

# महाराष्ट्र विद्युत नियामक आयोग

# **Maharashtra Electricity Regulatory Commission**

Ref. No. MERC/FAC/2023-24/0565

Date: 02 November, 2023

To.

The Managing Director,
KRC Infrastructure and Projects Private Ltd.,
Raheja Tower, Level-9, Block G,
Plot No. C-30,
Bandra Kurla Office Complex,
Bandra (E), Mumbai – 400 051

Subject:

Post facto approval of Fuel Adjustment Charges (FAC) submissions of KRCIPPL for the months of July 2022, August 2022, and September 2022.

Reference:

- 1. KRCIPPL's FAC submission for the months July 2022, August 2022, and September 2022 vide email dated 29 November, 2022.
- 2. Data gaps raised vide email dated 20 June, 2023
- 3. KRCIPPL's response to queries raised vide email dated 3 July, 2023.

Sir,

Upon vetting the FAC calculations for the months of July 2022, August 2022, and September 2022 as mentioned the above reference, the Commission has accorded approval for charging FAC to its consumers as shown in the table below:

Month	July 2022	August 2022	September
			2022
Z <sub>FAC</sub> allowed for recovery (Rs. Crore)	0.136	0.141	0.141

The Commission allows the carry forward FAC of Rs. 1.11 Crore, Rs. 1.41 Crore, and Rs. 1.82 Crore in the months of July 2022, August 2022, and September 2022, respectively. Accordingly, the FAC fund amount is nil. Further, as directed by the Commission, KRCIPPL shall maintain the monthly account of FAC Fund and upload it on its website to maintain transparency of FAC Fund, and also for information of all the stakeholders.

Yours faithfully,

(Dr. Rajendra G. Ambekar) Executive Director, MERC

Encl: Annexure A: Detailed Vetting Report for the period of July 2022, August 2022, and September 2022.

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ANNEXURE
Detailed Vetting Report
Date: 02 November, 2023

# POST FACTO APPROVAL FOR FAC CHARGES FOR THE MONTHS OF JULY 2022, AUGUST 2022, AND SEPTEMBER 2022

Subject:

Post facto approval of Fuel Adjustment Charges (FAC) submissions of KRCIPPL for the months of July 2022, August 2022, and September 2022.

Reference:

- 1. KRCIPPL's FAC submission for the months of July 2022, August 2022, and September 2022 vide email dated 29 November, 2022.
- 2. Data gaps raised vide email dated 20 June, 2023
- 3. KRCIPPL's response to queries raised vide email dated 3 July, 2023

#### 1. FAC submission by KRCIPPL:

1.1 KRCIPPL has made FAC submissions for the months of July 2022, August 2022, and September 2022 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by KRCIPPL, the Commission has accorded post facto approval for the FAC amount to be charged in the billing months of September 2022, October 2022, and November 2022.

#### 2. Background

- 2.1 On 30 March, 2020 the Commission has issued Tariff Order in respect of KRCIPPL (Case No. 329 of 2019) for approval of Aggregate Revenue Requirement and Multi Year Tariff for the Control Period from FY 2020-21 to FY 2024-25. Revised Tariff has been made applicable from 1 April, 2020.
- 2.2 Vide its letter dated 20 April, 2020, the Commission communicated the excel formats and guiding principles for filing of FAC submissions to all Distribution Licensees including SEZs. The Commission also directed all Distribution Licensees to submit FAC computations, including details pertaining to variation in fuel cost of generators for the approval of the Commission.
- 2.3 The summary of the FAC Vetting Report approvals granted by the Commission till date is given below:
  - Prior approval to the FAC for the month of April, 2020 vide FAC vetting Report dated 7 June, 2020.
  - Post-facto approval to the FAC for the months of May and June, 2020 vide FAC vetting Report dated 30 September, 2020.
  - Post-facto approval to the FAC for the months of July 2020, August 2020, and September 2020 vide FAC vetting Report dated 08 December, 2020.
  - Post-facto approval to the FAC for the months of October 2020, November 2020 and December 2020 vide FAC vetting Report dated 25 March, 2021.
  - Post-facto approval to the FAC for the month of January to March, 2021 vide FAC Vetting Report dated 10 June, 2021.
  - Post-facto approval to the FAC for the month of April 2021, May 2021, and June 2021 vide FAC Vetting Report dated 11 October, 2021.



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- Post-facto approval to the FAC for the month of July 2021, August 2021, and September 2021 vide FAC Vetting Report dated 6 January, 2022.
- Post-facto approval to the FAC for the month of October 2021, November 2021 and December 2021 vide FAC Vetting Report dated 28 June, 2023.
- Post-facto approval to the FAC for the month of January 2022, February 2022 and March 2022 vide FAC Vetting Report dated 24 July, 2023.
- Post-facto approval to the FAC for the month of April 2022, May 2022 and June 2022 vide FAC Vetting Report dated \_\_\_\_\_\_, 2023.
- 2.4 As per provisions of MYT Regulations, 2019 a Distribution Licensee (SEZ) is required to obtain post-facto approval of the Commission on a quarterly basis for FAC charges within 60 days of close of each quarter. Accordingly, vide its letter dated 29 November, 2022, KRCIPPL has filed FAC submissions for the months of July 2022, August 2022, and September 2022 for post-facto approval. The Commission has scrutinized the submissions provided by KRCIPPL and has also verified the fuel and power purchase bills provided along with its submissions.

#### 3. Energy Sales of the Licensee

- 3.1 In the MYT Order passed by the Commission in Case No. 329 of 2019, the Commission has approved revised tariffs to maintain zero cross subsidy across tariff categories.
- 3.2 The net energy sales within licence area as submitted by KRCIPPL in the FAC submission and as approved by the Commission are as shown in the Table 1 below:

Table 1: Energy Sales approved and Actual in MUs

Consumer Category	Approved by the	Monthly	Ac	tual Sales (	MU)
	Commission (MU)	Approved (MU)	Jul - 22   Aug - 22		<b>Sept - 22</b>
	(I)	(II=I/12)	(III)	(IV)	(V)
HT Category					
HT- I Industrial	42.09	3.51	1.49	1.56	1.55
HT-II Commercial	1.18	0.10	-	-	-
HT III – Electric Vehicle (EV) Charging Stations		ACCEL , police	0.00	0.00	-
LT Category	a vitimour cuit vol. Te	Residence			
LT-II(A) Commercial (0-20 kW)			0.01	0.01	0.00
LT-II (B) Commercial (above 20 kW)	4.47	0.37	0.02	0.02	0.02
LT-III (A) Industrial (0-20 kW)			- I	-	0.00
LT-III (B) Industrial (above 20 kW)	to a seriou con tent. A		0.34	0.35	0.35
Total	47.74	3.98	1.86	1.94	1.93

3.3 It can be observed from above Table 1 that the actual sales during the months of July 2022, August 2022, and September 2022 are 1.86 MU, 1.94 MU and 1.93 MU, respectively which is 53.16%, 51.27%, and 51.40% lower than approved monthly energy sales of 3.98 MU. The variation was primarily observed in all categories except LT-III (B) Industrial (above 20 kW). However, the major variation was observed in the HT-I Industrial, HT-II Commercial and LT II B- Commercial (above 20 kW), which is due to the continuation of impact work for home in IT industry in KRCIPPL SEZ area

and seasonal variation due to rainy season. Moreover, miniscule quantum of sale in HT III category is also observed in the months of July 2022 to September 2022.

#### 4. Power Purchase Details

4.1 KRCIPPL is a deemed Distribution Licensee notified by the Commission for its IT & ITeS SEZ located at Village Kharadi, Taluka Haveli, District Pune. KRCIPPL does not own or operate any generating stations. Accordingly, KRCIPPL is required to procure power from outside sources in order to fulfil the electricity demand of its consumers.

#### 4.2 Approved Power Purchase sources:

- 4.2.1 KRCIPPL had a short term PPA with GMR Energy Trading Limited which was valid till May 2020 and which was subsequently extended till March 2021 with approval of the Commission.
- 4.2.2 Post that the Commission in its Order dated 30 June, 2021 in Case No. 69 of 2021 has approved the combined power procurement of for MBPPL, GEPL and KRCIPPL for FY 2021-22 on short-term basis. Accordingly, the Commission has provided the approval of Power Purchase Agreement and Adoption of Tariff determined through transparent bidding process for a Short-Term procurement of power up to 14 MW (RTC) for KRC discoms for one year starting from 1 July, 2021 to 30 June, 2022 through combined power procurement. In the said order, the quantum estimated for KRCIPPL is upto 3 MW (Up to 2 MW RTC and up to 1MW between 0800 and 2300 hours). The relevant extract is as given below:

"Accordingly, the Commission approves PPA dated 27 May 2021 entered between KRC DISCOMs (Mindspace Business Parks Private Limited; Gigaplex Estate Private Limited; KRC Infrastructure and Projects Private Limited) and Kreate Energy (I) Pvt. Ltd. – Power Department of Sikkim."

However, GEPL has not purchased power from Kreate Energy (I) Pvt., as the PPA with Kreate Energy was valid till 30<sup>th</sup> June 2022.

- 4.2.3 Subsequently, KRC DISCOMs had filed a Petition before the Commission seeking approval for undertaking combined power purchase at Power Exchange linked rates for the period from July 2022, till alternative arrangements are in place. The Hon'ble Commission in its Order dated 15 September 2022 in Case No. 138 of 2022, has allowed KRC DISCOMs to procure the power under exchange linked contracts till March 2022.
- 4.2.4 In this regard the Commission in its analysis and rulings in the Order in Case No. 138 of 2022 had noted the following:

"11. Thus, failure of M/s Kreate Energy (I) Pvt. Ltd to supply power as per contract during the period of April to June 2022 and non-successful bidding process has resulted into KRC DISCOMs to depend on Power Exchanges for meeting its consumer demand. Further due to high demand, bids for all time blocks were not getting cleared on power exchanges and hence during that period, KRC DISCOMs had to depend on DG Set for maintaining continuity of power supply to its consumers. To avoid such situations, KRC DISCOMs entered into exchange linked bilateral contract with M/s GMR Energy Trading Ltd and has requested the Commission to allow such contract till it successfully selects supplier through bidding process.



- 12. The Commission notes that exchange linked bilateral contract is undertaken outside the power market platform. Such contract does not strictly fall under Section 62 (tariff determined by the Commission as per Tariff Regulations) or Section 63 (tariff discovered through competitive bidding process) of the Electricity Act, 2003. The Commission has been considering such contracts for pass through in power purchase expenses as such contracts form very small quantum of total power purchase basket of Distribution Licensee and tariff is linked to the rates that are transparently discovered in power exchange, beside most of the time some discount is also offered by seller in such contracts. But in the present case, KRC DISCOMs have proposed to meet all its power purchase quantum through such exchange linked contracts. In the normal course, such arrangement is not advisable, and this would not have been allowed. But considering the efforts taken by KRC DISCOMs for procurement of power through competitive bidding, and the fact that during high demand period, bid quantum was not getting cleared on power exchange platform forcing them to supply power from DG set is neither economical nor it is viable for longer periods, the Commission deems it fit to allow such exchange linked contracts till KRC DISCOMs successfully discovers tariff in due bidding process. The Commission also notes that KRC DISCOMs are procuring green power from GDAM/GTAM market segment on power exchanges. Such green power procurement is meeting part of its load requirement. Also, such exchange linked contracts and green power procurement from exchange is also helping KRC DISCOMs to maintain Grid Discipline by not overdrawing power from the Grid.
- 13. The Commission also notes that such exchange linked contracts entered by KRC DISCOM have charged premium (50 paise/unit) over the exchange price for certain period (7 days). KRC DISCOM have justified it as during that period its contracted supplier refused to supply the power and its bids on power exchanges were not getting cleared for all the time blocks, hence to maintain continuity in power supply, KRC DISCOM had to agree to such premium. In this regard, the Commission notes that KRC DISCOM has separately filed Petition in Case No. 162 of 2022 seeking compensation towards increased power purchase expenses on account of non-supply of power by its supplier, the Commission will decide on the issue of allowing such premium as passthrough during that proceeding.
- 14. Having allowed exchange linked contracts as above, the Commission notes that price being discovered on power exchange during recent past is much higher than average power procurement rate (Rs. 3.92 per unit) approved in MYT Orders of KRC DISCOMs. This will ultimately impact the consumer tariff through FAC mechanism or truing up process (if full expenses cannot be allowed due to FAC ceiling) in upcoming Mid Term Review process which will ultimately reduce the electricity tariff advantage vis-à-vis tariff applicable to parallel licensee in that area. Therefore, to remain competitive and protect interest of their consumers, KRC DISCOMS shall take extra efforts for finding cheaper and reliable source of power supply. Hence, the Commission allows such sole power procurement from exchange linked contracts only for FY 2022-23. KRC DISCOMs shall ensure that firm source of supply is contracted before March 2023."
- 4.2.5 In reply to the Commissions query, the KRC Discoms have replied that they have floated tenders for power procurement four time from April 2022 to June 2022, however they did not receive bid/participation from the market participants. Despite their best efforts, KRC discoms were left without any power procurement agreement.
- 4.2.6 KRCIPPL has procured power from power exchange for now, and subsequently entered into bilateral contract with GMRTEL as on when basis up to 20 MW for KRC DISCOMS at exchange linked price for later months.
- 4.3 KRCIPPL has purchased power from GMR Energy Trading Limited (GMRETL) on bilateral basis at the rates of Rs. 6.04/kWh in the month of July 2022, Rs. 5.60/kWh in the month of August 2022 and

- Rs. 8.07/kWh in the month of September 2022 which are higher than the Power procurement cost of Rs. 3.92/kWh as approved by the Commission in Tariff Order in Case No. 329 of 2019 from the long/medium-term sources.
- 4.4 Further, KRCIPPL has also procured RE power through IEX in the GDAM and GTAM during the months of July 2022, August 2022 and September 2022. KRCIPPL purchased 0.04 MU and 0.03 MU of Solar and Non-Solar Power in July 2022 at an average rate of Rs. 5.15/kWh. Similarly, KRCIPPL purchased 0.00 MUs and 0.06 MUs of Solar and Non-Solar Power in August 2022 at an average rate of Rs. 9.60/kWh and Rs. 9.55/kWh, respectively, and 0.03 MUs and 0.09 MUs of Solar and Non-Solar Power in September 2022 at an average rate of Rs. 8.11/kWh and Rs. 7.85/kWh, respectively.
- 4.5 The Commission notes that KRCIPPL has purchased of RE power through the power exchanges to meet the RPO obligations in the months of July 2022, August 2022, and September 2022. The power purchase has been through the power exchanges where the prices are market driven and competitively discovered.
- 4.6 KRCIPPL has also procured 0.01 MU, 0.04 MU and 1.63 MU of power from Power Exchange at average rates of Rs. 5.95/kWh, Rs. 9.47/kWh and Rs. 5.93/kWh during the months of July 2022, August 2022, and September 2022, respectively. KRCIPPL has submitted that the Commission in its Order dated 15 September 2022 in Case No. 138 of 2022 has allowed KRC DISCOMs to procure the power under exchange linked contracts till March 2022.
- 4.7 Summary of power purchase of KRCIPPL is as under:

Sr. No.	Particular		Compli	ance					
1	Purchase from Approved Source		No, MBPPL has procured power under exchange linked contracts as per ord lated 15 September 2022 in Case No. 138 of 2022.						
2	Merit Order Dispatch		KRCIPPL has scheduled its entire base power requirement from Power Exchange and bilateral contract at exchange linked rates, in line with MOD principles.						
3	Fuel Utilization Plan	Not applicable. All the EA, 2003.	Not applicable. All the sources of power procurement fall under Section 63 of EA, 2003.						
4	DSM Pool	KRCIPPL injected 0.02 has drawn 0.01 MU and 2022, respectively from	0.00 MU in the r	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The second of th				
5	Sale of Surplus Power	No surplus power was av 2022.	ailable for sale in	the months of Ju	uly 2022 to Septembe				
6	Power Purchase	Actual Power Purchase July 2022, August 2022, monthly power purchase	and September 2	2022, respectively					
7	Source wise Power Purchase	Source Name	Approved (MU)	Actual July 2022 (MU)	Proportion of each source in actual purchase (%)				
	THE PARTY OF THE P	RE Solar	0.34	0.04	2.05%				
		RE Non-Solar	0.48	0.03	1.54%				



Sr. No.	Particular		Comp	liance	
	Re. S. L. Silvich, Similard	Base Load – Long term / Medium Term Sources	3.39	1.89	96.92%
	d 0.09 MUs of Solve an	Exchange/Other Peak Sources	6.65 <u>2</u> 700, n	0.01	0.51%
	retailed this name of year	DSM Pool	-	(0.02)	-1.03%
	or through the power of	Total	4.21	1.95	100.00%
	CC02 and September 2022	105 tamura 2002 dul lo a			
	ue inarket driven and o	Source Name	Approved (MU)	Actual August 2022 (MU)	Proportion of each source in actual purchase (%)
	Tawori moni inwood in	RE Solar	0.34	0.00	0.00%
	o rucom sur gracio i	RE Non-Solar	0.48	0.06	2.96%
	ipianise inal me Compared KRC DISCOM» is	Base Load – Long term / Medium Term Sources	3.39	1.92	94.58%
		Exchange/Other Peak Sources	<del>-</del>	0.04	1.97%
		DSM Pool #		0.01	0.49%
		Total	4.21	2.03	100.00%
	change linked codract of 2022 a nower requirement	Source Name	Approved (MU)	Actual September 2022 (MU)	Proportion of each source in actual purchase (%)
	John Issault manet	RE Solar	0.34	0.03	1.47%
		RE Non-Solar	0.48	0.09	4.41%
	recurrently fall under	Base Load – Long term / Medium Term Sources	3.39	0.29	14.22%
	Cladrond CS0S wo Line	Exchange/Other Peak Sources	relief Jerosch	1.63	79.90%
	ai CCDC Namer A Toraction	DSM Pool	10.1.	0.00	0.00%
		Total	4.21	2.03	100.00%
o Segunda de la constanta de l	MU and 2 us MU in a 21, respectively, as nego- tower sales.	*The power purchase que basis, however monthly of purpose.  The Commission in its Or has allowed KRC DISC contracts till it successful	antum/cost appapproved number der dated 15 S OMs to procuply discovers ta	proved in MYT Order pers are derived for eptember 2022 in Ca are the power under riff in due bidding p	er is on yearly comparison  ase No. 138 of 202  er exchange linkerocess.
8	Power Purchase	Monthly power purchase		······	The state of the s
	under Section 63 of	power purchase quantum			(2)
	Electricity Act, 2003	ensured that same has bee	en considered i	n the FAC calculation	on.

## 5. Power Purchase Cost:

5.1 The Commission has scrutinised the detailed bills/invoices submitted for power purchase during the month of July 2022, August 2022, and September 2022, in order to verify the claim of KRCIPPL regarding Average Power Purchase Cost (APPC). The Commission has verified the actual as well as

- approved Net Purchase (MUs), Variable Cost (Rs./kWh) and Power Purchase Cost considered in FAC computation from the invoices and applicable MYT Order respectively.
- 5.2 The Power Purchase cost incurred in July 2022, August 2022, and September 2022 is **Rs. 1.18 Crore**, **Rs. 1.18 Crore and Rs. 1.29 Crore**, respectively, which is lower than the approved monthly Power Purchase cost of **Rs. 1.57 Crore** by the Commission each for the months July 2022, August 2022, and September 2022, respectively. This is on account of lower sales in the months of July, August and September as compared to estimates, which has resulted in lower power procurement and lower power purchase cost.
- 5.3 Medium Term Source: The Commission notes that KRCIPPL has not procured power from any contracted medium term source in the months from July 2022, August 2022, and September 2022. As the Medium-Term Power Purchase Agreement of KRCIPPL with Kreate Energy (I) Pvt. Ltd. has expired on 30 June 2022. Post that, the Commission in its Order dated 15 September, 2022 in Case No. 138 of 2022 has allowed KRC DISCOMs to procure the power under exchange linked contracts till it successfully discovers tariff in due bidding process.
- 5.4 **Bilateral purchases from GMR Energy Trading Limited (GMRETL):** The Commission notes than KRCIPPL has purchased 1.89 MU, 1.92 MU and 0.29 MU of power for the month of July 2022, August 2022, and September 2022 from GMR Energy Trading Limited on Bilateral basis and the average rate of power purchase was significantly high at Rs. 6.04/kWh, Rs. 5.60/kWh, and Rs. 8.07/kWh during the months of July 2022, August 2022, and September 2022, respectively because of non-availability of any contracted source.
- 5.5 The Commission has verified the bills from the power purchase bills for M/s GMR Energy.
- 5.6 Power procurement through Exchange and Other Peak Resource: KRCIPPL has procured 0.01 MU, 0.04 MU and 1.63 MU from IEX/PXIL for the months of July 2022, August 2022, and September 2022, respectively, to meet the peak demand from DAM / RTM / TAM products available on IEX platform. This source contributed to 0.51%, 1.97% and 79.90% of the total power purchase during the months of July 2022, August 2022, and September 2022, respectively, average rate of power purchase was high at Rs. 5.95/kWh, Rs. 9.47/kWh and Rs. 5.93/kWh in July 2022, August 2022, and September 2022, respectively. The contribution of power exchange purchases is higher in September 2022 because of non-availability of any contracted source. The higher cost of purchase from exchange reflects the trends observed in the power exchange in the month of April 2022.





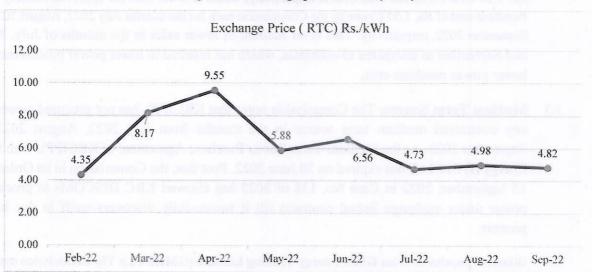


Figure 1: Exchange price trends (RTC)

- 5.7 **Other charges:** Scheduling and rescheduling charges for November 2021 and December 2022 amounting to Rs. 15,750 have been considered separately in August 2022.
- 5.8 Renewable Sources: The Commission has approved Rs. 0.24 Crore each for July 2022, August 2022, and September 2022 for purchase of RE power to meet the Renewable Purchase Obligation. KRCIPPL has purchased RE Solar and RE Non-Solar during the months of July 2022, August 2022, and September 2022. The RE Solar purchase quantum was 0.04 MU at a power purchase rate of Rs. 5.15/kWh in July 2022, 0.00 MUs at the rate of Rs. 9.60/kWh in August 2022 and 0.03 MUs at the rate of Rs. 8.11/kWh in September 2022. Similarly, the RE Non-Solar purchase quantum was 0.03 MU at a power purchase rate of Rs. 5.15/kWh in July 2022, 0.06 MU at the rate of Rs. 9.55/kWh in August 2022 and 0.07 MU at the rate of Rs. 7.85/kWh in September 2022.
- 5.9 Accordingly, KRCIPPL has sourced the RE Solar and RE Non-Solar Power from the exchange (GDAM and GTAM) to meet the RPO obligation. It is observed that the APPC for solar and non-solar sources are higher than approved rates of Rs. 2.89/kWh for solar and Rs. 2.87/kWh for non-solar in the months of July 2022, August 2022 and September 2022. However, the Commission notes that the price of power is competitively discovered for the power sourced from the power exchange and KRCIPPL has provided all the necessary supporting documents for verification of the cost. Accordingly, the Commission approves inclusion of the power purchased from RE sources for recovery through the FAC mechanism.
- 5.10 **DSM Pool:** KRCIPPL has injected 0.02 MU in the month of July 2022 into the DSM pool and has drawn 0.01 MU and 0.00 MU in the months of August 2022 and September 2022 respectively from the DSM pool.
- 5.11 The Commission has also considered the average price of the power in the DSM pool (Rs. 3.47/kWh, Rs. 6.10/kWh and Rs. 1.78/kWh) as submitted by the Licensee for FAC computation along with the supporting documentation for the months July 2022, August 2022, and September 2022.
- 5.12 The Commission has noted that KRCIPPL has followed Merit Order Dispatch for scheduling of power and all sources are scheduled according to SLDC instructions.

- 5.13 No sale of surplus power was done during the period July 2022 to September 2022.
- 5.14 **Approved Cost:** KRCIPPL has purchased power from GMR Energy on bilateral basis at Rs. 6.04/kWh in July 2022, Rs. 5.60/kWh in August 2022, and Rs. 8.07/kWh in September 2022 which is higher than the Power procurement cost of Rs. 3.92/kWh as approved by the Commission in Tariff Order in Case No. 329 of 2019 from the medium-term source.
- 5.15 However, the APPC during the period July 2022 to September 2022 is higher due to purchase of higher cost power, both conventional and RE, from power exchange to meet the higher demand in July 2022 to September 2022.
- 5.16 The details of the overall cost approved and actual for the months of July 2022, August 2022, and September 2022 respectively, as per MYT Order is as shown in the Table 2 below:

Table 2: Approved and Actual Power Purchase Cost for KRCIPPL

Source		Power Purchase Quantu m (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kW h)	Variable Cost (Rs. Crore)	Variabl e Cost (Rs./k Wh)	Total Cost (Rs. Crore)	APPC (Rs./k Wh)
Base Load –	Approved	3.39	-	-	1.33	3.92	1.33	3.92
Long Term /	Actual (July)	1.89		Torac -	1.14	6.04	1.14	6.04
Medium Term-	Actual (August)	1.92		-	1.08	5.60	1.08	5.60
Bilateral	Actual (September)	0.29	monti se	end en ma <del>-</del> ti	0.23	8.07	0.23	8.07
Exchange/	Approved	-		-			-	
Other Peak	Actual (July)	0.01	-		0.01	5.95	0.01	5.95
Sources	Actual (August)	0.04	-		0.04	9.47	0.04	9.47
	Actual (September)	1.63	-	-	0.96	5.93	0.96	5.93
Solar & Non-Solar	Approved	0.34 (Solar)	- 7		0.10 (Solar)	2.89 (Solar)	0.10 (Solar)	2.89 (Solar)
RE/REC		0.48 (Non- Solar)	1		0.14 (Non- Solar)	2.87 (Non- Solar)	0.14 (Non- Solar)	2.87 (Non-Solar)
	Actual (July)	0.04 (Solar)		n 1 <b>0</b> .a \	0.02 (Solar)	5.15 (Solar)	0.02 (Solar)	5.15 (Solar)
		0.03 (Non- Solar)			0.02 (Non- Solar)	5.15 (Non- Solar)	0.02 (Non- Solar)	5.15 (Non-Solar)
	Actual (August)	0.00 (Solar)	•	-	0.00 (Solar)	9.60 (Solar)	0.00 (Solar)	9.60 (Solar)
	hed soon	0.06 (Non- Solar)	5   N - 2m <sup>2</sup> n	ITE Store rendere	0.06 (Non- Solar)	9.55 (Non- Solar)	0.06 (Non- Solar)	9.55 (Non-Solar)
	Actual (September)	0.03 (Solar)	-	ay aa n <u>a</u>	0.02 (Solar)	8.11 (Solar)	0.02 (Solar)	8.11 (Solar)
	PACK SECTION	0.09 (Non- Solar)	101	(Semilarin 6)	0.07 (Non- Solar)	7.85 (Non-Solar)	0.07 (Non- Solar)	7.85 (Non-Solar)
DSM	Approved	-	-	-	-	-	-	-
	Actual (July)	(0.02)	-	-	(0.01)	3.47	(0.01)	3.47
	Actual (August)	0.01	ny ataon na	-	0.01	6.10	0.01	6.10
	Actual (September)	0.00	-	_	0.00	1.78	0.00	1.78

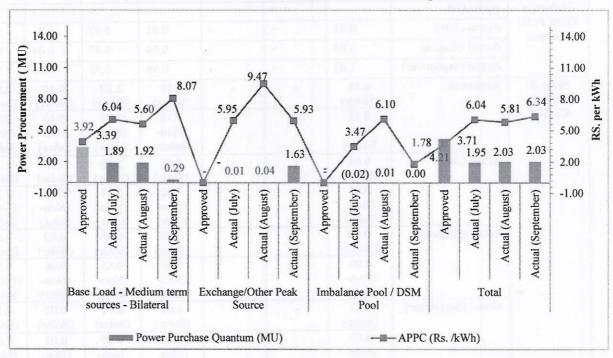


Source		Power Purchase Quantu m (MU)	Fixed Cost (Rs. Crore)	Fixed Cost (Rs./kW h)	Variable Cost (Rs. Crore)	Variabl e Cost (Rs./k Wh)	Total Cost (Rs. Crore)	APPC (Rs./k Wh)
SLDC Fees	Actual (July)	nodellaling-c	0.001	Hooping a			0.001	-
	Actual (August)	equadors'	0.001	20% Oilth <u>1</u> 1	normenin <u>s</u>	(1 = 1 = 1 = 1 = 1	0.001	-
	Actual (September)	-	0.001	-	-	-	0.001	
Total	Approved	4.21	ora tens k	excapter its	1.57	3.71	1.57	3.71
	Actual (July)	1.95	0.00	0.00	1.18	6.04	1.18	6.04
	Actual (August)	2.03	0.00	0.00	1.18	5.81	1.18	5.81
	Actual (September)	2.03	0.00	0.00	1.29	6.34	1.29	6.34

<sup>\*</sup>KRC has to pay fixed short term open access charges irrespective of quantum of power purchase and hence per unit rate is higher

5.17 Source wise approved and actual quantum of power procured from some of the key sources and APPC for month of July 2022, August 2022, and September 2022, respectively, is shown in the graph below:

Figure 2: Variation in Power Procurement and Total per unit Cost



5.18 Reasons for the rate variation for various sources are as shown below:

Table 3: Summary of reasons for rate variation for various power sources

Sr. No.	Source	Month	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
1	Base Load -	July 2022	3.92	6.04	Power purchased from
	Long term /	August 2022	CTRICITY	5.60	GMR Energy Trading

Sr. No.	Source	Month	Approved Rate (Rs. /kWh)	Actual Rate (Rs. /kWh)	Reason for rate variation
	Medium Term / Bilateral	September 2022	at by the Commission	8.07	Limited (GMRETL) on Bilateral basis. Medium Term PPA with Kreate Energy was valid till 30 <sup>th</sup> June 2022.
3	Solar & Non Solar – REC / RE	July 2022	2.89 (solar) 2.87 (non-solar)	5.15 (Solar) 5.15 (Non- Solar)	Market discovered rate; Purchase of RE power in July 2022 to September
	10.6	August 2022	Lawrence as a se	9.60 (Solar) 9.55 (Non-Solar)	2022 from Power Exchange (GDAM and GTAM) as approved in the MYT Order.
	18.5   N 01.5   O	September 2022	two levillense two coolings of	8.11 (Solar) 7.85 (Non- Solar)	- the WTT Order.
4	Exchange/	July 2022	-	5.95	Market discovered rate
	Other Peak Source	August 2022	x Dr.) Ninzeumit	9.47	Short term power purchase from Power
		September 2022		5.93	Exchange through DAM, TAM, and RTM.
		made on a GH grand water talketat graves andress or a survival	se moneyal manacar		The cost is higher due to ongoing coal shortage and higher prices of fuel
	FLS 100	P.S. Chen	eliman kan	saverly reconduction of the conduction of the co	which increases supply demand gaps which further tends to increase market clearing price bids on power exchange.
5	DSM	July 2022		3.47	DSM rates as based on
	1111 1 210	August 2022	-	6.10	the supporting
		September 2022	li on more en sol de	1.78	documents provided by KRCIPPL.
6	Total	July 2022	3.71	6.04	Due to above factors
		August 2022		5.81	
		September 2022	Herenal Maje vota	6.34	Endertal) A

5.19 Considering the above, the Commission allows the average power purchase cost of Rs. 6.04/kWh, Rs. 5.81/kWh, and Rs. 6.34/kWh for the month of July 2022, August 2022, and September 2022 respectively, as shown in Table 33 above. The increase in power purchase cost is due to reliance on Power exchange and bilateral transactions. The variation in power purchase cost is on the higher side in July 2022, August 2022, and September 2022 due to the higher cost of RE and conventional power purchase from exchange.

#### 6. FAC on account of fuel and power purchase cost (F)

6.1 The Commission has worked out the average power purchase costs for the month of July 2022, August 2022, and September 2022 as shown in Table 23 above. The same has been compared with the average



- power purchase cost approved by the Commission in MYT Order dated 30 March, 2020 to arrive at the differential per unit rate at which  $Z_{FAC}$  is to be passed on to the consumers.
- 6.2 Thus, the following Table 4 shows the Z<sub>FAC</sub> worked out by the Commission on account of difference in power purchase cost for the month of July 2022, August 2022, and September 2022 respectively.

Table 4: FAC on account of Fuel and Power Purchase Cost

Sr. No.	Particulars	Units	Jul-22	Aug-22	Sept-22
1	Average power purchase cost approved by the Commission	Rs./kWh	3.71	3.71	3.71
2	Actual average power purchase cost	Rs./kWh	6.04	5.81	6.34
3	Change in average power purchase cost (=2 -1)	Rs./kWh	2.33	2.10	2.63
4	Net Power Purchase	MU	1.95	2.03	2.03
5	Change in power purchase cost (=3 x 4/10)	Rs. Crore	0.45	0.43	0.53

#### 7. Adjustment for over recovery/under recovery (B)

7.1 The adjustment factor for over recovery / under recovery (B) is as shown in the Table 5 below:

Table 5: Adjustment for over recovery/under recovery

S. No.	Particulars	Units	Jul 22	Aug 22	Sept 22
1.1	Incremental cost allowed to be recovered in Month n-4	Rs. Crore	0.07	0.14	0.14
1.2	Incremental cost in Month n-4 actually recovered in month n-2	Rs. Crore	0.07	0.13	0.14
1.3	(over-recovery)/under-recovery (=1.2 - 1.1)	Rs. Crore	0.01	0.01	-0.00
2.0	Carried forward adjustment for over- recovery/under-recovery attributable to application of ceiling limit for previous month	Rs. Crore	0.78	1.11	1.41
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs. Crore	0.78	1.12	1.41

#### 8. Carrying Cost for over recovery/under recovery (C)

- 8.1 Carrying/Holding Cost for under recovery/over recovery has been granted at the approved interest rate for the eligible amount which works out to Rs. 0.01 Crore in each of the months of July 2022, August 2022, and September 2022.
- 8.2 Holding cost for the month of July 2022 to September 2022is calculated by considering MCLR + 150 basis points which turns out to be 8.90%, 9.00% and 9.20% for July 2022, August 2022 and September 2022, respectively.
- 8.3 The Commission has computed the holding cost towards the amount under recovered in the month of July 2022 to September 2022 which is as shown in the Table 6 below:



Table 6: Carrying/Holding Cost for over/under-recovery

Particulars	Units	Jul 22	Aug 22	Sep 22
Adjustment factor for over-recovery/under-recovery	Rs. Crore	0.78	1.12	1.41
Interest rate	%	8.90%	9.00%	9.20%
Carrying cost for over-recovery/under-recovery	Rs. Crore	0.01	0.01	0.01

#### 9. Holding Cost for FAC Fund

- 9.1 The Commission in its FAC approval for the month of March 2021 has decided to accumulate the FAC fund arising out of negative monthly FAC up to March 2023 along with the holding cost. Accordingly, as per said principle laid down by the Commission, KRCIPPL has carried forward the negative FAC amount and accumulated the same in the FAC Fund along with holding cost.
- 9.2 On the similar principle, the Commission has allowed KRCIPPL to carry forward the negative FAC amount in excess of FAC fund approved in the MYT order and accumulate in the FAC fund up to March 2023 along with holding cost.
- 9.3 The Commission has determined positive FAC of Rs. 1.24 Crore, Rs. 1.56 crore and 1.96 crore for July 2022, August 2022, and September 2022, respectively. The Commission has determined FAC fund of Nil amount at the end of September 2022.
- 9.4 The Commission has considered SBI MCLR rate of the month plus 150 basis points which works out to 8.90%, 9.00%, and 9.20% for July 2022, August 2022 and September 2022, respectively. Accordingly, the Commission has calculated holding cost of nil amount for the months July 2022 to September 2022, to be contributed to the FAC Pool.

#### 10. Disallowance due to excess Distribution Loss

- 10.1 Regulation 10.8 of MYT Regulations, 2019 provides for FAC amount to be reduced in case the actual distribution loss for the month exceeds the approved distribution loss. The relevant extract is reproduced as follows.
  - "10.8 The total  $Z_{FAC}$  recoverable as per the formula specified above shall be recovered from the actual sales in terms of "Rupees per kilowatt-hour":

Provided that, in case of unmetered consumers, the  $Z_{FAC}$  shall be recoverable based on estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

Provided further that, where the actual annual sliding distribution losses of the Distribution Licensee exceed the level approved by the Commission, the amount of  $Z_{FAC}$  corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total  $Z_{FAC}$  recoverable"

10.2 The following Table 7 provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss:



Table 7: Disallowance of FAC due to excess Distribution Loss

Sr.	Particulars	Units	Approved	July	August	Septemb
No.			in Tariff Order	2022	2022	er 2022
1	Net Energy input at Distribution Voltages	MU	4.08	1.89	1.97	1.96
2	Energy sales at Distribution voltages	MU	3.98	1.86	1.94	1.93
3	Distribution Loss (1 - 2)	MU	0.10	0.03	0.03	0.03
4	Distribution Loss as % (3/1)	%	2.50%	1.45%	1.48%	1.60%
5	Annual Sliding Distribution Loss (%)	%		1.84%	1.79%	1.74%
6	Excess Distribution Loss = [Annual Sliding Distribution Loss - Distribution loss approved] x Net Energy Input (1)	MU	aco su , sagle lune, cos s agrichal dica	ite talies Boule es Boule Did	204 (90) 200900 200900	-
7	Disallowance of FAC due to excess Distribution Loss	Rs. Crore	-		-	- 1600

10.3 As it can be seen from the Error! Reference source not found.7 above, the annual sliding distribution loss for the months of July 2022, August 2022, and September 2022 is 1.84%, 1.79%, and 1.74%, respectively, which is lower than the MYT approved distribution loss of 2.50%. The monthly distribution loss for the months of July 2022, August 2022, and September 2022 is also lower than the MYT approved distribution loss of 2.50%. The Commission has not worked out any disallowance on account of excess Distribution Loss since the actual sliding distribution loss is lower than approved distribution loss.

#### 11. Summary of Allowable ZFAC

11.1 The summary of the FAC amount as approved by the Commission for the month of July 2022, August 2022, and September 2022 which is allowed to be recovered in the billing month September 2022, October 2022 and November 2022 as shown in the Table 8 below.

Table 8: Summary of Allowable ZFAC

Sr. No.	Particulars	Units	July 2022	August 2022	Septemb er 2022
1	Calculation of Z <sub>FAC</sub>				
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	0.455	0.427	0.533
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	0.006	0.008	0.011
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	0.784	1.120	1.413
1.5	$Z_{FAC} = F + C + B$	Rs. Crore	1.245	1.555	1.957
2	Calculation of FAC Charge				
2.1	Energy Sales within the License Area	MU	1.863	1.939	1.933
2.2	Excess Distribution Loss	core MU	-	-	-

Sr. No.	Particulars	Units	July 2022	August 2022	Septemb er 2022	
2.3	Z <sub>FAC</sub> per kWh	Rs./kWh	6.679	8.023	10.120	
2.4	Cap at 20% of variable component of tariff	d i pasoria	0.723	0.723	0.723	
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	a peno gribin	0.723	0.723	0.723	
3	Recovery of FAC	(a. 1.513) Cap	1 July 2022,	Dannio Eliza		
3.1	FAC disallowed corresponding to excess Distribution Loss [((2.1+2.2) x 2.3)/10]	Rs. Crore	radizoq bo <b>a</b> f radiz sag Cf	Munume : Managanta	-	
3.2	Allowable FAC	Rs. Crore	1.245	1.555	1.957	
4	Utilization of FAC Fund	1				
4.1	Opening Balance of FAC Fund	Rs. Crore		-	-	
4.2	Holding Cost on FAC Fund	Rs. Crore	ogámic <del>t</del>	T establish	- 12.6	
4.3	Z <sub>FAC</sub> for the month (Sr. No. 3.2)	Rs. Crore	1.245	1.555	1.957	
4.4	Closing Balance of FAC Fund	Rs. Crore	-	-	-	
4.5	Z <sub>FAC</sub> leviable/refundable to consumer	Rs. Crore	1.245	1.555	1.957	
5	Total FAC based on category wise and slab wise allowed to be recovered	Rs. Crore	0.136	0.141	0.141	
6	Carried forward FAC for recovery during future period (3.1-3.2-4)	Rs. Crore	1.109	1.414	1.816	

- 11.2 It can be seen from the Error! Reference source not found.8 above that standalone FAC for the month of July 2022, August 2022, and September 2022 is Rs. 1.245 Crore, Rs. 1.555 Crore, and Rs. 1.957 Crore, respectively. Based on energy sales and excess distribution loss, FAC per unit has been worked out as Rs. 6.679/kWh, Rs. 8.023 /kWh, and Rs. 10.120/kWh for the months of July 2022, August 2022, and September 2022, respectively as shown above.
- 11.3 Further, the Regulation 10.9 of MYT Regulations,2019 specifies as:

Provided that the monthly  $Z_{FAC}$  shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:

- 11.4 As the FAC per unit computed in the month of July 2022 (Rs. 6.68/kWh), August 2022 (Rs. 8.02/kWh) and September 2022 (Rs. 10.12/kWh) as shown in **Error! Reference source not found.**7 above are higher than the 20% cap (Rs. 0.72/kWh) specified in MYT Regulations, 2019, hence, the restriction is triggered with regards to such ceiling.
- 11.5 Accordingly, considering the ceiling limit (Rs. 0.72/kWh), the FAC recoverable September 2022, October 2022 and November 2022 will be lower. Accordingly, due to ceiling limit (Rs. 0.72/kWh), the FAC recoverable has been worked out as Rs. 0.136 Crore, Rs. 0.141 Crore, and Rs. 0.141 Crore for the months of July 2022, August 2022, and September 2022, respectively. Thus, FAC equivalent to Rs.1.109 Crore (i.e., Rs. 1.245 Crore minus Rs. 0.136 Crore) for the month of July 2022, Rs. 1.414 Crore (i.e., Rs. 1.555 Crore minus Rs. 0.141 Crore) for the month of August 2022, and Rs 1.816 Crore (i.e., Rs. 1.957 Crore minus Rs. 0.141 Crore) for the month of September 2022 has remained unrecovered which will be recovered as part of FAC of upcoming months.



11.6 The Commission has also approved a holding cost of Nil amount for the FAC fund available during the months of July 2022, August 2022, and September. The value of the opening FAC fund in July 2022 after considering the holding cost is Nil. The Commission has determined a positive FAC of Rs. 1.245 Crore for July 2022, Rs. 1.555 Crore for August 2022, and Rs. 1.957 Crore for September 2022. Accordingly, these positive FAC determined by the Commission for July 2022, August 2022, and September 2022 are adjusted in the available FAC fund and the FAC fund amount at the end of September 2022 is **Rs. Nil.** 

#### 12. Recovery from Consumers:

12.1 Regulation 10.9 of MERC MYT Regulations, 2019 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

"10.9 The  $Z_{FAC}$  per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —

 $Z_{FACCat}$  (Rs/kWh) = [ $Z_{FAC}$  / (Metered sales + Unmetered consumption estimates + Excess distribution losses)] \* k \* 10, Where:

 $Z_{FACCat} = Z_{FAC}$  component for a particular Tariff category/sub-category/consumption slab in 'Rupees per kWh' terms;

k = Average Billing Rate / ACOS;

Average Billing Rate = Average Billing Rate for a particular Tariff category/sub-category/consumption slab under consideration in 'Rupees per kWh' as approved by the Commission in the Tariff Order:

Provided that the Average Billing Rate for the unmetered consumers shall be based on the estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

 $ACOS = Average\ Cost\ of\ Supply\ in\ 'Rupees\ per\ kWh'\ as\ approved\ for\ recovery\ by\ the\ Commission\ in\ the\ Tariff\ Order:$ 

Provided that the monthly  $Z_{FAC}$  shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:

Provided further that any under-recovery in the  $Z_{FAC}$  on account of such ceiling shall be carried forward and shall be recovered by the Distribution Licensee over such future period as may be directed by the Commission..."

12.2 The Commission had invoked power of removing difficulties under MYT Regulation, 2019 and made following changes for computation of FAC.

"Distribution Licensee shall undertake computation of monthly FAC as per Regulation 10 of the MYT Regulations, 2019 except for treatment to be given to negative FAC as follows:

 Negative FAC amount shall be carried forward to the next FAC billing cycle with holding cost.

- Such carried forward negative FAC shall be adjusted against FAC amount for the next month and balance negative amount shall be carried forward to subsequent month with holding cost.
- Such carry forward of negative FAC shall be continued till the accumulated negative FAC becomes 20 % of monthly tariff revenue approved by the Commission in Tariff Order. In case of KRCIPPL such limit shall be Rs.28 Lakh. Any accumulated amount above such limit shall be refunded to consumers through FAC mechanism.
- In case such FAC Fund is yet to be generated or such generated fund is not sufficient to adjust against FAC computed for given month, then Distribution Licensee can levy such amount to the consumers through FAC mechanism, upon seeking prior approval from the Commission."
- 12.3 The following Table 9Error! Reference source not found. shows per unit Z<sub>FAC</sub> for the month July 2022, August 2022, and September 2022 to be levied on consumers of KRCIPPL in the billing month of September 2022, October 2022, and December 2022

Table 9: Category wise FAC Revenue for billing month September 2022, October 2022, and December 2022

Sr. No	Consumer Category	Slabs	Z <sub>FAC</sub> computed for the month of July 2022 (Rs. Crore)	Z <sub>FAC</sub> computed for the month of August 2022 (Rs. Crore)	Z <sub>FAC</sub> computed for the month of September 2022 (Rs. Crore)
	HT Category				
1	HT- I Industrial	all units	0.106	0.111	0.110
2	HT-II Commercial	all units	-	-	-
3	HT III – Electric Vehicle (EV) Charging Stations	all units	0.000	0.000	-
	LT Category				
4	LT-II(A) Commercial (0-20 kW)	all units	0.001	0.001	0.000
5	LT-II (B) Commercial (above 20 kW)	all units	0.002	0.002	0.002
6	LT-III (A) Industrial (0-20 kW)	all units	-	2.3	0.000
7	LT-III (B) Industrial (above 20 kW)	all units	0.028	0.028	0.029
	Total		0.136	0.141	0.141



- Such curried forward regulate EAC shall be adjusted opinist EAC auctuit for the next month and belance require amount that he carried forward to subsequent month with belancement.
- Seath corry, femional of magazine EAC shall be continued till the accumulated negative EAC tracement 20 th of menutop randf revenue approved by the Commission in Tariff (index. In east of EBC 1995, and finite shall be flo.28 Levis. Any accumulated amount obeve such that a half by reflexable to consumers absence in EAC mechanism.
- in cases such EMC Fund to yet to be generated or such generated fund is not sufficient to adjust against EAC compited for given month, then Distribution Liquiges can levy such actions to the consumers through EAC mechanism, upon sucking prior approved from the Commission."
- 12.3 The following Table 982 roof Helevater source not found, shows per unit Zean for the month fully 2022, August 2022, and September 2022 to be levied on consumer of KKCIPPL in the billing month of September 2022. October 2022, and December 2022.

Table 9: Cotegory wise FAC Revenue for billing month September 2022, October 2022, and Documber 2022

