

Joint Electricity Regulatory Commission, Gurgaon

#### BEFORE THE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION

Filing No: Case No:

IN THE MATTER OF: Petition For True-Up of FY 2016-17, Annual

Performance Review of FY 2017-18 and Aggregate Revenue Requirement (ARR) & Tariff Proposal for FY 2018-19 of ELECTRICITY WING OF ENGINEERING DEPARTMENT,

CHANDIGARH

AND IN THE MATTER OF: ELECTRICITY WING OF

ENGINEERING DEPARTMENT, CHANDIGARH Deluxe Building, Sector -9D Chandigarh- UT

**PETITIONER** 

PETITIONER, UNDER SECTIONS 45, 46, 61, 62 AND 64 OF THE ELECTRICITY ACT, 2003 FILES FOR INITIATION OF PROCEEDINGS BY THE HON'BLE COMMISSION FOR DECIDING ON THE MATTERS CONCERNING THE APPROVAL OF THE TRUE-UP FOR FY17, ANNUAL PERFORMANCE REVIEW FOR FY18 AND TARIFF PETITION OF ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH FOR FY 19

The applicant respectfully submits hereunder:

- 1) The Petitioner, the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has been allowed to function as an integrated Distribution licensee for the license area of Chandigarh UT.
- 2) Pursuant to the enactment of the Electricity Act, 2003, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is required to submit its Annual Revenue Requirement (ARR) and Tariff Petition as per the procedures outlined in section 61, 62 & 64 of EA 2003, and the governing regulations thereof.
- 3) ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has submitted its petition for determination of Annual Revenue Requirement and tariff proposal for FY 2018-19 on the basis of the principles outlined in the MYT Tariff Regulations 2014 notified by the Hon'ble Commission.
- 4) This petition includes the True-Up Petition for FY 2016-17, Review Petition for FY 2017-18 and ARR & Tariff Petition for FY 2018-19.
- 5) ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is submitting the true up for the FY 2016-17 based on the accounts prepared on commercial accounting principle and dully vetted by the Asst. Controller (Finance and accounts), Electricity Department. The same has already been submitted to AG UT and the AG UT has started the audit of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH accounts for FY 2016-17. The audited accounts by AG UT shall be submitted shortly.
- 6) ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH along with this petition is submitting the statutory formats with additional/ supplementary data & information available and shall further make available the same to the extent available with ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH

as may be required by the Hon'ble Commission during its processing.

7) For seeking extension of time to file above petition, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had already filed the petition vide memo No-2950 dated 17.11.2017.

#### **Prayers to the Commission**

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH respectfully prays that the Hon'ble Commission may

- a. Condone the delay in filing the petition by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH and Admit this Petition.
- b. Examine the proposal submitted by the Petitioner for a favourable dispensation as detailed in the enclosed proposal;
- c. Consider the submissions and allow the True-Up 2016-17, revised estimate for FY 2017-18 and approve Aggregate Revenue Requirement and Retail Tariff for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for FY 2018-19;
- d. Approve the revenue gap and appropriate tariff increase as detailed in the enclosed proposal;
- e. Pass suitable orders for implementation of the tariff proposals for the FY 2018-19 for making it applicable from April 1, 2018 onwards;
- f. Approve the terms and conditions of Tariff Schedule and various other matters as and the proposed changes therein;
- g. Approve new Tariff Categories as proposed
- h. Approve the Miscellaneous and General Charges as proposed;
- Condone any inadvertent omissions/ errors/ shortcomings and permit ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to add/ change/ modify / alter this filing and make further submissions as may be required at a future date;
- j. Pass such orders as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH

Petitioner

Place: Chandigarh. Date: 12.01.2018.

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## **Chapter 1: Introduction and Background**

## Electricity Wing of Engineering Department, Chandigarh

- 1.1 Union Territory of Chandigarh came into existence with effect from 1<sup>st</sup> November, 1966 after re-organization of erstwhile state of Punjab. An early entrant to the planning process, Chandigarh has emerged as one of the most developed Union Territories in India and even achieved the ranking of one of the best UTs in India with regards to investment environment, infrastructure and tourism. The total population of the Union Territory is around 10.5 Lakhs as per 2011 census.
- 1.2 The Local Distribution of electricity in Chandigarh was taken over by the Chandigarh Administration from the PSEB on 2<sup>nd</sup> May, 1967. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is part of Chandigarh Administration, UT of Chandigarh and is responsible for Transmission and Distribution of power supply up to consumers' door- step. The electricity department of Chandigarh is responsible for ensuing quality and continuous power supply to each and every resident of Chandigarh. The Electricity Operation Circle is headed by Superintending Engineer along with five Executive Engineers.
- 1.3 The Electricity Department of UT Administration of Chandigarh, hereinafter called "ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH", a deemed licensee under section 14 of the Electricity Act 2003, is carrying out the business of transmission, distribution and retail supply of electricity in Chandigarh (UT). The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has been allowed to function as an integrated distribution licensee of Union Territory of Chandigarh. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH doesn't have its own generation and procures power from its allocation from central generating stations NTPC, NHPC, NPCIL, BBMB, SJVNL and THDC. The remaining is met through short term purchase under bilateral transactions and power exchange.
- 1.4 All the sectors of Chandigarh are electrified and any desiring consumer can avail power supply by submitting requisition in the prescribed form to the appropriate office of the Department subject to fulfilment of the requisite conditions and payment of charges. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is under control of Administration of Union Territory of Chandigarh and the maintenance of the accounts or Income and expenditure statement was being done on "cash" basis i.e single entry system. However as per the directives of Hon'ble Commission ELECTRICITY WING OF ENGINEERING DEPARTMENT,

CHANDIGARH has converted to accounting system based on Accrual Basis i.e double entry system. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has prepared and submitted audited annual accounts prepared on commercial principle for FY 2016-17 along with Fixed Asset Register for the period for truing-up of the respective years. It is submitted that efforts are being made by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for preparation of Fixed Asset Register for the remaining period prior to 2005. Work in this respect has already been started by appointment of a Chartered Accountant firm.

#### Regulatory Process

- 1.5 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had filed its first petition for Annual Revenue Requirement and Determination of Tariff for the FY 2011-12 under section 62 of the Electricity Act, 2003 and under the JERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2009 to the Hon'ble Commission on 13th January, 2011. The Tariff Order was issued by the Hon'ble Commission on 16th July, 2011 and the new tariff was made effective from 1st April, 2011.
- 1.6 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH filed its second Petition for Tariff determination of FY 2012-13. In the Petition, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had requested for review of Tariff Order for FY 2011-12 based on the actual numbers for part year and projected ARR for FY 2012-13. The Hon'ble Commission processed the Petition and issued a Tariff Order for FY 2012-13 on 7<sup>th</sup> May, 2012 which included review for FY 2011-12. The tariff was made applicable from 1<sup>st</sup> May, 2012.
- 1.7 On 7<sup>th</sup> February, 2013, the Petitioner filed its petition for approval of provisional true up of ARR for FY 2011-12, revised estimates of ARR for FY 2012-13 and approval of ARR and Tariff for the FY 2013-14. The Hon'ble Commission issued the Tariff Order on 15<sup>th</sup> April, 2013. However, the Hon'ble Commission had not conducted the provisional true-up of ARR of the FY 2011-12 as the audited accounts were not available during that time. The tariff was made applicable from 1<sup>st</sup> May, 2013.
- 1.8 The department subsequently filed its fourth petition for determination of Aggregate Revenue Requirement (ARR) & Retail Tariff for distribution and retail sale of electricity for the FY 2014-15, Review of FY 2013-14 & Truing up of FY 2011-12 and FY 2012-13 on 20<sup>th</sup> January, 2014 according to principles outlined in the JERC Tariff Regulations 2009. The Commission issued tariff order on 11<sup>th</sup> April, 2014.

## Filing of Multi Year Tariff Petition and Annual Performance Review Petition

- 1.9 The Joint Electricity Regulatory Commission (JERC) for the State of Goa and Union Territories, in exercise of powers conferred by sub section (1) of section 181 and clauses (zd), (ze) and (zf) of sub section (2) of section 181, read with sections 61, 62, 83 and 86, of the Electricity Act 2003 (36 of 2003) and all other powers enabling it in this behalf, has issued the Multi Year Distribution Tariff Regulations, 2014, hereinafter referred to as "MYT Regulations".
- 1.10 As per the Regulations, the Distribution Licensee were required to file a Business Plan for Control Period of three financial years from April 1, 2015 to March 31, 2018, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets before the Hon'ble Commission as part of the Tariff Filing before the beginning of the Control Period. However, the Control Period was postponed by a year and the revised Control Period was notified as April 1, 2016 to March 31, 2019.
- 1.11 Accordingly, the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had filed a revised Business Plan for the Control Period (FY 2016-17 to FY 2018-19) based on the available data for the FY 2014-15 and previous financial years against which the Hon'ble Commission issued an Order dated December 28, 2015. In the Order for Business Plan, the Hon'ble Commission had directed the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for submission of MYT Petition for the Control Period FY17 to FY19 within 30 days from issuance of the Order for Business Plan.
- 1.12 As per the directives of the Hon'ble Commission, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH filed Tariff Petition for approval of Annual Revenue Requirement for MYT Control period FY17 to FY19 and determination of retail tariff for FY17 in accordance to the principles laid down under section 61, 62 and 64 of the Electricity Act 2003, JERC MYT Regulations 2014, provisions of National Electricity Policy & National Tariff Policy, JERC (Conduct of Business) regulations 2009 and other relevant regulations. The Hon'ble Commission in its order dated 28.04.2016 approved True-up of FY 2011-12 to FY 2014-15, carried out performance review of FY 2015-16 and had approved Annual Revenue Requirement for FY 2016-17 to FY 2018-19 and retail tariff for FY 2016-17.

- 1.13 As per the multi-year framework outlined in MYT Regulations 2014, the licensee is required to file Annual Performance Review petition in the subsequent years of the Control Period along with True-up of previous year and Retail Tariff proposal for ensuing year. Accordingly, in line with the MYT Regulations 2014, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had filed the petition comprising of True-up of the FY 2015-16, performance review of the FY 2016-17 and revised ARR and retail tariff proposal for the FY 2017-18. The Hon'ble Commission in its order dated 04<sup>th</sup> May, 2017 approved True-up of the FY 2015-16, carried out performance review of the FY 2016-17 and had approved and retail tariff for the FY 2017-18.
- 1.14 Further, to that ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is filing the instant petition for approval of True-up for the FY 2016-17, Annual Performance Review for the FY 2017-18 and retail tariff proposal for the FY 2018-19.

## Chapter 2: True up of FY 2016-17

- 2.1 The Hon'ble Commission in the MYT order dated 28<sup>th</sup> April, 2016 has approved ARR for the Control period of FY 2016-17 to FY 2018-19 and Tariff for the FY 2016-17.
- 2.2 Review of ARR for the FY 2016-17 was undertaken by the Hon'ble Commission in the MYT Order dated 04<sup>th</sup> May, 2017. JERC MYT Regulations 2014 requires that the True-up is to be done on the basis of the audited accounts for each year of the Control period.
- 2.3 Additionally, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had submitted a review petition dated 16.06.2016 with respect to the MYT Order dated 28<sup>th</sup> April 2016. The Hon'ble Commission vide its Order dated 26.07.2016 had mentioned the following:
  - "In view of the above, the Commission is of the considered view that the issues raised here may be raised before the Commission at the time of true up of the impugned Order dated 28.04.2016. The Commission therefore directs the Review Petitioner to raise the said issues at the time of true up of the impugned Tariff Order."
- 2.4 Therefore, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has raised the issues covered under its review petition dated 16.06.2016 at the relevant places in the current and subsequent chapters in the True-up petition for the FY 2016-17 for the consideration of the Hon'ble Commission.
- 2.5 The annual accounts for the FY 2016-17 have been prepared and accordingly, the truing-up for the FY 2016-17 has been prepared. The annual accounts have already been forwarded to AG UT on 08.12.2017 & the audited accounts shall be submitted. Accordingly, the Hon'ble Commission is requested to kindly consider the same for truing-up of the FY 2016-17. The audited accounts of the FY 2016-17 shall be submitted at the earliest to the Hon'ble Commission after completion of audit from AG UT of Chandigarh.

## Energy Sales, Number of Consumers and Connected Load for FY 2016-17

2.6 The total energy sales for FY 2016-17 stand at 1591.43 MUs based on actuals as against 1637.33 MUs approved earlier by the Commission during the review of the FY 2016-17 vide Tariff Order dated 04<sup>th</sup> May, 2017.

2.7 The tables below summarize the approved and actual energy sales for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for the FY 2016-17:

Table 1: Approved and Actual Sales for FY 2016-17 (MUs)

SI. No.	Categories	Approved in T.O. dated 28th April, 2016	Approved in Review Petition T.O. dated 4th May, 2017	Actual
1	Domestic	760.27	748.70	721.70
2	Commercial	490.82	508.05	498.68
3	Large Supply	117.00	124.66	126.74
4	Medium Supply	104.72	122.24	116.08
5	Small Power	21.00	20.21	19.53
6	Agriculture	1.87	1.43	1.30
7	Public Lighting	25.67	21.09	21.83
8	Bulk Supply	89.06	85.34	80.60
9	Others Temporary Supply	7.00	5.61	4.98
	<b>Grand Total</b>	1,617.41	1,637.33	1,591.43

## Power Purchase Quantum and Cost

- 2.8 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH meets its requirement from allocations from central generating stations like NTPC, NHPC, NPCIL and other generating stations such as BBMB, SJVNL, THDC including bilateral agreement and banking arrangements. The allocation from CGS consists of a fixed share of allocation for a year, and the Govt. of India changes the variable share of allocation from the unallocated quota, time to time. Since, during the peak summer seasons the allocation of power from various sources is inadequate, therefore the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH procures power from short-term sources i.e. power exchange, UI, banking etc.
- 2.9 The table below shows the summary of actual Power Purchase from various sources for the FY 2016-17 including Transmission Charges, UI charges and purchase from short term sources i.e. power exchange, UI, etc.

Table 2: Power Purchase Cost for FY 2016-17

Source	Approved in T.O. dated 28th April, 2016	Approved in Review Petition T.O. dated 4th May, 2017	Actual
NTPC Stations	177.29	172.82	146.04
NHPC Stations	46.38	72.55	69.19
NPCIL	26.18	33.51	35.18
SJVNL	14.97	23.33	23.76
ВВМВ	253.39	186.51	206.31
THDC	57.71	89.30	92.76
CREST	-	-	1.37
Pvt. Solar	3.85	1.12	0.12
Aravali Power Company Private Limited	-	-	16.37
Bilateral/Power Exchange	48.39	13.24	10.22
UI (Overdrawl)	-	-	35.66
REC (Solar & Non-Solar)	9.87	16.07	5.19
Others (PGCIL, Reactive Power, NRLDC)	90.65	29.70	29.07
LC Charges	-	-	-
Grand Total	728.70	638.15	671.26

- 2.10 As against the Commission approved total power purchase cost of Rs. 638.15 Crores for the FY 2016-17, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has incurred actual power purchase cost of Rs. 671.26 Crores. The higher cost is primarily on account of higher rate of power from various sources. The petitioner requests the Hon'ble Commission to approve the total power purchase cost of Rs. 671.26 Crores against power purchase for the FY 2016-17.
- 2.11 The Hon'ble Commission had notified amendment to the JERC (Procurement of Renewable Energy) Regulations, 2010 on 19th February 2014. As per the amendment issued, the Petitioner has to purchase 4.85% of total energy purchase from renewable sources for the FY 2016-17 including 1.65% for Solar and 3.20% for Non-Solar.
- 2.12 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has also been able to meet its RPO requirement for the FY 2016-17 (solar and non-solar). Besides the REC purchase, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has also purchased energy from solar plants under gross metering and net metering, details of which are as below:

Table 3: RPO Requirement (Solar and Non-Solar) as per actual sales for FY 16-17

	RPO %	Target		Actual
Particulars		Sales (in MUs)	Units (in MUs)	Units (in MUs)
Solar	1.65%	446.26	7.36	27.29
Non-Solar	3.20%	446.26	14.28	24.00
Total	4.85%		21.64	51.29

Table 4: Sources of Solar Power Procurement against the Solar RPO FY 16-17

Particulars	2016-17 (in MUs)
Power generated/procured	20.95
Power procured from CREST	2.04
Solar REC purchase	4.30
Total Solar RPO Met	27.29

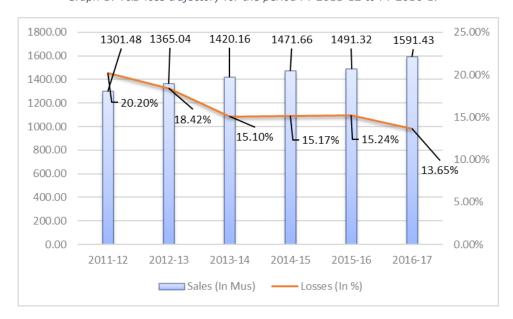
## Intra-State Transmission and Distribution (T&D) Loss

2.13 Considering actual sales of 1591.43MUs as above, the actual T&D works out to be 13.65% as against a loss level of 13.25% approved by Commission for the FY 2016-17 vide Tariff Order dated 4<sup>th</sup> May, 2017. The computation of T&D loss for the FY 2016-17 is provided in table below:

Table 5: Energy Balance for FY 2016-17

Energy Available	
Units Procured	1,948.99
Less: Outside Sale - Trading	36.76
Energy Available	1,912.22
Inter-State Transmission Loss	3.73%
Transmission Loss (Mus)	71.30
Net Energy Available at UT Periphery	1,840.92
Power Available within UT	
Power procured from Gross & NET Metering Mode (In MUs)	2.18
Total Energy Available	1,843.10
Actual Energy Sales (Mus)	1,591.43
T&D Loss (%)	13.65%
T&D Loss (in MUs)	251.67
Total Energy Required at UT Periphery (MUs)	1,843.10
Demand Supply (Gap) / Surplus	0.00

2.14 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH submits to the Hon'ble Commission that the losses have been in the range of 15% to 15.25% during the period of FY 2013-14 to FY 2015-16. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has restricted the T&D loss for the FY 2016-17 to 13.65%. It is difficult to bring the losses substantially from this level. The trajectory of loss from FY 2011-12 to FY 2016-17 is provided in the figure below:



Graph 1: T&D loss trajectory for the period FY 2011-12 to FY 2016-17

- 2.15 One of the primary reasons of stagnation in losses is the dominance of domestic category in the sales mix. In spite of an increase in overall sale, maximum increase in sales have happened in the domestic category resulting in a higher proportion of the overall sales as compared to industrial consumers where the sales have remained stagnant leading to a reduction in overall share.
- 2.16 It is submitted to the Hon'ble Commission that while the distribution area of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is small, the scope for addition of HT consumers is limited or negligible. As a result, the sales to such categories is generally restricted leading to stagnation of T&D losses. With over 80% of the sales to LT consumers, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH feels that further reduction in the T&D loss in the UT of Chandigarh shall be possible after implementation of its various IT/strengthening schemes under IPDS and Smart Grid project which are under approval with Government of India.
- 2.17 In addition to the issue of higher LT sales, another important factor is the absence of

- interconnection point within the UT boundary which has been also submitted to the Hon'ble Commission in its past submissions.
- 2.18 The energy input in ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has to bear around 3% additional losses of interstate circuit due to not having any interstate point in its boundary. In this regard it is submitted that construction of a 220/66 kV substation at Hallo Majra is under progress by M/s PGCIL. This substation shall cater to the future load growth of Chandigarh resulting in lower losses due to commissioning of an interconnection point within the UT periphery.
- 2.19 In view of the above, it is submitted that the Hon'ble Commission may kindly consider & revise the loss target to a level which is achievable under the circumstances detailed above.
- 2.20 Accordingly, the Hon'ble Commission is requested to kindly approve the actual distribution losses for the FY 2016-17 as any disallowances would have a substantial financial impact on the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH.

#### Operation and Maintenance Expenses

2.21 The summary of approved and actual Employees Expenses, R&M expenses and A&G expenses as incurred by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in the FY 2016-17 is as below:

O & M Expenses	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Employee Expenses	65.35	64.65	64.01
R & M Expenses	6.70	11.03	9.45
A & G Expenses	6.16	6.09	3.58
Total O&M Expenses	78.21	81.77	77.04

Table 6: O & M Expenses for FY 2016-17 (in Rs Crores)

2.22 The actual employee expenses, R&M expenses and A&G expenses for the FY 2016-17 are lower than that approved by the Hon'ble Commission as part of review of the FY 2016-17.

2.23 The petitioner requests the Hon'ble Commission to approve the same on actual basis as the total O&M expenses of Rs. 77.04 Crores for FY 2016-17 are lower than the approved O&M expenses of Rs. 81.77 Crores for FY 2016-17.

#### GFA and Depreciation

- 2.24 It is submitted that ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has prepared the Fixed Asset Register for the FY 2016-17. The Fixed Asset Register has been prepared based on the assets created and verified post 2005 and a nominal value has been considered against assets created prior to 2005. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has started the exercise of compiling the details of assets prior to 2005 and the same shall be incorporated in the true-up for the FY 2017-18. In the current truing-up petition, the opening GFA approved by the Commission in the Tariff Order dated 4<sup>th</sup> May, 2017 has been considered and actual addition during FY 2016-17 as per the annual accounts have been considered. Further, depreciation for the year has been considered as per the Fixed Asset Register. The value of depreciation on account of Assets prior to 2005 shall be accounted for in the true-up for FY 2017-18 and shall be claimed accordingly.
- 2.25 The table below presents the approved and actual asset details for the FY 2016-17. The Hon'ble Commission is requested to approve the same:

Table 7: Asset Addition for FY 2016-17 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Asset Addition during FY 2016-17	48.13	48.13	5.61

2.26 The table below presents the approved and actual depreciation during the FY 2016-17:

Table 8: Depreciation for FY 2016-17 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Depreciation for the year	14.40	15.76	11.63

2.27 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH humbly requests the Hon'ble Commission to approve the depreciation based on actuals as recorded in the accounts.

#### Interest on Loan

- 2.28 For the purpose of determination of opening normative loan for FY 2016-17, the approved opening normative loan for FY 2016-17 in the Tariff Order dated 4<sup>th</sup> May, 2017 has been considered as opening normative loan for FY 2016-17. The addition in normative loan has been considered based on 70:30 debt-equity ratio in line with the Regulations notified by the Hon'ble Commission. Repayment of the loan has been considered to be equal to the depreciation for the year similar to the methodology considered by the Commission in APR for FY 2016-17. An interest rate of 14.05% as on April 1st, 2017 which is the SBI PLR rate has been applied on the average normative debt in order to estimate the normative interest cost for the FY 2016-17.
- 2.29 The Hon'ble Commission is requested to approve the interest on normative loans as computed in the table below:

Approved in Approved in T.O. **Review Petition Particulars** dated 28th April Actual T.O. 4th May 2016 2017 41.55 **Opening Normative Loan** 31.91 31.91 Add: Normative Loan during the year 33.69 33.69 3.93 Less: Normative Repayment 14.40 15.76 11.63 Closing Normative Loan 60.84 49.83 24.21 Average Normative Loan 51.19 40.87 28.06 Rate of Interest (@SBAR rate) 14.05% 14.05% 14.05% Interest on Normative Loan including bank charges 7.19 5.74 3.94

Table 9: Interest on Normative Capital Loan for FY 2016-17 (Rs Crores)

## Interest on Consumer Security Deposit

2.30 As per the provision of Regulation of Tariff Regulations & in accordance with Clause 47(4) of Electricity Act 2003, the distribution licensee is required to pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission. The actual opening balance and addition in consumer security deposit for the FY 2016-17 and claim of interest on security deposit is given in the table below:

Approved in Approved in Review T.O. dated **Particulars** Petition T.O. Actual 28th April 4th May 2016 2017 Opening Consumer Security Deposit 138.84 136.67 136.67 Net Addition During the year 5.00 5.00 11.60 Less: Deposit Refunded 0.46 Closing Consumer Security Deposit 143.84 141.67 147.81 **Interest on Consumer Security Deposit** 10.95 10.79 7.21

Table 10: Interest on Consumer Security Deposit for FY 2016-17 in (Rs Crores)

#### Interest on Working Capital

- 2.31 Interest on working capital has been computed as per Regulation 25 of JERC MYT Regulations, 2014. As per methodology followed by the Commission in previous tariff order, the closing balance of security deposit has been deducted from the total normative working capital requirement for computing the working capital requirement.
- 2.32 The requirement for working capital and interest thereon is as given in the table below:

Approved in Approved in Review T.O. dated **Particulars Petition** Actual 28th April T.O. 4th 2016 May 2017 Receivables of 2 Months Billing 124.43 135.81 137.94 60.73 55.94 Power Purchase Cost of 1 month 53.18 Consumer Security Deposit Excl. BG/FDR 143.84 141.67 147.81 Inventory Based on Annual Requirement for Previous FY 0.34 1.86 4.08 Total Working Capital after adjusting Consumer Security Deposit 9.30% 9.30% SBI Base Rate (%) 9.30% **Interest on Working Capital** 

Table 11: Interest on Working Capital for FY 2016-17 (Rs Crores)

#### Provision for Bad and Doubtful Debt

2.33 Regulation 32 of MYT Regulations, 2014 allows a provision for bad debts up to 1% of receivables in the revenue requirement of the licensee. In view of the outstanding dues of Rs. 19.04 Crores from permanently disconnected consumers, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has proposed the provision for bad and doubtful debts on 1% of the receivables for FY 2016-17.

Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has estimated the provision of bad debt as Rs. 8.15 Crores for FY 2016-17.

## Return on Equity

- 2.34 Provision of Regulation 27 of MYT Regulation, 2014 provides that Return on Equity shall be computed on 30% of the capital base or the actual equity whichever is lower @ 16% p.a. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has computed the Return on Capital base on the opening GFA for the FY 2016-17 and 30% of assets capitalised during the year in accordance with the above provision & methodology followed by the Hon'ble Commission in the Tariff Order dated 4<sup>th</sup> May, 2017.
- 2.35 Return on Equity computed is provided in the table given below.

Approved in Approved in T.O. dated Review **Particulars** Actual 28th April Petition T.O. 2016 4th May Opening equity 72.08 121.16 121.16 Addition in Equity 14.44 14.44 1.68 86.52 Closing Equity 135.60 122.84

79.30

12.69

128.38

20.54

122.00

19.52

Table 12: Return on Net Fixed Assets for FY 2016-17 (Rs Crores)

## Non-Tariff Income

2.36 The table below presents the approved and actual Non-Tariff Income for the FY 2016-17:

Table 13: Non-Tariff Income for FY 2016-17 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Non-Tariff Income	24.48	23.02	42.66

#### Revenue from Sale of UI Power

Average Equity Amount

Reasonable return @ 16%

2.37 As per the Accounts, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has received Rs. 9.06 Crores during FY 2016-17 towards sale of UI power which has been reduced in the ARR for FY 2016-17.

#### Revenue on Current Tariff

2.38 The billed revenue on actual sales and prevailing tariff as approved by the Commission is given in the table below.

Table 14: Revenue	on Current Tariff for	FY 2016-17 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Domestic	305.54	300.64	288.92
Commercial	296.26	304.05	302.86
Large Supply	75.06	79.15	79.19
Medium Supply	19.79	74.28	68.11
Small Power	55.97	11.18	10.54
Agriculture	0.54	0.41	0.41
Public Lighting	14.48	12.06	12.30
Bulk Supply	54.40	52.45	47.18
Others Temporary Supply	5.67	4.54	5.35
Total	827.72	838.76	814.85

## FPPCA Billed during the year

2.39 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has additionally billed a total of Rs. 121.23 Crores as FPPCA from the consumers during FY 2016-17. Total FPPCA billed for FY 2016-17 is given in the table below:

Table 15: FPPCA billed for FY 2016-17 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
Total		87.27	121.23

## Aggregate Revenue Requirement and Surplus for FY 2016-17

2.40 The Aggregate Revenue Requirement and surplus for the FY 2016-17 is as given in the table below:

Table 16: Aggregate Revenue Requirement and Surplus for True-Up of FY 2016-17 (Rs Crores)

S. No.	Particulars	Approved in T.O. dated 28th April 2016	Approved in Review Petition T.O. 4th May 2017	Actual
1	Cost of power purchase for full year	728.70	638.15	671.26
2	Employee costs	65.35	64.65	64.01
3	Administration and general expenses	6.16	6.09	3.58
4	R&M expenses	6.70	11.03	9.45
5	Depreciation	14.40	15.76	11.63
6	Interest and finance charges	7.19	5.74	3.94
7	Interest on working capital	-	-	-
8	Return on NFA /Equity	12.69	20.54	19.52
9	Provision for Bad Debt	-	-	8.15
10	Interest on Security Deposit	10.95	10.79	7.21
11	Total Revenue Requirement	852.14	772.75	798.75
12	Less: Non-Tariff Income	24.48	23.02	42.66
13	Less: Revenue from Sale through UI	-	3.15	9.06
14	Net Revenue Requirement	827.66	746.59	747.03
15	Revenue from retail sales at Existing Tariff	827.72	838.76	814.85
16	FPPPCA billed during the year	-	87.27	121.23
17	Revenue Surplus/(Gap) for the Year	0.06	179.44	189.05

2.41 Based on the actual ARR and Revenue for FY 2016-17 as per the accounts, it is observed that there is a revenue surplus of Rs. 189.05 Crores. Therefore, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to approve the above revenue surplus of Rs. 189.05 Crore for FY 2016-17 as presented above and carry forward the same to the FY 2018-19.

## Chapter 3: Review of ARR for FY 2017-18

- 3.1 The Joint Electricity Regulatory Commission had notified the Multi Year Distribution Tariff Regulations, 2014 (MYT Regulations 2014). The regulations applies to all the distribution licensees in the state of Goa and Union Territories except Delhi. These Regulations were earlier applicable for the Control Period FY 2015-16 to FY 2017-18. However, the Commission had revised the Control Period to FY 2016-17 to FY 2018-19 in view of the delays.
- 3.2 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had filed a revised business plan for the period of FY 2016-17 to FY 2018-19 along with requisite details as provided in JERC (Multi-Year Tariff) Regulations 2014. Subsequently, the Hon'ble Commission had issued an order on revised business plan on 28th December, 2015. The Hon'ble Commission in the MYT Order dated 28th April, 2016 had approved ARR for the Control Period of FY 2016-17 to FY 2018-19 as per the MYT Regulations 2014.
- 3.3 Regulation 8 of the MYT Regulations 2014 states the following:
  - "(1) The Commission shall undertake a review along with the next Tariff Order of the expenses and revenue approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called "Review"."
- 3.4 The petitioner is hereby filing annual performance review for FY 2017-18 as per the MYT framework and request the Hon'ble Commission to consider the revision in parameters based on the 6 months actual figures and balance six months estimates.
- 3.5 Additionally, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had submitted a review vide petition No. 239/2017 with respect to the MYT Order dated 4<sup>th</sup> May, 2017. The Hon'ble Commission vide its Order dated 20<sup>th</sup> September, 2017 disposed of the Review petition and revised the RPO target as per the Procurement of Renewable Energy (3<sup>rd</sup> Amendment Regulations, 2016). ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has considered the same for projecting the RPO requirement & compliance.

## Energy sales and Connected Load

3.6 The sales for the FY 2017-18 has been estimated based on CAGR of actual sales approved by the Hon'ble Commission for the FY 2010-11 to FY 2015-16. The CAGR for past five/three/two/one-year growth have been applied appropriately on the actual sales for the FY 2016-17 to arrive at the estimated sales for the FY 2017-18. The calculation of five/three/two/one-year CAGR is provided at Table 39 & 40 of para 4.4 of this petition. The approved and estimated sales for full year and actual sales for six months of FY 2017-18 is given in the table below:

S. No.	Categories	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Actual 6 Months	Estimated for FY 2017-18
1	Domestic	818.46	792.03	408.17	757.18
2	Commercial	507.00	534.67	265.87	514.07
3	Large Supply	117.00	125.40	63.42	130.72
4	Medium Supply	104.82	127.75	61.11	121.31
5	Small Power	21.00	20.21	10.70	19.53
6	Agriculture	2.02	1.49	0.93	1.33
7	Public Lighting	27.74	22.47	9.08	22.01
8	Bulk Supply	92.26	86.30	48.11	80.60
9	Others Temporary Supply	7.00	5.61	2.49	4.98
	Grand Total	1,697.30	1,715.93	869.89	1,651.72

Table 17: Energy sales for FY 2017-18 (MUs)

3.7 The revised estimate of sales for FY 2017-18 is lower than approved by the Commission in the MYT Order primarily on account of lower actual sales during FY 2016-17 as against the approved resulting in revision in the base year sales.

#### Intra-state T&D Losses

3.8 As per the Tariff Order dated 4th May, 2017, the T&D loss as approved by the Commission for FY 2017-18 is 12.75% as against ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH's submission of 13.75%. While ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is dedicated for reducing the intra-state T&D losses in the UT of Chandigarh, it requests the Hon'ble Commission to consider actual T&D loss of FY 2016-17 as the base for considering reasonable loss reduction target for the FY 2017-18. As discussed in the previous chapter, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has highlighted that while the sales have increased in the last

three years, losses remained stagnant without much improvement due to majority of the increase in the sales in the LT category. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH submits to the Hon'ble Commission that the losses have been in the range of 15% to 15.24% during the period of FY 2013-14 to FY 2015-16. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has restricted the T&D loss for the FY 2016-17 to 13.65% . It is difficult to bring the losses substantially from this level. The trajectory of loss from FY 2011-12 to FY 2016-17 is provided in the figure below:



Graph 2: T&D loss trajectory for the period FY 2011-12 to FY 2016-17

- 3.9 One of the primary reasons of stagnation in losses is the dominance of domestic category in the sales mix. In spite of an increase in overall sale, maximum increase in sales have happened in the domestic category resulting in a higher proportion of the overall sales as compared to industrial consumers where the sales have remained stagnant leading to a reduction in overall share.
- 3.10 It is submitted to the Hon'ble Commission that while the distribution area of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is small, the scope for addition of HT consumers is limited or negligible. As a result the sales to such categories is generally restricted leading to stagnation of T&D losses.
- 3.11 With over 80% of the sales to LT consumers, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH feels that further reduction in the T&D loss in the UT of Chandigarh shall be possible after implementation of its various IT/strengthening

schemes under IPDS and Smart Grid project which are under approval with Government of India.

- 3.12 In addition to the issue of higher LT sales, another important factor is the absence of interconnection point within the UT boundary which has been also submitted to the Hon'ble Commission in its past submissions.
- 3.13 The energy input in ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has to bear around 3% additional losses of interstate circuit due to not having any interstate point in its boundary. In this regard it is submitted that construction of a 220/66 kV substation at Hallo Majra is under progress by M/s PGCIL. This substation shall cater to the future load growth of Chandigarh resulting in lower losses due to commissioning of an interconnection point within the UT periphery.
- 3.14 In view of the above, it is submitted that the Hon'ble Commission may kindly consider & revise the loss target to a level which is achievable under the circumstances detailed above.
- 3.15 Clause 8.2.1. of the Tariff Policy 2006 states:
  - "(1) All power purchase costs need to be considered legitimate unless it is established that the merit order principle has been violated or power has been purchased at unreasonable rates. The reduction of Aggregate Technical & Commercial (ATC) losses needs to be brought about but not by denying revenues required for power purchase for 24 hours supply and necessary and reasonable O&M and investment for system up-gradation."
- 3.16 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in this regard submits that the various technical and technological improvement proposed under IPDS, smart grid and other schemes shall be useful in bringing about the desired reduction in loss levels. Since these schemes are currently under implementation, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to revise the T&D loss level for FY 2017-18 to achievable target as proposed.
- 3.17 In the business plan as well as MYT Petition, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had also pointed out the following issue due to which it

had to bear additional inter-state losses which were not getting accounted:

"Further, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH reiterates and submits before the Hon'ble Commission that actual distribution losses for UT of Chandigarh are much lower considering interstate point inside the limits of UT of Chandigarh. The energy input in ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has to bear the additional losses of interstate circuit due to not having any interstate point in its boundary. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has taken up the issue with CEA and PGCIL and expect the early resolution of the matter."

- 3.18 Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had estimated the T&D losses of 14% for FY 2016-17 in MYT Petition which was considered reasonable based on the past loss level as well as additional loss due to absence of interconnection point within the UT periphery. However, based on the actual loss for the FY 2016-17, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH proposes T&D loss of 13.50% for the FY 2017-18. The trend of T&D losses over the period of last 5 years is provided in the chart above. It may be observed that the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has been able to reduce the T&D loss over last 5 years. However, further reduction within the present infrastructural conditions & constraints explained in above paras would be difficult. Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has proposed an T&D loss target of 13.50% for the FY 2017-18.
- 3.19 In view of the above submissions, it is requested that the Hon'ble Commission may kindly consider & approve the T&D losses target for the FY 2017-18 at 13.50%.

#### **Energy Requirement**

- 3.20 For computation of energy requirement, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has estimated inter-state transmission losses based up on the 52 weeks (29<sup>th</sup> February, 2016 to 20<sup>th</sup> February, 2017) moving average of regional transmission losses of 4.05% for FY 2017-18 as approved in the Tariff Order dated 4<sup>th</sup> May, 2017.
- 3.21 The revised energy balance for FY 2017-18 is as given in the table below, the Hon'ble Commission is requested to approve the same:

Table 18: Energy Balance for FY 2017-18

Energy Available	
Units Procured	1,986.89
Inter-State Transmission Loss	4.05%
Transmission Loss (Mus)	80.47
Net Energy Available at UT Periphery	1,906.42
Power Available within UT	
Power procured from Gross/NET Metering Mode (In MUs)	3.08
Total Energy Available	1,909.50
Actual Energy Sales (Mus)	1,651.72
T&D Loss (%)	13.50%
T&D Loss (in MUs)	257.78
Total Energy Required at UT Periphery (MUs)	1,909.50
Demand Supply (Gap) / Surplus	0.00

### Power Purchase Quantum and Cost

- 3.22 The Petitioner submits that it procures power from various sources from:
  - Central Generating Stations (CGS) such as that of NTPC, NHPC and NPCIL
  - Other Generating Stations such as that of SJVNL, BBMB, THDC and APCPL
  - Other Sources such as bilateral agreement, banking arrangement, power exchange, UI etc.
- 3.23 For the purpose of review of FY 2017-18 power purchase quantum, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has considered actual six months power availability from various sources including short- term sources and balance six months availability has been computed based on the firm and unallocated power allocation from the various Central Generating Stations as per the recent revised allocation statement issued by Northern Regional Power Committee against the Ministry of Power letter No. NRPC/OPR/103/02/2017/12011-12036 dated 25.10.2017.
- 3.24 Shortfall in power from allocations, if any, based on the estimated sales and losses for FY 2017-18 has been considered to be procured from short term sources i.e. power exchange, other trading sources.
- 3.25 The actual six months power purchase quantum and cost is given in the table below:

Table 19: Actual 6 months Power Purchase Cost for FY 2017-18 (Rs Crores)

Particulars	Units	Actual Cost
Particulars	(in MUs)	(in Rs. Cr.)
NTPC	221.49	77.07
NHPC	210.00	60.21
APCL	29.18	13.37
NPCIL	84.11	26.37
SJVNL	81.15	16.63
ВВМВ	360.51	107.06
THDC	99.54	33.19
Bilateral/Exchange	27.14	7.12
CREST	1.28	1.20
Pvt. Solar	0.44	0.38
PGCIL Charges		20.54
NRLDC Charges		0.08
Reactive Energy		0.05
REC Cost		3.35
Short-Term Purchase		
Grand Total	1,114.84	366.63

3.26 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is also required to procure power from renewable sources for meeting the RPO as per the renewable regulations. It is submitted that ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has complied the RPO, both solar & non-solar upto FY 2016-17 & has surplus credits. The status of cumulative RPO compliance upto FY 2016-17 is provided in the table below. It may be seen from the table that there is surplus RPO compliance & same is proposed to be carried forward to FY 2017-18.

Further, based on the revised sales for FY 2017-18, applicable RPO and actual renewable power / REC procured during first six months of FY 2017-18, the balance RPO compliance during the six months have been computed.

Table 20: RPO Requirement (Solar and Non-Solar) and cumulative compliance upto FY 16-17

	JERC	Trajed (In %)		Power	RPO (	In Mus)	Co	mplian	ce (In Mu	s)
FY	Solar	Non- Solar	Total	Sales (In Mus)	Solar	Non- Solar	Solar Physical	Solar REC	Non- Solar Physical	Non- Solar REC
2010-11	0.25	0.75	1.00	1,285.33	3.21	9.64				
2011-12	0.30	1.70	2.00	1,301.48	3.90	22.13		2.36		10.75
2012-13	0.40	2.60	3.00	1,376.43	5.51	35.79		2.36		52.70
2013-14	0.40	2.60	3.00	1,423.04	5.69	37.00		15.89		42.48
2014-15	0.60	2.70	3.30	1,512.54	9.08	40.84		8.54		36.60
2015-16	0.85	2.70	3.55	1,491.32	12.68	40.27	0.41	9.60		43.80
2016-17	1.65	3.20	4.85	446.26	7.36	14.28	22.99	4.30		24.00
Total Till 2016-17					47.43	199.94	23.40	43.05	-	210.33
Surplus										
Carry Forward								19.02		10.39
to 2017-18										

Table 21: Breakup of quantum of RPO Obligation for FY 17-18

		Target		Surplus				Surplus
	RPO	Revised Sales (Excluding Hydro)	RPO (in MUs) (3X2)	Carry Forward from Unit till 2016-17 (in MUs)	Actual (Apr 17 to Sep 17) (in MUs)	Projected (Oct 17 to Mar 18) (in MUs)	Compliance (in MUs) (5+6+7)	Carry Forward to 2018-19 (in MUs) (4-8)
1	2	3	4	5	6	7	8	9
Solar	2.50%	427.43	10.69	19.02	8.77	8.77	36.55	25.86
Non-Solar	4.20%	427.43	17.95	10.39	22.00	0.00	32.39	14.44
Total	6.70%		28.64	29.41	30.77	8.77	68.94	40.31

- 3.27 The power purchase cost for FY 2017-18 is computed based on the estimated units to be procured from the generating stations as per the allocations
  - a. The fixed cost for each plant is computed based upon the % allocation of the plant capacity to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH and corresponding annual fixed charges approved for the generating stations as per their recent tariff orders for the control period (FY 2014-19) approved by CERC. For generating plants where tariff orders are still pending, fixed charges from first six months of FY 2017-18 have been considered.

- b. The variable charge for the thermal and nuclear power plants has been considered based on the actual variable charge during the first six months of FY 2017-18.
- c. In case of BBMB the average rate of power as per the recent invoices have been considered for the purpose of projections.
- d. The generation units available from thermal and nuclear plant are computed considering the average PLF of the plants in past three years. For hydel plants, the design energy or actual generation in the past three years has been considered as the basis for projections.
- e. The deficit in energy is proposed to be met through short term power.
- f. PGCIL, NRLDC and reactive Energy charges are computed based upon the half yearly figures available and have been pro-rated for the balance period.
- 3.28 Based on the actual six months power purchase cost and projected six months power purchase quantum and cost, the revised estimation of annual power purchase units and cost is summarized in the table below:

Approved in T.O. dated Approved in T.O. dated **Estimated** 4th May 2017 28th April 2016 **Particulars** Units Cost Units Cost Units Cost (in MUs) (in MUs) (in Rs. Cr.) (in MUs) (in Rs. Cr.) (in Rs. Cr.) NTPC 438.31 180.87 475.41 171.28 416.76 145.02 NHPC 218.43 47.19 238.32 54.62 262.61 75.29 APCPL 17.95 39.18 **NPCIL** 44.03 92.01 26.18 110.98 31.36 140.43 80.58 17.79 **SJVNL** 65.89 15.21 98.88 20.27 BBMB 253.39 763.58 193.00 768.48 181.47 649.87 57.48 THDC 182.87 180.07 71.07 172.40 58.51 Bilateral/Exchange 236.91 71.07 174.31 52.29 203.70 74.34 CREST 2.55 2.40 Pvt. Solar 18.22 7.43 0.52 0.45 18.22 7.43 90.23 30.97 PGCIL Charges 48.01 NRLDC Charges 0.30 0.2 0.17 Reactive Energy 0.12 0.04 0.10 9.66 9.67 3.35 REC Cost Short-Term Purchase **Grand Total** 760.16 2,041.48 628.19 681.86 2,021.12 1,986.89

Table 22: Estimated Power Purchase Quantum and Cost for FY 2017-18

3.29 While the Commission had approved a total power purchase cost of Rs. 628.19 Crores for FY 2017-18 in the Tariff order dated 4<sup>th</sup> May,2017, the estimated power purchase cost is higher primarily on account of increase in per unit rate. Further, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has to return power of 47.50 MUs to JKPDD under banking arrangement during the H2 of FY 2017-18. The

availability of power for the FY 2017-18 is reduELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to that extent.

In view of above, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH proposes total power purchase units of 1986.89 MUs and power purchase cost of Rs. 681.86 Crores for the FY 2017-18.

The Hon'ble Commission may kindly consider the above submissions and approve the power purchase units & cost as proposed.

## Operations and Maintenance Expenses

- 3.30 Operation & Maintenance Expenses consists of three elements viz Employee Expenses, A&G Expenses and R&M Expenses. As per the MYT Regulations, O&M expenses shall be treated as controllable parameter and shall not be revised except those attributable to directions of the Hon'ble Commission.
- 3.31 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has estimated the Employee Expenses, A&G Expenses and R&M Expenses for the FY 2017-18 based on the actual for the period April, 2017 to September, 2017 and projected figures for the period of October, 2017 to March, 2017.
- 3.32 The actual O&M expenses for first six months of FY 2017-18 under the three heads Employee expenses, R&M expenses and A&G expenses are summarized in table below:

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Actual FY 2017-18 (Apr-Sep)
Employee Expenses	69.67	66.82	39.16
R&M Expenses	8.64	12.97	6.16
A&G Expenses	6.61	6.34	1.24
Total O&M Eypenses	84 01	86 13	46 56

Table 23: Actual O&M Expense for six months of FY 2017-18 (Rs. Crore)

3.33 Based on the actual for six months, the estimated figures of various heads under O&M expenses for the FY 2017-18 is provided in the table below along with the respective approved expenses:

Approved in T.O. Approved in T.O. dated 4th May **Particulars** dated 28th April **Estimated** 2016 2017 69.67 66.82 69.68 Employee Expenses 12.97 **R&M** Expenses 8.64 12.97 A&G Expenses 6.61 6.34 6.34 **Total O&M Expenses** 84.91 86.13 88.99

Table 24: Approved and Estimated O&M Expenses for FY 2017-18 (Rs Crores)

3.34 The Hon'ble Commission is requested to consider and approve the total O&M expenses as computed in the table above.

### Capital Expenditure and Capitalization

3.35 The Hon'ble Commission had approved a capital expenditure of Rs. 38.52 Crores for FY 2017-18. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH plans to meet the approved capital expenditure during the remaining six months. The details of capital expenditure and capitalization is as below:

Table 25: Capital Expenditure and Capitalization for first 6 months of FY 2017-18 (Rs. Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Actual 2017-18 (Apr-Sep)
Capital Expenditure	38.52	38.52	10.72
Capitalization	38.52	38.52	4.35

#### **GFA** and Depreciation

- 3.36 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has considered the approved opening GFA of Rs. 403.86 Crores for the FY 2016-17 and considered the actual additions of Rs. 5.61 Crores during the year as per the accounts to arrive at the opening GFA of Rs. 409.47 Crores for the FY 2017-18.
- 3.37 For the FY 2017-18, approved capitalization as per the MYT Order has been considered and any variation shall be submitted at the time of truing-up for the year.
- 3.38 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to approve the fixed assets in the table below:

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	FY 2016-17 (Actual)	FY 2017-18 (Estimated)
Opening GFA	288.39	451.99	403.86	409.47
Asset Capitalized	38.52	38.52	5.61	38.52
Closing GFA	326.91	490.51	409.47	447.99

Table 26: Approved and Estimated Assets Addition for FY 2017-18 (Rs Crores)

- 3.39 The petitioner submits that it has initiated activities with respect to the preparation of Fixed Asset Register for the period prior to year 2005 and request the Hon'ble Commission to approve the same as and when they are prepared.
- 3.40 Depreciation has been calculated on the basis of the opening GFA & proposed additions during the FY 2017-18 at the rate prescribed in the MYT Regulations. The approved and revised depreciation for FY 2017-18 is provided below:

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Estimated
Opening Assets at the Beginning of the year	288.39	451.99	409.47
Addition of assets during the year	38.52	38.52	38.52
Gross Fixed assets at the end of the year	326.91	490.51	447.99
Average Assets	307.65	471.25	428.73
Average Rate of Depreciation	5.42%	3.68%	2.78%
Depreciation for the year	16.69	17.36	11.93

Table 27: Approved and Estimated Depreciation for FY 2017-18 (Rs Crores)

#### Interest on Loan

- 3.41 In line with the methodology adopted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for consideration of GFA as detailed above, the opening normative loan has also been considered on the same lines. The opening normative loan as approved by the Commission for FY 2016-17 has been considered and normative loan of 70% with respect to the actual assets capitalized for the FY 2016-17 & approved capitalisation for the FY 2017-18 has been considered for arriving at the total normative loan for the year.
- 3.42 Repayment of the normative loan during FY 2017-18 has been considered equivalent to the depreciation in line with the MYT Regulations.
- 3.43 The interest at the SBI PLR rate of 14.05% as on April 1st, 2017 has been applied on the average normative debt in order to project the interest on normative loans for FY 2017-18. The Hon'ble Commission is requested to approve the interest on normative loans as computed in the table below:

Table 28: Approved and Estimated Interest on Normative Loan for FY 2017-18 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Estimated
Opening Normative Loan	60.84	49.83	24.21
Add: Normative Loan during the year	26.96	26.96	26.96
Less: Normative Repayment	16.69	17.36	11.93
Closing Normative Loan	71.12	59.44	39.25
Average Normative Loan	65.98	54.63	31.73
Rate of Interest (@SBAR rate)	14.05%	14.00%	14.05%
Interest on Normative Loan including bank charges	9.27	7.65	4.46

## Interest on Working Capital

- 3.44 As per clause 25 of JERC MYT Regulations 2014 the working capital of a licensee shall consist of
  - a. Receivable of two months of billing
  - b. Less power purchase cost of one month
  - c. Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt
  - d. Inventory for two months based on Annual Revenue Requirement for previous year
- 3.45 The SBI base rate as on 1<sup>st</sup> April, 2017 9.30% is considered for computation of interest on working capital. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Commission to approve the revised working capital requirement and interest computed as per the regulations is summarized in the table below:

Table 29: Interest on Working Capital for FY 2017-18 (Rs. Crores)

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Estimated
Receivables of 2 Months Billing	145.24	124.58	142.07
Power Purchase Cost 1 Month	63.35	52.35	56.82
Consumer Security Deposit Excl. BG /FDR	148.84	146.67	152.81
Inventory Based on Annual Requirement for Previous FY	0.34	1.86	4.08
Total Working Capital after deduction of Consumer Security Deposit	0.00	0.00	0.00
SBI Base Rate (%)	9.30%	9.25%	9.30%
Interest on Working Capital	0.00	0.00	0.00

#### Interest on Consumer Security Deposit

3.46 In accordance with Clause 47(4) of Electricity Act 2003, the distribution licenses is required to pay interest on security deposit collected from the consumers, equivalent to the bank rate as approved by the Commission. Opening consumer security deposit has been considered based on the actual closing for FY 2016-17 and an addition of Rs. 5 Crore has been projected during FY 2017-18. The opening & closing balance and estimated addition during the FY 2017-18 and claim of interest on security deposit is given in the table below, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Commission to approve the same.

Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Estimated
Opening Consumer Security Deposit	143.84	141.67	147.81
Net Addition During the year	5.00	5.00	5.00
Closing Consumer Security Deposit	148.84	146.67	152.81
Average Deposit	146.34	144.17	150.31
Bank Rate	7.75%	6.75%	6.25%
Interest on Consumer Security Deposit	11.34	9.73	9.39

Table 30: Interest on Consumer Security Deposit for FY 2017-18 (Rs Crores)

## Return on Equity

- 3.47 Regulation 27 of MYT Regulations 2014 provides for Return on Equity (RoE) as follows:
  - "(a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:
  - (c) 16% post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR petition."
- 3.48 In line with the methodology adopted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for calculation of normative loan as detailed above, the opening equity has also been considered on the same lines. The opening equity as approved by the Commission for FY 2016-17 has been considered and equity of 30% with respect to the actual assets capitalized for the FY 2016-17 & approved capitalisation for the FY 2017-18 has been considered for arriving at the total equity for the year.
- 3.49 The Hon'ble Commission is requested to approve and consider any updation in FAR with respect to assets prior to 2005. Rate of return on equity is considered 16% post tax as per provison 27 of the MYT regulations 2014. The proposed RoE for FY 2017-18 is as below:

Approved in T.O. Approved in T.O. dated 28th April dated 4th May **Particulars Estimated** 2016 2017 86.52 135.60 122.84 Opening Equity 11.56 11.56 Addition in Equity 11.56 98.07 134.40 Closing Equity 147.15 Average Equity Amount 92.29 141.37 128.62 Reasonable return @ 16% 14.77 22.62 20.58

Table 31: Approved and Estimated Return on Equity for FY 2017-18 (Rs Crores)

#### Provision for Bad and Doubtful Debt

- 3.50 In accordance with Clause 28 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 the Commission, after the generating company/licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the licensee.
- 3.51 Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has proposed the provision for bad and doubtful debts on 1% of the estimated receivables for FY 2017-18. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has estimated the provision of bad debt as Rs. 8.52 Crores for FY 2017-18.

#### Non-Tariff Income

3.52 Non-Tariff Income estimated for FY 2017-18 has been considered based on the actual Non-Tariff Income for six months of FY 2017-18 which is provided in the table below:

Table 32: Approved and estimated Non-Tariff Income for FY 2017-18 (Rs Crores)

Particulars	Approved in T.O. dated 28th April 2016		Actual FY 2017-18 (Apr-Sep)	Estimated
Non-Tariff Income	25.71	24.17	11.82	23.64

#### Revenue on Current Tariff

3.53 The revised estimation of revenue based on the estimated sales and approved tariff for FY 2017-18 is provided in the table below:

Table 33: Approved and Estimated Revenue on Existing Tariff for FY 2017-18 (Rs Crores)

S. No.	Category / Slab of Consumers	Approved in T.O. dated 4th May 2017	Estimated
Α	Domestic	317.76	304.33
В	Commercial	323.85	314.03
С	Large Supply	79.66	82.43
D	Medium Supply	77.71	73.88
Е	Small Power	11.19	10.82
F	Agriculture	0.43	0.39
G	Public Lighting	12.83	12.61
Н	Bulk Supply	53.03	49.88
I	Others Temporary Supply	4.54	4.03
	Total	881.00	852.41

## FPPCA Billed during the year

3.54 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has additionally billed a total of Rs. 109.96 Crores as FPPCA from the consumers during the first six months of FY 2017-18. The same has been considered towards revenue for FPPCA for the FY 2017-18.

## Estimated Aggregate Revenue Requirement and Surplus for FY 2017-18

3.55 Based on the revised ARR and revenue projection, the revenue surplus for FY 2017-18 shall be as below:

Table 34: Estimated Aggregate Revenue Requirement and Surplus for the FY 2017-18 (Rs Crores)

S. No.	Particulars	Approved in T.O. dated 28th April 2016	Approved in T.O. dated 4th May 2017	Estimated
1	Cost of power purchase for full year	760.16	628.19	681.86
2	Employee costs	69.67	66.82	69.68
3	R&M Expense	8.64	12.97	12.97
4	Administration and general expenses	6.61	6.34	6.34
5	Depreciation	16.69	17.36	11.93
6	Interest and finance charges	9.27	7.65	4.46
7	Interest on working capital	0.00	0.00	0.00
8	Return on Equity	14.77	22.62	20.58
9	Provision for Bad Debt	0.00	0.00	8.52
10	Interest on Consumer Security Deposit	11.34	9.73	9.39
11	Total Revenue Requirement	897.14	771.68	825.74
12	Less: Non-Tariff Income	25.71	24.17	23.64
13	Net Revenue Requirement (11-12)	871.43	747.51	802.10
14	Revenue from retail sales		881.00	852.41
15	FPPCA			109.96
16	Revenue Surplus/(Gap) for the Year		133.49	160.27

3.56 The revenue surplus determined for the FY 2017-18 amounts to Rs. 160.27 Crores and the Hon'ble Commission is requested to approve the same. This revenue surplus has been carried forward to FY 2018-19.

# **Chapter 4: Approval of the various ARR Components for FY 2018-19**

- 4.1 The Hon'ble Commission in the MYT Order dated 28th April, 2016 had approved ARR for the Control Period FY 2016-17 to FY 2018-19 as per the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (except Delhi) (Multi Year Distribution Tariff) Regulations, 2014 (MYT Regulations 2014).
- 4.2 Regulation 8 of the MYT Regulations states the following:
  - "(1) The Commission shall undertake a review along with the next Tariff Order of the expenses and revenue approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'."
- 4.3 The petitioner is hereby filing the review of ARR for FY 2018-19 and Tariff Proposal for the year based on the changes in uncontrollable parameters i.e. sales, power purchase, etc. as per the MYT framework and request the Hon'ble Commission to consider the revision in the ARR based on the actual of FY 2016-17 and 6 months actual for FY 2017-18. The section below covers each parameter in detail along with justification for revision.

## Revised Projections for Number of Consumers, Connected Load and Energy sales

4.4 The number of consumers, connected load & energy sales for the FY 2018-19 has been projected based on CAGR of actual figures approved by the Hon'ble Commission for the FY 2010-11 to FY 2015-16. The CAGR for past five/three/two/one-year growth have been applied year over year appropriately on the actual figures for the FY 2016-17 to arrive at the projected number of consumers, connected load & Energy sales for the FY 2018-19. The calculation of CAGR & revised projection of number of consumers, connected load & energy sales is provided in Tables below.

Table 35: Calculation of CAGR for Number of consumers

S. No.	Categories	FY11	FY12	FY13	FY14	FY15	FY16	CAGR for 5 Years	CAGR for 3 Years	CAGR for 1 Years
1	Domestic	1,68,429	1,70,364	1,72,549	1,74,407	1,83,211	1,88,375	2.26%	2.97%	2.82%
2	Commercial	24,837	25,359	20,309	21,447	22,143	22,661	-1.82%	3.72%	2.34%
3	Large Supply	102	104	101	105	108	103	0.20%	0.66%	-4.63%
4	Medium Supply	1,042	1,076	1,116	1,154	1,197	1,255	3.79%	3.99%	4.85%
5	Small Power	1,286	1,291	1,285	1,285	1,275	1,269	-0.27%	-0.42%	-0.47%
6	Agriculture	133	122	123	122	121	120	-2.04%	-0.82%	-0.83%
7	Public Lighting	678	775	807	846	886	978	7.60%	6.62%	10.38%
8	Bulk Supply	286	348	503	529	592	667	18.45%	9.86%	12.67%
9	Others Temporary Supply	751	903	922	737	620	573	-5.27%	-14.66%	-7.58%
10	Total	1,97,544	2,00,342	1,97,715	2,00,632	2,10,153	2,16,001			

Table 36: Category wise Number of Consumers considered for FY 18-19

S. No.	Categories	16-17 (Actual)	CAGR Used	17-18 (Estimated)	18-19 (Projected)
1	Domestic	1,91,436	2.26%	1,95,769	2,00,201
2	Commercial	23,493	2.34%	24,043	24,605
3	Large Supply	99	0.00%	99	99
4	Medium Supply	1,288	4.85%	1,350	1,416
5	Small Power	1,275	0.00%	1,275	1,275
6	Agriculture	119	0.00%	119	119
7	Public Lighting	1,082	7.60%	1,164	1,253
8	Bulk Supply	732	12.67%	825	929
9	Others Temporary Supply	437	0.00%	437	437
10	Total	2,19,961		2,25,081	2,30,334

It is submitted that the Hon'ble Commission may kindly consider and approve the number of consumers as projected above.

Table 37: Calculation of CAGR for Connected load

S. No.	Categories	FY11	FY12	FY13	FY14	FY15	FY16	CAGR for 5 Years	CAGR for 3 Years	CAGR for 1 Years
1	Domestic	6,09,926	6,58,690	7,31,236	7,73,459	7,94,926	8,18,172	6.05%	3.82%	2.92%
2	Commercial	3,01,758	3,18,272	3,26,156	3,60,348	3,83,574	4,00,437	5.82%	7.08%	4.40%
3	Large Supply	65,026	65,763	64,023	69,671	71,762	71,904	2.03%	3.95%	0.20%
4	Medium Supply	55,564	57,603	59,811	62,011	65,907	70,162	4.78%	5.46%	6.46%
5	Small Power	18,500	18,652	18,754	19,015	19,268	19,364	0.92%	1.07%	0.50%
6	Agriculture	737	675	707	715	722	737	0.00%	1.39%	2.08%
7	Public Lighting	5,039	5,455	5,583	5,791	5,956	6,243	4.38%	3.79%	4.82%
8	Bulk Supply	28,745	30,378	41,303	41,299	41,464	41,916	7.84%	0.49%	1.09%
9	Others Temporary Supply	24,741	27,840	5,672	4,229	3,510	3,250	-33.37%	-16.94%	-7.41%
10	Total	11,10,035	11,83,328	12,53,245	13,36,539	13,87,088	14,32,184			

Table 38: Category wise Connected Load considered for FY18-19

S. No.	Categories	16-17 (Actual)	CAGR Used	17-18 (Estimated)	18-19 (Projected)
1	Domestic	8,50,347	2.92%	8,75,214	9,00,808
2	Commercial	4,24,746	5.82%	4,49,474	4,75,641
3	Large Supply	70,044	2.03%	71,467	72,919
4	Medium Supply	71,457	4.78%	74,870	78,446
5	Small Power	19,565	0.92%	19,745	19,926
6	Agriculture	748	2.08%	764	780
7	Public Lighting	6,660	4.38%	6,952	7,256
8	Bulk Supply	42,454	1.09%	42,917	43,385
9	Others Temporary Supply	2,480	0.00%	2,480	2,480
10	Total	14,88,503		15,43,882	16,01,640

It is submitted that the Hon'ble Commission may kindly consider and approve the connected load as projected above.

Table 39: Calculation of CAGR for Energy sales

S. No.	Categories	FY11	FY12	FY13	FY14	FY15	FY16	CAGR for 5 Years	CAGR for 3 Years	CAGR for 2 Years	CAGR for 1 Years
1	Domestic	518.00	525.79	586.54	608.24	655.38	658.50	4.92%	3.93%	4.05%	0.48%
2	Commercial	398.00	417.36	397.54	446.18	460.21	463.34	3.09%	5.24%	1.90%	0.68%
3	Large Supply	140.00	128.72	137.50	123.94	117.20	131.84	-1.19%	-1.39%	3.14%	12.49%
4	Medium Supply	89.00	103.71	103.84	104.53	103.58	110.94	4.51%	2.23%	3.02%	7.10%
5	Small Power	21.00	22.02	20.11	20.36	20.50	19.01	-1.97%	-1.86%	-3.38%	-7.28%
6	Agriculture	2.00	1.27	1.40	1.46	1.67	1.49	-5.73%	2.07%	0.99%	-10.84%
7	Public Lighting	17.00	17.45	21.98	21.20	21.67	22.50	5.77%	0.78%	3.02%	3.83%
8	Bulk Supply	73.00	74.67	87.34	86.56	83.49	77.19	1.12%	-4.04%	-5.57%	-7.55%
9	Others Temporary Supply	27.00	10.50	8.79	7.68	7.97	6.52	-24.73%	-9.47%	-7.85%	-18.17%
10	Total	1,285.00	1,301.49	1,365.04	1,421.15	1,470.67	1,490.32	·			

Table 40: Category wise Energy Sales considered for FY 18-19

S. No.	Categories	16-17 (Actual)	CAGR Used	17-18 (Estimated)	18-19 (Projected)
1	Domestic	721.70	4.92%	757.18	794.41
2	Commercial	498.68	3.09%	514.07	529.94
3	Large Supply	126.74	3.14%	130.72	134.82
4	Medium Supply	116.08	4.51%	121.31	126.77
5	Small Power	19.53	0.00%	19.53	19.53
6	Agriculture	1.30	2.07%	1.33	1.36
7	Public Lighting	21.83	0.78%	22.01	22.18
8	Bulk Supply	80.60	0.00%	80.60	80.60
9	Others Temporary Supply	4.98	0.00%	4.98	4.98
10	Total	1,591.43		1,651.72	1,714.58

Approved in s. **Categories** T.O. dated 28th **Projected** No. April 2016 Domestic 881.11 794.41 2 Commercial 523.71 529.94 Large Supply 117.00 134.82 3 Medium Supply 104.92 126.77 Small Power 21.00 19.53 5 Agriculture 2.18 1.36 6 Public Lighting 22.18 29.96 80.60 **Bulk Supply** 95.57 Others Temporary Supply 7.00 4.98 10 Total 1,782.45 1,714.58

Table 41: Energy Sales for FY 18-19 (In Mus)

In view of the above submissions it is requested that the Hon'ble Commission may kindly approve the energy sales of 1714.58 Mus for the FY 2018-19 as projected.

#### Energy Availability and Power Purchase Quantum

- 4.5 Since ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH does not have any generation capacity of its own, it relies entirely on the allocation of power from the Central Generating Stations like NTPC, NHPC, BBMB, NPCIL, SJVNL, APCPL etc. The current firm and unallocated power allocation from the various Central Generating Stations have been considered while projecting the power purchase from various generating stations.
- 4.6 The Energy availability to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH from various plants is considered on the below mentioned methodology
  - a. The current firm and unallocated power allocation from the various Central Generating Stations have been considered as per the recent revised allocation statement issued by Northern Regional Power Committee against the Ministry of Power letter No. NRPC/OPR/103/02/2017/12011-12036 dated 25.10.2017. Current allocation from different plants to UT of Chandigarh has been considered for the availability to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for FY 2018-19.
  - b. The generation units available from each plant are computed considering the average PLF of the plants in past three years/design energy.

- c. The deficit in energy is proposed to be met through short term power.
- 4.7 The availability of power from various sources have been considered as per the following methodology:
  - a. <u>NTPC</u>: The net energy generated from the generating stations of NTPC has been estimated by considering average PLF of past three years and normative auxiliary consumption as per CERC Tariff Regulations. Based upon the generated energy from each plant and its corresponding entitlement to the UT of Chandigarh, the unit availability has been calculated.
  - b. <u>NHPC:</u> The energy generated from the generating stations of NHPC has been estimated by considering design energy of the corresponding stations. Based upon the energy generated by each plant and its corresponding entitlement to the UT of Chandigarh, the unit availability has been calculated.
  - c. <u>NPCIL</u>: The energy generated from the generating stations of NPCIL has been estimated by considering average PLF of past three years. Based upon the generated energy from each plant and its corresponding entitlement to the UT of Chandigarh, the unit availability has been calculated.
  - d. <u>SJVNL</u>: The estimation of energy generated from the Naptha Jhakri generating station has been done based upon the average generation of past three years while for the Rampur hydro station it is estimated by considering design energy of the power plant. Based upon the generated energy from each plant, the unit availability to the UT of Chandigarh has been calculated.
  - e. <u>BBMB</u>: The UT of Chandigarh has been allocated fix quota of 1LU and 10 LU per day from the BBMB plant. In addition to that 3.50% of the plant capacity has been allocated to the UT of Chandigarh. The availability of power from BBMB has been considered based on the average generation of past three years.
  - f. <u>THDC:</u> The unit generation from the Koteshawar and Tehri plants has been estimated based upon the average generation of past three years while the energy available to the UT of Chandigarh for the Control Period has been calculated based upon the entitlement.
- 4.8 As also highlighted in the business plan, in view of the projected deficit in power availability, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has planned to procure 40 MW of additional power from Rampur Hydro power plant in Himachal Pradesh. Energy from the same has been considered for the purpose of meeting the power requirement.
- 4.9 Based on the above assumptions and methodology, the power availability to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH from various

#### generating stations during FY 2018-19 is as summarized below:

Table 42: Energy Available from different plants for FY 2018-19

S. No.	Source	Name of Project	Туре	Capacity	Total Avg Entitlement in %	Entitlement in MW
1		Anta	Gas	419	1.19	4.99
2		Auraiya	Gas	663	0.75	4.97
3		Dadri GPP	Gas	830	0.61	5.06
4		Dadri II TPP	Coal	980	0.22	2.16
5		Kahalgaon II	Coal	1500	0.20	3.00
6		Rihand I	Coal	1000	1.00	10.00
7		Rihand II	Coal	1000	0.80	8.00
8	NTPC	Rihand III	Coal	1000	0.55	5.50
9		Singrauli	Coal	2000	0.20	4.00
10		Unchahar I	Coal	420	0.48	2.02
11		Unchahar II	Coal	420	0.71	2.98
12		Unchahar III	Coal	210	0.48	1.01
12		Unchahar IV	Coal	500	0.87	4.36
13		Jhajjar (Aravali)	Coal	1500	0.43	6.45
14		Koldam	Hydel	800	0.79	6.32
15		Chamera I	Hydel	540	3.90	21.06
16		Chamera II	Hydel	300	0.67	2.01
17		Chamera III	Hydel	231	0.60	1.39
18		Dhauliganga	Hydel	280	0.72	2.02
19		Dulhasti	Hydel	390	0.47	1.83
20	NHPC	Parbathi III	Hydel	520	0.60	3.12
21		Salal	Hydel	690	0.27	1.86
22		Sewa II	Hydel	120	0.83	1.00
23		Tanakpur	Hydel	94	1.28	1.20
24		Uri-I	Hydel	480	0.62	2.98
25		Uri II	Hydel	240	0.63	1.51
26		NAPP	Nuclear	440	1.14	5.02
27	NPCIL	RAPP (#3 and #4)	Nuclear	66	3.18	2.10
28		RAPP(#5 and #6)	Nuclear	440	0.68	2.99
29	SJVNL	NATHPA JHAKRI	Hydel	1500	0.43	6.45
	SJVINL	RAMPUR	Hydel	137	0.79	1.08
31		BBMB 3.5 %	Hydel	1325	3.50	46.38
32		BBMB 1 LU	Hydel	-	-	1 LU per day
33	ввмв	BBMB 10 LU	Hydel	-	-	10 LU per day
34		PONG	Hydel	360	3.50	12.60
35		DEHAR	Hydel	990	3.50	34.65
36	THDC	Koteshwar	Hydel	400	0.36	1.44
37	INDC	Tehri	Hydel	1000	0.60	6.00

4.10 Based on the above entitlements and reasonable assumptions, the energy

availability to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH from various generating stations during the FY 2018-19 is as summarized below:

Table 43: Energy Available from different plants for FY 2018-19 (in MUs)

S. No.	Name of Project	Approved as per T.O. dated 28th April 2016	Projected	
	NTPC Stations	April 2010		
1	Anta	32.51	15.03	
2	Auraiya	25.41	6.49	
3	Dadri GPP	31.80	29.17	
4	Dadri II TPP	12.98	16.56	
5	Kahalgaon II	17.47	21.66	
6	Rihand I	80.20	62.04	
7	Rihand II	68.16	69.85	
8	Rihand III	50.47	55.15	
9	Singrauli	26.09	34.73	
10	Unchahar I	16.19	17.55	
11	Unchahar II	27.00	27.20	
12	Unchahar III	10.17	13.05	
13	Unchahar IV	-	32.09	
14	Jhajjar (Aravali)	14.90	39.18	
15	Koldam	24.96	32.23	
	NHPC Stations			
16	Chamera I	97.44	102.00	
17	Chamera II	18.72	25.41	
18	Chamera III	9.91	13.96	
19	Dhauliganga	17.18	15.91	
20	Dulhasti	20.99	31.44	
21	Parbathi III	7.33	10.60	
22	Salal	8.92	10.65	
23	Sewa II	7.19	8.64	
24	Tanakpur	5.76	4.33	
25	Uri-I	17.47	20.66	
26	Uri II	7.52	19.01	
	NPCIL Stations			
27	NAPP	37.32	66.76	
28	RAPP (#3 and #4)	19.56	24.04	
29	RAPP(#5 and #6)	35.13	49.63	
	Others			
30	NATHPA JHAKRI	61.81	88.49	
31	RAMPUR (ADDITIONAL)	4.08	10.39	
32	BBMB 3.5 %	195.86	126.25	
33	BBMB 1 LU	36.50	518.57	
34	BBMB 10 LU	365.00	5.05	
35	PONG	59.25	0.00	
36	DEHAR	111.87	0.00	
37	Koteshwar	7.88	10.45	
38	Tehri	174.99	161.95	
41	Total	1,765.99	1,796.16	

#### Power Purchase from Renewable Sources/RECs

- 4.11 Apart from the above allocations from conventional sources, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH shall also procure power from roof-top solar power plants as covered under the power procurement from renewable energy segment and balance power shall be required to be procured from bilateral agreements. As per the MYT Regulations, 2010 and First Amendment Regulations 2014, the Hon'ble Commission under Regulation 1 of JERC (Procurement of Renewable Energy) Regulations has specified Renewable Purchase Obligation (RPOs) targets for all Distribution Licensees/ obligated entities for FY 2010-11 to FY 2021-22.
- 4.12 The RPO targets for the control period to be achieved by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH during FY 2018-19 as specified in the Regulations is as follows:

Table 44: RPO for FY 2018-19

FY	Solar RPO (%)	Non-Solar RPO (%)	
2018-19	3.60	5.40	

- 4.13 The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH submits that ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has already met the RPO requirement for the FY 2017-18 and has surplus RPO credits to the extent of 25.86 Mus for solar & 14.44 Mus of Non-Solar. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH intends to meet the RPO as per the directions of the Hon'ble Commission in the FY 2018-19. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has planned to meet the Solar RPO from the purchase of solar power within the UT of Chandigarh (both Net metering mode and Gross metering mode).
- 4.14 The summary of projected Solar and Non-Solar compliance by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for FY 2018-19 is summarized in the table below:

Table 45: Calculation of RPO for FY 2018-19

		Target		Surplus	RPO	Surpl	
	RPO	Revised Sales (Excluding Hydro)	RPO (in MUs) (3X2)	Carry Forward from Unit till 2017-18 (in MUs)	Copliance during the Year (in MUs)	Compliance upto 2018- 19 (in MUs)	Carry Forward to 2019-20 (in MUs) (5-7)
1	2	3	4	5	6	7	8
Solar	3.60%	498.60	17.95	25.86	17.53	43.39	25.44
Non-Solar	5.40%	498.60	26.92	14.44	0.00	14.44	-12.48
Total	9.00%		44.87	40.31	17.53	57.84	12.96

Table 46: Units to be purchased under RPO for FY 2018-19

	Projection			
Non-Solar Obligation	Unit	Cost		
	(In Mus)	(Rs. Cr.)		
Non-Solar RPO in %	5.40%			
Projected Sales excluding Hydro (In Mus)	498.60			
Total power to be procured to meet the Obligation (In Mus)	26.92			
Surplus Carry Forward from Unit till 2017-18 (in MUs)	14.44			
After adjustment of Surplus power to be procured to meet the	12.49	1.07		
Obligation (In Mus)	12.48	1.87		

4.15 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH submits that Chandigarh does not have required potential for non-solar generation due to geographical conditions. Further, solar is cleaner energy and as per the solar mission of the Government of India, thrust has been given on increasing the solar sources of power.

In view of the above it is requested that, in absence of any Non-solar power plants within the UT of Chandigarh, the Hon'ble Commission may kindly allow ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to meet the Non-solar RPO by utilising credits of solar RPO as ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH estimates procurement from solar sources during the period in excess of the solar RPO target.

Approved as **Particulars** per T.O. dated Projected 28th April 2016 1,765.99 1,796.16 Long Term Power Purchase 30.84 3.07 Power Procurement Gross/Net Metering 313.59 264.10 Short Term Power **Total Power Purchase** 2,110.42 2,063.33

Table 47: Summary of Power Purchase for FY 2018-19 (MUs)

#### Power Purchase cost

- 4.16 It is submitted that CERC has issued new Tariff Orders for the period of FY 2014-19 for a number of generating stations based on which the fixed and energy charges from these stations have undergone a change. Therefore, it is important to consider the revised Tariff Orders of these generating stations for projection of power purchase cost.
- 4.17 Also, the actual power purchase cost from other generating sources is available for FY 2016-17 and six months for FY 2017-18. The assumptions considered for projection of power purchase cost from various generating station are detailed below:
  - a. The Fixed Cost for each plant is computed based upon the % allocation of the plant capacity to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH and corresponding annual fixed charges approved for the generating stations as per their recent tariff orders for the control period (FY 2014-19) approved by CERC. For generating plants where tariff orders are still pending, fixed charges from FY 2013-14 have been considered along with escalation of 5% annual escalation.
  - b. The Energy Charges for thermal plant are computed by escalating the variable charges for FY 2017-18 by 5% and multiplying it with the number of available units for the year.
  - c. In case of hydro plants the variable charge has been computed based on the revised annual charges and design energy of the plant
  - d. Energy Charges for BBMB has been considered as per the last twelve month rate for 1 LU and 10 LU apart from the annual fixed charges and operation and maintenance charges towards the allocation of 3.50%.
  - e. PGCIL Charges, NRLDC Charges, Reactive Energy charges are computed at an escalation of 5% y-o-y over actuals billed per unit in for FY 2017-18 in view of the recent tariff orders issued by the CERC.
  - f. Shortfall in power after accounting for energy availability from all stations and towards RPO obligation has been considered to be met from short term sources. The rate of short term power has been considered at Rs. 3.00 per unit.

The projected power purchase cost is as illustrated in the table below:

Table 49: Projected Power Purchase Cost for FY 2018-19 (Rs. Crores)

NTPC Stations	Projected Cost (in Rs. Cr.)	Per Unit Cost (Rs./unit)
Anta 15.03 Auraiya 6.49 Dadri GPP 29.17 Dadri II TPP 16.56 Kahalgaon II 21.66 Rihand I 62.04 Rihand II 69.85 Rihand III 55.15 Singrauli 34.73 Unchahar II 17.55 Unchahar II 17.55 Unchahar III 13.05 Unchahar IV 32.09 Jhajjar (APCPL) 39.18 Koldam 32.23  NHPC Stations Chamera I 102.00 Chamera II 25.41 Chamera III 13.96 Dhauliganga 15.91 Dulhasti 31.44 Parbathi III 10.60 Salal 10.65 Sewa II 8.64 Tanakpur 4.33 Uri-I 20.66  NAPP (#3 and #4) 24.04 RAPP (#5 and #4) 24.04 RAPP (#5 and #6) 49.63 SJVNL Nathpa Jhakri 88.49 RAMP III 10.39 RBMB 649.87 PONG - DEHAR - THDC Koteshwar 10.45 Koteshwar 10.45 Koteshwar 10.45 CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	(III KS. CI.)	(RS./ unit)
Auraiya   6.49	8.27	5.50
Dadri GPP	5.24	8.07
Kahalgaon II       21.66         Rihand I       62.04         Rihand II       69.85         Rihand III       55.15         Singrauli       34.73         Unchahar I       17.55         Unchahar III       13.05         Unchahar IVI       32.09         Jhajjar (APCPL)       39.18         Koldam       32.23         MHPC Stations       102.00         Chamera I       102.00         Chamera II       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       NAPP         NAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       1		4.00
Rihand I 62.04 Rihand II 69.85 Rihand III 55.15 Singrauli 34.73 Unchahar I 17.55 Unchahar III 13.05 Unchahar IV 32.09 Jhajjar (APCPL) 39.18 Koldam 32.23 NHPC Stations Chamera II 102.00 Chamera II 13.96 Dhauliganga 15.91 Dulhasti 13.96 Dhauliganga 15.91 Dulhasti 10.65 Sewa II 16.65 Sewa II 8.64 Uri-I 19.01 NPCIL NAPP 66.76 RAPP (#3 and #4) 24.04 RAPP(#5 and #6) 49.63 SJVNL Nathpa Jhakri 88.49 Rampur 10.39 BBMB 649.87 PONG - DEHAR THDC Koteshwar 10.45 Koteshwar 10.45 Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	9.74	5.88
Rihand I 62.04 Rihand II 69.85 Rihand III 55.15 Singrauli 34.73 Unchahar II 17.55 Unchahar III 13.05 Unchahar IV 32.09 Jhajjar (APCPL) 39.18 Koldam 32.23 NHPC Stations Chamera II 102.00 Chamera II 13.96 Dhauliganga 15.91 Dulhasti 13.96 Dhauliganga 15.91 Dulhasti 10.65 Sewa II 16.65 Sewa II 8.64 Tanakpur 4.33 Uri-I 20.66 Uri II 19.01 NPCIL NAPP 66.76 RAPP (#3 and #4) 24.04 RAPP(#5 and #6) 49.63 SJVNL Nathpa Jhakri 88.49 Rampur 10.39 BBMB 649.87 PONG - DEHAR THDC Koteshwar 10.55 Cher Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	7.46	3.44
Rihand III 55.15  Singrauli 34.73  Unchahar I 17.55  Unchahar II 27.20  Unchahar III 13.05  Unchahar IV 32.09  Jhajjar (APCPL) 39.18  Koldam 32.23  NHPC Stations  Chamera II 102.00  Chamera II 25.41  Chamera III 13.96  Dhauliganga 15.91  Dulhasti 31.44  Parbathi III 10.60  Salal 58ewa II 10.60  Sewa II 8.64  Tanakpur 4.33  Uri-I 20.66  Uri II 19.01  NPCIL  NAPP 66.76  RAPP (#3 and #4) 24.04  RAPP(#5 and #6) 49.63  SJVNL  Nathpa Jhakri 88.49  Rampur 10.39  BBMB 649.87  PONG  DEHAR  THDC  Koteshwar 10.45  Koteshwar 10.45  Tehri 161.95  Bilateral/ Exchange  CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52	18.60	3.00
Singrauli   34.73	5 17.52	2.51
Unchahar I Unchahar II Unchahar III Unchahar III Unchahar III Unchahar III Unchahar IV Jhajjar (APCPL) Koldam 32.23 NHPC Stations Chamera I Chamera II Chamera III 13.96 Dhauliganga 15.91 Dulhasti Parbathi III 10.60 Salal Sewa II 10.65 Sewa II 10.65 Sewa II 10.65 Sewa II 10.66 Sewa II 10.67 Salal Sewa II 10.68 Sewa II 10.69 Sewa II 10.60 Sewa II 10.60 Sewa II 10.65 Sewa II 10.60	18.64	3.38
Unchahar III 13.05 Unchahar IV 32.09 Jhajjar (APCPL) 39.18 Koldam 32.23 NHPC Stations Chamera II 102.00 Chamera III 25.41 Chamera III 13.96 Dhauliganga 15.91 Dulhasti 31.44 Parbathi III 10.60 Salal 10.65 Sewa II 18.64 Tanakpur 4.33 Uri-I 20.66 Uri II 19.01 NPCIL NAPP 66.76 RAPP (#3 and #4) 24.04 RAPP(#5 and #6) 49.63 SJVNL Nathpa Jhakri 88.49 Rampur 10.39 BBMB 649.87 PONG - DEHAR - THDC Koteshwar 10.45 Koteshwar 10.45 Tehri 161.95 Bilateral/ Exchange CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) 0.52	8.09	2.33
Unchahar III       13.05         Unchahar IV       32.09         Jhajjar (APCPL)       39.18         Koldam       32.23         NHPC Stations       102.00         Chamera II       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       -         CREST       2.55         Other Sources       -         Power Procurement (Gross/Net Metering)       0.52	7.26	4.14
Unchahar IV       32.09         Jhajjar (APCPL)       39.18         Koldam       32.23         NHPC Stations       102.00         Chamera II       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.65         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       19.01         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       -         CREST       2.55         Other Sources       -         Power Procurement (Gross/Net Metering)       0.52	11.03	4.05
Jhajjar (APCPL)   39.18	6.14	4.71
NHPC Stations   102.00	13.30	4.14
Koldam       32.23         NHPC Stations       102.00         Chamera II       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       NAPP         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Coteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	18.85	4.81
Chamera II       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       C         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       C         CREST       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	15.97	4.95
Chamera III       25.41         Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       NAPP         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       -         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       -         CREST       2.55         Other Sources       -         Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement		
Chamera III       13.96         Dhauliganga       15.91         Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       NAPP         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	19.71	1.93
Dhauliganga   15.91	1 4.88	1.92
Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       NAPP         NAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       CREST       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -       -	6.04	4.33
Dulhasti       31.44         Parbathi III       10.60         Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	6.02	3.78
Salal       10.65         Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	1 14.69	4.67
Sewa II       8.64         Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       -         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       -         CREST       2.55         Other Sources       -         Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement	3.76	3.55
Tanakpur       4.33         Uri-I       20.66         Uri II       19.01         NPCIL       19.01         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	5 2.34	2.20
Uri II 19.01  NPCIL  NAPP 66.76  RAPP (#3 and #4) 24.04  RAPP(#5 and #6) 49.63  SJVNL  Nathpa Jhakri 88.49  Rampur 10.39  BBMB 649.87  PONG -  DEHAR -  THDC  Koteshwar 10.45  Tehri 161.95  Bilateral/ Exchange  CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement	4.19	4.85
Uri II       19.01         NPCIL       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       CREST       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -       -	1.97	4.54
NPCIL         NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	5.72	2.77
NAPP       66.76         RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -	9.73	5.12
RAPP (#3 and #4)       24.04         RAPP(#5 and #6)       49.63         SJVNL       88.49         Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -		
RAPP(#5 and #6) 49.63  SJVNL  Nathpa Jhakri 88.49  Rampur 10.39  BBMB 649.87  PONG -  DEHAR -  THDC  Koteshwar 10.45  Tehri 161.95  Bilateral/ Exchange  CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement	5 19.50	2.92
SJVNL         88.49           Rampur         10.39           BBMB         649.87           PONG         -           DEHAR         -           THDC         Koteshwar         10.45           Tehri         161.95           Bilateral/ Exchange         CREST         2.55           Other Sources         Power Procurement (Gross/Net Metering)         0.52           Short Term Procurement         -         -	7.63	3.18
Nathpa Jhakri       88.49         Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       CREST       2.55         Other Sources       Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement       -       -	3 19.10	3.85
Rampur       10.39         BBMB       649.87         PONG       -         DEHAR       -         THDC       -         Koteshwar       10.45         Tehri       161.95         Bilateral/ Exchange       -         CREST       2.55         Other Sources       -         Power Procurement (Gross/Net Metering)       0.52         Short Term Procurement		
BBMB 649.87 PONG - DEHAR - THDC  Koteshwar 10.45 Tehri 161.95 Bilateral/ Exchange CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	18.64	2.11
PONG DEHAR - THDC Koteshwar 10.45 Tehri 161.95 Bilateral/ Exchange CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) Short Term Procurement	2.64	2.54
DEHAR  THDC  Koteshwar  Tehri  10.45  Tehri  161.95  Bilateral/ Exchange  CREST  2.55  Other Sources  Power Procurement (Gross/Net Metering)  Short Term Procurement	7 202.65	3.12
THDC Koteshwar 10.45 Tehri 161.95 Bilateral/ Exchange CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	-	-
Koteshwar 10.45 Tehri 161.95 Bilateral/ Exchange CREST 2.55 Other Sources Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement	-	-
Tehri 161.95 Bilateral/ Exchange  CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement		
Bilateral/ Exchange  CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement	5 2.46	2.36
CREST 2.55  Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement	5 57.89	3.57
Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement		
Other Sources  Power Procurement (Gross/Net Metering) 0.52  Short Term Procurement	5 2.40	9.41
Power Procurement (Gross/Net Metering) 0.52 Short Term Procurement		
Short Term Procurement	2 0.45	8.65
(Diacerar) Exchange /01/   204:10	79.23	
Cost of REC certificates	1.87	
Grand Total 2,063.33		

4.18 The other charges comprising of inter-state transmission charges, scheduling charges etc. are projected considering an increase of 5% y-o-y over the estimated cost for FY 2017-18. The projected charges for each head are as summarized in the table below:

Table 50: Transmissions and Other Charges projected for FY 2018-19 (Rs. Cro	Table 50:	: Transmissions and	l Other Charges	projected for F	Y 2018-19	(Rs. Crore)
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Particulars	Approved in T.O. dated 28th April 2016	Revised/ Proposed
PGCIL Charges	90.23	50.41
NRLDC Charges	0.30	0.18
Reactive Energy Charges	0.12	0.11
Open Access charges	-	1
Total	90.65	50.70

4.19 Total cost projected for FY 2018-19 with respect to approved power purchase cost is as provided in table below. The Hon'ble Commission is requested to approve the same.

Table 51: Projected Power Purchase Cost for FY 2018-19 (Rs. Crores)

Particulars	Approved in T.O. dated 28th April 2016	Revised/ Proposed
<b>Total Power Purchase Cost</b>	792.73	721.99

### T&D Losses and Energy Requirement

- 4.20 The T&D loss as approved by the Commission for FY 2018-19 is 12.25% as per the MYT Order dated 28th April, 2016 as against ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH's submission of 13.50%. While ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is dedicated for reducing the intra-state T&D losses in the UT of Chandigarh, it requests the Hon'ble Commission to consider actual T&D loss of FY 2016-17 as the base for considering reasonable loss reduction target for the FY 2018-19.
- 4.21 As discussed in the previous chapters with respect to the T&D loss, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had highlighted that while the sales have increased in the last three years, losses have remained stagnant without much improvement due to majority of the increase in the sales in the LT category. Clause 8.2.1. of the Tariff Policy 2006 states:
  - "(1) All power purchase costs need to be considered legitimate unless it is established that the merit order principle has been violated or power has been purchased at unreasonable rates. The reduction of Aggregate Technical & Commercial (ATC) losses needs to be brought about but not by denying revenues

- required for power purchase for 24 hours supply and necessary and reasonable O&M and investment for system upgradation."
- 4.22 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in this regard submits that the various technical and technological improvement proposed under IPDS and other schemes shall be useful in bringing about the desired reduction in loss levels. Since these schemes are currently under implementation, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to revise the T&D loss level for FY 2018-19 to based on the actual for the FY 2016-17.
- 4.23 In the business plan as well as MYT Petition, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had also pointed out the following issue due to which it had to bear additional inter-state losses which were not getting accounted: "Further, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH reiterates and submits before the Hon'ble Commission that actual distribution losses for UT of Chandigarh are much lower considering interstate point inside the limits of UT of Chandigarh. The energy input in ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH. ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has to bear the additional losses of interstate circuit due to not having any interstate point in its boundary. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has taken up the issue with CEA and PGCIL and expect the early resolution of the matter."
- 4.24 Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had estimated the T&D losses of 13.50% for FY 2018-19 in MYT Petition which was considered reasonable based on the past loss level as well as additional loss due to absence of interconnection point within the UT periphery. However, based on the actual T&D losses for the FY 2016-17, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH proposes T&D loss target of 13.40% for the FY 2018-19. The Hon'ble Commission is requested to approve 13.40% intra-state T&D loss for determination of ARR.

Table 52: Target/Projected Distribution Losses for FY18-19

Categories	FY 2018-19
Distribution Losses	13.40%

4.25 The Transmission losses in the interstate circuit is considered at 4.05% based up on the 52 weeks (29<sup>th</sup> February 2016 to 20<sup>th</sup> February 2017) moving average of regional losses as approved in the Tariff Order dated 4<sup>th</sup> May, 2017. Based on the losses and sales projected above the Energy Balance is depicted in the table below. The Hon'ble Commission is requested to approve the same.

Table 53: Energy Balance for FY 2018-19

Particulars	Approved as per T.O. dated 28th April 2016	Projection	
Energy Sales	1,782.45	1,714.58	
Distribution Loss %	12.25%	13.40%	
Distribution Loss (MUs)	248.83	265.30	
Total Energy Required at UT Periphery	2,031.28	1,979.89	
Energy Available			
Units Procured	1,765.99	2,060.26	
Transmission Loss (%)	3.75%	4.05%	
Transmission Loss (MUs)	66.22	83.44	
Net Energy Available at UT Periphery	1,699.77	1,976.82	
Power Available within UT			
Power procured from Gross/NET Metering Mode (In MU's)	30.84	3.07	
Total Energy Available	1,730.61	1,979.89	
Demand Supply (Gap) / Surplus	313.59	0.00	

#### Operations and Maintenance Expenses

- 4.26 Operation & Maintenance Expenses consists of three elements viz. Employee Expenses, A&G Expenses and R&M Expenses. As per the MYT Regulations, O&M expenses shall be treated as controllable parameter and shall not be revised except those attributable to directions of the Commission.
- 4.27 Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has considered employee expenses and A&G expenses for FY 2018-19 as approved by the Hon'ble Commission in the MYT Order dated 28th April, 2016.
- 4.28 The R&M expenses for the FY 2018-19 has been estimated based on the approved 'K' Factor escalated @ weighted average of WPI & CPI and applied on GFA. The

10.51

12.23

**Revised R&M Expenses** 

proposed R&M expenses for the FY 2018-19 has accordingly being revised. The approved & projected R&M expenses is provided in the table below:

Particular		Approved in T.O. dated 28th April 2016	Projected
Opening Assets as approved	Rs. Cr.	326.91	447.99
Addition During the year	Rs. Cr.	94.80	94.80
Closing assets	Rs. Cr.	421.71	542.79
Average GFA	Rs. Cr.	374.31	495.39
K Factor	%	2.60%	2.60%
Inflation Index as approved	%	7.33%	4.96%

Table 54: Approved and Estimated R&M Expenses for FY 18-19 (Rs. Crores)

4.29 The following table presents the projected and approved Employee expenses, R&M expenses and A&G expenses to be incurred by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in FY 2018-19.

Rs. Cr.

Particulars	Approved as per T.O. dated 28th April 2016	Projection
Employee Expense	74.38	74.38
R&M Expense	10.51	12.23
A&G Expense	7.10	7.10
Total O&M Expenses	91.99	93.71

Table 55: Approved and Estimated O&M Expenses for FY18-19 (Rs Crores)

4.30 The Hon'ble Commission is requested to approve the total O&M expenses as computed in the above table for the FY 2018-19.

#### **GFA** and Depreciation

- 4.31 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has considered the approved opening GFA of Rs. 403.86 Crores for the FY 2016-17 and considered the actual additions of Rs. 5.61 Crores during the year as per the accounts to arrive at the opening GFA of Rs. 409.47 Crores for the FY 2017-18.
- 4.32 Approved capitalisation for the FY 2017-18 & FY 2018-19 as per MYT Order has been considered for arriving at the closing GFA for the FY 2018-19 and any variation shall be submitted at the time of truing-up for the year.

Depreciation has been calculated on the basis of the opening GFA & proposed additions during the FY 2017-18 at the rate prescribed in the MYT Regulations. The approved and revised depreciation for FY 2017-18 is provided in the table below:

4.33 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to approve the fixed assets in the table below:

Table 56: Approved and	' Estimated	Assets	Addition	for FY	2017-18	(Rs Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Opening GFA	326.91	447.99
Asset Capitalized	94.80	94.80
Closing GFA	421.71	542.79

- 4.34 The petitioner submits that it has initiated activities with respect to the preparation of Fixed Asset Register for the period prior to year 2005 and request the Hon'ble Commission to approve the same as and when prepared.
- 4.35 Depreciation has been calculated on the basis of the opening GFA & proposed additions during the FY 2017-18 & FY 2018-19 at the rate prescribed in the MYT Regulations. The approved and revised depreciation for FY 2018-19 is provided in the table below:

Table 57: Projected Depreciation for FY 2018-19(Rs Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed	
Average Assets	374.31	495.39	
Rate of Depreciation	5.40%	2.82%	
Depreciation for the year	20.21	13.96	

#### Interest on Loan

- 4.36 In line with the methodology adopted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for consideration of GFA as detailed above, the opening normative loan has also been considered on the same lines. Accordingly, the opening normative loan as approved by the Commission for FY 2016-17 has been considered and 70% of the actual assets capitalized for the FY 2016-17 & approved capitalisation for the FY 2017-18 & FY 2018-19 has been considered for arriving at the total normative loan for the year.
- 4.37 Repayment of the normative loan has been considered equivalent to the depreciation for the respective years in line with the MYT Regulations 2014.
- 4.38 The interest at the SBI PLR rate of 14.05% as on April 1st, 2017 has been applied on the average normative debt in order to project the interest on normative loans for FY 2018-19. The Hon'ble Commission is requested to approve the interest on normative

#### loans as computed in the table below:

Table 58: Projected Interest on Loan for FY 2018-19 (Rs. Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Opening Normative Loan	71.12	39.25
Add:Normative Loan during the year (70% of proposed capitalization)	66.36	66.36
Less: Normative Repayment	20.21	13.96
Closing Normative Loan	117.27	91.65
Average Normative Loan	94.19	65.45
Rate of Interest	14.05%	14.05%
Interest on Normative Loan including bank charges	13.23	9.20

#### Interest on Working Capital

- 4.39 As per Clause 25 of JERC MYT Regulations 2014 the working capital of a licensee shall consist of
  - a. Receivable of two months of billing
  - b. Less power purchase cost of one month
  - c. Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt
  - d. Inventory for two months based on Annual revenue Requirement for previous year
- 4.40 The SBI advance rate as on 1<sup>st</sup> April, 2017 is considered for computation of interest on working capital. The revised working capital requirement and interest computed as per the regulations is summarized in table below:

Table 59: Projected Interest on working Capital Period for FY 2018-19 (Rs. Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Two months receivables	153.48	147.38
Less: Power Purchase Cost of 1 month	66.06	60.17
Less: Consumer Security Deposit excl. BG/FDR	153.54	157.81
Inventory based on Annual Requirement for previous year	0.34	4.08
Total Working after deduction of Security Deposit	0.00	0.00
SBAR Rate (%)	9.30%	9.30%
Interest on Working Capital	0.00	0.00

#### Interest on Consumer Security Deposit

4.41 Opening consumer security deposit has been considered based on the actual closing for FY 2016-17 and an addition of Rs. 5 Crores has been projected during FY 2017-18 and FY 2018-19. The opening & closing balance and estimated addition during the FY 2018-19 and claim of interest on security deposit is given in the table below,

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to approve the same.

Table 60: Projected Interest on Consumer Security Deposit for FY 2018-19 (Rs. Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Opening Consumer Security Deposit	148.84	152.81
Net Addition During the year	5.00	5.00
Closing Consumer Security Deposit	153.84	157.81
Average Deposit	151.34	155.31
Bank Rate	7.75%	6.25%
Interest on Consumer Security Deposit	11.73	9.71

#### Return on Equity

- 4.42 Regulation 27 of MYT Regulations 2014 provides for Return on Equity (RoE) as follows:
  - "(a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:

.....

- (c) 16% post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR petition."
- 4.43 In line with the methodology adopted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for calculation of normative loan as detailed above, the opening equity has also been considered on the same lines. The opening equity as approved by the Commission for FY 2016-17 has been considered and equity of 30% with respect to the actual assets capitalized for the FY 2016-17 & approved capitalisation for the FY 2017-18 & FY 2018-19 has been considered for arriving at the total equity for the year. Rate of return on equity is considered 16% post tax as per proviso 27 of the MYT regulations 2014. The proposed RoE for the FY 2018-19 is as below:

Table 61: Projected Return on Equity for FY 2018-19 (Rs Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Opening Normative Equity	98.07	134.40
Addition During the year	28.44	28.44
Closing Normative Equity	126.51	162.84
Average Normative Equity	112.29	148.62
Return on Equity@16%	17.97	23.78

#### Provision for Bad and Doubtful Debt

4.44 Clause 32 of JERC MYT Regulations, 2014 provides for allowance of bad and doubtful debts upto 1% of the receivable. Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has proposed 1% of the estimated receivables towards bad and doubtful debtors. The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has estimated the provision of bad debt as Rs. 8.84 Crores for FY 2018-19.

#### Non-Tariff Income

4.45 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is not proposing any change in the Non-tariff income approved by the Hon'ble Commission for FY 2018-19. The proposed Non-tariff Income for the FY 2018-19 as shown in the below table:

Table 62: Projected Non-Tariff Income for FY 2018-19 (Rs. Crores)

Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
Non-Tariff Income	26.99	26.99

#### Aggregate Revenue Requirement of FY 2018-19

4.46 Based on the above discussion, the revised projection for Aggregate Revenue Requirement for FY 2018-19 is as given in the table below:

Table 63: Projected Aggregate Revenue Requirement for FY 2018-19 (Rs. Crores)

S. No.	Particulars	Approved as per T.O. dated 28th April 2016	Revised/ Proposed
1	Cost of power purchase for full year	792.73	721.99
2	Employee costs	74.38	74.38
3	Administration and general expenses	7.10	7.10
4	R&M expenses	10.51	12.23
5	Depreciation	20.21	13.96
6	Interest and finance charges	13.23	9.20
7	Interest on working capital	-	-
8	Interest on Security Deposit	11.73	9.71
9	Return on NFA /Equity	17.97	23.78
10	Provision for Bad Debt	-	8.84
11	Total Revenue Requirement	947.86	881.18
12	Less: Non-Tariff Income	26.99	26.99
13	Net Revenue Requirement	920.87	854.19

## Revenue based on Existing Tariff

4.47 Based on the revised projection of sale and the existing tariff approved by the Commission as per the MYT Order dated  $4^{th}$  May 2017, the estimated revenue for FY 2018-19 is summarized in table below:

Table 64: Revised Projections for Revenue on Existing Tariff for FY 2018-19 (Rs Crores)

S. No.	Category / Slab of Consumers	Projected
Α	Domestic	319.08
В	Commercial	325.08
С	Large Supply	84.92
D	Medium Supply	77.24
Е	Small Power	10.83
F	Agriculture	0.39
G	Public Lighting	12.74
Н	Bulk Supply	49.94
I	Others Temporary Supply	4.03
	Total	884.25

## Revenue Surplus/ Gap for FY 2018-19

4.48 Based on the revised ARR and revenue for FY 2018-19, the expected revenue surplus is summarized in table below:

Table 65: Proposed Revenue Surplus on Existing Tariff for FY 2018-19 (Rs. Crore)

S. No.	Particulars	FY 2018-19
1	Net Revenue Requirement	854.19
2	Revenue from retail sales at Existing Tariff	884.25
3	Revenue Surplus/(Gap) for the Year	30.07

4.49 The above revenue surplus is for FY 2018-19 only and does not include any revenue surplus/ gap for true-up of FY 2016-17 and APR for FY 2017-18. The proposed treatment for coverage of the consolidated revenue gap along with carrying cost is detailed in the subsequent Chapter.

## Chapter 5: Revenue Gap of Rs. 208.17 Crores

#### **Background of Case:-**

- 5.1 The Financial Statement of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for FY 2011-12, 2012-13, 2013-14 and 2014-15 and Fixed Asset Register prepared on the basis of Commercial Accounting Principle had already been audited by the AGUT and forwarded to the Hon'ble JERC along with audit certificate. On the basis of audited commercial accounts, the Hon'ble JERC had issued the tariff order of FY 2016-17 on dated 28-April, 2016, wherein the account for the FY 2011-12 to FY 2014-15 have been trued up. As per Page -114 of tariff order the commission has approved all the revenue gap of Rs 208.17 Crores up to the FY 2013-14.
- With respect to the treatment of this revenue gap approved by the Commission in its Tariff Order for the year 2016-17 at page no. 115, it was stated as under:

"The Commission orders that the Petitioner, being a Government Department, should approach the Government to provide budgetary support to meet this approved revenue gap of Rs 208.17 Crores."

- 5.3 Therefore, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has filled a review petition before the commission with all facts and figures but the commission has disposed off the review petition vide order on Dt-26/07/16 with the direction to raise the said issues at the time of true up of the impugned tariff Order dt-28/04/2016.
- 5.4 Accordingly, as per the directions of the commission , ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has submitted all facts and figures along with the tariff petition of FY-2017-18 but commission has not considered the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH views and reiterated its previous order. The commission in Tariff Order for the FY 2017-18 at page no. 130 stated as under:-

"The Commission orders that the Petitioner, being a Government Department, should approach the Government to provide budgetary support to meet this approved revenue gap of Rs 208.17 Crores."

- 5.5 The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has again filled the review petition on Dt-19/06/17 after getting approval from the Advisor to the Administrator but the commission has disposed off the review petition again vide order on Dt-20/06/17 and dismissed the view of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in respect of revenue gap of Rs 208.17 Crores.
- 5.6 The detail history of revenue gap as approved by the commission to the tune of Rs. 208.17 Crore in Financial Year wise , is as under:-

Sr. No.	FY	True-up amount Cumulative (Crores) Amount		Remarks
1.	2011-12	152.32	-	Page No.71
2.	2012-13	79.76	232.08	Page No.92
3.	2013-14	(-)23.91	208.17	Page No.114

#### No Delay for Preparing of accounts:-

- Under the regime of JERC, ELECTRICITY WING OF ENGINEERING DEPARTMENT, 5.7 CHANDIGARH has filed its first tariff petition for the FY 11-12. Since there was no knowledge as , how to prepare commercial accounts, therefore tender is floated after approval of the DNIT by CE(UT) vide Memo No.6715 Dated 16.08.2013. However, due to some technical reasons, the tender could not mature. Since JERC was insisting to prepare the accounts on commercial principles, therefore a petition for extension of time was filed and the Hon'ble Commission vide order dated 15.12.2014 in Petition No.149/2014 accorded permission to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to submit the accounts upto 30.09.2015. Accordingly, vigorous efforts were put in by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH despite the fact that commercial accounts are being prepared FOR THE FIRST TIME in the history of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH since 1966 in addition to the Performa account by appointing a Consultant.
- 5.8 The accounts for the FY 11-12 was forwarded to PAG Audit UT Chandigarh vide Memo No.2286 Dated 06.08.2015 with a copy of Hon'ble JERC. The commercial accounts for FY 12-13 was forwarded to PAG vide Memo No.2830 Dated 08.09.2015 with a copy to Hon'ble Commission. Fixed Asset Register were also prepared upto 31.03.2015 and submitted to PAG vide Memo No.3191 Dated 12.10.2015 with a copy to Hon'ble Commission. Thereafter, a reminder was issued to PAG vide Memo No.3235 Dated 19.10.2015 and matter perused with PAG regularly. Further, the commercial accounts for the FY 13-14 was also submitted vide Memo No.3018 Dated 21.12.2015. The financial accounts on commercial pattern for the FY 14-15 was also submitted to PAG for audit vide Memo No.01 Dated 01.01.2016.
- 5.9 The complete position was also apprised to Hon'ble Commission vide Memo No.3455 Dated 09.11.2015. Probably therefore it took some time in the PAG office also and the audit certificate for the FY 11-12, since the commercial accounts of the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH are to be audited by PAG for the first time. The audit certificate of FY11-12, 12-13, 13-14 & 14-15 was issued by PAG vide letter no. 621, 622,619, 620 all dated 09.03.2016 respectively (after 7 months). Accordingly, the petition was filed before the Hon'ble Commission vide this office Memo No.600 Dated -10/03/15 and the audit certificate was also submitted to Hon'ble Commission vide this office Memo No. 647 Dated 10.03.2016.
- 5.10 In view of the above position, there is no delay in preparing the accounts on Commercial Accounting Principle by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH as the approval accorded by the JERC up to

30/09/2015, except some proELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARHural delay of 7 months in auditing the accounts.

#### No Tariff Hike by the Commission :-

- 5.11 Even though ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is a government owned entity but operating under the provisions of the various rules and regulations laid down by the Hon'ble Commission. Tariff Regulations, 2009 issued by Hon'ble Commission, provide for commercial principles of operation and determination of tariff on a cost plus approach.
- While the Commission had been issuing regular tariff orders for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH from the period FY12 onwards, it is highlighted that no tariff increase was allowed for ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH in the subsequent tariff orders of FY13 and FY14. It is submitted that the accounts of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH were not prepared based on commercial principles initially due to the fact that it was following the financial principal of Administration of UT of Chandigarh duly audited by PAG. Accordingly, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH had been submitting the audited financial information available with its account department based on which the petition for truing-up and tariff increase was filed earlier with the Hon'ble Commission. However, the Commission had been disallowing the tariff increases in absence of audited accounts prepared as per commercial principles.
- 5.13 In response to the true-up petition for FY12 submitted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH, the Commission in its Order had stated the following:

"Since, the audited accounts based on commercial account principles are still awaited, Commission thinks it would be inappropriate to consider provisional true up of FY 2011-12. It would be done once the audited accounts are made available. Since, CED is operating as a department within the Govt of India, the system of account keeping is on cash receipt and expense basis i.e. Performa accounts. Further, the expenses/income as mentioned in Performa accounts doesn't match with the expenses/income for FY 2011-12 in the ARR and Tariff Petition filed for FY 2013-14. The Commission had approved a gap of Rs 45.93 Crores after review of ARR of FY 2011-12 in tariff order dated 07th May 2012. The Commission has brought forward this gap of Rs 45.93 Crores in ARR of FY 2012-13 as reviewed in this Order."

- 5.14 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH was able to get the commercial accounts prepared and audited as per the direction of the Hon'ble Commission and submitted truing-up for all the past years for which the Order was issued by the Hon'ble Commission on Dt- 28th April-2016.
- 5.15 The Commission also undertook a detailed review of the various parameters involved in the truing-up for FY12 to FY14 in its MYT Order issued on Dt- 28th April-2016, based on which a revenue gap of Rs. 208.17 Cr. was computed. However,

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH submits that the Commission's decision for recovery of this amount from GoI is not rationale as the tariff for these years had been approved by the Hon'ble Commission and the Commission in the subsequent orders had directed ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to prepare audited accounts as per commercial principles for recovery of truing-up revenue gap.

- 5.16 Finance Secy.-cum-Secy.(Engg.) being competent authority of Chandigarh Administration has requested JERC that the order regarding disallowance of revenue gap of 208.17 Cr., may kindly be reconsidered to ensure financial viability of the Electricity Wing of Engineering Department and this revenue gap may be treated as Regulatory Assets (Annexure A).
- 5.17 In this regard it is also submitted that expenditure of 208.17 Crore has already been made from the consolidated fund under proper appropriation and sanctions from the Govt. of India in anticipation of recovery through tariffs. These expenses are standing in the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH accounts and this can only be recovered from an equivalent tariff hike. Alternatively, the Commission may suggest any other process to clear the outstanding from the financial accounts of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH.

## Chapter 6: Treatment of Gap and proposal for revised Tariff

- 6.1 The Hon'ble Commission in its MYT Order dated 28<sup>th</sup> April 2016 and undertaken truing-up for the period FY 2011-12 to FY 2014-15 along with review of FY 2016-17. Based on the prudence check the Hon'ble Commission had approved the following:
  - a. Approach the Government for providing budgetary support to meet the approved revenue gap of Rs 208.17 Crores for FY 2011-12 and FY 2013-14.
  - b. Creation of Regulatory asset of Rs. 265.04 Crores to be liquidated from FY 2018-19 onwards.
- 6.2 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has given detailed submission with regard to the revenue gap of Rs. 208.17 Crores for FY 2011-12 and FY 2013-14, in section-5 of this petition.
- 6.3 The Hon'ble Commission has been regulating the tariff of Chandigarh by approving the ARR and corresponding Tariff for recovery of the ARR since FY 2011-12, any revenue gap arising on account of these years should be allowed to be recovered from the applicable tariff in the State and should not be passed to the Government of India.
- 6.4 Therefore, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to allow inclusion of the revenue gap of Rs. 208.17 Crores in the regulatory asset and allow recovery of the same.
- 6.5 ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH proposes to recover the above regulatory asset including revenue gap as part of Tariff for the FY 2018-19.
- 6.6 Based on the truing-up of FY 2016-17, APR of FY 2017-18 and revised ARR of FY 2018-19, the revenue gap/surplus for each year is computed as below:

S. No.	Particular	2016-17	2017-18	2018-19
No.	rai ticulai	Actual	Estimated	Projected
1	Net Revenue Requirement	747.03	802.10	854.19
2	Revenue on existing tariff	814.85	852.41	884.25
3	FPPCA Charged	121.23	109.96	-
4	Surplus/(Gap) for the year	189.05	160.27	30.07

Table 66: Proposed Revenue Gap/surplus for period FY 2016-17 to FY 2018-19 (Rs. Crore)

- 6.7 As per clause 4 of Regulation 8 of the MYT Regulations 2014:
  - "While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings."
- 6.8 In accordance with regulations quoted above and considering the yearly revenue *surplus* presented in the preceding table for the period FY 2016-17 to FY 2018-19 and the carried forward Gap, the table below presents the consolidated revenue gap along with carrying cost for the period.

Particulars	FY 16-17	FY 17-18	FY 18-19
Opening Surplus/(Gap)	(275.85)	(333.73)	(220.34)
Add: Approved Revenue Surplus/(Gap) for the FY 2010-11 to 2013-14	(208.17)	0.00	0.00
Add: Surplus/(Gap) during the year	189.05	160.27	30.07
Add: Amortization of Regulatory Asset	0.00	0.00	0.00
Closing	(294.97)	(173.45)	(190.28)
Interest Rate	14.05%	14.05%	14.05%
Carrying Cost	(38.76)	(46.89)	
Closing Surplus/(Gap)	(333.73)	(220.34)	(190.28)

Table 67: Proposed Revenue Gap inclusive of carrying cost (Rs. Crore)

- 6.9 In view of the above submission, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH humbly requests the Hon'ble Commission to approve the total gap for the period FY 2016-17 to FY 2018-19 amounting to Rs 190.28 Crores.
- 6.10 It is submitted that the computed revenue at existing tariff for the FY 2018-19 is inadequate to meet the projected annual revenue requirement & Gap, accordingly ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has proposed revision in retail tariff for various categories for FY 2018-19.

6.11 The table below presents the existing and proposed tariff for various categories.

Table 68: Existing and Proposed Tariff

	EXISTI	EXISTING TARIFF		PROPOSED TARIFF	
Tariff Category	Variable Cost (Rs. /kWh)	Fixed Cost (Rs./kW/ Month)	Variable Cost (Rs. /kWh)	Fixed Cost (Rs./kW/ Month)	
Domestic					
0-150 kWh	2.55	10	2.75	12	
151-400 kWh	4.80	10	5.80	12	
Above 400 kWh	5.00	10	6.00	12	
Commercial					
0-150 kWh	5.00	20	6.20	24	
151-400 kWh	5.20	100	6.45	122	
Above 400 kWh	5.45	100	6.75	122	
Industrial					
Large Supply	5.65	100	7.00	122	
Medium Supply	5.35	100	6.45	122	
Small Power	5.30	20	6.40	24	
Agriculture	2.90	-	2.90	-	
Public Lighting	5.35	100	6.40	122	
Bulk Supply	5.55	100	6.60	122	
Others Temporary Supply	8.10	-	9.50	-	

5.12 The Revenue from proposed tariff at the projected energy sales for the FY 2018-19 is provided in the below.

Table 69: Revenue from Proposed Tariff (Rs. Crores)

S. No.	Category / Slab of Consumers	Projected
Α	Domestic	373.35
В	Commercial	402.02
С	Large Supply	105.05
D	Medium Supply	93.25
Е	Small Power	13.07
F	Agriculture	0.39
G	Public Lighting	15.26
Н	Bulk Supply	59.55
I	Others Temporary Supply	4.73
	Total	1,066.67

5.13 The Additional Revenue from proposed tariff at the projected energy sales for the FY 2018-19 is provided in the below.

Table 70: Additional Revenue from Proposed Tariff (Rs. Crores)

S. No.	S. Particular	2018-19
No.	Pai ticulai	Projected
1	Revenue from Existing Tariff	884.25
2	Revenue from Proposed Tariff	1,066.67
3	Addiotional Revenue from Proposed Tariff (2-1)	182.42

5.14 The recovery of the Revenue Gap based on the proposed tariff is detailed in the table below.

Table 71: Revised Revenue Gap based on Proposed Tariff (Rs. Crore)

Particulars	FY 2018-19
ARR for FY 2018-19	854.19
Revenue at Existing Tariff	884.25
Surplus/ (Gap) for the year	30.07
Add: Surplus/ (Gap) carried forward	(220.34)
Add: Amortization of Regulatory Asset	0.00
Total Surplus/ (Gap)	(190.28)
Additional Revenue from Proposed Tariff	182.42
Surplus/ (Gap) to Carry Forward	(7.86)

- 5.15 In view of the above submissions, it can be seen that the tariff structure proposed by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for the FY 2018-19 will help it meet the revenue deficit resulting from prior year and revised projection for FY 2018-19.
- 5.16 In light of the above submission the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH requests the Hon'ble Commission to approve the revised tariff proposals.

# Chapter 7: FUEL POWER PURCHASE COST ADJUSTMENT (FPPCA) FORMULA

- 7.1 The public hearing of Tariff Petition of FY-2017-18, was held on 16th March, 2017 at Chandigarh wherein some of the stakeholders have requested the commission to replace the FPPCA charges with a Fixed Surcharge, as consumers can't understand complexities of the FPPCA formula.
- 7.2 In response of above, the commission has given following view in tariff order of FY 2017-18 (page-21):-

The present FPPCA mechanism was approved after detailed deliberations with the stakeholders across various UTs. However the stakeholders are requested to formally submit the specific issues and discrepancies (if any) in the existing methodology for consideration of the commission (if any).

7.3 Further, a number of stakeholders visit to various offices of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH for the FPPCA charges . Representation given by various stakeholders are as under :-

SI No	Stakeholder	Letter No & Date
1	Sh Naveen Manglani,	CCI/2017-18/0611 dt-
	President, Chamber of Chandigarh Industries	06/11/17
	(Regd.)	
2	Sh Surinder Puri,	12/63/2017 Dt-18/08/2017
	# 3237/1 Chandigarh ,Sector-44/D	
3	Sh R.C. Goyal ,	Dt-09/09/2017
	Gp. Captain (Retd.) # 1579	
	Sector-36/D	
4	Sh Devinder Singh Babla ,	Dt-11/08/2017
	Councillor Ward No-18 (Sector-27-28-30)	
	Director , Market Committee , Chandigarh	
5	Sh Naveen Manglani,	Dt-05/05/2017
	President, Chamber of Chandigarh Industries	
	(Regd.)	

7.4 Recently, a presentation dt 06/11/17 of Sh. Naveen Manglani, President, Chamber of Chandigarh Industries (Regd.) is received by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH with the title "Unjust/ Unfair FPPCA

Charges and average electricity unit cost on Industrial Consumers of Electricity in Chandigarh." In this presentation Sh Naveen Manglani mentioned that:-

The industries are getting electricity on variable rates . As per the recent bills , the unit cost of electricity is some where between Rs 8.00 to Rs 10.50, depending upon the monthly usage. The same is happening since February ,2017 , this year and this happens every year , since this concept of FPPCA charges has been devised and implemented.

7.5 Sh Naveen Manglani has further mentioned that :-

The consumption of electricity by the industry remains almost same throughout the year. When no one needs energy, we consume the committed amount of energy and when everyone else needs it, we are being forced to bear the high cost purchase of the electricity through FPPCA charges.

\_\_\_\_\_

Our Demand is our NEED, i.e., provide electricity at a stable rate so that we don't have to evaluate our production costs every month. And also at a rate which is at par with the region so as we either don't have to shut our units or move to other locations because of production cost effectiveness.

7.6 Sh Naveen Manglani has concluded the presentation with the following request :-

Whatever needs to be done has to be done by CED, JERC and Chandigarh Administration and hence we demand that something concrete shall be initiated on urgent basis, otherwise ,by the one set of next summers ,we are again going to get hefty bills against FPPCA charge .

- 7.7 The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is calculating and charging the FPPCA as per the directions of Hon'ble commission but ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is facing difficulties to satisfy stakeholders for its applicability and calculations.
- 7.8 In view of above it is therefore requested to redress the grievance of stakeholders with respect to FPPCA charges.

## **Chapter 8: Introduction of New Tariff Category**

#### 8.1 Domestic Mis-Use Consumer (DMC) Category :-

The Electricity Wing has total 2,28,768 consumers out of which 1,99,724 are domestic consumers, i.e., share of domestic consumers is more than 87% in total consumer mixed. The domestic consumers/temporary domestic consumers living on road side mostly starts commercial or other non-domestic activities, like opening of grocery shop, welding shop, scooter repairing shop etc. without approval of competent authority to carry out commercial activities in domestic area. Therefore, even after the checking of these consumers, Electricity wing is not able to impose Commercial Tariff to these consumers due to paucity of required documents in respect of non domestic activities. If checked by Electricity Wing, then these connections are booked under Section-126 of Electricity Act-2003 by the checking party of Electricity Wing and one time penalty got imposed on the defaulting consumers as per the provisions of Supply Code. However, JERC has amended the supply code on dated 07.08.2013 and following provision has been provided under Clause No. 1.3(D) of Supply Code, 2010 (1st Amendment) as under:-

"Electricity Charges in all cases of unauthorized use of electricity will continue to be levied as specified above till the case of unauthorized use of electricity is rectified".

To implement the above amended provisions of Supply Code Domestic Consumers/temporary domestic consumers shall be charged under the Non Domestic Category with 20% higher tariff till the rectification of unauthorized use of electricity by the relevant consumer.

In view of above, it is therefore, requested to introduce a new consumer category as "Domestic Misuse Consumers (DMC)" with 20% higher tariff than the NRS Consumers/temporary NRS consumers. This will generate more revenue besides desisting the consumers to misuse the domestic connections.

Consumption		xed charge r KW per Month)	Energy charge (Rs./kWh)						
range	Existing	Proposed	Existing	Proposed					
Domestic Misuse Consumers (DMC)									
0-150 Units	*	Rs 28.80/KW/Month for Single Phase and	*	7.44					
151-400 Units	*	Rs 146.40/KW/Month for Three Phase	*	7.74					
Above 400 Units	*		*	8.10					

## 8.2 Temporary Domestic & Temporary NRS Consumer Category:-

A number of consumer are approaching to the Electricity Department but due to paucity of relevant documents, the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is not able to release the new connections to the residents of these area, therefore, these consumers have filed the complaint in the Consumer Grievance Redressal Forum (CGRF) and CGRF in Order dated 08.06.2017 in connection with disposal of complaint by Sh. Karanpal & others, Village Maloya, U.T Chandigarh wherein the Forum decided to allow the complainants that:-

# "The NRS connections may be released outside Lal dora limits also subject to completion of all required formalities of the CED and JERC Regulations."

The CGRF further analyzed the issue at length and mentioned in orders that the Chandigarh Administration has not come out with any policy for release of NRS connection outside Lal Dora and as per **Section 43 of Indian Electricity Act 2003** "**Duty to supply on request"** provides for that every distribution licensee shall on an application by the owner of occupier of any premises, give supply of electricity to such premises. The only rider for not supplying the connection is where LD distribution system doesn't exists and in that scenario appropriate Commission may extend the said period as it may consider necessary for electrification of such village/ area. In the instant case, the area where complainants want to take commercial connections is very much serviced by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH & LD system does exist. Similarly the JERC Supply Code Regulations 3.1 provides for supply of electricity to the applicants if the area is duly electrified. Moreover as per regulation

3.3 it is obligatory on the part of license to upgrade the distribution system to meet the demand for electricity in its area of supply. There is no distinction between domestic and commercial categories meaning thereby that there is no bar for release of commercial connections in the areas where LD distribution system have already been laid.

The Order of the CGRF is required to be implemented within 30 days failing which penal action can be taken as per CGRF Regulation Clause No.5(10) of **the Establishment of**Forum for Redressal of Grievances of Consumers Regulation, 2009 which is reproduced as under:

"5(10) The decisions of the Forums shall be binding on the licensee. Non-compliance of Forum's orders shall constitute a violation of these Regulations, which may attract remedial action under Section 142 and 146 read with Section 149 of the Act."

Therefore, the concerned field officers have implemented the orders of CGRF to release NRS connection after taking an affidavit that release of NRS connection as an interim arrangement as per orders of Hon'ble High Court dated 05.09.2011 will in no way be constructed as a right to permanent installation of meters.

Since, from the last two Tariff Petitions, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is requesting to introduce new SPS (Single Point Supply) Category for residents of JJ Clusters/ Slum Dwellers/ Unauthorized Colonies and Structure/ Resident outside Lal Dora to be given through a leading person. However the same was not accepted by the commission. In the tariff order of FY-2016-17 at Page No-203, the commission has quoted the Judgment of Hon'ble High court and mentioned that:-

The Commission is of the view that since these sites are not of permanent/ regularized nature, the High Court had given the verdict wherein the rights to permanent installations of meters were not given.

At the same time, the proposal of the Petitioner is not in line with the provisions of Electricity Act, 2003. The Commission is of the view that supply is to be given through regular connections only. Keeping in view of the High Court Judgment, these connections should be released with a proviso that installation of meters is an interim arrangement for and can in no way be construed as right to permanent installation of meters.

In case of any operational difficulties, the Petitioner can also opt for other options as per Electricity Act, 2003 and amendments thereon. However, there shall be no change in category of consumers, conditions of supply or applicable tariff.

To implement the above directions of commission, the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is facing two operational difficulties:-

- (A) Proof of owner ship to fulfill the provisions of Supply Code Regulation, 2010.
- (B) Test Certificate of consumer installation.

#### (A) Proof of owner ship to fulfill the provisions of Supply Code Regulation, 2010

The residents of JJ Clusters/ Slum Dwellers/ Unauthorized Colonies and Structure/ Resident outside Lal Dora, do not posses proof of ownership etc. as per Supply Code Regulations, 2010 Clause 3.5 which is reproduced below:-

3.5	New	Connec	tion:-
$\mathbf{o}$	1100		

(1)		•					•		•		•		•	•
(2)														

- (3) The consumer shall furnish, alongwith the application form, attested true copies of following documents, from the consumer, if required, for verification.
- (a) Proof of ownership of the premises, such as registered sale deed or partition deed or succession or heir certificate or will of the owner,

#### OR

Proof of occupancy such as power of attorney or latest rent receipt or lease deed or rent agreement or copy of allotment order issued by the owner of the property. In case of supply to agriculture/irrigation pump set, the copy of Land Revenue receipt giving the Revenue Plot No. of the filed for which the supply is required.

In case of tenancy permission of landlord alongwith proof of ownership of the premises.

b)	
c)	
4) to (8)	

In view of the above it is submitted that to release "Temporary" Domestic/ NRS connection to JJ Clusters/Slum Dwellers/Unauthorized Colonies & Structures/

Residents outside Lal Dora, anyone document out of the following documents will be sufficient to prove ownership/occupancy:

#### **Proof of Identity:**

- (i) The consumers to provide ID proof in the shape of any one of the following documents duly attested by Notary:-
  - 1. Valid Passport.
  - 2. Valid Driving License.
  - 3. Employee Identity Card.
  - 4. Election ID Card.
  - 5. Valid Photo Debit/Credit Card.
  - 6. Valid Pan Card.
  - 7. Pension Payment Order.
  - 8. Freedom Fighters Pass.
  - 9. Valid Arms License.
  - 10. Valid Bar Council ID.
  - 11. Aadhaar Card.
- (ii). An affidavit on non judicial stamp paper as approved by LR UT may be furnish by the applicant. The following provisions as Sr. No. 9, 10 & 11 may also be included in this affidavit to ensure recovery of any previous dues etc.
  - 9. That the Deponent undertakes to indemnify the Electricity Department against any electrocution in his premises and the Deponent further undertake to ensure that he will take all safety precautions as per electricity rules to ensure that electrical wiring, equipment/ apparatus will be installed, protected worked and will be maintained in such a manner so as to ensure safety of human beings, animals and property.
  - 10. That the deponent undertake to pay outstanding dues on account of earlier Bulk Supply Connection or individual connection against the Jhuggi/Sheet No., if any in the name of deponent or his family member at anywhere in Chandigarh.
  - 11. The outstanding amount if any detected in my name will be paid by me and the same can also be transferred to my new flat/ premises as and when allotted to me by the Chandigarh Administration."

## Affidavit On Non-judicial stamp

I_	S/o Sh	resident	of
	Chandigarh do hereby solemnly declare and affirm as under	r:-	

- 1. That the release of connection as in interim measure shall neither confer any legal right upon the residents to claim the release of regular connection nor for illegal construction outside Lal Dora.
- 2. That the load will be sued strictly according to the load applied/ sanctioned and in case it is found excess, the Department may disconnect the supply and also charge penalty for load surcharge as per rules.
- 3. That the Department reserves the right to disconnect and withdraw the connection so released at any time in case of any objection by the Administration or any other authority.
- 4. That the deponent undertakes that he is ready to deposit Advance Consumption Deposit 9ACD) and four times Security Deposit, calculated as per applied load.
- 5. That the deponent undertakes that the load will be sued strictly for the domestic purpose/ N.R.S. purpose and not for any other purpose. In case the load is found to have been misused, the Department may disconnect the supply and charge penalty as per rules.
- 6. That the deponent is ready to pay the service charges/ other charges as applicable & will abide by all other terms and conditions of the Department.
- 7. That the deponent undertake that the electric connection will be utilized for my own premises only & will not be used by any other premises.
- 8. That the deponent undertakes to provide Electronic Energy Meter and the Meter Cup Board to receive the supply.
- 9. That the Deponent undertakes to indemnify the Electricity Department against any electrocution in his premises and the Deponent further undertake to ensure that he will take all safety precautions as per electricity rules to ensure that electrical wiring, equipment/ apparatus will be installed, protected worked and will be maintained in such a manner so as to ensure safety of human beings, animals and property.
- 10. That the deponent undertake to pay outstanding dues on account of earlier Bulk Supply Connection or individual connection against the

Jhuggi/Sheet No., if any in the name of deponent or his family member at anywhere in Chandigarh.

11. The outstanding amount if any detected in my name will be paid by me and the same can also be transferred to my new flat/ premises as and when allotted to me by the Chandigarh Administration."

Chandi	garh	
Dated		2017

#### **DEPONENT**

#### **VERIFICATION**

The contents of the above affidavit of mine are true to the best of my knowledge and belief. Nothing has been kept concealed therein.

Chandigarh	
Dated	2017

#### **DEPONENT**

(iv) Further the "Indemnity Bond" as per sample below may also be obtained from the applicant to safeguard the interest of Electricity Department / Chandigarh Administration:-

#### **INDEMNITY BOND**

## (ON NON JUDICIAL STAMP PAPERS WORTH RS. 15/-)

Know	all	men	by	these	present	that	I _	,	son	. of
					re	sident	of		in	the

district of(hereinafter called the Principal PARTY) and Shri (Surety #1) son of resident of
and Shri(Surety #2) son of
resident of
<b>sureties</b> on behalf of the Principal party do hereby
jointly and severally bind ourselves and our respective heirs, executors, administrators and legal representatives to indemnity to the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH (hereinafter called the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH, which expression shall include its successors and assigns) on demand the entire cost and damages in respect of all actions, proceedings or any damages claimed or to be claimed against the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH by any person claiming through or under him at any stage by reason of giving of temporary electric connection to the principal party.
Dated this day the of two thousand and
Whereas the above bounden principal party namely son of Sh resident of has applied for temporary electricity connection as an interim arrangement under Domestic category in view of the said orders of Hon'ble High Court and hon'ble Joint Electricity Regulatory Commission in the premises at Jhuggi No./ Temporary Shed/structure No. in Sector/Village U.T. Chandigarh.
And whereas the Principal Party undertakes that installation of meter is an interim arrangement for and can in no way be construed as a right to permanent installation of

And whereas the Principal Party undertakes that installation of meter is an interim arrangement for and can in no way be construed as a right to permanent installation of meters or regularization of their temporary structure or any right on the land of Chandigarh Administration.

And whereas should be continuous as the temporary electric connection has been sanctioned to him the principal party subject to his furnishing and indemnity bond in favour of the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH indemnifying the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH against all actions proceedings or damages claimed or to be claimed against the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH by any person claiming through or under him at any stage by reason of giving of temporary electric connection by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to the Principal Party.

And whereas the Principal Party has agreed to execute such a bond in favour of the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH as desired by it.

Now, therefore, this agreement witnesses that the principal party agrees and covenants with the said ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH that the principal party does indemnity and shall hereafter keep indemnified the said

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH against all actions, proceedings or damages claimed or that may be claimed against the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH by any person claiming through or under him at any stage by reason of giving of the electric connection/enhancement of load by the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH to the Principal Party.

And the Principal Party his heirs, executors and successors hereby convent with the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH and its successors is in interest that the above said bounden principal party shall on demand pay to the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH shall incur liability or which it shall rightful pay by reason of or in consequence of the aforesaid connection. Enhancement of load now being given to the above bounden principal party and that on this failure to do so the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH shall have the power to realize the same from the Principal party and his property of all type by private negotiations or by court proceedings.

And upon the above bounden Principal Party Sh	son of
Sh and Sh(Surety #1)	son of
Sh and or Sh (Surety #2	son of
Sh, the sureties aforesaid making up/ pays	ng such
damages/cost/pending electricity dues to the ELECTRICITY WING OF ENGI	NEERING
DEPARTMENT, CHANDIGARH the above written obligation shall be void and or	no effect
otherwise it shall be and remain in full force and virtue. (If any later stage any	_
raised against this connection the same will be removed without any notice to m	e.)
Provided always that the liabilities of the sureties hereunder shall not be im	naired or
discharged by reason of time being granted or by forbearances, act or omission	-
ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH or ar	
authorized by it (whether with or without consent or knowledge of the sureties)	
it be necessary for the ELECTRICITY WING OF ENGINEERING DEPA	
CHANDIGARH to use the said bounded principal party before using the above	•
	bounden
sureties Sh(Surety #1) son of Sh	
sureties Sh(Surety #1) son of Sh and or Sh (Surety #2) son of Sh of them for amounts/damages/pending electricity dues hereunder.	or any
sureties Sh(Surety #1) son of Sh and or Sh(Surety #2) son of Sh of them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have her	or any
sureties Sh(Surety #1) son of Sh and or Sh(Surety #2) son of Sh	or any
sureties Sh(Surety #1) son of Sh and or Sh(Surety #2) son of Sh of them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have her	or any
sureties Sh(Surety #1) son of Shand or Sh(Surety #2) son of Shof them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have hereunder out hands on this day of two thousand and	or any eunto set
sureties Sh(Surety #1) son of Shand or Sh(Surety #2) son of Shof them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have her out hands on this day of two thousand and	or any
sureties Sh(Surety #1) son of Shand or Sh(Surety #2) son of Shof them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have hereunder out hands on this day of two thousand and	or any eunto set
sureties Sh(Surety #1) son of Shand or Sh(Surety #2) son of Sh of them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have her out hands on this day of two thousand and  Signed and delivered by the above above in the presence of	or any eunto set
sureties Sh(Surety #1) son of Shand or Sh(Surety #2) son of Shof them for amounts/damages/pending electricity dues hereunder.  In witness to the above written bound and the conditions, thereof we have her out hands on this day of two thousand and	or any eunto set

Signed and delivered by the surety #1
Above named Sh
Electricity A/C No.(if any in Chandigarh)
In the presence of Witness-1 (Name)
10. 0 1. 11. 0
(Give Complete Address of Witness-1)
(Give Complete Address of Witness-1) Signed and delivered by the surety #2
· •
Signed and delivered by the surety #2

#### (Give Complete Address of Witness-2)

#### (B) Test Certificate of consumer installation.

The provision of the Supply Code Regulation ,2010 under Clause 3.6 A(2) & (8) , are applicable to release of "Regular" electricity connections. So, in view of the High Court order to provide "Temporary Electricity Connection as an interim arrangement, the these provisions of supply code , are not applicable.

The following provisions as provided in "Measure Relating to Safety and Electric Supply Regulation, 2010" notified by Central Electricity Authority" may be included in the tariff order for providing the connections to these consumers.

#### "31. Testing of consumer's installation:

- (1) Upon receipt of an application for a new or additional supply of electricity and before connecting the supply or reconnecting the same after a period of six months, the supplier shall either test the installation himself or, accept the test results submitted by the consumer when the same has been duly signed by the licensed Electrical Contractor.
- (2) The supplier shall maintain a record of test results obtained at each supply point to a consumer, in a Schedule-V.
- (3) If as a result of such inspection and test, the supplier is satisfied that the installation is likely to be dangerous, he shall service, on the applicant a notice in writing requiring himself to make the modifications as are necessary to render the installation safe and may refuse to connect or reconnect the supply in till the required modifications have been completed.

Therefore to provide Temporary Electricity Connection as a interim arrangement, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH can accept the test report of Licensed Electrical Contractors without verification as per provisions of 31(1).

Thus to implement the Hon'ble Court Order in true spirit and to avoid theft of energy and to reduce T&D Losses , it is requested to make above provisions in supply code / tariff order to release "Temporary" Domestic/ NRS connection to JJ Clusters/Slum Dwellers/Unauthorized Colonies & Structures/ Residents outside Lal Dora, under 'Temporary Domestic Category" and "Temporary NRS Category" with the normal tariff of domestic and NRS consumers. The relevant category detail is as under:-

Consumption		ed charge KW per Month)	Energy charge (Rs./kWh)							
range	Existing	Proposed	Existing	Proposed						
Temporary Domestic Consumer (TDC)										
0-150 Units	*	12.00	*	2.75						
151-400 Units	*	12.00	*	5.80						
Above 400 Units	*	12.00	*	6.00						
	Тетро	rary NRS Consumer (	TNC)							
0-150 Units	*	Rs 24/KW/Month for Single Phase	*	6.20						
151-400 Units	*	and Rs 122/KW/Month	*	6.45						
Above 400 Units	for Three		*	6.75						

Note: The Category for "Temporary NRS Consumer (TNC) should be implemented only after the policy for release of NRS connection outside Lal Dora/JJ Cluster/Slum Dwellers is finalized by the Chandigarh Administration.

# 8.3 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 an boost domestic manufacturing capabilities for Electric Vehicle (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 (taxes) could possibly be among the first adopters of EVs on a large scale followed by private vehicles. Electricity Wing is of the view that the activity of usage of power for Charging Infrastructure/ Battery swap should be recognized as a NRS activity and tariff notified by JERC. The character of supply shall be applicable as per NRS category.

Consumption		ed charge KW per Month)		y charge /kWh)
range	Existing Proposed		Existing	Proposed
0-150 Units	*	Rs 24/KW/Month for Single Phase	*	6.20
151-400 Units	*	and	*	6.45
Above 400 Units	*	Rs 122/KW/Month for Three Phase.	*	6.75

Licensee will provide supply to Electric Vehicle Charging Stations/ Charging Infrastructure/ Battery Swap as per the above schedule at locations as approved by Chandigarh Administration.

# **Chapter 9: Proposed Tariff Schedule**

9.1 This chapter elucidates the proposed fixed and energy charges for FY 2017-18 along with the applicability.

# 1. Domestic Supply (DS)

#### **APPLICABILITY**

This schedule shall apply for light, fan, domestic pumping sets and household appliances in the following premises:

- a) Residential premise.
- b) Government and Govt. aided/ recognized education institutions, viz schools, colleges, universities, hostels, canteens, and residential quarters/ hostels attached to the educational institutions.
- c) Supply to hostels and /or residential quarter attached with the private educational institutions where separately metered.
- d) Government and public sports institutions/Gymnasium halls etc. banks and PCO exclusively for the use of educational institutions.
- e) Religious Institutions viz. Temples, Gurudwaras, Mosques, Churches, provided that the Sub Divisional officer concerned authenticates the genuineness of the place being exclusively used for worship by the general public.
- f) Housing colonies and multi storied flats/buildings as defined in Electricity Supply Code Regulations notified by the JERC.
- g) Dispensary / Hospitals / Public Libraries / School / College / Working Women"s Hostel / run or approved by the Chandigarh Administration.
- h) Recognized Center/ societies for welfare of blind, deaf and dumb, spastic children, physically handicapped persons, mentally retarded persons, as approved by the Chandigarh Administration.
- i) Orphanage/ Cheshire Home/ Old age homes/ Charitable homes/ Nari Niketan/ Juvenile Home run by charitable institutions approved under section 80 (G) of the income tax Act/ approved by Chandigarh Administration.
- j) Voluntary Organization/ charitable institutions (non-profit making) running shelter houses for care and protection of the stray animals / Gaushalas approved under section 80 (G) of the income tax Act/ approved by Chandigarh Administration.
- k) Shelter Homes (including Night Shelters) run or approved by Chandigarh Administration.
- 1) Electric crematoriums. / Burial Grounds
- m) The Charitable Organizations viz. Schools, Hospitals, Dispensary, Education and research Institute and Hostel attached to such Institutions registered with the Income Tax authorities under Section 80G, or 80 GGA, or 35 AC. The individual organization shall apply in writing to the Electricity Department along with any of the above certificate for getting considered for the tariff in the Domestic Category. The Halls or Gardens/ Lawns or any portion of the premises listed under Para (m) above are let out for consideration or used for Commercial activities at any time shall be Charged at Commercial Rate of Electricity Tariff.
- n) Administrative Training Institutes/ Correctional Institutes/ Training Centres exclusively run/ managed by UT /State/ Central Govt. to undertake research, consultancy/ training & allied activities to improve management efficiency

#### **NOTES:**

Hostels shall be considered as one unit and billed under domestic supply tariff without

compounding.

- ii. Private education institutions not recognized by the Chandigarh Administration shall be billed under Non Domestic Tariff.
- iii. STD/PCO, shops attached to Religious Institutions will be billed under Non- Domestic Tariff.
- iv. In case a room or a part of residential house is utilized by a teacher for imparting tuition work, self-occupied handicapped persons operating from their residences, cooking classes taken by house ladies, beauty parlour run by house ladies, ladies doing tailoring work etc. shall be covered under domestic tariff.
- v. For cottage & commercial activities operating in residences such as repair of shoes by cobbler, dhobi, ironing of clothes, stitching/ knitting, paan-shop and bakery products etc. small shops, tea shops etc. with total load (maximum demand) of 5 kW domestic tariff shall be applicable subject to installation of MDI Meters. In cases where total load is more than 5 kW, separate metering shall be done for commercial and domestic use and consumption shall be charged according to the tariff applicable.
- vi. Professionals such as Doctors, Engineers, Lawyers, CAs, Journalists and consultants practicing from their residence irrespective of location provided that such use shall not exceed 25% of the area of the premises or 50 Sq. meter whichever is less, subject to the installation of MDI Meter, shall be covered under domestic tariff.
- vii. Where a portion of the premises is used for mixed load purposes the connection shall billed for the purpose for which the tariff is higher i.e. In case of usage for commercial activities the same shall be treated as "Domestic Mis-use Commercial" and tariff as per NRS category shall be applicable. This shall continue till the mis use is corrected.

#### CHARACTER OF SERVICE

AC, 50 cycles, Single phase 230 volts or three phase 400 volts or 11 Kilo volts.

For loads up to 5 KW supply shall be given on single phase 230 volts and above 5 KW up to 99 KW supply shall be given on three phase 400 volts. For load 100 KW and above, supply shall be given on 11 KV and a separate transformer of adequate capacity shall be installed at consumers cost as per Electricity Supply Code Regulations notified by JERC. In case of consumers where the metering is being done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding

3% extra on account of transformation/ losses. This arrangement shall be continued for a maximum of one year within which metering shall be shifted to HT (11KV) side of the transformers.

#### **TARIFF**

	Fixed ch	arge	Energy charge		
Consumption range	(Rs. per KW p	er Month)	(Rs./kWh)		
	Existing	Proposed (All Load)	Existing	Proposed	
0-150 kWh			2.55	2.75	
151-400 kWh	10	12	4.80	5.80	
Above 400 KWh			5.00	6.00	

#### Demand Surcharge for exceeding the contract/ sanctioned demand for LT Consumers

Contract demand/ sanctioned load is the load kW, kVA or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement. If the consumer in a month exceeds the contract demand/ sanctioned load, such excess shall be charged at an additional rate of Rs 750 per kVA.

#### Power factor surcharge / incentive: -

Consumers with load 100 KW or more and getting supply at 11 KV or higher voltage shall be required to maintain a monthly average power factor of 0.90 (lagging). Consumers would install capacitors of adequate capacity to achieve prescribed power factor. The consumers whose monthly average power factor falls below 0.90 will be levied a power factor surcharge @ 1% of the bill amount for each 0.01 fall in power factor below 0.90. The surcharge will be @ 2% of the bill amount for each 0.01 fall in power factor below 0.80.

Consumers with monthly average power factor exceeding 0.95 will be allowed a rebate @ 0.5% on the bill amount for each 0.1 rise in power factor above 0.95. The bill amount will mean the consumption charges including demand charges, if any, in a month. If the average power factor falls below 0.80 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95

If for any installation, the average power factor is less than 70%, the supply may be disconnected after due notice of 15 days, without prejudice to the right of the licensee to levy demand/minimum charges as applicable during the period of disconnection.

# 2. Non Residential Supply (NRS)

#### **APPLICABILITY**

This schedule shall apply to all consumers, using electrical energy for light, fans appliances like pumping sets, central air conditioning plant, lift, welding set, small lathe, electric drill, heater, battery charger, embroidery machine, printing press, ice candy, dry cleaning machines, power press, small motors in non-residential premises as defined below:

- a. Hostels (other than those run/aided institutions of Chandigarh Administration)
- b. Paying Guest (PG) authorized by the Chandigarh Administration . However the unauthorized PG shall be charged under DMC Category.
- c. Private educational institutes viz schools, colleges, universities not recognized by Chandigarh administration

- d. Coaching institutes and research institutes (Other than those recognized by the Chandigarh Administration)
- e. Auditoriums, Hospitals, clinics, dispensaries, nursing homes / diagnostic centres (other than those run by the Chandigarh Administration).
- f. Railways (other than traction)
- g. Hotels, restaurants, guest houses, boarding / lodging houses, marriage houses
- h. Cinemas
- i. Banks
- j. Petrol pumps.
- k. Government / Public Sector offices and undertakings
- 1. Public halls, auditoriums, exhibitions, theatres, circus, cinemas etc.
- m. All other establishments, i.e., shops, chemists, tailors, washing, dyeing etc. which do not come under the Factories Act.
- n. Cattle farms, fisheries, piggeries, poultry farms, floriculture, horticulture, plant nursery Farm houses being used for commercial activity.
- o. Ice-cream parlors, bars, coffee houses etc.
- p. Any other category of commercial consumers not specified/covered in any other category in this Schedule.

NRS supply shall also be applicable to multi consumer complex including commercial complexes as defined in the Electricity Supply Code Regulations notified by the JERC. No separate circuit/connection for power load including pumping set/central air conditioning plant, lifts etc. is permitted.

#### **CHARACTER OF SERVICE**

AC, 50 cycles, single phase at 230 Volts or 3 Phase at 400 Volts or 11 Kilo volts

For loads up to 5 KW, supply shall be given on single phase 230 volts and above 5 KW & less than 100 KW, supply shall be given on 3 phase 400 volts. For loads 100 kW or above, supply shall be given on HT. In case of consumers where metering is done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding 3% extra on account of transformation losses. This arrangement shall be continued for a maximum of one year within which metering shall be shifted to HT (11KV) side of the transformers.

#### **TARIFF**

	Fixed ch	arge	Energy charge		
Consumption range	(Rs. per KW p	er Month)	(Rs./kWh)		
	Existing	Proposed	Existing	Proposed	
0-150 kWh	*	*	5.00	6.20	
151-400 kWh	*	*	5.20	6.45	
Above 400 KWh	*	*	5.45	6.75	

<sup>\*</sup>Proposed according to connected Load and not Consumption

	Fixed charge			
Connected Load	(Rs. per KW per Month)			
	Existing	Proposed		
0-20 KW	20	24		
Above 20 KW	100	122		

#### Demand Surcharge for exceeding the contract/ sanctioned demand

Contract demand/sanctioned load is the load kW, kVA or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement. If the consumer in a month exceeds the contract demand/ sanctioned load, such excess shall be charged at an additional rate of Rs 750 per kVA.

#### Power factor surcharge / incentive

Consumers with load exceeding 100 KW and getting supply at 11 KV or higher voltage shall be required to maintain a monthly average power factor of 0.90 (lagging). Consumers would install capacitors of adequate capacity to achieve prescribed power factor. The consumers whose monthly average power factor falls below 0.90 will be levied a power factor surcharge @ 1% of the bill amount for each 0.01 fall in power factor below 0.90. The surcharge will be @ 2% of the bill amount for each 0.01 fall in power factor below 0.80.

Consumers with monthly average power factor exceeding 0.95 will be allowed a rebate @ 0.5% on the bill amount for each 0.1 rise in power factor above 0.95. The bill amount will mean the consumption charges including demand charges, if any, in a month. If the average power factor falls below 0.80 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95

If for any installation, the average power factor is less than 70%, the supply may be disconnected after due notice of 15 days, without prejudice to the right of the licensee to levy demand/minimum charges as applicable during the period of disconnection.

# **3.** Large Industrial Power Supply (LS)

#### **APPLICABILITY**

The schedule shall apply for consumers having industrial connected load of 100 kW and above. Their contract demand shall not be less than 100 kVA.

No consumers shall increase his connected load without prior approval of the department. The consumer availing supply at HT shall indicate rated capacity of all the step down transformers installed in his premises and shall not increase the capacity of such step down transformers without prior approval of the department. (Govt. Tube-wells meant for water supply are covered under this Industrial Tariff).

#### **CHARACTER OF SERVICE**

AC, 50 Cycles, 3 phase 11 kV supply for loads above 100 kW

Supply above 5000 kW or 5555 kVA shall be given at 66kV depending on quantum/type of load and contract demand and availability of bus voltage and transformer winding capacity at the feeding substation wherever possible at the discretion of supplier.

For arc furnace loads and other loads of equally violent fluctuating nature, voltage of supply will be 33kV and above depending upon availability of bus voltage and transformer winding capacity at the feeding substation wherever possible, at the discretion of supplier.

#### NOTE

- i. The above tariff covers supply at 11 kV. Surcharge at 20% on the tariff shall be levied for all the existing consumers which are being given supply at 400 volts.
- ii. Surcharge at 17.5% on the tariff shall be levied for all the arc furnace consumers which are being given supply at 11 kV. This surcharge at 17.5% shall also be levied on other industrial consumers having contract demand exceeding 5000 kVA and running at 11kV.
- iii. In case of steel rolling mills having supply at 400 volts, an additional surcharge of 5% shall be levied.
- iv. In case of HT consumers (11kV and above) where maximum demand and energy consumption is recorded on lower voltage side of consumer transformer instead of high voltage side, maximum demand and energy consumption for billing purpose should be computed by adding 3% extra on account of transformation/cables losses. However this agreement shall in no case continue for more than three months and meter shall be installed on the HT side of the transformer within the said period including such existing connection.
- v. For new connections, all metering will be on HT side only.

#### **TARIFF**

	Fixed charge		Energy charge	
Consumption range	(Rs. per KW per Month)		(Rs./kWh)	
lange	Existing Proposed		Existing	Proposed
All Units	100	122	5.65	7.00

#### POINT OF SUPPLY

The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

#### **DEMAND SURCHARGE**

Contract demand is the load kW, kVA or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement.

#### Power factor surcharge / incentive

Consumers with load exceeding 100 KW and getting supply at 11 KV or higher voltage shall be required to maintain a monthly average power factor of 0.90 (lagging). Consumers would install capacitors of adequate capacity to achieve prescribed power factor. The consumers whose monthly average power factor falls below 0.90 will be levied a power factor surcharge @ 1% of the bill amount for each 0.01 fall in power factor below 0.90. The surcharge will be @ 2% of the bill amount for each 0.01 fall in power factor below 0.80.

Consumers with monthly average power factor exceeding 0.95 will be allowed a rebate @ 0.5% on the bill amount for each 0.1 rise in power factor above 0.95. The bill amount will mean the consumption charges including demand charges, if any, in a month. If the average power factor falls below 0.80 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95

If for any installation, the average power factor is less than 70%, the supply may be disconnected after due notice of 15 days, without prejudice to the right of the licensee to levy demand/minimum charges as applicable during the period of disconnection

# 4. Medium Industrial Power Supply (MS)

#### **APPLICABILITY**

This tariff schedule shall apply to all industrial power supply consumers having connected load ranging from 21 kW to 99 kW. (Govt. Tube-wells meant for water supply are covered under this Industrial Tariff)

#### **CHARACTER OF SERVICE**

AC,50 cycles ,3 phase, 400volts

#### **TARIFF**

	Fixed charge		Energy charge		
Consumption range	(Rs. per KW per Month)		(Rs./kWh)		
lange	Existing	Proposed	Existing	Proposed	
All Units	100	122	5.35	6.45	

#### POINT OF SUPPLY

The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

# 5. Small Industrial Power Supply (SP)

#### **APPLICABILITY**

This schedule apply to small power industries with connected load not exceeding 20 KW (26BHP) in Urban and rural areas. (Govt. Tube wells meant for water supply are covered under this Industrial Tariff)

#### **CHARACTER OF SERVICE**

AC, 50 cycles, single phase 230 volts, or 3 phase, 400 volts.

#### **TARIFF**

	Fixed charge		Energy charge	
Consumption range	(Rs. per KW per Month)		(Rs./kWh)	
range	Existing Proposed		Existing	Proposed
All Units	20	24	5.30	6.40

#### **POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given at a single delivery and metering point and at a single voltage.

# 6. Agricultural Pumping Supply (AR)

#### **APPLICABILITY**

This schedule shall apply to all consumers for use of electrical energy for irrigation pumping load up to 20 kW (26 BHP). Supply for loads above 26 BHP/20 KW shall be charged in accordance with relevant industrial tariff.

#### **CHARACTER OF SERVICE**

AC, 50 Cycles, three phase, 400 volts, Single Phase at 230 volts.

#### **TARIFF**

	Fixed charge		Energ	y charge
Consumption range	(Rs. per KW per Month)		(Rs./kWh)	
runge	Existing Proposed		Existing	Proposed
All Units	-	-	2.90	2.90

#### NOTE

- a) Pumping sets shall be ISI marked. The responsibility for ensuring installation of ISI marked pumping sets as well as shunt capacitors shall be that of JE concerned, who shall verify the same at the time of verification of test reports before release of connection.
- b) Supply for agriculture/Irrigation pump set, at one point, may also be given to a registered co-operative society or to a group of farmers recognized by the competent authority.
- c) An agriculture consumer, if he so desires, may shift the location within his premises of his connection, with the approval of the competent authority, after payment of appropriate charges.

#### **POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given through a single delivery and

metering point and at a single voltage.

#### 7. Public Lighting (PL)

#### **APPLICABILITY**

This tariff schedule shall apply for use of Public Lighting system including signaling system, road and park lighting managed by municipal corporation, panchayats, institutions(at the discretion of the supplier)etc.

The tariff schedule shall also apply for use of electricity by street lights managed/outsourced to an external agency and advertisement boards, sign boards, bill boards, signage, passenger information system installed on bus queue shelter/ bus stand etc., (apart from the advertisement boards installed on commercial establishment & charged under commercial tariff).

#### **CHARACTER OF SERVICE**

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

#### **TARIFF**

Consumption range	Consumption Slab	Fixed charge Rs. per KW per month		Energy charge Rs./kWh	
	Slub	Existing	Proposed	Existing	Proposed
Public Lightning system - Public lighting system managed by Municipal Corporation, Panchayat and Street lights maintained/ outsourced to an external agency	All Units	100	122	5.35	6.40
Advertisement / Neon sign boards - Advertisement boards, bill boards, sign boards, passenger information system installed on bus queue shelter/ bus stand (apart from advertisement boards installed on the commercial establishments & charged under commercial tariff)	All Units	100	122	7.10	8.70

# 8. Bulk Supply (BS)

#### **APPLICABILITY**

This tariff schedule shall apply to general or mixed loads exceeding 10 kW to MES, Defense establishments, Railways, Central PWD, Institutions, Hospitals, Departmental Colonies and other similar establishments where further distribution is to be done by the consumer. Above schedule shall not be applicable, if 50 % or more of the total sanctioned load is motive/ manufacturing load.

#### **CHARACTER OF SERVICE**

AC, 50 cycles, three phase, 400 volts or 11 kV or higher voltage at the option of the department. Loads 100 kW or above shall be released on HT/EHT only.

#### **TARIFF**

	Fixed	charge	Energy charge		
Consumption range	(Rs. per KW per Month)		(Rs./kWh)		
	Existing	Proposed	Existing	Proposed	
All Units	100	122	5.55	6.60	

## 9. Temporary Supply

#### **APPLICABILITY**

Available to any person requiring power supply for a purpose temporary in nature for period up to three months, which may be extended up to a maximum period of two years after completion of formalities

#### **CHARACTEROFSERVICE**

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

#### **TARIFF**

	Fixed charge (Rs. per KW per Month)		Energy charge	
Consumption range			(Rs./kWh)	
	Existing	Proposed	Existing	Proposed
All Units	0	0	8.10	9.50

Note- No FPPCA shall be levied on Temporary Supply consumers.

#### 10. Service Characters of Supply for Load Above 5000 KW or 5555 kVA

Supply to any category of consumers above 5000 KW or 5555 kVA shall be given at voltage level of 66KV and above only.

#### General Conditions for LT & HT Supply

The above mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

#### **General Terms and Conditions**

- **1)** The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.
- **2)** Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.
- **3)** If energy supplied for a specific purpose under a particular tariff is used for a different **93** | P a g e

purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

- **4)** Fixed charges, as applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, as applicable, will be double as and when bi monthly billing is carried out, Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.
- **5)** If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.
- **6)** Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bimonthly billing is carried out, Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing. Contracted demand shall be minimum of 60% of the connected load/ sanctioned load.
- 7) The billing in case of HT/EHT shall be on the maximum demand recorded during the month or 75% of contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the Supply Code Regulation. If such over-drawl is more than 20% of the contract demand then the connections shall be disconnected immediately.

**Explanation:** Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 kWh, then the consumption corresponding to the contract demand will be 10000 kWh (12000\*100/120) and consumption corresponding to the excess demand will be 2000 kWh. This excess demand of 20 KVA and excess consumption of 2000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

#### 8) Power Factor Charges for HT and EHT

The monthly average power factor shall mean the ratio expressed as percentage of total kWh to total kVAh supplied during the month. The ratio shall be rounded up to two figures.

- (a)The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor upto 0.7(lagging)
- (b) In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 0.5% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging)
- (c) If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the

licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

(d) The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95.

#### 9) Maximum Demand

The maximum demand of supply of electricity during a month shall be twice the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 30 minutes in the month. However for the consumers having contracted demand above 4000 KVA the maximum demand shall be four times the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 15 minutes in the month.

- **10) Delayed payment surcharge** shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.
- **11)** However, the Department shall have the right to disconnect the supply after giving 15 days" notice as per provision of the Act & Supply Code Regulation, if the consumer fails to pay the energy bill presented to him by the due date.
- **12) Prompt Payment Rebate:** If payment is made at least 7-days in advance of the due date of payment of the current bill a rebate for prompt payment @ 0.25 % of the bill amount (SOP +Fixed Charges +FPPCA) amount shall be given. Those consumers having arrears shall not be entitled for such rebate.
- **13) Advance Payment Rebate:** If full advance payment of the current bill is made before the issue date of previous cycle bill , rebate @1% shall be given on the amount consisting of SOP plus fixed charges plus FPPCA. However if the advance payment is not adequate as per current bill amount consisting of SOP plus Fixed Charges plus FPPCA or payment made after the issue date of previous cycle bill , such cases shall be treated for prompt payment rebate.

#### Note:-Either Advance payment or prompt payment rebate shall be applicable.

- **14)** The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with FPPCA formula separately notified by the Commission under the Regulation. Such charges shall be recovered / refunded in accordance with the terms and conditions specified in the FPPCA formula.
- 15) The values of the "K" factor applicable for the different consumer categories for use in

the FPPCA formula shall be as specified in the Tariff Order approved by JERC.

# 16) Surcharge for Low Power Factor/Non Installation of Required rated LT Shunt Capacitors

- a. Consumer using LT installation with welding transformers and induction meters of 3HP and above and other low power factor consuming appliances shall arrange to install low tension shunt capacitors of required rating and shall maintain these capacitors in good working condition. No service connection shall be released without installation of shunt capacitor(S) of required rating. In case the shunt capacitor(S) are found to be missing or inoperative or damaged, 15 day notice shall be issued to the consumer by the licensee for rectification of the defect and setting right the same. In case the defective capacitor(S) are not replaced/rectified within 15 days of given notice, a surcharge of 20% on the billed energy charges shall be levied till defective capacitor(S) are replaced/rectified to the satisfaction of the licensee.
- b. Consumers in whose L.T connections the meter provided by the licensee have the power factor recording feature, shall install shunt capacitors of adequate rating to ensure power factor of 90% or above failing which low power factor surcharge at the rates noted below will be levied.

S. No.	Power Factor range	Surcharge
1	90% and above	NIL
2	Below 90% and up to 85%	1% of billed energy charges of that month for every 1% fall in power factor from 90%
3	Below 85% and up to 80%	1.5% of billed energy charges of that month for energy 1% fall in P.F from 85%
4	Below 80% and up to 75%	2% of billed energy charges of the month for energy 1% fall in P.F from 80%
5	Below 75%	3% of billed energy charges of that month for energy 1% fall in P.F from 75%

Should the power factor drop below 70% the licensee may disconnect supply after due notice of 15 days to any installation without prejudice to the right of the licensee to levy demand/fixed charges as applicable during the disconnection period.

#### 17) Plant & Apparatus

The following features shall be installed:

- a) LT installation with welding transformers will be required to have suitable shunt capacitor(s) installed so as to ensure power factor of not less than 90%.
- b) Every LT consumer, including irrigation pump set consumer, whose connected load includes

induction motors of 3 HP and above and other low power factor consuming appliances shall arrange to install Low tension Shunt capacitors of appropriate capacity so as to ensure power factor of not less than 90% at his cost across the terminals of his motor(s)

- c) A linked switch with fuse(s) or a circuit breaker for consumer having aggregate installed transformer/apparatus capacity up to 1000 KVA if supplied at voltage of 11 KV and 2500 kVA if supplied at voltage of 33 kV.
- d) A circuit breaker along with linked switch for consumer having an aggregate installed transformer apparatus capacity above 1000 kVA if supplied at 11 kV and above 2500 kVA if supplied at 33 kV.
- e) In either case, suitable automatic circuit breakers shall be installed on the low tension side of each transformer or on each LT feeder emanating from the transformer.
- f) Extra High Tension consumer shall install a circuit breaker on HV side of the transformer.

#### 18) Taxes & Duties

The tariff does not include any tax or duty etc. on electricity energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall be payable by the consumer in addition to the tariff charges.

#### 19) Time of Day (TOD) tariff

- (i) Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT/EHT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter.
- (ii)The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer, as TOD metering is not yet implemented.

Period of use	Hrs.	Demand Charges	Energy Charges
Normal period	rmal period 6:00 a.m. to 6:00 p.m.		Normal rate of energy
Troi mai perioa	orde anni to dred pinni	Normal Race	charges
Evening neak load period	Evening peak load period 6:00 p.m to 10.00 p.m.		120% of the Normal rate
Evening peak load period   0.00 p.iii to 10.00 p.i		Normal Rate	of energy charges
Off-peak load period	-peak load period 10:00 p.m to 6:00 a.m.		90% of the Normal rate
OTI-peak load period	10.00 p.iii to 0.00 a.iii.	Normal Rate	of energy charges

#### (iii) Applicability and Terms and Conditions of TOD tariff:

(a) TOD tariff shall be **optional** unless otherwise specifically stated to the contrary in the tariff order.

- (b) The facility of aforesaid TOD tariff shall not be available to HT/EHT consumers having captive power plants and/or availing supply from other sources through wheeling of power.
- (c) The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff.
- (d) In the event of applicability of TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.
- 20) **LT Surcharge**:- Surcharge at 20% on the tariff shall be levied for all the existing consumers which are being given supply at 400 volts whose connections are due to be released on HT/EHT supply.

# Miscellaneous & General Charges

Sr. No.	Description	Proposed
Α	Application processing charges for new connection/ enhancement of load/ reduction of load	
i	Domestic supply	Rs 25/-
ii	Non-Domestic Supply	Rs 100/-
iii	SP, MS and street lighting supply.	Rs 250/-
iv	LS and bulk supply	Rs 500/-
v	AP supply	Rs 25/-
vi	Temporary metered supply	Two times the normal rates of category of permanent supply
В	Charges for Re-fixing/ Changing of meter /Meter Board in the same premise on consumer request when no additional material is required. (When the cause leading to subsequent change/replacement of meter is either manufacturing defect or Department's fault then, it shall be free of cost and further, if shifting of meter is done in the interest of department work then it is free of cost.)	
i	Single Phase Meter	250/- per meter
ii	Three Phase Meter without CT	500/- per meter
iii	Three Phase Meter (with CTs & PTs)	1000/- per meter
iv	Trivector and special type meters	1200/- per meter
v	HT/ EHV metering equipment	3000/- per meter
С	Meter Inspection & Testing Charges	
	(In case correctness/accuracy of a meter belonging to the Licensee is challenged by the consumer)	
i	Single phase	150/- per meter
ii	3-phase whole current i.e. without C.T	500/- per meter
iii	L.T. meter with CTs	1500/- per meter
iv	H.T. & E.H.F metering equipment.	3000/- per meter
	NOTE: If the challenged meter is found to be incorrect, the credit of these charges will be given to the consumer, otherwise these will be forfeited.	
D	Re-sealing charges (irrespective of the number of seals involved against each item below and where seals found to have been broken by the consumer):	
i	Meter cupboard	50/-
ii	Where cut-out is independently sealed	50/-
iii	Meter cover or Meter Terminal cover (Single phase)	150/-
iv	Meter cover or Meter Terminal cover (3-phase)	375/-
v	Maximum Demand Indicator or C.T.s Chamber	900/-

Sr. No.	Description	Proposed
vi	Potential fuses	900/-
	Note: If M&T and ME seals are found to be broken/tempered cost of meter shall be recoverable and the case shall be treated as theft case.	
E	Reconnection Charges	
	Reconnecting/connecting the premises of any consumer who was previously disconnected on account of breach of his agreement with the department or of any other provisions of the Act as may be relevant.	
i	Domestic supply	Rs 250/-
ii	Non-Domestic Supply	Rs 500/-
iii	SP, MS and street lighting supply.	Rs 500/-
iv	LS and bulk supply	Rs 1000/-
v	AP supply	Rs 250/-
vi	Temporary metered supply	Rs 1500/-
F	Testing/ Inspection of Consumer's installation	
а	Initial Test/ Inspection	Free of Cost.
	For subsequent test of a new installation or an extension to an existing installation if the installation is found to be defective or the wiring contractor or his representative fails to be present	
i	Single Phase	Rs 150/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
ii	Three Phase	Rs 200/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
iii	MS/BS loads upto 100 kW	Rs 500/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
iv	LS/BS (loads above 100 kW)	Rs 1000/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
G	Meter Reading Cards/ Passbook (New/ Replacement)	
i	Provision of meter reading cards including PVC jacket	Rs 5/- per card
ii	Replacement of meter card found to be missing on consumer's premises	
	Domestic & NRS	Rs 5/- per card
	SP and AP	Rs 10/- per card

Sr. No.	Description	Proposed
	MS	Rs 25/- per card
	LS	Rs 45/- per card
iii	Replacement of Passbook in case it is lost by AP Consumer	Rs 60/-
iv	Replacement of identification card missing on the premises of AP Consumer	Rs 25/-
v	Temporary	Rs 60/- per card
Н	Meter Rentals	
а	(In case where consumer opts that department to supply departmental meter)	
i	Single Phase meter	Rs 20/- per month
ii	Three Phase LT meter	Rs 50/- per month
iii	Three Phase LT meter with CT	Rs 70/- per month
iv	11 kV Metering System	Rs 500/- per month
v	33 kV Metering System	Rs 1000/- per month
vi	66 kV Metering System	Rs 2000/- per month
I	Replacement of broken glass	
а	Replacement of broken glass of meter cupboard (when the cause of the breakage is considered to be an act or fault of the consumer).	Rs 60/-
b	Replacement of meter glass where the same has been tampered with or broken by the consumer	
i	Single phase meter	Rs 250/-
ii	Three phase meter	Rs 450/-
J	Supply of duplicate copies of electricity bills	
i	Domestic consumers	Rs 5/-
ii	Non-Domestic consumers	Rs 10/-
iii	Temporary consumers	Rs 10/-
iv	L.T. Industrial (upto 20 kW) & AP consumer	Rs 10/-
v	L.T. Industrial (above 20 kW) & Street lighting consumer	Rs 15/-
vi	H.T. Industrial & bulk supply consumer	Rs 20/-
К	Review of electricity bills	
а	(If the accuracy of licensee"s bill is challenged by the consumer and a review of the bills is demanded)	
i	Single Phase Supply	Rs 10/-
ii	Three Phase Supply	
	load upto 20 kW	Rs 250/-
	load above 20 kW upto 60 kW	Rs 450/-
	load above 60 kW upto 60 kW	Rs 750/-
iii	Large Supply (above 100 kW)	Rs 1000/-
	NOTE: If the challenged bill is found to be incorrect, the credit of the fee will be given to the consumer, otherwise these will be forfeited.	
L	Testing and calibration including sealing of energy meter owned/supplied by the consumer	

Sr. No.	Description	Proposed
i	Single Phase	Rs 100/-
ii	Poly phase whole current meter	Rs 500/-
iii	Poly phase meters with CTs	Rs 1200/-
iv	HT and EHT metering equipment	Rs 3500/-
М	Checking of the capacitors at the request of the consumer	
а	Consumer receiving supply at	
i	230/440 V	Rs 250/- per visit
ii	Above 400 V and up to 11 KV	Rs 500/- per visit
N	Rates for Security Deposit for new/extension in load only. (Rs/kW or kVA)	
	Domestic Supply	200/-
	Non-residential supply	500/-
	Large Supply	1500/-
	Medium Supply	500/-
i	Small Supply	300/-
	Bulk Supply	800/-
	Public Lighting	750/-
	Agriculture Power	120/-
	Others- Temporary Supply	2000/-
O	Charges recoverable from the consumer when the meter is found damaged / burnt owing to negligence or default on the part of consumer	
i	Single Phase Meter	Rs 700/-
ii	Three Phase Meter	Rs 1550/-
iii	LT CT operated Solid State Meter. (Without CTs)	Rs.3000/-
iv	LT CTs	
а	a) Upto 50/5A	Rs.1,580/-
b	b) Above 50/5 A	Rs. 600/-
С	Solid State HT TPT metering equipment (without CT/PT unit)	Rs.20,000/-
d	H.T.C.T./P.T. Unit	Rs.40,470/-
Q	Special Meter reading charges in case of change in occupancy/ vacation of premises for domestic consumers	Rs. 50/-
	Line Mtc. and lamp renewal charges for Public Lighting where the initial installation of complete street light fittings and lamps and their subsequent replacement shall be carried out at the Board/Licensee's cost, the line maintenance and lamp renewal charges shall be as under:-	
	A.1 Ordinary lamps:	
	(i) Lamps up to 150 watts :	Rs.16/- per lamp per month
R	(ii) Lamps above 150 watts :	Special quotation
	A.2 Mercury Vapour lamps:	
	(i) Lamps of 80 watts :	Rs.49/- per lamp per month
	(ii) Lamps of 125 watts :	Rs.53/- per lamp per month
	(iii) Lamps of 250 watts :	Rs.90/- per lamp per month

Sr. No.	Description	Proposed
	(iv) Lamps of 400 watts :	Rs.101/- per lamp per month
	A.3 Fluorescent tubes:	
	(i) Single 2 ft 20 watts :	Rs.26/- per lamp per month
	(ii) Single 4 ft 40 watts :	Rs.43/- per lamp per month
	(iii) Double 2 ft 20 watts :	Rs.43/- per lamp per month
	(iv) Double 4 ft 40 watts :	Rs.68/- per lamp per month
	Demand Notice Extension Fee (for each period of 3 months)	
	a. DS & NRS	Rs.50/-
	b. AP	Rs.500/-
	c. SP	Rs.200/-
s	d. MS/LS/BS	Rs.2500/-
	Note: Demand notice shall be valid for 3 month initially with an extended/ grace period of further 3 months. After the expiry of grace / extended period of 3 months, the application shall be deemed as cancelled. Revival fee (one time only) for cancelled application shall be twice the demand notice extension fee as prescribed above and will be done by load sanctioning authority for another three months only.	
Т	Where the initial installation of complete street light fittings and	
	lamps as well as their subsequent replacement shall be done at the cost of Street Lighting consumer i.e. fittings and lamps to be supplied by the consumer, the line maintenance and lamp renewal charges shall be as under:-  (i) CFL / LED Lamps (Per month)	Rs 11/-
	(ii)Fluorescent tube /Sodium/Mercury vapour lamp (per month)	Rs 13/-

# **Schedule of Service Connection Charges and Service Rentals**

Service connection charges are provided in schedule of general and service connection charges are to be recovered from all prospective consumers and existing consumers seeking extension in load. Schedule of service connection charges as prevalent is given under

# A. SERVICE CONNECTION CHARGES FOR DOMESTIC AND COMMERCIAL SUPPLY

	Particular	Category	Rs.
1	Single Phase Fixed Per kW Charges		
	Up to 1 kW	Domestic	250
a.	op to 1 kw	NRS	250
L	Above 1 kW and up to 2 kW	Domestic	300
D. Above	Above 1 kW and up to 3 kW	NRS	300
	Above 3 kW and 5 kW	Domestic	500
١٠.	Above 3 kw and 3 kw	NRS	750
2	Three Phase Fixed Per kW Charges		
	Above 5 kW	Domestic	750
a.	ADOVE 5 KW	NRS	1000

# **Variable Charges**

No variable charges are to be levied up to 75 meters. Beyond 75 meters for all loads variable charges at Rs 125 per meter length of service line shall recoverable for loads in excess of 5 kW.

- a. Domestic and Non Residential consumers falling under the following categories have the option either to pay in lump sum the service connection charge as mentioned under the preceding clause or to pay monthly service rentals at 1.6 paisa per rupee of the estimated cost of the service line excluding the cost of 30.48 meters.
  - i. Members of Schedule Castes.
  - ii. The connection meant for religious and charitable institutions run by recognized/registered associations or societies registered with Register of Societies.
- b. All such prospective and existing consumer who will pay or have paid service connection charges in full shall be exempted from the payment of monthly service rentals.
- c. The service rentals to the consumers existing prior to 1-11-2002, if applicable already shall continue

# B. SERVICE CONNECTION CHARGES FOR INDUSTRIAL, BULK SUPPLY and PUBLIC LIGHTING

#### For New Connections:

	Load	Service Connection Charge
1	For All Loads	Rs. 750 / kW

Service connection charges under Para i) shall be applicable for loads where the length of new and augmented or both line(s) to be provided is up to 100 meters which will include 11kV line (whether overhead or cable LT line and service cable. Where this limit exceeds 100 meters, applicant shall be required to pay actual cost of RS 125 Per meter of 11 kV line, LT line and service cable in excess of 100 meters as additional service connection charges nonrefundable). However, no component of distribution substation transformer to be created would be charged wherever applicable

#### Extension of Load

a. Where the consumer is either paying service rentals or had paid the service connection charges on kW basis for the original load.

i. Extension in load bringing to the total load upto and including 1 MW	To be charged @750/- per KW for for extension part only. However charges for service line in excess of 100 meters shall be charged at Rs 125 per meter for length of service line (new or augmented or both) feeding such consumer. Rentals on original load, if applicable, already shall continue.
	Rs 750/- per KW (chargeable for extension part only) or actual cost, whichever is higher.
iii. Rentals on original load, if applicable, already shall continue	

- b. Where the consumers had paid the service connection charge in full.
- i. No charges for extension shall be recoverable where the cost of service/common part of service line had been paid by the applicant at the time of release of original connection provided: No augmentation of service/common portion of service lines had been carried out ever since the release of connection and also the additional load can be released from the existing line without augmentation and the cost deposited by the consumer at the time of release of original connection is not less than "per kW charges" payable on the basis of total connected load (including extension in load) For calculating per kW charges, the rate as applicable at the time of release of original connection shall apply for the existing load and prevailing rates for the extension in load. Difference, if any, between the actual cost paid and the recoverable amount "per KW charges" shall be payable by such consumers at the time of extension in load. This shall also apply to the cases fed through independent feeder laid at the cost of the consumer. The cost of line/bay (33/66/132/220kV) paid by the consumer at the time of clubbing/conversion paid by the consumer at the time of clubbing of supply to higher voltage shall be appropriated towards service connection charges at the time of subsequent release of extension in load, if applicable. However, for calculating total "per kW charges" service connection charges already recovered in respect of clubbing cases, applicable rates to different connections as existing prior to clubbing are to be taken into account.

Cases involving augmentation of service/Common portion of service line or if the augmentation had taken place subsequent to release of connection shall be default with as per provisions of sub para (a)

- c. While accessing the connected load for working out service connection charges, both general and industrial loads shall be taken into account.
- d. The per kW, service charges for extension in load shall be as contained in Para 2 above and those shall be, in addition to the service rentals on the original load, if applicable thereon.

- e. An increase in the connected load even without increase in the contract demand shall call for payment of service connection charges as per kW basis as applicable to the category in which total connected load after extension falls and shall be recoverable for extension part only. Consumers seeking extension in contract demand within the sanctioned connected load shall not be required to pay service connection charges on KW basis.
- f. Consumers seeking contract demand higher than 60% of the connected load, shall be charged one time charge termed as "Contract Demand Charges" as under:

	Particular	Rs./kVA
1	For Contract Demand above 60% and up to 80% of connected load	200
	For Contract Demand above 80% and up to 100% of connected load	300
3	Large Supply Consumers getting at 33 kV and above are exempted from the payment of one time contract demand charges	

g. In case of LT connections, Service rentals to the consumer existing prior to 1-11- 2002, if applicable already shall continue.

# C. RECOVERY OF SERVICES CONNECTION CHARGES FOR EXTENTION OF LOAD BY CONSUMERS WHO HAD PAID THE FULL COST OF THE LINE

Industrial and Bulk supply consumers availing connection for load exceeding 1 MW have to pay the entire cost of service line laid for them. By virtue of paying the entire cost of the line involved in releasing the connection, consumer is entitled to avail within five years extension in load up to 100% of the original line for which the line had been erected provided that line so erected is capable of taking the load i.e. original load and extended load up to 100% of original load. If, however, line already erected is unable to take 100% extension of load, extension in load shall be limited to capacity of the line. In such an event, consumer is not required to pay service connection charges for the extension in load, provided the cost of line already provided by him is more than per kW charges calculated at the applicable rate from time to time on the total load including extension in load applied by the consumer.

a. If the extension in load applied by the consumer is in excess of the capacity of line already erected or more than 100 % of the original load, consumer shall pay the service connection charges as applicable to the new applicants.

b. If during the period of 5 Years from the date of connection some load has already been released from the line, whose entire cost has been paid by the consumer, who seeks extension in load within five years up to the extent of the capacity of the line or 100% of the original load within 5 years up to the extent of the capacity of the line or 100 % of the original load, whichever is lesser, release of additional load shall be regulated as under:

#### Load released on voltage above 11 kV and loads 1MW and above on 11kV:

Extension in load to the original consumer shall be allowed (within the contract demand for which line was originally erected for him) at the cost of the board, even if augmentation/erection of new lines is required.

#### Load less than 1MW released on 11 kV

In this case care should to taken for a period of 5 years that a margin of 100 % of the load of the original consumer is available in the capacity of the line. if other consumer(s) wants connection(s) to be released by utilizing the available margin, new consumer(s) singly or jointly, as the case may be shall pay towards the cost of augmentation of line so that sufficient margin in capacity is available to cater to the additional requirement of the original consumer.

c. Provisions of the preceding paras of this regulation shall not be applicable where as a result of extension in load the supply voltage level of the consumer charges or when the consumer changes the site of the premises.

#### D. RECOVERY CONNECTION CHARGES FOR AGRICULTURE POWER

All prospective tube well consumers covered under general category shall pay Rs 3000 per BHP as service connection charges. The above charges are recoverable where total length of service line including ne 11 kV line, LT line (new/augmented) and service cable is up to 1 Km ( out of which LT line/Service cable route length should not exceed 500 meters from the common pole). Where the total length of service line is more than 1 km (out of which LT line/Service cable route length should not exceed 500 meters), applicant under this category shall be required to pay cost of new 11 kV line beyond this limit at Rs 125 per meter as additional service connection charges. However, no component of distribution substation/transmission cost would be charged.

# **Chapter 10: Compliance of Directives**

9.2 This chapter illustrate the compliance report on the directives issued by the Commission in previous Tariff Orders

SR. No	Directive	Compliance report
1	Capital Expenditure	The necessary data/information is being supplied quarterly on regular basis and information for 2nd quarter supplied vide this office Memo No. 3166 dated - 11/12/17.
2	MIS	The M/s NIELIT is already been designated for computerized billing of all types of consumers of ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH, who fully support to ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH and supplies all types of MIS in required format time to time. However the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH regularly forwarding the MIS data like monthly SOP details, progress of enforcement under directive -9, metering & billing information, RPO information etc. to Hon'ble commission in prescribed format time to time.
		ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH request the Commission to approved the enclosed format of MIS-1 to MIS-5, so that the information may be supplied by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH accordingly.
3	Metering /replacement of Non- functional of defective /11KV Meters.	The necessary data/information is being supplied quarterly on regular basis and information for 2nd quarter supplied vide this office Memo No2595 dated - 03/10/17.
4	Energy Audit	The estimate for installation of DLMS meters as well as Smart Meters at all node points of 66 KV & 11 KV for energy audit purpose, is under process of approval by the competent authority.  ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is facing difficulty in procurement of HT/EHT Meters. As per R-APDRP Scheme, DLMS
		meters with software work available easily in market. However, due to mandate of installation of expert meters, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is facing problem as Smart HT/EHT Meters are not easily available being not tested by CPRI/ Govt. Labs and also there is communication issue. Since, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has no data centre therefore, ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH report the Commission to allow

		communic This will CHANDIGA with DT sh Project for been allot issues in agreed fix	HANDIGARH to carry out Division wise energy audit. Further, energy audit with DT shall be carried out after successful implementation of pilot Smart Grid roject for Sub Division No. 5, Industrial Area, Chandigarh for which work has een allotted to M/s RECPDCL (PSU of MOP) on 05.09.2016 but due to various sues in implementation of Smart Meters, the work could not be started on greed fixed date. Therefore, the Hon'ble Commission may allow installation of T/EHT DLMS Meters with modem for energy audit.						
5	Demand Side Management and Energy Conservation	Efficient F 06.03.201 NATIONAL Bulbs, 41,	ne Ujala Scheme for distribution of LED Bulb, LED Tube Light & Energy ficient Fan has been launched through M/s EESL in Chandigarh on dated 5.03.2017 and as per the report down loaded on dt-11 Dec-2017 from ATIONAL UJALA DASHBOARD, Ministry of Power, GoI, , 3,72,571 Nos. LED ulbs, 41,548 Nos. LED Tube Lights and 11,752 Nos. Energy Efficiency Fans, ave been distributed through this scheme. The impact of these appliances is a under:-						
		SI No	Parameter	Saving / Impact					
		1	Energy Saved per year	48,396 MWh (Approx.)					
		2	Avoided Peak Demand per year	11 MW (Approx.)					
		3	CO2 Reduction per year	40,688 Tonnes (Approx.)					
		installation 5 , has al for approx	The smart meter have an additional feature of TOD metering and the work for installation of smart meters and its allied infrastructure under the area of SDO-5, has already been allotted to M/s REC. Further, DPR for whole Chandigarh for approx Rs. 250.95 Crore, has already approved by the empowered Committee, MOP, GOI. under NSGM scheme.						
6	Man Power Deployment		osal for implementation of I ion with the competent authority.	Manpower deployment is under					
7	Segregation of T&D losses and loss reduction trajectory	componen with the f	t wise AT&C Losses with segregate	sultant to study on assessment of ed T&D Losses is under preparation RING DEPARTMENT, CHANDIGARH. From competent authority.					

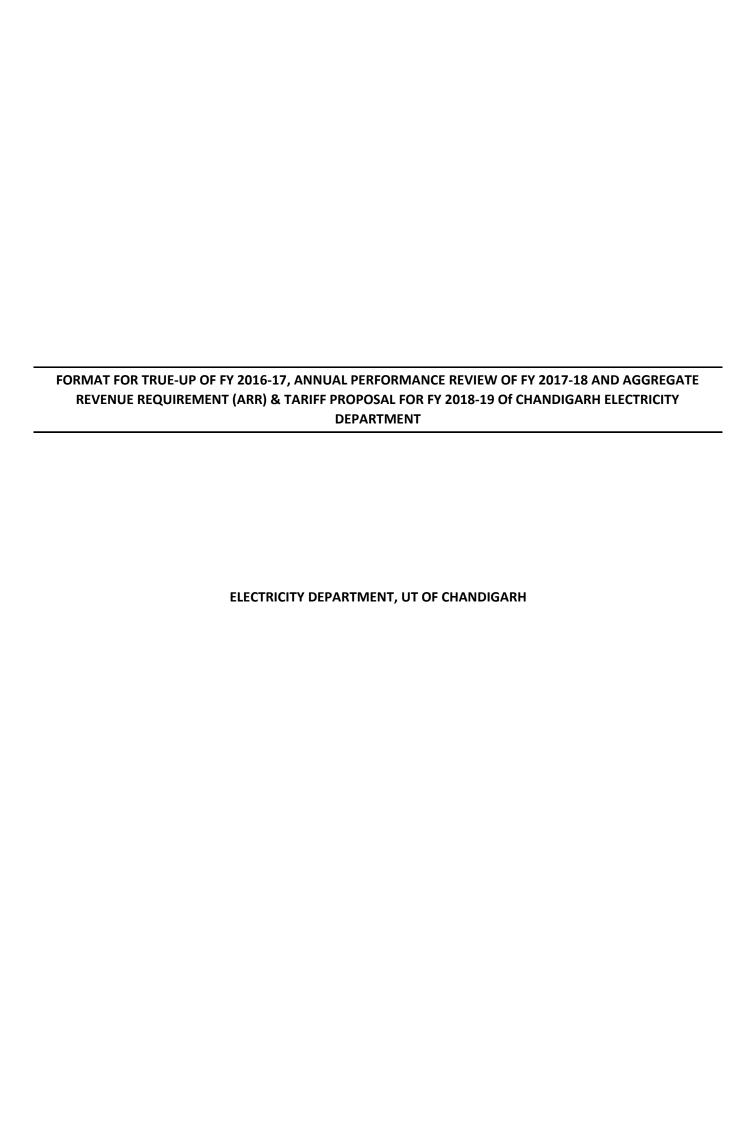
8	Initiate action for Corporatizatio n of the Electricity Department	-	The proposal of Corporatization is under process with the higher authorities and further course of action will be taken on the decision on the issue.							
9	Strengthen the CGRF and give it wide publicity about it	alread electr furthe electr	<ol> <li>The ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is already publicizing the CGRF by printing the details on the front side of electricity bills. In addition to above, the details of CGRF and Ombudsman further got published through the load declaration forms attached with electricity bills in every six months (Copy Enclosed). Further, details are available on website at www.chdengineering.gov.in.</li> </ol>							
		tende works allotte work	2. Accommodation is already renovated at Sector-19 for the CGRF and the tender for requisite infrastructure like civil work, electronic works, furniture works and electrical works etc. of amount 7.30 Lacs has already been allotted to M/s N.D. Enterprises, # 3578, Sector 37-D, Chd for execution of work of CGRF building at sector-19. The office of CGRF has started functioning in new building.							
		on 07	3. The Interview for the post of Chairman CGRF have already been conducted on 07/12/17 and the list of panel has been sent to Hon'ble commission for consideration and approval.							
10	Renewable Purchase Obligation	No-2396 ENGINE informat been su	6/2017, has ERING DEPAF cion of RPO ach bmitted to Ho	revised to RTMENT, nievement on n'ble comi	he RPO ta CHANDIGA up to the 2 mission vic	Dt-20/09/17 in argets of ELEC RH and acco nd Qtr (up to So le this office m tr is as under :-	CTRICITY ordingly have been seen to be seen	WING OF relevant as already		
		S. No.	Description	Target RPO to be met (MU) in FY- 2017-18	RPO Met up to 30/09/17 (2 <sup>nd</sup> Qtr)	Surplus in RPO compliance as per order Dt-20/09/17 in review petition No- 239/2017	Total RPO met up to 30/09/1 7 in MU	Total RPO met up to 30/09/17 % age		
		1	Non-solar	26.75	22.00	36.00	58.00	216.82		

2	Solar	15.92	8.765	18.57	27.336	171.70
Total		42.67	30.765	54.57	85.335	199.99

As per above data , ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH has already achieved the targets of Solar and Non-Solar RPOs for the FY-2017-18 and presently ,the ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH is surplus utility in Solar and Non-Solar RPOs.

Further , the M/s CREST is already nominated as a nodal agency for installation of all types of solar power plants in Chandigarh UT and as per the report the total installed capacity for achieving the RPO targets is as under :-

SI No	FY	Installed capacity (MW) Projected	Installed capacity (MW)
1	2016-17	10	5.536
2	2017-18	16	14.34  (As on 30.09.17) Feasibility for 21.86 MW of Solar Plant already granted by ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH.
3	2018-19	23	
4	2019-20	30	
5	2020-21	40	
6	2021-22	50	



Form 1: ENERGY DEMAND YEAR 2016-17 (April 2016 to March 2017) - Actuals

Sr. No.	Category of Consumer	Category of Consumer  Category of Consumer  the end of the year (Nos.)		Energy Sale/ Demand (Mus)	
1	Domestic	191436	8,50,347	721.70	
2	Commercial	23493	4,24,746	498.68	
3	Large Supply	99	70,044	126.74	
4	Medium Supply	1,288	71,457	116.08	
5	Small Power	1,275	19,565	19.53	
6	Agriculture	119	748	1.30	
7	Public Lighting	1,082	6,660	21.83	
8	Bulk Supply	732	42,454	80.60	
9	Others temporary Supply	437	2,480	4.98	
10	Total Demand/ Sale Withinn State/UT	2,19,961	14,88,503	1,591.43	

Form 1: ENERGY DEMAND YEAR 2017-18 (April 2017 to March 2018) - Estimated

Sr. No.	Category of Consumer	No. of Consumers (first 6 months)	No. of Consumers at the end of the Year (Nos)	Connected Load (first 6 months)	Connected Load at the end of the Year(KW/KVA)	Energy Sale/ Demand (first 6 months)	Energy Sale/ Demand (MUs)
1	Domestic	1,92,155	1,95,769	8,66,372	8,75,214	408.17	757.18
2	Commercial	23,680	24,043	4,26,167	4,49,474	265.87	514.07
3	Large Supply	97	99	69,431	71,467	63.42	130.72
4	Medium Supply	1,298	1,350	70,803	74,870	61.11	121.31
5	Small Power	1,277	1,275	19,646	19,745	10.70	19.53
6	Agriculture	123	119	832	764	0.93	1.33
7	Public Lighting	1,152	1,164	6,770	6,952	9.08	22.01
8	Bulk Supply	663	825	42,352	42,917	48.11	80.60
9	Others temporary Supply	437	437	2,480	2,480	2.49	4.98
10	Total Demand/ Sale Withinn State/UT	2,20,882	2,25,081	15,04,851	15,43,882	869.89	1,651.72

Form 1: ENERGY DEMAND YEAR 2018-19 (April 2018 to March 2019) - Projected

Sr. No.	Category of Consumer	No. of Consumers at the end of the Year	Connected Load at the end of the Year	Energy Sale/ Demand
1	Domestic	200201	900808	794.41
2	Commercial	24605	475641	529.94
3	Large Supply	99	72919	134.82
4	Medium Supply	1416	78446	126.77
5	Small Power	1275	19926	19.53
6	Agriculture	119	780	1.36
7	Public Lighting	1253	7256	22.18
8	Bulk Supply	929	43385	80.60
9	Others temporary Supply	437	2480	4.98
10	Total Demand/ Sale Withinn State/UT	230334	1601640	1714.58

Form 2: AT & C Loss of Licensee

Sr.	Particulars	Calculation	Unit	Actual	Ensuing year (Projection		
No.	Particulars	Calculation	Unit	2016-17	2017-18	2018-19	
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of DISCOM	А	MU	2.18	3.08	3.07	
2	Input energy (metered received at Periphery of CED)	В	MU	1,948.99	1986.89	2060.26	
3	Input energy (metered Export by the DISCOM at Periphery of CED)	С	MU	36.76	0	0	
4	Total Energy Available at Periphery	D=A+B-C	MU	1,914.41	1,989.97	2063.33	
5	Transmission Losses	E	MU	71.31	80.47	83.44	
6	Actual Energy Available At CED Periphery for the sale of Discoms	F=D-E	MU	1843.1	1909.5	1979.89	
7	Energy billed to consumers within the licensed area of the DISCOM	G	MU	1,591.43	1651.72	1714.58	
8	Amount billed to consumer within the licensed area of DISCOM (incl ERRCA)	-	Rs. Crs	814.85	852.41	884.25	
9	Collection efficiency (%) (= Revenue realized/ Amount billed)	J=(I/J)*100	%	98%	98%	98%	
10	Energy realized by the DISCOM	K=J*G	MU	1559.6014	1618.6856	1680.2884	
11	Distribution loss (%)	L={(D-G)/D}*100	%	13.65%	13.50%	13.40%	
12	AT & C Loss (%)	M={(D-K)/D}*100	%	15.38%	15.23%	15.13%	

<sup>\*</sup> State does not have Its Own Generation

<sup>\*\*</sup> Quantum purchased from solar plants has been considered within periphery

Form 3: ENERGY BALANCE (All figures in MU) FY 16-17

Sr.	ltem	April-March -
No.		WR + SR
	Retail Sales to Consumers	1591.43
1	Add: T&D Losses - %	13.65%
	T&D Losses - Mus	251.67
2	Energy Requirement at Chandigarh Periphery	1,843.10
	Total Power Scheduled by ED Chandigarh	
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	1948.99
3	Add: Actuals of Over/Underdrawal, Traders and Sale to exchange	(36.76)
3	Add: Power from Open Market during peak/ (surplus Power diversion to	
	exchange during pff-peak)	
	Total	1912.23
	Less: PGCIL Losses - %	3.73%
4	PGCIL Losses - MU	71.30
	Total Power Purchased within Chandigarh	1840.92
_	Add: Co-generation	
5	Add: Independent Power Producers (IPP)	2.18
	Total	1843.10
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	1843.10

Form 3: ENERGY BALANCE (All figures in MU) FY 17-18

Sr. No.	ltem	April-March (Proj.) - WR + SR
	Retail Sales to Consumers	1,651.72
1	Add: T&D Losses - %	13.50%
	T&D Losses - Mus	257.78
2	Energy Requirement at Chandigarh Periphery	1,909.50
	Total Power Scheduled by ED Chandigarh	
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	1986.89
	Add: Actuals of Over/Underdrawal, Traders and Sale to	
3	exchange	
	Add: Power from Open Market during peak/ (surplus	
	Power diversion to exchange during off-peak)	
	Total	1986.89
		1.050/
4	Less: PGCIL Losses - %	4.05%
	PGCIL Losses - MU	80.47
	Total Power Purchased within Chandigarh	1906.42
5	Add: Co-generation	
5	Add: Independent Power Producers (IPP)	3.08
	Total	1909.50
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	1909.50

Form 3: ENERGY BALANCE (All figures in MU) FY 18-19

Sr.	ltem	April-March (Proj.) -
No.		WR + SR
	Retail Sales to Consumers	1,714.58
1	Add: T&D Losses - %	13.40%
	T&D Losses - Mus	265.30
2	Energy requirement at Chandigarh Periphery	1,979.89
	Total Power Scheduled by ED Chandigarh	
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	2060.26
	Add: Actuals of Over/Underdrawal, Traders and Sale to	
3	exchange	
	Add: Power from Open Market during peak/ (surplus Power	
	diversion to exchange during off-peak)	
	Total	2060.26
4	Less: PGCIL Losses - %	4.05%
<u>'</u>	PGCIL Losses - MU	83.44
	Total Power Purchased within Chandigarh	1976.82
_	Add: Co-generation	
5	Add: Independent Power Producers (IPP)	3.07
	Total	1979.89
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	1979.89

Sr.	-				Entitlement		FY	2017-18		
No.	Organisation	Name of Project	Туре	Capacity	in %	Units	Fixed	Energy	Other	Total
INO.					111 /0	Available	Charges	Charges	Charges	Charges
1		Anta	Gas	419	1.19	15.03	3.66	3.94	0.27	7.87
2		Auraiya	Gas	663	0.75	6.49	2.81	2.22	-0.03	4.99
3		Dadri GPP	Gas	830	0.61	29.17	2.77	8.36	-0.03	11.11
4		Dadri II TPP	Coal	980	0.22	16.56	2.74	5.24	1.29	9.27
5		Kahalgaon II	Coal	1500	0.20	21.66	2.22	4.97	-0.08	7.11
6		Koldam	Hydel	800	0.79	32.23	8.19	7.01	0.01	15.21
7		Rihand I	Coal	1000	1.00	62.04	6.32	9.86	1.53	17.71
8	NTPC	Rihand II	Coal	1000	0.80	69.85	6.16	10.79	-0.26	16.68
9		Rihand III	Coal	1000	0.55	55.15	8.11	8.55	1.09	17.75
10		Singraull	Coal	2000	0.20	34.73	1.89	4.95	0.87	7.71
11		Unchahar I	Coal	420	0.48	17.55	1.26	5.17	0.49	6.92
12		Unchahar II	Coal	420	0.71	27.20	2.31	8.03	0.17	10.50
13		Unchahar III	Coal	210	0.48	13.05	1.39	3.88	0.58	5.85
14		Unchahar IV	Coal	500	0.87	16.05	2.54	3.79	-	6.33
		Total NTPC				416.76	52.37	86.74	5.91	145.02
15		Chamera I	Hydel	540	3.90	102.00	8.16	9.38	1.22	18.77
16		Chamera II	Hydel	300	0.67	25.41	2.79	2.38	-0.52	4.65
17		Chamera III	Hydel	231	0.60	13.96	3.12	2.63	0.00	5.75
18		Dhauliganga	Hydel	280	0.72	15.91	2.39	2.11	1.23	5.73
19		Dulhasti	Hydel	390	0.47	31.44	7.42	7.40	-0.83	13.99
20	NHPC	Parbathi III	Hydel	520	0.60	10.60	2.13	2.57	-1.12	3.58
21	NHFC	Salal	Hydel	690	0.27	10.65	0.58	0.52	1.13	2.23
22		Sewa II	Hydel	120	0.83	8.64	2.25	1.61	0.12	3.99
23	1	Tanakpur	Hydel	94	1.28	4.33	0.94	0.57	0.36	1.87
24		Uri - I	Hydel	480	0.62	20.66	1.54	1.46	2.45	5.45
25		Uri - II	Hydel	240	0.63	19.01	4.27	3.41	1.59	9.27
		Total NHPC				262.61	35.61	34.04	5.64	75.29

Sr.					Entitlement		FY	2017-18		
No.	Organisation	Name of Project	Туре	Capacity	in %	Units	Fixed	Energy	Other	Total
NO.					111 70	Available	Charges	Charges	Charges	Charges
26	APCPL	Jhajjar (Aravali)	Coal	1500	0.43	39.18	6.67	8.92	2.36	17.95
	APCPL	Sub Total				39.18	6.67	8.92	2.36	17.95
27		NAPP	Nuclear	440	1.14	66.76	ı	16.98	1.59	18.57
28	NPCIL	RAPP (#3 and #4)	Nuclear	66	3.18	24.04	ı	7.08	0.19	7.27
29	NPCIL	RAPP (#5 and #6)	Nuclear	440	0.68	49.63	ı	18.17	0.02	18.19
		Total NPCIL				140.43	ı	42.22	1.81	44.03
30		NATHPA JHAKRI	Hydel	1500	0.43	88.49	9.60	8.45	-0.29	17.76
31	SJVNL	Rampur	Hydel	137	0.79	10.39	1.43	1.13	-0.04	2.51
		Total SJVNL				98.88	11.03	9.57	-0.33	20.27
32		BBMB 3.5%	Hydel	1325	3.50	126.25	-	-	-	_
33	ВВМВ	BBMB 1 LU	Hydel	-	-	518.57	ı	17.33	-0.34	16.99
34		BBMB 10 LU	Hydel	-	-	5.05	-	176.89	-0.87	176.01
35	DDIVID	PONG	Hydel	360	3.50					-
36		DEHAR	Hydel	990	3.50					_
		Total BBMB				649.87	ı	194.21	-1.21	193.00
37	THDC	Koteshwar	Hydel	400	0.36	10.45	1.26	1.22	-0.13	2.35
38	THEC	Tehri	Hydel	1000	0.60	161.95	28.35	27.57	-0.78	55.14
		Total THDC				172.40	29.61	28.79	-0.91	57.48
		Annual Total				1,780.11	135.28	404.50	13.25	553.03
		Bilateral/ Power Exchange				-47.50				
		UI Actual				251.20		74.34		74.34
		CREST				2.55		2.40		2.40
		Pvt. Solar				0.52		0.45		0.45
		Mittal REC								
		Grand Total				1,986.89	135.28	481.70	13.25	630.23

Sr.					Entitlement	FY 2017-18					
No.	Organisation	Name of Project	Type	Capacity	in %	Units	Fixed	Energy	Other	Total	
INO.					111 /6	Available	Charges	Charges	Charges	Charges	
		Other Charges									
		PGCIL Charges								48.01	
		NRLDC Charges								0.17	
		Reactive Energy Charges								0.10	
		REC Cost								3.35	
		Short-term Purchase									
		Total Power Purchase Cost				1,986.89	135.28	481.70	13.25	681.86	

Sr.	-				Entitlement		F	Y 2018-19		
No.	Organisation	Name of Project	Туре	Capacity	in %	Units	Fixed	Energy	Other	Total
NO.					111 /0	Available	Charges	Charges	Charges	Charges
1		Anta	Gas	419	1.19	15.03	3.85	4.14	0.28	8.27
2		Auraiya	Gas	663	0.75	6.49	2.95	2.33	-0.04	5.24
3		Dadri GPP	Gas	830	0.61	29.17	2.90	8.78	-0.03	11.66
4		Dadri II TPP	Coal	980	0.22	16.56	2.88	5.50	1.35	9.74
5		Kahalgaon II	Coal	1500	0.20	21.66	2.33	5.22	-0.08	7.46
6		Koldam	Hydel	800	0.79	32.23	8.60	7.36	0.01	15.97
7		Rihand I	Coal	1000	1.00	62.04	6.64	10.35	1.61	18.60
8	NTPC	Rihand II	Coal	1000	0.80	69.85	6.47	11.32	-0.27	17.52
9		Rihand III	Coal	1000	0.55	55.15	8.52	8.97	1.15	18.64
10	<b>→</b>	Singraull	Coal	2000	0.20	34.73	1.98	5.19	0.92	8.09
11		Unchahar I	Coal	420	0.48	17.55	1.32	5.43	0.51	7.26
12		Unchahar II	Coal	420	0.71	27.20	2.43	8.43	0.18	11.03
13		Unchahar III	Coal	210	0.48	13.05	1.46	4.07	0.61	6.14
14		Unchahar IV	Coal	500	0.87	32.09	5.34	7.96	-	13.30
		Total NTPC				432.81	57.66	95.06	6.20	158.92
15		Chamera I	Hydel	540	3.90	102.00	8.57	9.85	1.29	19.71
16		Chamera II	Hydel	300	0.67	25.41	2.93	2.50	-0.54	4.88
17		Chamera III	Hydel	231	0.60	13.96	3.28	2.76	0.00	6.04
18		Dhauliganga	Hydel	280	0.72	15.91	2.51	2.22	1.29	6.02
19		Dulhasti	Hydel	390	0.47	31.44	7.79	7.77	-0.87	14.69
20	NHPC	Parbathi III	Hydel	520	0.60	10.60	2.24	2.70	-1.18	3.76
21		Salal	Hydel	690	0.27	10.65	0.61	0.55	1.19	2.34
22		Sewa II	Hydel	120	0.83	8.64	2.37	1.69	0.13	4.19
23		Tanakpur	Hydel	94	1.28	4.33	0.99	0.60	0.38	1.97
24		Uri - I	Hydel	480	0.62	20.66	1.62	1.53	2.57	5.72
25		Uri - II	Hydel	240	0.63	19.01	4.49	3.58	1.67	9.73
		Total NHPC				262.61	37.39	35.74	5.92	79.05

Sr.					Entitlement		F	Y 2018-19		
No.	Organisation	Name of Project	Туре	Capacity	in %	Units	Fixed	Energy	Other	Total
NO.					111 %	Available	Charges	Charges	Charges	Charges
26	APCPL	Jhajjar (Aravali)	Coal	1500	0.43	39.18	7.00	9.37	2.48	18.85
	AFCFL	Sub Total				39.18	7.00	9.37	2.48	18.85
27		NAPP	Nuclear	440	1.14	66.76	ı	17.83	1.67	19.50
28	NPCIL	RAPP (#3 and #4)	Nuclear	66	3.18	24.04	ı	7.43	0.20	7.63
29	NPCIL	RAPP (#5 and #6)	Nuclear	440	0.68	49.63	ı	19.07	0.02	19.10
		Total NPCIL				140.43	ı	44.34	1.90	46.23
30		NATHPA JHAKRI	Hydel	1500	0.43	88.49	10.08	8.87	-0.31	18.64
31	SJVNL	Rampur	Hydel	137	0.79	10.39	1.50	1.18	-0.04	2.64
		Total SJVNL				98.88	11.58	10.05	-0.35	21.28
32		BBMB 3.5%	Hydel	1325	3.50	126.25	0.00	0.00	0.00	0.00
33	- ВВМВ	BBMB 1 LU	Hydel	-	-	518.57	0.00	18.19	-0.35	17.84
34		BBMB 10 LU	Hydel	-	-	5.05	0.00	185.73	-0.92	184.81
35	DDIVID	PONG	Hydel	360	3.50	0.00	0.00	0.00	0.00	0.00
36		DEHAR	Hydel	990	3.50	0.00	0.00	0.00	0.00	0.00
		Total BBMB				649.87	0.00	203.92	-1.27	202.65
37	THDC	Koteshwar	Hydel	400	0.36	10.45	1.32	1.28	-0.14	2.46
38	ПЪС	Tehri	Hydel	1000	0.60	161.95	29.77	28.95	-0.82	57.89
		Total THDC				172.40	31.09	30.23	-0.96	60.36
		Annual Total				1796.16	144.71	428.71	13.92	587.33
		Bilateral/ Power Exchange								
		UI Actual				264.10		79.23		79.23
		CREST				2.55	0.00	2.40	0.00	2.40
		Pvt. Solar				0.52	0.00	0.45	0.00	0.45
		Mittal REC								
		<b>Grand Total</b>				2063.33	144.71	510.79	13.92	669.42

#### Form 4 (NL): Power Purchase

(Projected)

Sr.					Entitlement	FY 2018-19					
No.	Organisation	Name of Project	Туре	Capacity	in %	Units Available	Fixed Charges	Energy Charges	Other Charges	Total Charges	
		Other Charges				713011011010	0.10.1800	311411833	0.11011.800	- Silvinger	
		PGCIL Charges								50.41	
		NRLDC Charges								0.18	
		Reactive Energy Charges								0.11	
		REC Cost								1.87	
		Short-term Purchase					·			0.00	
		Total Power Purchase Cost				2063.33	144.71	510.79	13.92	721.99	

#### Form 5A: Capital Expenditure 2016-17

#### **Investment Scheme - Monitoring Format 2016-17**

	PROJECT DETAIL	
Sr.		FY 2016-17
No.	Scheme Name	(Actual) in Rs.
1	2	3
	Division no. 1	
1	Replacement of bare conductor with Aerial bunched cables of outlived pole and services	31,12,569
	to prevent fatal/non fatal accidents/pilferage of power in village Sarangpur under	
	Electricity Op S/Divn. No. 4, U.T. Chandigarh. (IBM No. W1/2015/13916)	
2	Providing independent 11 KV under ground feeder from 33 KV sub station Sec.17, to 11	9,09,325
	KV I/D S/Stn., Sector 22-A, Chandigarh, (IBM No. W1/2013/11855)	
3	Providing 11KV U/G Link between 11KV Sector 34/22 feeders from existing 11KV Pole	2,40,958
	near Sood Dharamshala to 11KV I/D S/Stn. Sector 22-D, Chandigarh due to non	
	availability of load at 33 KV S/Stn. Sector 34, Chandigarh	
4	Repl & aug of outlived ACSR at Aman colony dhanas	92,922
5	Conversion/ aug of 11 KV over head aman feeder and relocating with U/G cable 3*300 sq	14,31,000
	mm XLPE cable to improve LD system	
6	Providing 2 Nos. 315 KVA, P/M, S/Stn, Near H. NO. 2320, Sector 24 C and Near H. No.	6,91,937
	2461, Sector 24 C to give relief to the existing 200 KVA P/M, T/F near Saini Bhawan,	
	Sector 24 C, 630 KVA T/F at I/D S/Stn, Sector 24 C and 200 KVA, P/M, T/F near Tube Well,	
	FJ-22, Sector 24 C, Chandigarh.	
7	Prov 2*315 KVA P/M # 3464 & 3500 sec 23D Chd	4,46,329
8	Prov 2*315 KVA P/M S/Stn. near # 2377 sec 23 C Chd	2,47,908
9	Prov 2*315 KVA P/M S/Stn. near # 1792 sector 23B Chandigarh	3,19,765
10	Prov 2*315 KVA P/M T/F near # 3517 sec 22 D to Give Relief to the existing 300 KVA P/M	4,75,722
	T/F and 800 KVA I/D S/Stn T/F in 11 KV I/D Sector-22D Chandigarh	
11	Providing one No. sky lift fitted on LCV for the mtc. of power system and the street light	13,89,813
	system under Elecy Op S/Divn. No 2, Sector 10, Chd	
12	Procurement of CT /PT meter in 66 KV	23,61,675
13	Prov GSC Op s/ Divn no.1, Chandigarh	21,04,841
14	Prov GSC Op s/ Divn no.2, Chandigarh	28,51,866
15	Prov GSC Op s/ Divn no.4, Chandigarh	14,35,275
16	SPL. Estimate for Portable Oil Cleaning Machine required at 66 KV G/S/Stn, Sector 52,	6,47,314
	Chandigarh	
17	Repl and aug of 11 KV old and outlived PILCA U?G near Sindhu petrol pump sector-7,	5,10,190
	Chandigarh	
18	Prov 2 no uG independent feeder by laying 11 KV cable high court	7,30,591
	Total	200,00,000

	PROJECT DETAIL	
Sr. No.	Scheme Name	FY 2016-17 (Actual) in Rs.
1	2	3
	Division no. 2	
19	Appoinment of project management agency for tranky education including supply, errection, coliationing project management, desgine, engineering, inspection and supervising of smart grid project under Electy OP S/Divn No.5, chd NSGM	30,13,338
20	RCE for providing 1X315KVA P/M T/F near Qilla Mani Majra chd for improvement of LD System under Electy OP S/Divn No.8 (alongwith 11KV Ringmein)	6,36,318
21	RCE for providing 11 KV independent U/G Feeder Sec 48 C&D (Housing Society) for 66 KV G/S/Stn under S/Divn No.5, chd	12,43,062
22	Providing 1X315KVA P/M T/F near Community centre Vikash Nagar, Manimajra	4,27,752
23	Repair over holing servicing testing and recommissioning of 16Nos. Vaccum circuit breakers of kilbem make installed at 66KV G/S/Stn Ph-2	3,04,250
24	Replacement of ACSR Conducter at 66 KV G/S/Stn Sec 47 to Sec 47 D Chandigarh	1,45,566
25	RCE for electrification of Housing outside lal dora vill Hallo Majra under OP S/Divn 5 Chd	3,99,396
26	Others WIP	95,46,328
27	GSC OP SUB DIVN. NO.5	31,51,044
28	GSC OP SUB DIVN. NO.8	43,77,974
29	GSC OP SUB DIVN. NO.5	18,10,161
30	Prov. 2 x 315 KVA P/M T/F under existing 11 KV sec 47C chg for imp of LD system of (OP) S/divn No.5	2,41,116
31	Completion of incomplete Bay of 66 KV G/S/S Ph-I&II Chd	20,56,636
32	Replacement of 3No.33KV HEL make LGIC 44 type Oil Circuit breaker(OCBs) alongwith CTS at 66KV G/s/s BBMB Chandigarh	16,71,598
33	Tender No. OP2/23/2015-2016(For supply, delivery, installation, testing and commissioning of full wave controlled battery charger alongwith battery bank and DCDB at 66 KV G/S/Stn I/A, Ph-I, Chg for completion of incomplete bay at 66 KV G/S/Stn Ph-I and II, Sec 47, Chandigarh) under M & P Sub Division, Chndigarh	29,56,390
34	Providing 1000KVA P/M T/F to release electric connection to newly bored tube well at Darshani Bagh, Mani Majra, Chandigarh	1,19,029
35	Providing 1000KVA P/M T/F to release electric connection to newly bored tube well at Shubhash Nagar, Mani Majra, Chandigarh	1,87,541
36	Providing 1000KVA P/M T/F to release electric connection to the newly constructed Govt. Tube Well and Bosster Near H No. 5276 MHC,Mani Majra, Chandigarh	55,776
37	New Vehicle Maruti Ciaz Car (6542)	7,02,697
	Total	330,45,972

	PROJECT DETAIL	
Sr. No.	Scheme Name	FY 2016-17 (Actual) in Rs.
1	2	3
	Division no. 3	
38	RCE for providing 3x315 KVA P/M T/F near M.R.A., School, Sec.27 -A(2 Nos.) and near park 27 -A, Chd. under 11 KV I/D S/Stn. Sec.27 -B, under Electricity OP sub Divn No. 3, Sec. 18, Chd	9,84,325
39	RCE for providing 2x315 KVA P/M T/F near # 01, sec 19-A & behind institute of Engineer, sec. 19-A, Chandigarh	10,70,989
40	REC for providing New 11KV independent feeder for Sec. 49(A&B) to deloading existing sec.49-A&B from G/Stn sector 47, Chd	4,12,508
41	RCE for providing 3x315 KVA P/M T/F near H. No.696 & 513, Sector 20. Cnd & near H. No.1401/20-C	7,92,350
42	RCE for providing 3x315 KVA T/F near # 1225/30A, near satya sai mandir sec 30A & 30-B chd under OP S/divn. No.6, Chd	3,11,328
43	RCE for replacement of existing LT (Jungle) fuse unit weith LT ACB of 300/315KVA P/M T/F under the jurisdiction of Elecy (OP) S/Divn.NO.3, CHD	5,31,776
44	RCE for providing 3x315KVA P/M T/F H.No.3004,3070/28D & backside I/D S/Stn Sec 28-C&D Chd	3,61,144
45	RCE for S/E, commissioning & testing of L.T. capacitor (Gas filled) confirming to IS standard for installation Secondary side of T/F under Elecy (OP) S/D No.3, Chd.	1,16,920
46	Providing new 2x315 KVA P/M T/F near H.No.2407 & 2647 in sector 19C & augmentation of 100KVA P/M T/F with new 315KVA P/FM T/F near 3037 sec 19D Chd deloading existing 11KV I/D S/Stn 19C & 19D, Chandigarh	2,33,961
47	Providing 3x315 KVA P/M T/F near House No.2506, House No.2354, Sector 35-C & near SCO No. 280, Sector 35-D, Chandigarh for improvement of LD system under S/Divn. No 7, Chandigarh	6,57,620
48	Providing 3x315 KVA P/M Stn. Near # 2401, 2736 and 2780, Sector 37-C to give relief to the existing 1x200 and 1x300 KVA P/M T/Fs and 2x1000 KVA I/D T/Fs in 11 KV I/D S/Stn, Sector 37C, Chandigarh	7,21,493
49	RCE for S/E, commissioning & testing of L.T. capacitor (Gas filled) confirming to IS standard for installation Secondary side of T/F under Elecy (OP) S/D No.6, Chd.	8,54,153
50	RCE for S/E, commissioning & testing of L.T. capacitor (Gas filled) confirming to IS standard for installation Secondary side of T/F under Elecy (OP) S/D No.7, Chd.	74,000
51	RCE for providing 4x315 KVA T/M T/F near # 525/18B, near H.No. 1019, H.No.1521 & 1622, sector 18-Schd for improvement of LD system under (OP) S/Divn.No.3, Chd	3,67,981
52	RCE for replacement & aug. of existing 11KV Pilca 3x50mm2 11KV XLPE 3x150mm2 U/G cable of 200KVA P/M T/F BBMB Building M. Marg Sec 19-B, & 11KV I/D S/Stn Sector 19-A to 19-B to nearest rute with 11V 3x300mm2 XLPE cable	10,23,070
53	RCE for replacement of existing LT (Jungle) fuse unit weith LT ACB of 300/315KVA P/M T/F under the jurisdiction of Elecy (OP) S/Divn.NO.7, CHD	5,20,720

Sec   Sec	Scheme Name  2  Leplacement of copper conductor 8 SWG with ACSR 30mm2 conductor of street light in ector 18, 19 & 21, Chandigarh  roviding 3x315 KVA P/M T/F near 3081-A, Sector 20-D near gurudwara, Sector 20-C and lack side #2374, Sector 20-C Chandigarh for deloading existing P/M T/Fs and 11 KV  /D/S/Stn. Sector 20-C and D Under Op - 6  stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd  Leplacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck ndrr Elecy. Op Divn. No 3, Chd.  Leroviding GSC (OP) Sub Divn. No.3  Leroviding GSC (OP) Sub Divn. No.6  Leroviding GSC (OP) Sub Divn. No.7  Lotal	FY 2016-17 (Actual) in Rs. 3 1,34,138 10,76,135 5,84,000 1,25,928 28,64,208 27,26,410
1 S4 Re see S5 Pro ba l/C S6 Est str S7 Re un S8 Pro 60 Pro 50 Dir 61 Pro 62 Pro 63 RC Mi	Leplacement of copper conductor 8 SWG with ACSR 30mm2 conductor of street light in ector 18, 19 & 21, Chandigarh roviding 3x315 KVA P/M T/F near 3081-A, Sector 20-D near gurudwara, Sector 20-C and ack side #2374, Sector 20-C Chandigarh for deloading existing P/M T/Fs and 11 KV /D/S/Stn. Sector 20-C and D Under Op - 6 stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd replacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck ndrr Elecy. Op Divn. No 3, Chd. roviding GSC (OP) Sub Divn. No.3 roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	3 1,34,138 10,76,135 5,84,000 1,25,928 28,64,208
54 Re see 55 Pro ba 1/C 56 Est str 57 Re un 58 Pro 60 Pro Di 61 Pro 62 Pro 63 RC Mi	Replacement of copper conductor 8 SWG with ACSR 30mm2 conductor of street light in ector 18, 19 & 21, Chandigarh  Providing 3x315 KVA P/M T/F near 3081-A, Sector 20-D near gurudwara, Sector 20-C and eack side #2374, Sector 20-C Chandigarh for deloading existing P/M T/Fs and 11 KV  PD/S/Stn. Sector 20-C and D Under Op - 6  Stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the extreet light system under Elecy Op S/Divn. No 3, Chd  Replacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck endrr Elecy. Op Divn. No 3, Chd.  Providing GSC (OP) Sub Divn. No.3  Providing GSC (OP) Sub Divn. No.6  Providing GSC (OP) Sub Divn. No.7	1,34,138 10,76,135 5,84,000 1,25,928 28,64,208
Sec   Sec	ector 18, 19 & 21, Chandigarh roviding 3x315 KVA P/M T/F near 3081-A, Sector 20-D near gurudwara, Sector 20-C and ack side #2374, Sector 20-C Chandigarh for deloading existing P/M T/Fs and 11 KV /D/S/Stn. Sector 20-C and D Under Op - 6 stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd replacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck ndrr Elecy. Op Divn. No 3, Chd. roviding GSC (OP) Sub Divn. No.3 roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	10,76,135 5,84,000 1,25,928 28,64,208
55 Probable ba 1/E 56 Est str 57 Re un 58 Pro 60 Pro To Dit 61 Pro 62 Pro 63 RC Mi	roviding 3x315 KVA P/M T/F near 3081-A, Sector 20-D near gurudwara, Sector 20-C and ack side #2374, Sector 20-C Chandigarh for deloading existing P/M T/Fs and 11 KV /D/S/Stn. Sector 20-C and D Under Op - 6 stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd replacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck ndrr Elecy. Op Divn. No 3, Chd. Providing GSC (OP) Sub Divn. No.3 Providing GSC (OP) Sub Divn. No.6 Providing GSC (OP) Sub Divn. No.7	5,84,000 1,25,928 28,64,208
56 Est str 57 Re un 58 Pro 60 Pro 61 Pro 62 Pro 63 RC Mi	roviding GSC (OP) Sub Divn. No.6  roviding GSC (OP) Sub Divn. No.7	5,84,000 1,25,928 28,64,208
56 Est str 57 Re un 58 Pro 59 Pro 60 Pro 61 Pro 62 Pro 63 RC Mi	VD/S/Stn. Sector 20-C and D Under Op - 6 stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd seplacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck Indrr Elecy. Op Divn. No 3, Chd. stroviding GSC (OP) Sub Divn. No.3 stroviding GSC (OP) Sub Divn. No.6 stroviding GSC (OP) Sub Divn. No.7	1,25,928 28,64,208
56 Est str 57 Re un 58 Pro 60 Pro 10 Di 61 Pro 62 Pro 63 RC Mi	stimate for providing one No. sky lift fitted on LCV for the mtc. Of power system and the treet light system under Elecy Op S/Divn. No 3, Chd seplacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck ndrr Elecy. Op Divn. No 3, Chd. croviding GSC (OP) Sub Divn. No.3 croviding GSC (OP) Sub Divn. No.6 croviding GSC (OP) Sub Divn. No.7	1,25,928 28,64,208
57 Re un 58 Pro 59 Pro 60 Pro Div 61 Pro 62 Pro 63 RC Mi	treet light system under Elecy Op S/Divn. No 3, Chd eplacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck indrr Elecy. Op Divn. No 3, Chd. roviding GSC (OP) Sub Divn. No.3 roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	1,25,928 28,64,208
57 Re un 58 Pro 59 Pro 60 Pro 10 Pro 61 Pro 62 Pro 63 RC Mi	replacement of condemned Swaraj Mazda Truck No. 1139 with Swaraj Mazda Truck andrr Elecy. Op Divn. No 3, Chd. Providing GSC (OP) Sub Divn. No.3 Providing GSC (OP) Sub Divn. No.6 Providing GSC (OP) Sub Divn. No.7	28,64,208
58 Pro 59 Pro 60 Pro To Div 61 Pro 62 Pro 63 RC	roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	28,64,208
58 Pro 59 Pro 60 Pro To Div 61 Pro 62 Pro 63 RC	roviding GSC (OP) Sub Divn. No.3 roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	
59 Pro 60 Pro Div 61 Pro 62 Pro 63 RC	roviding GSC (OP) Sub Divn. No.6 roviding GSC (OP) Sub Divn. No.7	
60 Pro To Div 61 Pro 62 Pro 63 RC	roviding GSC (OP) Sub Divn. No.7	27,20,410
61 Pro 62 Pro 63 RC		34,55,920
61 Pro 62 Pro 63 RC Ma	Otal	200,01,077
61 Pro 62 Pro 63 RC Ma	Division no. 4	200,01,077
62 Pro 63 RC Ma	rov. Addl. 2x315 KVA P/M T/F Sector - 44 C & D, CHD	2,33,192
63 RC Ma	rov. Addl. 2x315 KVA P/M T/F Village Attawa, Sector - 42 B, CHD	4,43,929
Ma	CE for replacement condemened DMC Toyta Truck No. CH 01 - G1 - 5648 with Swaraj	7,82,785
	Aazada under Electy. (OP-9)	7,02,703
	rov Addl. 315 KVA P/M T/F & Aug of 3x200KVA different location of Sector - 41, CHD	42,480
	, , ,	ĺ
65 Pro	rov. 3x315 KVA P/M T/F in Vill. Kajheri, Sector - 52, CHD	2,35,176
66 Ro	ough Est. for Renovation of 116 Nos. Type - 13 JE Double Storeyed Housed in Elect.	355,66,437
Co	Colony in Sector - 28, Chandigarh. (H. No. 1083 to 1140-A)	
67 Pro	roviding 3x315 KVA P/M T/Fs in Sector 38(west), Pocket - A, Chd	6,71,193
68 Pro	roviding 3x315 KVA P/M T/Fs in Sector 38(west), Pocket - B, Chd	17,01,925
	lug. of 100KVA with 315KVA P/M T/F near Bus Stand Village- Maloya, CHD	37,999
	roviding 11KV feeder from Sec- 38B to 66KV G/S/Stn, Sec-56, CHD	2,57,391
71 Pro	roviding 100KVA P/M T/F Sec-56 permission of road cut laying in U/G 3 1/2 x 120mm	17,688
	Nos LT Cable	
	rov. 11KV feeder Sec-41 from 66KV G/S/Stn; at sec-56, chd	18,60,002
	rov. 11KV Ind. Under ground feeder for Vill-Burial, Sec-52, Chd for deloading the existing	21,71,556
	ec-45 C & D, feeding under Electy. (OP) S/Divn. No. 9, CHD	
	rov. 2x315 KVA P/M T/F in Sec-40A, CHD	1,39,236
	rov. 315KVA P/M T/F Police Station Near H. No. 4217-18, Maloya, CHD	53,204
	ough Cost. Est. for prov. Addl. 100KVA T/F for release of electricity connection of Govt.	1,76,873
	/Well in Sec-38-A, CHD	2.42.426
	roviding of 200KVA P/M T/F release the electricity Connection of water pority station	2,12,126
	or 2108 Nos. Flat, under General Housing Scheme, Sec-63, CHD	46.04.365
	rov. G.S.C. (OP-9) rov. G.S.C. (OP-10)	46,94,365
	10V. VI.D.C. 10P-101	41,31,556
Gr	otal	534,29,113

#### Form 5B: Capital Expenditure 2017-18 (First 6 months)

	CAPITAL EXPENDITURE IN		•	2017-18 upto Sept,	•		
	Investment Schemes -	Monitoring Form	at (to be followe	ed on Quarterly Bas	sis)		
Sr. No.	PROJECT DETAIL  Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	Expenditure in the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	2nd Quarter (01.07.17 to 30.09.17)	Total
	XEN (OP-1)						
1	Estimate for release of electricity connection on 11 KV pressure at bank square Sector 17-B, Chandigarh through RMU's under Elecy 'Op' S/Divn No. 4, Sector 15, Chd IBM Scheme no.W1/13/12162)A/A no. 23173 dated 02.12.2013	Development of the areas	23.51		6.87		6.87
2	Providing 11KV under ground link between 11KV 33/22 and 52/22 feeders from existing 11KV pole near Sood Dharamshala to 11KV I/D S/Stn. Sec-22D due to non availability of load from 33KV Sec-34, Chd. (Approved by C.E. UT. Vide no.15789 dt 28/8.13).	Development of the areas	14.93	11.56		6.89	6.89
3	Providing 11 KV independent under ground feeder from 33KV G/Station, sector-17 to 11KV I/D S/Stn, sector 22A, Chandigarh.	Development of the areas	28.4	25.31	10.73		10.73
4	RCE cost of Replacement and augmentation of worn-out/outlived ACSR conductor of size 103/80 mm2 / 8 No. at Aman-Chaman/Ambedkar colony and Housing Board, Dhanas, Chandigarh improve the L.D. System.	Development of the areas	6.4	5.05	0	1.5	1.5

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
5	RCE for LT overhead line in Sec.8-A,B,C,Chandigarh under Electy. 'OP' S/Divn. No.2 Chandigarh. W1/2015/13792	Development of the areas	3.79	2.49	0	0.85	0.85
6	RCE for replacement of outlived ACSR Conductor of	Development of the areas	5.29	4.49			0
7	Detailed Replacement of bare conductor with Aerial Bunched Cables of outlived pole and services to prevent fatal/non fatal accidents / pilferage of power in village Sarangpur under Electy. 'OP' S/Divn No. 4, Chandigarh.( A&A no. 24829 dt 20.10.2015)	Development of the areas	32.67	31.13			0
8	Estimate for converting the portion of 11 KV O/H 3-4	the areas	16.24	0	13.86	0	13.86
9	Estimate for conversation /augmentation of 11KV over head Aman feeder and relocating with U/G 3x300sq.mm XLPE cable to improve the LD system.( A&A No. 9805 dt 23.09.15)	Development of the areas	19.4	14.31			0

Sr. No.	PROJECT DETAIL  Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	Expenditure in the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	2nd Quarter (01.07.17 to 30.09.17)	Total
10	RCE for providing 2x315 KVA P/M S/stn. near #8(T-1) Sector 23A Chd. and near #3211(T-II) Sec-23D to give relief to the existing LT O/G to #125 Sec-23A & 300KVA P/M T/F near #1001 Sec-23B & LT O/G to #3161 Sec-23D, respectively from I/D S/Stn. Sec-23-C under Electy 'OP' S/Divn no. 1Sec-23-D, Chandigarh (IBM Scheme no. W1/15/13903) (A&A No. 24941 dt 20.10.15)		15.52		7.68	0	7.68
11	Providing 2x315 KVA P/M S/Stn. near H. No. 35167, Sector 22-D to give relief to the existing 300 KVA P/M T/F and 800 KVA T/Fs in 11KV I/D S/Stn., Sector 22-D, Chandigarh. W1/2015/13626	Development of the areas	22.04	14.11			0
12	Providing 2x315 KVA P/M Sub Station near #2377 Sec.23 C & augmentation of ACSR 30/ 52sq.mm with 103sq. mm to give relief to the existing 200 KVA, 300 KVA P/M T/F near #2396 and 800 KVA I/D T/F in 11 KV I/D Sub Station Sec.23-C, Chandigarh under th	Development of the areas	26.3	14.07	10.25	0	10.25

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
13	RCE for Strengthen the Distribution System after Replacement & Augmentation of 11KV U/G Pilca 3x185/120/70sq.mm link or feeder cable with 3x300sq.mm XLPE cable in Sector-9 & 10 under Electy. OP S/Divn. No.2, UT, Chd. (No.11013-14 dated 7.6.16) W1/2016/14189	Development of the areas	54.86	0	0	5.62	5.62
14	W1/2016/14515 Supply, Errection, Testing & Commissioning of CT & PT required at 66 kV G/S/Stn. Sector 1, 12, 39, 52 & 56 Sub Station, UT Chandigarh	Development of the areas	33.08	23.62	1.44	0	1.44
15	Providing 3×315 KVA P/M T/F's at Sec-11 back side H. No. 242, H. No. 630 and near food laboratory to deload the existing L.D system under Electy OP Sub Division No. 2 Chandigarh. CA & Ano. W1/2016/1214 dated 18.1.16	Development of the areas	26.57	0	11.51	0	11.51
16	providing 3Nos 315 KVA P/M Sub Station back side H. No. 82 Sec 7A and near House No. 1774 Sec 7-C CPWD quarters to deload the existing L.D system	Development of the areas	19	0	11.51	0	11.51
17	Providing GSC 445 no. under Elecy Op S/Divn. No. 1,U.T Chandigarh. W1/2015/13651	Development of the areas	30.48		0	5.11	5.11
18	Release of 358 nos. electricity connection under Elecy. OP S/Divn. No.2,U.T Chandigarh. W1/2015/13650	Development of the areas	39.1	0	0	8.97	8.97

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
19	Release of 1248 nos. electricity connections under Elecy. Op S/Divn. No. 4,U.T Chandigarh. W1/2015/13652	Development of the areas	47.42	0	0	10.59	10.59
20	Rough Cost Estimate for Strengthening of	Development of the areas	40	0	7.68	0	7.68
21	W1/2016/14127 Providing 315 kVA P/M T/F S/Stn. near House No.281, Sector 22-A, Chandigarh to give the relief to existing LT O/G No.1 & 1000 kVA I/D T/F in 11 kV I/D S/Stn. Sector 22-A, Chandigarh under Electricity OP S/Divn.No.1, UT Chandigarh.	Development of the areas	9.04	0	4.23	0	4.23

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
22	W1/2015/13938	Development of	21.17	0	15.35	0	15.35
	Providing of 2x215 kVA near House No.2174, Sector	the areas					
	15-C and near House No. 2041, Sector 15-C for						
	deloading the existing 1x300 kVA T/F near at						
	Gurdwara Sahib Sector 15-C and near House No.2123						
	Sector 15-C, Chandigarh.						
23	Provindg 100 KVA P/M T/F to release electric	Development of	5.09	0	0	5.21	5.21
	connection to Govt. Tube well at Khuda jassu part 3	the areas					
	Chandigarh for irrigation/ drinking water.						
24	W1/2017/15295	Development of	19.5	0	0	1.76	1.76
	Providing 2x315 KVA P/M T/F at village	the areas					
	Sarangpurnear Mata Rani Mandir to deload the						
	existing LD system under Elecy.OP S/Divn. No.4, Chd.						
25	W1/2017/15833	Development of	27.65	0	0	7.72	7.72
	Providing 2 nos. 315 KVA P/M T/S near House No.125	the areas					
	& H.No. 47,Sector 10-A Chandigarh to deload the						
	existing LD system and for the release of connections						
	to 5 nos. upcoming judges houses (under						
	construction) in Sector 10-A under Electricity Op						
	S/Divn. No.2,Sector 10,Chandigarh.						
	, ,						

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	(()1 ()4 17 to	Quarter (01.07.17 to 30.09.17)	Total
26	W1/2017/15258 Arranging spare transformers at 315 KVA distribution T/F(3 nos.) and 1000 KVA distribution T/F (1 No.) for replacement against damaged T/Fs and restoration of supply on emergent basis under Elecy Op S/Divn No. 4, Sec.15, U.T Chandigarh.		20.75	0	0	11.51	11.51
	Total		608.20	146.14	101.11	65.73	166.84
	ASE (IP-2)						0
27		Development of the areas	62.42	3.99	13.69	0	13.69
28	RCE for supply, Erection, Testing & Commissioning	Development of the areas	15.1	0	1.46	0	1.46

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
29	Rough cost estimate for arranging spare T/F's of 315 KVA distribution T/F (3 Nos.) and 1000 KVA distrubution T/F (1 No.) for replacement against damaged T/F's for restoration of supply ob emergent basis under the jurisdiction of Electy. OP S/Divn. No.5 UT Chandigarh (IBM No. W1/17/15265)	Development of the areas	20.75	0	11.51	0	11.51
30	Estimate for providing 2x315 KVA P/M T/F's in village Raipur Khurd for the improvement of LD system under the jurisdiction of Electy. OP S/Divn. No.5, UT Chandigarh. (IBM Scheme No. W1/16/15187)	Development of the areas	18.81	0	12.95	3.77	16.72
31	Providing additional 315 KVA T/F adjoining to existing 300 KVA T/F in front of Govt. School in Charan Singh Colony to deloading the 02 nos. existing 300 KVA and 200 KVA T/F (IBM No. W1/2016/14085)under Elecy. OP S/Divn. No.8,Manimajra,Chandigarh. (DRG-521)	Development of the areas	7.1	0	3.84	0	3.84
32	Rough Cost Estimate for providing additional 315 KVA P/M T/F near H.No. 1838 opposite old Indira Colony, Manimajra Chandigarh for deloading existing 200 KVA T/F near Khera Mandir and 200 KVA T/F Opposite H.No. 1768 Old Indira Colony, Manimajra (IBM Scheme No. W1/16/14278).	Development of the areas	6.86	0	3.84	0	3.84

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
33	Providing 300KVA P/M T/F near T/well no.7 of Indira Colony, Manimajra, Chd, for deloading existing 200 KVA P/M T/F,Chd. (IBM No. W1/2013/11276)	Development of the areas	6.31	3.99	1.44	0	1.44
34	Rough cost estimate for providing 315 KVA P/M T/F near Qila Manimajra, Chandigarh for the improvement of LD system under Electy. 'OP' S/Divn. No. 8, Manimajra, UT Chandigarh (Alongwith 11 KV Ring Main) (IBM W1/16/14783).	Development of the areas	25.61	6.63	7.67	3.03	10.7
35	Repair of 16 Nos. VCB of Kilburn make installed at Ph-II, Chandigarh	Development of the areas	9.4	3.04	5.9	0.92	6.82
36	Prov. 300KVA P/M T/F near H.No.265, NAC Manimajra Chd. for deloading the existing 300KVA T/F near SCO NO. 801, NAC, Manimajra, Chd	Development of the areas	6.42	4.7	1.44	0	1.44
37	Providing additional 315 KVA P/M T/F near Dental Clinic Smadhi Gate, Manimajra, U.T Chandigarh for deloading 300 KVA existing T/F. (IBM No. W1/2013/12180)	Development of the areas	6.19	3.99	1.49	0	1.49
38	Deloading the 2 nos. existing transformer at Subhash Nagar by providing 315KVA additional T/F near H.NO. 101 under the jurisdiction of SDO, Electy OP S/DIvn. no8, Chd. (w1/2013/12181)	· ·	6.68	3.99	1.44	0	1.44

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
39	Providing Addl. 315 KVA P/M T/F at community	Development of	8.01	5.59	1.44	0	1.44
33	centre Gobindpura Manimajra, under the jurisdiction of SDO Elecy Op divn No. 8, Manimajra, U.T Chandigarh. (W1/2013/11958)	•	0.01	3.33	1.44	0	1.44
40	Rough cost estimate for arranging spare T/F's of 315 KVA distribution T/F (3 Nos.) and 1000 KVA distribution T/F (1 No.) for replacement against damaged T/F's for restoration of supply ob emergent basis under the jurisdiction of Electy. OP S/Divn. No.8 Manimajra UT Chandigarh (IBM No. W1/17/15247)	Development of the areas	20.75	0	0	3.84	3.84
41	Providing 11 KV Independent underground feeder to sector 48-C and D(Housing Societies ) from 66 KV grid Substation sector 47,Chandigarh under the jurisdiction of electricity OP S/Div. No.5,Chandigarh. (W1/2015/13849)	•	18.83	12.43	0	2.68	2.68
42	Rough cost estimate for providing 3x315 KVA P/M T/F at three various locations for the improvement of LD system in village Daria under the jurisdiction of Electy. OP S/Divn. No.5 UT Chandigarh (IBM No. W1/17/15324)	Development of the areas	28.4	0	0	25.01	25.01
43	Smart Grid	Development of the areas		30.13	0	4.17	4.17

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Schama cost	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
44	Renovation of 60 Nos. Type-1 DSF in Electricity Colony in Sector 28 Chandigarh H. NO. 1153 to 1160- B, 1161 to 1166B, 1169 to 1174B = 60 Nos.	Development of the areas				125.39	125.39
45	RCE for Renovation of 100 Nos. Type-12, Double Story, Houses Sector 28, Electricity Colony Chandigarh (H. No. 1051-1060-A), 1041 to 1050A, 1033 to 1036, 1037 to 1040A, 1025 to 1028 A, 1017 to 1024-A, 1029 to 1032A, 1077 to 1080	Development of the areas				250	250
46	Rough cost estimate providing 100 KVA P/M T/F to release SOP electric connection to newly bored tubewell at village Daria (near Dispensary) under Electy OP S/Divn. No.5 UT Chandigarh (IBM No. W1/17/15367)	Development of the areas	2.17	0	0	0.5	0.5
47	Providing 100 KVA pole mounting transformer to release SOP electric connection to newly bored tube well at subash Nagar, manimajra (IBM No. W1/2015/13486)	Development of the areas	1.94	1.19	0	0.008	0.008
48	Providing 2 x 300KVA P/M T/F under the existing 11KV Sec-47C& D feeder in Sec-47C, Chd.	Development of the areas	44.82	0	2.5	7.07	9.57
49	Estimate for the release of 900 Nos. electricity connections under Electy. 'OP' S/Divn. No.8, UT Chandigarh for the year 2017-18. (IBM Scheme No. W1/16/14569).	Development of the areas	35.29	0	2.07	7.42	9.49

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
	Total		351.86	79.67	72.68	433.81	506.49
	XEN (OP-3)		332.00	10101		100101	0
50	Replacement and augmentation of existing 11 KV pilca 3x50mm2/11KVXLPE 3x150mm2U/G cable of 200 KVA P/M T/F for BBMB building. Madhya Marg, Sector 19-B and 11 KV I/D S/Stn. Sector 19-A and 19-B to nearest pole with 11 KV 3x300mm2 XLPE cable. (W1/2015/13765)		11.97	10.23	1.48	0	1.48
51	Low tension capacitor (gas filled) confirming to IS standard for installation on secondary side of distribution T/F under Elecy Op Divn No. 7,Chandigarh. (W1/2013/11957)		7.82	0.74	7.82	0	7.82
52	Low tension capacitor (gas filled) confirming to IS.Standard for installation on secondary side of distribution T/F under Elecy Op S/Divn. No. 6,U.T Chandigarh. (W1/2013/11956)		7.22	8.54	0	0	0
53	Low tension capacitor (gas filled) confirming to IS standard for installation on secondary side of distribution transformer under Elecy Op Sub Divn. No. 3,Sector 18,Chd.(W1/2013/11852)		5.96	1.17	5.92	0	5.92

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
54	Rough Cost Estimate for providing 3x315 KVA P/M T/F near H.No. 696, backside H.No. 513, Sector 20-A and 1451/20-B Chandigarh for improvement of LD system under Electy. 'OP' S/Divn. No. 6, Chandigarh. (W1/2016/14582).		22.48	7.92	11.51	0	11.51
55	Rough Cost Estimate for providing 3x315 KVA P/M T/F near H.No. 1225/30B near Satya Sai Trust/30B and near H.No. 746/30A, Chandigarh for deloading existing P/M T/Fs and 11 KV I/D S/Stn., Sector 30-A and 30-B under Electy. 'OP' S/Divn. No.6, UT Chandigarh. (IBM Scheme No. W1/16/14662		22.59	3.11	11.52	0	11.52
56	Rough Cost Estimate for augmentation of existing 11 KV 3x185/150mm2 XLPE U/G cable of 11 KV sector 32 Hospital with 11 KV 3x300mm2 XLPE cable due to extension of Block 'A' load for providing supply to new Block 'E' of GMCH Sector 32 Chandigarh. (IBM Scheme NoK. W1/16/1		15.04	0	10.6	1.53	12.13
57	Rough Cost Estimate for replacement of existing LT (jungli) Fuse unit with LT ACB's of 300/315 KVA P/M T/F under the jurisdiction of Electy. 'OP' S/Divn. No. 7, Sector 35 Chandigarh.(15% ST+15 % CP) IBM No.W1/16/14707		32.96	5.21	0	0	0

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior	I (() I .()4. I / TO	Quarter (01.07.17 to 30.09.17)	Total
58	RCE for replacement of existing LT (jungli) Fuse unit with LT ACB's of 300/315 KVA P/M T/F under the jurisdiction of Electy. 'OP' S/Divn. No.3, Sector 18, Chandigarh. (IBM No. W1/2016/14865)		30.3	5.32	0	0	0
59	Rough Cost Estimate for providing 3x315 KVA P/M T/F near H.No. 3004 and 3070 Sector 28-D, Chandigarh and backside of I/D, S/Stn, Sector 28-C, Chandigarh under Electy. 'OP' S/Divn. No.3, Sector (IBM Scheme No. W1/2016/14999		24.72	3.61	0	11.51	11.51
60	RCE for replacement of 11 KV old outlived Pilca U/G cable 3x185mm2 with 11 KV XLPE 3x300mm2 from 11 KV I/D sub station sector 20C-Sector 20-D and 11 KV I/D sub station Sector 30-C to Sector 30B near Chandigarh.(IBM NO. W1/16/15005)		29.3	0	20.79	0	20.79

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
61	Estimate for providing new 2x315 KVA P/M, T/F near H.No. 2407 and 2647 Sector 19-C and augmentation of 100 KVA P/M T/F with new 315 KVA P/M T/F near # 3037 Sector 19-D Chandigarh for deloading existing 11 KV I/D S/Stn., Sector 19-C & 19-D Chandigarh under Electy. 'OP' S/Divn. No.3, Sector 18, Chandigarh. (IBM Scheme No. W1/16/15055).		22.74	2.34	0	11.51	11.51
62	Providing 4x315 KVA P/M T/F near H.NO.525 Sec.18-B H.No.1019 sector 18-C H.No.1521 & 1622 sector 18D Chd improvement of LD system under Electy.OP S/Divn.no.3,UT,Chd.		31.24	3.68	0	15.82	15.82
63	Replacement and Augmentation of existing 11KV pilca 3x185 mm2 11Kv 3X150 MM2 XLPE cable in sec.21, Chd.		18.97	0	10.68	0	10.68
64	Release of 150 nos. electricity connections under Electy.OP S/Divn.no.7, Chd.for the year 2017-18.		17.27	0	4.98	0.43	5.41
65	Annual estimate for providing 300 Nos. GSC under Electy. 'OP' S/Divn No. 3, Chd for the year 2017-18		28.68	0	9.87	6.66	16.53

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
66	Providing 4x315 KVA P/M S/Stn. In sec 46 A,B,C &D to deloading the I/D T/F in 11 KV I/D S/Stn. Sec 46 A, B,C &D Chd		42.76	0	0	15.35	15.35
67	Release of 490 Nos. GSC under Electy. 'OP' S/Divn No. 6 for the year 2017-18		34.04	0	0	5.38	5.38
	Total		406.06	51.87	95.17	68.19	163.36
	XEN (OP-4)						0
68	Turnkey execution for two nos 66 KV lines based at 66 /11 KV grid sub-station in institutional area village sarangpur UT Chandigarh.	Development of the areas	114.75	0.18	6.6	0	6.6
69	Providing double circuit 66 kV overhead transmission line on tubular monopoles from T-off point to proposed 66 kV G/S/Stn., Village Sarangpur.	Development of the areas	311.75	0.46	6.6	0	6.6
70	prov 66 KV Transmission line alongwith associated 66 KV line bays to upcoming 66 KV grid sub-station at Raipur Kalan UT Chandigarh.	Development of the areas	1103	0	13.59	0	13.59
71	Upgradation of existing 33 kV Sub Station to 66 kV Voltage Level by providing 1x30 MVA 66/11 kV Power T/F alongwith associated line in Sector 34-C, Chd.	Development of the areas	1576.11	626.74	13.3	0	13.3
72	Providing 315 KVA P/M T/F near gurudwara Guru Ravi Dass in village Dadu Majra,U.T Chandigarh.	Development of the areas	8.17	0	4.52	2.73	7.25

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. ( In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
73	Providing additional 315 KVA P/M T/F backside Police Station near H.No.4217-18 Maloya Colony UT Chd. for deloading of existing T/F.	Development of the areas	6.81	0.53	3.83	0	3.83
74	Providing Independent 11 KV feeder for sector 38-B from 66 KV s/Stn. Sector 56, Chandigarh.	Development of the areas	46.13	40.81	7.09	0	7.09
75	Providing 11 KV alternate feeder to sector 41 from 66 KV G/S/Stn. Sector 56, Chandigarh under the Elecy.Op S/Divn. No. 9, Chandigarh.23.41 (IBM No. W1/15/13941).	Development of the areas	34.96	18.6	7.32	0.07	7.39
76	Providing 11 KV independent U/G feeder for village	Development of the areas	32.08	21.71	0.98	0	0.98
77	Providing additional 3x315 KVA P/M T/F in sector 38 west Pocket-A,Chandigarh for improvement of LD system. (IBM No. W1/2015/13679)	Development of the areas	29.54	6.71	13.06	0	13.06
78	Replacement and augmentation of Existing 11 KV 3x150 mm2 XLPE cable with 3x300 mm2 XLPE cable of sector 50-A feeder emanating from 66 KVG/S/Stn. Sector 47 under the jurisdiction of S/Divn. No. 9, Sector 43, Chandigarh.	Development of the areas	26.77	0	20.27	0	20.27

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
79	Providing additional 315 KVA P/M T/F and augmentation of existing 3 nos. 200 KVA P/M T/F and augmentation of existing 3 nos. 200 KVA P/M T/F with 315 KVA P/M T/Fs at different location of Sector 41,Chandigarh for improvement of LD system under Elecy. Op S/Divn. No.9, Chandigarh.	Development of the areas	23.56	8.41	7.68	5.76	13.44
80	Providing 3x315 KVA P/M T/Fs in village Attawa and sector 42-B, Chandigarh for improvement of LD system.	Development of the areas	23.42	16.41	6.02	0.01	6.03
81	Providing 2x315 KVA P/M T/Fs in Sector 44-C & D Chandigarh for improvement of LD system under Electricity OP S/Stn. No. 9, Chandigarh.	Development of the areas	15.19	10.31	3.8	0	3.8
82	Replacement of old obsolete damaged and outdated LT panela installed in 11 KVI/D,S/stn,Sector 40-D,Chandigarh under Jurisdiction of Elecy. Op S/divn. No. 10, Chandigarh.	Development of the areas	11.96	0	0	11.14	11.14
83	Providing additional 100 KVA T/F near CRPF post Sector 56 U.T Chandigarh due to extension of load of Govt. T/well (58KW) (IBM No. W1/2015/13543)	Development of the areas	2.28	0.24	1.11	0	1.11
84	Providing additional 100 KVA T/F in Sector 56 for improvement of voltage to Govt. Tubewell under Elecy. Op S/Divn. No.10, Sector 40, Chandigarh.	Development of the areas	2.23	0.18	1.15	0	1.15

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
85	Rough cost estimate for providing additional 2x315 KVA P/M T/F with 315 KVA P/M T/F in Sector 40-A, U.T., Chandigarh for improvement of LD system. (W1/2016/14277)	Development of the areas	14	1.39	7.68	3.66	11.34
86	Rough Cost Estimate for providing 3x315 KVA P/M	Development of the areas	26.64	2.35	11.51	0.01	11.52
87	Rough Cost Estimate for augmentation of 100 KVA P/M T/F with 315 KVA P/M T/F near Bus Stand Village Maloya, U.T., Chandigarh for release of electricity connection of Flour Mill (SOP) (IBM No.W1/201 6/14671)	Development of the areas	6.49	0.38	1.86	0	1.86
88	RCE for providing additional 3x315 KVA P/M T/F in Sector 38 (West) Pocket-B for improvement of LD system.	Development of the areas	30.74	29.01	3.84	0	3.84
89	RCE for replacement condemened DMC Toyta Truck	Development of the areas	8.32	7.83	0	1.24	1.24
90	Providing 11 KV independent U/G Feeder to sec38West for pocket A from 66KV Grid Sub/station sec 56, ChdW//12/11435	Development of the areas	33.88	0	21.38	0	21.38

	PROJECT DETAIL			Expenditure in		2nd	
Sr. No.	Scheme Name	Object of Scheme	Approved Scheme cost, cost in Rs. (In crore)	the scheme prior to 31.03.17 In Rs. (In Crore)	1st Quarter (01.04.17 to 30.06.17)	Quarter (01.07.17 to 30.09.17)	Total
91	Annual Estimate for the release of 1807 nos. Electricity connections under Electricity 'OP' S/Divn. No. 9, Sec-43, Chd. (IBM Scheme no. W1/17/15586)	Development of the areas	38.94	0	8.52	10.48	19
92	Annual Estimate for the release of 5732 nos. Electricity connections under Electricity 'OP' S/Divn. No. 10, Chd. (IBM Scheme no. W1/17/15500)	Development of the areas	70.28	0	11.07	10.91	21.98
93	RCE for providing 1x315 KVA P/M T/F near G/Tubewell, sec-39B, Chandigarh for improvement of LD system under Electy. 'OP' S/Divn no. 10, Chd. (IBM no. W1/17/15316)		6.81	0	4.42	0	4.42
94	RCE for prov. Additional 2x315 KVA P/M T/F near #	Development of the areas	18.89	0	2.53	0	2.53
	Total		3623.70	792.25	189.73	46.01	235.74
	Grand Total		4989.82	1069.93	458.69	613.74	1072.43

Form 6: Capital Base and Return

Rs.	Cro	۱re
113.	$\sim$	"

Sr.	Particulars	2016-17	2017-18	2018-19
No.	Particulars	Actual	Estimated	Projected
1	Opening Normative Equity	121.16	122.84	134.40
2	Addition During the year	1.68	11.56	28.44
3	Closing Normative Equity	122.84	134.40	162.84
4	Average Normative Equity	122.00	128.62	148.62
5	Rate of Return	16%	16%	16%
6	Return on Equity	19.52	20.58	23.78

Addition to Gross Fixed Assets for Normative Loan, Equity & Depreciation Purpose

D -	C
Rs.	Crore

Sr.	Particulare	Previous Year	<b>Current Year</b>	Ensuing Year
No.	Particulars	2016-17	2017-18	2018-19
1	Addition to GFA	5.61	38.52	94.80

### Rs. Crore

Sr. No.	Particulars	Previous Year	Current Year	Ensuing Year (Projection)
INO.		2016-17	2017-18	2018-19
1	Opening Normative Loan	31.91	24.21	39.25
2	Add: Normative Loan during year (70% of Capitalisation)	3.93	26.96	66.36
3	Less: Normative Repayment	11.63	11.93	13.96
4	Closing Normative Loan	24.21	39.25	91.65
5	Average Normative Loan	28.06	31.73	65.45
6	Rate of Interest	14.05%	14.05%	14.05%
7	Interest on Normative Loan	3.94	4.46	9.20

Form 7: Original Cost of Fixed Assets

Sr. No.	Assets Group	Value of assets at the beginning of FY 2016-17	Addition during FY 2016-17	Value of assets sold/ disposeed off during FY 2016-17	Closing balance at the end of previous year FY 2016-17
1	Land	0.69			0.69
2	Civil works/building structure	6.84	0.35		7.19
3	Transmission/distribution system equipments	393.10	5.10		398.20
4	Office equipments	0.87			0.87
5	Furniture & fixtures	0.20			0.20
6	Vehicles	0.71	0.16		0.87
7	Laboratory equipments	0.04			0.04
8	I. T. equipments	0.12			0.12
9	Tools & tackles	1.29			1.29
	Total	403.86	5.61	-	409.47

Form 7: Original Cost of Fixed Assets			FY 2017 -18				FY 2018 -19			
Sr. No.	Assets Group	Value of assets at the beginning of FY 2017-18	Addition during FY 2017-18	Value of assets sold/ disposeed off during FY 2017-18	Closing balance at the end of previous year FY 2017-18	Value of assets at the beginning of FY 2018-19	Addition during FY 2018-19	Value of assets sold/ disposeed off during FY 2018- 19	Closing balance at the end of previous year FY 2018-19	
1	Land	0.69			0.69	0.69			0.69	
2	Civil works/building structure	7.19			7.19	7.19			7.19	
3	Transmission/distribution system equipments	398.20	38.52		436.72	436.72	94.80		531.52	
4	Office equipments	0.87			0.87	0.87			0.87	
5	Furniture & fixtures	0.20			0.20	0.20			0.20	
6	Vehicles	0.87			0.87	0.87			0.87	
7	Laboratory equipments	0.04			0.04	0.04			0.04	
8	I. T. equipments	0.12			0.12	0.12			0.12	
9	Tools & tackles	1.29		_	1.29	1.29	·		1.29	
	Total	409.47	38.52	-	447.99	447.99	94.80	-	542.79	

Form 8: Capital Work-in-Progress

**Rs. Crores** 

Sr.	Particulars	Previous Year	Current Year	Ensuing Year	
No.	Fai ticulai 3	Previous real	(Prov. Actual)	(Projection)	
		2016-17	2017-18	2018-19	
1	Opening Balance	21.25	28.28	28.28	
2	Add: New Investments	12.65	38.52	94.80	
3	Total	33.90	66.80	123.08	
4	Less: Investment capitalised	5.61	38.52	94.80	
5	Closing Balance	28.28	28.28	28.28	

Form 9: Interest Capitalized

Rs.	Crore	
113.	CIUIE	

Sr. No.	Interest Capitalized	Current Year Current Ye (Prov. Actual) (Rev. Est)			
1	WIP				
2	GFA* at the end of the year	N.A.			
3	WIP+GFA at the end of the year				
4	Interest Rate				
5	Interest (excluding interest on WCL)				
6	Interest Capitalized				

# Form 10: Details of loans for FY2016-17 (Provisional Actuals) [Information to be supplied for the previous year (actuals), current year (RE) and ensuing year (projections)] There is No Actual Loan for CED, All the Assets are created through Internal Accruals or Equity of Gol only

Sr. No.	Particulars (source)	Opening Balance	Rate of Interest*	Addition during the year	Repayment during the year	Closing Balance		of interest paid	
	Latter of Condition Channel				year		Paid	Payable	
1	Letter of Credit Charges								
2	PFC*								
3	PFC - Loan No.								
4	PFC - Loan No.								
5	Working capital loan								
6	Others								
7	Total								
	Add. Govt. loan								
8	# State Govt.								
•	# Central Govt.				N.A.				
	Total								
9	Total (13+14)								
10	Less capitalization								
11	Net Interest								
12	Add prior period								
13	Total interest								
14	Finance Charges								
15	Total Interest and Finance Charges								
* Ave	rage Rate for various loans								

Form 11: Information regarding restructuring of outstanding loans during the FY 2012-13

Sr. No.	Source of loan	Amount of original loan (Rs. Crores)	Old rate of interest	Amount already restructured	Revised rate of interest	Amount now being restuctured (Rs. Crores)	New rate of interest
1				N.A.			

Information regarding restructuring of outstanding loans during the FY 2013-14

Sr. No.	Source of loan	Amount of original loan (Rs. Crores)	Old rate of interest	Amount already restructured	Revised rate of interest	Amount now being restuctured (Rs. Crores)	New rate of interest
1				N.A.			

Form 12: Depreciation & Accumulated Depreciation Charges

<b>D</b> -	•	
Rs.	Cro	ro

Sr. No.	Particulars		Current Year	Current Year (Projection)	
110.		2016-17	2017-18	2018-19	
1	Opening Gross Fixed Assets	403.86	409.47	447.99	
2	Add: Assets added during year (excl grant & ED				
	Fund componenet)	5.61	38.52	94.80	
3	Less: Withdrawl during year		-	-	
4	Closing Gross Fixed Assets	409.47	447.99	542.79	
5	Average Gross Fixed Assets	406.66	428.73	495.39	
6	Average Depreciation Rate	2.86%	2.78%	2.82%	
	Total Depreciation for year	11.63	11.93	13.96	

#### Rs. Crore

Sr. No.	Particulars		Current Year	Current Year (Projection)	
NO.		2016-17	2017-18	2018-19	
1	Opening Accumulated Depreciation*	157.04	168.67	180.60	
2	Add: depreciation for the year	11.63	11.93	13.96	
3	Closing Accumulated Depreciation	168.67	180.60	194.56	

Form 13: calculation of Advance Against Depreciation

Rs.	Crore
113.	CIUIE

Sr. No.	Particulars	Current year	Ensuing year (Projection)			
NO.		2017-18	2018-19			
1	1/10th of the Loan(s)					
	Repayment of the Loan(s) as considered for working out					
2	Interest on Loan					
3	Minimum of the Above	N.A.				
4	Less: Depreciation during the year					
	A	1				
5	Cumulative Repayment of the Loan(s) as considered for					
٥	working out Interest on Loan					
6	Less: Cumulative Depreciation					
	В					
7	Advance Against Depreciation (minimum of A or B)					

Form 14: Repair and Maintenance Expenses

Sr.	1 14: Repair and Maintenance Expenses	Previous Year	<b>Current Year</b>	<b>Current Year</b>	<b>Current Year</b>
No.	Particulars	Previous Year	(Prov.)	(Estimated)	(Projected)
NO.		2016-17	2017-18 H1	2017-18	2018-19
	Plant & Apparatus				
	EHV substations	1.85	1.21	2.54	2.39
	33kv substation	0.24	0.16	0.33	0.32
1	11 kv substation	0.63	0.41	0.86	0.81
1	Switchgear and cable connection	5.00	3.26	6.86	6.47
	Others	1.01	0.66	1.39	1.31
	Total	8.73	5.69	11.98	11.30
	Buildings (Electricity Residential & Non-Residential)	0.41	0.27	0.56	0.53
2	Hydraulic works & civil works		-	-	-
3	Line cable & network		-	-	-
	EHV Lines		-	-	-
	33kv Lines		-	-	-
	11 kv Lines		-	-	-
4	LT Lines		-	-	-
4	Meters and metering equipment		-	-	-
	Others		-	-	-
	Total		-	-	-
	Vehicles	0.31	0.20	0.43	0.41
5	Furniture & Fixtures		-	-	-
6	Office Equipments		-	-	-
7	Minor R&M Works		-	-	-
8	O&M Total		-	-	-
9	Total	9.45	6.16	12.97	12.23
10	Add/deduct share of others (To be specified)				
11	Total expenses				
12	Less: Capitalized				
13	Net expenses	9.45	6.16	12.97	12.23
14	Add: Prior Period				
15	Total R&M expenses	9.45	6.16	12.97	12.23

Form 15: Total Number of Employees

Sr. No.	Particulars	Previous Year	Current Year (Half Yearly)	(Approved)	(Approved)
NO.		2016-17	2017-18 H1	2017-18	2018-19
1	Number of Employees as on 1st April	967	913	918	874
2	Permanent Posts filled during the year	4	2	4	4
3	Number of Employees retired/retiring during the year	53	24	48	48
4	Number of Employees at the end of year	918	891	874	830
5	Number of Contract Employees as on 1st April				
6	Contract Employees added				
7	Contractual Employees relieved				
8	Number of Contract Employees at the end of Year	0		0	0
9	Number of employees & Contract Employees at the end of Year	918	891	874	830

Form 16: Employee Cost Rs. Crore

Form	rm 16: Employee Cost					
Sr. No.	Particulars	Previous Year	Current Year (Prov.)	Current Year	Ensuing Year	
NO.		2016-17	2017-18 H1	2017-18	2018-19	
1	Basic Pay	24.08	14.26	24.63	26.29	
2	Dearness pay	-	-		-	
3	Dearness Allowance	31.48	18.64	32.20	34.38	
4	House Rent Allowance	2.28	1.35	2.33	2.49	
5	Fixed Medical Allowance	0.44	0.26	0.45	0.48	
6	Medical Reimbursement Charges	0.69	0.41	0.57	0.61	
7	Over Time Payment	-	=		-	
8	Other Allowance	2.20	1.30	2.25	2.40	
9	General Incentive	-	-		-	
10	Bonus	-	-		-	
11	Stipend	0.05	0.002	0.01	0.01	
12	Travelling Allowance	0.03	0.01	0.03	0.03	
13	Sub Total - A	61.25	36.23	62.48	66.69	
14	Terminal Benefit	-	-	-	-	
15	Leave Encashment	-	-	-	-	
16	Gratuity	-	-	-	-	
17	Commutation of Pension	-	-	-	-	
18	Workmen Compensation	-	-	-	-	
19	Ex-gratia	-	-	-	-	
20	Sub Total - B	-	-	-	-	
21	Other Salary Payments	2.76	2.93	7.21	7.69	
22	Arrears on Account of with Pay Commission	-	-	-	-	
23	Contractual Basis	-	-	-	-	
24	Sub Total - C	2.76	2.93	7.21	7.69	
25	Total (A+B+C)	64.01	39.16	69.68	74.38	
26	Less: Amount Capitalized	-				
27	Net Amount	64.01	39.16	69.68	74.38	
28	Add: Prior Period Expenses	-				
29	Total Employee Expenses	64.01	39.16	69.68	74.38	
30	Concessional power to Employee	-				
31	Total Employee Expenses	64.01	39.16	69.68	74.38	

Form 17: Administration and General Expenses

Rs. Crore

Sr.	Particulars	Previous Year	Current Year (Prov.)	Current Year	Ensuing Year
No.		2016-17	2017-18 H1	2017-18	2018-19
1	Rent, Rates & Taxes & Freight	-	-	-	-
2	Telephone Charges	0.26	0.09	0.47	0.52
3	Office Expenses	0.13	0.05	0.23	0.26
4	Insurance	0.005	0.002	0.01	0.01
5	Regulatory Expenses (License+Petition fees)	-	-	-	1
6	Consultancy fees and Other Professional Fees	-	-	-	-
7	Electricity & Water Charges	0.56	0.19	1.00	1.11
8	Advertisement & Publicity	0.17	0.06	0.31	0.34
9	Legal, Professional & Special Service Charges	1.35	0.47	2.39	2.68
10	Other A&G Expenses	1.09	0.38	1.94	2.17
11	Expenses of CGRF (office)	-	-	-	-
12	Registration Charges - PGCIL etc.	-	-	-	ı
13	Other material related expenses	-	-	-	-
14	Total	3.58	1.24	6.34	7.10
15	Add/Deduct share of others (to be specified) wages	-	-		
16	Provision for Doubtful Debts	-	-		
17	Total Expenses	3.58	1.24	6.34	7.10
	Less: capitalized	-	-		
	Net Expenses	3.58	1.24	6.34	7.10
	Add: Prior Period	-	-		
	Total A & G Expenses	3.58	1.24	6.34	7.10

Form 18: Information regarding Bad and Doubtful Debts

Sr.	Particulars	Particulars Previous Year		Ensuing Year
No.	Particulars	2016-17	2017-18	2018-19
1	Bad and Doubtful Debts	8.15	8.52	8.84

Form 19: Information regarding Working Capital for ensuing year

Sr. No.	Particulars	Previous Year	<b>Current Year</b>	Ensuing Year
NO.		2016-17	2017-18	2018-19
1	Two Months Receivable	135.81	142.07	147.38
2	Power Purchase Cost of 1 month	55.94	56.82	60.17
3	Total Consumer Security Deposit	147.81	152.81	157.81
4	Inventory Based on Annual Regirement for Previous FY	4.08	4.08	4.08
5	Total working capital Requirement	0	0	0
6	Interest Rate	9.30%	9.30%	9.30%
7	Interest	0	0	0

Form 19A: Information regarding Security Deposits from Consumers

Sr.	Particulars	Previous Year	Estimated	Projection
No.	Particulars	2016-17	2017-18	2018-19
1	Opening Consumer Security Deposit	136.67	147.81	152.81
2	Net Addition During the year	11.14	5.00	5.00
3	Closing Consumer Security Deposit	147.81	152.81	157.81
4	Average Deposit	142.24	150.31	155.31
5	Bank Rate	5.07%	6.25%	6.25%
6	Interest on Consumer Security Deposit	7.21	9.39	9.71

Form 20: Information regarding Foreign Exchange Rate Variation (FERV)

Sr. No.	Particulars	Previous Year (Prov. Actual)	Current Year	Ensuing Year (Projection)
		2016-17	2017-18	2018-19
1	Amount of liability provided			
2	Amount recovered		N.A.	
3	Amount adjusted			

## Form 21: Non Tariff Income

Sr. No.	Particulars	Previous Year	Current Year (Prov. 6 months)	Current Year (Projection)	Ensuing Year (Projection)
		2016-17	2017-18 H1	2017-18	2018-19
1	Meter/Service rent	8.58	3.26	6.52	7.44
2	Income from Bonds			-	-
3	Late Payment Surcharge	11.00	3.40	6.80	7.76
4	Theft/Pilferage of Energy			-	-
5	Misc receipts/Income	23.07	5.16	10.32	11.78
6	Total Income	42.66	11.82	23.64	26.99

Form 22: Information regarding Revenue from Other Business

Sr.	Particulars	(Rs. Crore)
No.	Particulars	FY 16-17 to FY 18-19
1	Total revenue from other business	
	Income from other business to be	N A
2	considered for licensed business as per	N.A.
	regulations	

#### Form 23: Lease Details

Sr. No.	Name of Lesser	Gross Assets (Rs. Crore)	Lease entered on	Lease Rentals	Primary period ended / ending by	Secondary period ending by
			N. <i>i</i>	Α.		

Form 24: Information regarding Wholesale Price Index (All Commodities)

Sr. No.	Period	WPI	Increase over previous years
1	Financial Year 2015-16	109.70	
2	Financial Year 2016-17	111.60	1.73%

Form 25: Information regarding amount of equity and loan

Sr. No.	Period	Total Capitalization	Amount of equity (Rs. Crore)*	Amount of loan (Rs. Crore)	Ratio of equity & loan
1	As on March 31 of (FY 17-18)	38.52	11.56	26.96	30:70
2	As on March 31 of (FY 18-19)	94.80	28.44	66.36	30:70

Normative Equity and Loan

Form 26: Cash flow statement for the ensuing year (Projections FY 2018-19)

Sr. No.	Month	Sources of receipt (Power Sold)**	Amount	Particulars of payment (Power Purchase)*	Amount
1	April				
2	May				
3	June				
4	July				
5	August				
6	September		,	N. A.	
7	October		<u> </u>	V. A.	
8	November				
9	December				
10	January				
11	February				
12	March				

<sup>\*</sup>PP for FY 2018-19, pro-rated based on FY 17-18 monthwise Input at Periphery

<sup>\*\*</sup>Projected after losses

Particulars	Mus	Rs. Crs	Rs/kWh
Average Tariff			
Average PP cost			

Form 27: ANNUAL REVENUE REQUIREMENT

Sr. No.	Item of expense	Previous Year	Current Year	Ensuing Year (Projection)	
		2016-17	2017-18	2018-19	
1	Cost of fuel	-	-	-	
2	Cost of power purchase	671.26	681.86	721.99	
3	Employee costs	64.01	69.68	74.38	
4	R&M expenses	9.45	12.97	12.23	
5	Administration and General expenses	3.58	6.34	7.10	
6	Depreciation	11.63	11.93	13.96	
7	Interest on Loan & Finance charges	3.94	4.46	9.20	
8	Interest on Working Capital*	1	1	-	
9	Return on NFA/ Equity*	19.52	20.58	23.48	
10	Provision of Bad Debt	8.15	8.52	8.84	
11	Interest on Security Deposit*	7.21	9.39	9.71	
12	Total Revenue Requirement	798.75	825.72	880.89	
13	Less: Non Tariff Income	42.66	23.64	26.99	
14	Less: Sale of UI Power	9.06	1	-	
15	Net Revenue Requirement	747.03	802.08	853.90	
16	Revenue from Retail Sales at Existing	936.08	962.37	884.25	
10	Tariff including FPPCA Charges	930.08	902.57	004.25	
17	Energy Sales (MU)	1,591.43	1,651.72	1,714.58	
18	Average Cost of Supply (Rs./kWh) - (15/17)	4.69	4.86	4.98	

Form 28: REVENUE AT EXISTING TARIFF for YEAR 2017-18 WITH EXISTING STRUCTURE

	FY 2017-18						
Particular	Yearly Estimated Sales (in MUs)	Load in kW	Demand Charges (Rs./kW/month)	Variable Charge Per Unit (in Rs.)	Total Revenue (Rs. Cr.)		
Domestic							
0-150 kWh	325.59	249438	10.00	2.55	86.02		
151-400 kWh	249.87	336816	10.00	4.80	123.98		
Above 400 kWh	181.73	288960	10.00	5.00	94.33		
Commercial							
0-150 kWh	231.33	44457	20.00	5.00	116.73		
151-400 kWh	215.91	33693	100.00	5.20	116.32		
Above 400 kWh	66.83	371323	100.00	5.45	80.98		
Large Supply	130.72	71467	100.00	5.65	82.43		
Medium Supply	121.31	74870	100.00	5.35	73.88		
Small Power	19.53	19745	20.00	5.30	10.82		
Agriculture	1.33	764	-	2.90	0.39		
Public Lighting	22.01	6952	100.00	5.35	12.61		
Bulk Supply	80.60	42917	100.00	5.55	49.88		
Others Temporary Supply	4.98	2480	-	8.10	4.03		
Total	1,651.72	1543882			852.41		

Form 29: REVENUE AT EXISTING TARIFF YEAR 2018-19 WITH EXISTING STRUCTURE

		FY 2018-19					
Sr. No.	Particular	Yearly Estimated Sales (in	Load in kW	Demand Charges (Rs./kW/month)	Variable Charge Per Unit (in Rs.)	Total Revenue (Rs. Cr.)	
1	Domestic						
2	0-150 kWh	341.60	256732	10.00	2.55	90.19	
3	151-400 kWh	262.15	346666	10.00	4.80	129.99	
4	Above 400 kWh	190.66	297410	10.00	5.00	98.90	
5	Commercial						
6	0-150 kWh	238.48	47045	20.00	5.00	120.37	
7	151-400 kWh	222.58	35655	100.00	5.20	120.02	
8	Above 400 kWh	68.88	392941	100.00	5.45	84.69	
9	Large Supply	134.82	72919	100.00	5.65	84.92	
10	Medium Supply	126.77	78446	100.00	5.35	77.24	
11	Small Power	19.53	19926	20.00	5.30	10.83	
12	Agriculture	1.36	780	-	2.90	0.39	
13	Public Lighting	22.18	7256	100.00	5.35	12.74	
14	Bulk Supply	80.60	43385	100.00	5.55	49.94	
15	Others Temporary Supply	4.98	2480	-	8.10	4.03	
16	Total	1,714.58	1601640	_	_	884.25	

Form 30: REVENUE AT PROPOSED TARIFF for FY 2018-19

	30. REVENUE AT FROPOSED TAKIF	FY 2018-19						
Sr. No.	Particular	Yearly Estimated Sales (in MUs)	Load in kW	Demand Charges (Rs./kW/month)	Variable Charge Per Unit (in Rs.)	Total Revenue (Rs. Cr.)		
1	Domestic							
2	0-150 kWh	341.60	256732	12.00	2.75	97.64		
3	151-400 kWh	262.15	346666	12.00	5.80	157.04		
4	Above 400 kWh	190.66	297410	12.00	6.00	118.68		
5	Commercial							
6	0-150 kWh	238.48	47045	24.00	6.20	149.21		
7	151-400 kWh	222.58	35655	122.00	6.45	148.78		
8	Above 400 kWh	68.88	392941	122.00	6.75	104.02		
9	Large Supply	134.82	72919	122.00	7.00	105.05		
10	Medium Supply	126.77	78446	122.00	6.45	93.25		
11	Small Power	19.53	19926	24.00	6.40	13.07		
12	Agriculture	1.36	780	ı	2.90	0.39		
13	Public Lighting	22.18	7256	122.00	6.40	15.26		
14	Bulk Supply	80.60	43385	122.00	6.60	59.55		
15	Others Temporary Supply	4.98	2480	-	9.50	4.73		
16	Total	1,714.58	1601640			1,066.67		