

దక్షిణ తెలంగాణ విద్యుత్ పంపిణీ సంస్థ SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED

(Distribution & Retail Supply Licensee)



Filing of Proposed Tariffs, Cross Subsidy Surcharge(CSS) and
Additional Surcharge
for
Retail Supply Business for the Year 2018-19



21st December, 2017

**BEFORE THE HONOURABLE TELANGANA STATE ELECTRICITY REGULATORY
COMMISSION**

AT ITS OFFICE AT 5th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004

FILING NO. _____/2017

CASE NO. _____/2017

In the matter of:

Filing of the tariff applications for retail supply business for FY 2018-19, cross subsidy surcharge and additional surcharge for open access consumers for the FY 2018-19 in accordance with the “Telangana Electricity Regulatory Commission (Terms And Conditions For Determination Of Tariff For Wheeling And Retail Sale Of Electricity) Regulation, 2005” by the Southern Power Distribution Company of Telangana Limited (‘TSSPDCL’ or ‘the Company’ or ‘the Licensee’) as the Distribution and Retail Supply Licensee.

In the matter of:

SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED

... Applicant

The Applicant respectfully submits as under: -

1. Consequent to the formation of Telangana State on 02-06-2014 as per the Andhra Pradesh Reorganisation Act, 2014, a separate Telangana Electricity Regulation Commission was constituted on 03-11-2014. TSERC vide Telangana Official Gazette has issued its first regulation, Regulation No. 1 of 2014 on 10.12.2014 (Adoption of Previously Subsisting Regulations, Decisions, Directions or Orders, Licenses and Practice of Directions) wherein clause 2 states that:

“All regulations, decisions, directions or orders, all the licences and practice directions issued by the erstwhile Andhra Pradesh Electricity Regulatory Commission (Regulatory Commission for States of Andhra Pradesh and Telangana) as in existence as on the date of the constitution of the Telangana State Electricity Regulatory Commission and in force, shall

mutatis-mutandis apply in relation to the stakeholders in electricity in the State of Telangana including the Commission and shall continue to have effect until duly altered, repealed or amended, any of Regulation by the Commission with effect from the date of notification as per Notification issued by the Government of Telangana in G.O.Ms.No.3 Energy(Budget) Department, dt.26-07-2014 constituting the Commission.”

2. This filing is made by the **SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED (TSSPDCL)** under Section 61 of the Electricity Act 2003 for determination of the tariff for the Retail Supply Business for the year FY 2017-18.
3. The licensee had filed the Aggregate Revenue Requirement (ARR) for FY 2018-19 on 15th Dec17 and also has submitted a prayer to the Hon’ble Commission to allow additional time for filing of Tariff Proposals, True-ups, Cross Subsidy Surcharge and Additional Surcharge Proposals separately. The current petition of the license is for tariff, cross subsidy and additional surcharge for the FY 2018-19.
4. **Revenue at Current Tariffs:** The licensee has projected a sales quantum of 36,434.26 MU for FY 2018-19. The licensee has estimated the Aggregate Revenue Requirement (ARR) of INR INR 23,518.88 crs for FY 2018-19. The details of revenue at current tariffs and gap thereof for FY 2018-19 is as per the table below –

Revenue Deficit/Surplus (INR crore)	2018-19
Aggregate Revenue Requirement	23,518.88
Revenue from Current Tariffs	18,432.55
Non-Tariff Income	35.75
Revenue from Cross Subsidy Surcharge	312.36
Revenue from Additional Surcharge	444.48
Revenue Deficit(-)/Surplus(+) at Current Tariffs	(4,293.74)

The licensee has explained the method of calculation of cross subsidy surcharge and additional surcharge in the subsequent sections below

5. **Tariff Proposals:** The licensee humbly submits to retain the tariffs for FY 2018-19 as per the current tariff order i.e. as per Tariff Order for FY 2017-18 with the following modifications
 - **Introduction of two-part tariff structure for Lift Irrigation Schemes:** Based on the data received from Irrigation Department (Government of Telangana) major irrigation project – Kaleshwaram 2,305 MW would be operational in the ensuing

year. The other new Lift Irrigation (LI) schemes expected to be operational in FY 2018-19 contribute another 208 MW. Hence the projected load from LIS schemes in the ensuing year would be 4,140 MW including existing loads. The projected sales from LI schemes for FY 2018-19 are 5,583 MU.

It may be observed from the above that projected demand from the LI schemes on the grid is substantial. TS Discoms would have to contract adequate quantities of power in advance in order to ensure continued supply of power to LI schemes and all other category of consumers.

TS Discoms have endeavoured to minimize the power purchase through optimal contracting through non-RTC contracts. It may be appreciated that such contracts would still have fixed cost commitment due to non-off take of power by the Discom in a scenario of reduced demand from the LI schemes when compared to the projected loads

The above situation has an adverse impact on the financials of the Discoms. Further as per the recommendations of the committee constituted by Ministry of Power (MoP) on rationalization of Tariff structures, greater emphasis has been placed on recovery of fixed and variable costs through two part tariff structures. Hence Discoms need to enhance the recovery of fixed charges through two part tariff structures which are reflective of the fixed and energy costs commitments of power contracts.

In view of the above, TS Discoms propose the introduction of two-part tariff structure for HT- IV Lift Irrigation schemes as follows –

Current Tariff Structure:

Energy Charge – INR 6.40/KWh

Proposed Tariff Structure:

Demand Charge – INR 390/KVA/month

Energy Charge – INR 4.88/KWh

Proposed Tariff Conditions –

Demand Charges would be levied on **80%** of Contracted Maximum Demand (CMD) or Recorded Maximum Demand (RMD) for Operational Months – July to November (5 months)

Demand Charges would be levied on **30%** of Contracted Maximum Demand (CMD) or Recorded Maximum Demand (RMD) for Non-Operational Months – December to June (7months)

Based on the projected commissioning schedule of loads and energy across months in FY 2018-19, the proposed tariff structure would be revenue neutral at the State level. That is, there is no additional revenue from LI schemes due to the introduction of the two-part tariff structure proposed at the state level.

- **Tariff for Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap**

From a background perspective, the transport sector is the largest user of oil and second largest source of CO2 emissions world-wide. Indian transportation sector accounts for one-third of the total crude oil consumed in the country, where 80% is being consumed by road transportation alone. It also accounts for around 11% of total CO2 emissions from fuel combustion.

The National Electric Mobility Mission Plan 2020, notified by the Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises, Government of India seeks to enhance national energy security, mitigate adverse environmental impacts from road transport vehicles and boost domestic manufacturing capabilities for Electric Vehicles (EVs). It is envisaged that EVs are expected to play a significant role in India’s transition to a low-carbon eco-system.

As per estimates, based on Total Cost of Ownership (TCO), commercial fleet of cars (taxis) could possibly be among the first adopters of EVs on a large scale followed by private vehicles. TSDiscoms are of the view that the activity of usage of power for Charging Infrastructure/ Battery swap should be recognized as a commercial activity. Considering above, the licensee propose the tariff for this category as per the following

For Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap set up at LT voltage level	Tariff applicable would be as per the LT II (Non-domestic/ commercial) category tariff notified by Hon’ble TSERC in the 2017-18 Tariff Order.
For Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap set up at HT voltage level	Tariff applicable would be as per the HT II - Others category tariff notified by Hon’ble TSERC in the 2017-18 Tariff Order.(for respective voltages)

Licensee will provide supply to Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap as per the above schedule. Charging infrastructure provider is free to setup infrastructure at any location in the area of the licensee and provide services to the end user/ electric vehicle.

6. Revenue at proposed Tariffs:

As submitted earlier, the licensee prays that the Hon’ble Commission may retain the retail tariff per the existing tariff order for FY 2017-18.

Hence the revenue gap at the proposed tariff for the licensee is as follows –

Revenue Deficit/Surplus (INR crore)	2018-19
Aggregate Revenue Requirement	23,518.88
Revenue from Proposed Tariffs*	18,503.91
Non-Tariff Income	35.75
Revenue from Cross Subsidy Surcharge	312.36
Revenue from Additional Surcharge	444.48
Revenue Deficit(-)/Surplus(+) at Current Tariffs	(4,222.38)

*Due to the sales and load mix of LI schemes the revenue from proposed tariff is different from the current tariff for the licensee. However, at the state level the revenue at proposed tariff is same as that of revenue at current tariff

7. Determination of Cross subsidy Surcharge for FY 2018-19

The licensee has computed the Cross Subsidy Surcharge for FY 2018-19 as per the tariff policy notified by Ministry of Power dated 6th Jan 2016.

There was open access sales to the extent of 2,159 MU in the licensee area in 2016-17. The licensee anticipates similar trends in open access consumption for the year 2018-19.

Based on the CSS methodology as outlined as per tariff policy, the licensee has projected a revenue of INR 312.36 crs for the FY 2018-19.

8. Determination of Additional Surcharge for FY 2018-19:

The licensee has made all the necessary arrangements for ensuring un-interrupted supply of power to all categories of consumers including 24 hours power supply to the agricultural consumers, upcoming major LI schemes and also the additional load growth from Industrial

consumers through advance planning and by entering into long term power supply agreements. The licensee humbly submits that contracting of power by consumers through open access arrangements would result in stranding of these assets leading to under-recovery of fixed costs.

Hence the licensee prays that the Hon'ble Commission may consider the levy of additional surcharge for open access consumers i.e. surcharge in addition to the charges for wheeling to meet the fixed cost of the licensee arising out of its obligation to supply as per section 42(4) of the Electricity Act, 2003 which includes the fixed cost commitments of power purchase agreements.

The licensee has followed the methodology adopted by the Hon'ble Commission in computation of additional surcharge as per order dated 13th December, 2017. There were open access sales to the extent of 2,159 MU in the licensee area in 2016-17. The licensee anticipates similar trends in open access consumption for the year 2018-19.

Based on the methodology outlined by Hon'ble TSERC, the licensee has projected a revenue of INR 444.48 crs for FY 2018-19.

9. **Additional Prayers:**

As per the consultation paper floated by Ministry of Power on the issues and challenges faced by Discom due to open access following key concerns has been identified –

a) Cross Subsidy Surcharge fixation:

Section 8.3 (2) of the Tariff Policy 2016 specifies that:

*“For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that **tariffs are brought within ±20% of the average cost of supply**. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy”*

The Tariff Policy provides that SERCs should notify a roadmap such that tariffs are in ±20% of ACoS. The First proviso to para 8.5.1 of Tariff Policy 2016 also specifies that Cross Subsidy Surcharge (CSS) should be capped at 20% of the tariff applicable to the category of the consumers.

The following observation has been noted by the committee.

“It has been observed that some SERCs have implemented only the second point, which can result in lower recovery of CSS by DISCOMs”

The licensee humbly submit that the above situation is prevailing the state of Telangana and this has led to under recovery of CSS by licensee.

In view of the above, the licensee submits that the Hon’ble Commission may notify suitable guidelines for reduction of cross subsidy surcharge in the state.

b) Levy of Standby Charges:

Standby arrangements could be required by Open Access consumers to tide over deficits in cases of situations such as outages of generator, transmission assets etc. In such situations the Open Access consumer has to take power from an alternate source e.g. from the DISCOM. The charges for maintaining standby arrangements for such consumers should be reflective of the costs incurred by DISCOMs for providing these support services.

The licensee has procured power for supply of power to consumers in the state. The Open Access consumer during the course of consumption have depended on the supply from licensee for tiding over any supply imbalances which they may face.

Hence the licensee prays that the Hon’ble Commission may fix standby charges after due consideration.

10. Based on the information available, the applicant has made sincere efforts to comply with the Regulation of the Hon’ble Commission and discharge its obligations to the best of its abilities. However, should any further material information become available in the near future, the applicant reserves the right to file such additional information and consequently amend/ revise the application.

11. This filing has been discussed and approved by the Board of Directors of TSSPDCL and Sri. G Raghuma Reddy, Chairman and Managing Director of TSSPDCL has been authorised to execute and file the said document on behalf of TSSPDCL. Accordingly, the current filing documents are signed and verified by, and backed by the affidavit of Sri. G Raghuma Reddy, the Chairman and Managing Director of TSSPDCL.
12. In the aforesaid facts and circumstances, the Applicant requests that this Hon'ble Commission may be pleased to:
- a. Take the accompanying Tariff application of TSSPDCL on record and treat it as complete;
 - b. Grant suitable opportunity to TSSPDCL within a reasonable time frame to file additional material information that may be subsequently available;
 - c. Consider and approve TSSPDCL's Tariff application including all requested regulatory treatments in the filing;
 - d. Pass such order as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED
(APPLICANT)

Through

CHAIRMAN AND MANAGING DIRECTOR

Place: Hyderabad
Dated: 21st Dec 2017

**BEFORE THE HONOURABLE TELANGANA STATE ELECTRICITY REGULATORY
COMMISSION**

AT ITS OFFICE AT 5th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004

FILING NO. _____/2017

CASE NO. _____/2017

In the matter of:

Filing of the tariff applications for retail supply business for FY 2018-19 and additional surcharge for open access consumers for the year 2018-19 in accordance with the “Telangana Electricity Regulatory Commission (Terms And Conditions For Determination Of Tariff For Wheeling And Retail Sale Of Electricity) Regulation, 2005” by the SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED (‘TSSPDCL’ or ‘the Company’ or ‘the Licensee’) as the Distribution and Retail Supply Licensee.

In the matter of:

SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED

... Applicant

**AFFIDAVIT OF APPLICANT VERIFYING THE APPLICATION ACCOMPANYING
FILING AS PER TERMS AND CONDITIONS OF TARIFF FOR WHEELING AND
RETAIL SALE OF ELECTRICITY**

I, Sri. G Raghuma Reddy, son of Sri G. Janga Reddy (Late), working for gain at the Southern Power Distribution Company of Telangana Limited do solemnly affirm and say as follows:

- 1 I am the Chairman and Managing Director of TSSPDCL, the Licensee that has, vide the Hon’ble Commission’s approval in proceedings No. APERC/Secy/Engg/No.6 dt.31.3.2000, been granted the distribution and retail supply functions that Transco was authorised to conduct or carry out under the Act and the license, with respect to the business of distribution and retail supply of electricity in the Southern distribution zone in Telangana. On December 27, 2000, the Hon’ble Commission has awarded a Distribution and Retail Supply License to TSSPDCL effected from April 1, 2001. I am competent and duly authorised by TSSPDCL to affirm, swear, execute and file this affidavit in the present proceedings.

- 2 As such, I submit that I have been duly authorised by the Board of Directors of TSSPDCL to submit the application, as per Terms and Conditions of Tariff for Wheeling and Retail Sale of Electricity (Regulation 4 of 2005) of TSSPDCL for the FY 2018-19 to Hon'ble Commission.
- 3 I submit that I have read and understood the contents of the appended application of TSSPDCL. The facts stated in the application are true to the best of my knowledge, which are derived from the official records made available and certain facts stated are based on information and advice which, I believe to be true and correct.
- 4 I submit that for the reasons, and facts stated in the appended application this Applicant pray that the Hon'ble Commission may be pleased to
 - (a) Take the accompanying Tariff application, cross subsidy surcharge and additional surcharge of TSSPDCL on record and treat it as complete;
 - (b) Grant suitable opportunity to TSSPDCL within a reasonable time frame to file additional material information that may be subsequently available;
 - (c) Consider and approve TSSPDCL's Tariff application including all requested regulatory treatments in the filing;
 - (d) Pass such order as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

DEPONENT

VERIFICATION:

I, the above named Deponent solemnly affirm at Hyderabad on this 21st Day of December 2017 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

DEPONENT

Solemnly affirmed and signed before me.

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1 Revenue Projections at Current Tariffs

1.1 Revenue at Current Tariffs

The gross revenue at current tariffs for FY 2017-18 and FY2018-19 are as shown below:

Revenue from Current Tariffs (Rs.Crs.)	2017-18	2018-19
LT Category	7186.32	7670.08
LT-I: Domestic	3578.93	3852.34
LT-II: Non-Domestic/Commercial	2419.49	2583.56
LT-III: Industry	655.12	681.34
LT-IV: Cottage Industries	4.23	4.31
LT-V: Agricultural	39.22	41.41
LT-VI: Street Lightning & PWS Schemes	433.59	447.54
LT-VII: General Purpose	52.69	56.22
LT-VIII: Temporary Supply	3.06	3.36
HT Category	9179.37	10762.48
HT-I(A): Industry (General)	6180.85	6738.65
HT-I(B): Ferro-Alloy Units	68.91	70.99
HT-II: Others	2058.98	2249.29
HT-III: Airports, Bus Stations and Railway Stations	48.55	49.59
HT-IV: Irrigation & CPWS	554.62	1313.92
HT-V: Railway Traction	119.84	182.24
HT-VI: Townships & Residential Colonies	97.16	106.53
HT Temporary	50.47	51.27
Total	16365.69	18432.55

1.2 Non-Tariff Income from Current Tariffs

The Non-Tariff Income for Retail Supply Business during FY17-18 and FY18-19 is projected based on the past trend & first half actuals of FY17-18 and the same is tabulated below:

Items of Non-Tariff Income (Rs.in crore)	2017-18	2018-19
Capacitor Surcharge	21.22	21.64
Interest on Others (ED)	3.70	3.77
Reactive Income	0.32	0.32
Grid supporting /Application charge	0.51	0.52
Interest on Bank deposits	2.58	2.63
Application Registration Fee	1.86	1.90
Reconnection Fee –LT	0.99	1.01
Reconnection Fee –HT	0.32	0.32
Other income	3.56	3.63
Total Non-tariff Income	35.05	35.75

1.3 Revenue from Cross subsidy Surcharge and Additional Surcharge

1.3.1 The Discom has estimated Open Access (OA) sales for FY 2017-18 by considering the actuals for first Half (H1) and projections for H2 based on the FY16-17 trend.

The month wise and category wise OA sales across voltages estimated for FY 2017-18 is detailed below

Category	Voltage	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	11	4.88	3.53	4.55	5.57	4.98	2.86	6.22	4.49	5.79	7.10	6.34	3.65	59.97
	33	103.47	92.47	109.99	119.48	97.29	64.65	126.98	113.48	134.98	146.62	119.39	79.34	1308.14
	132	58.87	46.60	54.80	75.93	56.98	39.93	79.44	62.88	73.94	102.46	76.88	53.88	782.59
2	11	0.75	0.54	0.65	0.68	0.28	0.21	0.76	0.55	0.67	0.70	0.29	0.22	6.31
	33	0.44	0.47	0.40	0.33	0.40	0.14	0.05	0.06	0.05	0.04	0.05	0.02	2.45
	Total	168.40	143.62	170.38	202.00	159.93	107.80	213.45	181.47	215.42	256.92	202.95	137.11	2159.45

The revenue from Cross Subsidy Surcharge for FY 2017-18 is calculated upto August 2017 based on the CSS order for FY 2016-17 and for the balance period i.e. from September 2017 to March 2018 considering the CSS order for FY 2017-18.

The Revenue from Cross Subsidy Surcharge for FY 2017-18 is estimated at Rs. 306.92 crores as shown below

Category		Open Access Sales (MU)	Cross Subsidy Surcharge Revenue (Rs. in Crs.)
1	11kV	59.97	9.97
	33kV	1308.14	192.03
	132kV	782.59	103.20
2	11kV	6.31	1.28
	33kV	2.45	0.44
Total		2159.45	306.92

1.3.2 The Discom has projected additional surcharge considering the Open access MUs estimated for January 2018 to March 2018 at the Honble Commission approved rates.

The revenue from additional surcharge for FY 2017-18 is Rs. 31.04 crores as shown below

Month	Open Access Sales (MU) Projected	Approved Additional Surcharge Rate (Rs. per unit)	Additional Surcharge (Rs. in Crores)
Jan-18	256.92	0.52	13.36
Feb-18	202.95	0.52	10.55
Mar-18	137.11	0.52	7.13
Total	596.98		31.04

1.4 Revenue Gap at Current Tariffs

The Revenue Gap at current tariffs with estimated ARR for FY 2017-18 is Rs. 5031.17 Crores.

Revenue Deficit/Surplus (Rs.in crore)	2017-18
Aggregate Revenue Requirement	22,496.96
Revenue from Current Tariffs	16,365.69
Non-Tariff Income	35.05
Revenue from Cross Subsidy Surcharge	306.92
Revenue from Additional Surcharge	31.04
Revenue Deficit(-)/Surplus(+) at Current Tariffs	(5758.26)
Subsidy	727.09
Net gap – Deficit(-)/Surplus(+)	(5031.17)

2 Tariff proposal

2.1 Tariffs for FY 2018-19

The licensees humbly submit to the Honorable Commission for retaining the tariffs as per the Tariff Order of FY 2017-18, for the ensuing year FY 2018-19.

2.2 New category Proposal for Electric Vehicles

Tariff for Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap

From a background perspective, the transport sector is the largest user of oil and second largest source of CO₂ emissions world-wide. Indian transportation sector accounts for one-third of the total crude oil consumed in the country, where 80% is being consumed by road transportation alone. It also accounts for around 11% of total CO₂ emissions from fuel combustion.

The National Electric Mobility Mission Plan 2020, notified by the Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises, Government of India seeks to enhance national energy security, mitigate adverse environmental impacts from road transport vehicles and boost domestic manufacturing capabilities for Electric Vehicles (EVs). It is envisaged that EVs are expected to play a significant role in India's transition to a low-carbon eco-system.

As per estimates, based on Total Cost of Ownership (TCO), commercial fleet of cars (taxis) could possibly be among the first adopters of EVs on a large scale followed by private vehicles. TSDiscoms are of the view that the activity of usage of power for Charging Infrastructure/ Battery swap should be recognized as a commercial activity.

Considering the above, the licensee propose the tariff for this category as per the following

For Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap set up at LT voltage level	Tariff applicable would be as per the LT II (Non-domestic/ commercial) category tariff notified by Hon'ble TSERC in the 2017-18 Tariff Order.
For Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap set up at HT voltage level	Tariff applicable would be as per the HT II - Others category tariff notified by Hon'ble TSERC in the 2017-18 Tariff Order.(for respective voltages)

Licensee will provide supply to Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap as per the above schedule. Charging infrastructure provider is free to setup infrastructure at any location in the area of the licensee and provide services to the end user/ electric vehicle.

2.3 Proposal of Two-Part tariff to HT-IV(A)

Based on the data received from Irrigation Department (Government of Telangana) major irrigation project – Kaleshwaram 2,305 MW would be operational in the ensuing year. The other new Lift Irrigation (LI) schemes expected to be operational in FY 2018-19 contribute another 208 MW. Hence the projected load from LIS schemes in the ensuing year would be 4,140 MW including existing loads. The projected sales from LI schemes for FY 2018-19 are 5,583 MU.

It may be observed from the above that projected demand from the LI schemes on the grid is substantial. TS Discoms would have to contract adequate quantities of power in advance in order to ensure continued supply of power to LI schemes and all other category of consumers.

TS Discoms have endeavoured to minimize the power purchase through optimal contracting through non-RTC contracts. It may be appreciated that such contracts would still have fixed cost commitment due to non-off take of power by the Discom in a scenario of reduced demand from the LI schemes when compared to the projected loads. The above situation has an adverse impact on the financials of the Discoms. Further as per the recommendations of the committee constituted by Ministry of Power (MoP) on rationalization of Tariff structures, greater emphasis has been placed on recovery of fixed and variable costs through two part tariff structures. Hence Discoms need to enhance the recovery of fixed charges through two part tariff structures which are reflective of the fixed and energy costs commitments of power contracts.

In view of the above, TS Discoms propose the introduction of two-part tariff structure for HT- IV Lift Irrigation schemes as follows –

Current Tariff Structure:

Energy Charge – INR 6.40/KWh

Proposed Tariff Structure:

Demand Charge – INR 390/KVA/month

Energy Charge – INR 4.88/KWh

Proposed Tariff Conditions –

Demand Charges would be levied on **80%** of Contracted Maximum Demand (CMD) or Recorded Maximum Demand (RMD) for Operational Months – July to November (5 months)

Demand Charges would be levied on **30%** of Contracted Maximum Demand (CMD) or Recorded Maximum Demand (RMD) for Non-Operational Months – December to June (7months)

Based on the projected commissioning schedule of loads and energy across months in FY 2018-19, the proposed tariff structure would be revenue neutral at the State level. That is, there is no additional revenue from LI schemes due to the introduction of the two-part tariff structure proposed at the state level.

2.4 Levy of Standby Charges

Standby arrangements could be required by Open Access consumers to tide over deficits in cases of situations such as outages of generator, transmission assets etc. In such situations the Open Access consumer has to take power from an alternate source e.g. from the DISCOM. The charges for maintaining standby arrangements for such consumers should be reflective of the costs incurred by DISCOMs for providing these support services.

The licensee has procured power for supply of power to consumers in the state. The Open Access consumer during the course of consumption has depended on the supply from licensee for tiding over any supply imbalances which they may face.

Hence the licensee prays that the Hon'ble Commission may fix standby charges after due consideration.

3 Cross Subsidy Surcharge Proposals

3.1 Legal and Policy position – Cross Subsidy Surcharge

3.1.1 Sections 39(2) (d) (ii), 40(c) (ii) and 42(2) of the Electricity Act, 2003 (hereinafter referred to as 'the Act') provide for payment of a surcharge by the consumer (hereinafter also referred to as 'the Cross-subsidy Surcharge') when a consumer avails of power under open access. Further, Section 42(2) of the Act provides that the surcharge shall be determined by the State Commission and such surcharge shall be utilized to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee.

As per the afore-mentioned provisions, to maintain current level of subsidy, cross subsidy surcharge (CSS) has to be levied on the consumers who opt for open access. The licensee has computed the Cross Subsidy Surcharge as per clause 8.5 of the National Tariff Policy notified on 28th January 2016

3.1.2 CSS is computed as the difference between the tariff applicable to the relevant category of consumers and the cost of the distribution licensee to supply electricity to the consumers of the applicable class;

3.1.3 In case of a consumer opting for open access, the distribution licensee needs to be compensated on introduction of competition through open access. Accordingly, the cost of supply to the consumer for this purpose may be computed as the aggregate of

- a) Per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation;
- b) Transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC;
- c) Transmission, distribution and wheeling charges up to the relevant voltage level;
- d) Per unit cost of carrying regulatory assets, if applicable.

3.1.4 Surcharge formula (as per NTP notified by MoP on 28th January, 2016):

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

Where,

S - is the surcharge

- T - is the tariff payable by the relevant category of consumers including reflecting the Renewable Purchase Obligation;
- C - is the per unit weighted average cost of power purchase of by the Licensee, including meeting the Renewable Purchase Obligation;
- D - is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level;
- L - is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level;
- R - is per unit cost of carrying regulatory assets.

3.1.5 As per the tariff policy issued by MoP in Jan'16, weighted average power purchase cost needs to be considered instead of the marginal stations.

3.1.6 The licensee would like to file a proposal for determination of cross-subsidy surcharge for Open Access transactions along with this tariff filing for FY2018-19. It may be noted that the licensee has adopted the methodology stated in the amended National Tariff Policy notified by Ministry of Power on 28th January, 2016 for determination of the cross-subsidy surcharge.

3.2 **CSS Proposals for TSSPDCL for the year 2018-19**

3.2.1 The Licensee has considered following assumptions to compute category wise cross subsidy

- Category wise average realization from the proposed tariffs
- Weighted average power purchase cost – INR 4.37/Unit
- Wheeling charges and Losses computed at 80% load factor considering wheeling charges being approved by the Hon'ble Commission

3.2.2 The Cross Subsidy Surcharge as computed by the licensee for each category is as shown below:

Categories	Average Realization (INR/unit)	Weighted PP (INR/unit)	Wheeling charges (INR/unit)	Applicable Loss%	Cross Subsidy Surcharge (INR/unit)	20% Limit on average Realization	Cross Subsidy Surcharge (INR/unit)
	(a)	(b)	(c)	(d)	(e) = $\max(0, a - b / (1 - d) + c)$	(f) = $0.2 * a$	(g) = $\min(e, f)$
HT Category at 11kV							
HT-I Industry	8.11	4.37	0.53	10.91%	2.68	1.62	1.62
HT-II - Others	9.90	4.37	0.53	10.91%	4.47	1.98	1.98
HT-III - Airports, Railway and Bus stations	8.75	4.37	0.53	10.91%	3.32	1.75	1.75
HT -IV Irrigation, Agriculture and CPWS	5.89	4.37	0.53	10.91%	0.46	1.18	0.46
HT VI: Townships & Residential Colonies	6.72	4.37	0.53	10.91%	1.28	1.34	1.28
HT VII: Temporary Supply	13.77	4.37	0.53	10.91%	8.34	2.75	2.75
HT Category at 33kV							
HT-I Industry	7.44	4.37	0.16	6.96%	2.58	1.49	1.49
HT-II - Others	8.68	4.37	0.16	6.96%	3.82	1.74	1.74
HT-III - Airports, Railway and Bus stations	0.00	4.37	0.16	6.96%	0.00	0.00	0.00
HT -IV Irrigation, Agriculture	5.42	4.37	0.16	6.96%	0.56	1.08	0.56

Categories	Average Realization (INR/unit)	Weighted PP (INR/unit)	Wheeling charges (INR/unit)	Applicable Loss%	Cross Subsidy Surcharge (INR/unit)	20% Limit on average Realization	Cross Subsidy Surcharge (INR/unit)
	(a)	(b)	(c)	(d)	(e) = $\max(0, a - b / (1 - d) + c)$	(f) = $0.2 * a$	(g) = $\min(e, f)$
and CPWS							
HT VI: Townships & Residential Colonies	6.76	4.37	0.16	6.96%	1.90	1.35	1.35
HT Category at 132kV and Above							
HT-I Industry	6.80	4.37	0.13	3.09%	2.16	1.36	1.36
HT-II - Others	8.24	4.37	0.13	3.09%	3.60	1.65	1.65
HT-III - Airports, Railway and Bus stations	7.15	4.37	0.13	3.09%	2.51	1.43	1.43
HT -IV Irrigation, Agriculture and CPWS	6.79	4.37	0.13	3.09%	2.15	1.36	1.36
HT-V Railway/H MR Traction	6.27	4.37	0.13	3.09%	1.64	1.25	1.25
HT VI: Townships & Residential Colonies	0.00	4.37	0.13	3.09%	0.00	0.00	0.00

3.2.3. The “Consultation Paper on Issues pertaining to Open Access, Aug’17” issued by MoP, Gol highlighted the issue of limiting the CSS to 20% of tariff applicable to the consumer category which is presented below:

“The Tariff Policy 2016 mandates SERCs to determine roadmap for reduction of cross subsidy and bring tariff at +/- 20% Average Cost of Supply, however it restricts Cross

Subsidy Surcharge at 20% of the consumer tariff. In case the consumer tariff is more than 120% of Average Cost of Supply, DISCOM will not be able to recover losses through cross subsidy surcharge in case consumer opts for open access. It is essential for SERCs to implement both Para 8.3 -2 and First proviso to para 8.5.1 of the Tariff Policy 2016 simultaneously. If one of the provision could not be implemented due to some reason, the second provision should also not be implanted to that extent”

- 3.2.4. Hence, the licensee humbly requests the Hon’ble Commission not to restrict the Cross Subsidy Surcharge at 20% of tariff payable by the consumer as the tariffs are not within +/-20% Average Cost of Supply. Further, the licensee humbly submits that the Hon’ble Commission may notify a roadmap/ methodology for reduction of cross subsidy across the consumer categories. This will enable the licensee in fixing up cross subsidy surcharge without any under recovery.**

4 Additional Surcharge Proposals

- 4.1. **As per section 42(4) of Electricity Act, 2003 the State Regulatory Commission may specify the additional surcharge to be levied on the open access consumers to enable the licensee to recover its fixed costs arising out of its obligation to supply.**

Sec 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 such distribution licensee arising out of his obligation to supply”.

- 4.2. **As per Andhra Pradesh Electricity Regulation Commission Regulation No. 2 of 2005 which is applicable to Telangana state as per Regulation no. 1 of 2014 of Telangana State Regulation commission, the distribution company can file for additional surcharge.**

Clause 17.1.4:“The open access user shall also be liable to pay additional surcharge on charges of wheeling as may be specified by the commission from time to time under section 42(4) of the Act, in case open access is sought for receiving supply from a person other than distribution licensee arising out of his obligation to supply”

- 4.3. **Further, the National Tariff Policy (NTP) Notified by Ministry of Power on 28th January, 2016 has the following provision on the Additional Surcharge**

Clause 8.5.4: “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”.

- 4.4 The Honble Commission has issued Additional Surcharge Order for FY 2017-18 considering the actual parameters viz. Fixed PP Costs, Transmission & Distribution Costs, Open Access & Backed Down energy of FY 2016-17.

4.5 Calculation of Additional Surcharge

- The stranded cost is arrived at by limiting the fixed costs attributable only to the Open Access sales
- The approved fixed charges payable to generators as per projections for FY 2018-19 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 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 demand charges to be paid by Open Access Consumers to Licensees are estimated at Rs. 303.29 crores for drawing 2162.74 MU from Licensees.
- The transmission charges to be paid by the Licensees' for FY 2018-19 are Rs.2,575.42 Crores and scheduled energy for that period is 64,290.84 MUs. Thus the actual transmission cost works out as INR. 0.40 per kWh.
- The distribution wheeling charges as approved by the Commission for the FY 2018-19 is Rs. 0.78 per kWh.
- The total T & D costs works out to Rs. 1.18 per kWh. Thereby, the Open Access consumers have to compensate Rs. 255.50 Crores to the Licensees towards the transmission and distribution charges.
- The demand charges to be adjusted against the stranded capacity charges are Rs. 47.81 Crores.
- The net stranded charges are Rs.444.48 Crores (i.e. Rs. 492.29 Crores – Rs. 47.81 Crores) which are considered for calculation of additional surcharge.

The OA scheduled energy during FY 2018-19 is 2,159.45 MU and hence the additional surcharge per unit projected at Rs. 2.06 per kWh.

The Additional Surcharge computation for FY 2018-19 has been tabulated below

S. No.	Particulars	Unit	Value
A	Long Term Available Capacity (excluding market purchase)	MW	7670.04
B	Capacity stranded due to open access	MW	246.51
C	Approved/Actual Total Fixed Charges (excluding market purchase)	INR Cr	15,317
D = C/A	Fixed Charge/ MW available	INR Cr/ MW	2.00
E = D*B	Fixed Charge for Stranded Capacity	INR Cr	492.29
F	Transmission Charge Paid	INR Cr	2,575.42
G	Projected Energy Requirement	MU	64290.84
H = F/G	Transmission Charges per kWh (Inclusive of PGCIL charges)	Rs./kWh	0.401
I	Distribution Charges as approved in TO	Rs./kWh	0.78
J = H+I	Total T&D charges per kWh	Rs./kWh	1.181
K	Projected Energy consumed by open access consumer from DISCOM	MU	2162.74
L = K * J	T&D charges paid by Open access consumer to DISCOM	INR Cr	255.5
M	Projected Demand Charges recovered by DISCOMs from Open Access	INR Cr	303.29
N = M - L	Demand Charges to be adjusted	INR Cr	47.81
O = E - N	Net stranded charges recoverable	INR Cr	444.48
P	Open Access Sales	MU	2159.45
Q = O/P	Additional Surcharge derived	Rs./kWh	2.06

The licensee submits that in the above computation, capacity stranded due to open access is limited to backed down units or open access volumes whichever is lower as shown in S. No. B. Hence the licensee submits that limiting the additional surcharge derived as per S. No. Q above to the OA units as a percentage of backed down units would lead to double accounting and under recovery of stranded assets.

5 Revenue Projections and Gap at Proposed Tariffs

5.1 Revenue at Proposed Tariffs

The gross revenue at proposed tariffs with the projected sales for FY 2018-19 is shown below:

Revenue from Proposed Tariffs (Rs. Crs.)	2018-19
LT Category	7670.08
LT-I: Domestic	3852.34
LT-II: Non-Domestic/Commercial	2583.56
LT-III: Industry	681.34
LT-IV: Temporary Supply	4.31
LT-V: Agricultural	41.41
LT: Others	507.12
HT Category	10833.83
HT-I(A): Industry (General)	6738.65
HT-I(B): Ferro-Alloy Units	70.99
HT-II: Others	2249.29
HT-III: Airports, Bus Stations and Railway Stations	49.59
HT-IV: Irrigation & CPWS	1385.28
HT-V: Railway & HMR Traction	182.24
HT-VI: Townships & Residential Colonies	106.53
HT Temporary	51.27
Total	18503.91

5.2 Non-Tariff Income from Proposed Tariffs

Non-Tariff Income (NTI) for ensuring year is as shown below:

Items of Non-Tariff Income (Rs.in crore)	2018-19
Prior Period	0.00
Capacitor Surcharge	21.64
Interest on Others (ED)	3.77
Reactive Income	0.32
Grid supporting /Application charge	0.52
Interest on Bank deposits	2.63
Application Registration Fee	1.90
Reconnection Fee –LT	1.01
Reconnection Fee –HT	0.32
Other income	3.63
Total Non-tariff Income	35.75

5.3 Revenue from Cross subsidy Surcharge and Additional Surcharge

5.3.1 The Discom has projected the Open Access Sales for FY 2018-19 same as the Open Access sales for FY 2017-18.

The Total revenue from CSS for FY 2018-19 is estimated at Rs. 312.36 crores as shown below

	Category	Sales	CSS	Revenue
1	11kV	59.97	1.62	9.73
	33kV	1308.14	1.49	194.57
	132kV	782.59	1.36	106.39
2	11kV	6.31	1.98	1.25
	33kV	2.45	1.74	0.42
Total		2159.45		312.36

5.3.2 The Discom has projected revenue from Additional surcharge of Rs. 444.48 crores considering for 2159.45 MU of Open Access sales at Rs. 2.06 per unit

5.4 Revenue Gap at proposed tariff

The Revenue Gap at proposed tariffs with estimated ARR for FY2018-19 is Rs. 4,222.38 crores

Revenue Deficit/Surplus (INR crore)	2018-19
Aggregate Revenue Requirement	23,518.88
Revenue from Proposed Tariffs	18,503.91
Non-Tariff Income	35.75
Revenue from Cross Subsidy Surcharge	312.36
Revenue from Additional Surcharge	444.48
Revenue Deficit(-)/Surplus(+) at Proposed Tariffs	(4,222.38)

6 Retail Supply Formats (Revenue Related)

Form 5 (Revenue from Current Tariffs)

Revenue from Current Tariffs (Rs. Crs.)	Detail Links	2017-18							2018-19						
		Retail Supply (Regulated Business)			Surcharges (Open Access)		Grid Support Charges	Total Revenue	Retail Supply (Regulated Business)			Surcharges (Open Access)		Grid Support Charges	Total Revenue
		Gross Revenue	Incentives	Net Revenue	Surcharge	Additional surcharge			Gross Revenue	Incentives	Net Revenue	Surcharge	Additional surcharge		
LT Category		7186.32	0.00	7186.32	0.00	0.00	0.00	7186.32	7670.08	0.00	7670.08	0.00	0.00	0.00	7670.08
Category I (A&B) - Domestic	Form-7	3578.93	0.00	3578.93				3578.93	3852.34	0.00	3852.34				3852.34
Category II (A,B,C & D) - Non-domestic/Commercial	Form-5a	2419.49	0.00	2419.49				2419.49	2583.56	0.00	2583.56				2583.56
Category III (A & B) - Industrial		655.12	0.00	655.12				655.12	681.34	0.00	681.34				681.34
Category IV (A,B & C) - Cottage Industries & Dhobighats		4.23	0.00	4.23				4.23	4.31	0.00	4.31				4.31
Category V (A,B & C) - Irrigation and Agriculture		39.22	0.00	39.22				39.22	41.41	0.00	41.41				41.41
Category VI (A & B) - Local Bodies, St. Lighting & PWS		433.59	0.00	433.59				433.59	447.54	0.00	447.54				447.54
Category VII (A & B) - General Purpose		52.69	0.00	52.69				52.69	56.22	0.00	56.22				56.22
Category VIII (A & B) - Temporary Supply		3.06	0.00	3.06				3.06	3.36	0.00	3.36				3.36
			0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT Category at 11 KV		4260.65	0.00	4260.65	11.25	0.95	0.00	4272.85	4590.73	0.00	4590.73	10.98	13.64	0.00	4615.35
HT-I Industry Segregated		2668.09	0.00	2668.09	9.97	0.89		2678.95	2862.09	0.00	2862.09	9.73	12.34		2884.16
HT-I (B) Ferro-Alloys		0.10	0.00	0.10				0.10	0.11	0.00	0.11				0.11
HT-II - Others		1432.49	0.00	1432.49	1.28	0.06		1433.84	1532.42	0.00	1532.42	1.25	1.30		1534.97
HT-III Airports, Railways and Bustations		4.32	0.00	4.32				4.32	4.40	0.00	4.40				4.40
HT-IVA Lift Irrigation & Agriculture		23.53	0.00	23.53				23.53	26.22	0.00	26.22				26.22
HT - IV (B) Composite P.W.S Schemes		19.54	0.00	19.54				19.54	46.96	0.00	46.96				46.96
HT-VI Townships and Residential Colonies		62.10	0.00	62.10				62.10	67.27	0.00	67.27				67.27
HT-VII - Green Power								0.00			0.00				0.00
HT - Temporary Supply		50.47	0.00	50.47				50.47	51.27	0.00	51.27				51.27
RESCOs		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
			0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT Category at 33 KV		2938.92	0.00	2938.92	192.47	17.96	0.00	3149.36	3154.43	0.00	3154.43	195.00	269.76	0.00	3619.18
HT-I Industry Segregated		2324.32	0.00	2324.32	192.03	17.96		2534.31	2391.03	0.00	2391.03	194.57	269.25		2854.85
HT-I (B) Ferro-Alloys		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT-II - Others		554.67	0.00	554.67	0.44	0.01		555.11	582.64	0.00	582.64	0.42	0.50		583.57
HT-III Airports, Railways and Bustations		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT-IVA Lift Irrigation & Agriculture		24.25	0.00	24.25				24.25	28.86	0.00	28.86				28.86
HT - IV (B) Composite P.W.S Schemes		0.63	0.00	0.63				0.63	112.63	0.00	112.63				112.63
HT-VI Townships and Residential Colonies		35.05	0.00	35.05				35.05	39.27	0.00	39.27				39.27
HT-VII - Green Power															
HT - Temporary Supply		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
RESCOs		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
			0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT Category at 132 KV		1979.80	0.00	1979.80	103.20	12.13	0.00	2095.13	3017.32	0.00	3017.32	106.39	161.08	0.00	3284.78
HT-I Industry Segregated		1188.44	0.00	1188.44	103.20	12.13		1303.77	1485.54	0.00	1485.54	106.39	161.08		1753.00
HT-I (B) Ferro-Alloys		68.81	0.00	68.81				68.81	70.88	0.00	70.88				70.88
HT-II - Others		71.82	0.00	71.82				71.82	134.22	0.00	134.22				134.22
HT-III Airports, Railways and Bustations		44.23	0.00	44.23				44.23	45.19	0.00	45.19				45.19
HT-IVA Lift Irrigation & Agriculture		486.66	0.00	486.66				486.66	1099.25	0.00	1099.25				1099.25
HT - IV (C) Composite P.W.S Schemes		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT-V (A) Railway Traction		104.01	0.00	104.01				104.01	119.85	0.00	119.85				119.85
HT-V (B) HMR		15.84	0.00	15.84				15.84	62.39	0.00	62.39				62.39
HT-VI Townships and Residential Colonies		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT-VII - Green Power				0.00				0.00			0.00				0.00
HT - Temporary Supply		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
HT- RESCOs		0.00	0.00	0.00				0.00	0.00	0.00	0.00				0.00
			0.00	0.00				0.00	0.00	0.00	0.00				0.00
Total		16365.69	0.00	16365.69	306.92	31.04	0.00	16703.66	18432.55	0.00	18432.55	312.36	444.48	0.00	19189.39

This form refers to income other than the income derived from tariffs and does not include cross subsidy surcharge, additional surcharge, etc.

Items of Non - Tariff Income (Rs. Crs.)	Detail Links	Base Year	2014-15	2015-16	2016-17	2017-18	2018-19
Recoveries from theft of power or malpractices							
Interest Income from Bank Deposits / Investments etc.		1.12	1.27	1.77	2.53	2.58	2.63
Interest income from staff advances and loans							
Power Purchase Rebates earned							
Securitisation benefits							
Miscellaneous / Other Receipts		3.01	29.96	75.21	0.46	3.56	3.63
Others							
Interest on ED		4.01	3.66	3.42	3.62	3.70	3.77
Reactive Income		0.28	2.43	2.83	0.31	0.32	0.32
Reconnection Fee LT		3.46	1.40	1.00	0.97	0.99	1.01
Reconnection Fee HT		0.11	0.06	0.05	0.31	0.32	0.32
Application Registration Fee		1.60	1.41	1.36	1.82	1.86	1.90
Grid Support charges		2.07	0.67	2.08	0.50	0.51	0.52
Capacitor surcharge				20.55	20.80	21.22	21.64
Total Non tariff income		15.66	40.86	108.27	31.32	35.05	35.75

Consumer Categories	No of consumers	Components of tariff			Relevant sales related data				Full year revenue excluding external subsidy								Surcharges			Non-tariff Income		Total Revenue (Net of incentives)
		Energy Charges (Rs/kWh) or (Rs.kVAh)	Demand charges (Rs/kVA.Yr)	Demand charges (Rs/HP.Yr)	Energy Sales (MU)	Energy sales (MVAh)	Connected Load/ Contract Demand (MW)	Connected Load/ Contract Demand (HP)	Energy Charges (Rs Crores)	Demand /Fixed charges (Rs Crores)	Minimum Charges (Rs Crores)	Customer Charges (Rs crores)	Others (Rs Crores)	Gross Tariff Revenue (Rs Crores)	Incentives (Rs. Crs)	Net Revenue from Tariff (Rs. Crores)	Surcharge (Rs.Crs)	Additional Surcharge (Rs.Crs)	Grid Support Charges (Rs. Crores)	Direct	Apportioned	
HT-III: Airports, Bus Stations and Railway Stations	0	7	4680		0	0	0	0.00	0.00		0		0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
HT-III - Aviation Time-of-Day Tariff (6 PM to 10 PM)	0	8			0	0	0	0.00	0.00		0		0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
HT-III - Aviation Time-of-Day Tariff (6 AM to 10 AM)	0	8			0	0	0	0.00	0.00		0		0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
HT-III - Aviation Time-of-Day Tariff (10 PM to 6 AM)	0	6			0	0	0	0.00	0.00		0		0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
HT -IV A Lift Irrigation and agriculture	19	6				45	41	0	28.82	0.00			28.86	0.00	28.86	0.00	0.00	0.00			0	28.91
HT -IV B - CP Water Supply Schemes	34	5				221	4	0	112.56	0.00			112.63	0.00	112.63	0.00	0.00	0.00			0	112.85
HT-VI - Townships & Colony Supply	16	6	720			58	36	0	36.67	2.57			39.27	0.00	39.27	0.00	0.00	0.00			0	39.33
HT-VII Temporary	0	10	6000			0	0	0	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
RESCOs									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0	0.00
HT Category at 132 kV	90				0.00	4527.98	2488.75	0.00	2678.53	338.42	0.00	0.36	0.00	3017.32	0.00	3017.32	106.39	161.08	0.00	0.00	4.44	3289.23
HT-I Indl General	42	6	4680			937	670	0	529.18	250.98		0.17		780.34	0.00	780.34	106.39	161.08	0.00	0.00	0.92	1048.72
Lights & Fans	0	6				1	0	0	0.49	0.00		0.00		0.49	0.00	0.49					0.00	0.49
Industrial Colony consumption	0	6				5	0	0	3.46	0.00		0.00		3.46	0.00	3.46					0.01	3.47
Seasonal Industries	0	7	1404			0	0	0	0.00	0.00		0.00		0.00	0.00	0.00					0.00	0.00
HT-I Indl. Time-of-Day Tariff (6 PM to 10 PM)	0	7				440	0	0	292.82	0.00		0.00		292.82	0.00	292.82					0.43	293.25
HT-I Indl. Time-of-Day Tariff (6 AM to 10 AM)	0	7				256	0	0	170.47	0.00		0.00		170.47	0.00	170.47					0.25	170.72
HT-I Indl. Time-of-Day Tariff (10 PM to 6 AM)	0	5				519	0	0	237.95	0.00		0.00		237.95	0.00	237.95					0.50	238.45
HT - II (B) Ferro-alloys	2	5				142	27	0	70.87	0.00		0.01		70.88	0.00	70.88	0.00	0.00	0.00	0.00	0.14	71.02
HT-II - Others (Non- Industrial)	10	7	4680			89	48	0	60.51	17.80		0.04		78.35	0.00	78.35	0.00	0.00	0.00	0.00	0.09	78.44
HT-II Others - Time-of-Day Tariff (6 PM to 10 PM)	0	8				19	0	0	14.53	0.00		0.00		14.53	0.00	14.53					0.02	14.55
HT-II Others - Time-of-Day Tariff (6 AM to 10 AM)	0	8				46	0	0	35.72	0.00		0.00		35.72	0.00	35.72					0.04	35.76
HT-II Others - Time-of-Day Tariff (10 PM to 6 AM)	0	6				10	0	0	5.63	0.00		0.00		5.63	0.00	5.63					0.01	5.64
HT-III: Airports, Bus Stations and Railway Stations	1	6	4680			21	11	0	13.64	4.12		0.00		17.77	0.00	17.77	0.00	0.00	0.00	0.00	0.02	17.79
HT-III - Aviation Time-of-Day Tariff (6 PM to 10 PM)	0	7				13	0	0	9.80	0.00		0.00		9.80	0.00	9.80					0.01	9.81
HT-III - Aviation Time-of-Day Tariff (6 AM to 10 AM)	0	7				9	0	0	6.80	0.00		0.00		6.80	0.00	6.80					0.01	6.81
HT-III - Aviation Time-of-Day Tariff (10 PM to 6 AM)	0	5				20	0	0	10.83	0.00		0.00		10.83	0.00	10.83					0.02	10.85
HT -IV A Lift Irrigation and agriculture	19	6				1717	1558	0	1099.17	0.00		0.08		1099.25	0.00	1099.25	0.00	0.00	0.00	0.00	1.69	1100.93
HT -IV B - CP Water Supply Schemes	0	5				0	0	0	0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT-V (A) Railway Traction	12	4	4680			171	135	0	69.26	50.54		0.05		119.85	0.00	119.85	0.00	0.00	0.00	0.00	0.17	120.02
HT-V (B) HMR	4	4	4680			120	40	0	47.40	14.98		0.02		62.39	0.00	62.39	0.00	0.00	0.00	0.00	0.12	62.51
HT-VI - Townships & Colony Supply	0	6	720			0	0	0	0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT-VII Temporary	0	10	6000			0	0	0	0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESCOs						0.00	0.00	0.00	0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
									0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00
TOTAL (LT + HT)	8121446				22334.17	14100.09	16565.88	7013083.70	16075.59	1921.06	0.00	435.81	0.00	18432.55	0.00	18432.55	312.36	444.48	0.00	0.00	35.75	19225.14

Form 8

Revenue Deficit / Surplus at Current Tariffs and Charges

Items of Revenue Deficit/Surplus (Rs. Crs.)	Detail Links	Base Year	2014-15	2015-16	2016-17	2017-18	2018-19
Aggregate Revenue Requirement (Rs. Crs.)	Form 1	16493.14	16219.62	18622.76	21985.16	22496.96	23518.88
Total Revenue		13808.94	13207.77	15124.81	15835.26	16738.70	19225.14
Revenue from Current Tariffs (Net of incentives) (Rs. Crs.)	Form 5	13793.28	13166.91	15016.54	15803.94	16703.66	19189.39
Non - Tariff Income (Rs. Crs.)	Form 6'	15.66	40.86	108.27	31.32	35.05	35.75
Revenue from Trading (Rs. Crs.)	Form 1.4 b	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Deficit (-) / Surplus(+) at Current Tariffs (Rs. Crs.)		-2684.20	-3011.85	-3497.95	-6149.90	-5758.26	-4293.74

Revenue from Proposed Tariffs (Rs. Crs.)	2018-19						
	Retail Supply (Regulated Business)			Surcharges (Open Access)		Grid Support Charges	Total Revenue
	Gross Revenue	Incentives	Net Revenue	Surcharge	Additional surcharge		
LT Category	7670.08	0.00	7670.08	0.00	0.00	0.00	7670.08
Category I (A&B) - Domestic	3852.34	0.00	3852.34				3852.34
Category II (A,B,C & D) - Non-domestic/Commercial	2583.56	0.00	2583.56				2583.56
Category III - Industrial	681.34	0.00	681.34				681.34
Category IV (A & B) - Cottage Ind. & Agro based Ind.	4.31	0.00	4.31				4.31
Category V (A, B & C) - Irrigation and Agriculture	41.41	0.00	41.41				41.41
Category VI (A & B) - Local Bodies, St. Lighting & PWS	447.54	0.00	447.54				447.54
Category VII (A & B) - General Purpose	56.22	0.00	56.22				56.22
Category VIII -Temporary Supply	3.36	0.00	3.36				3.36
LT (new Category revenue)		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
HT Category at 11 KV	4595.25	0.00	4595.25	10.98	13.64	0.00	4619.87
HT-I Industry Segregated	2862.09	0.00	2862.09	9.73	12.34		2884.16
HT-I (B) Ferro-Alloys	0.11	0.00	0.11				0.11
HT-II - Others	1532.42	0.00	1532.42	1.25	1.30		1534.97
HT-III Airports, Railways and Bustations	4.40	0.00	4.40				4.40
HT-IV (A) Lift Irrigation and Agriculture	30.73	0.00	30.73				30.73
HT - IV (B) Composite P.W.S Schemes	46.96	0.00	46.96				46.96
HT-VI Townships and Residential Colonies	67.27	0.00	67.27				67.27
HT-VII Temporary Supply	51.27	0.00	51.27				51.27
HT- RESCOs		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
HT Category at 33 KV	3156.62	0.00	3156.62	195.00	269.76	0.00	3621.38
HT-I Industry Segregated	2391.03	0.00	2391.03	194.57	269.25		2854.85
HT-I (B) Ferro-Alloys	0.00	0.00	0.00				0.00
HT-II - Others	582.64	0.00	582.64	0.42	0.50		583.57
HT-III Airports, Railways and Bustations	0.00	0.00	0.00				0.00
HT-IV (A) Lift Irrigation and Agriculture	31.06	0.00	31.06				31.06
HT - IV (B) Composite P.W.S Schemes	112.63	0.00	112.63				112.63
HT-VI Townships and Residential Colonies	39.27	0.00	39.27				39.27
HT-VII Temporary Supply	0.00	0.00	0.00				0.00
HT- RESCOs	0.00	0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00

Revenue from Proposed Tariffs (Rs. Crs.)	2018-19						Total Revenue
	Retail Supply (Regulated Business)			Surcharges (Open Access)		Grid Support Charges	
	Gross Revenue	Incentives	Net Revenue	Surcharge	Additional surcharge		
HT Category at 132 KV	3081.96	0.00	3081.96	106.39	161.08	0.00	3349.43
HT-I Industry Segregated	1485.54	0.00	1485.54	106.39	161.08		1753.00
HT-I (B) Ferro-Alloys	70.88	0.00	70.88				70.88
HT-II - Others	134.22	0.00	134.22	0.00	0.00		134.22
HT-III Airports, Railways and Bustations	45.19	0.00	45.19				45.19
HT-IV (A) Lift Irrigation and Agriculture	1163.89	0.00	1163.89				1163.89
HT - IV (B) Composite P.W.S Schemes	0.00	0.00	0.00				0.00
HT-V (A) Railway Traction	119.85	0.00	119.85				119.85
HT-V (B) HMR	62.39	0.00	62.39				62.39
HT-VI Townships and Residential Colonies	0.00	0.00	0.00				0.00
HT-VII Temporary Supply	0.00	0.00	0.00				0.00
HT- RESCOs		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
		0.00	0.00				0.00
Total	18503.91	0.00	18503.91	312.36	444.48	0.00	19260.75

Form 11

Non-tariff Income at Proposed Charges

This form refers to the income other than the income derived from tariffs and does not include cross subsidy surcharge, additional surcharge, etc.

Items of Non - Tariff Income (Rs. Crs.)	Detail Links	Base Year	2014-15	2015-16	2016-17	2017-18	2018-19	
Recoveries from theft of power or malpractices								
Interest Income from Bank Deposits / Investments etc.						2.58	2.63	
Interest income from staff advances and loans								
Power Purchase Rebates earned								
Securitisation benefits								
Miscellaneous / Other Receipts						3.56	3.63	
Others								
Interest on ED						3.70	3.77	
Reactive Income						0.32	0.32	
Reconnection Fee LT						0.99	1.01	
Reconnection Fee HT						0.32	0.32	
Application Registration Fee						1.86	1.90	
Grid Support charges						0.51	0.52	
Capacitor surcharge						21.22	21.64	
Total Non tariff income			0.00	0.00	0.00	0.00	35.05	35.75

Form 13 (Cost and Revenue)

2018-19

Consumer Category	Detail Links	Cost of Service	Revenue from Tariff & Charges	(Class Deficit) / Class Surplus (=Revenue from Tariff & Charges - CoS)	External Subsidy	Cross Subsidy
LT Category		15284.54	7691.99	-7592.55	0.00	-7592.55
Category I (A&B) - Domestic		5866.68	3860.51	-2006.17		-2006.17
Category II (A,B, C & D) - Non-domestic/Commercial		1826.05	2586.09	760.04		760.04
Category III - Industrial		588.75	682.20	93.44		93.44
Category IV (A & B) - Cottage Industries		6.11	4.32	-1.80		-1.80
Category V (A, B & C) - Irrigation and Agriculture		6425.79	50.99	-6374.80		-6374.80
Category VI (A & B) - Local Bodies, St. Lighting & PWS		509.37	448.23	-61.14		-61.14
Category VII (A & B) - General Purpose		59.44	56.29	-3.15		-3.15
Category VIII -Temporary Supply		2.34	3.37	1.02		1.02
Lt (NEW Category)		0.00	0.00	0.00		0.00
		0.00		0.00		0.00
		0.00		0.00		0.00
		0.00		0.00		0.00
		0.00		0.00		0.00
		0.00		0.00		0.00
HT Category at 11 KV		3478.37	4620.61	1142.24	0.00	1142.24
HT-I Industry Segregated		2283.94	2887.62	603.68		603.68
HT-I (B) Ferro-Alloys		0.19	0.11	-0.09		-0.09
HT-II - Others		1011.68	1536.49	524.82		524.82
HT-III Airports, Railways and Bustations		3.25	4.40	1.15		1.15
HT -IV A Lift Irrigation and agricutlure		25.35	26.26	0.91		0.91
HT- IV B - CP Water Supply Schemes		57.18	47.05	-10.13		-10.13
HT-VI Townships and Residential Colonies		73.53	67.36	-6.17		-6.17
HT - VII Temporary Supply		23.25	51.31	28.06		28.06
HT- RESCOs		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
HT Category at 33 KV		2294.49	3623.32	1328.83	0.00	1328.83
HT-I Industry Segregated		1752.27	2858.01	1105.74		1105.74
HT-I (B) Ferro-Alloys		0.00	0.00	0.00		0.00
HT-II - Others		393.51	584.22	190.72		190.72
HT-III Airports, Railways and Bustations		0.00	0.00	0.00		0.00
HT -IV A Lift Irrigation and agricutlure		18.44	28.91	10.46		10.46
HT- IV B - CP Water Supply Schemes		90.38	112.85	22.47		22.47

Form 13

Cost and Revenue

HT-VI Townships and Residential Colonies		39.89	39.32	-0.57		-0.57
HT - VII Temporary Supply		0.00	0.00	0.00		0.00
HT- RESCOs		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
HT Category at 132 KV		2461.47	3289.23	827.76	0.00	827.76
HT-I Industry Segregated		1122.91	1755.11	632.21		632.21
HT-I (B) Ferro-Alloys		67.70	71.02	3.32		3.32
HT-II - Others		86.31	134.38	48.08		48.08
HT-III Airports, Railways and Bustations		30.04	45.25	15.21		15.21
HT -IV A Lift Irrigation and agricutlure		971.34	1100.93	129.59		129.59
HT- IV B - CP Water Supply Schemes		0.00	0.00	0.00		0.00
HT-V (A) Railway Traction		103.28	120.02	16.73		16.73
HT-V (B) HMR		79.90	62.51	-17.39		-17.39
HT-VI Townships and Residential Colonies		0.00	0.00	0.00		0.00
HT - VII Temporary Supply		0.00	0.00	0.00		0.00
HT- RESCOs		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
		0.00	0.00	0.00		0.00
Total		23518.87	19225.14	-4293.73	0.00	-4293.73