

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION  
SCO NO 220-221, SECTOR 34-A, CHANDIGARH**

**Petition No. 28 of 2016  
Date of Order: 09.08.2016**

Present: Shri D.S. Bains, Chairman  
Er. S.S. Sarna, Member

In the matter of: Petition under Section 42 (4) of the Electricity Act, 2003 read with Regulation 27 of the PSERC (Terms and Conditions for Intra-State Open Access) Regulations, 2011 for determination of additional surcharge payable by the short-term open access consumers situated within the area of supply of Punjab State Power Corporation Limited and purchasing power from within/outside the said area of supply/State periphery.

AND

In the matter of: Punjab State Power Corporation Limited, The Mall,  
Patiala-147001.

Petitioner

**ORDER**

The present Petition has been filed by the Punjab State Power Corporation Limited (PSPCL) under Section 42 (4) of the Electricity Act, 2003 read with Regulation 27 of the PSERC (Terms and Conditions for Intra-State Open Access) Regulations, 2011 for determination of additional surcharge payable by the short-term open access consumers situated

within the area of supply of Punjab State Power Corporation Limited and purchasing power from within/outside the said area of supply/State periphery.

2. The submissions made by PSPCL in the Petition are summarized as under:

- (i) Open access has been introduced with provision for surcharge for taking care of current level of cross subsidy. Under Section 42(2) of the Electricity Act, 2003, the State Commissions have been enjoined to introduce open access in such phases and subject to such conditions (including the cross subsidies and other operational constraints) as may be specified and in specifying the extent of open access in successive phases and in determining the charges for wheeling, the State Commissions shall have due regard to all relevant factors including such cross subsidies and other operational constraints. The first and second provisos to Section 42(2) of the Electricity Act, 2003, prescribe that open access is to be allowed on payment of a surcharge in addition to charges for wheeling as may be determined by the State Commission and such surcharge is to be utilized to meet the current levels of cross subsidy within the area of supply of the distribution licensee. The fifth proviso to Section 42(2) has been reproduced by PSPCL as under:

*“Provided also that the State Commission shall, not later than five years from the date of commencement of the Electricity (Amendment) Act, 2003 (57 of 2003) by regulations, provide such open access to all consumers who require a supply of*

*electricity where the maximum power to be made available at any time exceeds one megawatt.”*

The Electricity Act, 2003 has permitted open access to those consumers who require power supply in excess of 1MW.

- (ii) Any Open Access Consumer, whose premises are situated within the area of supply of a distribution licensee, requires supply of electricity from a generating company or any licensee other than such distribution licensee, then Section 42(3) of the Electricity Act, 2003 has made a provision that such person may by notice require the distribution licensee for wheeling such electricity in accordance with regulations made by the State Commission; in such a situation, the duties of the distribution licensee with respect to such supply is to be of a common carrier providing non-discriminatory open access. The open access consumer, who is also a consumer of the area of a distribution licensee, is permitted to avail supply from a person other than the area of a distribution licensee on payment of additional surcharge as laid down in Section 42(4) of the Electricity Act, 2003, has been reproduced by PSPCL as under:

*“(4) 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 is 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.”*

Additional surcharge under Section 42(4) of the Electricity Act, 2003 has thus been levied on a distribution licensee's consumer to meet the fixed cost of such distribution licensee arising out of his obligation to supply when the said consumer has availed open access to receive supply from another person.

- (iii) The provision as regards applicability of additional surcharge to be paid by open access consumers has also been made under para 8.5.4 of the Tariff Policy, 2016, reproduced by PSPCL as under:

*“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 covered through wheeling charges.”*

Additional surcharge is payable on the stranded capacity arising out of supply obligations of the distribution licensee under existing power purchase commitments.

- (iv) The Commission has framed the Punjab State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2011 (Open Access Regulations, 2011) to be applicable to open access consumers for use of Intra-State transmission system and/or distribution system of the licensees in the State, including when such system is used in conjunction with Inter-State transmission system. Regulation 2 of

the said Regulations specifies that a consumer/person whose premises are situated within the area of supply of a distribution licensee, seeking to receive supply from a person other than the distribution licensee of his area of supply, a generating company (including captive generating plant) or licensee seeking to supply to a consumer/person in the State, are required to apply for open access under the Regulations. The Regulations lay down a detailed procedure for availing of open access and the mechanism/conditionality for the same and the Petitioner craves leave to refer to and rely upon the same at the time of hearing in the above Petition.

- (v) The provision as regards additional surcharge is made in Regulation 27 of the Open Access Regulations, 2011, reproduced by PSPCL as under:

*“27. Additional Surcharge*

- 1) An open access consumer, receiving supply 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) The additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been made and continues to be stranded or there is an unavoidable obligation and*

*incidence to bear fixed costs consequent to such a contract. The distribution licensee shall indicate the quantum of such stranded costs and the period over which they would be stranded. The Commission shall scrutinize the statement of calculation of fixed cost submitted by the distribution licensee and obtain objections, if any, and determine the amount of additional surcharge.*

*Provided that such additional surcharge shall not be levied in case distribution access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use.*

- 3) The additional surcharge shall be determined by the Commission.*
- 4) The consumers availing Open Access exclusively on interstate transmission system shall also pay the additional surcharge as determined under these Regulations.*
- 5) The consumers availing Open Access through dedicated lines even without involving licensee's transmission and/or distribution system shall be liable to pay same additional surcharge as determined under these Regulation."*

The Commission has notified the Open Access Regulations, 2011 in accordance with the provisions of the Electricity Act, 2003 and the Tariff Policy framed there under, so as to compensate the distribution licensee for its stranded supply

obligations. The additional surcharge is payable under the regulations notwithstanding that only the Inter-State transmission system is being used for availing open access and even when the lines of transmission/distribution licensee are not used.

- (vi) The Intra-State ABT has been introduced in the northern region w.e.f. 1.12.2002 and in the State of Punjab, it was introduced for the 1<sup>st</sup> time with the notification issued by the Commission for the implementation of short term open access w.e.f. 09.08.2005 (now repealed with Open Access Regulations, 2011). PSPCL/State Load Dispatch Center (SLDC) has been granting approvals/consents to open access consumers for purchase and sale of power through open access as per the aforesaid Open Access Regulations. As a result, the open access consumers in the State are buying considerable quantum of power under open access. At present, there are 249 number active open access consumers who have been granted NOC for 1278 MW of capacity and are availing open access as per their suitability & convenience and according to the rate of power in the market available on real time basis. Since the introduction of open access system, a total of 434 number of industrial consumers with a collective load of 1731.84 MW have availed open access power from the sources other than PSPCL from time to time. The quantum of open access power (in MU) as sourced by the open access consumers, along with list of 434 number open access consumers, from the year 2011-12 to year 2015-16 has been submitted by PSPCL along with the Petition.

(vii) The total installed generation capacity within the State is 6895.62 MW. This includes the capacity addition of 707.67 MW from renewable sources to utilize natural resources available within the State. In addition, the central sector allocation (firm) for the State is 3671.34 MW and the share from Bhakhra Beas Management Board (BBMB) is 1161.28 MW. In this manner, the total capacity available in the State for utilization by PSPCL to fulfill its supply obligation is 11900.64 MW. The peak demand for electricity met within the State for FY 2014-15 and 2015-16 (as on date of Petition) has been 10155 MW and 10852 MW respectively. The generation capacity tied up by PSPCL has been adequate to meet the demand for electricity during the year 2015-16.

The Central Sector allocations are 3671.34 MW and the share available from BBMB is 1161.28 MW for FY 2015-16.

(viii) The projected available capacity in the State for FY 2016-17 has been submitted by PSPCL. To meet the future demands in the State, the Petitioner has tied up adequate power from various sources. In FY 2016-17, capacity to the tune of 12569.35 MW is expected to be available with PSPCL to meet the demand for electricity in the State. During FY 2016-17, maximum demand of 11400 MW has been envisaged to be met during the month of July, 2016. PSPCL is also liable to pay the fixed transmission cost to Power Grid Corporation of India Ltd (PGCIL) for the energy entitlement from various Inter-State Generating Stations (ISGS) on account of transmission of entitled power. In the event of import of open access power by the open access consumers,

the fixed charges are liable to be paid as Inter-State transmission cost, by PSPCL, even for the surrender of equivalent quantum of import of open access power.

- (ix) PSPCL has tied up considerable quantum of power considering the overall growth of the State and has therefore tied up power for upcoming consumers also. The open access users are not availing power from PSPCL and the generation capacity being tied up by PSPCL remains idle. In such a situation, PSPCL is required to pay fixed charges to the generators as per the terms and conditions of power purchase commitments irrespective of whether tied up power is drawn/ utilized or not. The surplus power as approved by the Commission in its Tariff Order for FY 2015-16 was 15383 MU and during the year 2016-17, the projected surplus power is to the tune of 18074 MU. Relevant details and amounts incurred towards obligation to supply power to the consumers and to pay capacity charges under power purchase commitments for FY 2015-16 have been submitted by PSPCL as under :

**Table A**

| <b>Particulars</b>                                                                                                                             | <b>Energy (MU)</b> | <b>Amount (₹ crore)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|
| a. Fixed Cost of Total Power Purchase including Own Thermal Plants                                                                             |                    | 6622.70                 |
| b. Variable Cost of Power Purchase including Own Thermal Plants                                                                                |                    | 11771.08                |
| c. Total Power Purchase cost.                                                                                                                  | 43898.90           | 18393.78                |
| d. Per unit fixed cost payable to generators (ISGS + IPPs + Own Thermal Generating Stations including the cost of transmission for ISGS power. | 1.51 ₹/Unit (Kwh)  |                         |

|                                                                                                          |                          |        |
|----------------------------------------------------------------------------------------------------------|--------------------------|--------|
| e. Power Purchase by Open Access consumers during the first half of FY 2015-16 (w.e.f 1.4.15 to 30.9.15) | 985.11 MU                |        |
| f. Total quantum of power surrendered by PSPCL in lieu of open access power.                             | 985.11 MU                |        |
| g. Total fixed cost paid for the power surrendered in lieu of open access power                          | 985.11                   | 148.75 |
| h. Per unit fixed cost proposed to be chargeable to open access consumers.                               | <b>1.51 ₹/Unit (Kwh)</b> |        |

**Table B**

| <b>Particulars</b>                                                                             |   | <b>Amt.<br/>(₹ cr.)</b> |
|------------------------------------------------------------------------------------------------|---|-------------------------|
| Total Fixed Cost of Power Purchase from Generators (Central Sector, IPPs & Own Thermal Plants) | A | 5812.7                  |
| Add: Cost of ISTS (Inter-State Transmission system)                                            | B | 810                     |
| Total Fixed Cost (A+B)                                                                         | C | <b>6622.70</b>          |

- (x) The total fixed cost paid during FY 2015-16 for the power purchase from the generators (i.e Central Sector, IPPs & Own Thermal Plants) including the cost of transmission works out to ₹ 6622.70 crore. The energy purchased by the open access consumers of PSPCL during FY 2015-16 for the period 1.4.2015 to 30.9.2015 is 985.11 MU, and based on the average of open access power availed by the Open Access consumers, the quantum of open access power is envisaged to remain the same i.e. 985.11 MU for the corresponding period during FY 2016-17 also. Now, if the Open Access consumers during the period 1<sup>st</sup> April, 2015 to 30 Sept, 2015 would have drawn the quantum of electricity from PSPCL instead of availing through open access, PSPCL would have supplied 985.11 MU of power to these consumers. The fixed cost per unit of open access power to be

payable by the open access consumers works out to ₹ 1.51/ unit (Kwh).

- (xi) The details of applicable plant-wise fixed and variable charges paid to various generators (i.e Central Sector, IPPs & Own Thermal Plants) during FY 2015-16 have been submitted by PSPCL.
- (xii) The details of additional surcharge (as approved by respective SERCs) as being levied on to the open access consumers in the States of Haryana, Himachal Pradesh and Gujarat have also been submitted.
- (xiii) For the computation of additional surcharge for the period 1.4.2016 to 30.9.2016, the following data for the corresponding period of the previous year i.e. FY 2015-16 has been submitted by PSPCL:
  - a. Abstract & detail of day-wise import of open access power (on hourly basis) from Power Exchange sourced by open access consumers.
  - b. Abstract & detail of surrender of power from the ISGS (on hourly basis) for the relevant period.
  - c. Abstract & detail of surrender of power from State owned IPPs (on hourly basis) for the relevant period.
  - d. Abstract & detail of surrender of power from own generating stations (on hourly basis) for the relevant period.
  - e. Consolidated Abstract of open access power viz-a-viz surrender of power from all the sources.

- (xiv) At present Single Part Tariff in the State of Punjab is applicable, whereas in the states of Haryana, Himachal Pradesh & Gujarat, Two Part Tariff is applicable. Thereby, the recovery of fixed charges in the State of Punjab is entirely made through the energy charges, unlike other states, where part of the fixed charges is being recovered through demand charges also.
- (xv) The burden of fixed cost is adversely affecting the financial interests of PSPCL, which in turn is adversely affecting the end consumers in the State buying power from PSPCL. As such, it is necessary that additional surcharge as provided under Section 42(4) of the Electricity Act, 2003 and the Open Access Regulations, 2011 be determined and made applicable to open access consumers in the State.
- (xvi) PSPCL has prayed as under:
- (a) Admit the Petition for determination of additional surcharge payable by PSPCL's consumers purchasing power from within/outside the PSPCL's area of supply/State periphery;
  - (b) The obligation of PSPCL in terms of power purchase commitments has been and continues to be stranded and there is an unavoidable obligation and incidence to bear fixed costs consequent to such commitments;
  - (c) Determine the additional surcharge of ₹ 1.51/Unit (Kwh) payable by open access consumers on the quantum of power purchase through open access using the network of PSPCL.

- d) Pass such further and other order(s) as the Commission may deem just and proper in the facts and circumstances of the present case.
3. The Petition was taken up for hearing on 02.05.2016. The Commission in its Order dated 03.05.2016 observed and ordered as under:
- “The petition was first taken up for admission on 11.04.2016 and the Commission made some observations in its Order dated 18.04.2016. PSPCL was directed to file amended petition after attending to the observations by 19.04.2016. PSPCL submitted the interim reply during hearing on 22.04.2016 which was perused. The Commission was not satisfied with the quality of work being half baked. The Commission directed vide Order dated 25.04.2016 that Shri K.L.Sharma, Director/Distribution PSPCL should attend the hearing fixed on 02.05.2016 while ensuring that the amended / revised petition duly supported with affidavit is filed up to 28.04.2016.*
- PSPCL has filed amended petition vide C.E./ARR & TR memo No.5509 dated 02.05.2016. After hearing Director/Distribution, the Commission admitted the petition. PSPCL will put up draft public notice by 03.05.2016 for approval of the Commission under Reg. 67 of the PSERC (Conduct of Business) Regulations, 2005 and after obtaining approval of the Commission, PSPCL shall publish public notice as per ibid Regulations inviting suggestions / comments from general public and stake-holders after uploading the amended petition on its website.”*
4. In compliance to the Order of the Commission dated 03.05.2016, a public notice was got published by PSPCL after obtaining approval

from the Commission, on 05.05.2016, in various News Papers, for inviting suggestions/comments from the general public and the stakeholders. The suggestions/comments from the following 6 objectors have been received:-

- a) Mandi Gobindgarh Induction Furnace Association, Mandi Gobindgarh.
- b) Nahar Spinning Mills Ltd., Malerkotla.
- c) Indian Energy Exchange Ltd., New Delhi.
- d) Siel Chemical Complex, Rajpura .
- e) PHD Chamber of Commerce and Industry, Chandigarh.
- f) Nahar Spinning Mills Ltd., Malerkotla (additional submissions).

The suggestions/comments received from above objectors are summarized as under:

- i) The provisions of the Tariff Policy make it clear that the Electricity Act, 2003 (Act) and Policies provide for introducing open access in the transmission and distribution system of the licensees so as to create competition in the power distribution business in the larger interest of the consumers. The Tariff Policy clearly lays down that the impact of cross subsidy surcharge, additional surcharge and wheeling charges etc. should not be so onerous that it eliminates competition. The Tariff Policy envisages a scenario where every electricity consumer pays for the cost of service or cost to serve to the distribution licensee. Clauses 8.0, 8.3, 8.5.1 and 8.5.4 of the Tariff Policy have been reproduced by the objectors in their objections.
- ii) While determining the ARR of the State Power Utilities for a particular year, the Commission looks at the financial health

and performance of the State Power Utilities, it also takes into consideration the efficiency with which the licensee discharges its duties. A non-performing licensee cannot be rewarded for his perpetual and progressive in-efficiencies. While the consumers pay for the genuine charges incurred by the licensee, which are allowed by the Commission through annual ARR & retail tariff orders, it cannot be unduly loaded for the faults or inaction on the part of the licensee.

- iii) The additional surcharge could be recovered in specific circumstances only i.e. firstly if it is to meet out the fixed cost of distribution licensee arising out of his obligation to supply as provided under sub- section (4) of Section 42 of the Act, and secondly, 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 component to such a contract, as provided in regulation 27 of PSERC (Terms & Conditions of Intra-State Open Access) Regulation, 2011.

To claim any such charges, the licensee has to submit all the details, the Commission has to scrutinize the details and then invite comments of the stake-holders. A simple statement that there is an element of fixed cost being incurred due to the purchase of power by the embedded consumer from any other person under open access, does not justify the claim. It has to be seen whether the licensee exercised due diligence while entering into long term power purchase agreements or this situation has arisen due to poor planning of the licensees.

Indiscriminate signing of PPAs without linking it with the supporting accurate demand forecast and capability of the transmission & distribution system will result in such a dismal condition. Why should the poor consumers be loaded with undue costs because of the inefficiencies and lack of financial control by the licensees?

- iv) Another factor which needs to be examined is the quantum of power being purchased by the open access consumers compared to the total power procured by the licensee. The power being purchased by the open access consumers is less than 5% of the total power sold by the licensee. Therefore, major part of the malady is due to inefficiencies of the licensee, which are resulting in excessive ARR and resultant high tariff for LS industry, compared with market rates and cost of supply. The power being sourced by open access consumers attained peak in the year 2011-12 and after PSPCL implemented the amended regulation of 100 percent wheeling charges and adopted other restrictive trade practices, open access power declined. Increase in open access power in FY 2015-16 is due to Amendment No. 5 in the Open Access Regulations, 2011, after which the consumers are procuring power on 24 hours basis.
- v) The licensees are required to submit the requisite details about their claim for determination of additional surcharge at the time of submission of the ARR filing. As such, this belated filing of this petition is totally arbitrary and un-acceptable. Hence, this

petition needs to be rejected straightaway on this account alone.

- vi) The proposal of PSPCL to levy additional surcharge on open access power is just to kill open access. It is a continuation of the earlier steps taken by PSPCL to curtail open access since it started in the year 2009. Instead of providing power to industrial consumers at market competitive prices, PSPCL wants to compel the consumers to buy its power at higher than market rates by imposing unreasonable conditions and charges.

PSPCL is acting against providing open access as an alternative source of power as per the Electricity Act, 2003 and at the same time not providing power at market competitive rates by economizing its operations and reducing its ARR.

- vii) The contracted capacity need to be checked by the Commission as per latest Power Purchase Agreements. Micro hydel projects of 5.60 MW and 10 MW Jalkheri are non operational and there is no scheme being implemented to revive them. These need to be excluded. NRSE and Atomic Power Plants have single part tariff and there are no stranded fixed costs for such plants and need to be excluded.

PSPCL has worked out the exportable capacity of contracted and own plants as 11900 MW in FY 2015-16 and demand met is 10852 MW. Similarly for FY 2016-17, the projected contracted capacity is 12569 MW and demand expected is 11400 MW. Thus, with standard N-1 criteria adopted by CEA for adequacy of grid system etc, taking outage of one unit of 700 MW, there is no surplus capacity with PSPCL. As such,

there is no justification for the additional surcharge in the months of peak period of June, 2016 to Sept., 2016. April and May, 2016 are already over and thus the Petition is without merit.

As per the Electricity Act, 2003 and Tariff Policy, transmission charges/network costs are recoverable through transmission/wheeling charges applicable on open access and not through additional surcharge, which is to cover only the stranded power purchase costs.

- viii) The provisions of the Act, Tariff Policy and Open Access Regulations, 2011 clearly lay down that it is not the calculated surplus power which is to form the basis for determination of the additional surcharge, but the actual and continuing stranded capacity only and that only due to open access power which is to form the basis of additional surcharge. It is not the average, but the contract-wise stranded capacity which is to be worked out. Therefore, instead of taking the Tariff Order figures, PSPCL should have based its claim on actual figures of FY 2015-16 and should have demonstrated that the position is to continue in the coming period.

It is apparent that PSPCL does not have any stranded capacity in the period 1<sup>st</sup> May, 2016 to 30<sup>th</sup> October, 2016 as it had filed Petition No. 13 of 2016 for approval to allow short term purchase of power during the period. In spite of the stated contracted capacity being more than the anticipated demand, PSPCL was anticipating shortage of power due to whatsoever reasons and thus, there is no stranded capacity during the

period. The Commission has disallowed the said purchase, but it is learnt that PSPCL has signed agreements with the suppliers/traders for supply of power during Paddy, 2016. Since PSPCL has based its Petition and data for the period 1<sup>st</sup> April, to 30<sup>th</sup> Sept., 2015 and keeping in view the Order in Petition No. 13 of 2016 and signing of agreements for short term power, there is no case of additional surcharge to be levied on open access consumers for the period.

The calculations of ₹ 5812.70 crore stated as fixed charges for ISGS, Own Plants and IPPs attached with the Petition indicate that Power Grid charges have been shown as variable charges and not as fixed charges. Even in the Tariff Orders, these are covered under other charges and not as fixed charges. Therefore, these cannot be included in the fixed costs of the licensee. Further, this includes the fixed charges for some plants which have not been operational till date, like GVK, and need to be excluded. Fixed charges have been worked out by PSPCL as ₹ 1.12 per unit without surrender and ₹ 1.51 per unit with surrender of power. Thus, incidence of surrender is only 39 paise per unit. Therefore, claim of ₹ 1.51 per unit as additional surcharge is not correct.

PSPCL is claiming that total surrender of power is attributable to open access, which is not the case. There is surrender of power by PSPCL due to various reasons not attributable to open access. PSPCL has to factor-in the capacity becoming stranded due to such reasons, in the Petition. For establishing that the power surrender was exclusively due to open access,

the data of surrendered power provided by PSPCL is incomplete, as it does not depict the reason of surrender of power on particular day or during particular time blocks in a day, which is important in terms of establishing the reason of surrender of power because as per data provided in the Petition, surrendered power is more than the open access power. The data submitted by PSPCL in the Petition is a general statement and does not prove that the capacity stranded is solely and conclusively due to open access.

PSPCL is required to make available the medium term and long term projections which were taken into consideration while calling bids for the IPP projects, and deciding the shares from Ultra Mega and DVC projects as these large scale capacities contracted have put the burden of fixed charges on the end consumers. The surrendered power has been worked out as 15382 MU, which works out to about 2600 MW of installed IPP capacity, assuming the surrender in 265 days (Except 100 days of paddy). If the IPP Projects and shares have been decided without giving a thought on the long term projections, then the mess is PSPCL's own creation, and open access consumers can not be punished.

The total liability of stranded capacity works out to ₹ 2322 crore, which is being loaded on the end consumers of all categories. With the provisional sales of metered category for FY 2015-16 as 29667 MU, this works out as a loading of 78 paise per unit, which is set to further increase in FY 2016-17, with the commissioning of more IPPs etc. PSPCL needs to explain as to

why consumers should be burdened with this load and why this load should not be borne by PSPCL and GoP who decided to set up IPP projects.

- ix) Only 10% of power surrendered is on account of open access and 90% surrender is on account of reasons solely attributable to PSPCL. Rather than imposing additional surcharge, PSPCL needs to explain as to why end consumers should bear the fixed charges of ₹ 1.51 per unit of surrendered power and how the industry and business will survive the recession and compete with others when they are being denied the cheap open access power through imposition of more and more restrictions and charges on open access.
- x) PSPCL has submitted that there was no restrictions on the consumers in April and May, 2016, whereas as per e-mail dated 11.02.2016 sent by AEE/Historical Data to various offices of PSPCL, it has imposed power cuts on the consumers in the month of April and May, 2015. Therefore, PSPCL cannot claim additional surcharge when availability was less than the demand and it had been imposing power cuts on the consumers.
- xi) PSPCL has stated that there is Single Part Tariff in Punjab and has proposed full recovery of fixed charges of stranded capacity. However, they already have issued a proposal of Two Part Tariff on 18.04.2016 and a meeting was also held at Patiala on 18.06.2016. PSPCL has not spelled out the quantum of additional surcharge, in case the proposal of Two Part Tariff is accepted by the Commission for FY 2016-17. It has been

requested by the objectors that the PSPCL may be directed to first decide on the implementation of Two Part Tariff.

- xii) Petitioner has failed to establish any co-relation between power procured by open access consumers and surrendered power by PSPCL.
- xiii) The additional surcharge has been calculated using average fixed cost of all PPAs which is incorrect because as per provisions of PSERC Open Access Regulations and the Act, fixed cost of only stranded PPAs can be used for calculating additional surcharge.
- xiv) Additional surcharge has been claimed based on six months data of power procurement by open access consumers. However, there is no provision in the regulations for considering six months data for calculation of additional surcharge.
- xv) PSPCL has claimed that unlike Haryana, Himachal Pradesh and Gujarat, it has Single Part Tariff for the consumers, so they are not able to recover fixed charges. This claim is wrong as PSPCL is realizing a part of the fixed cost through MMC paid by the open access consumers, which are fixed in nature. Therefore, while examining calculation of additional surcharge, the Commission may consider reducing the MMC charges that PSPCL has already collected from the open access consumers, from the effective fixed cost.
- xvi) PSPCL has calculated additional surcharge using power procured during complete year despite showing that consumers have procured power during April, 2015 to Sept., 2015.

Therefore, the methodology adopted by the Petitioner is flawed and should be rejected.

xvii) PSPCL has calculated additional surcharge considering ISTS charges of ₹ 810 crore, which seems to be lack of understanding of CERC Open Access Regulations, on part of the PSPCL, as PSPCL is getting 100% ISTS transmission charges paid by STOA consumers as long term beneficiary. As per Section 42(4), network cost cannot be recovered through additional surcharge. Therefore, there is no case of including ISTS charges in calculation of additional surcharge.

xviii) The demand supply position submitted by PSPCL along with the Petition for FY 2016-17 showing surplus scenario is not based on facts as Central Electricity Authority (CEA) of Ministry of Power (GOI) in its latest report has observed that Punjab will be facing shortage of power as well as energy during the 4 months from June to Sept, 2016.

CEA has carried out elaborate exercise for assessment of availability and demand for each generator and utility, and has arrived at the figures after consulting the states through the Regional Power Committee of each region, where detailed discussions were held with each state. In the report, the figures of availability and demand for the first 6 months for the State of Punjab covering the period of this Petition indicating the quantum and percentage of the shortfall are given.

PSPCL had anticipated this shortfall as it signed short term power purchase agreements for the paddy period. PSPCL has purchased short term power from Shree Cements, Malana

Hydro, AD Hydro and Karcham Wangtoo Hydro Plants & STREL-OL and Balco Thermal Plants.

The claim of PSPCL made in the Petition that it has stranded capacity due to open access is wrong and not based on the facts.

xix) To impose/revise any levy on open access power only prospectively from the date of order.

5. PSPCL vide letter dated 19.06.2016 has submitted the reply to the objections, which are summarized as under:-

i) Provisions of the Electricity Act, 2003, Tariff Policy and Regulations are matter of record.

ii) Tariffs determined by the Commission are applicable to the consumers drawing power from PSPCL, whereas the provision of charging and determination of additional surcharge is under section 42(4) of the Electricity Act, 2003, and is applicable to the consumers opting for open access power i.e. from sources other than distribution licensee.

The distribution licensee under the Universal Supply Obligation has to make long term power purchase arrangements for meeting the entire demand of all the consumers in a most reliable manner along with meeting the quality (Voltage & Frequency) of power system parameters in 24x7 hours for 365 days of the year. There is no inefficiency in discharging the duties as made under the Universal Supply Obligation.

iii) Adequate data on hourly basis for the entire 183 days period for open access power sourced and the corresponding backing down/surrender of power has been provided by PSPCL to

prove that the available power remained continuously stranded and needs to be compensated. As per summary sheet for the month of July, 2015, an average 37 LUs / day power was sourced by Open Access consumers even during the month of July, 2015 i.e during the period when the availability and demand of power in the State of Punjab is at the peak. No additional data is required to prove that the available power remained continuously stranded during rest of the applicable period.

- iv) Going by the objectors version, 5% of the fixed cost paid by the utility i.e. 5% of ₹ 6622 crore i.e. ₹ 331 crore are required to be paid by the Open Access consumers. Had the Open Access Consumers drawn Power from the PSPCL, they would have paid the cost incurred towards fixed cost liability of the utility.
- v) Present Petition has been filed in view of the observations raised by the Commission in its decision against Petition Nos. 76 of 2015 & 77 of 2015.
- vi) All the legitimate due charges have been judiciously determined by the Commission and are in accordance with the provisions of Electricity Act, 2003 and other applicable regulations.
- vii) The details of fixed costs have been submitted by PSPCL. The applicable fixed costs for the central sector projects as well as for the own thermal generating units have been taken into consideration. The real objective of the submission has been mis-interpreted by the objectors. In fact, the long term contracted capacity is adequate enough to meet even the peak demand of 10852 MW (recorded on 05.07.2015) during the

year. The balance capacity of (11900-10852) i.e 1048 MW is sufficient enough to meet N-1 criteria etc. by taking the outage of one unit of 700 MW capacity. Moreover, the peak demand persists for a smaller duration only, whereas average demand is comparatively lower than the peak demand.

- viii) No comments on this issue have been given by PSPCL stating that the determination of additional surcharge falls within the preview of the Commission.
- ix) The objector is at least admitting that 10% of the surrendered power is on account of open access. The data reveals that even in the peak demand month of July, 2015, 7.98 % of power surrendered is on account of open access. Now 10% of ₹ 2322 crore also works out to ₹ 232 crore.
- x) The allegations raised by objectors in this para have been denied by PSPCL, stating that the long term PPAs have been made by keeping in view of Universal Supply Obligation. The claim is only for 985.11 MU of open access power and is as per the provisions of section 42 (4) of the Electricity Act, 2003.  
1.40 MU / 10.30 MU of power cut as mentioned in the objections is only for maintaining the security of the grid by controlling the load i.e over / under draws from the system in the event of outage of high capacity generating units (internal power generating source) and to keep the system within the National / State Grid Code limitations. However, during the months of April & May, 2015, an adequate capacity under cold spinning reserve was available and no regulatory measure on

Industrial / Open Access consumers were imposed during the entire year of 2015-16.

- xi) Two Part Tariff in the State of Punjab has not been implemented yet.
- xii) Adequate data for 183 days period i.e. from 01.04.2015 to 30.09.2015 has been provided, with hourly detail of open access power sourced, along with corresponding surrender of power from the contracted capacity with ISGS and IPPs/Own Hydro-Thermal generating units. The said data has been submitted for determining the applicable additional surcharge for the corresponding six months period of FY 2016-17, based on the actual open access sourced during the corresponding previous year. i.e. from 01.04.2015 to 30.09.2015. Only the surrendered power from ISGS/IPP/Own thermal /power plants has been considered and no banked power availed during the period has been taken into account.
- xiii) As the quantum of power surrendered every day is not from a specific power plant, and the fixed cost associated with every plant is different, the petitioner has calculated the amount of total fixed charges (additional surcharge) that the petitioner is expected to pay by the end of FY 2015-16, considering all the major power plant sources. Moreover, in the real time system operation, the principle of merit order dispatch is strictly being followed by PSPCL.
- xiv) Decision falls within the preview of the Commission for calculating additional surcharge based on six months data.

- xv) In the existing arrangement, the energy charges or the MMC, whichever is higher, is to be paid by the consumers and usually for the LS consumers, including open access consumers, the energy charges are much higher than the MMC. As such, there is no recovery of fixed charges through MMC as raised by the objectors.
- xvi) Additional surcharge for 985.11 MU of actual open access power sourced during the six months period between 01.04.2015 to 30.09.2015, has only been claimed in the petition.
- xvii) ISTS charges for the full entitlement, irrespective of the actual drawl, have to be paid, towards transmission charges.
- xviii) The success of a Power Availability Plan is heavily dependent on the accuracy of the Power Demand Forecasting. Punjab has sufficient generating capacity available with it to meet with the demand forecasted by CEA. The total firm availability/installed capacity (MW) of power from all sources with PSPCL as on 15.06.2016 was 12444.03 MW.

In context to the observation raised by the objector, a comparison of the installed capacity (MW) of Punjab available during the year 2016-17 viz-a-viz the unrestricted demand as projected in CEA Report, has been made by PSPCL in its comments/reply.

The installed capacity available with PSPCL is sufficient enough to meet with the peak demand as projected by CEA. During the year 2016-17, the third unit of TSPL (613.8 MW) is

likely to be commissioned shortly and the total installed capacity of around 13057 MW shall be available with PSPCL.

PSPCL has submitted that the Electricity Grid comprises of a number of Elements/Variables and every element is prone to fault. Moreover, the possibility of the fault in power system can never be ruled out, which in turn reduces the reliability of the system. Also, with the opening up of the power sector, number of options are available in the market for enhancing the reliability of the system. The alternate/backup arrangements made by PSPCL on short term basis are solely to meet with any eventuality arising out of the reasons cited above, since the thermal generating units of IPPs are quite big in capacity and make a huge impact once they go out of operation due to technical glitches. So, there should not be any objection, if by exploring the alternate options, the reliability of the system gets improved. Consistently improving the reliability in the real time power system operation is always an endeavor of PSPCL.

xix) Retrospective/prospective application of additional surcharge, falls within the preview of the Commission.

6. PHD Chamber of Commerce & Industry and Mandi Gobindgarh Induction Furnace Association have submitted counter reply to the reply of PSPCL , which have been summarized as under:

i) The petition and subsequent submissions by PSPCL do not establish beyond doubt that the alleged backing down/surrender of power/stranded capacities are only due to the open access power exclusively and it is on a continuous basis. The reply of PSPCL completely fails to justify the

imposition of the additional surcharge for the months of April, 2016 to Sept., 2016.

- ii) While PSPCL is purchasing short term power for meeting the paddy demand in the current season since it has calculated the availability from long term contracts to be less than anticipated demand (in spite of the Commission's Order dated 04.05.2016 rejecting the request of the PSPCL made vide Petition No. 13 of 2016), Petition justifying imposition of additional surcharge claiming that there is stranded capacity on hyper technical ground of reliability of supply etc. (due to higher capacity of units of IPP projects etc.), is not understandable and only aims at killing the open access.
- iii) State Grid Code has elaborate provisions for planning, operating, scheduling and dispatch of the system, including methodology for demand and availability assessment. However, the Petition/reply of PSPCL has failed to quote any provision of Grid Code in favor of its argument that PSPCL is entitled to purchase short term power under assumed/fictitious outages of the IPP projects and at the same time also seek imposition of the additional surcharge based on stranded capacity.
- iv) PSPCL is citing the surrender of power during last paddy season of 2015 to open access (37 LU/day) in July, 2015, whereas it purchased 600 MU (200 LU/day) in July, 2015 from traders through short term purchase as per data submitted in ARR. Surrender of power due to excessive/ unplanned short

term purchase cannot be the basis for justifying the additional surcharge on open access.

- v) PSPCL has accepted that it imposed power cuts during first half of FY 2015-16, meaning that it was short of power and there was no stranded capacity. Had there been no open access, quantum of cuts would have been much more.

7. On a query by the Commission, PSPCL vide its letter dated 10.06.2016 has submitted the following details for calculating the Additional Surcharge.

- a) (i) Month wise installed Capacity in MW.  
(ii) Detail of Actual fixed cost.
- b) Slot-wise (Hourly) Availability declared (Maximum/Minimum/Average).
- c) Slot-wise (Hourly) Power Scheduled (Maximum/Minimum/Average).
- d) Slot-wise (Hourly) Surrendered Power (Maximum/Minimum/Average).
- e) Slot-wise open access power (Maximum/Minimum/Average).

In the details of fixed costs for various generating stations, PSPCL has not considered the fixed cost in respect of Atomic Power Plants and NRSE Projects. PSPCL has worked out additional surcharge @ of ₹ 1.13 per kWh, on the basis of fixed cost of stranded power (in MW).

8. The Commission vide letter dated 17.06.2016 directed PSPCL to submit comments on the issue of signing agreement for short term power purchase during summer season of year 2016. PSPCL vide

letter dated 09.07.2016 submitted the comments, summarized as under:

Punjab is having a peculiar load profile, according to which there is rise in demand only during paddy sowing months of June to September every year. PSPCL is committed to give regular 8 hours power supply to the farmers during paddy season and un-interrupted 24 hours supply to the rest of its consumers. While considering Petition No. 13 of 2015 for power purchase on short term basis, the Commission has finally decided that although there is no gap between demand and supply as per envisaged sources of power, but in case of any exigency, PSPCL may go in for purchase of short term power in judicious and economical manner and also resort to Demand Side Management Practices to maintain commercial viability.

The short term power has been purchased by PSPCL on commercial reasons. Even for the peak summer season, PSPCL has placed orders for the purchase of short term power @ ₹ 3.01 to 3.05/unit from WR region and @ ₹ 3.50/unit from the NR region, which are substantially lower than the average cost of generation of ₹ 3.85/unit of its own generating stations. Thus, PSPCL is saving considerably due to purchase of power on short term basis by replacing its costly generation with the short term power. PSPCL has submitted that total availability of power from all the sources at its disposal is sufficient to meet the peak demand of the summer season.

**9. Findings and Decision:**

- i) The Commission has carefully gone through the Petition made by PSPCL, objections raised by the objectors and reply of the

PSPCL to the objections. PSPCL has satisfactorily replied to the objections raised by the various Objectors. The Commission is of the considered opinion that additional surcharge based on the fixed cost of stranded power of utility arising out of its Universal Supply Obligation is payable by Open Access Consumers. Section 42(4) of the Act provides as under:-

*“42(4) 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 distribution licensee arising out of his obligation to supply.”*

*Clause 5.8.3 of the National Electricity Policy reads as under :-*

*“5.8.3 Under sub-section (2) of Section 42 of the Act, a surcharge is to be levied by the respective State Commissions on consumers switching to alternate supplies under open access. This is to compensate the host distribution licensee serving such consumers who are permitted open access under section 42(2), for loss of the cross-subsidy element built into the tariff of such consumers. An additional surcharge may also be levied under sub-section (4) of Section 42 for meeting the fixed cost of the distribution licensee arising out of his obligation to supply in cases where consumers are allowed open access. The amount of surcharge and additional surcharge levied from consumers who are permitted open access should not become*

*so onerous that it eliminates competition that is intended to be fostered in generation and supply of power directly to consumers through the provision of Open Access under Section 42(2) of the Act. Further it is essential that the Surcharge be reduced progressively in step with the reduction of cross-subsidies as foreseen in Section 42(2) of the Electricity Act, 2003.”*

Regulation 27 of the PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011, specifies as under:-

- 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. The distribution licensee shall indicate the quantum of such stranded costs and the period over which they would be stranded. The Commission shall scrutinize the statement of calculation of fixed cost submitted by the distribution*

*licensee and obtain objections, if any, and determine the amount of additional surcharge.*

*Provided that such additional surcharges 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.*

- 3) *The additional surcharge shall be determined by the Commission.*
- 4) *The consumers availing Open Access exclusively on interstate transmission system shall also pay the additional surcharge as determined under this Regulation.*
- 5) *The consumers availing Open Access through dedicated lines even without involving licensee's transmission and / or distribution system shall be liable to pay same additional surcharge as determined under this Regulation."*

The Hon'ble Supreme Court in its judgment dated 25.04.2014 in Civil Appeal No.5479 of 2013 under para 25 observed 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 (emphasis added)**".*

In view of the above, the utility is legally entitled to recover additional surcharge from the Open Access Consumers.

ii) The main issues raised by the objectors regarding levy of additional surcharge on Open Access Consumers are discussed as under:-

a) Requisite details regarding additional surcharge should have been submitted along with the ARR Petition by the licensee and Petition for additional surcharge has been filed to kill the Open Access in Punjab:-

The Commission finds that it is not binding on the licensee to submit the additional surcharge petition along with ARR Petition, as per Open Access Regulations, 2011 and the utility is legally entitled to recover additional

surcharge from the Open Access Consumers. The matter has been discussed in detail in para 8(i) above.

b) Adequacy of data and its correctness regarding Contracted Capacity, Stranded Capacity and Fixed Charges:-

PSPCL has submitted month wise installed capacity, details of actual fixed cost, slot wise availability (Max/Min/Average), slot wise scheduled power (Max/Min/Average), slot wise surrendered power (Max/Min/Average) and slot wise Open Access power (Max/Min/Average) for the period from April, 2015 to September, 2015. The Commission has worked out the additional surcharge to be paid by Open Access Consumers on the open access power brought by them on the basis of data submitted by PSPCL.

c) Power cuts imposed by PSPCL during April and May 2015 i.e. availability was less than demand:-

PSPCL has denied having imposed power cuts during April and May, 2015. It has been further submitted by PSPCL that the power cuts in the year 2015-16 have been imposed only for maintaining security of the grid by controlling the load i.e. over/under draws from the system in the event of outage of high capacity generating units.

d) Additional surcharge has been claimed based on six months data:-

Additional surcharge for the period from April, 2016 to Sept., 2016 has been calculated on the basis of corresponding six months data of the previous year i.e. 2015-16, as actual half yearly figures of the required data are available for the previous year only. It will not be appropriate to take into account the projected figures instead of actual figures for calculating the additional surcharge. Number of SERCs are working out the additional surcharge based on six months data of the previous year. Further, Open Access Regulations, 2011, notified by the Commission are silent on the issue of calculating additional surcharge based on six months data or yearly data.

- e) Shortage of power from June, 2016 to Sept., 2016 as per CEA projections:-

PSPCL in its reply has submitted that it has sufficient generating capacity available to meet with the demand forecasted by CEA and has submitted comparison of installed capacity (MW) of Punjab available during the year 2016-17 viz-a-viz the unrestricted demand as projected in CEA report.

PSPCL has submitted that as on 15<sup>th</sup> June 2016, total firm availability/installed capacity (MW) of power from all sources was 12444.03MW.

- f) Only standard capacity contract-wise can be used for calculating additional surcharge instead of average fixed cost of all PPAs:-

The Commission agrees with the reply of PSPCL that the quantum of power surrendered every day are not from a specific power plant, and the fixed cost associated with every plant is different. PSPCL has calculated the amount of total fixed charges that PSPCL was expected to pay, considering all the major power plant sources. Moreover, in the real time system operation, the principle of merit order dispatch is strictly being followed by PSPCL.

- g) PSPCL has no standard capacity as it has signed agreements for short term power purchase:-

PSPCL has justified that short term power has been purchased by PSPCL on commercial reasons. It has been submitted by PSPCL that even for the peak summer season, it has placed orders for the purchase of short term power @ ₹ 3.01 to ₹ 3.05/unit from WR region and @ ₹ 3.50/unit from the NR region, which are substantially lower than the average cost of generation of ₹ 3.85/unit of its own generating stations. Thus, PSPCL is saving considerably due to purchase of power on short term basis by replacing its costly generation with the short term power.

- iii) PSPCL has supplied the following data for calculating the additional surcharge:-
- a) (i) Month wise installed Capacity in MW.  
(ii) Detail of Actual fixed cost.
  - b) Slot-wise (Hourly) Availability declared (Maximum/Minimum/Average).

- c) Slot-wise (Hourly) Power Scheduled (Maximum/Minimum/Average).
- d) Slot-wise (Hourly) Surrendered Power (Maximum/Minimum/Average).
- e) Slot-wise open access power (Maximum/Minimum/Average).

The Commission has determined the Additional Surcharge to be paid by the Open Access Consumers on the open access power brought by them as ₹ 1.13 per kWh, on the basis of data submitted by PSPCL for the period from 1<sup>st</sup> April, 2015 to 30<sup>th</sup> September, 2015 (Annexure-I). This Additional Surcharge of ₹ 1.13 per kWh is ordered to be charged prospectively from the date of issue of this order upto 30<sup>th</sup> September, 2016.

PSPCL is directed to file petition with the Commission for levy of Additional Surcharge on Open Access Consumers as per Regulation 27 of the PSERC (Terms & Conditions for Intra-State Open Access) Regulations, 2011 for the period from April to September of a financial year by 31<sup>st</sup> December of the previous year, and for the period from October to March of a financial year by 30<sup>th</sup> June of the financial year. The Commission has already directed PSPCL vide its letter No. 3621 dated 15.07.2016 to file petition for levy of Additional Surcharge for the period from 1<sup>st</sup> October, 2016 to 31<sup>st</sup> March, 2017. PSPCL should submit its working out of Additional Surcharge on

the pattern of Annexure-I appended with this Order and supported with the data details as brought out above.

The Petition is disposed of accordingly.

Sd/-  
S .S. Sarna  
(Member)

Sd/-  
D.S. Bains  
(Chairman)

Chandigarh

Dated: 09.08.2016

**Annexure-I**

| <b>Calculation of Additional Surcharge based on data for the period from April, 2015 to September, 2015.</b> |                                                |                 |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|
| (i)                                                                                                          | Average Contracted Capacity                    | 11027.27 MW     |
| (ii)                                                                                                         | Maximum Availability                           | 9639 MW         |
| (iii)                                                                                                        | Minimum Availability                           | 5210 MW         |
| (iv)                                                                                                         | Average Availability                           | 8228 MW         |
| (v)                                                                                                          | Maximum Scheduled                              | 9414 MW         |
| (vi)                                                                                                         | Minimum Scheduled                              | 2373 MW         |
| (vii)                                                                                                        | Average Scheduled                              | 6019 MW         |
| (viii)                                                                                                       | Capacity not availed (Maximum)                 | 5421 MW         |
| (ix)                                                                                                         | Capacity not availed (Minimum)                 | 0 MW            |
| (x)                                                                                                          | Capacity not availed (Average)                 | 2210 MW         |
| (xi)                                                                                                         | Open Access Allowed (Maximum)                  | 658 MW          |
| (xii)                                                                                                        | Open Access Allowed (Minimum)                  | 0 MW            |
| (xiii)                                                                                                       | Open Access Allowed (Average)                  | 224 MW          |
| (xiv)                                                                                                        | Capacity Stranded due to open access           | 224 MW          |
| (xv)                                                                                                         | Fixed Charges                                  | ₹ 4115.17 crore |
| (xvi)                                                                                                        | Fixed Charges per MW available (xv÷iv)         | ₹ 0.50 crore    |
| (xvii)                                                                                                       | Fixed Charges of Stranded Capacity (xvi × xiv) | ₹ 112 crore     |
| (xviii)                                                                                                      | Open Access energy Scheduled                   | 985.11 MU       |
| (xix)                                                                                                        | Additional Surcharge (xvii ÷ xviii)            | ₹ 1.13 per kWh. |