



Delhi Electricity Regulatory Commission
Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi – 17.

F.17(17)/Engg./DERC/2015-16/OA/Part File-1/5318/

In the Matter of: Determination of Open Access Charges and related matters

ORDER
(Date of Order: 01.06. 2017)

The Delhi Electricity Regulatory Commission in exercise of the powers vested under Regulation 12 and Regulation 17 of Delhi Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005 and complying with the conditions of previous publication i.e. analyzing the comments of the stakeholders hereby issues the following Order for determination of applicable charges for Open Access and related matters.

1. Applicable Charges for an Open Access Consumer

- (1) Where a consumer opting for Open Access, he shall be liable to pay:-
- a) Energy charges to the seller of electricity as per the contract entered into by him;
 - b) Wheeling charges, as applicable, to the distribution licensee in whose area he is located, at the rate fixed in the Tariff Order;
 - c) DTL Transmission charges, as applicable, payable to SLDC
 - d) Cross subsidy surcharge, as applicable, as determined by the Commission or the nodal agency, to the distribution licensee in whose area the consumer is located;
 - e) Additional surcharge, as applicable, to the distribution licensee in whose area the consumer is located;
 - f) Standby charges, as applicable, to the distribution licensee in whose area the consumer is located;
 - g) Scheduling and system operating charges to SLDC;
 - h) Reactive energy charges, as applicable, to the distribution licensee in whose area the consumer is located;;
 - i) Regulatory Surcharge to the distribution licensee;
 - j) Metering charges to the Licensee;
 - k) Any other charges not mentioned above, but covered by this Order and the detailed procedures drawn by SLDC for operationlization of Open Access in Delhi;

2. The aforesaid charges for Open Access shall be calculated and levied in the following manner:-

2.1 Transmission and Wheeling Charges:

- (1) The transmission charge for Open Access consumers availing Open Access from the Delhi Transco Limited's transmission system shall be regulated in terms of the

applicable provisions of Delhi Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2017.

- (2) The Wheeling charges leviable by the distribution licensees shall be in accordance with the charges determined by the Commission in the respective Tariff Orders.
- (3) The Transmission charges, wheeling charges shall be levied on the maximum Open Access quantum approved by the nodal agency in its conditional consent form ST-5B. The charges to the other States/PGCIL etc. for using Inter-State or Inter-regional links for Open Access shall also be payable extra by the Open Access consumers in accordance with the applicable regulations, rules/orders in this regard.
- (4) Wherever system strengthening/augmentation of distribution system is involved, any associated cost for this purpose shall be borne by the long term Open Access consumers.
- (5) The Wheeling charges shall be on year-to-year basis keeping in account the investments being made by the Licensee in the sector for meeting the load growth, AT&C loss reduction and improving the performance standards.

2.2. Cross Subsidy surcharge:

- (1) The Cross Subsidy Surcharge shall be based on the surcharge formula laid-down in Para 8.5 of the National Tariff Policy issued by the Government of India.
- (2) Since the tariff for each category of consumers is determined by the Commission on year-to-year basis, the surcharge shall also be on a year-to-year basis.
- (3) For the calculation of the surcharge, the losses shall be calculated based on average figures as projected in the respective Tariff Order and no ex-post-facto correction of the surcharges or the energy transactions based on the actual losses is permissible.
- (4) Keeping in view all the above points, it is felt that it shall be appropriate to determine the surcharge on annual basis by nodal agency on issuance of Tariff Order. The charges so determined shall be applicable from the date of applicability of the tariff schedule.
- (5) Based on the data available in Tariff Order for FY 2015-16 for the distribution Licensees issued by the Commission, the Commission has calculated the Cross Subsidy surcharge applicable to different class of consumers availing supply at different voltages/ along with assumptions as indicated in **Annexure – 1**. Accordingly, the charges indicated in **Annexure – 2** shall be payable by the Open Access consumers by way of Cross Subsidy surcharge in TPDDL, BRPL & BYPL areas, which shall be applicable from the date of issue of this Order. However, subsequently, the nodal agency shall compute Cross Subsidy Surcharge and shall display it on its website within one month of issue of Tariff Order.
- (6) Cross Subsidy Surcharge so determined on Per Unit basis shall be payable, by the Open Access Consumers based on the actual energy drawn through open

access, limited to a maximum of scheduled Open Access energy during that time block:

Provided that whenever the Cross Subsidy Surcharge so determined is negative, no Cross Subsidy Surcharge shall be payable by the Open Access Consumer:

Provided further that such Cross Subsidy Surcharge shall not be levied in case distribution access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use and on the Railways as defined in Indian Railways Act, 1989 being a deemed licensee, on electricity purchased for its own consumption.

2.3. Additional Surcharge:

- (1) An Open Access consumer, 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 cross-subsidy surcharge, to meet out 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) This additional surcharge shall become applicable only if the obligation of the licensee in terms of 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. However, the fixed costs related to network assets would be recovered through wheeling charges.
- (3) Additional surcharge determined on Per Unit basis shall be payable, by the Open Access consumer on actual energy drawn through Open Access, limited to a maximum of scheduled Open Access energy during that time block:

Provided that such additional surcharges shall not be levied in case Open Access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.

- (4) It is noted that the Licensees have surplus power during all months of the year. However, based on actual demand and availability, additional power is required to be purchased during some time blocks. It is noted that during the months of May to September, such additional power purchased is higher than other months. As the allocation of power purchase is not linked with the tariff category of consumers, the embedded consumers of the Licensees are bearing the average fixed cost of power purchase. If a consumer is opting for Open Access, it means a liability corresponding to average fixed cost is to be borne. Accordingly, the Commission has determined additional surcharge as average fixed cost per unit for respective distribution licensees based on the projections given in the Tariff Order for the months from October-April. The additional surcharge during the months of May to September has been kept 50% (fifty percent) of average fixed cost per unit.
- (5) The additional surcharge for respective distribution licensees shall be payable as per **Annexure-3**.

2.4. Charges for Standby Power:

- (1) In the event of non-availability of power supply due to any reason including outage of generator supplying the Open Access consumer, non-clearance of bid on power exchange, it shall be duty of the distribution licensee to provide power to such Open Access consumers and the Open Access shall pay tariff for temporary connection to that category of consumer for the energy over and above admissible drawl as specified in applicable tariff schedule:

Provided that open access consumers shall have the option to arrange standby power from any other source:

Provided further that standby power from any other source shall be scheduled, as early as possible, latest by 00hrs. of the day, after giving the notice to the distribution licensee.

- (2) The arrangement for standby power supply by distribution licensee shall be subject to load shedding as is applicable to the embedded consumers of the distribution licensee.

2.5. Regulatory Surcharge:

- (1) The Open Access consumer shall also be liable to pay regulatory surcharge at the rate specified in the applicable Tariff Order.
- (2) For the purpose of computation of Regulatory Surcharge, the distribution licensee shall compute the Regulatory Surcharge treating the total power consumption of the Open Access Consumer as if taken from the distribution licensee.

2.6. Scheduling and System Operative Charge :

The Open Access Consumer shall pay scheduling and system operating charges to SLDC at the rate Rs. 1000/- per day/part of the day or the rate fixed by the Commission from time-to-time.

2.7. Reactive Energy Charge:

The Open Access Consumer shall pay charge for reactive energy on the actual reactive energy recorded by the meter, to the distribution licensee in whose area, the consumer is located at the rate @ 13 Ps/kVARh. This rate shall be escalated at 0.5paise/kVARh per year thereafter w.e.f. 1st April of the current financial year, unless otherwise revised by the Commission.

2.8. Metering Charges:

- (1) In case the main meter is installed by the Licensee, the Licensee shall be entitled to recover the actual cost of the meter:

Provided that an amount of Rs. 50,000/- may be charged from the applicant before procurement of Availability Based Tariff (ABT) compliant meter with Automatic Meter Reading (AMR) facility. This amount shall be adjusted in the actual cost of the meter.

- (2) The applicant shall also pay Rs.20,000/- towards installation and testing of meter.
- (3) The open access consumer shall also be liable to Rs.2500/- per visit towards data downloading of Energy Meter.

3. Settlement of Deviation between scheduled energy and actual energy:

3.1 Settlement of Energy at drawl point:-

(1) Admissible Drawl of Electricity by Open Access Consumer from the distribution licensee:

The quantum of drawl of electricity by an open access consumer from the distribution licensee during any time block of a day should not exceed the "Admissible Drawl of Electricity by Open Access Consumer" which is the difference of contract demand and maximum quantum of open access for which approval has been granted by Nodal Agency.

[Illustration: If an Open Access Consumer with a contract demand of 10 MW has been given an approval for a maximum Open Access quantum of 6MW for a period of 3 months, the Admissible Drawl of Electricity from distribution licensee during any time block shall be 4 MW for any day during a period of 3 months.]

(2) Over-drawl by an Open Access Consumer shall be settled as under:

- (i) Fixed Charges on Admissible Drawl of Electricity by Open Access Consumer from the distribution licensee.
- (ii) Energy Charges corresponding to excess drawl above 'scheduled Open Access Quantum' limited to "Admissible Drawl of Electricity by open access consumer", at applicable distribution licensee's energy charge rates.
- (iii) Temporary Charges on any drawl above the sum total of "Scheduled Open Access quantum" and "Admissible Drawl of Electricity by Open Access Consumer".

(Illustrations of Computation are given at **Annexure-4**)

- (3) In case of under-drawl with respect to scheduled energy, open access consumer shall not be paid any charges by the Distribution Licensee.
- (4) Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time shall not be applicable for settlement at drawl point.
- (5) The Nodal Agency shall upload the slot wise Open Access schedule on its website which shall be used by the distribution licensee for preparation of the bill wherever applicable.

3.2 Settlement of Deviation at Injection Point:

Deviation between the schedule and the actual injection in respect of Open Access taken by a Generating company/ Seller shall be settled as per the applicable Central Electricity Regulatory Commission (Deviation Settlement

Mechanism and related matters) Regulations, 2014 as amended from time to time.

4. Payment of statutory levies/taxes by Open Access Consumers:

- (1) Any tax/ duty levied by the Delhi Government or Central Government or any other statutory body shall be payable by the Open access consumers.
- (2) The same shall be levied by the licensee on the bill raised as per its applicability.

5. Temporary Tariff:

- (1) The temporary tariff applicable to open access consumer shall be the energy charges for temporary supply as determined by the Commission in its applicable Tariff Order.
- (2) In case temporary tariff is more than 125 percent of energy charge of that category, the temporary tariff shall be restricted to 125 percent of energy charges for that category.

6. Quantum of Renewable Purchase Obligation (RPO):

- (1) Open Access consumer shall fulfill its RPO as per Delhi Electricity Regulatory Commission (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012 as amended from time to time.
- (2) Wheeling, Transmission and Additional surcharge shall not be applicable on Open Access Consumers availing energy from all renewable energy sources within or outside Delhi. Open Access consumer receiving electricity from renewable energy sources shall be exempted from the cross subsidy surcharge to the extent of RPO:

Provided that the generators using renewable energy sources shall certify that no REC/RPO claim for this power has been made.

- (3) No banking facility shall be provided for supply of electricity from renewable energy sources through Open Access.

7. Compensation:

- (1) In case Open Access Consumer is not able to draw power, due to failure of distribution system, the Open Access consumer shall be compensated for scheduled Open Access quantum at the lowest of the two, viz (i) average rate at which power is procured by open access customer; (ii) applicable tariff for that category. In such cases, open access consumer shall provide details of procurement of power alongwith rates:

Provided that Open Access consumer shall file his claim before the distribution Licensee and the distribution Licensee shall settle the claims within 30 days of its receipt:

Provided further that the Open Access Consumer not satisfied with the settlement of claim, may approach the Nodal Agency.

- (2) In case the Distribution Licensee fails to adhere to the timelines specified for providing Open Access, the Distribution Licensee shall be liable to pay a compensation of Rs. 1000 per day of default to the Open Access consumer. The Open Access consumer shall file his claim to Nodal Agency.
- (3) The Nodal Agency after hearing the parties shall give a reasoned speaking order, within 30 days of filing of a claim by the Open Access Consumer.

8. Procedure for settlement of grievances:

- (1) The Open Access consumer shall file his grievance to the Nodal Agency under Regulation 16(1) of the Delhi Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005:

Provided that before filing the grievance to the Nodal Agency, the Open Access Consumer shall approach the distribution licensee for redressal of his grievances.

- (2) If the grievance is against the distribution licensee, the nodal agency shall seek the comments from the distribution licensee within seven days of receipt of grievance.
- (3) The distribution licensee shall submit their comments within seven days of receipt of communication from the Nodal Agency.
- (4) The Nodal Agency after hearing both the parties shall issue order for disposal of the grievance within thirty days of receipt of the complaint.
- (5) In case the Nodal Agency feels that for redressal of the grievance or complaint or dispute, requires adjudication from the Commission, the Nodal Agency shall refer the matter to the Commission with all relevant document and a brief for adjudication under Regulation 16(2) of the Delhi Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005:

Provided that in case the Open Access Consumer is not satisfied with the Order of the Nodal Agency, he may request the nodal agency to refer the matter to the Commission for adjudication.

9. Violation of Provisions of the Regulations or the Order by the Open Access Consumer:

- (1) The Open Access consumer shall adhere to provisions of Regulations and the Order.
- (2) The distribution licensee shall report all such cases of violation of the provisions of Regulations or the Order to the nodal agency alongwith all relevant data of violation such as actual meter reading.
- (3) If in the opinion of Nodal Agency, any Open Access Consumer is involved in violation of the provisions of Regulations or the Order, the Nodal Agency shall

give a 7 days notice to the Open Access Consumer within the receipt of such information.

- (4) The Open Access Consumer shall file his reply within 7 days of receiving the notice.
- (5) The Nodal Agency shall grant an opportunity of hearing within 5 days of receiving the reply from the Open Access Consumer.
- (6) The Nodal Agency shall issue a speaking Order within 30 days from the receipt of information and if the violation is established for first time, the nodal agency shall direct the Open Access consumer for taking necessary steps to avoid gaming.
- (7) In case the Open Access consumer is not satisfied with the Order of nodal agency, he may request the nodal agency to refer the matter to the Commission for adjudication.
- (8) In case of establishment of subsequent violation within three months of occurrence of first violation, the approval for grant of Open Access for a period of maximum of one month may be cancelled:

Provided that the Nodal Agency shall indicate the date of cancellation of Open Access in its speaking order.

- (9) During the period of cancellation, total energy consumed by the Open Access consumer shall be billed at normal tariff by the distribution licensee. In addition to this, the cost of procurement of power from Open Access shall be borne by the Open Access Consumer and no compensation for such cost shall be provided.

10. General Terms:

- (1) An illustration for computation of charges is at **Annexure-5**. The Distribution Licensee may devise their own format.
- (2) It is further clarified that no Cross Subsidy Surcharge shall be payable in cases specifically exempted from payment of Cross Subsidy surcharge by the provisions of the Electricity Act, 2003 and the Tariff Policy of Government of India.
- (3) All the charges except distribution charges (Distribution Licensee's wheeling charges, cross subsidy surcharge, additional surcharge, reactive energy charge etc.) in first instance will be collected by SLDC directly or through RLDC/Exchange. The Transmission Charges as received by SLDC shall be remitted to STU within 15 days of its receipt by SLDC.
- (4) The total amount received against of the charges from Short Term Open Access consumer by the Transmission Licensee shall be adjusted towards reduction in the transmission service charges payable by the beneficiaries, unless specified otherwise in other Regulations notified by the Commission.
- (5) The distribution licensee shall not provide supply of electricity to any Open Access consumer by resorting to load shedding of electric supply to its existing consumers.

- (6) All the utilities are further directed to furnish details of Open Access transactions, available capacity for Open Access etc. on their websites, in the formats devised by SLDC and approved by the Commission.
- (7) This order shall be read in conjunction with the Delhi Electricity Regulatory Commission (terms and conditions for Open Access) Regulations, 2005 or as amended and as per the procedures drawn by nodal agency for operationalisation of Open Access in Delhi.
- (8) Any dispute arising on account of Open Access transactions shall be dealt with in accordance with the Open Access Regulations issued by the Commission.
- (9) The Annexures of Order shall form integral part of this Order.
- (10) The words and expressions occurring in this Order and not explained or defined hereinabove shall have the same meaning assigned to them in the Open Access Regulations issued by the Commission or the Electricity Act, 2003 as the case may be.
- (11) The charges decided by this Order would be applicable from the date of issue of the Order and shall remain in force till revised.
- (12) The guidelines for operationalisation and implementation of Open Access in Delhi are enclosed at Annexure A and B. However, in case, if any provision of guidelines is at variance with this order, the provisions of this Order shall prevail.

11. Repeal and Savings:

- (1) Save as otherwise provided in this Order, the Commission's Order dated 24.12.2013, 18.5.2015 and 9.12.2015, shall cease to have effect from the date of notification of this Order.
- (2) Notwithstanding such repeal, anything done or purported to have been done under the repealed Orders shall be deemed to have been done or purported to have been done under this Order.

Sd/-
(B.P. SINGH)
MEMBER

Assumptions for computation of Cross Subsidy and Additional Surcharge

- 1) 'T' is the average tariff in paisa per unit for various consumer categories as per Average Billing Rate (ABR) specified in Tariff Order.
- 2) 'C' is the weighted average cost of power purchase in paisa per unit as specified in the tariff Order
- 3) 'D' is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level
- 4) 'L' is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level
- 5) 'R' is the per unit cost of carrying regulatory assets computed based on approval of projected carrying cost divided by projected sales approved in Tariff Order.
- 6) Wherever the surcharge works out to be negative, it shall be limited to zero.
- 7) Additional Surcharge in Rs. Per unit has been computed based on the projections of fixed cost and corresponding power purchase approved by the Commission for BRPL, BYPL & TPDDL in its Tariff Order for FY 2015-16.

Cross subsidy surcharge approved by the Commission

Computation of Cross Subsidy Surcharge

Cross Subsidy Surcharge Formula= $T-[C/(1-L/100)+D+R]$

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.

$X= C/(1-L/100)$

Tata Power Delhi Distribution Limited (TPDDL)

Summary

(Paisa/kWh)

Voltage Level	Industrial	Non-Domestic	Domestic	Railway	DMRC	DJB
	Final restricted to 20%	Final restricted to 20%	Final restricted to 20%		Final restricted to 20%	Final restricted to 20%
Above 66kV level	165.20	206.00	-	Exempted as per revised National Tariff Policy	48.78	182.20
At 33/66kV level	165.20	206.00	-		42.39	182.20
At 11kV level	165.20	206.00	-		27.22	182.20
At LT level	154.40	206.00	-		9.40	182.20

Detail

(Paisa/kwh)

Voltage Level	X	X+D	X+D+R	Industrial		Non- Domestic		Domestic	
				As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				826		1030		555	
Above 66kV level	425.71	594.63	632.22	193.78	165.20	397.78	206.00	(77.22)	-
At 33/66kV level	431.10	601.02	638.61	187.39	165.20	391.39	206.00	(83.61)	-
At 11kV level	443.27	616.18	653.78	172.22	165.20	376.22	206.00	(98.78)	-
At LT level	456.09	634.00	671.60	154.40	154.40	358.40	206.00	(116.60)	-

Voltage Level	X	X+D	X+D+R	Railway		DMRC		DJB	
				As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				845		681		911	
Above 66kV level	425.71	594.63	632.22	212.78	-	48.78	48.78	278.78	182.20
At 33/ 66kV level	431.10	601.02	638.61	206.39	-	42.39	42.39	272.39	182.20
At 11kV level	443.27	616.18	653.78	191.22	-	27.22	27.22	257.22	182.20
At LT level	456.09	634.00	671.60	173.40	-	9.40	9.40	239.40	182.20

Values of constants:-

L (%)

Sl. No.	Voltage Level	Transmission Loss (%)	Distribution Loss (%)	Total Loss 'L' (%)	Reference
1	2	3	4	$5=4+3-(4*3/100)$	6
1	Loss above 66kV level	3.22	0	3.22	Table 5.11 of TO 15-16 for distribution loss. Weighted average of transmission loss as per Table 4.28
2	Loss at 33/ 66kV level	3.22	1.25	4.43	
3	Loss at 11kV level	3.22	3.96	7.05	
4	Loss at LT level	3.22	6.66	9.67	

D

Sl. No.	Voltage Level	Transmission Charges (Paisa/kWh)	Wheeling Charges (Paisa/kWh)	Total Loss 'D' (Paisa/kWh)	Reference
1	2	3	4	$5=4+3$	6
1	Above 66kV level	102.92	66	168.92	Table 5.14 of TO 15-16 for wheeling charges. Transmission charges per kWh=Table 4.26 for total transmission charges / Table 4.28 for energy sales
2	At 33/ 66kV level	102.92	67	169.92	
3	At 11kV level	102.92	70	172.92	
4	At LT level	102.92	75	177.92	

R

Sl. No.	Description	Unit	Value	Reference
1	Carrying cost approved in Tariff Order	Rs. Crore	300.3	Table 4.67 of TO 2015-16
2	Projected sales approved	MU	7987.9	Table 4.7 of TO 2015-16
3	Carrying Cost per unit	Paisa /kWh	37.59	3=(1/2)x1000

Description	Value (Paisa per unit)	Reference
C	412	Table 4.22 of TO 2015-16

BSES Rajdhani Power Limited (BRPL)

Summary

(Paisa/kWh)

Voltage Level	Industrial	Non-Domestic	Domestic	Railway	DMRC	DJB	DIAL
	Final restricted to 20%	Final restricted to 20%	Final restricted to 20%	Final restricted to 20%			
Above 66kV level	167.60	196.00	13.47	Exempted as per revised National Tariff Policy	39.47	183.60	166.00
At 33/66kV level	167.60	196.00	-		-	183.60	165.15
At 11kV level	166.83	196.00	-		-	183.60	158.83
At LT level	118.20	196.00	-		-	183.60	110.20

Detail

(Paisa/kWh)

Voltage Level				Industrial		Non- Domestic		Domestic	
	X	X+D	X+D+R	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				838		980		611	
Above 66kV level	462.24	555.35	597.53	240.47	167.60	382.47	196.00	13.47	13.47
At 33/66kV level	468.56	622.67	664.85	173.15	167.60	315.15	196.00	(53.85)	-
At 11kV level	472.88	628.99	671.17	166.83	166.83	308.83	196.00	(60.17)	-
At LT level	514.51	677.62	719.80	118.20	118.20	260.20	196.00	(108.80)	-

Voltage Level	X	X+D	X+D+R	Railway		DMRC		DJB		DIAL	
				As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				833		637		918		830	
Above 66kV level	462.24	555.35	597.53	235.47	-	39.47	39.47	320.47	183.60	232.47	166.00
At 33/ 66kV level	468.56	622.67	664.85	168.15	-	(27.85)	-	253.15	183.60	165.15	165.15
At 11kV level	472.88	628.99	671.17	161.83	-	(34.17)	-	246.83	183.60	158.83	158.83
At LT level	514.51	677.62	719.80	113.20	-	(82.80)	-	198.20	183.60	110.20	110.20

Values of constants:-

L (%)

Sl. No.	Voltage Level	Transmission Loss (%)	Distribution Loss (%)	Total Loss 'L' (%)	Reference
1	2	3	4	5=4+3-(4*3/100)	6
1	Loss above 66kV level	3.08	0	3.08	Table 5.11 of TO 15-16 for distribution loss. Weighted average of transmission loss as per Table 4.27
2	Loss at 33/ 66kV level	3.08	1.35	4.39	
3	Loss at 11kV level	3.08	2.25	5.26	
4	Loss at LT level	3.08	10.16	12.93	

D

Sl. No.	Voltage Level	Transmission Charges (Paisa/kWh)	Wheeling Charges (Paisa/kWh)	Total Loss 'D' (Paisa/kWh)	Reference
1	2	3	4	5=4+3	6
1	Above 66kV level	93.11	0	93.11	Table 5.14 of TO 15-16 for wheeling charges. Transmission charges per kWh=Table 4.25 for total transmission charges / Table 4.27 for energy sales
2	At 33/ 66kV level	93.11	61	154.11	
3	At 11kV level	93.11	63	156.11	
4	At LT level	93.11	70	163.11	

R

Sl. No.	Description	Unit	Value	Reference
1	Carrying cost approved in Tariff Order	Rs. Crore	450.61	Table 4.62 of TO 2015-16
2	Projected sales approved	MU	10683.07	Table 4.6 of TO 2015-16
3	Carrying Cost per unit	Paisa /kWh	42.18	3=(1/2)x1000

Description	Value (Paisa per unit)	Reference
C	448	Table 4.18 of TO 2015-16

BSES Yamuna Power Limited (BYPL)

Summary

(Unit –paisa/kwh)

Voltage level	Industrial	Non-Domestic	Domestic	Railway	DMRC	DJB	DIAL
	Final restricted to 20%	Final restricted to 20%	Final restricted to 20%		Final restricted to 20%	Final restricted to 20%	Final restricted to 20%
Above 66kV level	175.00	199.60	-	Exempted as per the revised National Tariff Policy	82.92	187.60	-
At 33/66kV level	175.00	199.60	-		5.43	187.60	-
At 11kV level	175.00	199.60	-		0.07	187.60	-
At LT level	175.00	199.60	-		-	187.60	-

Detail

(Unit –paisa/kwh)

Voltage Level	X	X+D	X+D+R	Industrial		Non- Domestic		Domestic	
				As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				875		998		543	
Above 66kV level	384.83	497.89	546.08	328.92	175.00	451.92	199.60	(3.08)	-
At 33/66kV level	388.33	575.38	623.57	251.43	175.00	374.43	199.60	(80.57)	-
At 11kV level	392.69	580.74	628.93	246.07	175.00	369.07	199.60	(85.93)	-
At LT level	438.50	637.56	685.75	189.25	175.00	312.25	199.60	(142.75)	-

Voltage Level	X	X+D	X+D+R	Railway		DMRC		DJB		DIAL	
				As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%	As per Formula	Final restricted to 20%
				0		629		938		0	
Above 66kV level	384.83	497.89	546.08	(546.08)	-	82.92	82.92	391.92	187.60	(546.08)	-
At 33/66kV level	388.33	575.38	623.57	(623.57)	-	5.43	5.43	314.43	187.60	(623.57)	-
At 11kV level	392.69	580.74	628.93	(628.93)	-	0.07	0.07	309.07	187.60	(628.93)	-
At LT level	438.50	637.56	685.75	(685.75)	-	(56.75)	-	252.25	187.60	(685.75)	-

Values of constants:-

L (%)

Sl. No.	Voltage Level	Transmission Loss (%)	Distribution Loss (%)	Total Loss 'L' (%)	Reference
1	2	3	4	5=4+3-(4*3/100)	6
1	Loss above 66kV level	3.33	0	3.33	Table 5.11 of TO 15-16 for distribution loss. Weighted average of transmission loss as per Table 4.28
2	Loss at 33/ 66kV level	3.33	0.90	4.20	
3	Loss at 11kV level	3.33	2.00	5.27	
4	Loss at LT level	3.33	12.24	15.17	

D

Sl. No.	Voltage Level	Transmission Charges (Paisa/kWh)	Wheeling Charges (Paisa/kWh)	Total Loss 'D' (Paisa/kWh)	Reference
1	2	3	4	5=4+3	6
1	Above 66kV level	113.06	0	113.06	Table 5.14:of TO 15-16 for wheeling charges. Transmission charges per kWh=Table 4.26 for total transmission charges / Table 4.28 for energy sales
2	At 33/ 66kV level	113.06	74	187.05	
3	At 11kV level	113.06	75	188.05	
4	At LT level	113.06	86	199.05	

R

Sl. No.	Description	Unit	Value	Reference
1	Carrying cost approved in Tariff Order	Rs. Crore	271.23	Table 4.62 of TO 2015-16
2	Projected sales approved	MU	5628.52	Table 5.10 of TO 2015-16
3	Carrying Cost per unit	Paisa /kWh	48.19	3=(1/2)x1000

Description	Value (Paisa per unit)	Reference
C	372	Table 4.19 of TO 2015-16

Additional Surcharge

Sl. No.	Description	Power Purchase (MUs)	Fixed Cost (Rs. Crore)	Fixed cost Rs. per unit	Additional Surcharge (Paisa per unit)	
					October-April	May-September
1	TPDDL	10731.41	1538.17	1.43	143	71.5
2	BRPL	12859.55	1862.14	1.45	145	72.5
3	BYPL	8895.33	1091.43	1.23	123	61.5

Illustration of computation of charges for imbalance

Contract Demand = 10 MW

Approval for a maximum open access quantum of 7 MW for a period of 3 months

Slot-wise calculation for distribution licensee billing shall be done as under:

- (i) Fixed Charges Admissible Drawl of Electricity by open access consumer from the distribution licensee i.e. for 3MW (10-7).
- (ii) Energy charges including temporary charges shall be recovered by the distribution licensee, under the following cases as given:

Case-1

- (i) Contract Demand = 10MW
 - (ii) Approval for a maximum open access quantum of 7 MW for a period of 3 months
 - (iii) Scheduled Open Access Quantum for the day is 6 MW during 0-12hrs, 5MW during 12-24 hours
 - (iv) Admissible Drawl of Electricity from Distribution Licensee works out = 3MW (10-7)
 - (v) Actual drawl by OA consumer= 4 MW
- Distribution licensee will levy only fixed charges corresponding to 3MW. No energy charges and temporary charges shall be levied since the actual drawl of energy is within the limit of scheduled energy.

Case-2

- (i) Contract Demand = 10MW
 - (ii) Approval for a maximum open access quantum of 7 MW for a period of 3 months
 - (iii) Scheduled Open Access Quantum for the day is 6 MW during 0-12hrs, 5MW during 12-24 hours
 - (iv) Admissible Drawl of Electricity from Distribution Licensee works out = 3MW (10-7)
 - (v) Actual drawl OA consumer = 8 MW
- Distribution licensee will levy fixed charges corresponding to 3MW. Energy of 2 MW during 0-12 hrs and 3 MW during 12-24 hrs will be charged at applicable distribution licensee's energy charge rates as the excess energy above scheduled energy is within the "Admissible Drawl of Electricity by open access consumer".

Case-3

- (i) Contract Demand = 10MW
 - (ii) Approval for a maximum open access quantum of 7 MW for a period of 3 months
 - (iii) Scheduled Open Access Quantum for the day is 6 MW during 0-12hrs, 5MW during 12-24 hours
 - (iv) Admissible Drawl of Electricity from Distribution Licensee works out = 3MW (10-7)
 - (v) Actual drawl OA consumer= 8.5 MW
- Distribution licensee will levy fixed charges corresponding to 3MW. Energy of 2.5 MW during 0-12 hrs and 3 MW during 12-24 hrs at applicable distribution licensee's energy charge rates, as this excess energy above scheduled energy is within the "Admissible Drawl of Electricity by open access consumer" and additional 0.5 MW during 12-24 hrs at temporary tariff, as this energy is above "Admissible Drawl of Electricity by open access consumer".

Case-4

- (i) Contract Demand = 10MW
- (ii) Approval for a maximum open access quantum of 7 MW for a period of 3 months

- (iii) Scheduled Open Access Quantum for the day is 6 MW during 0-12hrs, 5MW during 12-24 hours
- (iv) Admissible Drawl of Electricity from Distribution Licensee works out = 3MW (10-7)
- (v) Actual drawl OA consumer= 11 MW*

Distribution licensee will levy fixed charges corresponding to 3MW. Additional fixed charges @ 125% of normal rate for additional load i.e 1MW (11-10) shall also be levied by distribution licensee. Energy of 3 MW during 0-24 hrs. at applicable distribution licensee's energy charge rates as this excess energy above scheduled energy is within the "Admissible Drawl of Electricity by open access consumer" and additional Energy of 2 MW during 0-12 hrs and 3 MW during 12-24 hrs at temporary tariff, as this energy is above "Admissible Drawl of Electricity by open access consumer".

[Note: - * In case maximum demand recorded by the meter is more than contract demand, the open access consumer shall also pay additional fixed charges @ 125% of normal rate for additional load.]

Sample computation of charges to be paid by Industrial Open Access consumer in the area of BRPL

									Unit	Value		
1	Contract Demand of industrial consumer with the Licensee at 11kV									MW	5	
2	Open Access granted n conditional consent by SLDC, Delhi in form ST-5B									MW	3	
3	Admissible drawl of Electricity from the distribution Licensee in any time block									MW	2	
4	Maximum demand recorded by meter									MW	7	
5	Reactive energy recorded by meter									KVAh	80000	
4	Number of days in month									days	30	
5	Pattern for energy scheduled and consumption for one day which is considered constant for 30 days.											
	Time Block	Schedule approved by the nodal agency (MW)	Schedule approved at consumer periphery (MW)	Schedule approved at consumer periphery (MWh)	Actual Energy recorded by Meter (MW)	Actual Energy recorded by Meter (MWh)	Deviation (MWh)	Admissible drawl allowed (MWh)	Overdrawl above schedule but within admissible drawl (MWh)	Overdrawl above admissible drawl (MWh)	Energy qualified for additional surcharge and cross subsidy surcharge (MWh)	
A	B	C	D=Cx (1-applicable losses%)	E=DxHrs.	F	G	H=G-E	I=Admissible drawlx Hrs	J=Lower of (H,I), If negative then zero	K=(H-I), if negative then zero	L=Lower of(E,G)	
(i)	00:00Hrs-6:00Hrs	2	1.95	11.7	1.5	9	-2.7	12	0	0	9	
(ii)	6:00Hrs- 12:00Hrs	3	2.925	17.55	7	42	24.45	12	12	12.45	17.55	
(iii)	12:00Hrs- 18:00Hrs	1	0.975	5.85	2	12	6.15	12	6.15	0	5.85	
(iv)	18:00 Hrs.-00:00Hrs	0	0	0	0.5	3	3	12	3	0	0	
(v)	Total			35.1		66			21.15	12.45	32.4	
6	Open Access charges payable by the consumer:-											
		Per Unit Cost	Unit of measureme	Value	Total (Rs.)	Remarks						
		A		B	C=AxB	Computation of 'A'	Computation of 'B'					
(i)	Wheeling Charges (Rs./kWh)	0.63	kWh	2160000	1360800	As per Tariff Order	(Conditional consent in Form 5B in (MW)xNumber of days in a monthx24 Hrs in a dayx1000) =(3x30x24x1000)					
(ii)	Additional Surcharge (Rs./kWh)	1.45	kWh	972000	1409400	As determined*	(Sum total of column L of above table in (MWh)xNumber of days in a monthx1000) =(32.4x30x1000)					
(iii)	Cross Subsidy Surcharge (Rs./kWh)	1.676	kWh	972000	1629072	As applicable						
(iv)	Reactive Energy Charge (Rs./kVAh)	0.13	kVARh	80000	10400	As applicable	Actual recorded by the meter in the month					
(v)	Meter Reading Charges	1	Per Visit	2500	2500		Charges per visit					
(vi)	Sub-Total (Rs.) [(i)+(ii)+(iii)+(iv)+(v)]				4412172							
(vii)	Fixed Charges (Rs./kVA/month)	125		2000	250000	As per Tariff Order	(Fixed Charges as per Tariff categoryxAdmissible drawl in (MW)x1000 =(125x2x1000)					
(viii)	Energy Charges (Rs./kVAh)	7.4	kWh	634500	4695300	As per Tariff Order	(Sum total of column J of above table in (MWh)xNumber of days in a monthx1000)					
(ix)	Additional Fixed charges (Rs./kVA/month) for overdrawl beyond contract demand	156.25		2000	312500	(Fixed Charges as per Tariff categoryx 125%) =(125x125%)	(Maximum demand (if above contract demand)recorded by meter- contract demand in (MW))x1000 =(125x125%x(7-5)x1000)					
(x)	Temporary Tariff (Rs./kVAh)	9.25		373500	3454875	(Energy Charges as per Tariff categoryx 125%) =(7.4x125%)	(Sum total of column K of above table in (MWh)xNumber of days in a monthx1000) =(12.45x30x1000)					
(x)	PPAC				0							
(xi)	Regulatory Surcharge	8%		15602000	1248160	As per Tariff Order	Fixed charges corresponding to contract demand/MDI whichever is higher + energy charges corresponding to total energy consumed = {(125x5000+125x130%x2000)+7.4x66x30x1000}					
(xii)	Electricity Tax	5%				As applicable						
(xiii)	Sub Total [(vii)+(viii)+(ix)+(x)+(xi)+(xii)]				9960835							
(xiv)	Total				14373007							
Note	Rebate/ subsidy as per ToD Tariff shall be extra for consumption above scheduled energy											
	Unity Power factor is considered for above computation											
		Per Unit Cost	Unit of measureme nt	Value	Total (Rs.)							
(xv)	Transmission Charges	0.2519	kWh	2160000	544104	As applicable	(Conditional consent in Form 5B in (MW)xNumber of days in a monthx24 Hrs in a dayx1000)					
(xvi)	SLDC Operating charges	1000	No. of days	30	30000	As applicable	No. of days in a month for scheduling					
Note: The computation of deviation of energy at point no.5 shall be done for each time block.							* By the Commission for the relevant period.					