



National Electric Power Regulatory Authority Islamic Republic of Pakistan

Registrar

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No. NEPRA/R/TRF-362/K-Electric-2016/19806-10

October 14, 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 August 2022 and Notification (S.R.O. 1905(I)/2022 dated 14.10.2022) 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 August 2022 in respect of K-Electric Limited, along with Notification (S.R.O. 1905(I)/2022 dated 14.10.2022) 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)

(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 AUGUST 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 August 2022 and, later, revised as under;

Monthly FCA		
Month	Mln Rs.	Rs./kWh
Aug-22	(7,217)	(4.211)

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 August 2022 on September 29, 2022 at NEPRA Tower and through ZOOM. Notices in this regard were published in the newspaper on September 20, 2022 and also uploaded on NEPRA's website along-with adjustment requests filed by K-Electric.
7. Following issues were framed for the purpose of FCA for discussion during the hearing;



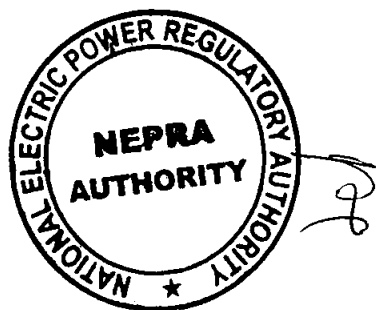
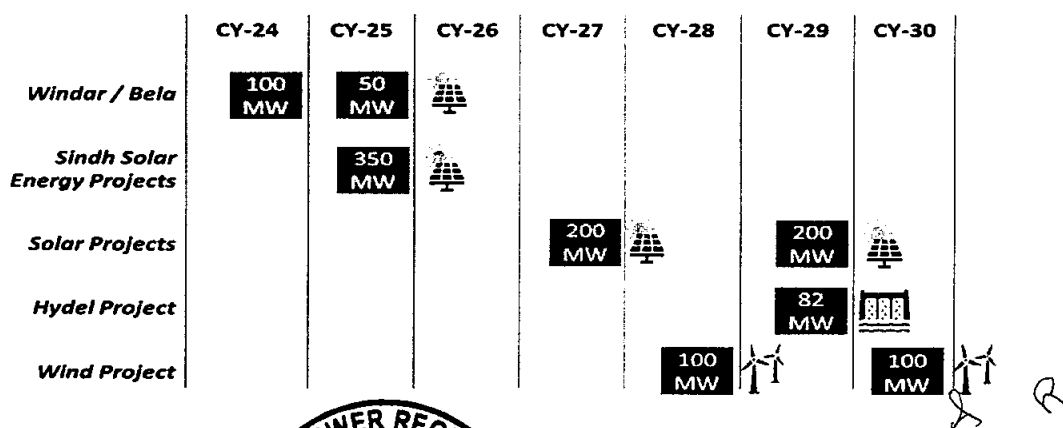
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- i. Whether the requested Fuel Price Variation is justified?
- ii. Whether K-Electric has followed the merit order while giving dispatch to its power plants as well as power purchases from external sources?

8. The hearing was attended by Representative of K-Electric along-with its financial and technical team. Representatives from Media and General Public also attended the hearing. KE in its FCA request submitted that calculation for the month of August 2022 is based on CPPA-G's approved fuel cost component for the month of July 2022 and it is subject to adjustment based on the determination of XWDISCOs FCA for August 2022 by NEPRA. The same fact was also reiterated by K-Electric during the hearing.

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. The Authority, during the hearing, noted that cost of KE's own generation was around three times higher than the cost of energy it purchases. Upon inquiry, by the Authority, regarding steps taken by KE to reduce its own cost of generation, KE explained that it has prepared a detailed plan for induction of cheaper energy sources, including renewables. KE submitted that it plans to induct 1,182 MWs of renewables till 2030, as per the details, given below:



11. The Authority, directed KE to upload its aforementioned plan on its website for information of all the concerned stakeholders.

12. 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.

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

14. Upon inquiry from the commentators, regarding status of 900 MW BQPS-III, KE submitted that it will be fully operational from winter season.

15. On the query from Mr. Aneel Mumtaz, a commentator, regarding no LNG cargo from PLL, the Authority noted that as per the document shared by Mr. Aneel Mumtaz during the hearing, one cargo was purchased by PLL. Here it is pertinent to mention that no energy was generated from BQPS-III during August 2022 for which KE has a contract with PLL for supply of RLNG. For all remaining power plant KE submitted that LNG is supplied by SSGC.

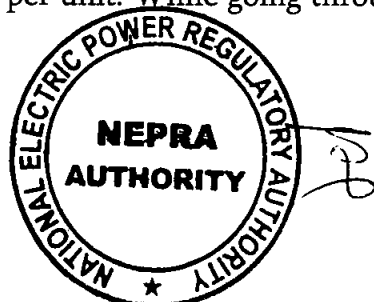
16. The Authority had also directed K-Electric to apprise the Authority in detail regarding its agreement with PLL for the supply of RLNG for BQPS-III. However, KE has not apprised the Authority in this regard, therefore, it is again directed to share complete details of KE's agreement with PLL for supply of RLNG for BQPS-III.

17. 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

18. 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



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regarding fuel cost of energy from its own power plants, the Authority's observations are as under;

19. 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.

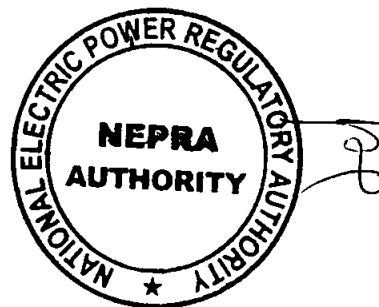
iii. KE is required to conduct maintenance including Major Overhaul of its plants / units as per prudent utility practices and recommendations of OEM.

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."

20. Here it is pertinent to mention that Authority vide order dated August 4, 2022 have approved 3rd party Heat Rate Test for 248 MW KCCPP and has revised the heat rate based on Gas/RLNG as well. Based on the above heat Rate of 8,477 BTU/kWh for KCCPP operation of Gas/RLNG has been used as per the decision dated August 4, 2022.

21. The Authority observed that K-Electric has requested an amount of Rs.478 million for operation of KCCPP on HSD during August 2022. The Authority for the purpose of instant adjustment has considered the same amount i.e. Rs.478 million, as requested by K-Electric, based on heat rate of 7,921.728 btu/kWh determined by the Authority vide decision dated August 4, 2022, with same CV of HSD and auxiliaries as reported by K-Electric.

22. 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.



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

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 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%

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:

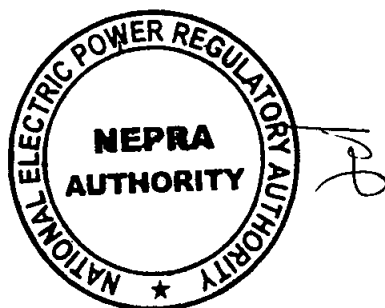
Plant	Net HHV Heat Rate (Btu/kWh) at RSC	Corresponding Efficiency
SGTPS	9264 ¹	36.83%

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%

23. 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 9,099.212 BTU/kWh is allowed to KGTPS.



24. For SGTPS, the Review Motion has been decided, based on which, KE in its request has used a heat rate of 9148.663 BTU/kWh, in line with the Authority's decision. The same has been considered for the purpose of instant adjustment.

25. 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.

26. 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.

27. 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

28. 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;

29. 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 Tapal and Gul Ahmed. This has resulted in negative adjustment of Rs.6.27 million for Tapal and negative adjustment of Rs.17.49 million for Gul Ahmed.

30. Regarding cost of energy purchased from CPPA-G during the current month, K-Electric has used the rate of Rs.10.6314/kWh, however, the Authority's approved fuel cost component, in the matter of XWDISCOs for the current month is Rs.10.0852/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



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K-Electric from CPPA-G during the month under review. This has resulted in decrease in total fuel cost by around Rs.434.19 million.

31. 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.

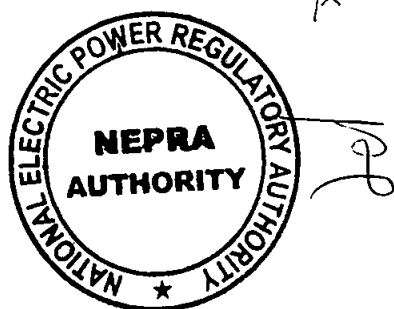
32. Here it is also pertinent to mention that the Authority determines the FCC of SNPC and SNPC-II, as & when required, owing to change in gas prices. KE in its request has claimed FCCs of Rs.7.0224/kWh for SNPC I & Rs. 6.9791/kWh for SNPC II, in line with the decision dated 20.06.2022 for both for SNPC and SNPC-II. The same has been considered in the instant adjustment.

33. The Authority decided to include both the units purchased by KE through Net Metering along with its cost in the FCA. The Authority noted that as per K-Electric, it has Net purchased 0.51 GWh at Rs. 19.32/kWh. The same has been made part of instant FCA decision.

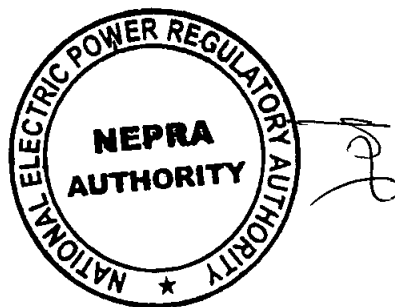
Issue: Whether K-Electric has followed the merit order while giving dispatch to its power plants as well as power purchases from external sources?

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. During the FCA hearing of KE, the Authority highlighted a financial impact of Rs. 32 million on account of underutilization of economical plants while operating Unit 1 of BQPS-I at a minimum load of 100 MW instead of 90 MW. In response, KE informed that the said Unit cannot be loaded below 100 MW since its High Pressure Heater is out of service. Subsequently, a meeting was held with KE's technical team, however, KE's stance was not accepted by the Authority due to the following reasons;



- i. 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.
 - ii. It is believed that the repair of high pressure heater should have been carried out within the O&M cost allowed to KE vide the MYT.
 - iii. Another aspect to consider 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.
36. In view of the said, an amount of Rs. 32 million has been deducted from the FCA claim of KE for the month of August 2022.
37. Regarding previous adjustment of Rs.865 million claimed by K-Electric, withheld previously by the Authority on account of non-following of EMO, the Authority observed that K-Electric has submitted certain clarifications along with relevant information/data, which was considered by the Authority. Based on the discussion with KE, information provided by BQPS II's OEM & clarification/documentary evidence provided by KE, the Authority has decided to release an amount of Rs. 197 million form the total withheld amount in the instant FCA.
38. In view of the aforementioned discussion and after incorporating the above adjustments, the Authority has decided to allow the following negative FCA for the month of August 2022, to be passed on to the consumers in their monthly bills of October 2022;



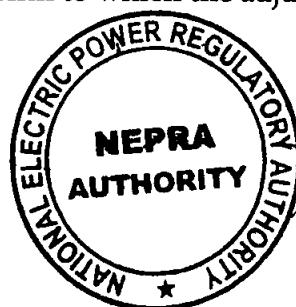
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US

Description	Unit	Reference Revised		
		Jun-22	Aug-22	
Fuel Cost	Own Generation	Rs. Mln	35,962	25,232
	External Purchases	Rs. Mln	18,765	14,196
	Deviation from EMO	Rs. Mln	(20)	(32)
	Previous Adjustment	Rs. Mln		197
	Total	Rs. Mln	54,707	39,593
Total Units	Own Generation	GWh	921	670
	External Purchases	GWh	1,034	1,044
	Total	GWh	1,955	1,714
Fuel Cost Component (FCC)	Own Generation	Rs./kWh	18.3960	14.7204
	External Purchases	Rs./kWh	9.5992	8.2821
	Deviation from EMO	Rs./kWh	(0.0102)	(0.0187)
	Previous Adjustment	Rs./kWh		0.1149
	Total	Rs./kWh	27.9850	23.0988
Fuel Charges Adjustment (FCA)	Own Generation	Rs./kWh		(3.6756)
	External Purchases	Rs./kWh		(1.3171)
	Deviation from EMO	Rs./kWh		(0.0084)
	Previous Adjustment	Rs./kWh		0.1149
	Total	Rs./kWh		(4.8862)
Variation in Fuel Cost	Total	Rs. Mln		(8,375)

39. 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.

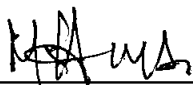
40. In the light of above, the Authority hereby directs K-Electric that the negative FCA of August 2022 as worked out above;

- a. Shall be applicable to all the consumer categories except lifeline consumers, domestic consumers consuming up-to 300 units, Agriculture Consumers and EVCS (Electric Vehicle Charging Station) consumers of K-Electric. It is hereby clarified that negative adjustment on account of monthly FCA is also applicable to the domestic consumers having Time of Use (ToU) meters irrespective of their consumption level.
- 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 August 2022, in the billing month of October 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.

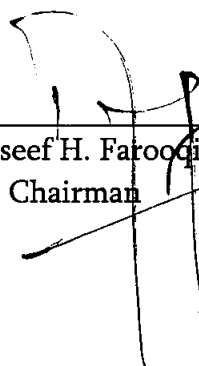
AUTHORITY



Engr. Maqsood Anwar Khan
Member

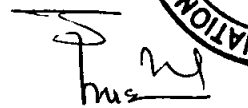


Rafique Ahmed Shaikh
Member



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 14th day of October 2022

S.R.O. 1905 (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 August 05, 2018 duly notified in the official Gazette vide SRO No. 576(I)/2019 dated August 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 August 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
August 2022	(4.8862)	October 2022

2. The negative FCA of August 2022:
 - a) Shall be applicable to all the consumer categories except lifeline consumers, domestic consumers consuming up-to 300 units, Agricultural Consumers and Electric Vehicle Charging Station (EVCS) consumers of K-Electric. It is hereby clarified that negative adjustment on account of monthly FCA is also applicable to the domestic consumers having Time of Use (ToU) meters irrespective of their consumption level.
 - 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 August 2022, in the billing month of October 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.

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(Syed Safer Hussain) 14 x 22
Registrar