

# BEFORE THE HONOURABLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

**IN THE MATTER OF** : Petition on Proposals for revision of Cross subsidy Surcharge, in the purview of National Tariff Policy 2016, and imposing Additional Surcharge for open access consumers for the year 2016-17

**PETITIONER** : Kerala State Electricity Board Limited  
Vydyuthi Bhavanam, Pattom,  
Thiruvananthapuram - 695 004

The petitioner named above respectfully submits as under:

## **1. BACKGROUND**

- 1.1 Kerala State Electricity Board Limited is the state utility appointed for carrying out the business of Generation, Transmission and Distribution of electricity in the State of Kerala.
- 1.2 KSEB Ltd has been granting approval to the embedded open access consumers for purchase and sale of power through open access as per Kerala Intra State open Access Regulations 2013. Accordingly, the embedded open access consumers are now buying considerable quantum of power from outside the State through open access. The open access customers has availed about 142.00 MU from outside the State of Kerala through open access in 2015-16 and about 119.45 MU this year up to July 2016.
- 1.3 KSEB Ltd has however, tied up power through long term as well as medium term contracts, considering the overall growth of demand of all consumers in the State including the growth in demand of the embedded open access consumers. This has resulted in stranded generation capacity and under recovery of fixed cost due to the absence of additional surcharge imposed by the Honourable commission in the State. At present there is no cross subsidy surcharge for the HT & EHT consumers. This has resulted in considerable financial loss to KSEBL, on account of:
  - I The absence of cross subsidy component that could have been recovered from these consumers when they avail power through open access.
  - II The under recovery of fixed charges, to be paid by KSEBL, for the stranded capacity due to open access by its consumers.
- 1.4 In exercise of the powers conferred by section 181 of the Electricity Act, 2003, and all other powers enabling it in this behalf Kerala State Electricity Regulatory Commission notified the Kerala State Electricity Regulatory Commission (Connectivity and Intrastate Open Access) Regulations, 2013,

herein after called “Regulations 2013”. As per Section 40 of KSERC Regulations, 2013, if open access facility is availed of by a subsidizing consumer of a distribution licensee of the State, then such consumer, shall, pay cross subsidy surcharge as determined by the Commission. Cross subsidy surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access. The amount of surcharge shall be paid to the respective distribution licensee of the area of supply from whom the consumer was availing supply before seeking open access.

1.5 As per Section 41 of Regulations, 2013, an open access customer shall also pay to the distribution licensee an additional surcharge on the charges of wheeling, in addition to wheeling charges and surcharge, to meet the fixed cost of such distribution licensee arising out of his obligation to supply, as provided under sub-section (4) of section 42 of the Act.

1.6 National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers. Section 8.5 of National Tariff Policy 2016 stipulates that:

*“A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross subsidy surcharge. SERCs may calculate the cost of supply of electricity by the distribution licensee to consumers of the applicable class as aggregate of :*

- (a) Per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation;*
- (b) Transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC;*
- (c) Transmission, distribution and wheeling charges up to the relevant voltage level; and*
- (d) Per unit cost of carrying regulatory assets, if applicable”.*

1.7 KSEBL had filed the ARR & ERC and Tariff petition for the year 2014-15 on 14-05-2014, before the Hon’ble Commission. Subsequently proposals for revision of Transmission charges, Wheeling charges and introduction of Cross subsidy surcharge and Additional surcharge, to be levied on Open Access consumers were also submitted. Regulation-38 of Kerala State Electricity Regulatory Commission (Connectivity and Intrastate Open Access) Regulations, 2013, clearly specifies that all the open access consumers shall pay transmission charges, wheeling and other charges as approved by the Hon’ble Commission. However, the said regulations do not specify the procedures for determining cross subsidy surcharge and additional surcharge. Therefore, KSEBL had estimated the transmission charges and wheeling charges for the year 2014-15 based on the methodology approved by the Hon’ble Commission for the year 2013-14 for determining the transmission and wheeling charges.

1.8 Proposals of KSEB Ltd for the year 2014-15 were as follows.

- |                              |                    |
|------------------------------|--------------------|
| i. Transmission charges      | - Rs 0.38 per unit |
| ii. Wheeling charges         | - Rs 0.95 per unit |
| iii. Cross subsidy surcharge |                    |
| 1. EHT- 66 kV                | - Rs 1.82 per unit |
| 2. EHT- 110 kV               | - Rs 1.72 per unit |
| 3. Railways                  | - Rs 1.88 per unit |
| 4. HT-1(A) Industrial        | - Rs 1.57 per unit |
| 5. HT-1(B) Industrial        | - Rs 1.87 per unit |
| 6. HT-IV commercial          | - Rs 4.27 per unit |
| iv. Additional surcharge     | - Rs 1.12 per unit |

1.9 However, Hon'ble Commission vide order dated 30-09-2014 approved the transmission charges, wheeling charges, cross subsidy surcharge payable by open access consumers as given in **Annexure I**. As per this, no cross subsidy charge was approved for EHT consumers on 66 kV, 110 kV, 220 kV, Railways, HT-1 Industry (A), HT III Agriculture (A), Agriculture (B) and HT V Domestic.

1.10 While approving the cross subsidy charges for the year 2014-15, Honourable Commission adopted the procedure specified in the National Tariff policy 2006 for the determination of cross subsidy surcharges.

1.11 Honourable Commission had not approved the additional surcharge stating that the additional surcharge for each consumer shall be determined as per the procedure in Regulation 41 Regulations 2013, on submission of details by the licensee within 15 days of receipt of application from a consumer for open access. The Commission will consider such applications as and when received and will take appropriate decisions.

1.12 Subsequently, Government of India vide resolution dated, the 28th January, 2016 has notified the revised Tariff policy, in exercise of powers conferred under section 3(3) of Electricity Act, 2003, wherein the computation of cross subsidy surcharge has been revised as per the **Surcharge formula**:

$$S = T - [C / (1 - L / 100) + D + R]$$

*Where S is the surcharge*

*T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation*

*C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation*

*D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level*

*L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level*

*R is the per unit cost of carrying regulatory assets.*

*Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access”.*

- 1.13 In the light of the New Tariff policy issued by Government of India and the financial loss to be borne by it, KSEBL requests before the Honourable Commission to revise the fixed earlier cross subsidy surcharge (detailed under Table 1 above) and to impose additional surcharge, to open access consumers.
- 1.14 The present petition is filed by KSEBL before the Honourable Commission under Kerala State Electricity Regulatory Commission (Connectivity and Intrastate Open Access) Regulations, 2013 and National Tariff policy, 2016.

## **2 Legal framework and Regulatory Development**

The relevant provisions of Electricity Act 2003, Policies of Government of India and KSERC regulations on open access are given below.

### **2.1 Electricity Act 2003:**

Section 42 (2) of the Electricity Act 2003 provides following provisions wherein the powers have been given to State Commissions for specifying cross subsidy surcharge.

*“The State Commission shall introduce open access in such phases and subject to such conditions, (including the cross subsidies, and other operational constraints) as may be specified within one year of the appointed date by it and in specifying the extent of open access in successive phases and in determining the charges for wheeling, it shall have due regard to all relevant factors including such cross subsidies, and other operational constraints:*

*Provided that such open access shall be allowed on payment of a surcharge in addition to the charges for wheeling as may be determined by the State Commission:*

*Provided further that such surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee:*

*Provided also that such surcharge and cross subsidies shall be progressively reduced in the manner as may be specified by the State Commission:*

*Provided also that such surcharge shall not be leviable in case open access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use:*

*to provide non-discriminatory open access to its transmission system for use by-*

- (i) any licensee or generating company on payment of the transmission charges; or*
- (ii) any consumer as and when such open access is provided by the State Commission under sub-section (2) of section 42, on payment of the transmission charges and a surcharge thereon, as may be specified by the State Commission:*

*Provided that such surcharge shall be utilised for the purpose of meeting the requirement of current level cross-subsidy:*

*Provided further that such surcharge and cross subsidies shall be progressively reduced in the manner as may be specified by the State Commission:*

*Provided also that the manner of payment and utilisation of the surcharge shall be specified by the State Commission:*

Further, Section 42 (4) of the Act provides following provisions related to 'Additional Surcharge'.

*"Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply."*

## 2.2 National Tariff policy 2016

Section 8.5 of the National Tariff Policy provides following provisions that deal with calculation of cross subsidy surcharge and applicability of additional surcharge to be paid by open access consumers.

*National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers who are permitted open access should not be so onerous that it eliminates competition which is intended to be fostered in generation and supply of power directly to the consumers through open access. A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross subsidy surcharge. The computation of cross subsidy surcharge, therefore, needs to be done in a manner that while it compensates the distribution licensee, it does not constrain introduction of competition through open access. A consumer would avail of open access only if the payment of all the charges leads to a benefit to him. While the interest of distribution licensee needs to be protected it would be essential that this provision of the Act, which requires the open access to be introduced in a time-bound manner, is used to bring about competition in the larger interest of consumers. SERCs may calculate the cost of supply of electricity by the distribution licensee to consumers of the applicable class as aggregate of*

- (a) Per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation;*
- (b) Transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC;*
- (c) Transmission, distribution and wheeling charges up to the relevant voltage level; and*
- (d) Per unit cost of carrying regulatory assets, if applicable.*

*Surcharge formula:  $S = T - [C / (1 - L / 100) + D + R]$*

*Where S is the surcharge T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation,*

*C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation,*

*D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level,*

*L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level*

*R is the per unit cost of carrying regulatory assets.*

*Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.*

*8.5.4 The additional surcharge for obligation to supply as per section 42(4) of the Act should become applicable only if it is conclusively demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.*

### 2.3 Kerala State Electricity Regulatory Commission (Connectivity and Intra-state Open Access) Regulations, 2013

Section 40 of the KSERC(Connectivity and Intrastate Open Access ) Regulations ,2013 states that

*“40. Cross subsidy surcharge - (1) If open access facility is availed of by a subsidising consumer of a distribution licensee of the State, then such consumer, shall, in addition to transmission and/or wheeling charges, pay cross subsidy surcharge as determined by the Commission.”*

*2) Cross subsidy surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access.*

*(3) The amount of surcharge shall be paid to the distribution licensee of the area of supply from whom the consumer was availing supply before seeking open access”*

Further Section 41 of the of the KSERC(Connectivity and Intrastate Open Access ) Regulations ,2013 states that

*“41. Additional surcharge - (1) An open access customer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge on the charges of wheeling, in addition to wheeling charges and surcharge, to meet the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of section 42 of the Act.*

*(2) The additional surcharge for obligation to supply shall become applicable only if it is conclusively demonstrated that the obligation of the licensee in terms of existing power purchase commitments has been and continues to be stranded or there is unavoidable obligation and incidence to bear fixed costs consequent to such a contract”.*

### 2.4 Hon'ble Supreme Court in case of SESA Sterlite Vs OERC & Ors (2014) SCC 444 held as under:

*“25. The issue of open access surcharge is very crucial and implementation of the provision of open access depends on judicious*

*determination of surcharge by the State Commissions. There are two aspects to the concept of surcharge one, the cross-subsidy surcharge i.e. the surcharge meant to take care of the requirements of current levels of cross-subsidy, and the other, the additional surcharge to meet the fixed cost of the distribution licensee arising out of his obligation to supply. The presumption normally is that generally the bulk consumers would avail of open access, who also pay at relatively higher rates. As such, their exit would necessarily have adverse effect on the finances of the existing licensee, primarily on two counts - one, on its ability to cross subsidise the vulnerable sections of society and the other, in terms of recovery of the fixed cost such licensee might have incurred as part of his obligation to supply electricity to that consumer on demand (stranded costs). The mechanism of surcharge is meant to compensate the licensee for both these aspects.”*

### **3 Need for cross subsidy and additional surcharge**

- 3.1 Open access consumers, draw power through open access whenever the price in the short-term market is less than their prevailing tariff. Hence KSEBL cannot forecast the exact quantum of energy wheeled by them. They draw power on a day-ahead basis. This has jeopardized the power purchase plan of the utility substantially. KSEBL is forced to surrender power contracted on long term basis at lower cost. This results in revenue loss which ultimately burdens the other consumers.
- 3.2 During rainy season (June to November every year), energy demand in the State is usually less by 15 to 20% comparatively. KSEBL is constrained to schedule about 750 to 800 MW from run-off the river plants, continuously to minimize the spill. Since the variable cost of generation from hydel is practically nil, KSEBL has been taking all efforts to maximize the generation from the run-off the river hydel plants during this season. KSEBL has a total hydel generation capacity of 2042 MW. About 1471 MW power is available from Central Generating Stations (CGS) during monsoon months. Tariff for CGS comprises of fixed cost and variable cost. As per the power purchase agreement (PPA) entered with the CGS, KSEBL is liable to pay fixed cost to the CGS. It is further submitted that, as per the merit order principle, KSEBL has to surrender/ under schedule electricity from the sources having highest variable cost during low demand period/ contingencies. However, generators are not allowed to surrender/reschedule, if the surrender/reschedule results in operating the stations below the technical minimum, i.e., less than 70% of the capacity of the individual units. Hence KSEBL has to surrender power, purchased from various sources.
- 3.3 KSEBL has entered into long term contract for about 1315 MW for a period of 25 years and entered into medium term contract with traders for about 400 MW upto February 2017, in order to meet the energy demand in the State considering the overall growth of demand in the state including that of the consumers availing open access.
- 3.4 When open access consumers do not avail power from the KSEBL, a part of the power tied up by the utility remains idle. As per the Power Supply Agreement (PSA) entered into with the traders, KSEBL has to pay the fixed charges in the event of non-scheduling of power for the stranded capacity arising out of opportunistic behavior of consumers availing open access.

These liabilities due to the stranded capacity arising out as a result of energy availed through open access, would be loaded in the retail tariff of general consumers who are not the beneficiaries of open access, in the absence of imposing additional surcharge. Thus in order to circumvent the above mentioned circumstances wherein the burden of fixed cost is affecting the viability and sustainability of the operation of the KSEBL, which ultimately affects adversely to the end consumers buying power from utility, it would be appropriate that an additional surcharge may be determined and made applicable to the respective consumers.

- 3.5 Since the cost of power in short term market is low at present (around Rs 2 per unit), many consumers opt for open access. This situation is expected to prevail until December 2016. Because of this issue, KSEBL will be forced to surrender more power. Further, KSEBL cannot utilise this power available at low cost for the benefit of general consumers.
- 3.6 During the year 2015-16, 12 consumers had opted for open access. These consumers had availed 142.00 MU from outside through open access by these consumers. KSEBL suffered a revenue loss of Rs 35.94 crore due to the non recovery of cross subsidy component as a result of availing of energy by embedded open access consumers. In addition to this, KSEB Ltd had surrendered 123.76 MU against the power availed through open access, out of the total surrendered power of 297 MU during the financial year 2015-16. The fixed cost commitment due to surrendered power amounts to about 16.13 crore. The month wise details of energy surrendered, its fixed cost commitment on non-scheduling of power due to the open access by embedded of consumers and the revenue loss to KSEB Ltd is given in **Annexure II**.
- 3.7 At present, 14 consumers are availing energy from outside through open access. The month wise details of energy surrendered, its fixed cost commitment on non-scheduling of power due to the opportunistic behavior of consumers availing open access, the financial loss incurred to the utility during the year 2016-17 up to July is given in the table below.

Table 1 Financial loss to the utility due to impact of open access during 2016-17				
Month	Energy drawn by consumers through open access in MU	Energy surrendered by KSEBL in MU	Fixed cost Penalty for surrendering power (in Rs crore)	Revenue loss suffered by KSEBL (in Rs crore)
Apr-16	11.33	4.43	0.48	4.22
May-16	31.90	19.16	2.63	10.37
June-16	38.80	38.80	6.63	9.03
July-16	37.42	37.42	6.09	8.70
Total	119.45	99.81	15.83	33.79

- 3.8 Therefore, the behavior of open access consumers exploiting the favorable situation at the cost of KSEBL, ultimately burdens the other consumers double fold.



- As open access customers are high end consumers, the reduction in energy sale increases the cross subsidy burden of KSEBL and tariff rise to other consumers.
- The fixed cost commitment corresponding to the surrendered but contracted power against open access gets passed on to the public.

#### 4 Proposals for Cross subsidy surcharge and Additional Surcharge for Open Access consumers.

##### 4.1 Cross subsidy Surcharge payable by the open access consumers

4.1.1 The Cross subsidy surcharge calculated based on the formula given National Tariff Policy, 2016 which is depicted in para 1.13 of this petition. The weighted average cost of power purchase anticipated for the year 2016-17 is Rs 2.74 per unit. The details of weighted average cost of power purchase are enclosed as **Annexure III**. The anticipated system loss upto EHT level and HT level is around 4% and 8.75 % respectively for the FY 2016-17. As per the approved Tariff vide order dated 14.08.2014, and the anticipated loss for the year 2016-17, the cross subsidy surcharge proposed for various categories is given in **Annexure IV**.

Table 2 Proposed Cross subsidy surcharge payable by the open access consumers

Category	Cross Subsidy Surcharge applicable (\$)
	(Rs/ kWh)
EHT- Industrial 66 kV	1.16
EHT- Industrial 110 kV	1.12
EHT- Industrial 220 kV	1.59
EHT General	1.60
HT-1(A) Industrial	1.27
HT1(B) Industrial	1.50
HT II General(A)	1.34
HT II General(B)	1.67
HT III Agriculture (A)	1.26
HT III Agriculture (B)	0.70
HT-IV commercial	1.86
HT V Domestic	1.55

##### 4.2 Additional surcharge

KSEBL submit the following for the kind consideration of the Hon'ble Commission.

4.2.1 Under the universal supply obligation, KSEBL is obligated to supply power to the consumers. In order to meet the demand KSEBL have to make long term Power Purchase Agreements (PPAs) with the generators and transmission licensees so as to ensure the supply of power keeping in view the annual increase in the load envisaged. While contracting energy through long term PPAs, KSEBL have to bear certain financial obligations and therefore have to bear the minimal/fixed cost even when there is no off take of energy through such sources.

4.2.2 Whenever any consumer opts for open access and takes intermittent supply

through open access, KSEBL have to continue to pay fixed charges to their contracted generating stations. However, KSEBL cannot recover such fixed cost obligation from the open access consumers. This leads to the situation where KSEBL is saddled with the stranded cost on account of the universal supply obligation.

- 4.2.3 During the year 2015-16 twelve embedded consumers of KSEBL had drawn power through open access where as in 2016-17 fourteen consumers had availed this facility. In 2015-16, the total open access drawal was 142.00 MU and this year (2016-17) it is 119.45 MU up to July 2016. Correspondingly, KSEBL had to surrender 123.76 MU and 99.81 MU in these years. The unrecovered fixed charge that had to be paid by KSEBL to its suppliers was Rs.16.13 crore and Rs.15.83 crore. These amounts could not be recovered through normal billing. Therefore there is a loss sustained by KSEBL on account of Open Access benefit provided to the respective consumers. *The Hon Commission may compensate the loss by allowing additional surcharge to be levied from them.* The details of month wise and consumer wise open access drawal, energy surrendered and loss cost for the above two years are given in **Annexure V and VI.**
- 4.2.4 The details of the energy availability for the year 2016-17 are enclosed as **Annexure VII.**
- 4.2.5 Details of 14 consumers who are availing energy from outside through open access are included as **Annexure VIII.**
- 4.2.6 It may please be noted that demand estimated within the State is also inclusive of the consumption by open access customers. The power procurement plan of KSEBL is fixed on the basis of the requirement assessed for the year as a whole. The purchase of power by open access consumers from Exchanges is increasing daily due to the relatively short prices in short term markets. As a result KSEBL has to surrender power, leading to financial losses to the utility which ultimately affects adversely to the consumers who are not enjoying the benefits of open access.
- 4.2.7 As stated earlier, at present, the open access consumers generally avail the open access facility on a day ahead basis as and when the energy prices in the short-term market is less than the prevailing tariff. Considering the number of Open Access consumers and the fluctuation of their open access energy drawal, the computation of stranded cost incurred by KSEBL due to the universal supply obligation would be very difficult on case to case basis. Since the quantum of power surrendered everyday due to open access is not uniform, power surrendered everyday is not from a specific plant and therefore the fixed cost associated is also different. Hence computation of Additional Surcharge on case to case basis is much complicated. Further, there are changes in energy requirement due to the seasonal variation. This fact should also be accounted for, during the computation of Additional Surcharge. However, KSEBL has made calculations for the year 2015-16 and 2016-17 based on actual open access and surrender and proportionate rates are arrived for each consumer, as submitted above in Annexures V & VI.
- 4.2.8 The cost of power is of the order of around Rs 2 per unit in power exchanges and this is expected to continue for the remaining period of the financial year. As a result, more and more consumers may opt for open access. It is

expected that the present level of open access scenario in the State is expected to continue till December.

4.2.9 Methodology adopted for the calculation is as below:

- Consumer wise surrender on monthly basis was taken from the data.
- Source wise corresponding surrender of power from each station against open access was taken from the data.
- For the year 2015-16 the effective fixed cost of each station was calculated based on the actual fixed charges of each station during the year 2015-16 and the energy received from the corresponding station. For the 2016-17 the effective fixed cost of each station was arrived on the basis of annual fixed charges of each station for the year 2016-17 and the energy expected to be availed at the Kerala periphery at normative plant availability factor.
- Proportionate total fixed cost commitment of each consumer is then calculated based on the quantum of power that had to be surrendered, from each source, due to open access by that consumer.

4.2.10 It is submitted that the Hon'ble Commission may kindly permit KSEBL to recover this stranded cost by way of Additional Surcharge envisaged under Regulation 41 of Kerala State Electricity Regulatory Commission (Connectivity and Intra-state Open Access) Regulations 2013. Calculation of additional surcharge for the year 2016-17 has been done for the period up to July 2016 only. The Hon'ble Commission may kindly allow KSEBL to submit the details for the remaining period based on the actuals.

### Prayer

In view of the above, it is most respectfully prayed that Honourable Commission may be pleased to:

- (a) Admit the petition for determination of cross subsidy surcharge and additional surcharge payable by open access consumers availing power through open access.
- (b) Allow the cross subsidy surcharge as specified in the table 2 above in compliance with National Tariff Policy 2016
- (c) Allow the additional surcharge as detailed under **Annexure V and VI**, consumer wise, for the year 2015-16 and for the period from April to July 2016.
- (d) May pass such further orders as this Honourable Commission may deem just and proper in the circumstances of the case.

Chief Engineer (Commercial & Tariff)

## Annexure I

Transmission charges, wheeling charges and cross subsidy charges for the year 2014-15

Particulars	Transmission charges	Wheeling charges	Cross subsidy charges	Total
	(Rs/ kWh)	(Rs/ kWh)	(Rs/ kWh)	(Rs/ kWh)
EHT- 66 kV	0.26		0.00	0.26
EHT- 110 kV	0.26		0.00	0.26
EHT- 220 kV	0.26		0.00	0.26
EHT General	0.26		1.80	2.06
EHT Commercial	0.26		2.10	2.36
Railways	0.26		0.00	0.26
HT-1 Industry(A)	0.26	0.32	0.00	0.58
HT-1 Industry(B)	0.26	0.32	0.50	1.08
HT-II General(A)	0.26	0.32	0.10	0.68
HT-II General(B)	0.26	0.32	1.80	2.38
HT III Agriculture (A)	0.26	0.32	0.00	0.58
HT III Agriculture (B)	0.26	0.32	0.00	0.58
HT-IV Commercial	0.26	0.32	2.30	2.88
HT V Domestic	0.26	0.32	0.00	0.58

## Annexure II

### Financial loss to the utility due to impact of open access during 2015-16

Month	Monthly energy availed by consumers through open access in MU	Energy surrendered in MU against open access	Fixed cost commitment against surrendering (Rs in lakhs)	Revenue loss due to energy availed by consumers through open access (Rs in crores)
Apr-15	2.48	0.004428	0.07	1.18
May-15	5.74	5.7440075	92.19	1.43
Jun-15	15.39	15.3878675	204.16	3.83
Jul-15	12.37	12.3670175	190.92	3.09
Aug-15	2.67	0.001298	0.02	0.66
Sep-15	3.15	0.437759	6.52	0.78
Oct-15	3.66	3.661325	58.84	0.91
Nov-15	11.17	11.16724	165.58	2.79
Dec-15	18.68	18.684665	240.39	4.66
Jan-16	22.24	22.2425375	280.59	5.54
Feb-16	27.00	27.00387	320.66	6.72
Mar-16	17.45	7.062103	53.26	4.34
	142.00	123.764118	1613.19	35.94

### Annexure III

#### Weighted average cost of power purchase for the year 2016-17

Particulars	2016-17	
	Quantity in MU	Amount (in Rs crore)
Generation		
Hydel	7058.73	
Thermal		
BDPP	5.33	3.62
KDPP	34.22	24.8
Wind	7.07	
Solar	15.78	
Sub Total Generation	7121.12	28.41
Power Purchase		
Central Generating Stations	10052.73	3342.71
Wind and other IPPS	138.12	44.75
Traders		
LTA		
Maithon I	1004.3	374.38
Maithon II	785.8	301.35
DVC Mejia	678.49	278.47
DVC RTPS	297.73	134.58
Power Purchase through DBFOO	976.12	369.37
Subtotal	3742.44	1458.16
Traders MTOA		
PTC Balco	653.19	231.67
NVVN	1998.21	909.13
Simhapuri	380.74	202.24
Sub total	3032.14	1343.04
Purchase of 200 MW Power through M/s PTC Ltd for the month of march 2017 on short term basis	145.62	49.6
Purchase of 100 MW Power contracted through M/s PTC Ltd for the month of May 2016	29.3	9.25
Power Purchase from exchanges and through DSM	209.31	62.79
Solar purchase from Kasargod solar park	37.35	21.36
Power Purchase from RGCCPP	15.23	309.29
Power Purchase from BSES	0	31.9
Sub Total Power Purchase	17402.24	6672.86
Renewable Energy Certificate Purchase already done		15
Transmission charges		
CGS		359.97
Traders		142.52
RGCCPP		8.22
Transmission charges under the transmission system associated with "North East-Northern/ Western Interconnector project		18.09
Subtotal transmission charges		528.8
Total Generation and Power Purchase	24523.36	7245.07
Considering the power generation of KSEB ltd also as purchase of Discom		
<b>Weighted average cost of power purchase excluding transmission charges</b>		<b>Rs 2.74 per unit</b>

**Annexure IV**

**Proposed cross subsidy surcharge for the year 2016-17**

Category	Category wise tariff (order dated 16.08.2014)	Weighted average cost of power purchase (C)	System Losses 'L'	Transmission charges/ Wheeling charges (D)	Regulatory Asset(R)	$F = C / (1 - L/100) + D + R$	Surcharge $S = T - F$	20% of tariff	Surcharge applicable (S)
	(Rs/ kWh)	(Rs/ kWh)	(%)	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)	(Rs/ kWh)	(Rs/ kWh)	(Rs/ kWh)
EHT- Industrial 66 kV	5.80	2.74	4.00	0.26	0	3.11	2.68	1.16	1.16
EHT- Industrial 110 kV	5.62	2.74	4.00	0.26	0	3.11	2.51	1.12	1.12
EHT- Industrial 220 kV	7.93	2.74	4.00	0.26	0	3.11	4.82	1.59	1.59
EHT General	8.02	2.74	4.00	0.26	0	3.11	4.91	1.60	1.60
HT-1(A) Industrial	6.34	2.74	8.75	0.58	0	3.58	2.76	1.27	1.27
HT1(B) Industrial	7.50	2.74	8.75	0.58	0	3.58	3.92	1.50	1.50
HT II General(A)	6.70	2.74	8.75	0.58	0	3.58	3.11	1.34	1.34
HT II General(B)	8.37	2.74	8.75	0.58	0	3.58	4.78	1.67	1.67
HT III Agriculture (A)	6.29	2.74	8.75	0.58	0	3.58	2.71	1.26	1.26
HT III Agriculture (B)	4.30	2.74	8.75	0.58	0	3.58	0.72	0.86	0.72
HT-IV commercial	9.31	2.74	8.75	0.58	0	3.58	5.73	1.86	1.86
HT V Domestic	7.73	2.74	8.75	0.58	0	3.58	4.14	1.55	1.55

**Annexure -VII**  
**Availability of power during 2016-17**

<b>Hydro</b>	<b>Power Station</b>	<b>Capacity in MW</b>
	Kuttiyadi + KES+KAES	225.00
	Sholayar	54.00
	Poringalkuthu	36.00
	PLBE	16.00
	Pallivassal	37.50
	Sengulam	48.00
	Panniar	32.00
	Neriamangalam+NES	77.50
	Sabarigiri	340.00
	Idukki	780.00
	Idamalayar	75.00
	Lower periyar	180.00
	Kakkad	50.00
	Kallada	15.00
	Peppara	3.00
	Madupetty	2.00
	Malampuzha	2.50
	Chembukadavu I +II	6.45
	Urumi I + II	6.15
	Malankara	10.50
	Lower Meenmutty	3.50
	Kuttiady tail race	3.75
	Poozhithode	4.80
	Ranni -perunadu	4.00
	Peechi	1.25
Vilangad	7.50	
Chimmini	2.50	
Adian para	3.50	
Barapole	15.00	
<b>Hydel Total</b>	<b>2042.40</b>	
<b>Central Generating Stations</b>	<b>Name of the Station</b>	<b>Allocated Capacity to KSEB (MW)</b>
	TALCHER - Stage II	427.20
	NLC- Exp- Stage-1	68.80
	NLC-II- Stage-1	63.32
	NLC-II- Stage-2	90.47
	RSPTS Stage I & II	246.33
	RSTPS Stage III	61.35
	MAPS	23.10
	KAIGA Stg I	38.32
	KAIGA Stg II	35.42
	Simhadri Exp	90.80
	Kudamkulam	133.00
	NLC - II Exp	70.00
	Vallur JV with	50.55
	NTPL(Tuticorin JV)	72.50
Sub Total	1471.15	
<b>Power contracted through traders on MTOA basis and LTA basis</b>	<b>Source</b>	<b>Capacity contracted in MW</b>
	Maithon Power Ltd (LTA)	150
	Maithon Power Ltd (LTA)	150
	DVC Mejia	100
	DVC RTPS	50
	Jindal (DBFOO)	200
	PTC BALCO( through Case I bidding)(upto Feb 2017) on MTOA basis	100
	NVVN ( through Case I bidding)(upto Feb 2017) on MTOA basis	300
Sub Total	1050	
<b>Total capacity available during 2016-17</b>		<b>4564</b>



**Annexure VIII**  
**Details of embedded consumers availing open access during 2016-17**

Sl No.	Consumer	OA-Type Intra/Inter State	Voltage Level	Quantum of power requested (MW)
1	English Indian Clay Ltd.VELI	Inter-State	11kV	1.5
2	English Indian Clay Ltd. Pothencode	Inter-State	11kV	1.5
3	MRF Limited, Kottayam	Inter-State	110kV	7
4	ApolloTyres Ltd., Perambra	Inter-State	66kV	7.5
5	Hindustan Newsprint Ltd. Newsprint Nagar, Kottayam-686616, Kerala	Inter-State	110kV	18
6	Premier Tyres Ltd., (Consumer No.4/438) Kalamassery	Inter-State	66kV	3
7	Indsil Electrosmelts Ltd.,Palakkad	Inter-State	66kV	10
8	The Kerala Minerals and Metals Ltd. Chavara	Inter-State	110kV	7
9	Carborandum Universal Ltd., Koratty	Inter-State	110kV	6.75
10	Carborandum Universal Ltd., Kalamassery	Inter-State	66kV	13.5
11	FCI OEN Connectors Ltd. Mulanthuruthy	Inter-State	11kV	2
12	Kaypee Metals and Alloys Private Ltd. Kollam	Inter-State	11kV	2.8
13	Patspin India ltd,Palakkad	Inter-State	110kV	3.5
14	M/s. Hindalco Industries Limited,	Inter-State	110kV	1.5
				85.55

**Annexure V Page 1**

**Calculation of Additional surcharge to be recovered from consumers of KSEBL who have drawn power by Open Access during the year 2015-16**

Sl No	Consumer	Month	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	TOTAL MU	Total FC to be recovered as Additional Surcharge, consumer wise Rs Lakhs
1	Carborundum Universal Ltd, Koratty	Open Access MU	0.58	1.39	3.17	2.45	0.61	0.51	0.68	2.18	2.78	3.30	3.60	2.21	23.46	
		Fixed Cost Rs lakhs	0.02	22.26	42.04	37.89	0.00	1.06	10.86	32.30	35.73	41.60	42.70	6.74		
2	Carborundum Universal Ltd, Kalamassery	Open Access MU	0.79	1.64	3.92	2.32	0.62	0.63	0.97	2.86	3.76	3.89	4.36	2.98	28.74	
		Fixed Cost Rs lakhs	0.02	26.27	52.05	35.89	0.00	1.30	15.51	42.38	48.39	49.03	51.76	9.09		
3	Hindustan Newsprint Ltd Kottayam	Open Access MU	0.65	1.34	3.55	2.93	0.35	0.59	0.49	2.20	3.53	3.79	5.13	3.14	27.69	
		Fixed Cost Rs lakhs	0.02	21.48	47.03	45.24	0.00	1.21	7.90	32.57	45.42	47.74	60.91	9.59		
4	Apollo Tyres Ltd, Perambra, Chalakkudy	Open Access MU	0.45	0.94	2.16	2.40	0.63	0.79	0.87	2.50	3.36	3.26	4.00	2.51	23.87	
		Fixed Cost Rs lakhs	0.01	15.13	28.66	37.00	0.00	1.64	14.00	37.11	43.20	41.11	47.54	7.67		
5	EICL Limited Veli Thiruvanthapuram	Open Access MU	0.10	0.12	0.43	0.15	0.04	0.05	0.02	0.14	0.34	0.49	0.57	0.33	2.78	
		Fixed Cost Rs lakhs	0.00	1.85	5.67	2.30	0.00	0.10	0.27	2.08	4.37	6.14	6.72	1.02		
6	Premier Tyres Ltd, Kalamassery	Open Access MU	0.00	0.18	0.87	0.73	0.17	0.14	0.14	0.54	0.93	1.03	1.31	0.72	6.76	
		Fixed Cost Rs lakhs	0.00	2.94	11.51	11.26	0.00	0.29	2.30	8.00	11.96	12.93	15.60	2.20		

7	Indsil Electrosmelts Ltd Pallathery Palakkad	Open Access MU	0.00	0.14	0.94	1.23	0.20	0.39	0.48	0.61	0.22	0.00	0.36	0.70	5.27	
		Fixed Cost Rs lakhs	0.00	2.26	12.43	18.96	0.00	0.82	7.69	9.06	2.81	0.00	4.22	2.14		
8	EICL Limited Pothencode Thiruvananthapuram	Open Access MU	0.00	0.00	0.36	0.15	0.04	0.05	0.02	0.14	0.34	0.49	0.58	0.33	2.50	
		Fixed Cost Rs lakhs	0.00	0.00	4.76	2.38	0.00	0.10	0.32	2.08	4.37	6.16	6.86	1.02		
9	The Kerala Minerals and Metals Ltd Chavara	Open Access MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	3.77	4.38	2.45	14.03	
		Fixed Cost Rs lakhs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.14	47.52	51.95	7.47		
10	Patspin India Limited Kanjikode East Palakkad	Open Access MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	2.05	1.24	5.09	
		Fixed Cost Rs lakhs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.62	24.29	3.77		
11	FCI OEN Connectors Ltd Mulanthuruthy	Open Access MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.68	0.38	1.52	
		Fixed Cost Rs crore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.74	8.10	1.16		
12	MRF Limited Vadavathoor Kottayam	Open Access MU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	
		Fixed Cost Rs crore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39		
<b>Total Drawal by Open Access consumers</b>			2.57	5.75	15.40	12.36	2.66	3.15	3.67	11.17	18.69	22.28	27.02	17.45	142.17	
<b>Total FC commitment to be recovered as Additional Surcharge</b>															<b>1613.19</b>	

**Annexure V - Page 2**

**Calculation of Fixed cost commitment per month for year 2015-16**

Station	April			May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Grand Total	
	FC per unit	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender	Total FC	Surrender MU	Total FC
	Rs	MU	Rs in lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs	MU	Rs in Lakhs
RSTPS	0.60	0.00	0.00	0.00	0.00	2.41	14.54	0.37	2.21	0.00	0.00	0.03	0.19	0.01	0.04	0.50	3.03	3.56	21.48	3.84	23.14	6.34	38.22	2.29	13.78	19.35	116.65
RSTPS U7	0.87	0.00	0.00	0.00	0.00	0.90	7.84	0.36	3.16	0.00	0.01	0.00	0.01	0.00	0.01	0.08	0.67	0.38	3.30	0.66	5.81	0.72	6.25	0.33	2.84	3.42	29.90
NLC II/1	0.65	0.00	0.00	0.00	0.00	0.29	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	1.79	0.72	4.67	0.95	6.18	2.03	13.24	0.00	0.01	4.26	27.80
NLC II/2	0.68	0.00	0.00	0.00	0.00	0.46	3.11	0.00	0.00	0.00	0.00	0.02	0.15	0.00	0.02	0.50	3.35	1.18	7.98	0.70	4.70	0.71	4.78	0.04	0.25	3.60	24.33
NLC I EXP	1.40	0.00	0.00	0.00	0.00	0.21	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	3.47	1.29	18.07	2.95	41.37	0.25	3.46	4.94	69.25
TAL II	0.78	0.00	0.00	0.03	0.26	0.41	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.93	1.84	14.34	1.53	11.92	4.07	31.71	8.13	63.35
SIMHST2	1.51	0.00	0.07	0.00	0.00	1.81	27.38	1.87	28.22	0.00	0.01	0.00	0.01	0.00	0.00	1.34	20.26	2.70	40.80	1.16	17.57	0.65	9.76	0.07	1.12	9.61	145.20
IGSTPS	1.61	0.00	0.00	5.71	91.93	8.90	143.30	9.77	157.28	0.00	0.00	0.38	6.17	3.65	58.77	8.48	136.48	8.83	142.18	11.43	184.07	11.75	189.18	0.00	0.00	68.91	1109.36
VALLUR NTECL	1.78	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	1.95	0.03	0.61	0.00	0.06	0.00	0.01	0.15	2.70
KKNP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00
NLC2EXP	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.43	0.00	0.03	0.00	0.00	0.02	0.46
NTPL	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	12.62	0.32	5.67	0.33	5.83	0.00	0.06	1.36	24.20
Total MU/FC		0.00	0.07	5.74	92.19	15.39	204.16	12.37	190.92	0.00	0.02	0.44	6.52	3.66	58.84	11.17	165.58	18.68	240.39	22.24	280.59	27.00	320.66	7.06	53.26	123.76	1613.19
Average FC per unit		1.51		1.61		1.33		1.54		1.21		1.49		1.61		1.48		1.29		1.26		1.19		0.75			

**Annexure VI Page 1**

**Calculation of Fixed cost commitment per month for year 2016-17 up to July**

Station	April			May			Jun			Jul			Grand Total	
	FC per unit	Surrender	Total FC	FC per unit	Surrender	Total FC	FC per unit	Surrender	Total FC	FC per unit	Surrender	Total FC	Surrender	Total FC
	Rs	MU	Rs in lakhs	Rs	MU	Rs in Lakhs	Rs	MU	Rs in Lakhs	Rs	MU	Rs in Lakhs	MU	Rs in Lakhs
RSTPS	0.61	2.02	12.24	0.61	1.01	6.14	0.61	1.01	6.12	0.61	1.33	8.08	5.37	32.58
RSTPS U7	0.95	0.30	2.85	0.95	0.17	1.59	0.95	0.43	4.05	0.95	0.67	6.40	1.56	14.90
NLC II/1	0.60	0.00	0.02	0.60	1.79	10.80	0.60	1.67	10.09	0.60	1.81	10.96	5.27	31.88
NLC II/2	0.62	0.01	0.09	0.62	3.43	21.17	0.62	2.29	14.12	0.62	3.05	18.86	8.78	54.24
NLC I EXP	1.37	0.00	0.00	1.37	1.36	18.61	1.37	2.08	28.53	1.37	2.44	33.36	5.88	80.50
TAL II	0.80	0.29	2.30	0.80	0.68	5.45	0.80	0.00	0.00	0.80	0.05	0.41	1.02	8.16
SIMHST2	1.67	1.80	30.11	1.67	1.19	19.96	1.67	2.30	38.57	1.67	3.28	54.85	8.57	143.49
VALLURNTECL	1.74	0.00	0.00	1.74	0.00	0.00	1.74	0.02	0.32	1.74	0.04	0.73	0.06	1.06
NLC2EXP	2.21	0.01	0.16	2.21	0.00	0.00	2.21	0.09	1.89	2.21	0.10	2.30	0.20	4.35
NTPL	1.55	0.00	0.01	1.55	0.67	10.36	1.55	0.21	3.21	1.55	0.75	11.61	1.63	25.19
NVVN	1.91	0.00	0.00	1.91	8.86	169.30	1.91	26.90	513.88	1.91	20.66	394.61	56.43	1077.79
Jindal	2.74	0.00	0.00	2.74	0.00	0.00	2.74	1.22	33.33	2.74	1.34	36.64	2.55	69.96
Maithon	1.65	0.00	0.00	1.65	0.00	0.00	1.65	0.12	1.92	1.65	0.36	5.95	0.48	7.87
mejia	1.71	0.00	0.00	1.71	0.00	0.00	1.71	0.22	3.72	1.71	0.76	13.07	0.98	16.79
balco	1.38	0.00	0.00	1.38	0.00	0.00	1.38	0.25	3.49	1.38	0.77	10.59	1.02	14.08
Total MU/FC		4.43	47.79		19.16	263.38		38.80	663.25		37.42	608.41	99.81	1582.84
Average FC per unit	1.08			1.37			1.71			1.63			1.59	

**Annexure VI Page 2**

**Calculation of Additional surcharge to be recovered from consumers of KSEBL who have drawn power by Open Access during the year 2016-17**

Sl No	Consumer	Month	Apr-16	May-16	Jun-16	Jul-16	TOTAL MU	Total FC to be recovered as Additional Surcharge, consumer wise Rs Lakhs
1	Carborundum Universal Ltd, Koratty	Open Access MU	1.41	3.36	3.84	2.83	11.43	
		Fixed Cost Rs lakhs	5.94	27.71	65.59	45.94		145.19
2	Carborundum Universal Ltd, Kalamassery	Open Access MU	2.03	4.66	5.28	4.82	16.80	
		Fixed Cost Rs lakhs	8.58	38.49	90.27	78.41		215.75
3	Hindustan Newsprint Ltd Kottayam	Open Access MU	1.55	4.43	5.11	6.79	17.88	
		Fixed Cost Rs lakhs	6.53	36.59	87.31	110.46		240.90
4	Apollo Tyres Ltd, Perambra, Chalakkudy	Open Access MU	1.37	3.62	4.57	4.53	14.09	
		Fixed Cost Rs lakhs	5.78	29.88	78.12	73.69		187.47
5	EICL Limited Veli Thiruvanthapuram	Open Access MU	0.17	0.59	0.75	0.90	2.41	
		Fixed Cost Rs lakhs	0.71	4.85	12.80	14.67		33.02
6	Premier Tyres Ltd, Kalamassery	Open Access MU	0.46	1.22	1.41	1.43	4.53	
		Fixed Cost Rs lakhs	1.96	10.09	24.16	23.28		59.48
7	Indsil Electrosmelts Ltd Pallathery Palakkad	Open Access MU	0.55	3.49	4.28	3.50	11.82	
		Fixed Cost Rs lakhs	2.31	28.84	73.14	56.89		161.18
8	EICL Limited Pothencode Thiruvananthapuram	Open Access MU	0.16	0.57	0.75	0.90	2.38	
		Fixed Cost Rs lakhs	0.68	4.68	12.80	14.67		32.83
9	The Kerala Minerals and Metals Ltd Chavara	Open Access MU	1.56	3.83	4.82	3.33	13.53	
		Fixed Cost Rs lakhs	6.57	31.60	82.38	54.08		174.62

10	Patspin India Limited Kanjikode East Palakkad	Open Access MU	0.69	1.88	2.34	2.39	7.29	
		Fixed Cost Rs lakhs	2.89	15.54	39.98	38.78		97.20
11	FCI OEN Connectors Ltd Mulanthuruthy	Open Access MU	0.15	0.52	0.71	0.72	2.11	
		Fixed Cost Rs crore	0.65	4.30	12.16	11.75		28.85
12	MRF Limited Vadavathoor Kottayam	Open Access MU	1.12	3.03	3.76	3.96	11.87	
		Fixed Cost Rs lakhs	4.71	24.98	64.31	64.44		158.44
13	Hindalco Industries Ltd	Open Access MU	0.12	0.61	0.90	0.91	2.54	
		Fixed Cost Rs lakhs	0.49	5.05	15.36	14.82		35.72
14	Kaypee Metals and Alloys Ltd	Open Access MU	0.00	0.09	0.28	0.40	0.78	
		Fixed Cost Rs lakhs	0.00	0.78	4.86	6.54		12.19
	<b>Total Drawal by Open Access consumers</b>		11.33	31.90	38.80	37.42	119.45	
	<b>Total FC commitment to be recovered as Additional Surcharge</b>							<b>1582.84</b>