



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad
Ph: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepra.org.pk, E-mail: registrar@nepra.org.pk

No. NEPRA/R/TRF-362/K-Electric-2016/ 8192-96

May 27, 2022

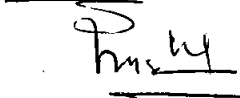
Chief Executive Officer
K-Electric Limited (KEL)
KE House, Punjab Chowrangi,
39 – B, Sunset Boulevard, Phase-II
Defence Housing Authority,
Karachi.

Subject: Decision of the Authority in the matter of Monthly Fuel Charges Adjustments of K-Electric Limited for the month of March 2022 and Notification (S.R.O. 651(I)/2022 dated 26.05.2022) Thereof

Enclosed please find herewith a copy of decision of the Authority (10 Pages) in the matter of fuel charges adjustment for the month of March 2022 in respect of K-Electric Limited, along with Notification (S.R.O. 651(I)/2022 dated 26.05.2022) 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)

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

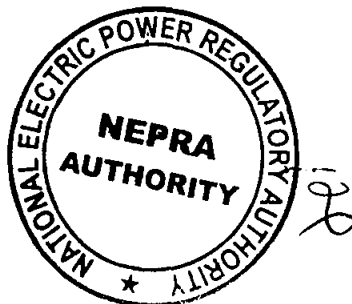
**DECISION OF THE AUTHORITY IN THE MATTER OF MONTHLY FUEL CHARGES
ADJUSTMENTS OF K-ELECTRIC LIMITED FOR THE MONTH OF MARCH 2022**

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 monthly FCA request for March 2022 as under;

Monthly FCA		
Month	Mln Rs.	Rs./kWh
Mar-22	8,592	5.275

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 March 2022 on April 27, 2022 through ZOOM. Notices in this regard were published in the newspaper on April 19, 2022 and also uploaded on NEPRA's website along-with adjustment requests filed by K-Electric.



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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?

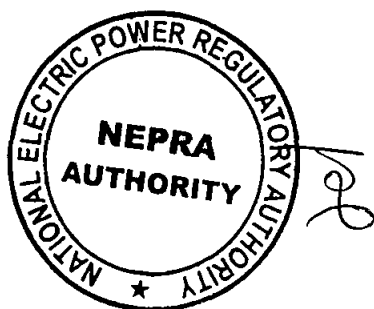
8. The hearing was attended by CFO K-Electric along-with its financial and technical team. Representatives from Media and General Public also attended the hearing. K-Electric during the hearing submitted that at the time of submission of its FCA request, the Authority's approved Fuel rate of XWDISCOs for the month of March 2022 was not available, thereof, K-Electric used the FCC rate of CPPA-G for March 2022. Thus, the amount claimed on account of energy purchased from CPPA-G is subject to adjustment based on the FCA decision of the Authority in the matter of XWDISCOs for March 2022.

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. Mr. Tanvir Bari representing KCCI submitted that high FCAs have a detrimental impact on the industrial consumers of KE.

11. Mr. Aneel Mumtaz inquired about the basis for change in the rate of energy purchased from CPPA-G. It was explained that KE had initially requested cost of energy purchased from CPPA-G on the basis of Fuel Cost Component of February 2022, as the rate for March 2022 was not available. Subsequently, K-Electric revised its request based on the FCA request of CPPA-G in the matter of DISCOs for the month of March 2022.

12. Mr. Arif Bilwani during the hearing submitted that many plants owned by KE are being run on old provisional heat rates, which need to be updated. He further added that KE should buy more electricity from CPPA-G being cheaper than its own generation.



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13. 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.

14. K-Electric provided the plant wise generation statistics sheet, signed by K-Electric employees. 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.

15. 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

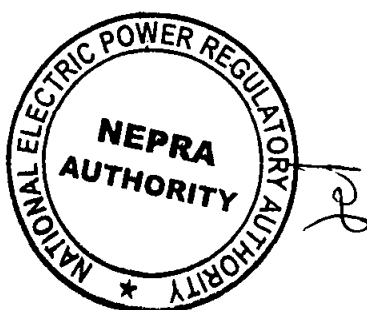
16. In order to verify the generation numbers reported by K-Electric, the Authority analyzed the plant wise generation statistics sheet, provided by K-Electric. The sheet provided information in terms of plant capacity, actual units generated, actual auxiliary consumption, net generation and bus bar 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;

17. 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.



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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.”

18. 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.

19. The Authority observed that K-Electric has requested an amount of Rs.213.32 million for operation of KCCPP on HSD during March 2022. The Authority for the purpose of instant adjustment has provisionally considered the same amount i.e. Rs.213.32 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.

20. 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 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	9041.66	
KGTPS	75% loading	9092.66	37.527%

Heat Rate for July 2019 – June 2021

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%



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
SGTPS	100% loading	9045.93	37.72%
	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%

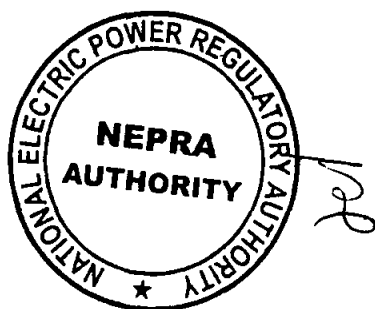
1. Average of 7 year Heat Rate (FY 2017-23) corresponding to 50% loading (2 sections in CC mode)

Allowed:

Plant	Net HHV Heat Rate (Btu/kWh) at RSC		Corresponding Efficiency
SGTPS	100% loading	9077	37.59%
	75% loading	9095.92	37.512%

21. 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 9,099.21 is allowed to KGTPS. For SGTPS, since the Review Motion has not yet been decided, therefore, heat rates / Auxiliaries as allowed in the MYT determination have been used being on the lower side. Here it is pertinent to mention that in case of any subsequent revision in the heat rates of SGTPS, on the basis of Review motion filed by K-Electric, the impact of the same would be adjusted in the subsequent tariff adjustments of K-Electric.

22. For BQPS-I, K-Electric has also conducted the heat rate test, which has been decided by the Authority. However, for the purpose of instant adjustments, heat rates of BQPS-I, as claimed by K-Electric in its FCA request has been considered.



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23. Regarding GIDC, K-Electric submitted that installment of GIDC arrears amounting to Rs.762 million per month is 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.

24. 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

25. 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;

26. The Authority observed that K-Electric has been directed to provide CV test reports for both Tapal and Gul Ahmed for each month from their fuel suppliers, third party and also from their own labs. KE has submitted certain reports in this regard which are under review and adjustment if any will be considered in the subsequent adjustments. In view thereof, for the purpose of current month FCA, the highest CVs reported by both Tapal and Gul Ahmed, as per the submitted test reports for the current month, have been considered for the entire fuel consumed during the month to work out their fuel costs for the current month. This has resulted in provisional negative adjustment of Rs.4.58 million and Rs.1.41 million for Tapal and Gul Ahmed respectively.

27. Regarding cost of energy purchased from CPPA-G during the current month, K-Electric has used the rate of Rs.9.387/kWh, however, the Authority's approved fuel cost component in the matter of XWDISCOs for the current month is Rs.9.0975/kWh. In view thereof, while working out the instant FCA of K-Electric, rate approved by the Authority for XWDISCOs for March 2022 has been incorporated for the energy purchased by K-Electric from CPPA-G during March 2022. This has resulted in decrease in total fuel cost by around Rs.224.74 million.

28. 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



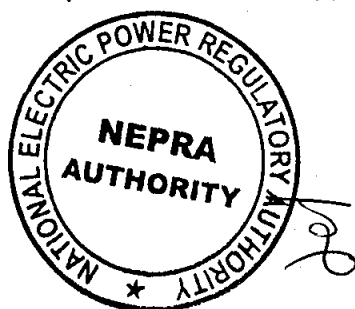
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net capacity and Heat Rate of SNPC-I as 51.154 MW and 8194.25 Btu/kWh - net HHV equivalent to 41.90% efficiency. Similarly, net capacity and Heat Rate of SNPC-II have been revised as 51.526 MW and 8143.699 Btu/kWh - net HHV equivalent to 41.64% efficiency. 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.

29. 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. However, no revised FCC has yet been determined by the Authority based on revised heat rates with latest gas price of Rs.857/MMBTU. The Authority approved FCCs of Rs.6.6994/kWh vide decision dated 20.11.2020, both for SNPC and SNPC-II, based on gas price of Rs.857/MMBTU but with old heat rates i.e. heat rates prior to heat rate tests. Accordingly, for working out the FCA of March 2022, the Authority has used FCC of Rs.6.6994/kWh for both SNPC and SNPC-II, as approved vide decision dated 20.11.2020. Any adjustment in this regard would be made subsequently, once the Authority approves the revised FCC of both SNPC and SNPC-II based on revised heat rates and revised gas prices.

30. KE in its request has also claimed an amount of Rs. 497.377 million for operations of BQPS III Power Plant and reported 3.521 GWh sent out from the plant by using auxiliary of 2.1%. To justify its claim KE has submitted that BQPS III plant is currently under commissioning phase. KE further vide letter dated March 22, 2022 submitted that they have requested to allow fuel costs during commissioning phase at actual as plant is subject to open cycle and lower efficiency operations during this phase, however, post full commissioning of the unit, the cost would be claimed at NEPRA approved benchmark.

31. Regarding the cost of Rs.497.377 million claimed by KE on account of BQPS III, it is highlighted that the Authority has allowed KEL the project cost of BQPS-III in its MYT for the control period of FY2016 - FY2023 after benchmarking the same with project cost of Haveeli Bahadur Shah (HBS) RLNG power plant i.e. @ US\$ 0.694 Million/MW. It is pertinent to highlight here that the abovementioned project cost of US\$ 0.694 Million/MW also includes the cost of pre & post synchronization Testing & Commissioning cost including the cost of fuel during testing. Foregoing in view, it is clear that the project cost of US\$ 0.694 Million/MW allowed to KEL for BQPS-III already includes all the types of Testing & Commissioning costs



and no separate Testing & Commissioning cost is required to be allowed KEL. In view of the above, the request of KEL to allow additional Testing & Commissioning cost, over and above the allowed project cost for BQPS-III, does not merit consideration and the same has not been considered.

32. For the claimed auxiliary of 2.1% for BQPS-III, the Authority has adjusted the same to 2.047%, based on EPC guaranteed data, for the purpose of working out the units sent out on provisional basis subject to adjustment based on test.

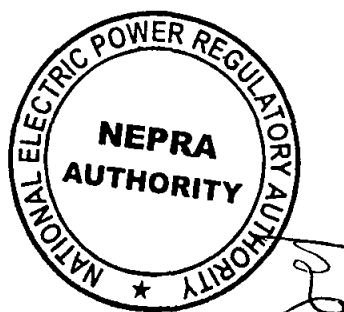
33. Here it is pertinent to mention that during FCA hearing of January 2022, the Authority directed KE to also provide details of Net Metering Units purchased along with its FCA claim. Similar directions were passed during the hearing for February 2022. KE in compliance has provided information regarding Net Metering, along with the FCA request of March 2022. The same is under consideration of the Authority and will be considered in the subsequent adjustments. Further, K-Electric is also directed to provide complete detail of all units of net metering till date.

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 of March 2022, to work out the financial impact due to deviation from EMO. The instances and events were shared with K-Electric for provision of clarification/ justifications, and K-Electric was asked for the reasons in this regard.

35. Regarding the financial impact due to underutilization of efficient plants on account of lower gas pressure, a letter was issued to KE on September 16, 2021, whereby, it was directed to resolve its gas pressure/lower gas quantity issues within thirty (30) days.

36. In response, KE has informed that it is in the process of resolving the lower gas pressure issue, however, there are certain meetings with stakeholders that will take place in due course of time. Subsequently, K-Electric has shared details of communication with SSGC and Ministry of Energy (Petroleum Division) regarding the finalization of GSA. However, during the FCA meeting, K-Electric's representatives submitted that the draft GSA between KE and SSGC does not guarantee the Gas Pressure or Quantity and the Gas/RLNG will be available with KE on "As and When" available basis even after the GSA is signed.



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37. In view of the above, an amount of Rs. 2 million has been deducted provisionally from the FCA claim of KE for the month of March 2022.

38. Regarding other technical issues, *inter alia*, System Operating Procedures, Generation capacity kept on standby mode by K-Electric and heat rates & auxiliaries etc., the Authority has decided that these issues would be dealt separately.

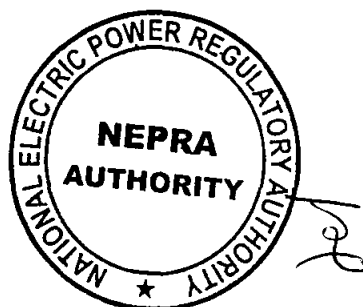
39. In view of the aforementioned discussion and after incorporating the above adjustments, the Authority has decided to allow the following positive FCA for the month of March 2022, to be passed on to the consumers in their monthly bills of June 2022;

Description		Unit	Reference Dec-21	Revised Mar-22
Fuel Cost	Own Generation	Rs. Mln	5,675	16,092
	External Purchases	Rs. Mln	8,455	11,409
	Deviation from EMO		(9)	(2)
	Total	Rs. Mln	14,121	27,499
Total Units	Own Generation	GWh	301	591
	External Purchases	GWh	871	1,038
	Total	GWh	1,171	1,629
Fuel Cost Component (FCC)	Own Generation	Rs./kWh	4.8451	9.8796
	External Purchases	Rs./kWh	7.2184	7.0043
	Deviation from EMO	Rs./kWh	(0.0078)	(0.0012)
	Total	Rs./kWh	12.0557	16.8827
Fuel Charges Adjustment (FCA)	Own Generation	Rs./kWh		5.0345
	External Purchases	Rs./kWh		(0.2141)
	Deviation from EMO	Rs./kWh		0.0065
	Total	Rs./kWh		4.8269
Variation in Fuel Cost	Total	Rs. Mln		7,862

40. 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.

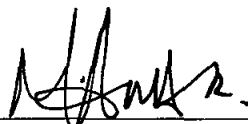
41. In the light of above, the Authority hereby directs K-Electric that the positive FCA of March 2022 as worked out above;

- 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. K-Electric shall reflect the fuel charges adjustment in respect of March 2022, in the billing month of June 2022.
- d. While effecting the Fuel Adjustment Charges, K-Electric shall keep in view and strictly comply with the orders of the courts notwithstanding this order.

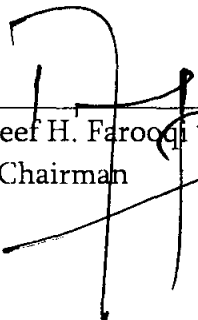
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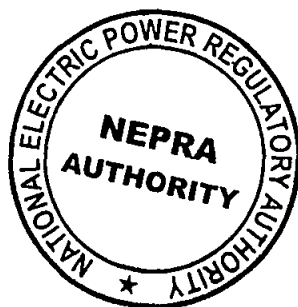
Engr. Maqsood Anwar Khan
Member

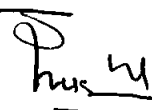


Rafique Ahmed Shaikh
Member



Tauseef H. Farooqi
Chairman




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To Be Published in
Official Gazette of Pakistan Part-II

National Electric Power Regulatory Authority



NOTIFICATION

Islamabad, the 26th day of May 2022

S.R.O. **651** (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 May 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 March 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
March 2022	4.8269	June 2022

2. The positive FCA of March 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.
 - K-Electric shall reflect the fuel charges adjustment in respect of March 2022 in the billing month of June 2022.
4. 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.


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(Syed Safer Hussain)
Registrar