KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present : Shri T K Jose, Chairman
Adv. A.J Wilson, Member
Shri B Pradeep, Member

OP No. 28/2025

In the matter of	:	Petition under Section 86 (1)(f) and (e) of the Electricity Act,2003, seeking adjudication of disputes between Cochin International Airport Limited and Kerala State Electricity Board Limited seeking refund of the grid support charges and banking charges.
Petitioners	:	Cochin International Airport Limited
Petitioners represented by	:	Adv. Shri. Anand K Ganeshan Smt. Mini Joseph, CFO CIAL Infrastructures Ltd
Respondent	:	Kerala State Electricity Board Ltd.
Respondents represented by	:	Sr.Adv. Shri. Raju Joseph Shri. Shine Raj AEE TRAC
Date of hearing	:	1. 27.05.2025 02:30 PM 2. 16.09.2025 03:30 PM
Venue	:	Court hall of the commission (Hybrid mode)

Order dated 27.11.2025

1. M/s Cochin International Airport Ltd (hereinafter referred as CIAL or petitioner) filed a petition on 14.03.2025 before the Commission with the following prayers;

> ***"32(a)*** *Declare and hold that the banking transactions between CIAL and KSEB continue to be governed by Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015;*
>
> ***32(b)*** *Declare and hold that the time zone settlement continues to be governed by Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015;*
>
> ***32(c)*** *Declare and hold that CIAL is not liable to pay 5% of the energy injection into the grid as 'grid support charges' and 5% of banked energy as 'banking charges';*

32(d) direct the Respondent- KSEB to refund the charges so collected by it till the time of passing of an Order in the present petition or in the alternate grant adjustment of the corresponding 96,81,338 units. A calculation of the corresponding units adjusted by KSEB is attached herewith and marked as Annexure L

32(e) Pass such Order(s) that this Hon'ble Commission may deem just and proper."

2. The summary of the petition filed by the CIAL is given below;

(1) The petitioner is a company existing under the provisions of the Companies Act, 2013, having its registered office at Ernakulam. The petitioner is the holding company of CIAL Infrastructures Ltd, holding 99.99% of the equity shares of the latter, and as such the petitioner is a captive user under the Act.

(2) M/s CIAL Infrastructures Limited owns and operates the solar power plant having an aggregate capacity of 38.864 MWp which is a captive generating plant (Solar Plant) within Section 2(8) of the EA-2003. The said Solar Plant is located within the premises of Cochin International Airport.

(3) KSEBL, the distribution licensee in the State of Kerala provides connectivity and banking facilities to captive users such as the petitioner. For such purpose, KSEB enters into Connectivity and Banking Agreements with respective entities.

(4) The petitioner M/s CIAL is a consumer of KSEB Ltd having a Contract Demand of 9MVA (Consumer No.LCN:29/3507). The petitioner generates more power than required for its internal consumption, it is left with surplus power which is then banked with KSEB.

(5) For the purposes of connectivity with the KSEB grid, CIAL has entered into the following agreements with the licensee KSEBL.

SL No	Particulars	Capacity	Date
1	Connectivity Agreement	1 MWp	18.05.2016
2	Connectivity Agreement	12 MWp	11.12.2017
3	Connectivity Agreement	16.029 MWp	07.07.2018
4	Connectivity Agreement	9.835 MWp	20.07.2023

(6) M/s CIAL further submitted that the solar plant of aggregated capacity 9.83 MWp, was energized in stages on 12.12.2018, 04.02.2019, 26.06.2019, and 06.01.2020.

Although the energization was sanctioned as early as in 2018, however the corresponding Connectivity Agreement was executed by KSEB much belatedly on 20.07.2023 for which banking agreement is still pending.

From the energization certificate dates, it becomes evident that the cumulative capacity of 9.83 MWp is also covered in terms of the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015.

(7) The relevant portion of banking agreement entered by the petitioner with KSEB Ltd for a 29.029MWp solar plant on 16.09.2019, regarding the applicability of the Regulation is extracted below;

"WHEREAS

[…]
3. The Applicant has requested KSEB Ltd To provide banking facility to the said plant as per the provisions in KSERC (Renewable Energy) Regulations, 2015 dated 11-11-2015 and its amendments from time to time and upon mutually agreed terms and conditions.
4. And whereas, the KSEB Ltd agrees to provide banking facility for the electricity generated as per the conditions of the agreement Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015 and its amendments from time to time.
[…]"

The petitioner further submitted that, the banking agreement was in terms of the KSERC (Renewable Energy) Regulations, 2015 dated 11.11.2015 .

(8) M/s CIAL submitted that the Commission has notified the KSERC (Renewable Energy and Net Metering) Regulations, 2020 (hereinafter referred as RE Regulations, 2020). In the said Regulation the Commission has introduced changes like 5% of the energy injection into the grid as 'grid support charges' and 5% of banked energy as 'banking charges' were introduced. Further, the RE Regulation, 2020 did not provide that the same would be applicable retrospectively.

(9) **The Commission had notified the KSERC** (Renewable Energy and Net Metering) (First Amendment) Regulations, 2022 on 15.07.2022, w.e.f 01.08.2022. The said amendment clarifies the applicability of the RE Regulation, 2020.

The relevant portion of the Regulation is extracted below;
"[…]
2. Amendment to the existing Regulations - In the Kerala State Electricity Regulatory Commission (Renewable Energy & Net Metering) Regulations, 2020:

(1) Regulation 1(2) of the existing Regulations, shall be amended as follows:

"Regulation 1 (2) These Regulations shall apply to all the new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities, in the matter of Determination of Tariff of Renewable Energy, Net Metering, Banking, Generation Based Incentives and related matters.

Provided that, the captive generators/ consumers existing in the State prior to the enactment of the Electricity Act, 2003 and governed by the agreements entered into between the licensee and generators as per the policies then existing, shall be allowed to continue till the expiry of the term of the agreement as per the provisions of such agreements as long as the provisions of such agreements are consistent with the Act;

Provided further that the bills issued during the period from 5th June 2020 to the date of effect of these Regulations need not be revised: Provided also that the provision for 'gross metering' will be introduced in the State by the Commission at an appropriate time only after full compliance of the RPO by the Licensees;"

Explanatory Note: In the Kerala State Electricity Regulatory Commission (Renewable Energy and Net Metering) Regulations 2020, Clause 1.(2) it was mentioned that 'These regulations shall apply to all existing and new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities in the matter of Determination of Tariff of Renewable Energy, Net Metering, Banking, Generation Based Incentives and related matters'. This was an inadvertent error which had crept into the Regulation. It is hereby clarified that all the existing entities including prosumers, obligated entities, distribution licensees, captive consumers, open access consumers, entities eligible for generation-based incentives etc. and who were governed by the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015 and its amendments and Kerala State Electricity Regulatory Commission (Gird Interactive Distributed Solar Energy Systems)Regulations, 2014 and its amendments shall continue to be governed as per those Regulations. ***However, the facilities including banking permitted in the RE Regulations, 2020 on payment of fees and charges for usage of transmission and distribution system, as the case may be shall be applicable to them. The intent of this amendment is to clarify and to rectify this error."***

(10) Subsequently, M/s CIAL vide letter dated 01.11.2023 informed to KSEB Ltd that RE Regulations, 2020 is not applicable to them and resultantly recovery of grid support charges and banking charges were bad in law. Further, CIAL sought for recovery of the illegal charges paid by them..

M/s KSEB Ltd vide letter dated 01.11.2023 contested the claim of CIAL and contended that banking charges and grid support charges imposed under the RE Regulations, 2020 have not been waived for existing captive consumers, prosumers, etc. in the State. The RE Regulations, 2020 permitted to levy such charges from prosumers.

(11) Hon'ble Supreme Court in a second appeal arising from a decision of the Appellate Tribunal in Ajmer Vidyut Vitran Nigam Ltd. v. Hindustan Zinc Ltd.,

(2022) 6 SCC 282, held that the regulation cannot apply retrospectively from the date of agreement executed between the parties.

(12) Hon'ble Supreme Court in in the case of Gujarat Urja Vikas Nigam Limited v. Renew Wind Energy (Rajkot) Private Limited, **2023 SCC Online SC 411,** reiterated that the context of the retrospective application of regulations enacted by State Electricity Regulatory Commissions.

(13) As per the Regulation 26 of the RE Regulation,2015, the Commission has notified the settlement of units during normal, peak and off peak, which are given below;

Time zone of injection of renewable energy to grid	Quantum of Renewable energy injected (kWh)	Quantum of electricity allowable for consumption (kWh)		
		Normal Hours	Peak Hours	Off-Peak Hours
Normal hours	1.00	1.00	0.66	1.33
Peak Hours	1.00	1.50	1.00	2.00
Off-Peak Hours	1.00	0.75	0.50	1.00

Since the solar generation occurred during the normal hours, the adjustment in the peak zone hours was 0.66 units, and off-peak hours the same was 1.33 units.

For every unit of energy injected into the grid during solar hours, CIAL want 1.33 units during off-peak solar hours.

(14) CIAL submitted that however; after coming into force of the 2020 Regulations the ratio of adjustment had changed. Since October 2020, the time zone settlement ratios were revised by KSEB in accordance with the 2020 Regulations.

The transactions between CIAL and KSEB are governed by the 2015 Regulations and not 2020 Regulations. Therefore, any adjustment made in terms of the 2020 Regulations is incorrect.

(15) CIAL submitted that KSEB cannot insist in law on the retrospective applicability of the regulations and while doing so abstain from executing the banking agreement for the remaining capacity of 9.835 MWp.

3. KSEBL vide the affidavit dated 09.06.2025 submitted its comments on the petition filed by M/s CIAL and its summary is given below;

(1) The issues raised in the present petition have already been adjudicated by the Commission. KSERC notified the RE Regulations, 2020 after conducting a comprehensive stakeholder consultation. These regulations introduced 'Grid Support Charges' and 'Banking Charges' for prosumers with renewable energy capacity above 1 MW.

(2) During the consultation process of the RE Regulations 2020, M/s. CIAL had submitted objections specifically requesting the Commission to withdraw the proposed grid support and banking charges. The Commission addressed these objections in the Statement of Reasons and clarified the need for introducing Grid support charges and Banking Charges. The relevant paragraphs of the Statement of objections/reasons is extracted below.

"In the case of CIAL, the contract demand with KSEBL is about 9 MVA, where as the total Solar PV installed by them is about 40 MW to meet their electricity demand. It means that, during day time, the CIAL can consume only upto 9MVA load only, out of the 40 MW Solar PV installed by them.

The balance power of CIAL (40-9= 31 MW) has to be injected into the State Grid during day time and KSEBL has to absorb the same. In order to absorb the excess energy injected by CIAL during day time, the distribution licensee has to backdown/regulate their power purchase contracts by incurring fixed cost.

In order to return back the excess energy injected into the grid during peak and off-peak hours, the licensee has to purchase additional energy or generate excess energy from its own stations. Further, in order to return back the power, the licensee has to transmit power from its import points or switchyard of the generating stations, and it involves transmission charges, wheeling charges and losses. The licensee reported that, they do not have any advantage for the excess energy injected to the grid during day time by CIAL or such consumers, and thus incurring additional liability on this account, and ultimately this liability fall on the ordinary consumers of the State.".

The Commission justifiably determined grid support and banking charges for prosumers with capacity above 1 MW. Importantly, these charges are applicable to all such prosumers, not just those added after the enactment of the 2020 Regulation.

(3) M/s. CIAL also objected to the restriction on adjusting only 80% of net day-time injection against peak-hour consumption. On this issue, Commission has rightly observed that;

'At present the energy rate during day time is only about 88% of the energy rate

during night off peak hours. This trend may likely to continue in near future with the large scale integration of the 'solar power' in the National grid during day time and the DISCOM has to be return back during off-peak hours. Considering the higher energy price of off-peak hours compared to the day time price, the Commission cannot allow the request of CIAL and other stakeholders in this regard'

Thus, the core issues raised in the present petition have already been raised by the petitioner and expressly addressed by the Hon'ble Commission.

(4) The petitioner has raised an argument that, they fall under the purview of RE Regulation 2015 and not under RE Regulation 2020 or its amendment. Further the petitioner submitted that, in the first amendment of RE Regulation 2020, it is specified that the regulation is applicable for all the new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities. On the applicability of RE Regulations, 2020 to the petitioner M/s CIAL, KSEBL submitted that, the petitioner CIAL, in this petition has pointed out only a part of the observation of the Commission in the first amendment to the Regulation. In the explanatory note of this regulation the Commission has clearly specified that, the facilities including banking permitted in the RE Regulations, 2020 on payment of fees and charges for usage of transmission and distribution system, as the case may be shall be applicable to them.

The explanatory note in the Regulation is extracted below;

'In the Kerala State Electricity Regulatory Commission (Renewable Energy and Net Metering) Regulations 2020, Clause 1.(2) it was mentioned that 'These regulations shall apply to all existing and new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities in the matter of Determination of Tariff of Renewable Energy, Net Metering, Banking, Generation Based Incentives and related matters'. This was an inadvertent error which had crept into the Regulation. It is hereby clarified that all the existing entities including prosumers, obligated entities, distribution licensees, captive consumers, open access consumers, entities eligible for generation based incentives etc. and who were governed by the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015 and its amendments and Kerala State Electricity Regulatory Commission (Gird Interactive Distributed Solar Energy Systems) Regulations, 2014 and its amendments shall continue to be governed as per those Regulations. However, the facilities including banking permitted in the RE Regulations, 2020 on payment of fees and charges for usage of transmission and distribution system, as the case may be shall be applicable to them. The intent of this amendment is to clarify and to rectify this error.'

(5) KSEBL further submitted that M/s. CIAL commissioned a 1 MWp grid-connected solar plant in November 2013, with the date of synchronization and connectivity being 27.11.2013, and the date of commercial operation commencing from 01.04.2014. Subsequently, M/s. CIAL commissioned a 12 MW solar plant, which was synchronized on 17.08.2015 and achieved commercial operation on 18.08.2015. At the time of commissioning these plants, the applicable regulation was the KSERC (Grid Interactive Solar Energy Systems) Regulations, 2014, which did not provide for any banking facility above the distribution voltage level of 11 kV.

Commission, in its order dated 27.04.2017 in OP No. 03/2017, has clearly observed that these plants are connected to the 110 kV KSEBL grid, and the petitioner has subsequently executed a connectivity agreement with SBU-T at the 110 kV level. Furthermore, the KSERC (Renewable Energy) Regulations, 2015, notified on 11.11.2015 (i.e., after the commissioning of the 13 MW), stipulate under Regulation 15 that the distribution licensee is required to provide a banking facility for renewable energy generated by a prosumer only if the capacity of the generating system is one megawatt or below, upon application by the prosumer.

For systems above one megawatt, the provision of a banking facility is at the discretion of the distribution licensee. Therefore, the petitioner does not have an inherent right to avail the banking facility for the first 13 MW, and any such facility extended by KSEBL is a discretionary benefit provided in accordance with the prevailing regulatory provisions.

(6) KSEBL further submitted that, M/s CIAL Infrastructures Limited owns and operates the solar power plant having an aggregate capacity of 39.44 MWp. However, the contract demand is only 9 MVA and during the day time the recorded maximum demand is only around 6 MVA. Thus, the major portion of the generated Solar energy is banked in to KSEBL grid and draws it during the peak/off peak hours. The month wise details are shown below;

The details of the solar generation, and export during day time during the period from April-2023 to March-2025 (two years) is given below.

Month	Contract Demand	Installed Solar PV Capacity	Solar capacity as (%) of Contract Demand	Solar generation	Export to the grid	Export as (%) of total solar generation
	(MVA)	(MW)		(MU)	(MU)	
Apr-23	9	39.44	487%	4.88	3.09	63.4%
May-23	9	39.44	487%	4.47	2.62	58.5%
Jun-23	9	39.44	487%	3.53	1.95	55.2%
Jul-23	9	39.44	487%	3.37	1.85	54.8%
Aug-23	9	39.44	487%	4.77	3.11	65.3%
Sep-23	9	39.44	487%	3.28	1.85	56.3%
Oct-23	9	39.44	487%	4.03	2.56	63.5%
Nov-23	9	39.44	487%	3.98	2.48	62.5%

Dec-23	9	39.44	487%	4.04	2.51	62.1%
Jan-24	9	39.44	487%	4.11	2.62	63.7%
Feb-24	9	39.44	487%	3.88	2.35	60.5%
Mar-24	9	39.44	487%	3.62	1.91	52.9%
Total				47.96	28.89	60.2%
Apr-24	9	39.44	487%	4.27	2.22	51.9%
May-24	9	39.44	487%	2.83	1.42	50.4%
Jun-24	9	39.44	487%	2.74	1.29	46.9%
Jul-24	9	39.44	487%	2.57	1.19	46.2%
Aug-24	9	39.44	487%	3.14	1.51	48.3%
Sep-24	9	39.44	487%	3.75	2.13	56.7%
Oct-24	9	39.44	487%	3.48	1.87	53.9%
Nov-24	9	39.44	487%	2.96	1.48	50.1%
Dec-24	9	39.44	487%	3.02	1.53	50.8%
Jan-25	9	39.44	487%	7.23	3.75	51.9%
Feb-25	9	39.44	487%	3.81	2.24	58.8%
Mar-25	9	39.44	487%	3.93	2.16	54.9%
Total				43.71	22.80	52.2%

(7) KSEBL further submitted that, Grid support charges and banking charges are being introduced across India for renewable energy prosumers (producers-cum- consumers) to ensure grid stability, cost equity, and financial sustainability of the power system. Grid support charges and banking charges are introduced across the country due to the following reasons;

(a) Grid infrastructure usage
Even though prosumers generate their own power, they rely on the grid for importing power during non-generation hours and exporting surplus energy. This two-way use of the grid requires robust infrastructure. Grid support charges help recover small part of the costs of maintaining this infrastructure. Grid support charges ensure they contribute fairly to the maintenance and operation of the grid, avoiding undue burden on non-Solar consumers.

(b) Banking of Renewable Energy:
Banking allows prosumers to inject excess energy into the grid and draw it later. This imposes operational and financial burdens on DISCOMs (such as KSEBL), especially when the banked energy is drawn during peak hours when market prices are high. Banking charges are introduced to compensate DISCOMs for the mismatch in value and timing.

(c) Ensuring System Reliability:
Unpredictable and intermittent renewable generation can challenge grid stability. By introducing charges, regulatory bodies aim to promote better responsible integration of renewable power into the grid.

(d) Regulatory Alignment and Tariff Discipline:
To maintain uniformity and avoid revenue loss, the regulatory commissions have introduced frameworks to include such charges. This ensures tariff discipline and prevents gaming of the system by leveraging free banking and grid services.

KSEBL further submitted that, these charges are not meant to discourage renewable energy, but to ensure a fair, sustainable, and technically reliable integration of distributed energy resources into the Grid.

(8) Provisions in the banking agreement

KSEBL further submitted that, the petitioner has signed banking agreement with KSEBL for the 29.029 MW solar capacity (out of 39.864 MWp) on 16.09.2019. In the agreement it is clearly specified that, the petitioner has agreed to sign the banking agreement with KSEBL, as per terms and conditions of the agreement and the regulations or orders issued by the KSERC from time to time. Thus, the petitioner is obligated to follow various regulations notified by the Commission from time to time.

Further as per clause 3.3 of the above said agreement, the petitioner agrees that, all amendments/modifications/notifications of new rules by MoP, CEA and regulations by CERC and KSERC applicable to renewable energy shall be binding on the parties to the agreement with immediate effect and this agreement shall be deemed to be amended to the extent required from the date of notification of such rules or regulations.

In addition, as per clause 7.6 of the above said agreement, the petitioner agrees to pay banking charges, connectivity charges or any other charges as decided by KSERC from time to time.

(9) Considering the above KSEBL requested to dismiss the petition with costs. It is further requested to direct the petitioner to execute the banking agreement for the balance solar capacity. Additionally, the Commission may kindly permit KSEBL to deny the banking facility for the balance quantum of solar power for which no banking agreement has been executed.

Hearing on the petition

4. First hearing on the petition was held on 27.05.2025. However, as requested by the petitioner during the hearing, the hearing was adjourned. Second hearing on the petition was held on 16.09.2025. Adv. Shri. Anand K Ganesan along with Smt. Mini Joesph appeared on behalf of the petitioner M/s CIAL.

Senior Adv. Shri. Raju Joseph, appeared on behalf of the respondent KSEBL. Summary of the deliberations during the hearing is given below.

(1) Petitioner submitted during the hearing that,

(i) M/s CIAL filed the petition OP 28/2025 before the Kerala State Electricity Regulatory Commission (KSERC) seeking refund of grid support and banking charges levied by the Kerala State Electricity Board Limited (KSEB). The dispute primarily concerns the applicability of the KSERC Renewable Energy and Net Metering Regulations, 2015, vis-à-vis the subsequent Regulations of 2020 and the clarificatory amendment dated 15 July 2022.

(ii) M/s CIAL further submitted that, its renewable energy projects and banking arrangements were executed prior to the introduction of the 2020 Regulations and therefore fall under the purview of the 2015 Regulations. The RE Regulations, 2020 came into effect on 7 February 2020, initially caused confusion regarding whether they applied to pre-existing projects or only to new ones.

KSERC later issued an amendment in July 2022, expressly stating that entities already governed by the 2015 Regulations would continue. The amendment also introduced a proviso stipulating that bills issued between 5 June 2020 till 1st August 2022 need not be revised, a clause intended to protect the revenue interests of KSEB.

The petitioner also contended that KSEB continued to impose grid support and slot-wise banking charges contrary to the clarificatory intent of the 2022 amendment and sought a refund of such amounts wrongfully recovered.

(iii) The key point of interpretation revolves around the expression “usage of transmission and distribution system” found in the explanatory note of the 2022 amendment. CIAL contended that this phrase refers specifically to open access, as defined under Section 2(47) of the Electricity Act, 2003, which pertains to third-party, non-discriminatory use of the transmission or distribution system. CIAL argued that since its solar power generation units are situated within the airport premises, the electricity generated is used for captive consumption, without utilizing KSEB’s transmission or distribution infrastructure of KSEBL. Therefore, according to the petitioner, it cannot be said to be using the grid of KSEBL, and consequently, it is not liable to pay grid support or banking charges applicable to open-access or grid-connected systems.

(2) KSEBL submitted the following during the hearing;

(i) CIAL generates nearly 40 MW of solar energy, whereas its contract demand is only 9 MW, of which about 6 MW is consumed during daytime. The surplus energy is exported to KSEB's grid and stored under the banking arrangement, to be drawn back later during non-solar hours. This process involves, clear usage of the transmission and distribution system for both export and import of energy. Hence, the argument that CIAL is not using the grid is "baseless and unsustainable."

(ii) KSEB further emphasized that the 2019 banking agreement between the parties explicitly provides that all amendments or new regulations issued by KSERC shall be binding and that the methodology for banking, accounting, and billing would always be in accordance with prevailing regulatory provisions. Therefore, CIAL is contractually and statutorily bound by the 2020 Regulations and cannot claim immunity from charges arising thereunder. KSEB also pointed out that under the 2014 Grid Interactive Solar Energy Regulations, banking was permitted only for generating systems up to 1 MW capacity, and for systems above that threshold, the provision of banking facilities was purely discretionary. Consequently, CIAL's larger plants connected to the 110 kV grid were not automatically entitled to banking.

(iii) KSEBL further submitted that, Solar Plant with capacity more than four times the contract demand as a consumer is detrimental to the state utility. When CIAL exports excess solar energy to the grid, KSEB must reduce its own generation or power purchases, leading to loss of efficiency and additional fixed charges. Conversely, when the banked energy is re-imported by CIAL during off-solar hours, KSEB is often compelled to procure power at higher costs to meet the demand. Thus, allowing CIAL to use the grid and banking facility without corresponding charges would impose unfair financial burdens on the licensee. KSEB maintained that the 2022 amendment was only clarificatory and did not exempt existing entities from payment of banking or grid support charges.

(3) Based on the deliberations during the hearing, Commission observed that the entire issue is revolved around on single issue whether CIAL uses '*transmission and distribution system of KSEBL"* as provided in the explanatory note to the 2022 amendment. While CIAL insisted that the term must be read in the context of open access (and hence not applicable to captive consumers within their own premises), KSEB argued that any instance of injecting and withdrawing power through the grid constitutes use of the system, irrespective of open-access status.

Analysis and Decision of the Commission.

5. Commission having examined the petition filed by M/s Cochin International Airport Limited (CIAL), counter affidavit of the respondent KSEBL, deliberations during the hearing held on 16.09.2025, provisions of the Electricity Act, 2003, and other Rules and Regulations in force, decided on the matter as follows;

6. CIAL is an existing electricity consumer of KSEBL availing supply at EHT, with the contact demand of **9MVA.** As per the billing demand details, the maximum RMD never exceeded 7.6MVA. With the power factor of 0.90, the equivalent demand in MW **is 6.84MW only.**

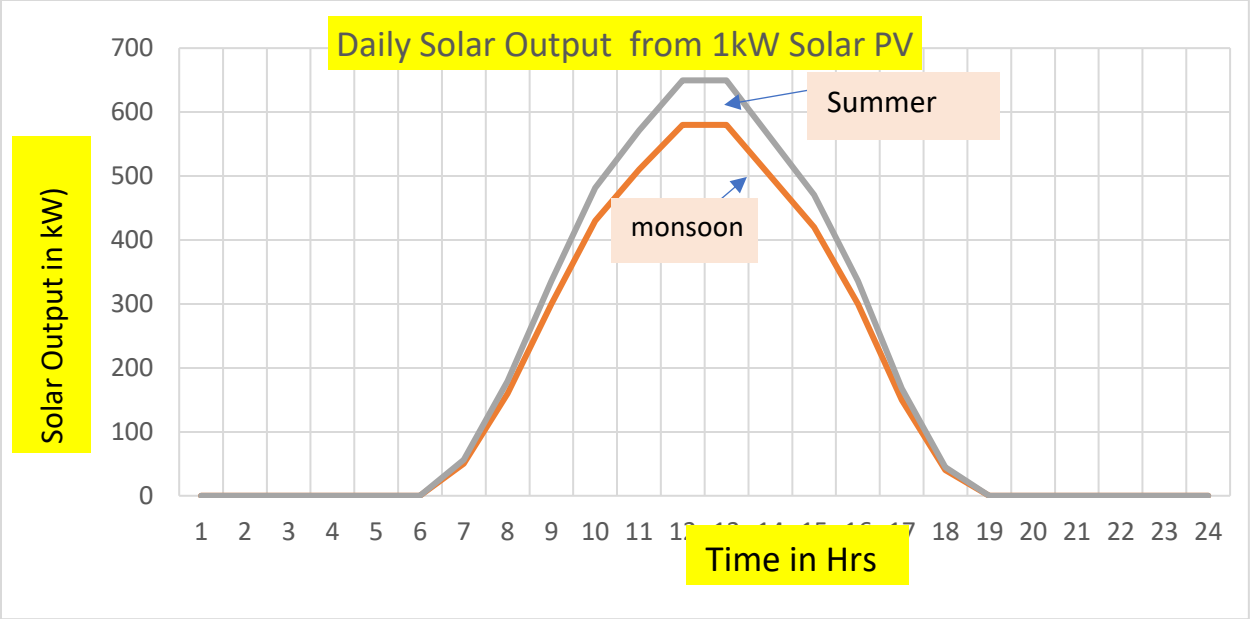
CIAL submitted that, as part of the Renewable Energy initiative, they had installed 38.864MW Solar PV system at their premises for their own use. These plants were installed during the period 2013 onwards. Out of the above, first 13 MWp plants were commissioned as per the following schedule.

<u>1 MWp</u>	
Date of synchronisation	: 27-11-2013
Date of connectivity	: 27-11-2013
Date of commercial operation	: 01-04-2014
<u>12 MWp</u>	
Date of synchronisation	: 17-08-2015
Date of connectivity	: 17-08-2015
Date of commercial operation	: 18-08-2015

Balance capacity was commissioned during 2015-16 and 2016-17. The exact schedule commissioning of the balance capacity was not submitted by the petitioner and the respondent,

7. Solar PV capacity 38.864MW installed by CIAL is 4.3 times the contract demand of 9MVA, and 5.7 times the recorded maximum demand of 6.84MW achieved sofar.

8. The issue here is, whether CIAL with the Solar PV system of 38.864MW, having contract demand of 9MVA with KSEBL, can survive without using the transmission and distribution system developed and maintained by KSEBL, which is the incumbent distribution licensee and State Transmission Utility. In order to appraise the issue, Commission has also examined the solar generation pattern within the State, which is given below.



As above, Solar generation is limited to solar hours between 6:30Am to 5:30PM in day. However substantial generation is between 9AM to 5PM only (8 hours a day). The maximum generation during noon is about 70% capacity during summer months and 60% capacity during monsoon months.

With the above trend, during day time, CIAL can generated upto 28MW during summer months as against their RMD of around 6.84MW. Similarly during monsoon months, maximum generation from CIAL is about 24 MW.

9. As above, based on the solar generation pattern and electricity demand of CIAL, it can be concluded as following,

(1) During solar hours, CIAL has surplus electricity upto 21MW after their own use, and this electricity is injected into the grid owned and operated by KSEBL. For injecting surplus electricity during solar hours, CIAL has been using the transmission and distribution system of KSEBL.

(2) Similarly, during Non-Solar hours, KSEBL is supplying electricity to CIAL. For supplying electricity to CIAL and other consumers, KSEBL has been generating electricity from own plants and purchase power from various sources inside and outside the State. KSEBL using its own transmission and distribution supplying electricity to CIAL during non-Solar hours for setting off against the surplus energy injected during solar hours. Thus CIAL uses the transmission and system of KSEBL for consuming electricity during Non Solar hours

(3) As per the net metering facilities including banking facilities provided by KSEBL to CIAL, the electricity consumed by CIAL during Non-solar hours is allowed to adjust against the surplus electricity injected by CIAL during solar hours to the grid.

It is noted that, there is a gap in understanding for CIAL that, since CIAL installed the Solar PV system for their own use, they are not using the transmission and distribution system. Infact, without the support and use of the transmission and distribution system of KSEBL, CIAL cannot generate and consume electricity from its solar plant having capacity 4.3 times their contract demand.

Considering the above clarification, Commission hereby affirm that, CIAL uses the transmission and distribution system of the State grid.

Regulations prevailing in the State during the period of Solar PV system installed by CIAL

10. As stated earlier, CIAL had installed their Solar PV system from 2013 onwards. During these period, Commission has notified the following Regulations dealing with 'grid connected Solar PV systems'.

(1) Kerala State Electricity Regulatory Commission (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014, notified on 10th June 2014. (herein after referred to as RE Regulations, 2014)

(2) Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015, notified on 11th November 2025 (RE Regulations, 2015)

(3) 'Kerala State Electricity Regulatory Commission (Renewable Energy and Net Metering) Regulations, 2020 dated 7th February 2020, published in official Gazette on 5th June 2020 (RE Regulations, 2020)

Out of the above, RE Regulations, 2014 is applicable for Solar PV system with capacity 1MW and below.

11. Commission has notified the KSERC (Renewable Energy) Regulations, 2015 (herein after referred to as RE Regulations, 2015) on 11.11.2015, and the same was published in the official gazette on 7th January, 2016.

Regulation 15 of the RE Regulations, 2015 deals with banking facility, which is extracted below.

"15. Banking facility.- (1) The distribution licensee shall, on application by a prosumer, provide banking facility for the renewable energy generated by him if the capacity of the renewable energy generating system of the prosumer is of and below one megawatt.

(2) The distribution licensee may, on application by a prosumer, provide banking facility for the renewable energy generated by him if the capacity of the renewable energy generating system of the prosumer is above one megawatt."

As above, RE Regulations, 2015 does not have mandatory provision for banking facilities for the electricity generated from Renewable Energy Sources with capacity above 1MW . However, the distribution licensees at their discretion can provide banking facilities for the prosumers with captive users, with the mutually agreed terms and conditions including charges for banking. Commission further clarified that, since the RE Regulations, 2015 does not mandate for banking of electricity from RE sources with capacity more than 1MW, Commission also not specified the conditions of banking and banking charges.

As above, during the period of installation and commissioning of the Solar PV plants by CIAL, there is no mandatory provisions for exporting surplus electricity from the Solar plants into the grid for banking and for subsequent adjustments during other time zone as wells for banking beyond one billing period to subsequent billing period.

12. Commission vide the notification dated 7th February 2020 has notified the Kerala State Electricity Regulatory Commission (Renewable Energy and Net Metering) Regulations, 2020 dated 7th February 2020, published in official Gazette on 5th June 2020 (RE Regulations, 2020).

Regulation 26 of the RE Regulations, 2020 specifies the 'general conditions and charges applicable for the use of transmission and distribution system by a prosumer having a RE system with capacity more than 1 MW at the same premise for his own use. Relevant Regulations is extracted below.

" 26. General Conditions and charges applicable for the use of the transmission and distribution system by a prosumer, having a Renewable Energy System with capacity more than 1 MW at the same premise for his own use.-

(1) 5% of the energy injected into the grid of the transmission and/or the distribution licensee shall be accounted towards 'grid support charges' and the balance 95% shall be treated as net energy.

(2) If the net energy during a time period (normal hours, peak hours and off-peak hours) in a billing period is fully consumed by the captive consumer during the same time period (normal hours, peak hours and off-peak hours) in that billing period itself, for such quantum of renewable energy, the prosumer is exempted from the payment of transmission charges, wheeling charges and, losses in transmission system and distribution system approved by the Commission.

(3) The prosumer is permitted to account the renewable energy injected in a time period (normal hours, peak hours and off-peak hours) during the billing period, against the consumption in a different time period during the same billing period, subject to the following conditions,-

(i) 80% of the net energy injected in time periods other than peak hours, be allowed to be adjusted against peak hour consumption.

(ii) The net energy injected during peak hours shall be allowed to be adjusted 100% during the peak hour and the balance shall be allowed to be adjusted at 120% during other time blocks.

(iii) At all other time periods, except energy injection during peak hours, 100% of the net energy injected in any time periods will be allowed to be adjusted against the consumption, during the time period other than peak hours.

(4) The excess energy, if any, available at the end of the billing period is allowed to be banked and carried forward to the subsequent billing period of the settlement period, subject to the following,-

(i) 95% of the energy so banked only will be allowed to be adjusted in the subsequent billing period of the settlement period and 5% of the banked energy shall be accounted towards banking charges of the distribution licensee.

(ii) Time period wise adjustment of the energy generated in a time period and accounted against the consumption in different time period during the billing period shall be followed as detailed under clause (3) above.

Note: The 5% banking charges on the energy banked at the end of billing period shall not be cumulative, i.e., once 5% energy is deducted as banking charges during a billing period, no further banking charges will be applicable for this excess energy, if any arising out of such banked quantum of energy in the subsequent billing periods.

Clarification: For example, in the month of April, 50000 units is the surplus energy with the prosumer after making the adjustments as detailed under Sub Regulation (3) above. The energy banked in the month of April after accounting for banking charges shall be (50000x0.95) 47500 units. Thereafter in the month of May, 20000 units is the surplus energy with the prosumer after making the adjustments as detailed under Sub Regulation (3) above. Here the energy banked in the month of May shall be (20000x 0.95) 19000 units, and the total energy so banked at the prosumer account at the end of the month May shall be 47500+19000 = 66500 unit.

(5) The licensee shall pay, within one month, for the net surplus energy available at the credit of the prosumer at the end of the settlement period as per sub Regulation (4) above, at the Average Pooled Power Purchase Cost (APPC)of the licensee approved by the Commission, from time to time.

(6) The prosumer, who installed the Renewable Energy System at the same premise is exempted from the payment of transmission charges, wheeling charges, transmission losses and distribution loss for the quantum of energy generated from the RE plant and adjusted against his consumption during the settlement period, in the same premises.

(7) The quantum of energy generated from the Renewable Energy System by a prosumer at his premise after meeting his renewable purchase obligation, if any, shall be permitted to be accounted towards the RPO of the distribution licensee, in accordance with the REC Regulations and its amendments from time to time."

13. As above, Regulations, 26 of the RE Regulations, 2020 provides the facility for the use of the Transmission system and distribution system by Prosumers with RE capacity more than 1 MW at their premise for their own use, on payment of charges payable as specified in the said Regulations.

The charges include 'grid support charges @5% of the energy injected into the grid, time zone wise adjustment of banked energy during the billing period and also the banking charges for banking the surplus energy beyond the billing period.

Commission has also clarified that, since RE Regulations, 2015 donot provide the facility for the use of transmission and distribution system including banking facilities, then existing prosumers and captive consumers also can use the transmission and distribution system and banking facilities, on payment of charges and other terms and conditions as specified in the RE Regulations, 2020.

14. During the stakeholder consultation process of the Draft RE Regulations, 2020, petitioner CIAL has raised objections against the imposition of grid support charges, banking charges, normalisation factors etc for availing banking and use of the transmission and distribution system. Commission has appraised objections and comments in detail and the considered decision of the Commission was explained in detail in the Statement of Reasons published along with the RE Regulations, 2020. Relevant portion of the 'Statement of Reasons to the RE Regulations, 2020' is extracted below.

(1) **Objections raised by CIAL against grid support charges during the deliberations of the Draft RE Regulations, 2020**.

Paragraph 11 of the SoR to RE Regulations, 2020 provide as under;
"11. Regulation 26(1) of the Draft RE Regulations, 2019 specified as under.

> *"26(1) 5% of the energy generated and injected in to the grid of the transmission and/or the distribution licensee shall be accounted towards 'grid support charges'".*

Stakeholders Comments

(1) Cochin International Airport Limited (CIAL) requests the Commission to withdraw the grid support charges as the transmission utility company is getting benefitted from the grid decongestion as well as the reduction in the losses from the transmission of the power from long distances. The load of the grid during that time would be met by the renewable energy locally.

(2) M/s Travancore Cochin Chemicals Ltd also submitted that the banking charges @5% is extremely high.

(3) HT&EHT Association submitted that, grid support charges should not be paid to the licensee, if the licensee is availing REC benefits on the power generated by the prosumer or else 50% of the REC benefits availed by the licensee shall be shared with the prosumer.

(4) KSEB Ltd submitted the following regarding grid support charges.

(a) *Integrating and absorbing Renewable energy generation into the grid by the DISCOM involves additional costs in network management, power generation and procurement for the DISCOMs, which gets passed on to other consumers.*

(b) *Wind energy generation is available at its maximum during the monsoon, when distribution licensees' overall demand is lessened due to low agricultural load as well as lower air-conditioning loads. During this time, distribution licensees have to scale down low cost thermal generation in order to absorb the wind energy, part of which will be treated as banked energy. But during the non-windy season when the system demand is higher and consequently cost of power is also high, use of banked energy by the captive and third-party users results in more costly power purchase by the distribution licensee to service such banked energy.*

(c) *Similar situation happens during day time when solar generation peaks. DISCOM is forced to surrender their contracted power by paying fixed charges just to absorb solar generation by prosumers, only for facilitating the prosumer's need. The situation is aggravated by the fact that the power so absorbed by the DISCOM has to be returned to the prosumer at zero cost during peak hours, by scheduling even the costliest power by the DISCOM.*

Absorbing RE generation will lead to following adverse impacts to DISCOM and ultimately to the consumers of the State.

Decision of the Commission

The Commission noted the arguments of CIAL, KSEB Ltd and other stakeholders in detail. In the case of CIAL, the contract demand with KSEB Ltd is about 9 MVA, where as the total Solar PV installed by them is about 40 MW to meet their electricity demand. It means that, during day time, the CIAL can consume only upto 9 MVA load only, out of the 40 MW Solar PV installed by them. The balance power of CIAL (40-9= 31 MW) has to be injected into the State Grid during day time and KSEB Ltd has to absorb the same.

In order to absorb the excess energy injected by CIAL during day time, the distribution licensee has to backdown/ regulate their power purchase contracts by incurring fixed cost. In order to return back the excess energy injected into the grid during peak and off-peak hours, the licensee has to purchase additional energy or generate excess energy from its own stations. Further, in order to return back the power, the licensee has to transmit power from its import points or switchyard of the generating stations, and it involves transmission charges, wheeling charges and losses. The licensee reported that, they do not have any advantage for the excess energy injected to the grid during day time by CIAL or such consumers, and thus incurring additional liability on this account, and ultimately this liability fall on the ordinary consumers of the State.

As per the tariff order dated 08.07.2019, the Commission has approved the transmission charges @ Rs 0.39/unit, wheeling charges @ Rs 0.55/unit,

transmission losses at 4% and distribution losses at 9.63%. The overall charges payable for availing open access is more than Rs 1.00/unit.

However, as part of the promotion of the RE generation in the State, the Commission propose to levy only 5% of the energy generated and injected into the grid as grid support charges. With an average cost of generation in the range of @Rs 4.00/unit to Rs 4.50/unit, the grid support charges proposed by the Commission is only about Rs 0.20/unit to Rs 0.225/unit on the energy generated and injected. Commission is of the view that, all the prosumers with RE capacity above 1 MW shall bear this meagre grid support charges @5% of the total energy injected from RE plants installed by them for getting the support of the grid.

Hence the Commission proposed to retain the Regulation 26(1) as proposed in the Draft RE Regulations, 2019."

(2) Objections against the Regulation 26.3 of the RE Regulations regarding time zone wise adjustment when adjusting the electricity consumed from the grid during Non-Solar hours.

Paragraph-12 of the Statement of Reasons to the RE Regulations, 2020

*"**12. Regulation 26(3) of the Draft RE Regulation provide as under.***

"26(3) The prosumer is permitted to account the renewable energy injected in a time block (normal hours, peak hours and off-peak hours) during the billing period, against the consumption in a different time block during the same billing period, subject to the following conditions.

(i) During peak hours, 80% of the net energy injected in blocks other than peak hours, be allowed to adjust against peak hour consumption.

(ii) In other time blocks namely normal hours and off-peak hours, 100% of the net energy injected in other blocks will be allowed to be adjusted against the consumption in other time blocks."

Stakeholders Comments

(1) CIAL requests the commission to look into the peak hour restriction which does not address the off peak hour promotion as done in the present regulation. CIAL request commission to amend the draft as per the following after considering the off peak hour system also.

(i) During peak hours, 80% of the energy generated in other time blocks is allowed to adjust against peak hour consumption.

(ii) During off peak hours, 120% of the energy generated in other time blocks is allowed to adjust against the off peak hour consumption.

(2) M/s Tranvancore Cochin Chemicals Ltd submitted that, as per the draft Regulation, 80% of the energy is only allowed to draw during peak hours and 100% during off-peak hours. If the prosumer is restricted to draw less during peak hours, they should be permitted to draw more during off-peak

hours. In the existing RE Regulation, the ToD pattern of 1:0.66:1.33 is specified. This shall be maintained.

(3) KSEB Ltd submitted the following on this issue.

(i) The purpose of ToD metering is to flatten the demand curve and avoid sharp peak in the demand curve. Allowing facility to adjust 80% of the energy banked during other time blocks will increase the tendency of the consumers to consume more during peak hours, distorting the principle of ToD billing. This has serious adverse implications on the system.

(ii) KSEBL depends on power exchanges for meeting its peak load as Long term contracts cannot be entered into for meeting only peak load requirement. The difference between normal hour rate and peak hour rate was less during 2017, but now, the normal hour rate has come to the range of 70% of peak hour rate, except for few months.

(iii) As, there is significant difference between peak hour power purchase rate and other time block rates, allowing 80% of the energy banked during normal hour rate/off peak hour rate against peak hour consumption will adversely affect the financials of DISCOMs, which will burden the other consumers of the State. Considering the above, KSEB Ltd requested that instead of increasing the percentage to 80%, it may be brought down to 65% of the energy generated in blocks other than peak hours for adjusting against peak hour consumption.

Decision of the Commission

The Commission examined in detail the comments of the Stake holders. The electricity generation from Solar PV system is only during day time. The excess energy injected into the grid during the day time by the prosumers/ captive consumers has to be return back during peak and off-peak hours. KSEB Ltd submitted that, in order to return back such energy, they depend on the power exchanges.

The existing KSERC (Renewable Energy) Regulations, 2015 was notified on 11.11.2015. The Commission has examined the rate in the IEX during the period from April to October 2015 prior to date of notifying the KSERC (Renewable Energy) Regulations, 2015 and the present rate from April to October, 2019, and the details are given below.

Energy rate in IEX from April to October 2015 (prior to notifying KSERC (Renewable Energy) Regulations, 2015

Month	Day time	Peak hours	Off-peak hours	peak hour rate as (%) of Normal hour rate	Off peak rate as (%) of day time rate
	Rs/MWh	Rs/MWh	Rs/MWh	%	%
Apr-15	5969	11548	5310	193	89

May-15	*5318*	*8376*	*4103*	*158*	*77*
Jun-15	*3332*	*3766*	*2238*	*113*	*67*
Jul-15	*3803*	*4579*	*2423*	*120*	*64*
Aug-15	*5386*	*5803*	*3681*	*108*	*68*
Sep-15	*6624*	*6757*	*4960*	*102*	*75*
Oct-15	*5434*	*5740*	*3268*	*106*	*60*
Average				*129*	*71*

Energy rate in IEX from April to October 2019

Month	*Day time*	*Peak hours*	*Off-peak hours*	*Peak hour rate as (%) of Normal hour rate*	*Off peak rate as (%) of day time rate*
	Rs/MWh	*Rs/MWh*	*Rs/MWh*	*%*	*%*
Apr-19	*3043*	*4345*	*3368*	*143*	*111*
May-19	*2846*	*3972*	*3505*	*140*	*123*
Jun-19	*2713*	*4080*	*3476*	*150*	*128*
Jul-19	*2694*	*4705*	*3294*	*175*	*122*
Aug-19	*2831*	*4543*	*3089*	*160*	*109*
Sep-19	*2475*	*3444*	*2574*	*139*	*104*
Oct-19	*2596*	*3772*	*2599*	*145*	*100*
Average				*150*	*114*

As seen from the above tables that, this year, the energy rate during peak hours is about 50% higher than the energy price during day time. Accordingly, as per the present trend of IEX price during peak hours, only 66% of the energy injected during day time can be allowed to adjust against peak hour consumption. However, the Commission in the draft has allowed to adjust 80% of the energy injected in other time blocks during peak hours and this will be advantageous to the consumers.

The Commission has also examined the proposal of CIAL that, during night off-peak time, the prosumers may be allow to consume 120% of the energy injected into the grid during day time. As seen from the above tables that, in the year 2015, the energy price in IEX during day time is about 140% higher than the rate in the night off-peak hours.

However, the situation has completely changed this year. At present the energy rate during day time is only about 88% of the energy rate during night off peak hours. This trend may likely to continue in near future with the large scale integration of the 'solar power' in the National grid during day time and the DISCOM has to be return back during off-peak hours.

Considering the higher energy price of off-peak hours compared to the day time price, the Commission cannot allow the request of CIAL and other

stakeholders in this regard. However, the Commission may review this issue also after two years based on the details to be submitted by KSEB Ltd."

15. As above, the petitioner has raised objections against the grid support charges, time zone wise adjustments etc during the deliberations of the Draft RE Regulations, 2020. Commission, after duly considering the objections and comments of all stakeholders including CIAL has finalised the RE Regulations, 2020, wherein Commission specified the grid support charges, banking charges, time zone wise adjustment factors etc, for those who use transmission and distribution system and associated facilities.

As clarified already, since the RE Regulations, 2015 donot have mandatory provisions of banking, Commission has permitted the prosumers and captive consumers, who installed Solar PV system prior to the notification of the RE Regulation 2020 to avail such facilities as per the provisions of the RE Regulations, 2020.

16. Petitioner M/s CIAL has raised doubts on applicability of the Regulation 26 of the RE Regulations, 2020 in view of the amendments in Regulation 1.2 vide the KSERC (Renewable Energy & Net Metering) Regulations, 2022 notified on 15.07.2022. Commission has examined the argument in detail, and considered decision of the Commission is discussed below.

(1) Regulation 1(2) of the RE Regulations, 2020 provide as follows;

"(2) These Regulations shall apply to all the existing and new, Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities, in the matter of Determination of Tariff of Renewable Energy, Renewable Purchase Obligation, Net Metering, Banking, Generation Based Incentives and related matters."

There are few captive power plants such as Maniar SHP (12MW) and Kuthumakal SHP (21MW), developed in the State prior to the enactment of the EA-2003. Transmission and wheeling of electricity from these CPPs are governed by separate agreements entered into them with KSEBL in line with the then existing power policies in the State. After the notification of the RE Regulations, 2020, KSEBL has raised the issue that, whether electricity generated from these plants also governed by provisions of the RE Regulations, 2020 or not. Inorder to provide clarity on this issue, Commission has amended the Regulation 1(2) of the RE Regulations 2020 vide the KSERC (Renewable Energy & Net Metering) Regulations, 2022 notified on 15.07.2022 as follows;

(2) Regulation 1(2) of the KSERC (Renewable Energy & Net Metering) Regulations, 2022 notified on 15.07.2022

"2. Amendment to the existing Regulations - In the Kerala State Electricity Regulatory Commission (Renewable Energy & Net Metering) Regulations, 2020:

(1) Regulation 1(2) of the existing Regulations, shall be amended as follows:
"Regulation 1 (2) These Regulations shall apply to all the new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities, in the matter of Determination of Tariff of Renewable Energy, Net Metering, Banking, Generation Based Incentives and related matters.

Provided that, the captive generators/ consumers existing in the State prior to the enactment of the Electricity Act, 2003 and governed by the agreements entered into between the licensee and generators as per the policies then existing, shall be allowed to continue till the expiry of the term of the agreement as per the provisions of such agreements as long as the provisions of such agreements are consistent with the Act;

Provided further that the bills issued during the period from 5th June 2020 to the date of effect of these Regulations need not be revised: Provided also that the provision for 'gross metering' will be introduced in the State by the Commission at an appropriate time only after full compliance of the RPO by the Licensees;"

Explanatory Note: In the Kerala State Electricity Regulatory Commission (Renewable Energy and Net Metering) Regulations 2020, Clause 1.(2) it was mentioned that 'These regulations shall apply to all existing and new Grid Interactive Renewable Energy Systems, consumers, prosumers, captive consumers, captive generating plants, generating companies, distribution licensees and obligated entities in the matter of Determination of Tariff of Renewable Energy, Net Metering, Banking, Generation Based Incentives and related matters'. This was an inadvertent error which had crept into the Regulation. It is hereby clarified that all the existing entities including prosumers, obligated entities, distribution licensees, captive consumers, open access consumers, entities eligible for generation-based incentives etc. and who were governed by the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015 and its amendments and Kerala State Electricity Regulatory Commission (Gird Interactive Distributed Solar Energy Systems)Regulations, 2014 and its amendments shall continue to be governed as per those Regulations. ***However, the facilities including banking permitted in the RE Regulations, 2020 on payment of fees and charges for usage of transmission and distribution system, as the case may be shall be applicable to them. The intent of this amendment is to clarify and to rectify this error."***

17. As above, the facilities including banking, use of transmission and distribution system as per the provisions of the RE Regulations 2020 is applicable to the existing prosumers and captive consumers with capacity above 1MW as on date of notification of the RE Regulations, 2020

CIAL had installed 38.864MW of Solar PV as on the date of notification of the RE Regulation 2020 in official Gazette on 5th June 2020. As the CIAL is having total

solar capacity of 38.864MW, it can avail the facilities under Regulation 26 of the RE Regulations, 2020, which deals with ‘’***26. General Conditions and charges applicable for the use of the transmission and distribution system by a prosumer, having a Renewable Energy System with capacity more than 1 MW at the same premise for his own use.-“*** for the use of Transmission and Distribution system for the export of surplus energy during solar hours to the grid and, also for consuming electricity from KSEBL during ‘Non-solar hours’, and adjusting such electricity consumed against the surplus electricity injected to the grid during solar hours.

Provisions in the banking agreement signed between CIAL and KSEBL dated 16.09.2019

18. Commission has examined the provisions in the banking agreement signed between CIAL and KSEBL. Though there is no mandatory provisions in the RE Regulations, 2015 for use of transmission and distribution system including banking, KSEBL has facilitated banking facility to CIAL as per the terms and conditions in the banking agreement dated 16.09.2019. The relevant clause of the agreement is extracted below.

(1) “Preamble of the banking agreement.

……

3. The Applicant has requested KSEB Ltd to provide banking facility to the said plant as per the provisions in KSERC (Renewable Energy) Regulations 2015 dated 11-11-2015 and its amendments issued from time to time and upon mutually agreed terms and conditions.

4. And whereas, the KSEB Ltd agrees to provide banking facility for the electricity generated as per conditions of this agreement and the Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015 and its amendments from time to time.

5. The Applicant has agreed to sign this banking agreement with KSEB Ltd as per the terms and conditions of this agreement and the regulations or orders issued by the Kerala State Electricity Regulatory Commission from time to time;”

(2) Clause 7 of the banking agreement deals with ‘operation, energy accounting and Commercial settlement’. The relevant clause is extracted below.

“7 Operation, Energy Accounting and Commercial Settlement

7.1 Monthly bills shall be based on joint meter readings of the meters at the interconnection point taken together by the authorized representative of KSEBL and representative of the applicant on the first day of every month.

7.2 The authorized person for accounting of energy shall be Special Officer (Revenue), KSEBL.

7.3 The methodology for accounting and billing the banked energy would be as envisaged under Regulation 26 and 27(4) of KSERC (Renewable Energy) Regulation 2015 and its amendments.

7.4 Any change in the methodology of Energy Account shall be done only based on prevailing Regulations.

7.5 KSEBL shall provide banking as per provisions of Regulation 26 of the KSERC (Renewable Energy) 2015 and its amendments. The accounting and settlement of energy shall be as per Regulation 27 of the KSERC (Renewable Energy) 2015 and its amendments.

7.6 The Applicant agrees to pay banking charges, connectivity charges or any other charges as decided by KSERC from time to time.

7.7 Joint meter readings of the solar meter shall also be taken for energy accounting in accordance with the Clause 12.0 of this agreement.

7.8 The Applicant shall ensure reactive power generation/absorption as per the terms laid out in Kerala State Electricity Grid Code (KSEGC). In the event of any conditions not specified in KSEGC, the relevant clauses of Indian Electricity Grid Code shall be applicable. Reactive power transaction shall be billed as per the KSERC regulations and its amendments."

19. As above, CIAL had signed the banking agreement with KSEBL agreeing to the condition that, Regulations or Orders issued by this Commission on the condition that, banking charges, connectivity charges and other charges shall be subject to the amendments on the KSERC (Renewable Energy) Regulations, 2015, and also subject to the Regulations and Orders issued by the Commission from time to time.

20. Regulations 69 of the RE Regulations, 2020, provides for 'Repeal and Savings'. The relevant Regulations is extracted below.

"

17. Repeal and Savings.-

(1) Save as otherwise provided in theseRegulations, the following Regulations are hereby repealed;

a. Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015.

b. Kerala State Electricity Regulatory Commission (Renewable Energy) Amendment Regulations, 2017.

c. Kerala State Electricity Regulatory Commission (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014.

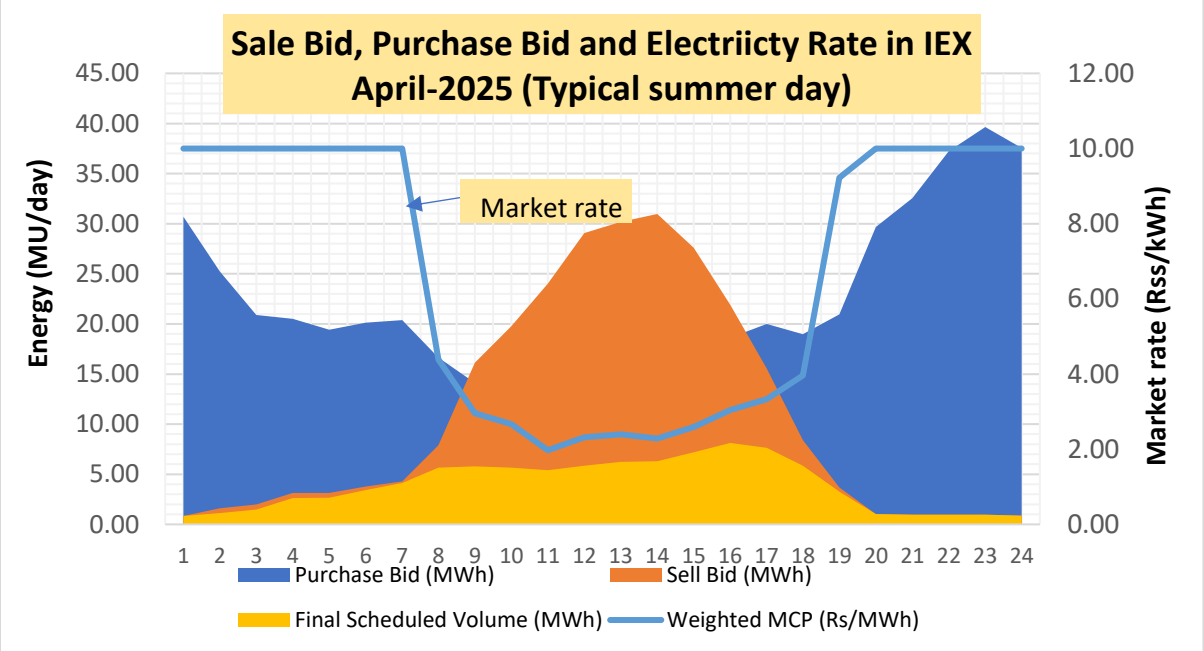
d. Kerala State Electricity Regulatory Commission Grid Interactive Distributed Solar Energy Systems) Amendment Regulations, 2016.

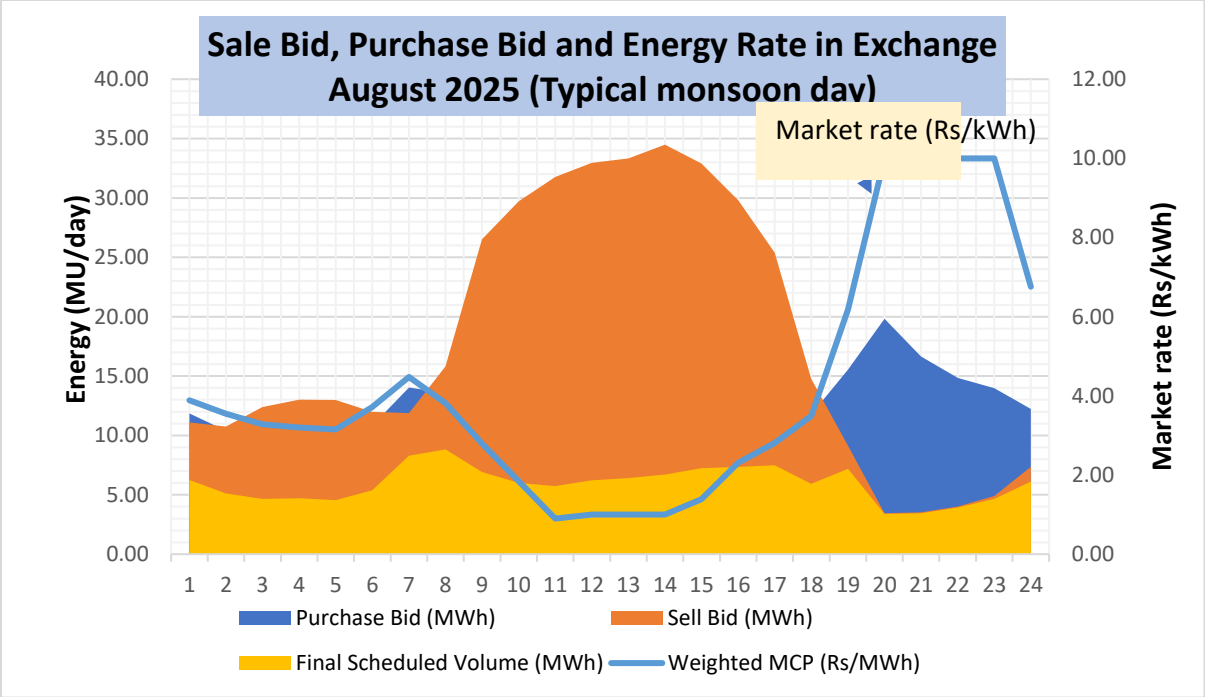
Notwithstanding such repeal, anything done or any action taken under the said Regulations shall be deemed to have been done or taken under the corresponding provisions of these Regulations"

As such, after the notification of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 in the official Gazette on 5th June 2020, the RE Regulations 2015 stand repealed. Hence, since 5th June 2020, the banking agreement dated 16.09.2029 is governed by the provisions of the RE Regulations, 2020.

21. Hence, Commission hereby clarify that, in order to use the transmission and distribution system of KSEBL including banking facilities, CIAL as a prosumer with Solar Capacity 38.864MW as against the contract demand of 9MVA, has to pay the applicable charges as per the Regulation 26 of the KSERC (Renewable Energy and Net Metering) Regulations, 2020, till its validity.

22. Commission further clarify that, the rate of electricity in the market is highly influenced by demand and supply position of electricity. Due to the high penetration of solar electricity, there is surplus energy during solar hours through out the Year, however severe power shortage prevailing all over the country during Non-solar hours, especially during peak hours. The electricity price during solar hours is less than Rs 2.00/unit, where as the rate during peak hours is upto Rs 10/unit. The following chart provides the daily variation of demand, supply and electricity rate in the market during summer months and monsoon months.





At present, KSEBL as the incumbent licensee has been incurring huge cost for absorbing the surplus energy from the 38.864MW of Solar plant installed by CIAL during solar hours against its contract demand of 9 MVA. By absorbing the surplus of CIAL power, KSEBL loses it opportunity to avail cheaper power from the market and also forced to surrender power from its long term contract during solar hours. Further, KSEBL is purchasing electricity at much higher rate for supplying electricity to CIAL during Non-Solar hours in lieu of the surplus power injected during day time. This additional cost incurred by KSEBL is socialised among ordinary electricity consumers of the State and thus they are forced to bear increase in tariff associated with such costs.

23. Present issues of CIAL can be resolved, if CIAL can develop and implement adequate 'Battery Energy Storage System (BESS), so that the surplus electricity available during solar hours can be stored for the use of Non Solar Hours. The stored electricity can be discharged at the convenience of CIAL during Non solar hours. Accordingly, CIAL can reduce the export of surplus energy during solar hours to the grid, and also can reduce the electricity consumed from the grid during non- Solar hours. Thus, the use of transmission and distribution system, grid support charges, banking charges, energy adjustments etc can be reduced to the extent of electricity stored. This will also help the entire power system of the State by the way of peak support. Hence, Commission may hereby advise M/s CIAL to establish adequate BESS within their premises so that the dependence on the KSEBL grid can be avoided/ reduced to that extent.

Order of the Commission

24. Commission after examining the petition filed by M/s Cochin International Airport Limited (CIAL), counter affidavit of the respondent KSEBL, deliberations during the hearing held on 16.09.2025, provisions of the Electricity Act, 2003, and other Rules and Regulations in force, Orders the following;

(1) M/s Cochin International Airport Limited (CIAL) as a prosumer with Solar Plant capacity of 38.864MW as against the contract demand of 9MVA, is liable to pay charges as per the Regulation 26 of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 for the use of transmission system and distribution including for availing banking facilities, till the validity of the said Regulations, due to the reasons given in the paragraph 8 to 22 of this Order.

Accordingly, the prayers of the CIAL extracted under paragraph 1 of this Order is rejected.

(2) In order to avoid/ reduce the dependence on the transmission and distribution grid of KSEBL, CIAL may install adequate BESS as per paragraph 23 of this Order.

Petition disposed off. Ordered accordingly.

Sd/-	**Sd/-**	**Sd/-**
T K Jose	**Adv. A J Wilson**	**B Pradeep**
Chairman	**Member**	**Member**

Approved for issue

Sd/-
Rajendran K.V
Secretary