

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
CHANDIGARH**

**Present: Ms. Romila Dubey, Chairperson.
Er. Virinder Singh, Member.
Er. Gurinderjit Singh, Member.**

Order No. PSERC/Secy/Reg/56

Dated: 29.06.2011

In the matter of

Punjab State Electricity Regulatory Commission (Terms and Conditions for
Intra-state Open Access) Regulations, 2011.

Statement of Reasons

1. Introduction

- 1.1 The Punjab State Electricity Regulatory Commission (Commission) notified its Open Access (OA) Regulations, 2005 vide Notification dated 9th August, 2005. These Regulations were amended vide Notifications dated 31st August, 2007, dated 1st December, 2009 and dated 15th July, 2010.
- 1.2 PSPCL in its various references and presentations to the Commission requested for amendment to these Regulations due to serious operational problems and financial losses on account of Open Access.
- 1.3 Executional problems to implement Open Access between PSTCL and PSPCL after unbundling were brought to the notice of the Commission in various petitions made by the OA customers.
- 1.4 Govt. of Punjab in its objections to the ARR and Tariff Application filed by PSPCL for FY 2011-12 brought to the notice of the Commission a number of problems faced by PSPCL due to allowing of open access in the State, which are listed below along with GoP recommendations:
 - i) *The power scheduled by OA consumers through Open Access is varying constantly and is directly linked to the prevailing market rate and for their remaining requirement; they draw power from PSPCL system. Thus, the*

power requirement from PSPCL system is also varying unpredictably which jeopardizes the system reliability.

- ii) The total Open Access quantum on day ahead basis can be known at 5PM on the previous day only. Due to this short time given to PSPCL, it has no alternative for arranging excess power or surrendering the power and thus PSPCL is financially affected.*
- iii) At present OA consumers use PSPCL as a standby supplier and for this PSPCL must have spinning reserve. However, due to large demand and supply gap, there is no spinning reserve available with PSPCL.*
- iv) The frequent shifting of OA consumers from PSPCL to Open Access and again to PSPCL is affecting the quality of power to other consumers.*
- v) The OA consumers being the cross subsidizing category for other consumer groups, this reduction of power off-take by them from PSPCL power pool has adverse impact on the tariff of other categories.*
- vi) Due to Open Access, the LS consumption is likely to reduce which will hit the revenue and T&D losses of PSPCL adversely. In order to prevent financial collapse of PSPCL, appropriate safeguards e.g. cross subsidy surcharge and additional surcharge as provided in the National Tariff Policy be levied on OA consumers.*

1.5 To resolve these matters, the Commission decided to revise the Open Access Regulations 2005 as amended from time to time. Accordingly, draft Open Access Regulations, 2011 were put on the website of the Commission and suggestions and objections from the general public and stake holders were invited by issuing a Public Notice through various newspapers dated 2/5.4.2011.

2. Consideration of the views of the stakeholders

2.1 Suggestions and objections were received from 21 stakeholders as listed at Annexure-I. A public hearing in the matter was held on 24.5.2011 in the office of the Commission in which representatives of PSPCL, PSTCL, Associations and individual consumers participated.

2.2 After considering all the submissions made by various stake holders and general public, the Commission has decided to frame the new Open Access Regulations, 2011 which shall supersede the Open Access Regulations, 2005 as amended from time to time.

3. Issues considered and analysed

The important issues considered by the Commission while framing the new Open access Regulations, 2011 are as under:

3.1 Cross Subsidy Surcharge:

3.1.1 The relevant provision of Section 42(2) of the Electricity Act, 2003 is as under:

*“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 Commission:*

*Provided further that **such surcharge shall be utilized to meet the requirement of current level of cross subsidy within the area of supply of the distribution licensee.**”*

3.1.2 The Commission in its Tariff Regulations, 2005 defined the Cross Subsidy as under:

“Cross Subsidy for a consumer category..... means the difference between the average realization per unit from that category and the combined average cost of supply per unit expressed in percentage terms as a proportion of the combined average cost of supply.....”

3.1.3 Subsequently, after the notification of Tariff Policy by the Govt. of India, Ministry of Power in 2006, the Commission amended its cross subsidy surcharge calculation formula and brought it in line with the Tariff Policy as under:

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

S is the surcharge.

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

- C is the weighted average cost of power purchase at Punjab boundary of top 5% at the margin excluding liquid fuel based generation and renewable power.
- D is the transmission and wheeling charge.
- L is the T&D losses for applicable voltage level, expressed as a percentage.

3.1.4 In the Model Open Access Regulations framed by the Forum of Regulators (FOR) in Sept, 2010, the cross subsidy surcharge formula has been retained as per Tariff Policy, which presently leads to a negative cross subsidy surcharge for Open Access customers in Punjab. During FOR meeting dated 16th June, 2011, it has been decided that the FOR shall move to Ministry of Power for amending para 8.5 of the Tariff Policy to lay down broad principles for determination of cross subsidy surcharge as *“a uniform formula for determination of Cross-Subsidy Surcharge for all States is difficult to implement”* and leave the choice of formula to the individual State Regulator.

3.1.5 With the high end consumers migrating to Open Access without paying any surcharge, the burden on distribution licensee increases which ultimately results in increase in tariff of remaining about 70 lac consumers. The PSPCL has intimated that due to 2513 MUs availed by the Open Access consumers during 2010-11, it has suffered a loss of Rs.371 crore and this loss is likely to increase to around Rs.1000 crore during 2011-12. If this loss is passed on to the remaining consumers it will result in an unjustified hike in the tariff for these consumers.

3.1.6 Keeping in view the interest of all the stakeholders, the Commission in its draft Open Access Regulations, 2011 proposed the following formula for calculation of Cross Subsidy Surcharge:

$$S = T - C, \text{ where}$$

S is the Cross Subsidy Surcharge.

T is the average per unit realization from the relevant category of consumers.

C is the combined average cost of supply of the distribution licensee.

With this formula, the Cross Subsidy Surcharge for industrial OA customers for the year 2011-12 works out to 74.48 paise/unit.

3.1.7 During the public hearing and also while offering their comments on the draft Open Access Regulations, 2011, the industrial OA consumers have opposed the change in cross subsidy surcharge formula. At the same time, the PSPCL has contended that even the provision made in the draft Regulations was inadequate and the cross subsidy surcharge should be increased to higher level. The high quantum of power availed through OA in the State of Punjab by OA customers is manifested from the data supplied by PSPCL and Indian Power Exchange regarding the number of OA customers and OA power availed by them in Punjab and other States, as below:

Name of the State	Punjab	Haryana	Rajsthan	Gujarat	Madhya Pradesh	Uttra-khand	Uttar Pradesh
No. of OA customers/ volume of OA power drawn during 2010-11 (MUs)	239/2513	23/475	30/242	6/35	2/21	Nil	Nil

3.1.8 In view of the fact that the National Tariff Policy is only a guideline and not mandatory, the Commission decides to retain the aforesaid formula (para 3.1.6) for calculation of Cross Subsidy Surcharge to strike a balance and in the interest of the consumers who are unable to avail Open Access and are likely to suffer a tariff hike in subsequent years on account of unbridled Open Access in the state of Punjab.

3.2 Transmission and Wheeling Charges:

3.2.1 As per the existing Open Access Regulations, short term Open Access customer is to pay 20% of the aggregate of full transmission charges and wheeling charges as determined by the Commission in the Tariff Order applicable for the year, i.e 25.4 (2.2 +23.2) paise/unit for FY 2011-12. The Commission in its draft Open Access Regulations, 2011 made the provisions for charging 50% of transmission charges and wheeling charges from short term Open Access customers as determined for long term/medium term Open Access customers.

3.2.2 PSPCL argued that 100% transmission charges and wheeling charges may be charged instead of 50% in the proposed Regulations.

3.2.3 The Commission observes that an OA customer would have paid 100% of full transmission charges and wheeling charges had he drawn the same power from PSPCL. The full transmission charges and the wheeling charges determined by the Commission in the Tariff Order of 2011-12 are as under:

Transmission Charges	= 11 paise/unit
Wheeling Charges	= 116 paise/unit

However, to encourage open access, it is desirable that the OA customer pays 100% of transmission charges and wheeling charges up to the point of use of network. Accordingly, the Commission decides to levy the following transmission charges and wheeling charges from the short term Open Access customers:

Transmission Charges	= 100% of transmission charges levied on other consumers not availing open access
	= 100% of transmission charges levied on long term / medium term OA customers
	= 11 paise/unit

Wheeling Charges at 66 KV	= 15% of wheeling charges levied on other consumers not availing open access
	= 100% of wheeling charges levied on long term / medium term OA customers
	= 0.15x 116 paise/unit = 17.4 paise/unit

Wheeling Charges at 11 KV	= 30% of wheeling charges levied on other consumers not availing open access
	= 100% of wheeling charges levied on long term / medium term OA customers
	= 0.30 x 116 paise/unit = 34.8 paise/unit

3.3 Voltage Surcharge

3.3.1 As per draft Open Access Regulations, 2011, voltage surcharge shall be leviable on the quantum of energy availed through open access by considering the tariff of energy availed through open access at par with the tariff approved by the Commission for that category.

3.3.2 PSPCL in its objections has submitted that Open Access customers whose voltage is less than the specified voltage as per the Conditions of Supply should pay voltage surcharge. Some objectors have submitted that voltage rebate should also be provided in the Regulations for energy availed through open access, whereas some other consumers have submitted that voltage surcharge should not be levied on Open Access power.

3.3.3 After considering the whole issue, the Commission decides that the voltage surcharge shall be levied on the total power drawn during that month from the licensee and through open access, if the Open Access customer opts for drawing of power more than his sanctioned contract demand as consumer of the licensee and on which voltage surcharge is applicable. The voltage surcharge shall be charged at the rates specified in the General Conditions of Tariff. The Commission further decides that the consumers connected at voltages lower than those specified in the Conditions of Supply and paying voltage surcharge and drawing the total power within their sanctioned contract demand shall continue to pay such surcharge only on the quantum of energy drawn from the distribution licensee against their sanctioned contract demand.

3.4 Reactive Energy Charges

3.4.1 As per draft Open Access Regulations, 2011, the payment for the reactive energy charges for the Open Access customers shall be calculated in accordance with the Tariff Regulations notified by the Punjab State Electricity Regulatory Commission. Further, no additional power factor surcharge/incentive shall be leviable on the energy drawn through open access.

3.4.2 Some objectors have submitted that power factor incentive should be applicable on the total drawal rather than only on PSPCL power.

3.4.3 The Commission finds no merit in the objection and as such decides to retain the provision made in the draft Open Access Regulations, 2011.

3.5 Imbalance charge

3.5.1 With regard to imbalance charge, various objectors have submitted that proposed provision in the draft Open Access Regulations, 2011 in case of over drawal/under drawal is against the Open Access customers and have submitted that UI charges as notified by CERC may be followed. PSPCL in its objections has submitted that since the UI mechanism is basically for maintaining grid discipline, the Open Access customers in no way are helping the same. The payment for under drawal encourages gaming by Open Access customers and has proposed that under drawal should not be payable. PSTCL has submitted that if there is persistent violation of scheduled power by a generator/trader availing open access, the existing provisions for cancellation of scheduling with prior notice should be incorporated with more stringent conditions/financial penalties since violations go unnoticed in the absence of real time data/generation monitoring at SLDC. It has also been proposed by PSTCL that provision of SCADA must be made mandatory for all generators/sellers.

3.5.2 The Commission finds no merit in the submissions made by the Open Access customers. However, there is weight in the submission of PSPCL and PSTCL and as such decides to incorporate the following provision in case of under

drawal by an Open Access customer and over injection by a generator/trader availing open access:

“

UI charges

Or

Applicable lowest tariff for any permanent category/sub-category determined by the Commission in its Tariff Order for that year,

Or

The purchase/sale price of the open access customer, whichever is the lowest.”

3.6 Eligibility for Open Access and conditions to be satisfied

- 3.6.1 The Commission in its draft Open Access Regulations, 2011 made the provision that the open access shall be permissible to the consumers seeking open access capacity up to which the Commission has introduced open access, on all feeders except urban pattern supply feeders, AP feeders and feeders serving mixed loads of urban/industrial consumers.
- 3.6.2 PSPCL in its objections has submitted that open access should be permissible to the customers having contracted load of 1 MW and above seeking open access through an independent feeder.
- 3.6.3 Some objectors have submitted that for balancing the interest of the consumers, the open access should be allowed irrespective of the type of feeder, where as some other objectors has desired that the capacity up to which the open access is to be introduced needs to be defined.
- 3.6.4 In view the practical difficulties in implementing open access, the Commission decides to permit open access to the Open Access customers having demand of 1 MW and above (except generating plants), connected at 11 KV or above, on all feeders except urban pattern supply feeders, AP feeders and category-I feeders serving mixed loads of urban/industrial consumers, provided that the consumers connected to category-II industrial feeders, with no agricultural load, shall be allowed open access subject to the condition that they agree to

rostering restrictions imposed by the utility on such feeders. The Commission decides to allow open access for wheeling of power to all generating plants.

4. **Benefits to Open Access Customers**

Through the new Regulations, an effort has been made to attain a balanced approach towards OA customers, PSPCL and other consumers. The OA customers shall continue to draw benefit through Open Access as compared to other PSPCL consumers as briefed below. This shall introduce competition and PSPCL/PSTCL shall have to work to reduce the cost of supply.

4.1 The Commission in its Tariff Order for FY 2011-12, determined the transmission charges as 11 paise/unit and wheeling charges as 116 paise/unit. As evident from the following tables, the Open Access customers will be paying lower transmission charges and wheeling charges for using transmission and distribution network of the State as compared to other PSPCL consumers:

Open Access customers connected to voltage	Transmission charges (paise/unit)		Wheeling charges (paise/unit)	
	PSPCL consumer	Open Access customer	PSPCL consumer	Open Access customer
220 KV & 132 KV	11	11	116	Nil (0%)
66 KV & 33 KV	11	11	116	17.4 (15%)
11 KV	11	11	116	34.8 (30%)

Open Access consumers connected to voltage	Total Transmission and Wheeling charges (paise/unit)		Benefit to OA customer (paise/unit)
	PSPCL consumer	Open Access customer	
220 KV & 132 KV	127	11	116
66 KV & 33 KV	127	28.4	98.6
11 KV	127	45.8	81.2

4.2 The Commission has received the data from PSPCL depicting the quantum of power purchased by the short term Open Access consumers within different price bands. On analysis, the Commission observed that the weighted average short term Open Access power purchase rate during March 2011 to

May 2011 is 270 paise/unit and during January 2010 to April 2011 is 305 paise/unit. Based upon these rates and the various charges as decided by the Commission in the foregoing paras, the saving to the short term Open Access customers (Annexure-II & III) is indicated below:

Sr. No.	Rate (paise/unit)	Saving to OA customer (paise/unit)	
		At 66 KV	At 11 KV
1.	270	73.5	59.7
2.	305	37	21.5

5. Open Access during Peak Load Hours

- 5.1 PSPCL in its objections and during the public hearing has insisted that to save its system from collapse during peak load hours, Open Access customers should restrict their total drawal including Open Access power to the extent of peak load restrictions allowed. Other objectors did not agree to PSPCL view point.
- 5.2 The Commission finds merit in PSPCL's objection and agrees that during peak load hours, the demand of OA customers should be restricted to the extent of peak load restrictions allowed, to avoid collapse of PSPCL's system due to low frequency/over loading. The Commission, therefore, decides that during peak load hours, the OA customer shall restrict its total drawal including Open Access power to the extent of the peak load restrictions allowed.

6. General

The remaining issues which have not been discussed are ordered to be incorporated to align with the Electricity Act, 2003/Conditions of Supply/Open Access Regulations notified by CERC/Model Regulations of FOR on intra-State Open Access/RPO and its compliance Regulations notified by the Commission, after incorporating minor amendments proposed by the various stakeholders and accepted by the Commission, in the draft of Open Access Regulations, 2011.

7. Through the above decisions, while competition to the distribution licensee (PSPCL) shall continue through differential price mechanism for OA customers thus encouraging open access, the interest of remaining consumers of PSPCL shall be protected by not levying them heavy charges on account of open access. Accordingly, we direct that the Regulations published in draft form be finalized and notified in the official Gazette after incorporating the changes as decided in the foregoing paragraphs.

sd/-
(Er. Gurinderjit Singh)
Member

sd/-
(Er. Virinder Singh)
Member

sd/-
(Ms. Romila Dubey)
Chairperson

Annexure-I

Obj. No.	Name & address of party
1	Mandi Gobindgarh Induction Furnace Association (Regd.), Grain Market, Mandi Gobindgarh-147301.
2	Shri Satyajit Ganguly, Head-Business Operations, Power Exchange India Limited, 3 rd Floor, 'B' Wing, Exchange Plaza, Bandra Kurla Complex, Bandra (E), Mumbai-400051.
3	Chief Engineer/ARR & TR, PSPCL, Patiala.
4	Shri S.N. Karnail, Sr. Manager/Legal, Siel Chemical Complex (A unit of Mawana Sugars Ltd.) Rajpura.
5	Manikaran Power Limited.
6	Maj.Gen. N.S. Pathania (Retd.), Secretary, IPPAI, Independent Power Producers Association of India, 1 st Floor, Shangri La's Eros Corporate Plaza 19 Ashoka Road, Connaught Place, New Delhi-110001.
7	Shri H.N. Singhal, President (Corp.HR & Admn.), Nahar Industrial Enterprises Limited, Focal Point, Ludhiana-141010.
8	Shri Harinder Puri, Secretary, Steel Furnace Association of India (Punjab Chapter), c/o Upper India Steel Mfg. & Engg. Co. Ltd., Dhandari Industrial Focal Point, Ludhiana-141010.
9	Shri A. Puri, General Manager (Proj. & Materials), Punjab Alkalies & Chemicals Limited, SCO 125-127, Sector 17-B, Post Box No.152, Chandigarh-160017.
10	Purab Urja Pvt. Ltd., Dharmkunj, 1775/A, Khuh Bombay Wala, Amritsar-143006.
11	Shri Rajesh Salwan, Site Director, DSM Anti-Infectives India Limited, Bhai Mohan Singh Nagar, Toansa, Distt. Nawanshahr, Punjab-144533.
12	Shri D.K. Mehta, Induction Furnace Association of North India, Room No.204, Savitri Complex, GT Road, Dholewal, Ludhiana.
13	Financial Advisor, Punjab State Transmission Corporation Limited, Head Office PSEB Building, The Mall, Patiala.
14	Shri Rajesh K Mediratta, Vice President (Business Development), Indian Energy Exchange.
15	Shri Manish Baurly, Asstt. Vice President, Ultra Tech Cement Limited, Unit: Bathinda Cement Works, behind GHTP, Post: Lehra Mohabat, Distt. Bathinda-151111
16	M/s Avani Textiles Limited, Sibian Road, Sangrur (Punjab).
17	Shri Pardeep Kumar Aggarwal, Vice President (Engg.), Vardhman Spinning and General Mills, Ludhiana.
18	Shri Kuldeep Jain, General Manager, Arihant Spinning Mills (A unit of M/s Vardhman Textiles Ltd.) Industrial Area, Malerkotla-148023 (Pb.) Regd. Office: Chandigarh Road, Ludhiana-141011.
19	M/s Aarti Steels Limited, GT Road, Miller Ganj, Ludhiana-141003.
20	M/s Vardhman Yarns and Threads Limited (Unit-1), Vardhman Premises, Chandigarh Road, Ludhiana-140110.
21	Shri Subhash Bansal, President, Steel Town Furnace Association (Regd.), GT Road, Khanna Side, Mandi Gobindgarh-147301, District Fatehgarh Sahib.

Annexure-II

Sr. No.	Item	Open Access Customer at 66 KV with 100% transmission charges & 100% wheeling charges and 100% cross subsidy surcharge (paise/unit)	Open Access Customer at 11 KV with 100% transmission charges and 100% wheeling charges and 100% cross subsidy surcharge (paise/unit)
1	Weighted average OA power purchase rate discovered at Power Exchange during March 2011 to May 2011	270.00	270.00
2	Approximate Inter-state Transmission charges, Transmission Loss, OA charges, Operation charges etc.	28.00	28.00
3	Intra-state Transmission charges	11.00	11.00
4	Intra-State Wheeling charges	17.40	34.80
5	Intra-state Transmission Loss (2.5%)	6.75	6.75
6	Distribution Loss At 66 KV = 2.54% At 11 KV = 6.77%	6.86	18.28
7	Cross Subsidy Surcharge	74.48	74.48
8	Total Cost of OA power	414.50	443.31
9	Applicable Tariff	488.00	503.00
10	Margin to OA customer (9-8)	73.50	59.70

Annexure-III

Sr. No.	Item	Open Access Customer at 66 KV with 100% transmission charges & 100% wheeling charges and 100% cross subsidy surcharge (paise/unit)	Open Access Customer at 11 KV with 100% transmission charges and 100% wheeling charges and 100% cross subsidy surcharge (paise/unit)
1	Weighted average OA power purchase rate discovered at Power Exchange during January 2010 to April 2011	305.00	305.00
2	Approximate Inter-state Transmission charges, Transmission Loss, OA charges, Operation charges etc.	28.00	28.00
3	Intra-state Transmission charges	11.00	11.00
4	Intra-State Wheeling charges	17.40	34.80
5	Intra-state Transmission Loss (2.5%)	7.62	7.62
6	Distribution Loss At 66 KV = 2.54% At 11 KV = 6.77%	7.75	20.65
7	Cross Subsidy Surcharge	74.48	74.48
8	Total Cost of OA power	451.25	481.55
9	Applicable Tariff	488.00	503.00
10	Margin to OA customer (9-8)	37.00	21.50