

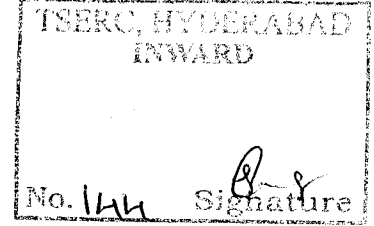


Ref No.: IEX/BD/1670/17-18

Date: 23.01.2018

To,

**The Secretary,
Telangana State Electricity Regulatory Commission,
11-4-660, 5th Floor, Singareni Bhavan,
Red Hills, Hyderabad.
Fax No. (040) 23397489
Email: secy@tserc.gov.in**



Subject: Comments on Petition for determination of Cross subsidy Surcharge and additional surcharge to be levied for the FY 2018-19 in respect of the open access consumers by TSSPDCL and TSNPDCL.

Sir,

This is reference to public notice regarding inviting comments / objections on the subject matter.

2. The Indian Energy Exchange is pleased to hereby submit its comments and suggestions on the above-mentioned Petition for the kind consideration of the Honorable Commission. As required, 6 copies of the comments are enclosed herewith and also a copy of the comments has been served to the Petitioner.

Yours faithfully,

Shruti Bhatia

Vice President
(Regulatory Affairs and Communication)

Copy to:

1. TSSPDCL: Chief General Manager (Commercial & RAC), Southern Power Distribution Company on Telangana Ltd. #6-1-50, Mint Compound, Hyderabad – 500063
2. TSNPDCL: Chief General Manager (IPC & RAC), Northern Power Distribution Company on Telangana Ltd. #2-5-31/2, Corporate office, Vidyut Bhavan, Nakkalgutta, Hanamkonda, Warangal-506001

www.iexindia.com

Indian Energy Exchange Limited

Registered & Corporate Office: Unit No. 3, 4, 5 & 6, Plot No.7, Fourth Floor, TDI Centre, District Centre, Jasola, New Delhi – 110025

Tel: +91-11-4300 4000 | Fax: +91-11-4300 4015

CIN: U74999DL2007PLC277039

IEX Comments on Petition for determination of additional surcharge to be levied for the FY 2018-19 in respect of the open access consumers by TSSPDCL

The present Petitions have been filed by TSSPDCL and TSNPDCL for seeking approval of Additional Surcharge @ 2.06 Rs/KVAh to be levied on Open Access Consumers.

On perusal of the Petitions, it has been observed that Discoms proposal seeking imposition of Additional Surcharge is not maintainable in present scenario as well as the proposal lacks merit.

IEX hereby submits its comments on the proposal of Discoms on Additional Surcharge in the said Petitions for kind consideration of the Hon'ble Commission:

1. MAINTAINABILITY OF THE PETITION:

1.1. Additional Surcharge cannot be based on Future Projections:

1. The Petitioners have invoked Para 8.5.4 of National Tariff Policy (NTP) which inter-alia provides that additional surcharge becomes applicable in case existing long-term PPAs **has been and continues to be stranded**. Para 8.5.4 of NTP is reproduced below:

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

2. In wake of the above set position in the NTP, the words 'has been' mandates that Additional Surcharge becomes applicable only in case where losses have already been incurred by the Discom on account of Open Access availed by Consumers. However the Additional Surcharge cannot be imposed in anticipation of the capacity becoming stranded.

3. Further, the petitioner while anticipating the need for Additional Surcharge has also anticipated that the State would be in power surplus in FY 18-19 therefore as such in the past period Discom has not claimed that it has incurred any losses on account of Open Access.
4. It is submitted that the methodology for determination of Additional Surcharge adopted by the other State Electricity Regulatory Commissions viz. Haryana, Rajasthan, Gujarat, Maharashtra etc. is based on the fixed cost related expenses actually incurred by the Discoms in the past period. While claiming the Additional Surcharge, the Petitioner has not claimed any loss in the past period.

The present petitions for determination of Additional Surcharge are based on the notional future that the Discoms will incur in fiscal 2018-19 on account of open access which is inter-alia contrary to the provision in the National Tariff Policy which allows recovery of only past period losses. Therefore, the petition is premature and thus should be dismissed.

1.2. **Conclusive demonstration of stranding of long-term generation capacity is pre-requisite to determination of Additional Surcharge**

1. Para 8.5.4 of NTP provides that Additional Surcharge is applicable only when capacity '*continues*' to be stranded. The continuous period for which certain capacity has been stranded due to Open Access should be construed as the period for which Additional Surcharge is claimed by the Petitioners.

In the present case since the period is financial year FY 18-19 therefore the Additional Surcharge can be claimed once the financial year has concluded and the Discoms have conclusively demonstrated that there was no power shortage in any of the 15 min time block of FY 18-19 and the capacity was stranded/backed down primarily on account of open access.

In other words Additional Surcharge can be claimed only when Discom is able to meet its peak demand in FY 18-19 and does not do any load shedding during such peak demand period.

2. Further, the Petitioner has also not been able to demonstrate continuous stranded capacity as per above mentioned principle. In fact, as per the petition, the estimated bilateral purchases from various Traders /Generators on Short Term basis are estimated to be 1876.48 MU for FY 17-18 H2 and 383.46 MU for FY 2018-19 upto 15.04.2018.

The petitioner has not demonstrated that there is continuous stranding of long-term PPAs on account of open access. Thus, the petition is not maintainable and therefore liable to be dismissed.

2. Other Submissions: Without prejudice to above submissions, following comments are submitted for consideration of the Hon'ble Commission:

2.1. Discoms have not incurred any loss but have actually made savings by permitting Open Access:

1. It is submitted that when the open access consumer procures power from sources other than incumbent distribution licensee, the distribution licensee avoids procuring power in merit order i.e. highest variable cost generation is avoided first than the second highest variable cost generation on so on.

In case of Telangana, the average power purchase cost (variable cost) of Discoms is ~ 2.54 Rs./Unit. Therefore, when Discoms avoid procurement of any generation whose variable cost is above 2.19 Rs./Unit, it leads to savings for the Discoms. In the present case, variable cost of generation from some APGENCO Plants, TS GENCO Plants, NLC Plants is more than the 2.19 Rs./Unit and by backing down of these sources, the Discoms can make substantial savings.

Since the Discoms have not incurred any loss on account of stranded capacity due to open access, hence, there is no case for claiming Additional Surcharge.

2.2. **Data Insufficiency:**

The Petitioner has claimed Additional Surcharge simply based on the average peak demand of state met and total fixed cost which does not reflect that in a given time block when open access consumer was procuring power through open access, Discoms had stranded capacity and had to back down certain generating station in that time block. There is no rational in the methodology proposed by the Discoms.

To assess the case for Additional Surcharge, the Honorable Commission is requested to analyze the generation back-down data for each 15 min time block period along with the reason of such back-down since the back down could also be on account of economical, operational and technical.

The methodology adopted by the Discoms is not rational. Any spurious imposition of Additional Surcharge on the open access consumers will impede competition and power market in the State of Telangana.

2.3. **Incorrect Calculation of Additional Surcharge by Licensee:**

1. **Calculation of Stranded Cost due to Open Access:** The Licensee has calculated stranded cost due to Open Access in following manner:

- The approved fixed charges payable to generators as per projections for FY2018-19 is Rs. 15,317 Crores and projected available capacity is 7,670.04 MW. Thus, the average fixed charges worked out to Rs. 2.00 Crores per MW.
- The Licensees has then considered the projected Open Access sales for FY 2018-19 for arriving at the stranded generation capacity which is 246.51 MW

- Accordingly the fixed charges for stranded capacity of 246.51 MW works out as Rs. 492.29 Crores (i.e. 246.51 MW X Rs. 2.00 Crores).

The above methodology has following gaps:

- Since average fixed cost payable to generators has been considered, it does not reflect which specific generator was backed down due to Open Access which is the basic philosophy behind the Additional Surcharge that only such fixed cost of generators can be imposed as Additional Surcharge which is stranded due to Open Access.
- Licensee has projected 246.51 MW as the capacity which would be stranded due to Open Access. It is incorrect to average out the Open Access quantum as it cannot be presumed that in each time block of 15 minute in entire year, there will be a fix MW which will be stranded due to Open Access.

2. Cost considered for Additional Surcharge: The Licensee has considered following cost towards Additional Surcharge:

- Fixed Cost of Stranded Power - 492.29 Rs. Crores
- Demand Charges - 303.29 Rs. Crores
- T & D Cost – 255.50 Rs. Crores
- AS to be recovered = $492.29 - 303.29 + 255.50 = 444.48$ Rs. Cr

The above methodology has following gaps:

- Transmission and Distribution cost are network cost. As per Para 8.5.4 of Tariff Policy 2016 notified by Government of India, the fixed costs related to network assets would be recovered through wheeling charges. Therefore, network related cost cannot be recovered through Additional Surcharge. Hon'ble Supreme Court in *Energy Watchdog Vs CERC* in Civil Appeal Nos.5399-5400 of 2016 (Compensatory tariff case) held that the Tariff Policy is statutory documents being issued under Section 3 of the

Act and have the force of law. Therefore, Hon'ble Commission is bound by the principles set out in Tariff Policy and should not consider any network related cost in determination of Additional Surcharge.

- Therefore, in view of the above gaps in the methodology proposed by the Licensee, Hon'ble Commission is requested to adopt a rational methodology for calculation of Additional Surcharge. One of such methodology is suggested for consideration of the Hon'ble Commission in subsequent paragraphs.

2.4. **Capping the Additional Surcharge:**

The Licensees are proposing Additional Surcharge because of under recovery of fixed charges towards generation through Demand Charges. Therefore, the Additional Surcharge can be maximum to the extent of loss incurred by the Distribution Licensee when a consumer opts for Open Access. This cap can be calculated by following formulation:

$$\text{Maximum Additional Surcharge} = \text{Average Fixed Cost of Generation} - \text{Demand Charges}$$

2.5. **Suggested Methodology for Determination of Additional Surcharge levied from Open Access Consumers**

As discussed above, it is observed that there is scope of improvement in methodology adopted by the Hon'ble Commission for determination of Additional Surcharge.

Accordingly, we propose following methodology of determination of Additional Surcharge to rationalize the methodology based on the sound principles. Accordingly, following methodology is proposed to rationalize determination of Additional Surcharge:

- 1) Para 8.5.4 of Tariff policy provides that additional surcharge becomes applicable in case existing PPAs **has been and continues to be stranded**. It implied that additional surcharge can only be imposed in case there was stranded capacity in the past period and it is likely that same would be continued in the present/future period for which additional surcharge has been proposed. **Therefore, Additional Surcharge should be calculated on the data of past period instead of future period. This practice has been adopted by all other State Commission where additional Surcharge is applicable.**
- 2) Calculation of quantum of stranded power should be done looking at reasons of breaking down for each fifteen – minute time block.
- 3) The Additional Surcharge can only be levied in case discom has to **back down the generation due to open access** and the Discom is not able to recover fixed cost of such generation. To establish that the back down of generation has been done by Discoms due to open access, following factors need be considered:
 - i. Purchase of power under short term market: If Discom is buying power under short term market than it may be fairly concluded that the Discom is in either shortage situation or it is backing down generation due to economic reason (high cost). In both of this situation, there will not be any stranded capacity on account of Open Access, rather open access is helping Discoms in curbing shortages.
 - ii. Load shedding: In case Discom is resorting to load shedding than again it can be inferred that Discom is in shortages thereby no stranded capacity can be claimed on account of Open Access as it would be absurd that on one hand consumers are not getting power and on the other hand discoms are backing down generation.
 - iii. Purchase of RE power under RPO: Discoms are obligated to procure power from RE sources which are must run sources. In such case, Discoms may have to back down its conventional generation. In such scenario Open Access cannot be held responsible for backing down of generation.
 - iv. The assessment of Additional Surcharge should be carried out for each season. The period of 12 months in a financial year may be divided into two or more seasons based on shape of load curves. In case Discom is not able to meet peak demand of the season, no additional surcharge to be imposed.
 - v. The additional surcharge should be calculated based on actual parameters for the comparable past period and assumes that

conditions would remain same for corresponding period next year.
E.g. Apr-June for FY 16-17 is comparable with Apr-June of FY 17-18.

- 4) Considering all of the above factors, **assessment of quantum stranded power attributable to Open Access customers** during each 15- minute time block of peak period of a season may be done as under:

$$\text{SP} = \text{Minimum} [(\text{URS} - \text{STPP} - \text{REP} - \text{LS}), \text{OA}]$$

Where

- ✓ **SP** is Stranded Power (MW) attributable to Open Access customers during the time block
- ✓ **URS** is un-requisitioned power (MW) during the time block from various Power Stations with which Discom has long-term PPA duly approved by the SERC
- ✓ **LS** is the quantum (MW) of load shedding carried out or load restrictions imposed on various categories of consumers or areas during the time block
- ✓ **STPP** is the Short term Power Purchase (MW) during the time block
- ✓ **REP** is the Renewable Energy Purchase (MW) during the time block against RPO
- ✓ **OA** is the quantum of Open Access granted (MW) during the time block

Load shedding or load restrictions in the area of Discom and Short term power purchase including renewable power are subtracted from the un-requisitioned/back down power to arrive at actual stranded power during the time block. By using minimum of stranded power and open access quantum, it is ensured that only the power stranded because of Open Access Consumers is used for assessment of Additional Surcharge.

Example:

I. Calculation of total URS Power

Time Block	Plant A (MW)	Plant B (MW)	Plant C (MW)	Plant D (MW)	Total URS (MW)
0.00-0.15	100	100	100	100	400
0.15-0.30	200	200	200	200	800

II. Calculation of Stranded Capacity due to Open Access in a Time Block

Time Block	OA Quantum (A)	URS (B)	LS (C)	STPP (D)	REP (E)	Stranded Power (SP) = B-C-D-E	Min of 'A' and 'SP' (MW)
0.00-0.15	500	400	50	100	20	230	230
0.15-0.30	500	800	50	50	50	650	500

- 5) After assessment of total stranded power due to Open Access in a time block, the resultant quantum (MW) should be allocated amongst the generation plants starting with low variable cost. In other words while allocating quantum, merit order should be followed. In the above example allocation of should be done in following manner:

III. Allocation of Stranded Capacity

Time Block	Plant A	Plant B	Plant C	Plant D	Total Stranded Power(SP) (MW)
Variable Cost (Rs./Kwh)	3.12	3.36	3.44	3.85	
0.00-0.15	100	100	30	0	230
0.15-0.30	200	200	100	0	500

- 6) Assessment of fixed cost of stranded power due to Open Access should be calculated in following manner.

1) Calculation of fixed cost of each plant in Rs./Unit:

	Plant A	Plant B	Plant C	Plant D
Fixed Cost (Cr. Rs.)	350	210	380	126
Quantum approved in Tariff Order (MU)	7000	5250	8400	3500
Fixed Cost (Rs./Unit)	0.5	0.4	0.45	0.36

2) **Calculation of fixed cost of stranded power:** In the above example total fixed cost should be calculated by multiplying stranded power from each plant in a time block with the fixed cost (Rs./Unit) of such plant:

Time Block	Plant A	Plant B	Plant C	Plant D	Total fixed cost of Stranded Power (Rs.)
Fixed Cost (Rs./Unit)	0.5	0.4	0.45	0.36	
0.00-0.15	12500 [(100*1000*0.5)/4]	10000	3375	0.00	25875
0.15-0.30	25000	20000	11250	0.00	56250
	Total				82125

3) **Calculation of Total recoverable Additional Surcharge:** The Recoverable Additional Surcharge should be arrived by adjusting revenue credited by generator (Rs.) against sale of un-requisitioned power.

Recoverable Additional Surcharge (Rs.)(RAC) = Total fixed cost of Stranded Power - Revenue credited by generator against sale of un-requisitioned power.

Example:

Let's assume that generator credited revenue @ Rs. 2125 realized from sale of Un-requisitioned power.

Therefore,

$$\text{RAC} = 82125 - 2125 = 82000 \text{ Rs.}$$

4) **Additional Surcharge to be levied on Open Access Consumers:**

$$\text{Additional Surcharge (Rs./Unit)} = \text{RAC} / \text{Open Access quantum}$$

In above example:

Open Access Quantum

Time Block	OA Quantum (A) (MW)	OA Quantum (Units) [A*1000/4]
0.00-0.15	500	125000
0.15-0.30	500	125000
	Total	250000

$$\text{Additional Surcharge} = 82000 / 250000 = 0.32 \text{ Rs/Unit}$$