

**KERALA STATE ELECTRICITY REGULATORY COMMISSION  
THIRUVANANTHAPURAM**

**Present: Shri. Preman Dinaraj, Chairman  
Adv. A.J. Wilson, Member (Law)**

**OP No. 28/2021**

**In the matter of:** Petition under Section 67 of the Kerala State Electricity Regulatory Commission (Connectivity and Intra-State Open Access) Regulations, 2013 - for Removal of difficulties due to Licensee taking the underutilized Energy Scheduled by Embedded Open Access Consumers through Day Ahead Inter-State Short Term Open Access (Collective transaction).

**Petitioner:** The Kerala High Tension and Extra High Tension Industrial Electricity Consumers' Association (KHT&EHT IECA), Productivity House, Kalamassery – 683102

**Respondents:** (i) The Chief Engineer (Transmission System Operation), SLDC, KSEB Ltd., Kalamassery;  
(ii) Kerala State Electricity Board Limited (KSEBL), Vidyuthi Bhavanam, Pattom, Thiruvananthapuram – 695 004

**IAs filed in the matter:**

- i) IA 09/21: M/s Carborandum Universal Ltd., Kalamassery;
- ii) IA 10/21: M/s MRF Ltd., Kottayam;
- iii) IA 11/21: M/s Travancore Cochin Chemicals Ltd., Kochi;
- iv) IA 12/21: M/s Apollo Tyres Ltd., Perambra, Thrissur.

**Date of hearing:** 05.08.2021 at 11 AM through video conferencing

**Petitioners represented by:**

- i) Sri. A.R. Satheesh, President, KHT& EHT IECA;
- ii) Sri. Pradeep. M, General Secretary, KHT& EHT IECA;
- iii) Sri. Radhakrishnan.K.R, Carborandum Universal Ltd;
- iv) Sri. Saji Mathew, MRF Ltd.;
- v) Sri. Shibu Kumar, TCC Ltd.;
- vi) Sri. Renjith Jacob, Apollo Tyres Ltd.;
- vii) Sri. Sarath, FACT Ltd.;
- viii) Sri. Nair Nanda Kumar, Carborandum Universal Ltd.

**SLDC represented by:** Sri. S. R. Anand, Chief Engineer (TSO), SLDC;

**KSEBL represented by:** Sri. Premkumar. P.K, Deputy Chief Engineer, TRAC; and  
Smt. Latha. S.V., AEE, TRAC.

**Order dated 28. 08. 2021 in OP No. 28/ 2021**

1. M/s Kerala High Tension and Extra High Tension Industrial Electricity Consumers' Association, Productivity House, Kalamassery (hereinafter referred to as the petitioner) filed a petition before the Commission on 17.06.2021, under Section 67 of the Kerala State Electricity Regulatory Commission (Connectivity and Intra-State Open Access) Regulations, 2013 (herein after referred to as Open Access Regulations), in the matter of 'Removal of difficulties due to Licensee taking the underutilized Energy Scheduled by Embedded Open Access consumers through Day Ahead Inter-State Short Term Open Access (Collective transaction)', with the following prayers:

- (i) Issue a direction clarifying the applicability of the Order vide; OP No.29/ 2020 to non-similar Open Access consumers;
- (ii) Enact a Deviation Settlement Mechanism (DSM) Regulation for the State of Kerala, in line with the DSM Regulations of CERC;
- (iii) Amend the KSERC (Connectivity and Intra-state Open Access) Regulations, 2013 and the detailed procedure for Open Access, incorporating the Deviation Settlement Mechanism for under drawal of Embedded Open Access consumers.

The petitioner has also requested an interim relief, as an order, to either follow CERC DSM Regulations, 2014 for settling the under drawn energy or continue the status quo until the State DSM Regulation is enacted.

2. The petition was admitted as OP No. 28/ 2021 and Form 3A notice was issued to the respondents. Meanwhile, four more individual consumers (all are members of the petitioner association) as listed above, filed Interlocutory Applications (IA) in the petition for impleading as respondents. The IAs were admitted as IA 09/21, IA 10/21, IA 11/21 and IA 12/21.

3. Brief history of the events leading to the filing of the petition is as follows:-

- (1) The petitioners are 'embedded open access consumers' of the Distribution Licensee KSEB Ltd. in the State, availing short term open access (STOA) for meeting a portion of their electrical energy demand.

- (2) The Commission, in accordance with the provisions under Sections 39, 40, 42 and 181 of the Electricity Act, 2003, notified the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013; vide the Notification No. 1824/CT/KSERC/2012 dated 10<sup>th</sup> September 2013. As per the provisions of this Open Access Regulations, 2013, the Commission had approved the 'Detailed procedure for grant of connectivity and open access in intra-state transmission system' (herein after referred to as 'Detailed Procedure').
- (3) The system for Energy accounting of the embedded open access consumers are specified in Section 31 (clause 31.1 to 31.25) of the Detailed Procedure. As per these clauses, the accounting is to be done based on the quantum of entitled/ scheduled energy and actual consumed energy for every 15 minutes time block of the day and the bill is to be prepared on a monthly basis. However, since 2014, KSEBL was raising the monthly invoices, clubbing the 15 minutes time blocks under each of the three time zones, i.e. peak, non peak and normal, and the Open access (OA) energy consumption was set off/ adjusted zone wise monthly against the schedule.
- (4) The issues related to the energy accounting system of the open access consumers in the State was brought to the notice of the Commission, during the hearing on the petition OP No. 29/ 2020 filed by M/s Hindalco, in the matter of grid connectivity to their 2 MW solar plant in their premises. M/s Hindalco is an embedded Open Access Consumer having two Captive Solar generating plants (one unit of 1MW without banking facility and the other unit of 2MW independent plant with banking facility). During the deliberations in that petition, the details of the interlocks and the accounting procedures/ measurement of the energy from each source were scrutinized in detail with the assistance of technical experts. During the hearing SLDC/ KSEBL informed that the SLDC is now technically equipped to analyze the data of each OA consumer in every 15 minute time block and the energy accounting can be done as envisaged in the 'Detailed procedure for grant of connectivity and open access in intra-state transmission system'.
- (5) After analyzing the entire aspects in detail, the Commission in the Order dated 23.03.2021 in the petition OP No. 29/ 2020 filed by HINDALCO, issued the following orders with respect to the drawal of energy by the OA consumers in the State:

*“26. The Commission noted the submission of the petitioner M/s HINDALCO, respondent KSEB Ltd and SLDC in this regard. As per the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013, and also as per the Detailed*

*Procedure approved by the Commission as per Regulation 55(3) of KSERC (Connectivity and Intra-state Open Access) Regulations, 2013, SLDC is the authorised agency for the energy accounting of all open access transactions. SLDC submitted that, they are capable of accounting the 15 minute time block wise energy transactions of all the open access consumers as per the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013. The Commission has no objection to proceed with 15 minute time block wise energy accounting of open access consumers, if the SLDC is capable of doing so. However, the billing of electricity charges for all the embedded HT&EHT open consumers shall be done as per the prevailing ToD tariff on monthly basis, as per the Tariff orders issued by the Commission from time to time.*

*27. With the above observations, the Commission hereby permits the SLDC for adopting 15 minute block wise energy accounting of all open access consumers including the petitioner so that the deemed injection by the open access consumers can be avoided. However, the billing of electricity charges for all the embedded HT&EHT open consumers shall be done as per the ToD tariff on monthly basis as per the Tariff Order issued by the Commission from time to time.”*

- (6) Further, in the Order dated 23.03.2021 in Para 29(1) & 22, the Commission ordered that:

*29. (1) Allow the petitioner HINDALCO Industries Ltd, to maintain the 1 MW Solar plant with REC benefits and 2 MW Solar plant with banking facilities in the same premises as two separate Solar plants, subject to the safe and reliable working of the Programmable Logic Controller (PLC) based interlocking system installed by the petitioner, and also subjected to the other conditions specified under paragraph 22 of this order.*

*Para 22 of the Order stated that:*

*22. The Commission examined the deliberations on interlocking facility provided by the petitioner to stop power flow from the 1 MW Solar plant when the factory consumption is less than 1 MW. The Commission noted that, two experts, Dr. K.N. Pavithran, Prof (Rtd.) and Sri. Rajan Babu, Chief Electrical Inspector (Rtd.), have certified the effective and reliable working of the interlocking facility provided by the petitioner. The Electrical Inspector also submitted that, the anti islanding is found to be working and hence safety of the system is ensured. **Based on the deliberations on the subject issue, the Commission is of the considered view that, the Programmable Logic Controller (PLC) based interlocking system installed by the petitioner can stop the power flow from***

***the 1 MW Solar Plant into the grid when the factory consumption is less than 1 MW. Hence, the 1 MW plant with REC facility can be treated as a separate unit, since it has no interference with the State grid under normal circumstances.***

*However, it is the responsibility of the petitioner to ensure the safe and reliable working of the PLC based interlocking facility throughout the life of the system. In order to ensure the same, a joint team of the Petitioner, Electrical Inspectorate and the licensee KSEB Ltd may periodically (at least once every year) visit the PLC based interlocking system and ascertain its reliable and safe working.*

*With the above directions and observations, the Commission hereby orders treating the 1 MW Solar Plant installed by the petitioner in the year 2016 for self consumption with REC facility and 2 MW Solar Plant installed by the petitioner in 2020 with banking facility as two separate plants in the same premise, subject to the following conditions:*

*(1) The petitioner shall ensure the safe and reliable working of the PLC based interlocking system during the entire life of the plant, so as to avoid the power flow from the 1 MW Solar Plant into the grid under any circumstances.*

*(2) The petitioner shall abide by the accounting procedure approved by the Commission in the subsequent paragraphs.*

Vide para 29(2), the Commission has also ordered that:

*29(2) As suggested by the petitioner HINDALCO Industries Ltd, and also as agreed by SLDC Kerala, the SLDC shall adopt the 15 minute energy accounting for the petitioner and similar open access consumers. However, the monthly bills of the petitioner and open access consumers shall be prepared for the accounted energy based on ToD tariff on monthly basis as per the Tariff orders issued by the Commission from time to time.*

- (7) Based on the above Order of the Commission, KSEBL has commenced implementing the system of '15 minutes time block wise accounting of energy' for all the embedded OA consumers in the State from May 2021. While the time block wise accounting of the energy was done, KSEBL/ SLDC noted that many of the OA consumers are not consuming the scheduled energy in the respective time block itself and under drawal of energy occurs in the case of many OA consumers. Since there is no provision for compensating these under drawn energy in other blocks, other than that envisaged in Regulation 45 (4) of the OA Regulations (non availability of the distribution system or unscheduled load

shedding), KSEBL has not accounted this under drawn energy by the consumer and has lapsed; instead of the then existing accounting system allowing the OA consumers to utilise the under drawn energy in other 15 minutes time block of the same time zone. Thereafter, the energy accounts/ invoice of the OA consumers for May 2021 were issued by KSEBL accordingly.

(8) Aggrieved by the above revised accounting of energy/ billing system for the OA Consumers, denying accounting of under drawal quantum of energy in the affected 15 minute time block, the petitioner association and its members filed this petition seeking intervention of the Commission on the following grounds:-

- i) While implementing the above system of accounting of energy, KSEBL has not even compensated the under drawal of scheduled energy on account of non availability of Transmission and Distribution system of the Licensee;
- ii) This imprudent decision taken by the nodal agency and licensee clearly indicates the gravity of gross violation of the Regulations and procedures laid down by the Commission;
- iii) The Order dated 23.03.2021 in OP No 29/ 2020 filed by M/s Hindalco is applicable only to, similar OA consumers having Captive Solar Energy Generating units on their premise and managing with a single net metering facility;
- iv) Any of the Regulations or procedures prevailing in the State approved by the Commission do not empower the distribution licensee to enjoy the underutilized energy scheduled by an embedded Open Access Consumer;
- v) In the absence of a clearly defined Deviation Settlement Mechanism in the State, implementing energy accounting on 15 minutes time block is not appropriate at this stage or as an alternative CERC DSM Regulation is to be followed;
- vi) Supply interruption due to voltage flickering and power quality of the system, affect the consumption of Process Industries and will offset the drawal of the scheduled energy;
- vii) There is no justification in denying the unused energy sourced by a consumer and the licensee enjoying the benefit of such energy.

(9) The petitioner in their petition has further stated vide Para 9 & 10 that:

*“9. In virtue of the above order KSEBL started adopting the 15 minutes energy accounting for all the Embedded OA consumers and arbitrarily taken the*

*underutilized energy within the 15 minutes time slot”.*

*“10. KSEBL has not even compensated the under drawal of scheduled energy on account of non availability of Transmission and Distribution system of the Licensee. This imprudent decision taken by the nodal agency and licensee clearly indicates the gravity of gross violation of the regulations and procedures laid down by the Honourable Commission.”*

(10) They also submitted in the grounds B & C of the petition that:

*“B. Any of the Regulations or procedures prevailing in the State approved by the Honourable Commission does not empower a distribution licensee to enjoy the underutilized energy scheduled by an Embedded OA consumer.*

*C. KSEBL has not even compensated the embedded OA consumers for the under drawal happened due to supply interruption. This is a clear violation of the section 31.22 of the detailed procedure and section 45-C of the Regulation,”*

(11) They also submitted to pass an order to either follow CERC DSM regulation 2014 for settling the under drawn energy or continue the status quo until state DSM Regulation is enacted.

#### **Hearing of the petition:**

4. Hearing on the Petition and the IAs were held at 11 AM on 05.08.2021 through video conferencing. The hearing was attended by the representatives of the Petitioner, IA petitioners and the respondents; SLDC and KSEB Ltd., as listed at the beginning of this Order. On behalf of the Petitioner, Sri. Saji Mathew presented the case in the hearing and the representatives of the IA petitioners presented their individual grievances. Participants from both the sides deliberated on the various aspects/ dimensions of the issue, with supporting data, calculations and presentations, and answered the queries and details/ clarifications sought by the Commission.

#### **Analysis of the Petition and the related issues:**

5. The Commission has carefully examined the petition, the Open Access Regulations, Detailed procedure, Scheduling and accounting system of the energy transaction of open access consumers, the deliberations during the hearing and the related statutory provisions. Thereafter, the following issues

concerning the open access transactions in the State has been analyzed and conclusions arrived at as mentioned in the following Para:-

- 1) Whether the action of the licensee/ KSEBL in implementing the 15 minute time block wise energy accounting system to all the embedded OA consumers in the State, is a violation of the Order dated 23.03.2021 in OP No. 29/2020?
- 2) What was the intent of the Commission while ordering: *'As suggested by the petitioner HINDALCO Industries Ltd, and also as agreed by the SLDC Kerala, the SLDC shall adopt the 15minute energy accounting for the petitioner and similar open access consumers'*?
- 3) Whether non availability of the distribution/ transmission system is considered while preparing the energy account, as envisaged in the OA Regulations?
- 4) Whether the consumer is aware of the real time consumption? If not, what can be done in this regard?
- 5) What is the dispute resolution mechanism with respect to the OA transactions existing?
- 6) How force majeure conditions affect the OA transactions?
- 7) What are the mechanism existing for providing plant/ line shutdown intimation to the consumers?
- 8) Whether the data regarding frequent under drawal and gaming, if any, is available?
- 9) What are the issues preventing the OA consumers from adhering to the scheduling properly?
- 10) What are the difficulties faced by the Licensee due to the under drawal by the OA consumers?
- 11) Whether the system followed requires any improvements?
- 12) How Unscheduled Interchange (UI) of power is dealt in the State?

**The above issues are analyzed in the Para (6. to 17.) below:**

**6. *Whether the action of the licensee/ KSEBL in implementing the 15 minute time block wise energy accounting system to all the embedded OA consumers in the State, is a violation of the Order dated 23.03.2021 in OP No. 29/2020?***

- 1) The Commission has notified the KSERC (Connectivity and Intra-State Open Access) Regulations, 2013 on 10<sup>th</sup> September 2013. Thereafter, the Commission approved the 'Detailed procedure for grant of connectivity and

open access in intra-state transmission system' for implementation of the OA procedures in the State, as per Regulation 55 (3), during 2014.

- 2) The Commission noted that vide Regulation 3 (14) of the OA Regulations envisaged a category of consumers who has a supply agreement with the Distribution licensee and is also permitted to avail power through OA as 'Embedded open access Consumer'. Such consumers are defined as:

*"embedded open access consumer" or in short 'embedded consumer' means a consumer who has a supply agreement with the distribution licensee in whose area of supply the consumer is located and avails the option of drawing part or full of its demand from any other person by availing open access, in any one or more time slots during a day or more in any month or more during the year, without ceasing to be a consumer of the said distribution licensee and continues to pay monthly demand charges and other charges as per rate schedule applicable to relevant category;"*

The Commission also noted that all the OA consumers in the State are 'embedded consumers'.

- 3) Regulation 31 of the Open Access Regulations requires, the Scheduling of power for the embedded open access consumers to be done as below:

*"31. Scheduling for embedded open access consumers. - (1) Scheduling shall be done in accordance with the relevant provisions of IEGC for inter-State transactions and in accordance with the relevant provisions of the State Grid Code for intra-state transactions.*

*(2) By 10.00 hours every day, the embedded consumers shall prepare and submit to the SLDC, the daily schedule of power in MW, separately showing schedule of power from licensee and that from another supplier through open access for the next day, i.e. from 00.00 hours to 24.00 hours of the following day, along with copy to distribution licensee:*

*Provided that in case the quantum of energy as per accepted bid is less than the quantum applied by the embedded open access consumer, then he shall inform the SLDC/ distribution licensee about the quantum of energy as per approved bid and also the quantum of energy he would be drawing from the distribution licensee during the period in which supply was scheduled through open access.*

*(3) Time of the Day (ToD) charges shall not be applicable for the energy scheduled and drawn under open access.*

*(4) Deviation from the schedule shall be settled as provided in Regulation 45."*

- 4) Regulation 45(4) of the OA Regulations deals with the deviation from schedule by the open access customer who is also an embedded open access consumer:

**“45. Deviation and Grid support charges,-**

*(4) In the case of deviation by open access customer who is also an embedded open access consumer of distribution licensee, the difference between the applicable scheduled open access energy and actual drawal shall be accounted and settled in accordance with the following:*

*(a) In case actual energy drawal is more than the scheduled drawal and the recorded maximum demand is within the contract demand, customer shall be liable to pay for such over drawal at the applicable tariff rates as determined by the Commission from time to time.*

*(b) In case the actual drawal of energy is more than the scheduled energy drawal and the total recorded maximum demand is more than the contracted demand, payment for the capacity over and above the contract demand, shall have to be made at the penal rate as specified by the Commission for such categories of customers in the tariff schedule from time to time.*

*(c) In the case of under drawal as a result of non-availability of the distribution system or unscheduled load shedding, the open access customer (who is also embedded consumer) shall be compensated by the distribution licensee by an equal quantum of energy injected by the participating generator in the same time block and the generator will not be eligible for any compensatory payments for that quantum of energy.*

*[Explanation.- For the purpose of this regulation, unscheduled load shedding means, load shedding during hours other than the hours for which load shedding has been announced by the distribution licensee after obtaining approval from the Commission and will also include unscheduled shutdowns of lines.]”*

- 5) As per Regulation 35(2) of the Open Access Regulations, 2013, the scheduling of the intra-state open access shall be done by SLDC in accordance with the detailed procedure approved by the Commission. Section 23 of the ‘detailed procedure’ deals with, the scheduling of power by the Open Access consumers.

**“23. Scheduling,-**

*23.1 Each open Access customer (generating company, trader etc.) shall provide the schedule to SLDC for each 15 minutes time block for a day, on*

- day ahead- basis by 10.00 hrs with intimation to STU & Distribution Licensee. If it is requiring to wheel electricity from more than one generating station with the interface points located at different locations, they shall submit separate schedule for the injection from each generators.*
- 23.2 SLDC will intimate the above schedule, station wise MW / 15 minute block entitlements to the respective beneficiaries by 11.00 hrs. Beneficiaries shall communicate the station-wise requisitions and details of bilateral exchanges to SLDC by 14.00 hrs;*
- 23.3 SLDC shall convey the ex-power plant despatch schedule to each station and net drawal schedule to each beneficiary by 17.00 hrs.*
- 23.4 Generating Stations / Beneficiaries shall inform the modifications, if any, for incorporating in the final schedule by 21.00 hrs*
- 23.5 SLDC shall issue the final despatch and drawal schedule by 23.00 hrs to the respective open access customers.*
- 23.6 Wind generators under RRF mechanism shall declare their schedule upto 70% of the capacity, as above.*
- 23.7 In the event of failure to submit the schedule in accordance with above clause, latest wheeling schedule available with SLDC shall be treated as effective schedule.*
- 23.8 The sum total of the capacity allocation by an open access Generator for any time block to the entire schedule shall not exceed the available capacity from the generating plant being not higher than the installed capacity or contracted open access capacity, which- ever is lower.*
- 23.9 The embedded open access consumers and limited open access consumers shall in advance provide the 15 minutes time-block wise drawal schedules from KSEB Ltd., after accounting for the power availed on open access, before 10:00 hrs of the previous day. Any deviation from schedule and gaming would be penalized as specified by the Commission.*
- 23.10 The customer's coordinator, shall coordinate with each of the other Utilities involved, and furnish the transaction details to each of the licensees and STU involved, on a daily basis, so as to enable the SLDC to incorporate the transaction in the day-ahead schedules and revisions thereof for the 96 time blocks. In case mismatches are found in the transaction details it will not be possible for SLDC to schedule the same and the customer shall be intimated accordingly.*
- 23.11 The ramp-up/ramp-down, if required, in the daily schedules on account of such transactions, shall commence at the time of commencement of the*

*transaction and shall end at the time of termination of the transaction.*

*23.12 Rescheduling of transactions, if any, required would be as per provisions in the state grid code.”*

- 6) Thus, as per clause 23.9 of the detailed procedure indicated above, the embedded Open Access consumers are required to provide 15 minutes time block wise drawal schedule of power from KSEB Ltd. and the power proposed to be availed through Open Access, by 10:00 hrs of the previous day. Any deviation from schedule and gaming would be penalized as specified by the Commission.
- 7) The general provisions for energy accounting of Open Access consumers are specified under Para 31.1 to 31.7 of the detailed procedure, which is extracted below:

**“31. Energy Accounting,-**

*31.1 The final schedule of drawal /injection in the Kerala periphery (implemented schedule) of inter-state open access customers of Distribution Licensees, Distribution Licensees, Bulk power consumers etc. (bilateral, collective transaction etc.) is being updated by SRLDC every day and the same will be available with SLDC.*

*31.2 In the case of intra state open access customers of Distribution Licensee, Distribution Licensees, Bulk power consumers, etc SLDC shall prepare final schedule of drawal / injection on every day, based on the approved schedule.*

*31.3 The accounting of energy transactions and capacity availed will be based on declarations (DC) and implemented schedule. SLDC will prepare the final implemented schedule of each day, after two (2) working days. The LDC/corresponding Distribution Licensee shall verify the capacity allocated drawal and correct it in the case of discrepancy, if any. The computations of SLDC shall be final and binding to all.*

*31.4 The monthly energy account of a billing month shall be finalized by the SLDC, based on the implemented schedule (losses will be as specified by the Commission). Provisional energy account of the preceding month will be issued within the first three (3) working days of the succeeding month.*

*31.5 UI/ Deviation Settlement Mechanism (DSM) of customers shall be prepared by SLDC based on interface meter data, in line with state Grid code requirement, applicable UI/ DSM regulation of the state Commission (after implementation)*

*and daily schedule as released by NLDC/ SRLDC or obligation reports issued by the concerned power exchange, after taking into account the losses approved by the Commission.*

*31.6 Interface Meter reading/ data downloading shall be done by the authorized officers of STU/ Distribution Licensees in the presence of consumer representatives, which shall be weekly in case of Generators/ Suppliers and monthly in the case of purchases (after implementation of AMR, procedure will be changed). The downloaded data shall be forwarded to SLDC for computation of UI/ DSM. The data shall be collected on every Monday. Data collected shall be from previous Monday to Sunday (7 days) and the same shall send to SLDC-Kalamassery by email / in CD before 12 Noon of the next day, i.e. Tuesday. UI/ DSM details will be prepared based on the data and circulated among the STU/ Distribution Licensees and payment shall be as per rate approved by the Commission.*

*31.7 At the withdrawal point of beneficiaries/ buyers, transmission/ distribution network losses of STU and Distribution Licensees from the Ex-bus availability of Generator shall be considered. In the case of collective transactions, power availability will be considered at Kerala periphery. Hence, the approved losses will be deducted from schedule and balance quantum only will be considered at the point for withdrawal of consumer.”*

- 8) The energy accounting of embedded Open Access consumers are dealt under paragraph 31.20 to 31.24 of the detailed procedure, which is extracted below:

**“Accounting of Embedded short-term Open Access Consumers,-**

*31.20 In case actual energy drawal is more than the scheduled drawal and the recorded maximum demand is within the contract demand, customer shall be liable to pay for such over drawal at the applicable tariff rates for each time zone as determined by the Commission from time to time.*

*31.21 In case the actual drawal of energy is more than the scheduled energy drawal and the total recorded maximum demand is more than the contracted demand in any time block, payment for the capacity over and above the contract demand, shall have to be made at the penal rate as specified by the Commission for such categories of customers in the tariff schedule from time to time.*

*31.22 In the case of under drawal as a result of non-availability of the distribution system or unscheduled load shedding, the embedded open access customer shall be compensated by the distribution licensee by an equal quantum of energy*

*injected by the participating generator in the same time block and the generator will not be eligible for any compensatory payments for that quantum of energy.*

*31.23 Distribution License shall make necessary computation on the above deviation based on Interface Meter reading, interruption details etc.*

*31.24 The accounts will be settled on monthly basis.”*

9) Regulation 36 of the OA Regulations specifies that;

*36. Metering, - (1) All generating stations irrespective of capacity and all open access customers including embedded consumers shall be provided with special energy meters (SEM) by the State Transmission Utility or the distribution licensee, as the case may be:*

*Provided that in case of open access customer or embedded consumer elects to purchase his own special energy meter, he shall purchase the same from the firms empanelled by the STU as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time:*

*Provided further that the Commission, in consultation with the STU or the distribution licensee, may exempt small generators of capacity less than or equal to 1MW and consumers with contract demand less than or equal to 1 MW from this condition as and when found necessary.*

*(2) Special Energy Meters installed shall be capable of time-differentiated measurements for time-block-wise active energy and voltage differentiated measurement of reactive energy in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and the provisions of State Grid Code and shall have remote terminal unit (RTU) to facilitate real time monitoring by the SLDC, as and when specified by the Commission.*

*(3) Special Energy Meters shall be open for inspection by any person authorized by the STU or the State Load Despatch Centre or the distribution licensee as the case may be.*

*(4) All the open access customers, STU, transmission licensee and generating company shall abide by the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time.*

Thus all the open access customers including embedded consumers shall be provided with special energy meters capable of time-differentiated measurements for time-block-wise active energy and voltage differentiated measurement of reactive energy in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time, and the provisions of State Grid Code and shall have remote terminal unit (RTU) to facilitate real time monitoring by the SLDC, as and when specified by the Commission.

- 10) The Commission notes that in the case of discernible generators, such deviations can be corrected by changing the generation schedule and the deviation can be brought to control within reasonable time. Whereas, in the case of embedded Short Term Open Access (STOA) consumers drawing power through Collective Transactions; wherein a set of transactions discovered in Power Exchanges through anonymous, simultaneous competitive bidding by buyers and sellers and the generator is unidentifiable, this Regulation will not be applicable.
- 11) Further, the consumer has to intimate such cases of deviation to the distribution licensee for necessary certification. However, this is not being followed by any of the consumers in the State so far. The consumer has to promptly report such cases on daily basis to the licensee concerned.
- 12) The planned outages of the licensees (transmission & distribution) have to be factored by the market player while finalizing the bidding. Unplanned forced outages are part of grid events, and the methodology of dealing with such events is to be as per Regulation 45 (4-c) of the OA Regulations. Even if the adjustment of energy is permitted, the same need to be limited to a definite time, so that the chances of gaming that may occur can be prevented.
- 13) The Commission noted that in the energy accounting system which prevailed upto March 2021, the embedded Open Access consumers were using the energy scheduled for a particular 15 minute time block in any other time block within the same time zone, through under drawal and over drawal in the respective time blocks. This is equivalent to banking of the OA energy and has commercial implications for the licensee. ***In the case of under drawal from the schedule and not due to forced outages, the distribution licensee is not responsible for banking the power scheduled by the consumer for use at a later time block by them under any circumstance. This is neither the intent nor is it envisaged in the OA Regulations and hence not permissible.***

- 14) It is a fact that, earlier SLDC was having only limited facility to monitor, analyze and account the time block wise use of energy by each OA consumer and hence, zone wise accountings based on ToD meter data were continued. In January, 2021 SLDC conveyed their preparedness to monitor the block wise energy transactions and requested sanction for energy accounting as envisaged in the OA Regulations. Accordingly, the Commission in the Order dated 23.03.2021 in OP.No. 29/2020 permitted SLDC to adopt the 15 minute energy accounting for the petitioner and similar open access consumers.
  - 15) In view of the above, it is clear that the energy accounting system implemented by SLDC/ KSEBL for the embedded OA consumers from 05/ 2021 complies with the Regulations and approved procedures in force and hence is in order.
- 7. What was the intent of the Commission while ordering: ‘As suggested by the petitioner HINDALCO Industries Ltd, and also as agreed by the SLDC Kerala, the SLDC shall adopt the 15 minute energy accounting for the petitioner and similar open access consumers’?**
- 1) The petition OP No. 29/ 2020 was filed by M/s Hindalco, in the matter of grid connectivity to their 2 MW solar plant in their premises. M/s Hindalco is an embedded Open Access Consumer having two Captive Solar generating plants (one unit of 1MW without banking facility and the other unit of 2MW independent plant with banking facility). The issues related to the energy accounting system of the open access consumers in the State were brought to the notice of the Commission, during the hearing of this petition. In view of the SLDC submission that they are capable of 15 minute time block wise energy accounting for the embedded open access consumers, the order dated 23.03.2021 in OP No. 29/2020 is made applicable to **similar open access consumers in the State**.
  - 2) However, the action of SLDC/ KSEBL in revising the energy accounting system of all the open access transactions accordingly from 05/ 2021 is not in order, since that OP No. 29/2020 pertains to certain specific issues. It was during the hearing on that petition that the present issue of open access under drawal emerged. Since the petitioners were not a party to that OP and its proceedings, the Order dated 23.03.2021 is applicable only to similar embedded open access consumers i.e. consumers having their own generation, open access and are embedded consumer of KSEB Ltd.
  - 3) **In view of the SLDC submission that they are capable of 15 minute time block wise energy accounting for the embedded open access consumers and considering this petition, the adoption of 15 minute time block wise energy accounting of open access consumers is now made applicable to**

***all the embedded open access consumers in the State, from the date of this Order.***

**8. *Whether non availability of the distribution/ transmission system is considered while preparing the energy account, as envisaged in the OA Regulations?***

- 1) Clause (c) of sub regulation (4) of Regulation 45 of the OA Regulations specify that: *In the case of under drawal as a result of non-availability of the distribution system or unscheduled load shedding, the open access customer (who is also embedded consumer) shall be compensated by the distribution licensee by an equal quantum of energy injected by the participating generator in the same time block and the generator will not be eligible for any compensatory payments for that quantum of energy.* i.e. compensation for under drawal shall be done by the distribution licensee when there is non-availability of the distribution system or unscheduled load shedding.
- 2) The above clause makes it clear that, non availability of the distribution/ transmission system or unscheduled load shedding only is to be considered while preparing the energy account of the open access consumer for the month. SLDC/ KSEBL, during the hearing have confirmed that they have factored such outage in the energy accounts and indicated the details of such adjustments that have been done as in the accounts of FACT Ltd.
- 3) The Commission however noted that at present there is no systematic recording of outages occurring to the OA consumers. The OA consumers have to inform the nodal agency/ licensee, about the instances of under drawal due to non availability of the distribution/ transmission system, if any, immediately with supporting documents and the same is to be confirmed by the licensee and SLDC. Under drawal in such cases need to be compensated by the distribution licensee as specified in Para 31.22 of the 'detailed procedure'. The Commission noted that any dispute in this matter need to be submitted to the Co-ordination Committee as per Regulation 62 of the 'OA Regulations' and the Committee has to decide on the issue as specified in Regulation 54.
- 4) Further, very few OA consumers have filed such non availability/ outage data as specified under the OA Regulations. Without such a document, the licensee/ SLDC cannot consider the reason for under drawal and consequent compensation of energy. So, the OA consumers themselves are required to file such data promptly so as to enable the nodal agency to account such energy.

**9. Whether the consumer is aware of the real time consumption? If not, what can be done?**

The Chief Engineer, SLDC submitted during the hearing, the arrangement of the metering/ data transmission system of the OA consumers. Each OA consumer has a Special Energy Meter with 15 minute time block recording facility and RTU, capable of recording and transmitting the data to SLDC, at their premises. Visibility of these real time data is available at SLDC also. If required, the consumer can get access to this real time data from the RTU at the consumer premise with small changes to the existing infrastructure. KSEBL can also help the consumer to make this visibility possible, if so required. **From these facts, it emerges that the OA consumers can have the real time consumption data locally and if required, the licensee shall provide the necessary assistance for the same.**

**10. What is the dispute resolution mechanism with respect to the OA transactions existing?**

- 1) The Regulation 62 of the OA Regulation details the dispute resolution mechanism as follows:-

*“62.Dispute resolution,- (1) All disputes and complaints arising under these regulations shall be decided by the co-ordination committee constituted as per regulation 54 within a period of thirty days from the date of receipt of application from the concerned party.*

*(2) Appeal against the decision of the co-ordination committee shall be before the Commission.*

*(3) The decision of the Commission shall be final and binding.”*

- 2) Accordingly all the disputes shall be resolved by the Co-ordination Committee. The constitution of the co-ordination committee is as specified under Regulation 54 as follows:-

*54. Constitution of co-ordination committee.- The STU shall constitute a co-ordination committee within one month from the date of notification of these regulations. The co-ordination committee shall have a nominee of the distribution licensees, transmission licensees and the SLDC. The nominee of the STU shall be chairperson of the co-ordination committee.*

- 3) The Commission was informed that this Co-ordination Committee was formed in 2013 itself and the ‘detailed procedure for grant of connectivity & open access in intra-state transmission system’ was prepared by this Committee. **KSEBL informed that the committee is functioning and any grievance in this regard can be filed under Regulation 62 before the Committee.**

## **11. How force majeure conditions affect the transactions?**

1) Regulation 64 details the Force Majeure conditions as:

*64. Force Majeure.- (1) Events such as war, mutiny, civil commotion, riot, flood, cyclone, lightning, earthquake, strike, lockout, fire affecting the premises, installations and activities of any of the parties having open access agreement shall be classified as force majeure events for the purpose of these regulations.*

*(2) If any person being party to an open access agreement is unable to, wholly or in part, perform on time and as required, any obligation under such agreement or under these regulations because of the occurrence of a force majeure event, then, subject to these regulations, this obligation is suspended to the extent for so long as the ability of the affected person to perform such obligation is affected by that force majeure event.*

2) Thus under *force majeure event*, the obligation of the parties concerned is suspended to the *extent* of the non-ability to perform by the affected party.

## **12. What are the mechanisms existing for providing plant/ line shutdown intimation to the consumers?**

1) During the hearing some of the consumers complained that advance information regarding plant/ line shutdown is not being received in many cases. Further they submitted that 'even a small supply interruption or voltage flickering in a process industry may disturb the process and require several minutes to stabilize the processes. This means that the process industries are required to work in highly exacting conditions whereon a voltage flickering can lead to loss of the stability/ quality of the product under manufacture.

2) KSEB Ltd. informed that:

i) Normally all planned shutdowns are intimated to the affected major consumers including OA consumers 48 hours prior to the scheduled shutdown.

ii) Target availability for full recovery of annual transmission charges for alternating current (AC) system is 98 per cent and is being normally maintained by KSEBL.

iii) The voltage levels at the nodes of the power system as monitored by SLDC are generally found to be within the permissible limits specified in the State Electricity Grid Code.

iv) KSEBL has already drawn up several schemes for further strengthening of the intra-state transmission and distribution network.

- 3) KSEB Ltd. further informed that:
  - i) the sudden withdrawal of load by the HT/EHT consumers from the grid cause voltage fluctuation in the area, impacting other consumers.
  - ii) by availing supply from two independent sources for meeting the N - 1 security level, the security/ redundancy of supply of critical consumers can be ensured; but such consumers are not inclined to meet such additional expenditure.
  - iii) Maintaining the grid parameters within the limits is a collective behavior of generators, consumers and transmission/ distribution network managers.
- 4) The planned outages of the licensees (transmission & distribution) have to be factored by the OA consumers while finalizing the bidding. Unplanned forced outages are part of grid events, and there exists a compensatory mechanism as specified in Regulation 45 of the OA Regulations.
- 5) The Commission directed that KSEBL shall promptly intimate all the planned outages to the consumers at least 48 hours in advance. Further consumers with critical loads shall make appropriate arrangements for standby feeder/ backup generation to meet any unscheduled emergency outages.

**13. *Whether data regarding frequent under drawal and gaming, if any, is available?***

- 1) The Commission was informed that SLDC has records of the 15 minutes time block wise consumption of all the OA consumers in the State. It is being compiled for all the 96 time blocks in a day. SLDC/ KSEBL have during the hearing, provided data of some of the OA consumers for perusal.
- 2) The data indicates under drawal in many blocks and in certain cases upto 100%. The Commission notes that these under drawal may be due to consumer related issues or due to supply issues or such other factors. Further the chances of gaming cannot be ruled out.
- 3) In the accounting system which prevailed earlier, the consumer can purchase the full quantum of power for a particular block and consume part of such purchase in the block and use the balance in blocks in the same time zone. In this case, the purchase can be made for blocks with least market cost for energy and consumption can be done in blocks with higher market rate. This, in effect is deemed injection and banking of energy, which is not envisaged in the Regulations for an OA consumer. This can happen as part of gaming also.

- 4) On perusal of the documents provided and the deliberations held in the hearing, it is clear that the SLDC has all the data regarding the OA consumers pertaining to each 15 minute time block, including; frequency, purchase/ schedule, consumption, under/ over drawal, outages of the system (planned & forced) etc. Through proper analysis of these data, the correct energy account of each OA consumer can be prepared. Further the analysis can also bring out instances of gaming, if any.

**14. What are the issues preventing the OA consumers from adhering to the scheduling properly?**

- 1) The major issues projected by the petitioners for under drawal are:
  - i) Power Quality issues such as: Over/ under voltage, Voltage dips, Flickers, minor interruptions etc;
  - ii) Unscheduled line/ power interruptions of the licensee;
  - iii) Force majeure conditions etc.
- 2) The Commission noted that the grid voltage and frequency of the intra state transmission system is normally within the range specified in the Supply/ Grid Code/ Regulations and will normally not affect the consumer considerably. It is also the obligation of the consumer to protect their sensitive equipments/ plants from disturbances such as voltage dips, harmonics etc. The licensee too has limitations in preventing such issues occurring due to transient conditions/ faults in the system. Hence as a due diligence process, the OA consumers are required to schedule OA purchases considering these factors and to avoid under drawal in the respective time blocks.

**15. What are the difficulties faced by the Licensee due to the under drawal by the OA consumers?**

In this context, the Commission noted the following:-

- 1) Even though the Open Access Regulations and detailed procedure provide that the embedded open access consumers shall in advance provide the 15 minutes time-block wise drawal schedules from KSEB Ltd., after accounting for the power availed through open access, before 10:00 hrs of the previous day, this is often not adhered to by the embedded open access consumers.
- 2) The OA consumers purchase power through power exchange whenever the effective delivered price is less than the Commission fixed tariff for the distribution licensee. The quantum of energy bought under Open access is seen to vary according to the price trends in the Power Exchange. Drawal/ actual schedules in

the respective blocks by the consumers are on many occasions different from the power sourced from the power exchange and there is under drawal noticed in many instances.

- 3) This deviation becomes more significant when KSEBL's drawal limit is fixed by SRLDC (in real time SCADA) as maximum of **150 MW** on either side. Moreover, as per CERC DSM Regulations, 2014, sign change (change of mode of drawal to export or vice versa) is also implemented in every 6<sup>th</sup> block, w.e.f. 01.12.2020. These two aspects make the day ahead planning very significant and essential as far as economic, safe, and reliable grid operation is concerned.
- 4) The actual schedules depend on prices that are cleared in the Power Exchanges. Thereafter, the State Utility has to rework its LGB (Load Generation Balance) as per the finalised Open Access schedules in the Exchange (as per the delivery report).
- 5) KSEBL prepares and plan its requirements/ deviation based on such a fine-tuned LGB. Drastic variations of open access schedules in real time make the DSM compliance including sign change difficult and sometimes impossible leading to penalties being imposed to KSEBL.
- 6) However, the open access consumers of the State are not charged for such deviations made by them from the schedule, as intrastate DSM Regulations are yet to be notified in the State by the Commission. Hence, the charges for deviation made by the open access consumers are now being borne by KSEBL and ultimately by the electricity consumers of the State.
- 7) To make matters further worse, the open access energy scheduled (drawal) by the consumers through the power exchanges are not always fully utilized in the same time block itself by the consumers. There are several instances of under drawal of scheduled open access. Whenever the actual drawal through open access becomes less than the scheduled open access, there will be a situation of deemed injection to the grid.
- 8) There can also be instances of purposeful under drawal of scheduled open access in certain time blocks and over drawal in other time blocks to take advantage of the market price economy. If there is no strict time block wise energy accounting, then the under drawal in certain time blocks gets merged against the over drawal in other time blocks, leading to banking of open access energy and its utilization later.

- 9) It is a fact that open access consumers were benefitted by the method of accounting followed earlier, since they could under draw (drawing less than the energy purchased through exchange) in time blocks when rate of power in the exchange is less and this surplus power in their credit can be used to adjust the energy in any other time blocks during which no purchase from power exchange was done by them due to higher price.
- 10) More over purchase of power from Real Time Market (RTM) of the power exchanges are also permitted in Kerala, where the DISCOM is often not aware of the actual transactions. This forces the licensee to revise the LGB frequently, with resulting difficulties.
- 11) Banking of OA energy is not allowed as per the Regulations. Further such banking transactions lead to loss for the Licensee which is ultimately borne by the ordinary consumers of the State. With increase in the open access quantum, the extent of such banking and loss becomes substantial. This can be in addition to the penalties to be borne by KSEBL for interstate deviations caused by the deviations made by these open access consumers.
- 12) SLDC while issuing NOC for open access has been repeatedly directing OA consumers to restrict their OA drawal to their real time requirement. However, under drawal of scheduled OA has been noticed and cannot be allowed as per Regulations.

**16. *Whether the system followed requires any improvements?***

- 1) The embedded Open Access consumers are purchasing power through open access when there is abundant power available in the market and the market price is very low or the market price is favorable to the open access consumer compared to their energy charges. In such situations, it is a fact that the grid frequency will be high. The DISCOMs are managing their real time LGB by way of surrendering their share of power from CGS/ LTAs executed with the generators, during such power surplus periods.
- 2) During power surplus periods, if the embedded open access consumers purchase power in excess of their actual requirement, it results in deemed injection by the consumer. In such instances, the DISCOM has to manage these deemed injection by reducing their schedules as the interstate DSM liability is only to the DISCOMs. Since frequency based commercial DSM mechanism is in place, the DISCOM is required to pay penalties on account of the deemed injection by the embedded consumers as a result of their block wise power purchase in excess of their actual

requirement. The DISCOMs are also mandated to provide sign reversal on the deviations in every 6<sup>th</sup> time block, as per the CERC DSM Regulations, wherein there are chances of conflict with the scheduling.

- 3) STOA consumers are required to be advised to forecast their demand on day-ahead basis based on their actual requirement and in consultation with the Transmission/ Distribution licensee regarding the availability of the Transmission/ Distribution network etc. and thereby enabling the consumer to purchase power through open access within the limits of the 15 minutes block wise real time demand.
- 4) Due to the implementation of the Real Time Market in Power Exchanges, the consumers can purchase power in real time also with a time gap of only six blocks (one and a half hour before) to meet with their real time demand. Moreover, all open access consumers under Kerala SLDC are embedded open access consumers who are having power supply agreement with the Distribution licensees, and they will not be affected by any shortage of power. Hence, there is no need for any relaxation to be provided to the consumer on account of excess power purchased through open access.

**17. How Unscheduled Interchange (UI) of power is dealt in the State?**

- 1) The pricing of unscheduled interchange is stipulated in the OA Regulations as below:

***“43. Unscheduled interchange (UI) pricing.-***

*The Commission may, from time to time, as the occasion may require, by separate order, and in accordance with tariff policy issued under section 3 of the Act, determine the unscheduled interchange charges payable by the generators, licensees and consumers:*

*Provided that the actual payment of such unscheduled interchange charges may be deferred by the Commission till such period which may be determined by the Commission having regard to the extent of demand for open access and the extent of involvement of private operators in power generation and distribution:*

*Provided further that this regulation is applicable only when intra-state availability based tariff system is introduced in the State.*

- 2) From the above referred Regulations, it can be seen that UI rate and payment of UI charges are matters to be decided by the State Commission. The Commission has deferred the actual payment of such unscheduled interchange charges till

such period which may be determined by the Commission having regard to the extent of demand for open access and the extent of involvement of private operators in power generation and distribution. Hence, no UI charges are required to be paid by the distribution licensee for the under drawal from the schedule of the embedded open access consumers at present. Instead, compensation shall be given as specified in section 31.22 of the detailed procedure;

*'31.22 In the case of under drawal as a result of non-availability of the distribution system or unscheduled load shedding, the embedded open access customer shall be compensated by the distribution licensee by an equal quantum of energy injected by the participating generator in the same time block and the generator will not be eligible for any compensatory payments for that quantum of energy.'*

### **Findings and Decision of the Commission:**

- 18.** The Commission after a careful examination of the relevant provisions in the Open Access Regulations and the detailed procedure published, averments of the petitioners, SLDC and the licensee, provisions under the Indian Electricity Grid Code and the Electricity Act 2003, and the energy accounting procedures & systems in force, has arrived at the following findings and conclusions:-
- 1) At present there are about 50 short term Open Access consumers in the State, registered with SLDC with an approximate sanctioned quantum of 250 MW. The short term open access power purchase by the embedded consumers is purely based on the 15 minutes block wise cost of power in the power market through collective transactions. The embedded open access consumers and the open access consumers are required to provide in advance the 15 minutes time-block wise drawal schedules from KSEB Ltd., after accounting for the power to be availed through open access, before 10:00 hrs of the previous day. Any deviation from the schedule and gaming would be liable for penalization, as specified by the Commission.
  - 2) The accounting of the energy transactions and the capacity availed will be based on the declarations and the implemented schedule. SLDC will prepare the final implemented schedule of each day, after two working days.
  - 3) The monthly energy account of an embedded open access consumer for a billing month shall be finalized by the SLDC, based on the implemented schedule (losses will be as specified by the Commission).
  - 4) Interface Meter reading/ data downloading shall be done by the authorized officers of STU/ Distribution Licensees in the presence of the consumer

representatives, which shall be weekly in case of Generators/ Suppliers and monthly in the case of purchases (after implementation of AMR, procedure will be changed). The downloaded data shall be forwarded to SLDC for computation of UI/ DSM.

- 5) Out of the recorded drawal of energy, the scheduled entitlement as an open access consumer will first be adjusted and balance will be treated as his drawal from the distribution licensee.
- 6) In case the actual energy drawal is more than the scheduled drawal and the recorded maximum demand is within the contract demand, customer shall be charged for such over drawal at the applicable tariff rates for each time zone, as determined by the Commission from time to time.
- 7) In case the actual drawal of energy is more than the scheduled energy drawal and the total recorded maximum demand is more than the contracted demand in any time block, payment for the capacity drawn over and above the contract demand, shall have to be made at the penal rate, as specified by the Commission for such categories of customers in the tariff schedule from time to time.
- 8) In the case of under drawal as a result of non-availability of the distribution system or unscheduled load shedding, the embedded open access customer shall be compensated by the distribution licensee by an equal quantum of energy injected by the participating generator in the same time block and the generator will not be eligible for any other compensatory payments for that quantum of energy.
- 9) Distribution Licensee shall make necessary computation on the above deviation, based on the Interface Meter reading, interruption details etc.
- 10) Actual payment of such unscheduled interchange charges is deferred by the Commission till such period to be determined by the Commission having regard to the extent of demand for open access and the extent of involvement of private operators in power generation and distribution. Hence, at present no UI charges have to be paid by the Distribution licensee for the under drawal from the schedule of the embedded open access consumers.
- 11) There is no provision for banking of energy procured from other sources by the open access customers with the distribution licensee. Such a condition is not conceived in the Regulations and the detailed procedure.

- 12) The Order of the Commission dated 23.03.2021 in OP No. 29/2020 regarding the accounting of energy of embedded OA consumers in 15 minute time blocks as envisaged in the OA Regulations is clear. However, as mentioned in Para 7(2) of this Order, after due consideration of the present petition holistically, it is clarified that the above system of energy accounting is now made applicable to all the embedded OA consumers in the State from the date of this Order.
- 13) The procurement of power by the OA consumers in excess of what is actually required by them in real time is not as per the provisions of the Act and the Regulations. Every embedded consumer is well aware of his load requirement and supply can be planned with limited interference from any external forces/matters. Hence, the actual requirement of power for every time block can be correctly planned in advance and arranged by the consumer.
- 14) The Procedure (31.22) and Regulation (45-c) referred to by the petitioner in the petition is applicable only to STOA bilateral transactions where the exchange of power is taking place between a specified buyer and a specified seller. This is not applicable to embedded Open Access consumers drawing power through Collective Transactions; wherein a set of transactions discovered in Power Exchange through anonymous, simultaneous competitive bidding by buyers and sellers.
- 15) DSM Regulations and its amendments are framed with an objective to maintain grid discipline and grid security as specified under the Grid Code. This is sought to be enforced through the commercial mechanism of Deviation Settlement for the drawal and injection of electricity by the users of the grid. The charges for the deviation are worked out based on the frequency of the respective 15 minutes time block. For under drawal quantum; UI charges receivable is limited to 12% of the schedule during the frequency range of 49.85 to 50.05 Hz, and no charge is receivable during the frequency range of 50.05 to 50.1 Hz. Penalty has to be paid for the under drawal quantum when the frequency is more than 50.1 Hz. If the frequency is less than 49.85 Hz, UI rate will be receivable for the entire under drawal quantum. This is framed for facilitating the participating entities; to have flexibility in generation scheduling from multiple sources through separate power purchase agreements, and for the generators having power sale agreement with different entities.
- 16) The Commission is in the process of drafting a Deviation Settlement Mechanism (DSM) Regulation for the State and is expecting to publish the draft in due

course. Till that time, the present provisions as per the Open Access Regulations shall prevail.

### **Orders of the Commission**

19. The Commission, after due examination of; the petition & the IAs, the Open Access Regulations and the detailed procedure published, averments of the petitioners and the licensee during the hearing, the provisions under the Indian Electricity Grid Code and the Electricity Act 2003, the notified energy accounting procedures & systems in force, and the related documents produced, hereby orders as follows:-
- 1) In view of the SLDC submission that they are capable of 15 minute time block wise energy accounting for the embedded open access consumers, the order dated 23.03.2021 in OP No. 29/2020 regarding the adoption of 15 minute time block wise energy accounting of open access consumers is now made applicable to all the open access consumers in the State.
  - 2) The action of SLDC/ KSEBL in revising the energy accounting system of all open access transactions from 05/ 2021 is however not in order, since the OP No. 29/2020 pertains to certain specific issues and it was during the hearing on that petition that the present issue of open access drawal emerged. However, since the petitioners were not a party to that OP and its proceedings, the Order dated 23.03.2021 is applicable only to similar embedded open access consumers i.e. consumers having their own generation, open access and are embedded consumer of KSEB Ltd.
  - 3) It is hereby ordered that, the adoption of 15 minute time block wise energy accounting of open access consumers shall be applicable to all the embedded open access consumers in the State from the date of this Order. The bills issued till now shall be revised and adjusted accordingly.
  - 4) KSEB Ltd. shall prepare the monthly bills of the embedded open access consumers for the accounted energy based on the ToD tariff on monthly basis as per the Tariff orders issued by the Commission from time to time.
  - 5) The open access consumers can have the real time consumption data locally, if required. On receipt of such a request from the consumer, the licensee shall provide without delay, the necessary assistance for installing the facility at the consumer premises for monitoring their real time consumption data.

- 6) KSEBL shall promptly intimate all the planned outages to the concerned consumers at least 48 hours in advance. Further consumers with critical loads shall make appropriate arrangements for standby feeder/ backup generation to meet any unscheduled emergency outages.
- 7) The Open Access Regulations in force in the State do not have provision for compensating the under drawal of embedded consumers, except as a result of non-availability of the distribution system or unscheduled load shedding. In the case of under drawal due to non availability of the distribution system or unscheduled load shedding, the consumer shall promptly notify the same to the distribution licensee and SLDC for approval, certification and for eligible compensation. Any disputes in this regard, shall be referred to the Co-ordination Committee and the Committee shall resolve the same as specified in Regulation 62 of the Open Access Regulations.

The petition OP No. 28/ 2021 and the IAs (09/21, 10/21, 11/21 & 12/21) are disposed off as ordered above.

**Sd/-**  
**Adv A J Wilson**  
**Member (Law)**

**Sd/-**  
**Preman Dinaraj**  
**Chairman**

Approved for issue  
Sd/-  
C R Satheeshchandran  
Secretary (i/c)