394 |
| 5 INCREASE / DECREASE IN TARIFF TO BE PASSED IN THE MONTHLY BILLS | | | |
| a | Fuel price variation in cost of power purchase | (165.855) | 187.394 |
| b | Units Sent Out - KE Mill kWh | 890.625 | 543.577 |
| c | Power Purchase Mill kWh | 586.475 | 591.144 |
| d | Total Units Sent Out (b + c) Mill kWh | 1,477.099 | 1,134.720 |
| e | Increase / Decrease in Tariff to be passed on to the consumers - FSA Ps/kWh | (11.228) | 16.515 |

K-Electric Limited

Dec-16

| Description | MMBTU (As per Bills) | Cubic Meters | GCV AS PER BILLS | GCV AS PER BTU's ON BILLS | MMCF | MMCFD | BTU/CF | MMBTUs | Amount excluding Meter rent | Meter rent | Total Amount of SSGC Bills | Rs/ MMBTU |
|---|-------------------------|-------------------|---------------------|---------------------------------|-------------------|----------------|---------------------|-----------------------|-----------------------------------|---------------|-------------------------------|---------------|
| BIN QASIM | | | | | | | | | | | | |
| 18143200 | - | - | 1,055,350 | - | - | - | - | - | 16,732 | 2,500 | 19,232 | - |
| M2121941 | - | - | 1,055,350 | - | - | - | - | - | 16,732 | 2,500 | 19,232 | - |
| M12169664 | 142,691.5217 | 3,809,306 | 1,055,350 | 1,055,35484 | 135,207 | 4,362 | 5,064,656 | 142,690.87 | 70,802,612 | 2,500 | 70,805,112 | 496.20 |
| 18143201 | - | - | 1,055,350 | - | - | - | - | - | 16,732 | 2,500 | 19,232 | - |
| M2121940 | 141,319.2234 | 3,772,671 | 1,055,350 | 1,055,35484 | 133,907 | 4,320 | 5,015,948 | 141,318.58 | 70,121,687 | 2,500 | 70,124,187 | 496.20 |
| 18143197 | 141,127.2103 | 3,767,545 | 1,055,350 | 1,055,35484 | 133,725 | 4,314 | 5,009,133 | 141,126.56 | 70,026,411 | 2,500 | 70,028,911 | 496.20 |
| Total | 425,137.9554 | 11,349,522 | 1,055,3500 | 1,055,35484 | 402.84 | 12.99 | 15,089,738 | 425,136.0053 | 211,000,906 | 15,000 | 211,015,906 | 496.31 |
| BIN QASIM COMBINED CYCLE POWER PLANT | | | | | | | | | | | | |
| 16128821 | 465,752.8139 | 12,433,780 | 1,055,350 | 1,055,35484 | 441,323 | 14,236 | 16,531,311 | 465,750.68 | 231,103,541 | 2,500 | 231,106,041 | 496.20 |
| M16647823 | 473,610.0313 | 12,643,537 | 1,055,350 | 1,055,35484 | 448,769 | 14,476 | 16,810,193 | 473,607.86 | 235,002,242 | 2,500 | 235,004,742 | 496.20 |
| M16647821 | 490,952.2325 | 13,106,506 | 1,055,350 | 1,055,35484 | 465,201 | 15,006 | 17,425,733 | 490,949.98 | 243,607,330 | 2,500 | 243,609,830 | 496.20 |
| M16647825 | 495,546.9499 | 13,229,167 | 1,055,350 | 1,055,35484 | 469,555 | 15,147 | 17,588,816 | 495,544.68 | 245,887,199 | 2,500 | 245,889,699 | 496.20 |
| 16647822 | 524,282.5041 | 13,996,294 | 1,055,350 | 1,055,35484 | 496,783 | 16,025 | 18,608,749 | 524,280.10 | 260,145,596 | 2,500 | 260,148,096 | 496.20 |
| Total | 2,450,144.5317 | 65,409,284 | 1,055,350 | 1,055,35484 | 2,321,6310 | 74.891 | 86,964,802 | 2,450,133.29 | 1,215,745,908 | 12,500 | 1,215,758,408 | 496.20 |
| KORANGI TOWN GAS TURBINE-II | | | | | | | | | | | | |
| 16128823 | 61,787.5993 | 1,758,069 | 990,170 | 990,17419 | 62,401 | 2,013 | 2,193,074 | 61,787.34 | 30,658,608 | 3,000 | 30,661,608 | 496.20 |
| 15300069 | 40,960.8995 | 1,165,478 | 990,170 | 990,17419 | 41,367 | 1,334 | 1,453,856 | 40,960.73 | 20,324,534 | 2,500 | 20,327,034 | 496.20 |
| 16844632 | - | - | 900,170 | - | - | - | - | - | 16,732 | 2,500 | 19,232 | - |
| Total | 102,748.4988 | 2,923,547 | 990,170 | 990,17419 | 103,768 | 3,347 | 3,646,930 | 102,748.06 | 50,999,874 | 8,000 | 51,007,874 | 496.36 |
| SITE GAS TURBINE-II | | | | | | | | | | | | |
| 16392828 | 12,962.9344 | 356,855 | 1,023,430 | 1,023,42904 | 12,666 | 0,409 | 460,106 | 12,962.95 | 6,432,124 | 3,000 | 6,435,124 | 496.19 |
| 16392831 | 10,692.1914 | 294,344 | 1,023,430 | 1,023,42904 | 10,447 | 0,337 | 379,508 | 10,692.20 | 5,305,396 | 2,500 | 5,307,896 | 496.19 |
| Total | 23,655.1258 | 651,199 | 1,023,430 | 1,023,42904 | 23,1136 | 0.746 | 839,614 | 23,655.15 | 11,737,520 | 5,500 | 11,743,020 | 496.19 |
| KORANGI COMBINED CYCLE POWER PLANT | | | | | | | | | | | | |
| 18143203 | 123,816.7933 | 3,413,260 | 1,022,010 | 1,022,01290 | 121,150 | 3,908 | 4,394,729 | 123,816.44 | 61,437,094 | 2,500 | 61,439,594 | 496.19 |
| 13403410 | 124,675.1741 | 3,436,923 | 1,022,010 | 1,022,01290 | 121,990 | 3,935 | 4,425,196 | 124,674.82 | 61,863,017 | 2,500 | 61,865,517 | 496.19 |
| 16844633 | 159,571.0752 | 4,398,899 | 1,022,010 | 1,022,01290 | 156,134 | 5,037 | 5,663,785 | 159,570.62 | 79,178,138 | 2,500 | 79,180,638 | 496.19 |
| Total | 408,063.0426 | 11,249,082 | 1,022,010 | 1,022,01290 | 399,2739 | 12,880 | 14,483,710 | 408,061.88 | 202,478,249 | 7,500 | 202,485,749 | 496.19 |
| Total KE Generating Stations | 3,409,749,1543 | 91,582,634 | 1,048,952 | 1,048,95172 | 3,250,6255 | 104.859 | 121,024,794 | 3,409,734.39 | 1,691,962,457 | 48,500 | 1,692,010,957 | 496.22 |
| MM000001 | - | - | 1,022,0100 | - | - | - | - | - | 16,732 | 3,000 | 19,732 | - |
| 14240562 | - | - | 1,061,4000 | - | - | - | - | - | 16,732 | 2,000 | 18,732 | - |
| Total | 3,409,749,1543 | 91,582,634 | 1,048,947 | 1,048,95172 | 3,250,6255 | 104.86 | 121,024,7940 | 3,409,734.3932 | 1,691,995,921 | 53,500 | 1,692,049,421 | 496.23 |

