



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

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No. NEPRA/R/TRF-362/K-Electric-2016/14947-51

August 11, 2022

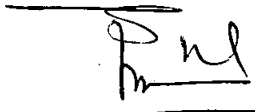
Chief Executive Officer
K-Electric Limited (KEL)
KE House, Punjab Chowrangi,
39 – B, Sunset Boulevard, Phase-II
Defence Housing Authority,
Karachi.

Subject: Decision of the Authority in the matter of Monthly Fuel Charges Adjustments of K-Electric Limited for the month of June 2022 and Notification (S.R.O. 1424(I)/2022 dated 10.08.2022) Thereof

Enclosed please find herewith a copy of decision of the Authority (09 Pages) in the matter of fuel charges adjustment for the month of June 2022 in respect of K-Electric Limited, along with Notification (S.R.O. 1424(I)/2022 dated 10.08.2022) thereof. This is for information and further necessary action.

2. While reflecting the Fuel Adjustment Charges, K-Electric Ltd. shall keep in view and strictly comply with the orders of the court(s), if any, notwithstanding this order.

Enclosure: As above (Decision along Notification is also available on NEPRA's website)


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(Syed Safer Hussain)
Registrar

CC:

1. Secretary, Ministry of Energy, Power Division, 'A' Block, Pak Secretariat, Islamabad.
2. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
3. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.
4. Secretary, Privatization Commission, 4th Floor, Kohsar Block, Constitution Avenue, New Secretariat, Islamabad

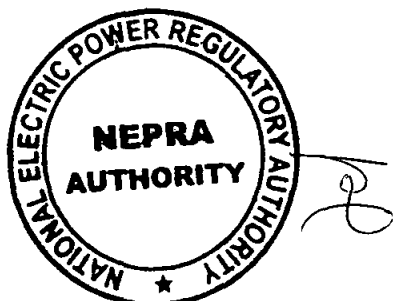
**DECISION OF THE AUTHORITY IN THE MATTER OF MONTHLY FUEL CHARGES
ADJUSTMENTS OF K-ELECTRIC LIMITED FOR THE MONTH OF JUNE 2022**

1. Pursuant to the provisions of Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997, and as per the mechanism for monthly, quarterly and annual adjustments provided in the tariff determination of K-Electric Limited (herein referred to as "K-Electric or KE") dated July 05, 2018, duly notified in the official Gazette vide SRO No. 576(I)/2019 dated May 22, 2019, the Authority has to review and revise the approved tariff on monthly, quarterly and annual adjustments.
2. As per the mechanism provided in the determination, impact of change in KE's own generation fuel cost component due to variation in fuel prices, generation mix & volume shall be passed on to the consumers directly in their monthly bills in the form of Fuel Charges Adjustment (FCA). Similarly, impact of change in the fuel component of Power Purchase Price (PPP) due to variation in fuel prices & energy mix shall also be passed on to consumers through monthly FCA.
3. However, the impact of monthly variations in million rupees in K-Electric's own generation's fuel cost component as well power purchase price to the extent of targeted T&D losses, not taken into account in the monthly FCAs, shall be adjusted on quarterly basis.
4. Pursuant to notification of the determined MYT, K-Electric filed its initial monthly FCA request for June 2022 and, later, revised as under;

Monthly FCA		
Month	Mln Rs.	Rs./kWh
Jun-22	22,254	11.389

Hearing

5. Since the impact of any adjustments has to be made part of the consumer end tariff, therefore, the Authority, in order to provide an opportunity of hearing to all the concerned and meet the ends of natural justice, decided to conduct a hearing in the matter.
6. The Authority scheduled hearing in the matter of FCAs of K-Electric for the month of June 2022 on July 28, 2022 at NEPRA Tower and through ZOOM. Notices in this regard were published in the newspaper on July 21, 2022 and also uploaded on NEPRA's website along-with adjustment requests filed by K-Electric.
7. Following issues were framed for discussion during the hearing;



- i. Whether the requested Fuel Price Variation is justified?
- ii. Whether K-Electric has followed the merit order while giving dispatch to its power plants as well as power purchases from external sources?

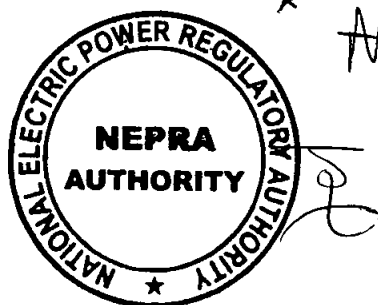
8. The hearing was attended by CFO K-Electric along-with its financial and technical team. Representatives from Media and General Public also attended the hearing. KE in its request has submitted that the calculation for the month of June 2022 is based on CPPA-G's requested rate for June 2022 and it is subject to adjustment based on the determination for June 2022 to be issued by NEPRA.

9. The Authority noted that the Power purchase agreement was signed between NTDCL and K-Electric on January 26, 2010 for five years for sale/purchase of 650 MW on basket rates. Subsequently, a decision was made by the Council of Common Interest (CCI) in its meeting held on November 08, 2012 with respect to the modalities for withdrawal of electric power from NTDCL by the Petitioner, wherein it was decided to reduce the supply of energy by 300MW from NTDCL to K-Electric. However, the aforementioned decision of the CCI has been impugned by way of suits /petitions by K-Electric in the Honorable High Court of Sindh at Karachi. No new agreement has been signed between K-Electric and NTDCL till date, and K-Electric is continuing to draw energy from the National Grid, which at present is around 1100 MW.

10. K-Electric, in its adjustment requests, has certified that it despatches as per Economic Merit Order from its own generation units (with the available fuel resources) and import from external sources. It also certified that the cost of fuel and power purchase claims do not include any amount of late payment surcharge/mark-up/interest.

11. K-Electric provided the plant wise generation statistics sheet, signed by K-Electric employees except for BQPS III. The plant wise statistic sheets provide information in terms of Plant Capacity, Actual Units Generated, Actual Auxiliary consumption, Net Generation and Bus Bar sent outs, Actual Heat Rates, fuel consumption & cost of Fuel and Generation cost per unit. In addition K-Electric also provided copies of invoices raised by Fuel Suppliers and copies of invoices raised by IPPs.

12. Mr. Usman Ali, a commentator during the hearing, submitted that Bagasse based energy should be encouraged and sugar mills should be assisted in exploring the possibility of producing electricity through bagasse.



13. Mr. Aneel Mumtaz, a commentator during the hearing, inquired about when Bin Qasim 1 had been overhauled. KE responded by submitting that the major overhauling was carried out in 2018-19.

14. Mr. M. Arif, a commentator during the hearing, submitted that BQPS-3 cost and statistic sheets should be shared. He also stated that BQPS-I is inefficient and costly to the consumers. In this regard KE is directed to provide statistic sheet for BQPS III along with its next FCA filing.

15. Mr. Tanvir Bari, a commentator during the hearing, submitted that a technical audit of KE should be done and more renewables should be added into their generation mix to bring down the cost.

16. The Authority based on the information, data and record provided by K-Electric, has analyzed the FCA claim of K-Electric and issue wise discussion is given hereunder;

Issue: Whether the requested Fuel price variations are justified?

K-Electric Own Generation

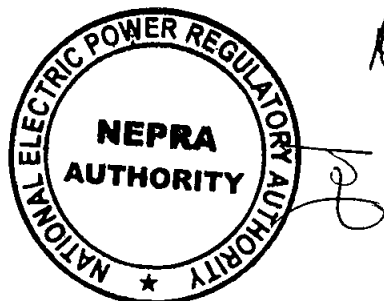
17. In order to verify the generation numbers reported by K-Electric, the Authority analyzed the plant wise generation statistics sheet, provided by K-Electric. The sheet provided information in terms of plant capacity, actual units generated, actual auxiliary consumption, net generation and bus bar sent outs, actual heat rates, fuel consumption & cost of fuel and generation cost per unit. While going through the data / information provided by K-Electric regarding fuel cost of energy from its own power plants, the Authority's observations are as under;

18. K-Electric, as required under the MYT, carried out heat rate test of KCCPP. Pursuant thereto, the Authority, in its decision dated 02.09.2020 decided as under;

"i. For the period from July 2016 to May 2019, the heat rate i.e. 8,250.06 Btu/kWh - net HHV, corresponding to 41.36% efficiency is approved with no further adjustment for degradation and partial loading allowed.

ii. For the period from June 2019 to June 2023, the heat rate i.e. 8,377.032 Btu/kWh - net HHV, corresponding to 40.732% efficiency is approved. This heat rate will be applicable for the control period on flat basis, without any additional adjustment for other parameters.

iii. KE is required to conduct maintenance including Major Overhaul of its plants / units as per prudent utility practices and recommendations of OEM.



iv. In case of non-requirement of Gas compressors - the relevant capacity and Heat rates would be adjusted. For such a scenario, relevant capacity and heat rates calculated during the present tests would be used.”

19. K-Electric, although has filed a motion for leave for review against the Authority’s decision dated 02.09.2020, however, the same has not yet been decided by the Authority. Therefore, for the purpose of instant adjustment K-Electric has used the heat rate of 8,377 BTU/kWh, as allowed in the decision dated 02.09.2020.

20. The Authority observed that K-Electric has requested an amount of Rs.718 million for operation of KCCPP on HSD during June 2022. The Authority for the purpose of instant adjustment has provisionally considered the same amount i.e. Rs.718 million, as requested by K-Electric, based on heat rate of 7,950.183 btu/kWh (at 100% as given in Heat Rate report by IE), with same CV of HSD and auxiliaries as reported by KE. Any adjustment, once the Authority approves the heat rate / Auxiliaries of KCCPP on HSD, and on account of CV would be adjusted subsequently along-with cost allowed previously.

21. For KGTPS and SGTPS plants, pursuant to the heat rate tests conducted by K-Electric, the Authority approved the following Heat Rates for these plants vide decisions dated 18.01.2021, against the already allowed Heat Rates of 8,738 for KGTPS and 8,746 for SGTPS in the MYT;

Heat Rate for July 2016 – June 2019

Requested by KE:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC	Corresponding Efficiency
KGTPS	9276 ¹	36.78%

1. Average of 7 year Heat Rate (FY 2012-23) corresponding to 50% loading (2 sections in CC mode)

Allowed:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC		Corresponding Efficiency
	100% loading	9041.66	
KGTPS	75% loading	9092.66	37.527%

Heat Rate for July 2019 – June 2023

Requested by KE:

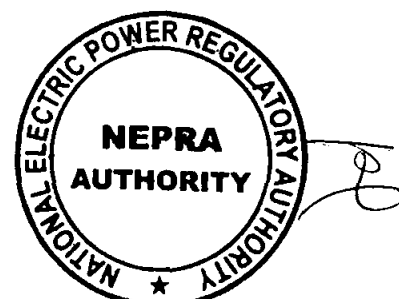
Plant	Net HHV Heat Rate (Btu/kWh) at RSC	Corresponding Efficiency
KGTPS	9276 ¹	36.78%

1. Average of 7 year Heat Rate (FY 2017-23) corresponding to 50% loading (2 sections in CC mode)

Allowed:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC		Corresponding Efficiency
	100% loading	9048.22	
KGTPS	75% loading	9099.212	37.499%

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*Decision of the Authority in the matter of Monthly Fuel Charges Adjustments
of K-Electric for June 2022*

Heat Rate for July 2016 ~ June 2019

Requested by KE:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC	Corresponding Efficiency
SGTPS	9264 ¹	36.83%

1. Average of 7 year Heat Rate (FY 2017-23) corresponding to 50% loading (2 sections in CC mode)

Allowed:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC		Corresponding Efficiency
	100% loading	9045.93	
SGTPS	75% loading	9064.794	37.642%

Heat Rate for July 2019 ~ June 2023

Requested by KE:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC	Corresponding Efficiency
SGTPS	9264 ¹	36.83%

1. Average of 7 year Heat Rate (FY 2017-23) corresponding to 50% loading (2 sections in CC mode)

Allowed:

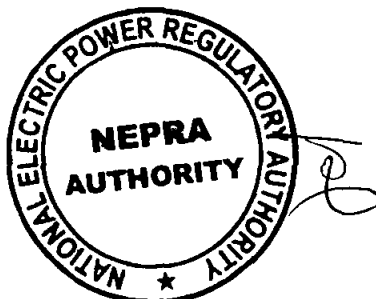
Plant	Net HHV Heat Rate (Btu/kWh) at RSC		Corresponding Efficiency
	100% loading	9077	
SGTPS	75% loading	9095.92	37.512%

22. K-Electric filed review motions against the above decisions for both KGTPS and SGTPS. The Authority vide decision dated 05.11.2021 dismissed the review Motion in the matter of KGTPS. In view thereof, and keeping in view the loading position of KGTPS in the current month the heat rate of 9,099BTU/kWh is allowed to KGTPS. For SGTPS, the Review Motion has been decided, however, KE in its request has used heat rates / Auxiliaries as allowed in the MYT determination, the same has been considered being on the lower side.

23. For BQPS-I, K-Electric has conducted the heat rate test, which has been decided by the Authority, the adjustment has been made based on the approved Heat Rate.

24. Regarding GIDC, K-Electric submitted that installment of GIDC arrears amounting to Rs.762 million per month in being billed by SSGC as per Supreme Court order dated 02.11.2020. However, NEPRA in its FCA decision for the month of June 2021 considering the fact that K-Electric has obtained stay order from the honorable SHC in the matter, decided not to allow any amount on account of GIDC till final decision by the honorable SHC in the matter. K-Electric accordingly stated that GIDC for the current month will be claimed as per the final decision of the honorable SHC in the matter.

25. The generation reported by K-Electric in its adjustment requests have been checked from the plant wise generation statistics sheet; the units sent out have been worked out based



on the Authority's allowed Auxiliaries. The units sent out so worked out are in agreement with the sent outs claimed by K-Electric in its adjustment requests.

Power Purchase Price- Fuel Cost

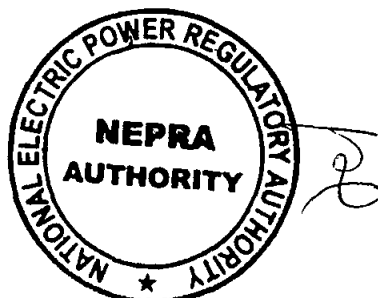
26. While going through the data / information provided by K-Electric regarding fuel cost of energy purchased from external sources, the Authority's observations are as under;

27. The Authority observed that K-Electric has been directed to provide CV test reports for both Tapal and Gul Ahmed. KE has submitted certain reports in this regard which were reviewed and considered by the Authority. In view thereof, for the purpose of current month FCA, the supplier's CVs have been considered for adjustment of Gul Ahmed. This has resulted in provisional negative adjustment of Rs.456,388 for Gul Ahmed.

28. Regarding cost of energy purchased from CPPA-G during the current month, K-Electric has used the rate of Rs.15.844/kWh, however, the Authority's approved fuel cost component, in the matter of XWDISCOs, for the current month is Rs.15.8316/kWh. In view thereof, while working out the instant FCA of K-Electric, rate approved by the Authority for XWDISCOs for the month under review has been incorporated for the energy purchased by K-Electric from CPPA-G during the month under review. This has resulted in decrease in total fuel cost by around Rs.3.13 million.

29. The Authority vide decision dated 04.06.2021, based on the Heat Rate tests conducted for SNPC and SNPC-II, revised their net capacities and Heat Rates. The Authority revised the net capacity and Heat Rate of SNPC-I as 51.154 MW and 8194.25 Btu/kWh - net HHV equivalent to 41.90% efficiency. Similarly, net capacity and Heat Rate of SNPC-II have been revised as 51.526 MW and 8143.699 Btu/kWh - net HHV equivalent to 41.64% efficiency. The Authority afterwards vide decision dated 21.09.2021, granted interim relief to SNPC and SNPC-II, in relevant tariff components i.e. Fuel Cost components and Capacity charge components of generation tariff, on account of revision in heat rates and net capacities. As per the decision dated 21.09.2021, FCC of both SNPC and SNPC-II have been revised as Rs.4.0971/kWh and Rs.4.0718/kWh respectively, based on the revised heat rates and reference gas price of Rs.500/MMBTU.

30. Here it is also pertinent to mention that the Authority determines the FCC of SNPC and SNPC-II, as & when required, owing to change in gas prices. KE in its request has claimed FCCs of Rs.7.0224/kWh for SNPC I & Rs. 6.9791/kWh for SNPC II, in line with the decision



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dated 20.06.2022 for both for SNPC and SNPC-II. The same has been considered in the instant adjustment.


31. Here it is pertinent to mention that the Authority in its FCA decision directed KE to provide details of Net Metering Units purchased along with its FCA claim. KE in compliance has provided information regarding Net Metering units purchased, along with the FCA request of June 2022. As per the working of KE, it has calculated a loss of Rs.37.45 million because of Net Metering. The Authority observed that KE is receiving excess Net Metering units which become part of its power purchase. Keeping in view the fact that the quantum of Net Metering has reached a reasonable size and the power purchase cost of KE has increased exponentially as compared to the units purchased through Net Metering, the Authority has decided to include both the units purchased by KE through Net Metering along with its cost in the FCA being in the interest of the consumers. Keeping in view, that KE has Net purchased 0.98 GWh at a cost of Rs. 12.67 million the same has been made part of instant FCA decision.

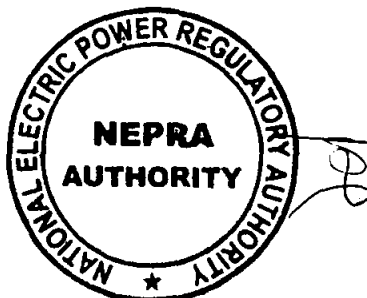
32. KE in its FCA request has reported 198.244 GWh as units sent out and claimed an amount of Rs. 6,908 million on account of operation of BQPS III based on RLNG invoices of PLL. The Authority noted that the allowed fuel during testing and commissioning cater for pre-synched fuel cost and delta cost of pre-commissioning and commissioning tests for plant operating on lesser loads and or simple cycle operation against combined cycle fuel cost on 100% load.

33. In view of the above the Authority considers that allowing the complete cost billed for RLNG would result in duplication of cost, in view of the above the Authority has decided to allow cost of Units Sent out for BQPS III based on HHV combined cycle efficiency at 100% load i.e. 6381 BTU/kWh. This has resulted in a deduction of Rs. 525 million.

Issue: Whether K-Electric has followed the merit order while giving dispatch to its power plants as well as power purchases from external sources?

34. The Authority carried out an in-house analysis of the data provided by K-Electric for the month, to work out the financial impact due to deviation from EMO.

35. The Authority noted that KE was supposed to repair the damaged high pressure heater when it got damaged in 2019. However, KE did not make any efforts for the replacement of the part after 2019. Further, the Authority understands that repair of high pressure heater should have been carried out within the O&M cost allowed to KE vide the MYT ^{of BQPS-I (unit 1)} 



36. Another aspect considered is the delay in commissioning of BQPS-III. In case, BQPS-III would have been commissioned as per schedule i.e. December 2019, operation of BQPS-I's Unit 1 would have been minimized and this financial impact could have been avoided.

37. In view of the said, the Authority has deducted an amount of Rs. 20 million from the FCA claim of KE for the month of June 2022.

38. In view of the aforementioned discussion and after incorporating the above adjustments, the Authority has decided to allow the following positive FCA for the month of June 2022, to be passed on to the consumers in their monthly bills of August & September 2022;

Description		Unit	Mar-22	Jun-22
Fuel Cost	Own Generation	Rs. Mln	16,092	35,962
	External Purchases	Rs. Mln	11,409	18,765
	Deviation from EMO		(2)	(20)
	Total	Rs. Mln	27,499	54,707
Total Units	Own Generation	GWh	591	921
	External Purchases	GWh	1,038	1,034
	Total	GWh	1,629	1,955
Fuel Cost Component (FCC)	Own Generation	Rs./kWh	9.8796	18.3960
	External Purchases	Rs./kWh	7.0043	9.5992
	Deviation from EMO	Rs./kWh	(0.0012)	(0.0102)
	Total	Rs./kWh	16.8827	27.9850
Fuel Charges Adjustment (FCA)	Own Generation	Rs./kWh		8.5164
	External Purchases	Rs./kWh		2.5949
	Deviation from EMO	Rs./kWh		(0.0090)
	Total	Rs./kWh		11.1023
Variation in Fuel Cost	Total	Rs. Mln		21,704

39. The Authority understands that burdening the consumer with FCA of June 2022 i.e. Rs.11.1023/kWh in August would not be in the interest of the consumers. The Authority has further noted that in the matter of XWDISCOs the Authority has allowed Rs. 9.8972/kWh as FCA for the month of June 2022 to be recovered in the month of August 2022.

40. In view thereof, the Authority has decided to charge Rs.3.0114/kWh, for the FCA of June 2022 in billing month of August 2022. Whereas, the remaining i.e. Rs.8.0909/kWh shall be charged in the billing month of September 2022.

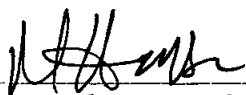


41. Here it is pertinent to mention that the impact of monthly FCA, which is not passed on to certain categories of consumers, would be accounted for in the quarterly adjustments.

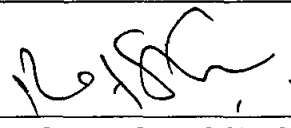
42. In the light of above, the Authority hereby directs K-Electric that the positive FCA of June 2022 as worked out above;

- a. Shall be applicable to all the consumer categories except lifeline consumers.
- b. Shall be shown separately in the consumers' bills on the basis of units billed to the consumers in the respective month to which the adjustment pertains.
- c. In the FCA decision for the month of May 2022, an amount of Rs.6.8858/kWh will be charged in the month of August 2022 which was inadvertently mentioned as Rs.6.8860/kWh in the decision of the FCA of KE for the month of May 2022. Therefore, KE is directed to charge Rs.6.8858/kWh for the FCA of May 2022 in the month of August 2022.
- d. K-Electric shall reflect the fuel charges adjustment in respect of June 2022, in the billing month of August & September 2022.
- e. While effecting the Fuel Adjustment Charges, K-Electric shall keep in view and strictly comply with the orders of the courts notwithstanding this order.

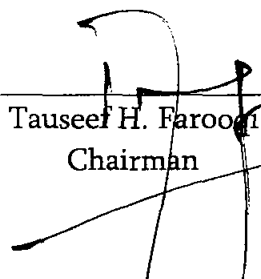
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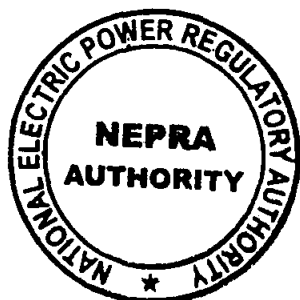
Engr. Maqsood Anwar Khan
Member

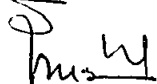


Rafique Ahmed Shaikh
Member



Tauseef H. Farooqi
Chairman




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National Electric Power Regulatory Authority



NOTIFICATION

Islamabad, the 10th day of August 2022

S.R.O. ¹⁴²⁴ (I)/2022.- Pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as amended through Regulation of Generation, Transmission and Distribution of Electric Power (Amendment) Act 2011 and as per the mechanism for monthly, quarterly and annual adjustments provided in the Tariff Determination of K-Electric Ltd. dated July 05, 2018 duly notified in the official Gazette vide SRO No. 576(I)/2019 dated June 22, 2019, National Electric Power Regulatory Authority (NEPRA) makes and notifies the following adjustment in the approved tariff on account of variation in fuel charges for the month of June 2022 in respect of K-Electric Limited:

FCA to be calculated on the basis of billing for the Month of	Rs./kWh	Charged in Consumer Bills to be issued in the Month of
June 2022	11.1023	August & September 2022

2. The positive FCA of June 2022:
- Shall be applicable to all the consumer categories except lifeline consumers.
 - Shall be shown separately in the consumers' bills on the basis of units billed to the consumers in the respective month to which the adjustment pertains.
 - In the FCA decision for the month of May 2022, an amount of Rs.6.8858/kWh will be charged in the month of August 2022 which was inadvertently mentioned as Rs.6.8860/kWh in the decision of the FCA of KE for the month of May 2022. Therefore, KE is directed to charge Rs.6.8858/kWh for the FCA of May 2022 in the month of August 2022.
 - K-Electric shall reflect the fuel charges adjustment in respect of June 2022, in the billing month of August & September 2022 as per following:

For the FCA of June 2022, Rs.3.0114/kWh shall be charged in the billing month of August 2022 and the remaining amount i.e. Rs.8.0909/kWh shall be charged in the billing month of September 2022.

3. While effecting the Fuel Adjustment Charges, K-Electric Ltd. shall keep in view and strictly comply with the orders of the courts notwithstanding this order.

(Syed Safer Hussain) 10 08 22
Registrar