

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

PUBLIC NOTICE

**Sub : Draft Notification in the matter of Determination of Cross Subsidy
Surcharge under Intra-State Open Access**

Pursuant to the provisions of the KSERC (Terms and Conditions of Open Access) Regulation, 2005, the Commission determines the transmission charge, wheeling charge, standby charge and the Cross Subsidy Surcharge payable by any consumer opting for open access.

The Commission invites comments / suggestions from stakeholders on this draft notification latest by 25.02.20089. This draft notification is available on the Commission's website www.erckerala.org and can be downloaded. The Commission would take a view and decide on the matter after considering the suggestions of the stakeholders

(1) Section 42(2) of the Electricity Act, 2003 provides;

“ 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 extend 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 Commission.

Provided further that such surcharge shall be utilized 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 electricity “

(2) The Commission vide KSERC (Terms and conditions of open access) Regulations, 2005 allows all consumers with a power requirement of 1 MW and above to source their power from a supplier other than the distribution licensee, through open access. Such open access, however, can only be allowed to the user on payment of wheeling charges and cross subsidy surcharge.

(3) The para 2 of clause 8.5.1 of the Tariff Policy provides “ 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”

(4)The KSEB presently do file ARR on Generation, Transmission and Distribution expenses separately. Same is the case with other SEBs of most States in India. So, in order to distribute the wheeling expenses on the voltage

levels, the Commissions in India have adopted different methods, elaborated below :

The APERC required the Distribution Licensees to segregate their asset base (GFA) among the three voltage levels (33kV, 11kV and LT). The Licensees supplied this data to the Commission and the Commission used the respective asset value ratios (i.e. GFA at a voltage level / total GFA) to distribute the total costs of wheeling into the voltage levels;

The Rajasthan ERC (RERC) could not obtain the break-up of distribution GFA among the voltage levels, due to non-availability of such data with the Licensees. The Commission, therefore, determined the present cost of the asset base at each voltage level using the physical size of the network (i.e. ckt-km length of lines and number of substations) and multiplying the same with the present per unit cost data as available from the latest cost data book. The “present value” of the GFA so obtained at each voltage level was used to segregate the total wheeling costs among such voltage levels.

Approaches similar to the one adopted by APERC have been used by the Maharashtra ERC – i.e. segregation of the asset base into voltage levels (in case of REL, however, the segregation could only be done to the level of HT and LT, due to inadequacy of data.

(5) The present accounting practices of KSEB do not have the segregation of GFA among the voltage levels directly. The Commission, therefore, considers it appropriate to apply the method adopted by the APERC under the present circumstances with some modifications. This, however, is the dispensation permitted only for the year for which these charges are being determined. The Commission directs the Licensees to distribute their present GFA into voltage levels and report this data to the Commission in their next tariff filing.

(6) From the audited Annual Accounts for the year 2005-06 of KSEB ratio of the net fixed asset segregated to Generation, Transmission and Distribution Assets is adopted. To the expenses already segregated into Generation, Transmission and Distribution, expenses of Construction, Stores and Management and administration are added segregating based on the Asset ratio of Generation, Transmission and Distribution. Thus the total expenses are divided into Generation, Transmission and Distribution. This proportion is used to divide the Aggregate Revenue Requirement approved by the Commission for the year 2008-09 into Generation, Transmission and Distribution expenses (Annexure-I)

For the year 2008-09

I Transmission Charges (110 kV/66 kV)

(1) Rates in MW

Rate for long-term users	1,46,763.00	Rs/MW/Month
	4892.00	Rs/MW/Day
Rate for short-term users	1223.00	Rs/MW/Day

Rate payable by short-term users in case of uncongested transmission network, shall be as under:-

(a) Upto 6 Hours in a day in one block 1/4th of the rate for short term customers.

(b) More than 6 Hours and upto 12 Hours in a day in one block

½ of the rate for short-term customers

(c) More than 12 Hours and upto 24 Hours
in a day in one block
at full rate for short-term
customers:

(ii) Rates in kWh

Transmission Charge	32	Ps/Unit
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II Wheeling Charges (33/22/11 kV)

Wheeling Charges	24	Ps/Unit
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(7) The National Tariff Policy prescribes the following formulae for determination of cross-subsidy surcharge for various categories of consumers.

“8.5.1 Cross-subsidy surcharge and additional surcharge for open access

Surcharge formula :

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

Where

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power.”

D is the Wheeling charge

L is the system Losses for the applicable voltage level, expressed as a percentage

The first step in the determination of cross-subsidy surcharge is to work out the cost of marginal power purchase of top 5% power. As per the data of Tariff Order of FY 08-09, calculation is attached as per Annexure II

III Cross Subsidy Surcharge

EHT I = 0
EHT II = 0
HT I = 0
HT IV =53 Ps/Unit

IV Standby Charges

In case of outages of generator supplying to a consumer on open access , standby arrangements should be provided by KSEB on the payment of tariff applicable to that category of consumer as per tariff order in force (Both demand charge and energy charge).

Member(F)

Member(E)

Chairman

By Order of the Commission

Secretary (in charge)

Annexure-1**Transmission Charges and Wheeling Charges based on Approved ARR 2008-09**

Ratio of expenditure arrived at based on Audited Accounts for 2005-06

Accounting Year 2005-06

	Generation	Transmission	Distribution	Total
Expenditure (Rs Crore)	511.38	431.13	1137.41	
Percentage	24.59	20.73	54.69	

Approved ARR for 2008-09

(Rs Crore)

	Generation	Transmission	Distribution	Total
	584.91	493.12	1300.96	

Maximum Demand of System

2800.00 MW

I. Transmission Charges (110/66 kV Consumers)**a) Rates in MW**

i) Recoverable ARR Rs lakh 49312.39 Lakhs

ii) Average System Demand on the basis of
average of the daily peak

2800.00 MW

iii) Rate for long-term users Rs 49312 lakh/2800 MWx12

146763.07 Rs/MW/D

4892.10 Rs/MW/D

iv) Rate for short-term users Rs.1.46,763/- x0.25/30 1223.03 Rs/MW/D

v) Rate payable by short-term users in case of uncongested transmission network, shall be as under:-

(a) Upto 6 Hours in a day in one block 1/4th of the rate for shortterm customers.

(b) More than 6 Hours and upto 12 Hours in a day in one block
½ of the rate for short-term customers.

(c) More than 12 Hours and upto 24 Hours in a day in one block
at full rate for short-term customers:

b) Rates in kWh

Recoverable ARR for Transmission	Rs	49312.39	Lakhs
Energy in the System		16156.00	MU
Less trans loss 5%		15348.20	MU
Transmission Charge		32	Ps/Unit

II Wheeling Charges

(33kV/22kV/11kV) Consumers

i) Recoverable ARR for distribution Rs 130096.27 Lakhs
ii Energy carried in 33/22/11 kV System is Energy Generated and Power purchase less Energy Consumed by EHT Consumers inclusive of losses.

Energy Gen and Power Purchase	16156.00	MU	
Consumption of EHT Consumers	1024.49	MU	
EHT Loss at 5%	807.80	MU	
Energy carried by 33/22/11kV	14323.71	MU	
Less 7% Loss at 11 kV/22kV/33kV	13321.05	MU	
Recoverable ARR for 11kV/22kV/33kV is 25% of Distribution expenses.			(Assumption)
Recoverable ARR for 11/22/33 kV	32524.06811	Rs Lakhs	
Wheeling Charges	24	Ps/Unit	

Annexure II

Cross Subsidy Surcharge (2008-09)

Total Purchase	6224
5%	311.2

Marginal Purchases

Station	MU	Cost/Unit
Kaiga	247	3.61
MAPS	64.2	2.52

Weighted Average 3.39 Rs/kWh

Tariff of EHT Consumer 3.68 Rs/kWh

Tariff for HT consumer 3.57 Rs/kWh

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

S Surcharge

T tariff payable by relevant category of consumers

C Weighted average cost of power purchase of top 5% in margin

D wheeling Charge

L System Loss

Surcharge

EHT Consumer

EHT I

T = 3.68 Rs/Unit

C = 3.39 Rs/Unit

D= Wheeling Charge = 32 Ps/Unit

L = 5%

Surcharge -0.1995 Hence 0

EHT II

T = 3.57 Rs/Unit

C = 3.39 Rs/Unit

D= Wheeling Charge = 32 Ps/Unit

L = 5%

Surcharge -0.3095 Hence 0

HT Consumer

HT I

T = 3.93 Rs/Unit

C = 3.39 Rs/Unit

D= Wheeling Charge = 56 Ps/Unit

L = 12%

Surcharge -0.4268 Hence 0

HT IV

T = 4.89 Rs/Unit

C = 3.39 Rs/Unit

D= Wheeling Charge = 56 Ps/Unit

L = 12%

Surcharge 0.5332 Hence 53 Ps/Unit

