



INDEX



Signature

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AFFIDAVIT



[Signature]

BEFORE THE DELHI ELECTRICITY REGULATORY COMMISSION
C BLOCK, SHIVALIK, MALVIYA NAGAR, NEW DELHI

PETITION NO. _____ OF 2020

IN THE MATTER OF:-

BSES Rajdhani Power Limited
BSES Bhawan, Nehru Place
New Delhi-110 019

..... PETITIONER

AND

IN THE MATTER OF:- Annual Tariff Petition and Tariff for FY 2020-21 under Section 62 of the Electricity Act, 2003 read with Regulation 11 & 12 and other relevant provisions under DERC Tariff Regulations, 2017 and the Delhi Electricity Regulatory Commission Business Plan Regulations, 2019 (hereinafter referred to as "**Business Plan Regulations, 2019**") and also under Sections 11 and 28 of Delhi Electricity Reforms Act 2000 to the extent applicable, the Delhi Electricity Regulatory Commission (Conduct of Business) Regulations, 2001 and Condition 24 of the License for Distribution and Retail Supply of Electricity issued by the Hon'ble Commission.

AFFIDAVIT VERIFYING THE PETITION:

I, Ravi Shandilya, S/o. Shri S.P. Singh, aged about 35 years, having my office at BSES Bhawan, Nehru Place, New Delhi – 110019, do hereby solemnly affirm and state as follows:

1. I am working with BSES Rajdhani Power Limited, the Petitioner herein, as Senior Manager (Regulatory Affairs) and am duly authorized by the said Petitioner to make the present affidavit.



[Signature]

2. I say that on behalf of BSES Rajdhani Power Limited, I am filing the present Annual Tariff Petition for FY 2020-21.
3. I further say that the statements made and data presented in the present Annual Tariff Petition are to the best of my knowledge derived from the records of the Company and based on estimations arising from data and or records of the Company. Further, to my knowledge and belief, no material information has been concealed in the aforesaid Petition.

VERIFICATION:

I, Ravi Shandilya, the Petitioner hereby solemnly affirms that the contents of above affidavit are true to the best of my knowledge, no part of it is false and nothing material has been concealed there from.

12 FEB 2020

Verified by me on this ____ day of February, 2020 at New Delhi

NOTED AND REGISTERED
AT SERIAL NUMBER 622/20



12 FEB 2020
ATTESTED
NOTARY PUBLIC, DELHI


DEPONENT

Ravi Shandilya
Senior Manager (Regulatory Affairs)
Authorized Signatory
BSES Rajdhani Power Limited




DEPONENT

Ravi Shandilya
Senior Manager (Regulatory Affairs)
Authorized Signatory
BSES Rajdhani Power Limited





General Power of Attorney




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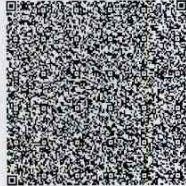

Government of National Capital Territory of Delhi

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सत्यमेव जयते

Certificate No.	: IN-DL013521551762570
Certificate Issued Date	: 27-Sep-2016 04:41 PM
Account Reference	: IMPACC (IV)/ dl732103/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL732103025516558734960
Purchased by	: BRPL
Description of Document	: Article 48(c) Power of attorney - GPA
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: BRPL
Second Party	: Not Applicable
Stamp Duty Paid By	: BRPL
Stamp Duty Amount(Rs.)	: 50 (Fifty only)






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GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS THAT this power of Attorney is executed on this 4th day of October 2016 at New Delhi by:

BSES Rajdhani Power Ltd., a company duly incorporated under the provisions of Companies Act 1956 having its Registered Office at BSES Bhawan Nehru Place, New Delhi (hereinafter referred to as the "Company") acting through its Chief Executive Officer (CEO) namely Sh. Amal Sinha.

Statutory Alert:

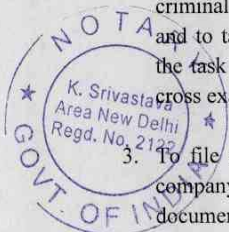
1. The authenticity of this Stamp Certificate should be verified at "www.shcilestamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

WHEREAS the company being the Licensee, is in the business of distribution and retail supply of Electricity in the respective area of supply within Delhi.

WHEREAS the company in furtherance of its business operation, in strict adherence of the law and for the enforcement of the provisions of law in this regard, time and again initiate legal proceedings and/or has to prosecute/represent/defend the legal proceedings initiated against the company before various courts, judicial and quasi-judicial authorities.

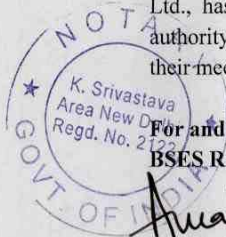
NOW THIS DEED WITNESSETH THAT the company through its CEO, do hereby appoint, constitute and declare **Mr. Ravi Shandilya** S/o Sh. Surendra Prasad Singh currently working as Manager (Regulatory) with the company as duly constituted lawful attorney and to do, perform all or any of the acts, deeds on behalf of the company as specified hereinbelow:-

1. To represent, act, appear and plead on behalf of the Company before various Courts in India including Hon'ble High Courts of various states and Hon'ble Supreme Court, Consumer Forums, Commissions and/or before all other authorities/bodies whether judicial, quasi judicial or administrative authorities, Government including State Governments (hereinafter referred to as the "Authorities") and to perform such other acts as required to be performed in furtherance of the performance of the task under this instant clause.
2. To make, declare, swear, affirm, execute, seal, deliver, refer to arbitration, file complaints and record statement before police authorities, verify pleadings, applications, affidavits, claims, counter claims, caveats, deeds, assurances, instruments, documentations including but not limited to presenting/filing/drafting/signing pleadings, appeals, cross objections, petitions, arbitration claims, writs, special leave petition, bail application, supardari application and other misc. applications for initiation of legal proceedings and/or representation in ongoing litigation including Suit, execution proceedings, review, revisions, writs, appeals, SLPs, Arbitration Proceedings and to withdraw, compromise, recording of settlement, execution and filing of settlement agreement, to receive the settlement amount and to file and/or authorize to file applications for compounding/settlement the case be that it be of civil and/or criminal nature and pending before any authority/court/Quasi-Judicial Authority and to take all essential/ ancillary actions in furtherance of the performance of the task under this instant clause including but not limited to leading evidence, cross examination of the witnesses, etc.
3. To file and procure/ obtain documents/orders/notices for and on behalf of the company and to apply and/or to obtain copies including certified copies of the documents and papers for and on behalf of the company.
4. To take all actions necessary for conducting execution proceedings including initiation/ filling the execution proceedings amongst other legal proceedings.



5. To retain, employ, and remunerate advocates, solicitors and other legal practitioners and advisors and to sign "Warrants", 'Vakalatnama' and other necessary authorities including to take/procure opinions from advocates/solicitors and/or to brief them for appearance before various courts/authorities.
6. To do all other lawful acts and deeds which are necessary to be performed for the progress and in the course of proceedings and the other prosecutions of various nature including suits, writs, arbitrations, SLP, complaints and other cases & proceedings, including ongoing litigation and the Company do hereby agree that all the acts and the things lawfully done by and performed by the above said Attorney of the company shall be construed as the acts and the things done by the company. The company do hereby undertake to ratify and confirm all the tasks lawfully performed by the said Attorney in furtherance of this instant GPA and the same cause to be done for and on behalf of the company by virtue of the powers vested herein.
7. The powers as vested vide this instant GPA in duly constituted lawful attorney are solely at the discretion of the company and the same may be varied/withdrawn at the sole discretion of the company.
8. That this power of attorney shall be deemed to be automatically revoked immediately upon cessation of employment and/or otherwise upon termination of employment of duly constituted lawful attorney, with the company.

IN WITNESS WHEREOF the Chief Executive Officer of BSES Rajdhani Power Ltd., has put his hands on this General Power of Attorney, pursuant to the authority delegated to him by a resolution passed by the Board of Directors in their meeting held on 9th day of September, 2016.



For and on behalf of/
BSES Rajdhani Power Ltd.

Amal Sinha
(Sh. Amal Sinha)
Chief Executive Officer

Attested as Identified
Notary Public Delhi (India)



WITNESSES:-

-4 OCT 2016

1. *P.K. Gupta* 2F, 7746, S.F, Ram Nagar
Pahar Ganj New Delhi -110055

(Signature, Name & Address)

2. *Arjun Mathur*, *Arjun Mathur*
D-1, Tower-7, New Motilal, New Delhi-110021

(Signature, Name & Address)





List of Abbreviation

List of Abbreviations

Abbreviation	Full Form
AAD	Advance Against Depreciation
ABR	Average Billing Rate
Act	Electricity Act' 2003
ADB	M/s. Asian Development Bank
AFC	Annual Fixed Charges
A & G	Administrative & General
AMR	Automated Meter Reading
APCPL	Aravali Power Company Private Limited
APTEL	Appellate Tribunal for Electricity
APDRP	Accelerated Power Development and Reform Programs
App	Application
ARR	Aggregate Revenue Requirement
AT & C	Aggregate Technical and Commercial
ATE	Appellate Tribunal for Electricity
BBMB	Bhakra Beas Management Board
BEST	M/s Brihanmumbai Electric Supply & Transportation
BRPL	M/s BSES - Rajdhani Power Limited
BST	Bulk Supply Tariff
BTPS	Badarpur Thermal Power Station
BYPL	M/s BSES - Yamuna Power Limited
CAGR	Compounded Annual Growth Rate
CC	Carrying Cost
CCO	Customer Care Officer
CEA	Central Electricity Authority
CEO	Chief Executive Officer
CERC	Central Electricity Regulatory Commission
CESC	M/s Calcutta Electricity Supply Company
CESU	M/s. Central Electricity Supply Utility
CFL	Compact Florescent Lamp
CGRF	Consumer Grievance Redressal Forum
CGS	Central Generating Stations
CIO	International Data Group
CISF	Central Industrial Security Force
CPI	Consumer Price Index
CPRI	Central Power Research Institute
CTC	Cost to the Company
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSPDCL	Chhattisgarh State Power Distribution Co. Ltd



Signature

Abbreviation	Full Form
CSR	Corporate Social Responsibility
CGS	Central Generating Stations
DA	Dearness allowance
DDA	M/s Delhi Development Authority
DERA	Delhi Electricity Reform Act 2000
DERC	Delhi Electricity Regulatory Commission
DESU	M/s Delhi Electricity Supply Undertaking
DIAL	M/s. Delhi International Airport Limited
DISCOM	Distribution Company
DJB	M/s. Delhi Jal Board
DMRC	M/s Delhi Metro Rail Corporation
DPCL	M/s Delhi Power Corporation Limited
DPPG	Delhi Power Procurement Group
DPR	Detailed Project Report
DT	Distribution Transformer
DTL	M/s Delhi Transco Limited
DSK	Digi Seva Kendra
DVB	M/s Delhi Vidyut Board
DVC	M/s Damodar Valley Corporation
EA'03	Electricity Act' 2003
EHV	Extra High Voltage
EIC	Electrical Inspector Clearance
ELR	Energy Law Reports
ERLDC	Eastern Regional Load Despatch Centre
FPA	Fuel Purchase Adjustment
FRSR	Fundamental Rules & Supplementary Rules
FY	Financial Year
GENCO	Generation Company
GERC	Gujrat Electricity Regulatory Commission
GFA	Gross Fixed Assets
GIS	Geographical Information System
Gol	Government of India
GoNCTD	Government of National Capital Territory of Delhi
GPA	Gross Per Annum
GT	Gas Turbine
HEP	Hydro Electric Project
HERC	Haryana Electricity Regulatory Commission
HR	Human Resource
HRA	House Rent Allowance
HT	High Tension



Signature

Abbreviation	Full Form
HVDS	High Voltage Distribution System
ICC	Indian Chamber of Commerce
ICWAI	Institute of Cost & Works of Accounts of India
IDBI	M/s. Industrial Development Bank of India
IDG	International Data Group
IEGC	Indian Electricity Grid Code
IEX	Indian Energy Exchange
IP	M/s Indraprastha Power Generation Co. Ltd
IPPAI	Independent Power Producers Association of India
IPGCL	M/s Indraprastha Power Generation Co. Ltd
ISGS	Inter-State Generating Stations
IT	Information Technology
IVR	Interactive Voice Response
JVVNL	M/s Jaipur Vidyut Vitaran Nigam Limited, Rajasthan
JJ	Jhuggi Jhopri
KESCO	M/s Kanpur Electric Supply Company Limited, Uttar Pradesh
Kms	Kilo Meters
kV	Kilo Volt
kVAh	Kilo Volt Ampere hour
kVARh	Kilo Volt Ampere Resistance hour
kW	Kilo Watt
kWh	Kilo Watt Hour
LC	Letter of Credit
LDC	Load Dispatch Centre
LPSC	Late Payment Surcharge
LT	Low Tension
LTAB	Low Tension Aerial Bunched
LVDS	Low Voltage Distribution System
MCD	M/s Municipal Corporation of Delhi
MDI	Maximum Demand Indicator
MERC	Maharashtra Electricity Regulatory Commission
MLHT	Medium Load High Tension
MOD	Merit Order Despatch
MoP	Ministry of Power
MRBD	Meter Reading and Bill Distribution
MSEDCL	Maharashtra State Electricity Distribution Co. Ltd
MU	Million Units
MVA	Million Volt Ampere
MW	Mega Watt



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Abbreviation	Full Form
MYT	Multi Year Tariff
NABL	National Accreditation Board for Testing and Calibration
NCT	National Capital Territory
NDPL	M/s North Delhi Power Limited
NGO	Non Government Organisation
NHPC	M/s National Hydroelectric Power Corporation Ltd.
NJPC	Nathpa Jhakri Power Corporation Ltd.
No.	Number
NOIDA	New Okhla Industrial Development Authority
NPCIL	M/s Nuclear Power Corporation India Limited
NRLDC	Northern Region Load Dispatch Centre
NTI	Non-Tariff Income
NTPC	M/s National Thermal Power Company Ltd.
O&M	Operation and Maintenance
OP	Original Petition
PFC	M/s. Power Finance Corporation
PGCIL	M/s Power Grid Corporation of India Limited
Ph	Phone
PLF	Plant Load Factor
PPA	Power Purchase Agreement
PPAC	Power Purchase Cost Adjustment
PPCL	M/s Pragati Power Corporation Ltd.
PSPCL	Punjab State Power Corporation Limited
PTC	Power Trading Corporation
PXIL	Power Exchange of India Limited
RA	Regulatory Asset
R & M	Repair and Maintenance
RE	Renewable Energy
REC	Rural Electrification Corporation
REL	M/s Reliance Energy Limited
REL - D	Reliance Energy - Distribution Division
RERC	Rajasthan Electricity Regulatory Commission
RoCE	Return on Capital Employed
RPO	Renewable Purchase Obligation
RPS	Renewable Purchase Specifications
RRB	Regulated Rate Base
Rs.	Rupees
RST	Retail Supply Tariff
RWA	Resident Welfare Association
SBI - PLR	State Bank of India-Prime Lending Rate



[Signature]

Abbreviation	Full Form
SCADA	Supervisory Control And Data Acquisition
SERC	State Electricity Regulatory Commission
SHR	Station Heat Rate
SGS	State Generating Stations
SJVNL	M/s Satluj Jal Vidyut Nigam Limited
SLDC	State Load Despatch Centre
SMS	Short Message Service
Sq. Kms	Square Kilometers
SoP	Standard of Performance
STQC	Standardization Testing Quality Certification
SVRS	Special Voluntary Retirement Scheme
T&D	Transmission and Distribution
THDC	Tehri Hydro Development Corporation Ltd.
TNERC	Tamil Nadu Electricity Regulatory Commission
TOD	Time of Day
TPDDL	Tata Power Delhi Distribution Limited
TRANSCO	Transmission Company
TOWMCL	Timarpur-Okhla Waste Management Company Ltd.
UI	Unscheduled Interchange
VRS	Special Voluntary Retirement Scheme
WACC	Weighted Average Cost of Capital
W.P.	Writ Petition
WPI	Whole Sale Price Index
Y-o-Y	Year on Year



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Chapter – 1A



PREAMBLE & TARIFF PHILOSOPHY

BEFORE THE DELHI ELECTRICITY REGULATORY COMMISSION
C BLOCK, SHIVALIK, MALVIYA NAGAR, NEW DELHI

PETITION NO. _____ OF 2020

IN THE MATTER OF:-

BSES Rajdhani Power Limited

BSES Bhawan, Nehru Place

New Delhi-110 019

..... PETITIONER

AND

IN THE MATTER OF:- Annual Tariff Petition and Tariff for FY 2020-21 under Section 62 of the Electricity Act, 2003 read with Regulation 11 & 12 and other relevant provisions under DERC Tariff Regulations, 2017 and the Delhi Electricity Regulatory Commission Business Plan Regulations, 2019 (hereinafter referred to as "**Business Plan Regulations, 2019**") and also under Sections 11 and 28 of Delhi Electricity Reforms Act 2000 to the extent applicable, the Delhi Electricity Regulatory Commission (Conduct of Business) Regulations, 2001 and Condition 24 of the License for Distribution and Retail Supply of Electricity issued by the Hon'ble Commission.

ANNUAL TARIFF PETITION FOR FY 2020-21

RESPECTFULLY SHEWETH:

1. BSES Rajdhani Power Limited (hereinafter referred to as "**the Petitioner/ BRPL**"), a company incorporated under the Companies Act, 1956, and having its registered office at BSES Bhawan, Nehru Place, New Delhi – 110019, is a license holder for carrying on the business of Distribution and Retail Supply of electrical energy within the Area of Supply as specified in the "*License for Distribution and Retail Supply of Electricity*" issued by the Hon'ble Commission.
2. The present petition is being filed for Annual Tariff for FY 2020-21.
3. In accordance with the Electricity Act, 2003 (hereinafter referred to as "**the 2003**



Act”), the License conditions, DERC Business Plan Regulations, 2019, DERC Tariff Regulations, 2017, and DERC MYT Regulations 2011 and 2007, the Petitioner is required to file the Annual Tariff Petition for FY 2020-21 (hereinafter collectively referred to as the **“ARR/ ARR Petition”**). The Petitioner further submits that vide the present Petition it prays the Hon’ble Commission to allow the present petition and *inter alia* to permit the claims and expenses as sought for. Allowing the ARR on an urgent basis is pivotal for the Petitioner to meet its power purchase costs and other uncontrollable costs, meet the performance standards during FY 2018-19 as well as comply with various directives specified by the Hon’ble Commission, which particularly entail expenditure.

4. The ARR Petition of a Distribution Company/ Licensee/ Utility (hereinafter referred to as **“the Discom/ Discoms”**) comprises of various components like Power Purchase Cost, Operation and Maintenance Expenses, Capital expenditure related expenses, Income Tax, Revenue from tariff, Non-Tariff Income etc.
5. The Power Purchase Cost including Transmission Charges is one of the major components of ARR which contributes to almost 80% of the total ARR of a Discom. Most of the power is being purchased from Central Generating Stations like NTPC Limited, NHPC Limited, DVC, State Gencos etc. Most of these Central/ State Generating Stations are Government bodies/ PSU for which audit is already being carried by the CAG. Petitioner purchases power from Central Generating Stations at the rate specified by the Central Electricity Regulatory Commission (hereinafter referred to as **“Hon’ble CERC”**) in its various Tariff Orders. All the Power Purchase Agreements (hereinafter referred to as the **“PPAs”**) are approved by the Hon’ble Commission.
6. In accordance with Section 62 of the 2003 Act and Revised Tariff Policy 2016, the Hon’ble Commission has notified the DERC Tariff Regulations, 2017 which are required to be followed by the Licensees for filing the Petition for determination of ARR and Tariff determination for any particular year.
7. In Delhi, the Distribution Licensees are required to follow the DERC Tariff Regulations, 2017 and DERC Business Plan Regulations, 2019 while filing the ARR and Tariff Petitions.
8. It is noteworthy to mention here that the DERC Business Plan Regulations, 2019 have been issued by the Hon’ble Commission on December 27, 2019 and are in



force for a period of three (3) years i.e. FY 2020-21, FY 2021-22 and FY 2022-23.

9. The Hon'ble Commission vide its letter dated 30.12.2019 directed the Petitioner to submit the ARR & Tariff Petition for FY 2020-2021 based on the Business Plan Regulations, 2019.
10. The Hon'ble Commission vide its letter dated 14.01.2020 stated that the timeline for submission of ARR and Tariff Petitions for FY 2020-21 is extended upto 15.02.2020.
11. The Licensee, therefore, is filing its ARR Petition under the DERC Business Plan Regulations, 2019 which provides as under:

"... target for reduction in Distribution Loss for extended period shall be determined by the Commission based on the approved values by the Commission in the past, latest audited accounts, estimate of the actual for the relevant year, prudence check and other factors considered appropriate by the Commission."

12. The present ARR filing is also in accordance with the Hon'ble Commission's letter No. F.3(383)/Tariff/DERC/2014-15/4525/2116 dated 20.11.2014.
13. Under the provisions of the DERC Tariff Regulations, 2017, the Petition for determination of ARR for any financial year is required to be filed 150 days before the commencement of that particular financial year. The various legal provisions for filing of ARR as are below:
 - a. Section 62 of the 2003 Act provides for determination of supply of electricity by a generating company to distribution licensee; retail supply and wheeling tariff etc.
 - b. Regulation 11 of the DERC Tariff Regulations, 2017 lays down the provisions of tariff filing by the distribution licensees inter-alia as follows –

"11. The Distribution Licensee shall submit Annual Tariff Petition, at least, one hundred and fifty (150) days prior to the end of relevant financial Year which shall contain:

 - (1) Sales Forecast for the ensuing year and audited Sales for previous Year on monthly basis as prescribed in the Appendix-2;*
 - (2) Expected Revenue to be billed for the ensuing year and audited*



[Signature]

Revenue Billed and Realised for previous Year as prescribed in the Appendix-2;

(3) Power Procurement Quantum & Cost for ensuing Year and audited Power Purchase Quantum & Cost for previous Year on monthly basis indicating Long Term and Short Term, Renewable Energy Purchase and other applicable Charges as prescribed in the Appendix -2:

Provided that the Distribution Licensee shall propose the indicative cost of power procurement taking into account revenues from Short term sale of Surplus Power and maximum normative rebate available from each entity;

Provided that the Renewable Purchase Obligation of the Distribution Licensee as per the Delhi Electricity Regulatory Commission (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012 as amended from time to time shall be part of the Distribution Licensee's Power Procurement Cost;

(4) Actual and Expected intra- State & inter-State Transmission Loss & Charges including Load Dispatch Charges, Open Access Charge indicating maximum normative rebate available from each entity for the previous and ensuing Year respectively:

Provided that the Distribution Licensee shall propose Wheeling Charges in case the distribution network of other Distribution Licensee is used for procurement of power for the Retail Supply Business;

(5) Actual and Expected amount on account of Cross-Subsidy Surcharge and Additional Surcharge to be received by the Licensee, as approved by the Commission from time to time in accordance with the Delhi Electricity Regulatory Commission (Terms and Conditions of Open Access) Regulations 2005 as amended from time to time, shall be indicated separately against the consumer category by the Distribution Licensee;

(6) Actual Voltage wise Distribution Loss and Collection Efficiency for the previous Year;

(7) Energy Audit Report of distribution network of the Distribution Licensee for previous Year by certified energy auditor from Bureau of Energy Efficiency;

(8) Monthly Energy Balance for the ensuing & previous Year;

(9) Actual and Expected additional Expenses on account of O&M beyond the Control of Distribution Licensee for the ensuing & previous Year respectively;

(10) Actual and Expected Capitalisation and Depreciation Schedule for the previous and ensuing Year respectively;



[Signature]

(11) Actual and Expected Non-Tariff Income including Other Business Income for the previous and ensuing Year respectively;

(12) Actual weighted average rate of interest on loan.”

14. Further, the ARR filing includes Truing-up of Previous Year based upon the Audited Accounts available for that year and Tariff determination for the ensuing year. Truing-up requirement for any year is filed on the basis of Audited Accounts for previous year and norms specified by the Hon'ble Commission for controllable expenses. The Petitioner has already filed its Petition for Truing-up of expenses upto FY 2018-19 on 06.12.2019.
15. The projections for ensuing year are done on the basis of certain assumptions which are outlined below:
- (a) Sales to various consumer categories are projected on the basis of Past Year Compounded Annual Growth Rate.
 - (b) Distribution Loss and Collection Efficiency are projected in accordance with the DERC Tariff Regulations, 2017 and the target specified by the Hon'ble Commission in DERC Business Plan Regulations, 2019.
 - (c) Power Purchase Quantum to be purchased is projected on the basis of sales and AT&C Loss projected for the ensuing year. Various Power Purchase Agreements/ Contracts are taken into consideration while projecting power purchase quantum.
 - (d) Power Purchase Cost is projected on the basis of various bills of Generating companies based on orders issued by Hon'ble CERC and/or this Hon'ble Commission based upon the applicability.
 - (e) Operation and Maintenance Expenses are projected on the basis of trajectory specified by the Hon'ble DERC for the various years of the Control Period.
 - (f) Capital expenditure related expenses are projected on the basis of capital expenditure approved by the Hon'ble Commission for ensuing year in the DERC Business Plan Regulations, 2019. The various expenses linked to Capital expenditure are also projected accordingly.
 - (g) Income Tax is projected on the basis of the provisional amount determined by the Hon'ble Commission for the various years of the Control Period.
16. Section 11 read together with Section 28 of the Delhi Electricity Reforms Act, 2000 (hereinafter “**DERA**”) provides for the Discom to observe methodologies and procedures specified by the Hon'ble Commission from time to time in



calculating the expected revenue.

17. Clause 24 of the License Conditions of Petitioner issued by the Hon'ble Commission also provides for the provision of revenue calculation and tariffs.
18. Accordingly, the Petitioner is filing the present ARR Petition to ensure prompt determination of ARR and Tariff for FY 2020-21 and requests the Hon'ble Commission to permit recovery of expenses as prayed for as well as to:
 - (a) Enable the Petitioner to comply with various directions of the Hon'ble Commission;
 - (b) Enable the Petitioner to meet performance standards and mitigate the impact of the large increase in power purchase costs and other uncontrollable costs.
 - (c) Set a realistic, achievable and practical trajectory for various heads based on the actual performance of the Petitioner during last control period.

The Petitioner *inter alia* seeks that this Hon'ble Commission may also:-

- (d) Set a trajectory for various heads based on the criteria mentioned for each of the individual tariff items in the Petition.

This becomes imperative as:

- (e) There is a significant variation in Power Purchase Rate during FY 2017-18 like previous years primarily on account of various factors, which are beyond the control of the Petitioner. Thus, it would be incumbent on this Hon'ble Commission to address this problem since only a part of power purchase cost has been permitted through tariff that too without passing on the variation of short term purchase and sales in the power purchase price adjustment formula.
- (f) The Petitioner is faced with an imminent cash-flow crunch due to unrecovered expenses primarily on account of uncontrollable increase in the power purchase cost.
- (g) The Petitioner is aggrieved by the fact that a cost-reflective tariff has not been provided to the Petitioner ever since 2007. The Hon'ble Commission in its Statutory Advice to the Government of National



Capital Territory of Delhi (hereinafter referred to as “GoNCTD”) dated February 1, 2013 has admitted that the Petitioner is facing an adverse financial position. Even independent experts appointed by GoNCTD, such as M/s. PricewaterhouseCoopers (hereinafter referred to as “PwC”) have corroborated the said findings of the Hon’ble Commission on various occasions.

- (h) The Petitioner has been and is in a situation where its financial health and ability to pay for power procurement (which constitutes about 85% of the Petitioner’s expenses) besides statutory dues has been constrained and that too not for any reasons attributable to the Petitioner but for the legitimate costs and expenses being withheld in the form of Regulatory Assets and for not granting the allowance which are even directed by the Hon’ble Appellate Tribunal for Electricity (hereafter “the Hon’ble Tribunal”).
- (i) The above position was admitted by the Hon’ble Commission itself in its White Paper released on along with the Hon’ble Commission’s Tariff Order for FY 2011-12 wherein the Hon’ble Commission admitted that in the FY 2009-10 onwards, the power purchase cost was actually 103%-112% respectively of the ARR.

It is submitted that ARR and Tariff has been allowed by the Hon’ble Commission without a proper true-up of accounts for the previous years and even though there may have been surpluses as determined by the Hon’ble Commission in the true-up of previous years the same has not been accounted for in deciding and approving the ARR in the subsequent years.

19. It is trite law that that the principle of judicial discipline and propriety requires that the orders of the appellate authorities should be followed scrupulously and unreservedly by its subordinate authorities. The direction of the Hon’ble Tribunal are certainly binding on the Hon’ble Commission. Therefore, the judgments delivered by the Hon’ble Tribunal needs to be implemented in their true letter and spirit by the Hon’ble Commission and the financial impact and regulatory effect of the principles laid down in these judgments and/ or entitlements under these judgments be granted to the Petitioner while deciding the present Petition. This Hon’ble Commission, therefore, is kindly requested to decide and determine the ARR Petition in accordance with the principles contained in the various judgments passed by the Hon’ble Tribunal in:
 - a) Judgment dated November 11, 2011 passed in O.P. No. 1 of 2011;
 - b) Judgment dated July 12, 2011, October 6, 2009, November 28, 2014,



[Signature]

- March 2, 2015 and May 15, 2015 in Appeal No. 142 of 2009, Appeal No. 36 of 2008, Appeal No. 61 of 2012 and Appeal No. 177 of 2012 and RP No. 7 of 2015 respectively in the matter of BSES Rajdhani Power Limited vs. Delhi Electricity Regulatory Commission & Others.;
- c) Judgment dated October 31, 2017 in I.A. No. 320 of 2015 in Appeal No. 177 of 2012, in the matter of a Clarification Application filed by this Hon'ble Commission.
 - d) Judgment dated May 15, 2017 read together with February 23, 2015 in Appeal 103 of 2017 and Appeal No. 110 of 2014 respectively in the matter of BSES Rajdhani Power Limited vs. Delhi Electricity Regulatory Commission pertaining to the issue of consumer contribution.
 - e) Judgment dated July 30, 2010, May 31, 2011, November 28, 2013 and September 30, 2019 in Appeal No. 153 of 2009, Appeal No. 52 of 2008, Appeal No. 14 of 2012 and Appeal 246 of 2014 respectively in the matter of North Delhi Power Limited vs. Delhi Electricity Regulatory Commission & Others., in accordance with the principle of maintaining equity and parity amongst all the Discoms;
20. In addition to the above, various issues are pending in the following Appeals and in the event the Hon'ble Commission renders relief to the Petitioner on the said issues, then to that extent the same will have twin benefits in as much as further litigation can be contained as well as the exposure of carrying costs on the consumers could also be contained.
- a) The pending proceedings before Hon'ble Supreme Court namely Civil Appeal Nos. 8660 & 8661 of 2015, Civil Appeal Nos. 4323 & 4324 of 2015, Civil Appeal No. 4933 & 4906 of 2015, Civil Appeal No. 6959 & 6960 of 2015, Civil Appeal Nos. 1854 & 1855 of 2014, Civil Appeal Nos. 4010 & 4013 of 2014, Civil Appeal Nos. 9003 & 9004 of 2011, Civil Appeal Nos. 884 & 980 of 2010, W.P(C)No.104 & 105 of 2014 and other connected matters therein.
 - b) Appeal Nos. 376 of 2019, 193 of 2018, 69/72 of 2018, 297 of 2015, 155 of 2015, 235 of 2014, 230 of 2014 and 266 of 2013 and R.P. No. 16 of 2015 in Appeal No. 177 of 2012 pending adjudication before the Hon'ble Tribunal.
21. It is respectfully submitted that the Hon'ble Tribunal has in a catena of judgments underscored the necessity for carrying true-up of expenses for the financial viability of the licensees and utilities. The Hon'ble Tribunal has also emphasized on the requirement to carry out the exercise for true-up in a time



bound manner and ensure speedy recovery of costs. Hence, allowing true-up on urgent basis is pivotal for the Petitioner to meet its power purchase costs and other uncontrollable costs, meet the performance standards as well as comply with various directives specified by the Hon'ble Commission, which particularly entails expenditure. Timely completion of the true-up exercise allowing recovery of costs in a reasonable manner will have a positive impact on the Petitioner's ability to service the consumers/public. Hence, by way of the present petition the Petitioner seeks to set out the financial data on the basis of the actual audited numbers for consideration by the Hon'ble Commission in the present ARR Petition.

EFFECT OF STATUTORY DOCUMENTS:

- a) This ARR Petition is filed in accordance with the principles contained in the:
- i. Electricity Act, 2003;
 - ii. DERC Tariff Regulations, 2017;
 - iii. DERC Business Plan Regulations, 2019;
 - iv. Tariff Policy and National Electricity Policy;
 - v. Principles of law laid down by the Hon'ble Tribunal pertaining to true-up of uncontrollable factors such as power purchase costs, energy sales, new initiatives and other uncontrollable costs; and
 - vi. Principles of law laid down by the Hon'ble Tribunal pertaining to recovery of accumulated Revenue Gaps and allow suitable Tariff revision to recover estimated revenue shortfall;
 - vii. Principles of law laid down by the Hon'ble Tribunal pertaining to the fixing of financial and performance targets before the Tariff Year;
 - viii. Principles of law laid down by the Hon'ble Tribunal that Regulations framed under the 2003 Act could not operate retrospectively;
 - ix. Principles of law laid down by the Hon'ble Tribunal pertaining to approval of all expenses in the trueing up while determining Aggregate Revenue Requirement without deferring any or part of the expense in the form of Regulatory Asset.
 - x. Consider the energy requirement appropriately based on the exercise initiated by the Hon'ble Commission regarding reallocation of capacity.
 - xi. Tariff Orders issued by Hon'ble CERC for various generating stations and Tariff Orders issued by this Hon'ble DERC for the Generating and Transmission companies from which the Petitioner draws power, while determining the power purchase and transmission costs of the Petitioner.
 - xii. Business Plan/Business Plan information filed by the Petitioner.



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22. It is, therefore, respectfully submitted that while deciding the present ARR Petition, the Hon'ble Commission will need to be guided by *inter alia* the following mandates of the 2003 Act and Revised Tariff Policy:

a) Electricity Act, 2003:

"61. The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e) the principles rewarding efficiency in performance;

(f) multiyear tariff principles;

(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;

(h) the promotion of co-generation and generation of electricity from renewable sources of energy;

(i) the National Electricity Policy and tariff policy:"

{Emphasis supplied}

b) Revised Tariff Policy, 2016 notified by the Central Government under Section 3 of the Electricity Act, 2003:

"Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of hydro-thermal mix in case of adverse natural events."

{Emphasis supplied}

Furthermore, the Revised Tariff Policy also mandates approval of the capital expenditure necessary to meet the minimum service standards. There is a need to accelerate performance improvement and reduction in losses which will be in the long term interest of consumers by way of lower tariffs.

"a) Return on Investment

Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector.

..

Making the distribution segment of the industry efficient and solvent is the key to success of power sector reforms and provision of services of specified standards. Therefore, the Regulatory Commissions need to strike the right balance between the requirements of the commercial viability of distribution licensees and consumer interests. Loss making utilities need to be transformed into profitable ventures which can raise necessary resources from the capital markets to provide services of international standards to enable India to achieve its full growth potential. Efficiency in operations should be encouraged. Gains of efficient operations with reference to normative parameters should be appropriately shared between consumers and licensees.

....

At the beginning of the control period when the "actual" costs form the basis for future projections, there may be a large uncovered gap between required tariffs and the tariffs that are presently applicable. The gap should be fully met through tariff charges and through alternative means that could inter-alia include financial restructuring and transition financing.

....

Working capital should be allowed duly recognizing the transition issues faced by the utilities such as progressive improvement in recovery of bills. Bad debts should be recognized as per policies developed and subject to the approval of the State Commission.

Pass through of past losses or profits should be allowed to the extent caused by uncontrollable factors.

....

The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as a very rare exception in case of natural calamity or force majeure conditions and subject to the following:

- a. Under business as usual conditions, no creation of Regulatory Assets shall be allowed;*
- b. Recovery of outstanding Regulatory Asset along with carrying cost of Regulatory Assets should be time bound and within a period not exceeding seven years. The State Commission may specify the trajectory*



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for the same.”
{Emphasis supplied}

FACTORS IMPACTING THE PETITIONER AND THE CONSUMERS:

23. A commercially sustainable tariff is a *sine qua non* for the health of the electricity sector. The financial health of the Discom is in the larger interests of the consumers themselves. The entire scheme and intent of the 2003 Act is consumer interest. However, consumer interest does not lie in lower tariff alone. It lies equally, if not more, in the financial health of the utilities which are dedicated to serve their consumers. It is further submitted that the Petitioner is severely affected owing to the following factors amongst others, and therefore the Petitioner requests the Hon'ble Commission to take the same into consideration while disposing of the present petition :-
- a) The creation and continuance of Non-cost-reflective tariff over the years for the Petitioner Licensee;
 - b) Absence of justifiable True up of uncontrollable expenditure including but not limited to power purchase costs;
 - c) Long Regulatory Time taken in True up of uncontrollable expenditure;
 - d) Variation in the power purchase costs nationwide which is uncontrollable;
 - e) The realistic rate of sale of surplus electricity is lower than the rate factored in by the Hon'ble Commission and the differential amount from the total power purchase cost creates an adverse effect on the Petitioner ;
 - f) Progressive buildup of revenue gap and regulatory assets since FY 2006-07;
 - g) Absence of any time bound mechanism for recovery of accumulated shortfall;
 - h) Lower rates of carrying costs granted by the Hon'ble Commission as against the market lending rate;
 - i) Very low rate of recovery of carrying cost of Regulatory Assets (hereinafter referred to as the “RA”), which ought to be in consonance with various judgments of the Hon'ble Tribunal thereby ensuring that the Petitioner not only recovers the carrying cost on the RA during the year but also 1/3rd of the outstanding RA principal. In terms of the same, the surcharge ought to be revised appropriately so that the RA is recovered speedily without burdening the future consumers with the past costs. It is submitted that the prior decisions of the Hon'ble Commission to continue to retain a meager surcharge of 8% over the revised tariff strikes at the very root of the ability of the Petitioner to be in a position to clear its outstanding dues to the



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generating companies and the transmission licensee who have/had issued disconnection notices.

- j) The Petitioner finds it extremely difficult to raise funds for undertaking schemes for loss reduction from financial institutions due to the continued absence of time bound amortization schedule of the Regulatory Assets by the Hon'ble Commission which is required in line with the revised Tariff Policy, 2016 and findings of the Hon'ble Tribunal in its various judgments.
 - k) The ability of the Petitioner to liquidate the dues of the generating companies and the transmission licensee is adversely affected owing to the increase of the regulatory assets from Rs. 158.50 Crore upto FY 2006-07 to Rs. 3979 Crore upto FY 2017-18 as against the mandatory requirement of being amortized within the first MYT control period ending FY 2011-12 as per the DERC Tariff Regulations, 2007 read with the Tariff Policy;
 - l) Seriously deepening the financial crisis owing to the non-cost reflective tariffs as determined under the various tariff orders as well as creation of revenue gap year after year and creation of regulatory assets as an ordinary course rather than the statutory mandate of it being required to be created only as a matter of exception;
 - m) Results in a situation where financial institutions are not willing to extend financial assistance to the Petitioner to carry on its licensed business.
24. The Hon'ble Commission is required under law to decide the present ARR Petition in a manner ensuring timely recovery of all costs so that ultimately the consumers do not have to bear the burden of avoidable carrying cost on those amounts and costs that are not passed through in the retail tariffs on a regular basis.
25. The filing of the Petition should not be treated as curtailing any right or claim of the Petitioner, which it is permitted to recover in terms of its License and Orders of the Hon'ble Commission, Hon'ble Tribunal (including the principle of parity / equality in treatment of Discoms) and or any other proceedings relevant to the entitlement of the Petitioner.
26. The Petitioner in the present ARR Petition has made certain assumptions in relevant sections, and has endeavoured to comply with the various applicable legal and regulatory directions of the Hon'ble Commission.



27. The Petitioner is filing the present Petition to ensure prompt determination of tariff as to seek the ARR and Tariff for FY 2020-21. Though the Petitioner has made all efforts and has tried diligently to ensure the filing of a comprehensive Petition, it may be possible that some aspects/components/claims have not been dealt in detail and/or may have been inadvertently omitted. It is submitted that such inadvertent omission/deficiency, if any, would not amount to any waiver of any entitlement/claim by the Petitioner. The Petitioner craves leave of this Hon'ble Commission and reserves its rights to supplement the present Petition with additional facts, additional affidavits, additional submissions and claims, if any.
28. The filing of the Petition should not be treated as curtailing any right or claim of the Petitioner, which it is permitted to recover in terms of its License and Orders of the Hon'ble Commission, Hon'ble Tribunal (including the principle of parity / equality in treatment of Discoms) and or any other proceedings relevant to the entitlement of the Petitioner.

PRAYERS:

29. In view of the above, the Petitioner most respectfully prays that the Hon'ble Commission may be pleased to:
- A. Take the present Annual Tariff Petition on record and admit the same; and
 - B. Approve amortization of the accumulated Revenue Gaps (Regulatory Asset) up to FY 2018-19 and carrying cost thereof through a surcharge as submitted in Chapter - 5; and
 - C. Approve the ARR as submitted in Chapter- 4 and Tariff as submitted in Chapter- 5 for FY 2020-21 ; and
 - D. Adjust the gap in power purchase cost by reassigning the allocation of power in terms of Regulation 121 of DERC Tariff Regulations, 2017; and
 - E. Adjust the Pension trust surcharge as submitted in Para No. 5.13 to 5.14;
 - F. Determine carrying costs in compliance with the directions of the Hon'ble Tribunal in O.P. No. 1 of 2011 and the National Tariff Policy, i.e., in a manner so that the same covers all the levies/ amounts/interests including LPSC, being levied by Gencos; and
 - G. Give effect to any order/direction/ judgment as issued by the Hon'ble



Tribunal in Appeal Nos. 376 of 2019, 193 of 2018, 69/72 of 2018, 297 of 2015, 155 of 2015, 235 of 2014, 230 of 2014 and 266 of 2013 and R.P. No. 16 of 2015 in Appeal No. 177 of 2012 pending adjudication before the Hon'ble Tribunal subsequent to the filing of and/ or during the pendency of the present Petition; and

- H. Give effect to the Hon'ble Commission's Order dated 13/12/2019 in Review Petition No. 30 of 2018; and
- I. Allow additions / alterations / changes/ modifications to the petition and permit the petitioner to place on record any developments/ facts/ documents that come to the knowledge of the Petitioner at a future date; and
- J. Condone any inadvertent omissions/ errors/ rounding off difference/ shortcomings; and
- K. Pass any order or further order/s and grant any other relief which this Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

Prayed accordingly

Petitioner
Through:
Ravi Shandilya
Senior Manager - Regulatory
Authorized Signatory
BSES Rajdhani Power Limited



Chapter – 1B



EXECUTIVE SUMMARY

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Executive Summary

Introduction

- 1B.1 The Petitioner has filed the Petition for approval of Aggregate Revenue Requirement (ARR) and Tariff determination for FY 2020-21.
- 1B.2 This Executive Summary contains the summary of the Petition filed by BRPL for ARR and tariff of FY 2020-21 (based on projections).
- 1B.3 As per the DERC Tariff Regulations 2017 and DERC Business Plan Regulations 2017, the Tariff for FY 2020-21 shall be based on the ARR approved by the Hon'ble Commission, which broadly has the following components:
- a) Power Purchase cost
 - b) Operation and Maintenance (O&M) expenses
 - Employee expenses
 - Administrative & General (A&G) expenses
 - Repair & Maintenance (R&M) expenses
 - c) Return on Capital Employed (ROCE)
 - d) Depreciation
 - e) Income tax
 - f) Non-tariff income



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ARR for FY 2020-21

Energy Sales and Revenue

1B.4 The Petitioner has considered the Adjusted Trend Analysis Method for the purpose of accurate projection of sales. The Petitioner has projected the energy sales at 13167 MU for FY 2020-21 and has requested the Hon'ble Commission to approve the same.

Table 1B - 1: Energy Sales and Revenue for FY 2020-21

S. No	CATEGORY	Estimated Energy	Estimated FC	Estimated EC	ToD Sur + Rebate Impact	Total Revenue	ABR
		MU	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
1	DOMESTIC	8136	498	3488		3986	4.90
2	NON-DOMESTIC	3335	802	2860	24	3687	11.06
3	INDUSTRIAL	529	94	423	4	521	9.85
4	AGRICULTURE & MUSHROOM CULTIVATION	21	4	3		8	3.59
5	PUBLIC UTILITIES	751	71	474	3	548	7.30
6	DIAL	250	15	196	2	213	8.51
7	ADVERTISEMENTS AND HOARDINGS	1	1	1		2	12.70
8	TEMPORARY SUPPLY	100		119		119	11.87
9	CHARGING STATIONS FOR E-VEHICLE	28		12		12	4.50
10	THEFT	0					
11	OWN CONSUMPTION	16					
12	NET METERING	0					
13	Grand Total	13167	1486	7576	34	9096	6.91

* Public Utilities include Public Lighting, DJB (11kV), DJB (LT), Railway Traction & DMRC.

Distribution Loss & Collection Efficiency

1B.5 Regulation-25 (1) of DERC (Business Plan) Regulations, 2019 specifies the Distribution Loss Target from FY 2020-21 to FY 2022-23 as under:

Table 1B - 2: Distribution Loss during FY 2020-21 to FY 2022-23

S. No	Distribution Licensee	FY 20-21	FY 21-22	FY 22-23
1	BSES Rajdhani Power Limited	8.10%	8.00%	7.90%

1B.6 The Petitioner has considered Collection Efficiency of 99.50% during FY 2020-21 in accordance with Regulation 26(1) of Business Plan Regulations, 2019.



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Energy Requirement

- 1B.7 The energy sales for the year is grossed up by the loss levels of the that year, to arrive at the required quantum of power purchase for that year in the following manner:

$$\text{Quantum of Power Purchase (MU)} = \frac{\text{Energy Sales (MU)}}{1 - (\text{Distribution loss (\%)/100})}$$

- 1B.8 Based on the sales projected for FY 2020-21 and Distribution loss specified for FY 2020-21 in the Business Plan Regulations, 2019, the estimated energy requirement and energy balance is tabulated as under:

Table 1B - 3: Energy Requirement & Energy Balance (MU)

S. No.	Particulars	Units	FY 2020-21
Energy Availability			
1	Total Energy Available (Excluding SGS Plants)	MU	11987
2	Inter-State Transmission Loss	%	3.00%
3	Inter-State Transmission Loss	MU	360
4	Energy Available from Delhi stations	MU	2120
5	Short Term Purchase	MU	1783
6	Short Term Sale	MU	1071
7	Energy Available at State Transmission Periphery	MU	14459
8	Intra-State Transmission Loss	%	0.92%
9	Intra-State Transmission Loss	MU	133
10	Net Energy available at Distribution Periphery	MU	14327
Energy Requirement			
1	Energy Sales	MU	13167
2	Distribution Loss	MU	8.10%
3	Energy requirement at Distribution Periphery	MU	14327

Power Purchase Cost

- 1B.9 The Petitioner has submitted in its Petition that it sources its power requirement through a mix of long term and short term sources to meet the demand of Delhi. Long term sources include Central Generating Stations which are owned and/or fully controlled by Central Government and State Generating Stations which are owned and/or fully controlled by State Government. The Petitioner has been assigned the share based on the PPAs which have been inherited from Delhi Transco Limited. The allocation of power within Delhi is being done by the Hon'ble Commission.

Table 1B - 4: Power Purchase cost proposed for FY 2020-21

Particulars	Projections for FY 2020-21					
	Energy Purchase	AFC	Energy Charges	Other Charges	Total PPC	Total PPC
	MU	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	Rs./kWh
Existing Sources						
NTPC Ltd.	7411	1242	2369	0	3611	4.87
NHPC Ltd.	1009	151	136	38	325	3.22
Nuclear Power Corp. of India Ltd.	390	0	132	0	132	3.38
Satluj Jal Vidyut Nigam Ltd.	285	29	35	0	64	2.23
Tehri Hydro Development Corp. Ltd.	218	44	45	0	89	4.11
PTC	33	0	7	0	7	2.16
Damodar Valley Corporation	976	178	225	0	403	4.13
Power stations in Delhi	2120	543	916	0	1459	6.88
Aravali Power Corporation Ltd .	42	11	14	0	25	5.96
UMPP	495	7	59	0	66	1.33
SECI	44	0	24	0	24	5.50
Short-Term purchase (Exchange)	1783	0	669	0	669	3.75
Short Term Sale	1071	0	331		331	3.09
New Sources						
Tapovan Vishnugad	49	0	18		18	3.60
INOX	87	0	31		31	3.53
SECI-ACME	437	0	112		112	2.57
SECI	127	0	34		34	2.66
Wind-Alfanar	108	0	27		27	2.51
Wind - Srijan	12	0	3		3	2.84
Wind SITEC	192	0	56		56	2.89
Kameng HEP	71	0	48		48	6.69
Total	14819	2205	4627	38	6871	4.64
Less: Rebate					120	
Add: Transmission Charges					1104	
Add: REC Purchase					255	
Less: Transmission Losses	493					
Grand-Total	14237	2205	4627	38	8110	5.66

Renewable Purchase Obligation

1B.10 Regulation-27 of DERC Business Plan Regulations, 2019 specifies the target for Renewable Purchase Obligation from FY 2020-21 to FY 2022-23 as under:

"27. TARGET FOR RENEWABLE PURCHASE OBLIGATION

(1) The targets for Renewable Purchase Obligation (RPO) in terms of Regulation 124 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 of a Distribution Licensee from FY 2020-21 to FY 2022-23, shall be computed as a percentage of total sale of power, to its retail consumers in its area of supply, excluding procurement of hydro power. The target for RPO shall be met through purchase of power from various



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Renewable Energy sources or purchase of Renewable Energy Certificates ('REC') or combination of both, and shall be as follows:

Table 16: Targets for Renewable Purchase Obligation

Sr No.	Distribution Licensee	2020-21	2021-22	2022-23
1	Non Solar Target	10.25%	10.25%	10.50%
2	Solar Target	7.25%	8.75%	10.50%
3	Total	17.50%	19.00%	21.00%

“

1B.11 The cost of REC purchase for meeting Solar and Non-Solar RPO for FY 2020-21 is tabulated below:

Table 1B - 5 Cost on account of RPO

Particulars	Solar	Non Solar	Total
Sales (MU)	13167		
Hydro Purchase (MU)	1665		
Base for RPO (MU)	11502		
Target (%)	7.25%	10.25%	17.50%
Target (MU)	834	1179	2013
Arrangement (MU)	608	508	1116
Shortfall (MU)	226	671	897
REC @ Forbearance (Rs./kWh)	2.40	3.00	
REC Cost (Rs. Crore)	54	201	255

Transmission Charges

1B.12 The Petitioner has projected the Intra State and Inter State Transmission charges for FY 2020-21 as below:

Table 1B - 6: TX Loss and TX Charges projected for FY 2020-21

S. No	Particulars	FY 2020-21
A	Transmission losses (MU)	
i	Inter-State Transmission	360
ii	Intra-State Transmission	133
iii	Total Transmission losses (MU)	493
B	Transmission Charges (Rs. Crore)	1104

Other Components of ARR

1B.13 The Other Components of ARR are;

- O&M Expenses
- Depreciation
- RoCE
- Income Tax

O&M Expenses

1B.14 Regulation-23 of DERC Business Plan Regulations, 2019 states as under:

“23. Operation and Maintenance Expenses

(1) Normative Operation and Maintenance Expenses in terms of Regulation 4(3) and Regulation 92 of the DERC (Terms and Conditions for determination of Tariff) Regulations, 2017 for the Distribution Licensees shall be follows:

Table 8: O&M Expenses for BRPL for the Control Period

Particulars	Unit	2020-21	2021-22	2022-23
66 kV Line	Rs. Lakh/ Ckt. Km	3.855	4.002	4.156
33 kV Line	Rs. Lakh/ Ckt. Km	3.855	4.002	4.156
11 kV Line	Rs. Lakh/ Ckt. Km	1.150	1.194	1.239
LT lines system	Rs. Lakh/ Ckt. Km	6.148	6.384	6.629
66/11 kV Grid S/s	Rs. Lakh/ Ckt. Km	1.033	1.073	1.114
33/11 kV Grid S/s	Rs. Lakh/ Ckt. Km	1.033	1.073	1.114
11/0.415 kV DT	Rs. Lakh/ Ckt. Km	2.563	2.661	2.763

...”

1B.15 Accordingly, O&M Expenses estimated for FY 2020-21 are tabulated below:

Table 1B - 7: O&M Expenses estimated during FY 2020-21

(in Rs. Crores.)

S. No	Assets/ lines	Avg. Quantity	Units	Norms	Amount
1	66 kV lines	1164	Rs. Lakh/ Ckt. Km	3.855	45
2	33 kV lines				90
3	11 kV lines	7785	Rs. Lakh/ Ckt. Km	1.150	
4	LT lines system	12458	Rs. Lakh/ Ckt. Km	6.148	766
5	66/11 kV grid sub-station	6365	Rs. Lakh/ Ckt. Km	1.033	66
6	33/11 kV grid sub-station				
7	11/0.4 kV DT	5204	Rs. Lakh/ Ckt. Km	2.563	133
8	Total				1099



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Additional O& M Expenses

1B.16 As per the various provisions in regards to O&M Expenses of DERC Tariff Regulations, 2017, the Petitioner has considered an escalation factor of 5.6% (as per DERC Business Plan Regulations, 2017) and 3.8% (as per DERC Business Plan Regulations, 2019) over actuals for FY 2018-19 to arrive at the additional O&M Expenses for FY 2020-21 as under:

Table 1B - 8: Additional O&M Expenses estimated for FY 2020-21

(in Rs. Crores)

O&M Expenses Projection	FY 2018-19 (Actual)	FY 2019-20 (Escalated at 5.6%)	FY 2020-21 (Escalated at 3.8%)
Additional O&M Expenses	197	208	216

Capital Expenditure and Capitalisation

1B.17 As regards, Capital Investment, Regulation-24 (1) of DERC Business Plan Regulations, 2019 states as under:

“24. Capital Investment Plan

(1) The tentative Capital Investment Plan in terms of Regulation 4 (4) of the DERC (terms and conditions for determination of tariff) Regulations, 2017 for the Distribution Licensee shall be as follows:

Table 12: Capitalisation for BRPL for the Control Period (in Rs. Cr.)

Particulars	2020-21	2021-22	2022-23	Total
Capitalization	641	634	802	2077
Smart Meter	50	52	55	157
Less: Deposit Work	67	81	67	215
Total	624	605	790	2,019

“

1B.18 The Petitioner has considered the gross capitalisation of Rs. 624 Crore including consumer contribution (Deposit work) (Rs. 67 Crore) during FY 2020-21 as approved by the Commission, provided that the same may be trued-up based on the actuals incurred to meet the loss targets issued by the Commission for FY 2020-21.

Depreciation

1B.19 The Hon'ble Commission in DERC Tariff Regulations, 2017 has specified different rates of depreciation depending upon the class and life of assets. Unlike the previous Regulations, DERC Tariff Regulations, 2017 does not contain the concept of Advance Against Depreciation. As per DERC Tariff Regulations, 2017, the assets shall attract a higher rate of depreciation till completion of 12 years of useful and after 12 years, the remaining depreciation shall be uniformly distributed over the remaining useful life.

1B.20 Since FY 2017-18 is the first Financial Year for which these Regulations are applicable, the Petitioner has worked out the depreciation by applying these class-wise rates based on the useful life of the existing assets. Accordingly, the average rate of depreciation comes to be 4.76%. The Petitioner has applied rate of 4.76% on the average GFA estimated for FY 2019-20. However, the depreciation rate of 4.76% so computed, may undergo change at the end of FY 2018-19 based on actual capitalization. The depreciation for FY 2020-21 is tabulated below:

Table 1B - 9: Depreciation for FY 2020-21

(in Rs. Crore)

S. No	Particulars	FY 2020-21	Reference
A	Gross Fixed Assets (GFA)		
i	Opening Balance	7657	
ii	Additions during the year	624	
iii	Closing Balance	8281	i+ii
iv	Average Balance	7969	(i+iii)/2
B	Consumer Contribution		
v	Opening Balance	790	
vi	Additions during the year	67	
vii	Closing Balance	857	v+vi
viii	Average Balance	824	(v+vii)/2
C	GFA net of consumer contribution	7146	iv-viii
D	Average rate of depreciation	4.76%	
E	Depreciation	340	C x D

Return on Capital Employed (RoCE)

1B.21 The Petitioner has computed RoCE during FY 2020-21 as under:

Table 1B - 10: RoCE for FY 2020-21

(in Rs. Crore)			
S. No	Particulars	FY 2020-21	Reference
A	Average Equity	2270	
B	Average Debt	2657	
C	Total	4927	A+B
D	Rate of Return on Equity	16.00%	
E	Income Tax Rate	17.47%	
F	Grossed up Return on Equity	19.39%	D/(1-E)
G	Rate of Interest on Debt	12.90%	
H	Weighted Average Cost of Capital (WACC)	15.89%	$((A/C)*F)+((B/C)*G)$
I	Regulated Rate Base (RRB (i))	4694	
J	Return on Capital Employed (RoCE)	746	H*I

Non-Tariff Income

1B.22 The Non-Tariff Income and income from other business during FY 2020-21 has been considered equivalent to actual NTI during FY 2018-19 as Rs. 157.60 Crore.

Aggregate Revenue Requirement

1B.23 The Aggregate Revenue Requirement during FY 2020-21 is tabulated as under:

Table 1B - 11: Aggregate Revenue Requirement for FY 2020-21

(in Rs. Crore)

S. No	Particulars	FY 2020-21
A	Net Power Purchase Cost including Transmission and SLDC Charges	8110
B	O&M Expenses	1099
C	Additional O&M Expenses	216
D	Depreciation	340
E	Return on Capital Employed (RoCE)	746
F	Less: NTI	158
G	Aggregate Revenue Requirement	10353

Recovery of Regulatory Assets

1B.24 The Regulatory Assets till FY 2018-19 is tabulated below:

Table 1B - 12: Regulatory Asset till FY 2018-19 (Rs. Cr.)

S. No.	Particulars	FY 2018-19
A	RA Creation	
1	Opening RA for FY 2018-19	3979
2	Revenue Gap during FY 2018-19	799
3	Rate of carrying cost	14%
4	Carrying cost accrued during the year	613
5	Amortization through 8% surcharge	721
6	Amortization of carrying cost	420
8	Closing RA for FY 2018-19 on stand-alone basis	4250
9	Add:	
a	Impact of past claims up to FY 2017-18 as per Table 1B13 of True-up Petition for FY 2018-19	14308
b	Carrying cost on past claims during FY 2018-19	2003
9	Total closing RA for FY 2018-19	20561

Revenue (Gap)/ Surplus for FY 2020-21 at Existing Tariffs

1B.25 The Revenue (Gap)/ Surplus for FY 2020-21 at Existing Tariffs is tabulated below:

Table 1B - 13: Revenue (Gap)/ Surplus at Existing Tariff for FY 2020-21

S. No	Particulars	Amount (Rs. Cr.)
A	Revenue Requirement for the year (excludes carrying cost)	10353
B	Revenue at existing tariff	9050
C	Revenue (Gap)/ Surplus for the year	-1303

Tariff Hike Proposed

1B.26 The Hon'ble Commission is requested to allow suitable tariff hike to make cost reflective during FY 2020-21, apart from a suitable surcharge towards recovery of both principal and interest component, on the past accumulated deficit on account of RA.

1B.27 The revenue deficit at existing tariff proposed for FY 2020-21 is Rs. 1303 Crore.

The reasons for such deficit are listed as under:

- Adverse consumer mix which has resulted in a lower distribution margin at the hands of the licensee as compared to its other Licensees in Delhi;
- High power purchase and transmission cost due to recent CERC Tariff Orders;

Tariffs being not reflective of their cost of supply, which make big consumer susceptible to open access, adversely impacting remaining low end LT Consumers.



Chapter – 4



Aggregate Revenue Requirement FY 2020-21

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ARR of FY 2020-21

Background

4.1 On January 31, 2017, the Hon'ble Commission notified DERC (Terms and Conditions for determination of Tariff) Regulations, 2017 (hereinafter "**Tariff Regulations, 2017**").

4.2 Clause-3 and 4 of the Tariff Regulations, 2017 states as under:

"3. The Commission shall notify Business Plan Regulations for each Control Period based on the Business Plan submitted by the Utility which shall be read as part of these Regulations.

4. The Business Plan Regulations shall contain the following parameters applicable for a Control Period:

- (1) Rate of Return on Equity,*
- (2) Margin for rate of interest on loan,*
- (3) Operation and Maintenance Expenses,*
- (4) Capital Investment Plan,*
- (5) Mechanism for sharing of incentive-disincentive mechanism,*
- (6) Allocation of overhead expenses incurred on account of Administrative expenditure out of Operation and Maintenance Expenses for creation of Capital Assets,*
- (7) Generating Norms:*
 - (a) Gross Station Heat Rate,*
 - (b) Plant Availability Factor,*
 - (c) Secondary Fuel Oil Consumption,*
 - (d) Auxiliary Consumption and*
 - (e) Plant Load Factor,*
- (8) Transmission Norms:*
 - (a) Annual Transmission System Availability,*
 - (b) Annual Voltage wise Availability*
- (9) Distribution Norms:*
 - (a) Distribution Loss Target,*
 - (b) Collection Efficiency Target,*
 - (c) Targets for Solar and Non Solar RPO,*
 - (d) Contingency Limit for Sale through Deviation Settlement Mechanism (Unscheduled Interchange) Transactions,*
 - (e) The ratio of various ARR Components for segregation of ARR into Retail Supply and Wheeling Business."*



[Signature]

4.3 On December 27, 2019, the Hon'ble Commission notified DERC (Business Plan) Regulations, 2019 (hereinafter "**Business Plan Regulations, 2019**") which are applicable for a period of 3 years, i.e., FY 2020-21, FY 2021-22 and FY 2022-23. Business Plan Regulations, 2019 contain the trajectory for various controllable parameters to be followed during FY 2020-21 to FY 2022-23.

4.4 Regulation-11 of Tariff Regulations, 2017 states as under:

"11. The Distribution Licensee shall submit Annual Tariff Petition, at least, one hundred and fifty (150) days prior to the end of relevant financial year which shall contain:

- (1) Sales forecast for the ensuing year and audited sales for previous year on monthly basis as prescribed in the Appendix-2;*
- (2) Expected revenue to be billed for the ensuing year and audited Revenue Billed and Realised for previous year as prescribed in Appendix-2;*
- (3) Power Procurement Quantum & Cost for ensuing Year and audited Power Purchase Quantum & Cost for previous Year on monthly basis indicating Long Term and Short Term, Renewable Energy Purchase and other applicable Charges as prescribed in the Appendix -2:*

Provided that the Distribution Licensee shall propose the indicative cost of power procurement taking into account revenues from Short term sale of Surplus Power and maximum normative rebate available from each entity;

Provided that the Renewable Purchase Obligation of the Distribution Licensee as per the Delhi Electricity Regulatory Commission (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012 as amended from time to time shall be part of the Distribution Licensee's Power Procurement Cost;

- (4) Actual and Expected intra- State & inter-State Transmission Loss & Charges including Load Dispatch Charges, Open Access Charge indicating maximum normative rebate available from each entity for the previous and ensuing Year respectively:*

Provided that the Distribution Licensee shall propose Wheeling Charges in case the distribution network of other Distribution Licensee is used for procurement of power for the Retail Supply Business;

- (5) Actual and Expected amount on account of Cross-Subsidy Surcharge and Additional Surcharge to be received by the Licensee, as approved by the Commission from time to time in*



accordance with the Delhi Electricity Regulatory Commission (Terms and Conditions of Open Access) Regulations 2005 as amended from time to time, shall be indicated separately against the consumer category by the Distribution Licensee;

- (6) Actual Voltage wise Distribution Loss and Collection Efficiency for the previous Year;*
- (7) Energy Audit Report of distribution network of the Distribution Licensee for previous Year by certified energy auditor from Bureau of Energy Efficiency;*
- (8) Monthly Energy Balance for the ensuing & previous Year;*
- (9) Actual and Expected additional Expenses on account of O&M beyond the Control of Distribution Licensee for the ensuing & previous Year respectively;*
- (10) Actual and Expected Capitalisation and Depreciation Schedule for the previous and ensuing Year respectively;*
- (11) Actual and Expected Non-Tariff Income including Other Business Income for the previous and ensuing Year respectively;*
- (12) Actual weighted average rate of interest on loan."*

4.5 The Petitioner has also filed the Petition for approval of Business Plan for the MYT Period from FY 2020-21 to FY 2024-25 before this Hon'ble Commission on October 21, 2019.

4.6 Accordingly, the following sections forecast the Petitioner's ARR for FY 2020-21.



Energy Sales

- 4.7 The Petitioner has considered the Adjusted Trend Analysis Method for the purpose of accurate projection of sales. This method assumes the underlying factors which drive the demand for electricity and are expected to follow the same trend as in the past. However, this approach also discounts any outliers (relative to the trend) observed in the growth rates over the period of 5 years and excludes them while projecting energy sales for each year of the control period. Adopting such a method has enabled the Petitioner to further fine tune the projection by eliminating any abnormal pattern observed under any category.
- 4.8 The Adjusted Trend Analysis Method makes use of a statistical tool, namely the Compound Annual Growth Rate (CAGR) and, accordingly, Compound Annual Growth Rates (CAGRs) have been calculated from the past figures for each category, corresponding to different lengths of time in the past five years, along with the year on year growth rates from FY 2013-14 to FY 2018-19. The category-wise actual sales since FY 2013-14 are as follows:

Table 4.1: Actual sales from FY 2013-14 to FY 2018-19 (MU)

S. No	Category/Sub Category	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
1	Domestic	5348	5788	5975	6516	6924	7214
a	Domestic	5297	5737	5924	6464	6869	7161
b	DVB Staff	25	24	22	23	22	21
c	11 KV (Worship/ Hospitals)	26	27	29	30	34	33
2	Non Domestic	2765	2827	2941	3028	3141	3161
3	Industrial	526	507	502	499	500	529
4	Agriculture & Mushroom cultivation	15	16	16	16	19	19
a	Agriculture	15	16	16	16	19	19
b	Mushroom	0	0	0	0	0	0
5	Public utilities	659	689	707	744	732	864
a	Public Lighting	161	188	175	193	153	150
b	DJB 11 KV	134	132	142	152	154	151
c	DJB (LT)	77	75	71	70	72	70
d	Railway Traction	35	24	40	21	22	1
e	DMRC	253	271	279	308	331	491
6	DIAL	221	218	222	219	199	204
7	Advertisement/Hoarding	3	1	2	2	2	1
8	Temporary supply	66	74	81	86	92	100
9	Charging Stations for E Vehicle	0	0	0	0	3	16
a	Supply at LT	0	0	0	0	3	16
b	Supply at HT	0	0	0	0	0	0
10	Theft	62	35	42	66	58	62
11	Own Consumption	23	24	18	11	15	16
12	Net Metering	0	0	0	1	3	7
	Total	9689	10179	10506	11189	11689	12194



4.9 The Category-wise CAGR for various consumer categories are as follows:

Table 4.2: Various Years CAGR

S. No.	Category/Sub Category	5 Year CAGR	4 Year CAGR	3 Year CAGR	2 Year CAGR
1	Domestic	6.17%	5.66%	6.48%	5.22%
a	Domestic	6.21%	5.70%	6.52%	5.25%
b	DVB Staff	-4.12%	-3.60%	-2.71%	-5.05%
c	11 KV (Worship/ Hospitals)	5.30%	5.21%	4.64%	5.86%
2	Non Domestic	2.71%	2.83%	2.43%	2.17%
3	Industrial	0.12%	1.07%	1.82%	2.96%
4	Agriculture & Mushroom cultivation	5.49%	4.91%	6.14%	8.94%
a	Agriculture	5.45%	4.88%	6.14%	9.28%
b	Mushroom	13.39%	9.88%	6.05%	-20.96%
5	Public utilities	5.58%	5.82%	6.92%	7.77%
a	Public Lighting	-1.31%	-5.41%	-4.97%	-11.66%
b	DJB 11 KV	2.50%	3.50%	2.13%	-0.36%
c	DJB (LT)	-1.72%	-1.56%	-0.23%	0.45%
d	Railway Traction	-49.68%	-53.46%	-69.72%	-77.17%
e	DMRC	14.20%	16.03%	20.79%	26.31%
6	DIAL	-1.62%	-1.65%	-2.86%	-3.51%
7	Advertisement/Hoarding	-18.08%	12.41%	-14.63%	-23.44%
8	Temporary supply	8.78%	7.91%	7.28%	7.51%
9	Charging Stations for E Vehicle				
a	Supply at LT				
b	Supply at HT				
10	Theft	-0.11%	15.17%	14.28%	-2.79%
11	Own Consumption	-7.42%	-10.17%	-4.02%	19.10%
	Total	4.71%	4.62%	5.09%	4.40%

4.10 The category-wise closing consumers and total connected load from FY 2013-14 to FY 2018-19 are as follows:

Table 4.3: Actual Closing Consumers from FY 2013-14 to FY 2018-19 (No.)

S.No	Category	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
1	Domestic	1693159	1790641	1902812	2000091	2111317	2194215
a	Domestic	1687030	1785363	1897574	1995034	2106590	2189602
b	DVB Staff	6110	5258	5219	5039	4709	4593
c	11 KV (Worship/ Hospitals)	19	20	19	18	18	20
2	Non Domestic	269441	279817	296761	310672	332578	339056
3	Industrial	12042	11874	11669	11498	6031	5583
4	Agriculture & Mushroom cultivation	4399	4561	4731	5019	5420	5806
a	Agriculture	4388	4550	4721	5009	5409	5792
b	Mushroom	11	11	10	10	11	14
5	Public utilities	4663	10812	11132	8684	8820	9345
a	Public Lighting	1409	7628	7907	5381	5542	5872



S.No	Category	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
b	DJB 11 KV	68	71	76	76	75	79
c	DJB (LT)	3179	3105	3140	3218	3193	3383
d	Railway Traction	1	1	1	1	1	1
e	DMRC	6	7	8	8	9	9
6	DIAL	1	1	1	1	1	1
7	Advertisement/Hoarding	1059	998	1020	1071	863	886
8	Temporary supply	11640	1	1	0	0	0
9	Charging Stations for E Vehicle					370.00	738.00
a	Supply at LT	0	0	0	0	370	738
b	Supply at HT	0	0	0	0	0	0
10	Theft	0	0	0	0	0	0
11	Own Consumption	324	1	0	22	5	4
12	Net Metering	0	0	0	0	0	0
	Total	1996728	2098706	2228127	2337058	2465405	2555634

Table 4.4: Actual total connected load from FY 2013-14 to FY 2018-19 (MW)

S.No	Category	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
		Actual	Actual	Actual	Actual	Actual	Actual
1	Domestic	5775	6581	7097	7212	5658	5734
a	Domestic	5738	6544	7062	7177	5624	5700
b	DVB Staff	22	21	21	20	19	18
c	11 KV (Worship/ Hospitals)	15	16	14	15	15	16
2	Non Domestic	2228	2343	2485	2427	2541	2538
3	Industrial	349	316	317	311	266	313
4	Agriculture & Mushroom cultivation	32	20	20	19	21	26
a	Agriculture	20	20	20	19	21	26
b	Mushroom	12	0	0	0	0	0
5	Public utilities	180	234	242	228	231	244
a	Public Lighting	13	58	62	47	48	51
b	DJB 11 KV	68	75	74	74	74	79
c	DJB (LT)	43	45	45	46	46	49
d	Railway Traction	13	13	13	13	13	14
e	DMRC	43	43	48	48	51	52
6	DIAL	51	51	51	51	51	51
7	Advertisement/Hoarding	3	2	2	2	2	2
8	Temporary supply	45	0	0	0	0	0
9	Charging Stations for E Vehicle	0	0	0	0	1	4
a	Supply at LT	0	0	0	0	1	4
b	Supply at HT	0	0	0	0	0	0
10	Theft	0	0	0	0	0	0
11	Own Consumption	9	0	0	1	0	0
12	Net Metering	0	0	0	0	0	0
	Total	8671	9549	10214	10253	8771	8914

- 4.11 During the exercise for forecasting of Energy Sales for the FY 2020-21, the Petitioner has considered the actual Sales till FY 2018-19. However, in order to forecast energy sales for FY 2020-21, various year CAGR is computed, considering FY 2018-19 as base year. The various year CAGR, then obtained is then analysed for further projection.
- 4.12 However, solely relying on annual CAGR is not sufficient. Certain categories show abnormal growth rates due to various reasons such as:
- New category introduced like E-Rickshaws for which data for past years is not available.
 - Certain consumers / categories show no or very less consumption due to opting for Open Access.
 - Cross-migration of consumers from one category to another, etc.
 - Tendency of consumers opting for multiple connections to derive benefits of subsidy.
- 4.13 Such outliers have been manually identified and appropriate growth rates have been applied to these categories so that the overall trend matches with the actual growth.
- 4.14 The category specific methodology adopted for projection of energy sales has been elaborated as under:
- **Domestic:** Domestic category is the most predominant category of the Petitioner, representing about 60% of total energy sales. Due to sheer number of consumers in this category, and Delhi being the capital of India, this category witnesses robust and consistent year-on-year growth.

However, there are several other parameters also that influence trends in energy sales. On one hand, several consumers have undertaken energy conservation measures such as replacement of incandescent bulbs with energy efficient LED lights, replacement of old and dilapidated air conditioners with BEE star rated ones. Measures such as these have a reducing impact on the growth of energy sales. However, on the other hand increasing sales of electronic gadgets coupled with ever changing life styles are having a significant growth trend in energy sales due to increased specific consumption. To a large extent, these two factors are counter-acting each other.



Growth in energy sales is primarily contributed by two distinct parameters. One is from consumption growth of existing consumers due to change in lifestyles, increase in disposable income, etc. Second source of growth is from addition of new consumers. The Petitioner has been adding almost one lakh domestic consumers every year in the last 2 years.

The Sales however is projected for the Domestic consumers (except for 11kV Hospital and Worship Categories) based on the growth trend of consumers, which is observed to be at 5.35% over the past 5 years and the specific consumption, which is observed to be at 0.82% over the past 5 years and the consumption of 11 kV Hospital and Worship consumers are calculated based on the 5 year CAGR of the category of consumers, which is at 5.30%.

- **Non-Domestic:** Non-domestic category contributed the second highest energy sales for the Petitioner. This category has also been showing consistent growth on year-on-year basis. Past trends show that this category has shown a CAGR of around 2.17% to 2.83%. For the purpose of projecting energy sales for FY 2020-21, the Petitioner has considered 5 year CAGR which is 2.71% over the actual sales of ~ 3161 MU for FY 2018-19, at ~3335 MU.
- **Advertisement/Hoarding:** It is observed that the consumption pattern of advertisement/hoarding consumers have been fluctuating based on the past trends. Hence, the Petitioner has proposed a growth rate of 2.71% as considered for Non-Domestic Category for projecting the sales for advertisement/hoarding categories for FY 2020-21 over the actual consumption of 1.21 MU for FY 2018-19 at ~1 MU.
- **Industrial:** Industrial category holds the third largest energy sales for the Petitioner. Analyzing the energy consumption trend for this category, it becomes evident that for last few years, the consumption under this category has been somewhat constant with a 5 Year CAGR of around 0.12%. The historical consumption under Industrial category shows a CAGR ranging from 0.12% to 2.96%. The, Petitioner has therefore considered a growth rate of 0.00% for industrial category and has projected the consumption of ~529 MU for FY 2020-21.



- **Agriculture:** The 5-Year CAGR of 4.88% is considered as the growth rate over the actual sales for FY 19.19 MU for FY 2018-19 for projecting the sales for Agriculture consumers at ~21 MU for FY 2020-21.
- **Railway:** Railways have acquired the status of deemed licensee and no longer acquires energy from the Petitioner for consumption in its traction load. The sales booked under this category for FY 2018-19 was mere 1.12 MU. The Petitioner has accordingly not considered any sales to railways for projecting the sale for FY 2020-21.
- **DIAL:** Energy consumption of DIAL has also shown a negative trend due to it opting for Open Access. For the purpose of projection of energy sales for FY 2020-21, the Petitioner sought requirement from DIAL for FY 2020-21 and has considered it as submitted by DIAL at ~250 MU for FY 2020-21.
- **Public Lighting:** This category is showing gradual reduction in energy consumption on a year-to-year basis, primarily due to replacement of conventional street lights with energy efficient LED lighting. However, as the connected load under this category has increased in FY 2018-19, the Petitioner has not considered any growth rate for this category and has projected the sales of ~151 MU for FY 2020-21.
- **DMRC:** During the FY 2018-19, DMRC has opted for Open Access. Due to this fact, projecting the sales on the basis of historical consumption would not be prudent and therefore the Petitioner sought requirement from DMRC which has been submitted by it. The Petitioner has therefore considered the sales as per the requirement submitted by DMRC at ~369 MU for FY 2020-21.
- **Own Consumption:** Growth under own consumption has been gradually decreasing due to various energy consumption measures undertaken by the Petitioner such as replacement of conventional lighting with LED fixtures, replacement of old / inefficient ACs with new ACs. As such, the Petitioner's own consumption is significantly lesser than the normative limit prescribed by the Hon'ble Commission. Therefore, no growth has been considered under this category for the FY 2020-21 and has projected the same at ~16 MU as per the actuals for FY 2018-19.



- DJB:** The Hon'ble Commission has merged DJB tariff category with the Public Utilities category. However, for the purpose of projection of energy sales, it is important for the Petitioner to analyze and project the energy consumption of DJB separately since DJB owing to its sales quantum is a significant consumer for the Petitioner. Going by past year trends, it is apparent that the consumption pattern has been fluctuating on yearly basis. Hence, the Petitioner has proposed a growth rate of 2% for consumption by DJB 11 kV and DJB LT consumers for FY 2020-21 over the actual sales for FY 2018-19.
- Charging Stations for E-Vehicles:**
 The Petitioner expects significant growth in number of E-Vehicles and consequently its impact will be seen in energy consumption under this category. Numerous reports by various research agencies, educational institutions and by government regulators suggest aggressive growth in E-Vehicles for the next couple of years.
 A study conducted by GIZ on behalf of Federal Ministry of Economic Cooperation and Development titled ***"Impact Assessment of Large Scale Integration of Electric Vehicle Charging Infrastructure in the Electricity Distribution System"*** has projected a growth of 25% in E-Vehicles.
 Accordingly, the Petitioner has proposed a growth rate of 30% for E-Vehicles as the same is expected to grow at an exponential rate and has projected a sale of ~28 MU for FY 2020-21.
- All other categories** – No growth has been considered as energy consumption under all remaining categories are expected to remain more or less constant.

4.15 On the basis of the reasons elaborated above, the expected growth in the sales for FY 2020-21 is as tabulated below:

Table 4.5: Projected Sales (MU) for FY 2020-21:

S.No	Category	FY 2018-19	Basis for Projections	FY 2020-21*
		Actual	% Inc.	Projected
1	Domestic	7214		8136
a	Domestic	7161	Based on Growth of Consumers and Specific Consumption	8078



S.No	Category	FY 2018-19	Basis for Projections	FY 2020-21*
		Actual	% Inc.	Projected
b	DVB Staff	21	0%	21
c	11 KV (Worship/ Hospitals)	33	5.30%	37
2	Non Domestic	3161	2.71%	3335
3	Industrial	529	0%	529
4	Agriculture & Mushroom cultivation	19		21
a	Agriculture	19	4.88%	21
b	Mushroom	0	0%	0
5	Public utilities	864		751
a	Public Lighting	150	0%	151
b	DJB 11 KV	151	2%	157
c	DJB (LT)	70	2%	73
d	Railway Traction	1	0%	0
e	DMRC	491	0%	369
6	DIAL	204		250
7	Advertisement/Hoarding	1	2.7%	1
8	Temporary supply	100	0%	100
9	Charging Stations for E Vehicle	16		28
a	Supply at LT	16	30%	28
b	Supply at HT		0%	0
10	Theft	62		0
11	Own Consumption	16	0%	16
12	Net Metering	7		0
	Total	12193		13167

* Figure projected for FY 2020-21 is based on actuals of FY 2018-19. Therefore, the value projected for FY 2020-21 incorporates growth during **Two Financial Years**.

4.16 **Projection of Load:** Since this Hon'ble Commission has increased Fixed Charges in its Tariff Order dated March 28, 2018, several domestic consumers approached the Petitioner for reduction in Sanctioned Load due to which there was very minimal increase in the contracted load for FY 2018-19. Such request for load reduction is still continuing till date. The Petitioner has been accepting and executing such requests in accordance with law including in cases where consumers are eligible for Load Reduction as per criteria specified in the Supply Code Regulations.

4.17 It is further submitted that majority of the additional load on year-to-year basis comes from addition of new consumers. The Petitioner has the highest number of Domestic consumers and the majority of the addition of new consumers happens under this category. The Petitioner has been adding about 1 lakh new consumers every year under domestic category (taking average of last 5 years). Similarly, around 14000 new consumers are being added under Non-Domestic category. Most of the load growth is due to addition of such new consumers every year.

- 4.18 Taking in to account the average load addition by the Petitioner during past years and also the current trend of consumers reducing their load, the Petitioner has projected the following consumer-wise load for FY 2020-21:

Table 4.6: Projected connected load for FY 2020-21

S.No	Category	FY 2018-19	Basis for Projections	FY 2020-21
		Actual	% Inc.	
1	Domestic	5734		6360
a	<i>Domestic</i>	5700	Based on Growth of Consumers and Specific Consumption	6327
b	<i>DVB Staff</i>	18	0.00%	18
c	<i>11 KV (Worship/ Hospitals)</i>	16	0.00%	16
2	Non Domestic	2538	2.64%	2674
3	Industrial	313	0.00%	313
4	Agriculture & Mushroom cultivation	26		29
a	<i>Agriculture</i>	26	5.49%	29
b	<i>Mushroom</i>	0	0.00%	0
5	Public utilities	244		252
a	<i>Public Lighting</i>	51	0.00%	51
b	<i>DJB 11 KV</i>	79	2.94%	83
c	<i>DJB (LT)</i>	49	2.64%	52
d	<i>Railway Traction</i>	14	0.00%	0
e	<i>DMRC</i>	52	0.00%	52
6	DIAL	51	0.00%	51
7	Advertisement/Hoarding	2	2.64%	2
8	Temporary supply	0	0.00%	0
9	Charging Stations for E Vehicle	4	0.00%	7
a	<i>Supply at LT</i>	4	30.00%	7
b	<i>Supply at HT</i>	0	0.00%	0
10	Theft	0		
11	Own Consumption	0	0.00%	
12	Net Metering	0		
	Total	8914		9676

* Figure projected for FY 2020-21 is based on actuals of FY 2018-19. Therefore, the value projected for FY 2020-21 incorporates growth during **Two Financial Years**.

- 4.19 **Projection of Number of Consumers:** The detailed projections for projecting number of consumers were submitted in the Business Plan filed by the petitioner. As discussed in Business Plan, the Petitioner has projected the number of consumers for Domestic, Non-Domestic and Agricultural Category considering 5 years CAGR. For Industrial category, the number of consumers have been assumed to remain constant at FY 2018-19 level. The summary of projected number of consumers for FY 2020-21 is given in Table below:

Table 4.7: Projected number of consumers for FY 2020-21

S.No	Category	FY 2018-19	Basis for Projections	FY 2020-21
		Actual	% Inc.	
1	Domestic	2194215		2434926
a	Domestic	2189602	5.35%	2430313
b	DVB Staff	4593	0%	4593
c	11 KV (Worship/ Hospitals)	20	0%	20
2	Non Domestic	339056	4.70%	371702
3	Industrial	5583	0%	5583
4	Agriculture & Mushroom cultivation	5806		6486
a	Agriculture	5792	5.71%	6472
b	Mushroom	14	0%	14
5	Public utilities	9345		9722
a	Public Lighting	5872	2%	6109
b	DJB 11 KV	79	2%	83
c	DJB (LT)	3383	2%	3520
d	Railway Traction	1	0%	0
e	DMRC	9	0%	9
6	DIAL	1	0%	1
7	Advertisement/Hoarding	886	4.7%	971
8	Temporary supply	0	0%	0
9	Charging Stations for E Vehicle	738.00		1247
a	Supply at LT	738	30%	1247
b	Supply at HT	0	0%	0
10	Theft	0		
11	Own Consumption	4		
12	Net Metering	0		
	Total	2555634		2829390

* Figure projected for FY 2020-21 is based on actuals of FY 2018-19. Therefore, the value projected for FY 2020-21 incorporates growth during **Two Financial Years**.

- 4.20 The Petitioner requests the Hon'ble Commission to consider the aforesaid submission for estimation of sales, connected load and number of consumers during FY 2020-21.

Revenue Projection for FY 2020-21 at Existing Tariff**4.21 Revenue from Fixed Charges:**

The revenue calculation from fixed charges requires the category/sub-category wise consumers (for domestic category) and connected load for other categories. The Hon'ble Commission has revised fixed charges vide tariff order dated July 31, 2019. The revised fixed charges have been considered for estimation of fixed charges for FY 2020-21.

4.22 Revenue from Energy Charges:

For projection of revenue for each category, actual sales trends observed in respective category/ sub categories have been considered based on the data available for last complete financial year as captured in form 2.1 (a). In each category the actual proportion of each sub-category/ slab has been considered based on the trends observed and accordingly the sub category/slab wise revenue projection of energy charges has been done.

4.23 Power factor considered for projection of sales for FY 2020-21 are as under:**Table 4.8: Power factor considered**

S. No	Consumer Category	Value
1	Domestic	NA
2	Non Domestic	0.96
3	Industrial	0.97
4	Public Utilities	
a	Public Lighting	1.00
b	DJB (LT)	0.97
c	DJB (HT)	0.97
d	Railway Traction	1.00
e	DMRC	1.00
5	DIAL	0.99
6	Advertisement/Hoarding	1.00

Revenue estimated for FY 2020-21

4.24 The revenue estimated on account of sales to various consumer categories for FY 2020-21 at existing tariff has been tabulated below:

Table 4.9: Revenue billed estimated at existing tariff during FY 2020-21 (Rs. Crore)

S No.	Tariff Category	Fixed charges	Energy charges	ToD Sur+Rebate Impact	Total Revenue	ABR
						(Rs./kWh)
1	Domestic	498	3488		3986	4.90
1.1	Domestic	473	3357		3830	4.87
1.1.1	Upto 2 KW Connected Load	60	1471		1531	3.75
	0-200 Units	35	385			
	201-400 Units	18	553			
	401-800 Units	6	425			
	801-1200 Units	1	77			
	Above 1200 Units	0	30.6			
.1.2	> 2 KW to ≤ 5 KW Connected Load	85	694		779	4.71
	0-200 Units	26	47			
	201-400 Units	31	169			
	401-800 Units	22	284			
	801-1200 Units	5	136			
	Above 1200 Units	1	58.0			
1.1.3	> 5 KW to ≤ 15 KW Connected Load	235	921		1155	6.63
	0-200 Units	54	20			
	201-400 Units	53	81			
	401-800 Units	67	244			
	801-1200 Units	32	220			
	Above 1200 Units	29	356.1			
1.1.4	> 15 KW to ≤ 25 KW Connected Load	44	120		163	9.01
	0-200 Units	4	0			
	201-400 Units	3	1			
	401-800 Units	7	5			
	801-1200 Units	7	11			
	Above 1200 Units	23	102.2			
1.1.6	> 25 KW Connected Load	50	151		201	9.91
	0-200 Units	2	0			
	201-400 Units	1	0			

	401-800 Units	2	1			
	801-1200 Units	3	2			
	Above 1200 Units	42	148.1			
1.2	Single Delivery Point on 11 KV for GHS	20	95		115	5.42
1.3	Hospital / Worship (11KV)	5	29		34	6.14
1.4	DVB Staff	0	6		7	6.14
1.5	Misuse (Domestic)					
1.6	Theft (Domestic)					
2	Non Domestic	802	2860	24	3687	11.06
	Power Factor					
2.1	ND Up to 3 KVA	112	187			
2.2	ND above 3 KVA	690	2673			
3	Industrial	94	423	4	521	9.85
4	Agriculture and Mushroom Cultivation	4	3		8	3.59
5	Public Utilities	71	474	3	548	7.30
6	Delhi International Airport Limited (DIAL)	15	196	2	213	8.51
7	Temporary Supply	0	119	0	119	11.87
8	Advertisement and Hoardings	1	1		2	12.70
9	Charging Stations for E-Rickshaw/ E-Vehicle on Single Delivery Point (w.e.f. 01.09.2017)	0	12		12	4.50
9.1	Supply at LT	0	12			
9.2	Supply at HT	0	0			
10	Self-Consumption	0	0		0	
TOTAL		1486	7576	34	9096	6.91

Distribution Loss

4.25 Regulation-25 (1) of the Business Plan Regulations, 2019 specifies the distribution Loss Target from FY 2020-21 to FY 2022-23 as under:

"25. TARGET FOR DISTRIBUTION LOSS



(1) The Distribution Loss target in terms of Regulation 4(9)(a) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for the Distribution licensees shall be as follows:

Table 15: Target for Distribution Loss for the Control Period

Sr No.	Distribution Licensee	2020-21	2021-22	2022-23
1	BSES Rajdhani Power Ltd.	8.10%	8.00%	7.90%
	...			
	...			
	...			

“

4.26 The Commission in the Business Plan Regulations, 2019 has approved the stringent distribution loss trajectory as compared to Distribution Loss trajectory proposed by the petitioner in its Business Plan. As against the distribution loss of 9.28% for FY 2020-21 proposed by the petitioner in its Business Plan, the Commission has approved the Distribution Loss of 8.10% for FY 2020-21.

]

4.27 The Petitioner was able to achieve actual Distribution Loss from 16.14% in FY 2013-14 to 9.94% in FY 2017-18, but as the base level of loss reduces, further reduction of distribution loss becomes more and more difficult. The Petitioner would like to submit that though it has considered the distribution loss at 8.10% for projecting the ARR for FY 2020-21 as per the Business Plan Regulations, 2019 issued by the Commission, however, if any major issue is faced by the Petitioner in achieving the distribution loss target approved by the Commission, the Petitioner would approach the Commission for suitable relaxation, if required, at the time of truing up considering the fact that the base level of losses are very low and hence further reduction will be very difficult.

Collection Efficiency

4.28 The Petitioner has considered the collection efficiency at 99.50% as per Regulation 26(1) of the Business Plan Regulations, 2019.

Energy Requirement

4.29 Based on the sales projected for FY 2020-21 and Distribution loss as specified for FY 2020-21 in the Business Plan Regulations, 2019, the estimated energy

requirement based on the sales and distribution loss as per the aforesaid discussion is tabulated below:

Table 4.10: Energy Requirement for FY 2020-21

S. No	Particulars	Unit	Quantity	Remarks
A	Energy sales	MU	13167	Table 4.5
B	Distribution Loss	%	8.10%	Table 15 of Business Plan Regulations, 2019
C	Energy Requirement	MU	14327	A/(1-B)
D	Distribution Loss	MU	1161	C-A

Power Purchase

4.30 The Petitioner sources its power requirement through mix of long term and short-term sources to meet the demand of Delhi. Long term sources include Central Generating Stations which are owned and/or fully controlled by Central Government and State Generating Stations which are owned and/or fully controlled by State Government. The Petitioner has been assigned the share based on the PPAs which have been inherited from Delhi Transco Limited and assigned to the Petitioner by way of Orders passed by the Hon'ble Commission. The allocation of power within Delhi is being done by the Hon'ble Commission.

4.31 The energy from various existing and upcoming generating stations has been estimated by applying Merit Order Dispatch Scheduling principle in the following manner:

i. NTPC Stations

- Revised allocation of various generating stations is considered as per Hon'ble Commission's last Tariff Order dated July 31, 2019 for FY 2019-20.
- The power availability has been estimated based on the actual availability of the power plants over the past 5 years.

ii. BTPS:

- No procurement is considered due to expected phasing out of plant.

iii. NHPC Stations:

- Revised allocation of various generating stations is considered as per Hon'ble Commission's last Tariff Order dated July 31, 2019 for FY 2019-20.
- The power availability has been estimated based on the actual availability of the power plants over the past 5 years.

iv. SJVNL, THDC, NPCIL, DVC, Sasan and SGS stations:

- The power availability has been estimated based on the actual availability of the power plants over the past 5 years.

v. RE Sources:

- For already available sources, availability is projected based on the average of actual availability of the plants in the past 5 years.

vi. New Generating Stations:

- The expected COD has been taken from various sources like latest CEA reports, PPA signed with the generation companies and as per information made available by the generators;
- Power availability after COD has been projected taking into account norms of auxiliary consumption, terms agreed in the PPA, expected PLF and Petitioners share in power generated as per the normative operational parameters specified by CERC.



4.32 The energy estimated to be available during FY 2020-21 is tabulated below:

Table 4.11: Energy available for FY 2020-21

S. No.	Particulars	Installed Capacity	BRPL Share (Installed Capacity)		Energy Available (ex-Bus)
		MW	%	MW	MU
I	Existing Sources				
A	NTPC Ltd.				
1	Anta Gas Power Project	419.33	5%	19	38
2	Auraiya Gas Power Station	663.36	5%	32	43
3	Badarpur Thermal Power Station	705	0%	0	0
4	Dadri Gas Power Station	829.78	5%	40	103
5	Feroze Gandhi Unchahar TPS 1	420	3%	11	69
6	Feroze Gandhi Unchahar TPS 2	420	5%	21	131
7	Feroze Gandhi Unchahar TPS 3	210	6%	13	81
8	Farakka STPS	1600	1%	10	61
9	Kahalgaoon Thermal Power Station 1	840	3%	22	141
10	National Capital Thermal Power Station	840	67%	559	1814
11	Rihand Thermal Power Station 1	1000	7%	69	469
12	Rihand Thermal Power Station 2	1000	6%	55	382
13	Singrauli STPS	2000	2%	30	211
14	Kahalgaoon Thermal Power Station 2	1500	5%	69	443
15	Dadri TPS-II	980	56%	545	2884
16	Rihand Thermal Power Station 3	1000	8%	78	542
	Sub Total			1573	7411
B	NHPC Ltd.				
1	Bairasiul	180	5%	9	0
2	Salal	690	9%	60	295
3	Chamera I	540	4%	19	85
4	Tanakpur	120	4%	5	18
5	Uri	480	5%	23	137
6	Dhauliganga	280	6%	16	57
7	Chamera - II	300	6%	18	89
8	Dulhasti	390	6%	22	127
9	Chamera - III	231	6%	13	57
10	SEWA-II	120	6%	7	31
11	Uri II	240	6%	14	77
12	Parbati-III	520	6%	29	36
	Sub Total			235	1009
C	Nuclear Power Corp. of India Ltd.				
1	Nuclear Power Corp. of India Ltd. Narora	440	8%	33	223
2	Nuclear Power Corp. of India Ltd. Kota UNIT - 5&6 RAPP	440	6%	25	168
	Sub Total			58	390
D	Satluj Jal Vidyut Nigam Ltd.				



S. No.	Particulars	Installed Capacity	BRPL Share (Installed Capacity)		Energy Available (ex-Bus)
		MW	%	MW	MU
1	Nathpa Jhakri	1500	4%	62	285
	Sub Total			62	285
E	Tehri Hydro Development Corp. Ltd.				
1	Tehri	1000	4%	44	136
2	Koteshwar	400	7%	27	82
	Sub Total			71	218
F	PTC				
1	Tala	1020	1%	13	33
2	Tuticorin				
	Sub Total			13	33
G	Damodar Valley Corporation				
1	Mejia Unit 6	250	18%	44	211
2	CTPS Units 7 & 8	500	26%	132	764
	Sub Total			176	976
H	Power stations in Delhi				
1	Indraprastha Power Generation Co.Ltd. RPH	135	0%	0	0
2	Indraprastha Power Generation Co.Ltd. GT	282	59%	165	341
3	Pragati Power Corp.Ltd. Pragati I	330	28%	93	474
4	Pragati Power Corp.Ltd. Pragati III (Bawana)	1500	28%	427	1197
5	Timarpur Okhla Waste Management Company Private Ltd.	20	40%	8	60
6	Thyagraj Solar	1			0
7	Delhi MSW Solution Limited	24	42%	10	48
	Sub Total			703	2120
I	Aravali Power Corporation Ltd .				
1	Jhajjar	1500	1%	10	42
	Sub Total			10	42
J	UMPP				
1	Sasan	3960	2%	66	495
	Sub Total			66	495
K	SECI				
1	ACME	20	100%	20	44
	Sub Total			20	44
	Total			2987	13023



4.33 The power purchase cost has been estimated from the aforesaid sources as per the assumptions given below:

i. ISGS Thermal Stations:

- Annual fixed Charges (AFC) are considered approved by the Hon'ble Commission in Tariff Order issued for FY 2019-20 except for NCTPS and Dadri TPS-II, where the actuals for FY 2018-19 is considered.
- Variable Cost (VC) has been considered equivalent to variable cost as per Hon'ble Commission in Tariff Order issued for FY 2019-20, escalated by 3%.

ii. ISGS Hydro Stations:

- Annual fixed Charges (AFC) are considered as approved by the Hon'ble Commission in Tariff Order issued for FY 2019-20.
- Variable Cost (VC) has been considered equivalent to the actual variable cost incurred during FY 2018-19.

iii. State Generating Stations:

- Annual fixed Charges (AFC) are considered as approved by the Hon'ble Commission in Tariff Order issued for FY 2019-20.
- Variable Cost (VC) has been considered based on variable cost as approved by the Hon'ble Commission in Tariff Order issued for FY 2019-20.

iv. RE Sources:

- The cost of procurement from TOWMCL, SECI, and Wind SECI have been considered as per the PPAs signed and/or billed, as the case may be.

v. Sasan:

- The Petitioner has considered the per unit rate equivalent to the rate approved by the Hon'ble Commission in Tariff Order issued for FY 2019-20.

vi. New Generating Stations:

- The Cost of power from new stations have been considered same as the average power purchase cost of similar stations and as indicated by various generating stations.
- Cost of Tapovan Vishnugad considered as Rs. 3.60/kWh as per the communication received from the Developer.
- The Cost of power from new conventional hydro stations is considered as the cost of the most expensive hydro source available as the new hydro generating stations have become costly.



vii. Other Charges

- The Petitioner has considered the other cost in accordance with equivalent to actual cost observed during FY 2018-19 for Hydro Power Plants of Jammu & Kashmir.

4.34 The power purchase cost as proposed for various stations during FY 2020-21 is tabulated below:

Table 4.12: Power Purchase Cost proposed for FY 2020-21 (Rs. Crore)

S. No.	Particulars	Energy Purchase (MU)	AFC	Energy Charges	Other Charges	Total PPC	Total PPC (Rs./ kWh)
I	Existing Sources						
A	NTPC Ltd.						
1	Anta Gas Power Project	38	10	15		25	6.69
2	Auraiya Gas Power Station	43	15	22		37	8.53
3	Badarpur Thermal Power Station	0	0	0		0	0
4	Dadri Gas Power Station	103	17	40		57	5.53
5	Feroze Gandhi Unchahar TPS 1	69	7	23		30	4.36
6	Feroze Gandhi Unchahar TPS 2	131	13	44		57	4.36
7	Feroze Gandhi Unchahar TPS 3	81	11	27		38	4.69
8	Farakka STPS	61	6	15		21	3.45
9	Kahalgaon Thermal Power Station 1	141	16	33		49	3.47
10	National Capital Thermal Power Station	1814	376	744		1120	6.17
11	Rihand Thermal Power Station 1	469	41	65		106	2.26
12	Rihand Thermal Power Station 2	382	27	53		80	2.1
13	Singrauli STPS	211	13	31		44	2.08
14	Kahalgaon Thermal Power Station 2	443	53	98		151	3.41
15	Dadri TPS-II	2884	557	1084		1641	5.69
16	Rihand Thermal Power Station 3	542	80	74		154	2.85
	Sub Total	7411	1242	2369		3611	4.87
B	NHPC Ltd.						
1	Bairasiul	0	2	0	0	2	0
2	Salal	295	23	18	24	65	2.21
3	Chamera I	85	7	10	0	17	1.99
4	Tanakpur	18	5	3	0	8	4.23
5	Uri	137	13	11	4	28	2.08
6	Dhauliganga	57	8	7	0	15	2.62
7	Chamera - II	89	9	9	0	18	2.04
8	Dulhasti	127	29	35	4	68	5.38



S. No.	Particulars	Energy Purchase (MU)	AFC	Energy Charges	Other Charges	Total PPC	Total PPC (Rs./ kWh)
9	Chamera - III	57	8	12	0	20	3.61
10	SEWA-II	31	14	7	0	21	6.69
11	Uri II	77	26	18	5	49	6.35
12	Parbati-III	36	8	6	0	14	3.76
	Sub Total	1009	151	136	38	325	3.22

C	Nuclear Power Corp. of India Ltd.						
1	Nuclear Power Corp. of India Ltd. Narora	223		66		66	2.97
2	Nuclear Power Corp. of India Ltd. Kota UNIT - 5&6 RAPP	168		66		66	3.93
	Sub Total	390		132		132	3.38
D	Satluj Jal Vidyut Nigam Ltd.						
1	Nathpa Jhakri	285	29	35		64	2.23
	Sub Total	285	29	35		64	2.23
E	Tehri Hydro Development Corp. Ltd.						
1	Tehri	136	28	27		55	4.01
2	Koteshwar	82	16	19		35	4.27
	Sub Total	218	44	45		89	4.11
F	PTC						
1	Tala	33		7		7	2.16
	Sub Total	33		7		7	2.16
G	Damodar Valley Corporation						
1	Mejia Unit 6	211	71	67		138	6.54
2	CTPS Units 7 & 8	764	107	157		264	3.46
	Sub Total	976	178	225		403	4.13

H	Power stations in Delhi						
1	Indraprastha Power Generation Co.Ltd. RPH		0	0		0	0
2	Indraprastha Power Generation Co.Ltd. GT	341	81	161		242	7.09
3	Pragati Power Corp.Ltd. Pragati I	474	47	250		297	6.27
4	Pragati Power Corp.Ltd. Pragati III (Bawana)	1197	415	454		869	7.26



S. No.	Particulars	Energy Purchase (MU)	AFC	Energy Charges	Other Charges	Total PPC	Total PPC (Rs./ kWh)
5	Timarpur Okhla Waste Management Company Private Ltd.	60	0	18		18	2.92
6	Thyagraj Solar	0	0	0		0	0
7	Delhi MSW Solution Limited	48	0	34		34	7.03
	Sub Total	2120	543	916		1459	6.88
I	Aravali Power Corporation Ltd .						
1	Jhajjar	42	11	14		25	5.96
	Sub Total	42	11	14		25	5.96
J	UMPP						
1	Sasan	495	7	59		66	1.33
	Sub Total	495	7	59		66	1.33
K	SECI						
1	ACME	44	0	24		24	5.5
	Sub Total	44	0	24		24	5.5
	New Sources						
1	Tapovan Vishnugad	49		18		18	3.6
2	Parbati-II						
3	Vishnugad Pipalkoti HEP						
4	Tehri PSP						
5	Khurja Super Thermal Power Station						
6	INOX	87		31		31	3.53
7	SECI-ACME	437		112		112	2.57
8	SECI	127		34		34	2.66
9	Wind-Alfanar	108		27		27	2.51
10	Wind - Srijan	12		3		3	2.84
11	Wind SITEC	192		56		56	2.89
12	Tehkhand-Okhla						
13	Kameng HEP	71		48		48	6.69
	Sub Total	1085	0	329		329	3.03
	Total	14107	2205	4290	38	6533	4.63

Cost of Power from other sources (Short term power purchase):

- 4.35 The Petitioner requires short term power to meet the peak demand so as to ensure uninterrupted and quality supply of power to the consumers and also to comply with the directives issued by the Hon'ble Commission.
- 4.36 The Petitioner always attempts to dispose-off its surplus power in an economic manner. Given the seasonal and within a day variations in temperatures in Delhi, the demand for power varies widely between the peak and the off peak hours during a day and between the summer and winter months. As the demand varies hugely within a day, it becomes essential for the Discoms like the Petitioner to prepare or arrange the power on slot-wise basis. The Power System Operation Corporation Limited (National Load Dispatch Centre) in "Electricity Demand Pattern Analysis" Report, 2016 has also acknowledged the fact that Delhi has a variation of 30% to 60% between peak demand and lean demand. Such rampant fluctuations in demand necessitate the Petitioner to arrange for buffer power so as to ensure uninterrupted supply to Delhi Consumers. In order to cater to the rising demand, BRPL has to arrange for power from long and short term sources.
- 4.37 The Petitioner has projected the energy requirement and energy availability on monthly basis by applying MOD principles. The deficit thus observed has been considered to be met through short term purchases at the State Periphery as under:

Table 4.13: Month-wise projection from short term power purchase (MU)

Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
STU Quantum Required (MU)	1139	1488	1594	1562	1506	1381	1160	893	943	1031	842	921
Total Availability @ State Periphery	1020	1151	1183	1209	1201	1123	1166	1063	1115	1174	1125	1217
Shortage/(Surplus) (MU)	119	337	411	353	305	258	-6	-170	-172	-143	-283	-296

- 4.38 The Petitioner has considered the aforesaid energy to be met through short term procurement from FY 2020-21. For the purpose of short term purchase cost, the average rate of Rs. 3.75/kWh has been considered in accordance with the rate specified by the Hon'ble Commission.
- 4.39 Accordingly, the power purchase cost through Short term sources for FY 2020-21 is tabulated below:

Table 4.14: Short term power purchase for FY 2020-21

Sl.No.	Source	Energy Purchased	Cost per Unit	Total Cost
		(MU)	(Rs./unit)	(Rs.Cr.)
A	Short Term Purchase	1783	3.75	669

- 4.40 The Petitioner requests the Hon'ble Commission to allow the aforesaid cost in the ARR of the Petitioner.

Renewable Purchase Obligation (RPO):

- 4.41 Regulation-27 of DERC Business Plan Regulations, 2019 specifies the target for Renewable Purchase Obligation from FY 2020-21 to FY 2022-23 as below:

"27. TARGET FOR RENEWABLE PURCHASE OBLIGATION

(1) The targets for Renewable Purchase Obligation (RPO) in terms of Regulation 124 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 of a Distribution Licensee from FY 2020-21 to FY 2022-23, shall be computed as a percentage of total sale of power, to its retail consumers in its area of supply, excluding procurement of hydro power. The target for RPO shall be met through purchase of power from various Renewable Energy sources or purchase of Renewable Energy Certificates ('REC') or combination of both, and shall be as follows:

Table 16: Targets for Renewable Purchase Obligation

Sr No.	Distribution Licensee	2020-21	2021-22	2022-23
1	Non Solar Target	10.25%	10.25%	10.50%
2	Solar Target	7.25%	8.75%	10.50%
3	Total	17.50%	19.00%	21.00%

"

- 4.42 Accordingly, the cost of REC purchase for meeting the solar and non-solar RPO for FY 2020-21 is tabulated below:

Table 4.15: Cost on account of RPO Compliance

Particulars	Solar	Non Solar	Total
Sales (MU)	13167		
Hydro Purchase (MU)	1665		
Base for RPO (MU)	11502		
Target (%)	7.25%	10.25%	17.50%
Target (MU)	834	1179	2013
Arrangement (MU)	608	508	1116
Shortfall (MU)	226	671	897
REC @ Forbearance (Rs./kWh)	2.40	3.00	
REC Cost (Rs. Crore)	54	201	255

- 4.43 The Petitioner had proposed that the RPO targets be set in such a way that the Petitioner may meet its targets with the help of tied up sources. Further, any excess



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energy procured from Renewable Energy Sources during these years can be utilised to meet the previous year's shortfall of achieving RPO target. In addition, the low RE Potential of Delhi and unavailability of real estate within and around New Delhi has led to very little development of RE Generation near the State. However, considering the RPO Targets mentioned in the Business Plan Regulations, 2019, it is submitted that for computing the cost to purchase REC, the Petitioner has considered forbearance price keeping in view shortfall of RECs in the market where buy bids have been significantly higher than the sell bids. Further, due to higher RPO targets specified by various Commissions it can be fairly assumed that the prices of REC will move towards forbearance price. The Petitioner therefore requests the Hon'ble Commission that if the Petitioner is expected to meet RPO it shall be allowed the cost of purchasing RECs at forbearance price.

Transmission Loss and Transmission Charges:

4.44 The Following assumptions are made for calculation of Transmission Charges and Losses:

- Intra-State Transmission: The Intra-State Transmission Loss during FY 2020-21 has been considered @ 0.92%, i.e., approved intra-state transmission loss.
- Inter-State Transmission: The Inter-State Transmission Loss has been considered @ 3% as per the previous Petition due to augmentation of large ISTS network and closure of BTPS.
- Transmission Charges: For estimation of Inter-State and Intra-State Transmission Charges, the Petitioner has considered the transmission charges as per the actuals for FY 2018-19. The Intra-State and Inter-State Transmission losses and Charges projected for FY 2020-21 is tabulated below:

Table 4.16: Transmission Loss and Transmission Charges projected for FY 2020-21

S. No	Particulars	FY 2020-21
A	Transmission losses (MU)	
i	Inter-State Transmission	360
ii	Intra-State Transmission	133
iii	Total Transmission losses (MU)	493
B	Transmission Charges (Rs. Crore)	1104



Energy Balance:

- 4.45 Based on the above discussion, the energy balance for FY 2020-21 is tabulated below. The deficit/(surplus) energy is calculated at the Distribution Periphery.

Table 4.17: Energy Balance projected for FY 2020-21

S. No.	Particulars	Units	FY 2020-21
Energy Availability			
1	Total Energy Available (Excluding SGS Plants)	MU	11987
2	Inter-State Transmission Loss	%	3.00%
3	Inter-State Transmission Loss	MU	360
4	Energy Available from Delhi stations	MU	2120
5	Short Term Purchase	MU	1783
6	Short Term Sale	MU	1071
7	Energy Available at State Transmission Periphery	MU	14459
8	Intra-State Transmission Loss	%	0.92%
9	Intra-State Transmission Loss	MU	133
10	Net Energy available at Distribution Periphery	MU	14327
Energy Requirement			
1	Energy Sales	MU	13167
2	Distribution Loss	MU	8.10%
3	Energy requirement at Distribution Periphery	MU	14327

Sale of surplus power:

- 4.46 The Petitioner has considered the aforesaid excess energy to be sold through short term sale during FY 2020-21. For the purpose of short-term sale rate, the sale rate has been considered as Rs. 3.09/ unit in line with the actual market (IEX) rate of FY 2019-20. Accordingly, the estimated short term sale for FY 2020-21 is tabulated below:

Table 4.18: Revenue from sale of surplus power during FY 2020-21

S.No.	Source	Energy Sale	Cost per Unit	Total Cost
		(MU)	(Rs./unit)	(Rs. Cr.)
1	2	3	4	5=3*4
1	Short Term Sale	1071	3.09	331

Rebate on Power Purchase and Transmission Charges:

- 4.47 The Petitioner has considered receiving rebate on power purchase cost from generating stations and Transmission Charges during FY 2020-21 based on the following assumptions:

- 1.5% normative rebate on power purchased from Central Generating Stations

- 2% normative rebate on power purchased from State Generating Stations
- 2.5% normative rebate on power purchased from NPCIL
- 1.5% normative rebate on Inter-State Transmission Charges
- 2% normative rebate on Intra-State Transmission Charges

Table 4.19: Rebate during FY 2020-21 (Rs. Crore)

S. No	Particulars	Total Charges	Rebate
A	Purchase from Long Term sources	6533	102
B	Transmission sources	1104	19
C	Total	7165	120

Total Power Purchase Cost:

4.48 The total power purchase cost during FY 2020-21 is tabulated below:

Table 4.20: Total Power Purchase Cost during FY 2020-21

Particulars	Projections for FY 2020-21					
	Energy Purchase	Fixed Charges	Energy Charges	Other Charges	Total PPC	Total PPC
	MU	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	Rs./kWh
Existing Sources						
NTPC Ltd.	7411	1242	2369	0	3611	4.87
NHPC Ltd.	1009	151	136	38	325	3.22
Nuclear Power Corp. of India Ltd.	390	0	132	0	132	3.38
Satluj Jal Vidyut Nigam Ltd.	285	29	35	0	64	2.23
Tehri Hydro Development Corp. Ltd.	218	44	45	0	89	4.11
PTC	33	0	7	0	7	2.16
Damodar Valley Corporation	976	178	225	0	403	4.13
Power stations in Delhi	2120	543	916	0	1459	6.88
Aravali Power Corporation Ltd .	42	11	14	0	25	5.96
UMPP	495	7	59	0	66	1.33
SECI	44	0	24	0	24	5.50
Short-Term purchase (Exchange)	1783	0	669	0	669	3.75
Short Term Sale	1071	0	331		331	3.09
New Sources						
Tapovan Vishnugad	49	0	18		18	3.60
INOX	87	0	31		31	3.53
SECI-ACME	437	0	112		112	2.57
SECI	127	0	34		34	2.66
Wind-Alfanar	108	0	27		27	2.51
Wind - Srijan	12	0	3		3	2.84
Wind SITEC	192	0	56		56	2.89
Kameng HEP	71	0	48		48	6.69
Total	14819	2205	4627	38	6871	4.64
Less: Rebate					120	



Particulars	Projections for FY 2020-21					
	Energy Purchase	Fixed Charges	Energy Charges	Other Charges	Total PPC	Total PPC
	MU	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	Rs./kWh
Add: Transmission Charges					1104	
Add: REC Purchase					255	
Grand-Total	14819	2205	4627	38	8110	

- 4.49 The Petitioner requests the Hon'ble Commission to allow the power purchase cost during FY 2020-21 as per the aforesaid table.

Re-allocation of Power Stations

- 4.50 The Hon'ble Commission has specified in its Regulation 121 (4) of Tariff Regulations, 2017 regarding re-allocation of power as follows:

"4) The gap between average Power Purchase Cost of the power portfolio allocated and average revenue due to different consumer mix of all the distribution licensee: Provided that the Commission may adjust the gap in power purchase cost by reassigning the allocation of power amongst the distribution licensees out of the overall power portfolio allocated to the National Capital Territory of Delhi by Ministry of Power, Government of India."

- 4.51 As per Tariff Order issued by the Hon'ble Commission for FY 2019-20, the difference between the average revenue, Power Purchase cost and gap across the Discoms is tabulated below:

Table 4.21: Gap between Average PP Cost and Average Billing Rate

Particulars	BRPL	BYPL	TPDDL
Avg. Power Purchase Cost (Rs./kWh)	5.08	4.33	5.44
Average Billing Rate (Rs./kWh)	7.11	6.86	7.32
Gap (Rs./kWh)	2.03	2.53	1.88

- 4.52 The Petitioner requests the Hon'ble Commission to balance the said gap and re-allocate the Power Portfolio as per applicable Regulations.

Few possible solutions to balance the gap:

- 4.53 In order to balance the gap and to make level playing field across the Discoms, the Petitioner requests the Hon'ble Commission to increase allocation from cheap stations i.e. Sasan, Rihand, Singrauli etc. to the Petitioner and decrease allocation from costly stations i.e. PPCL (Bawana), Dadri-I, Dadri-II, GT and APCPL-Jhajjar.

- 4.54 It is pertinent to mention that the Gas turbine (GT) State generating station is not directly physically connected to the Petitioner network, it is directly connected with Other Distribution Company of Delhi. This has led to wide variation in over-drawl / under-drawl in the Petitioner's area which is affecting the Scheduling of the Petitioner. Hence, the Petitioner requests the Hon'ble Commission to allocate entire Petitioner's share of GT station to the concern Discom directly (physically) connected with it.



Operation and Maintenance (O&M) Expenses

4.55 As regards, O&M Expenses, DERC Tariff Regulations, 2017 states as under:

"87. The Utilities shall be allowed Operation and Maintenance expenses on normative basis including expenses for raising the loan for funding of Working Capital and Regulatory Asset as specified by the Commission in the Business Plan Regulations for the respective Control Period:

Provided that the Normative O&M expenses for the respective Control Period shall not be trued up;

Provided further that the water charges, statutory levy and taxes under O&M expenses if indicated separately in the audited financial statement shall not form part of Normative O&M expenses.

88. Escalation to be allowed for adjustment towards increase in inflation, consumer price index (CPI), wholesale price index (WPI) etc. shall be as specified in the Business Plan Regulations for the respective Control Period.

89. Normative Operation and Maintenance expenses of a new Generating Entity shall be as per the norms approved by the CERC in Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 as amended from time to time, for respective year unless specifically approved by the Commission.

90. Normative Operation and Maintenance expenses of existing Generating Entity shall be as specified in the Business Plan Regulations for the respective Control Period.

91. The Commission shall specify the target for Normative Operation and Maintenance expenses of the Transmission Licensee in the Business Plan Regulations for the respective Control Period.

Provided that the Commission may specify Normative Operation and Maintenance expenses target of a Transmission Licensee on the basis of number of Bays and Circuit Kilometres.

92. Normative Operation and Maintenance expenses of a Distribution Licensee shall consist of:

- (a) Employee Expenses;*
- (b) Administrative and General Expenses; and*
- (c) Repair and Maintenance Expenses.*

93. Normative Operation and Maintenance expenses of a Distribution Licensee for a Control Period shall be derived on the basis of audited Operation and Maintenance expenses for last five (5) completed Financial Years vis-a-vis normative Operation and Maintenance expenses allowed by the Commission during the corresponding period based on the following parameters:



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- (a) Load growth,
 (b) Consumer growth,
 (c) Commercial loss,
 (d) Distribution loss,
 (e) Inflation,
 (f) Efficiency,
 (g) Capital base and,
 (h) Any other factor.”

4.56 Regulation-23 of the DERC Business Plan Regulations, 2019 states as under:

“23. Operation and Maintenance Expenses

- (1) Normative Operation and Maintenance Expenses in terms of Regulation 4(3) and Regulation 92 of the DERC (Terms and Conditions for determination of Tariff) Regulations, 2017 for the Distribution Licensees shall be follows:

Table 8: O&M Expenses for BRPL for the Control Period

Particulars	Unit	2020-21	2021-22	2022-23
66 kV Line	Rs. Lakh/ Ckt. Km	3.855	4.002	4.156
33 kV Line	Rs. Lakh/ Ckt. Km	3.855	4.002	4.156
11 kV Line	Rs. Lakh/ Ckt. Km	1.150	1.194	1.239
LT lines system	Rs. Lakh/ Ckt. Km	6.148	6.384	6.629
66/11 kV Grid S/s	Rs. Lakh/ Ckt. Km	1.033	1.073	1.114
33/11 kV Grid S/s	Rs. Lakh/ Ckt. Km	1.033	1.073	1.114
11/0.415 kV DT	Rs. Lakh/ Ckt. Km	2.563	2.661	2.763

- (2) The Distribution Licensees shall be allowed own (Auxiliary) consumption including e-vehicle charging stations installed at Distribution Licensee offices and sub-stations, at zero tariff for actual recorded consumption subject to a maximum of 0.25% of total sales to its retail consumers for the relevant financial year as part of O&M expenses for the relevant year.
- (3) Actual recorded own (Auxiliary) consumption in excess of 0.25% of total sales to its retail consumers for the relevant financial year, shall be billed at Non Domestic Tariff of respective year's Tariff schedule and shall form part of revenue billed and collected for the same year.
- (4) The Distribution Licensee shall be allowed O&M expenses for a particular financial year of the control period by multiplying the norms for O&M expenses of that particular year with the respective average network capacity during the financial year i.e. (average of network capacity at start of Financial year and network capacity at the end of Financial year).
- (5) The impact of difference of amount on account of actual implementation of Seventh Pay Revision and Interim Relief already considered for



determination of norms for O&M Expenses, if any, shall be allowed separately in line with the methodology adopted for computation of norms for O&M Expenses, at the time of True up of ARR for relevant Financial year subject to prudence check.

- (6) The Distribution Licensee may claim the expenses for raising loan for working capital and regulatory assets under O&M expenses separately, subject to prudence check at the time of true up on submission of documentary evidence:

Provided that if this amount has been included in the interest on working capital and/or Regulatory assets, the same shall not be allowed.

- (7) The Distribution Licensee may claim the legal expenses separately, subject to prudence check at the time of true up on submission of documentary evidence:

Provided that the legal expenses on account of cases filed against the Orders or Regulations of the Commission before any Court and the legal claims (compensation/penalty) paid to the consumer, if any, shall not be allowed.

- (8) The Distribution Licensee shall allocate the O&M expenses on actual basis under the heads of lines and grid substation voltage wise as specified for determination of norms for O&M expenses:

Provided that the Distribution Licensee shall submit the above details of O&M expenses within thirty (30) days from the end of finalization of audited accounts of the relevant year."

- 4.57 The line and transformation capacity proposed by the Petitioner in its Business Plan Petition for FY 2020-21 are as below:

Table 4.22: Network capacity for FY 2020-21

Particulars	Units	FY 2020-21
		Projections
66 kV Line	ckt. km	1172
33 kV Line	ckt. km	
11 kV Line	ckt. km	7901
LT Line System	ckt. km	12678
66/11 kV Grid S/s	MVA	6540
33/11 kV Grid S/s	MVA	
11/0.415 kV DT	MVA	5287

- 4.58 Further, the Petitioner vide its Letter No. RA/2019-20/01/A/424 dated 14.11.2019 had provided the Hon'ble Commission with the details of Network Capacity for the period FY 2019-20 to FY 2024-25. Accordingly, the Line and Transformation

capacity as provided by the Petitioner to the Hon'ble Commission is tabulated as under:

Table 4.23: Average Network capacity

Particulars	Units	FY 2019-20	FY 2020-21 Projections	Average
66 kV Line	ckt. km	1155	1172	1164
33 kV Line	ckt. km			
11 kV Line	ckt. km	7668	7901	7785
LT Line System	ckt. km	12238	12678	12458
66/11 kV Grid S/s	MVA	6191	6540	6365
33/11 kV Grid S/s	MVA			
11/0.415 kV DT	MVA	5121	5287	5204

4.59 The Petitioner has, therefore, applied the norms approved for FY 2020-21 in the Business Plan Regulations, 2019 to the respective average network capacity for FY 2020-21 as tabulated below:

Table 4.24: O&M Expenses estimated during FY 2020-21 (Rs. Cr.)

Assets/ lines	Avg. Quantity	Units	Norms	Amount
66 kV lines	1164	Rs. Lakh/ ckt km	3.855	45
33 kV lines		Rs. Lakh/ ckt km	3.855	90
11 kV lines	7785	Rs. Lakh/ ckt km	1.150	
LT lines system	12458	Rs. Lakh/ ckt km	6.148	766
33/11 kV grid sub-station	6365	Rs. Lakh/ MVA	1.033	66
66/11 kV grid sub-station		Rs. Lakh/ MVA	1.033	
11/0.415 kV DT	5204	Rs. Lakh/ MVA	2.563	133
Total				1099

4.60 The Petitioner requests the Hon'ble Commission to allow the above sated O&M Expenses in the ARR for FY 2020-21.

Additional Expenses

4.61 As regards additional expenses, Regulation-11 of DERC Tariff Regulations, 2017 states as under:

"11. The Distribution Licensee shall submit Annual Tariff Petition, at least, one hundred and fifty (150) days prior to the end of relevant financial year which shall contain:

...

(9) Actual and expected additional expenses on account of O&M beyond the control of Distribution Licensee for the ensuing & previous year respectively;

..."



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- 4.62 As regards projection of O&M Expenses, Regulation-87 of DERC Tariff Regulations, 2017 states as under:

“87....

Provided that the Normative O&M Expenses for the respective Control Period shall not be trued up;

Provided further that the water charges, statutory levy and taxes under O&M Expenses if indicated separately in the audited financial statement shall not form part of Normative O&M Expenses.”

- 4.63 Further Regulation-23 (5) of DERC Business Plan Regulations, 2019 states as under:

*“(5) The impact of difference of amount on account of actual implementation of Seventh Pay Revision and Interim Relief already considered for determination of norms for O&M Expenses, if any, shall be allowed separately in line with the methodology adopted for computation of norms for O&M Expenses, at the time of True up of ARR for relevant Financial year subject to prudence check.
...”*

- 4.64 The Petitioner is therefore separately seeking additional O&M expenses in line with the above Regulation. For the purpose of projections the Petitioner has considered actual additional O&M expenses incurred in FY 2018-19 and has escalated the same as per the rates approved by the Hon’ble Commission for FY 2019-20 and FY 2020-21.

- 4.65 The Petitioner has considered an escalation factor of 5.6% (as per DERC Business Plan Regulations, 2017) and 3.8% (as per DERC Business Plan Regulations, 2019) over actuals for FY 2018-19 to arrive at the additional O&M Expenses for FY 2020-21 as under.

Table 4.25: Additional O&M Expenses estimated for FY 2020-21 (Rs. Cr.)

O&M Expenses Projection	FY 2018-19 (Actual)	FY 2019-20 (Escalated at 5.6%)	FY 2020-21 (Escalated at 3.8%)
Additional O&M Expenses	197	208	216

- 4.66 The Petitioner requests the Hon’ble Commission to allow the aforesaid impact in the ARR of FY 2020-21.

Capital Expenditure and Capitalisation

4.67 As regards, Capital Investment, Regulation-24 (1) of DERC Business Plan Regulations, 2019 states as under:

“24. Capital Investment Plan

(1) The tentative Capital Investment Plan in terms of Regulation 4 (4) of the DERC (terms and conditions for determination of tariff) Regulations, 2017 for the Distribution Licensee shall be as follows:

Table 12: Capitalisation for BRPL for the Control Period (in Rs. Cr.)

Particulars	2020-21	2021-22	2022-23	Total
Capitalization	641	634	802	2077
Smart Meter	50	52	55	157
Less: Deposit Work	67	81	67	215
Total	624	605	790	2,019

“

4.68 The Petitioner in its Business Action Plan for FY 2020-21 to FY 2024-25 had proposed the capital expenditure for Performance Obligation, Power Reliability and Infrastructure development as below:

Table 4.26: Capital Expenditure and Capitalisation proposed by the Petitioner in the Business Plan (Rs. Cr.)

Description	Sub Head	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Performance Obligation	Load Growth	341	341	543	495	408
	Metering	50	52	55	57	60
	Deposit Scheme	67	67	67	67	67
	Sub-Total	458	460	665	619	535
Power Reliability	System Improvement	100	97	78	78	79
	CMS (EV & Solar)	2	3	8	11	11
	Automation DMS	53	57	53	53	53
	Sub-Total	155	157	138	141	143
Infrastructure Development	IT & Communication	52	43	25	22	21
	Civil Infrastructure	14	16	16	17	18
	Admin & Vehicle	9	10	10	11	12
	Test Equipment, Tools & Tackles	2	2	2	2	2
	Sub-Total	77	70	53	52	53
Total		691	686	857	812	730
Capitalisation		733	687	823	821	747



- 4.69 The Loss Reduction Plan as proposed by the Petitioner in the Business Action Plan for FY 2020-21 to 2024-25 is as below:

Table 4.27: Distribution Loss Targets proposed by the Petitioner in the Business Plan

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Loss trajectory	9.28%	9.07%	8.86%	8.66%	8.47%

- 4.70 It is clear that the Hon'ble Commission in its Business Plan Regulations, 2019 has reduced the Distribution Loss Targets and has also reduced the capitalisation as proposed in the Business Plan. This may prove detrimental to achievement of reduction in loss targets as approved in the Business Plan. In order to meet such stringent loss targets, the Hon'ble Commission should at least allow the capitalisation as proposed by the Petitioner in the Business Plan without any curtailment.

- 4.71 However, the Petitioner has considered the gross capitalisation of Rs. 624 Crore including consumer contribution (Deposit work) during FY 2020-21 as approved by the Commission, provided that the same may be trued-up based on the actuals incurred to meet the loss targets issued by the Commission for FY 2020-21.

Consumer Contribution

- 4.72 The Petitioner in its Business Action Plan for FY 2020-21 to 2024-25 had proposed a consumer contribution capitalised at Rs. 67 Cr. based on the average value over the past five years. The Petitioner requests the Hon'ble Commission to approve the same for FY 2020-21.

Grants

- 4.73 The Hon'ble Commission in DERC Business Plan Regulations, 2019 has not estimated any receipts of grants during FY 2020-21. Accordingly, the Petitioner has not considered any grants for the purpose of computation of Regulated Rate Base for FY 2020-21.

Depreciation

- 4.74 The Hon'ble Commission in its Tariff Regulations, 2017 has specified different rates of depreciation depending upon the class and life of assets. Unlike the previous Regulations, DERC Tariff Regulations, 2017 do not contain the concept of Advance Against Depreciation. As per DERC Tariff Regulations, 2017, the assets shall attract a higher rate of depreciation till completion of 12 years of useful and

after 12 years whereas the remaining depreciation shall be uniformly distributed over the remaining useful life.

4.75 Since FY 2017-18 is the first Financial Year for which these Regulations are applicable, the Petitioner has worked out the depreciation by applying these class-wise rates based on the useful life of the existing assets. Accordingly, the average rate of depreciation comes to be 4.76%. The Petitioner has applied rate of 4.76% on the average GFA estimated for FY 2020-21. However, the depreciation rate of 4.76% so computed, may undergo change at the end of FY 2020-21 based on actual capitalization.

4.76 The depreciation claimed for FY 2020-21 is tabulated below:

Table 4.28: Depreciation for FY 2020-21 (Rs. Crore)

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	Gross Fixed Assets (GFA)		
i	Opening Balance	7657	Closing for FY 2018-19 + Approved addition for FY 2019-20
ii	Additions during the year	624	Business Plan Regulations, 2019
iii	Closing Balance	8281	i+ii
iv	Average Balance	7969	(i+iii)/2
B	Consumer Contribution		
v	Opening Balance	790	Closing for FY 2018-19 + Approved addition for FY 2019-20
vi	Additions during the year	67	Business Plan Regulations, 2019
vii	Closing Balance	857	v+vi
viii	Average Balance	824	(v+vii)/2
C	GFA net of consumer contribution	7146	iv-viii
D	Average rate of depreciation	4.76%	
E	Depreciation	340	C x D

4.77 The Petitioner requests the Hon'ble Commission to allow the depreciation as computed above in the ARR for FY 2020-21.

Advance Against Depreciation

4.78 DERC Tariff Regulations, 2017 does not provide for Advance Against Depreciation. Hence, the Petitioner has not considered any Advance Against Depreciation for FY 2020-21.

Means of finance for new investments

- 4.79 The Petitioner has considered the funding of capitalisation through consumer contribution, debt and equity. The consumer contribution has been considered first for financing of capitalisation and then the rest capitalisation has been considered to be funded in debt-equity ratio of 70:30. The means of finance for capitalization during FY 2020-21 is tabulated below:

Table 4.29: Means of Finance for FY 2020-21 (Rs. Cr.)

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	Capitalisation during the year	624	Business Plan Regulations, 2019
B	Means of finance		
i	Consumer contribution	67	Business Plan Regulations, 2019
ii	Grants	0	
C	Net	557	(A-B.i-B.ii)
i	Internal Accruals	167	C x 0.3
ii	Debt	390	C x 0.7

Working Capital

- 4.80 The Working Capital for FY 2020-21 has been calculated in accordance with Regulation-84 (4) of the DERC Tariff Regulations, 2017.
- 4.81 The Working Capital calculation for FY 2020-21 is tabulated below:

Table 4.30: Working Capital for FY 2020-21 (Rs. Crore)

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	Receivables from sales of electricity	10353	Table 4.36
B	Receivables equivalent to 2 months of revenue from wheeling charges and sale of electricity	1726	(A)/ 12 X 2
C	Less: Net purchase expenses (incl. Transmission Charges)	8110	Table 4.20
D	Less: One month power purchase expenses (incl. Transmission Charges)	676	(C)/12
E	Total Working Capital	1050	(B-D)
F	Less: Opening Working Capital	956	
G	Change in Working Capital	94	(E-F)

- 4.82 The Petitioner requests the Hon'ble Commission to consider the working capital as stated above in computation of ARR for FY 2020-21.

Regulated Rate Base (RRB)

- 4.83 Based on the above discussions / computations, the Regulated Rate Base (RRB) for FY 2020-21 is tabulated below:

Table 4.31: Regulated Rate Base for FY 2020-21 (Rs. Crore)

S. No	Particulars	FY 2020-21	Remarks/Reference
A	Opening Original Cost of Fixed Assets (OCFAo)	7657	(Closing value proposed for FY 2018-19 + Addition approved for FY 2019-20)
B	Opening Accumulated depreciation (ADo)*	3331	
C	Opening consumer contributions received (CCo)	790	
D	Opening Working capital (WCo)	956	
E	Opening RRB (RRBo)	4492	(A-B-C+D)
F	Investment capitalised during the year (INVi)	624	Para 4.71
G	Depreciation during the year (Di)	340	Table 4.28: Depreciation for FY 2020-21 (Rs. Crore) Table 4.28
H	Depreciation on decapitalised assets during the year		
I	Consumer contribution during the year (CCi)	67	Para 4.72
J	Fixed assets retired/decapitalised during the year (Reti)		
K	Change in capital investment (Δ ABi)	217	(F-G+H-I-J)
L	Change in working capital during the year (Δ WCo)	94	Table 4.30
M	RRB Closing	4803	E+K+L
N	RRBi	4694	E+K/2+L

Equity and Debt

- 4.84 The Hon'ble Tribunal has directed the Hon'ble Commission to consider the repayment of loan for computation of average loan balance for the year. Accordingly, the Petitioner has considered repayment as 1/10th of opening balance of loan. The relevant portion of Hon'ble APTEL's judgment on Appeal No. 61 of 2012 on November 28, 2014 is reproduced below:

"102. In the light of above discussions we find force in the contentions of the Appellant and direct the Commission to re-evaluate the WACC considering the repayment of loans during the period and recomputed RoCE payable to the Appellant. The issue is decided in favour of the Appellant."

- 4.85 In accordance with Proviso to Regulation-70 of DERC Tariff Regulations, 2017, the Petitioner has considered the funding of working capital through 100% debt.

"70. The WACC for each year of the Control Period shall be computed at the start of the Control Period in the following manner:



...

Provided that the Working capital shall be considered 100% debt financed for the calculation of WACC;

... “

- 4.86 Accordingly, the average equity and average debt for FY 2020-21 is tabulated below:

Table 4.32: Equity and Debt for FY 2020-21 (Rs. Crore)

S. No	Particulars	FY 2020-21
1	Equity	
i	Opening	2187
ii	Additions	167
iii	Closing	2354
iv	Average	2270
2	Debt	
i	Opening	2542
ii	Additions	483
A	Capitalization	389
B	Working Capital	94
iii	Less : Repayment	254
iv	Closing	2771
v	Average	2657

Weighted Average Cost of Capital

- 4.87 As regards computation of WACC, Regulation-70 of DERC Tariff Regulations, 2017 states as under:

“70. The WACC for each year of the Control Period shall be computed at the start of the Control Period in the following manner:

$$WACC = \left[\frac{D}{D+E} \right] * r_d + \left[\frac{E}{D+E} \right] * r_e$$

Where,

D is the amount of Debt derived as per these Regulations;

E is the amount of Equity derived as per these Regulations;

...

rd is the Cost of Debt;

re is the Return on Equity.”

- 4.88 As regards rate of interest, Regulation-22 (1) of DERC Business Plan Regulations, 2019 states as under:



[Signature]

"22. MARGIN FOR RATE OF INTEREST ON LOAN

(1) Margin for rate of interest for the Control Period in terms of (1) The rate of interest on loan for a financial year shall be Marginal Cost of Fund based Lending Rate (MCLR) of SBI as on 1st April of that financial year plus the Margin. The Margin, in terms of Regulation 4(2) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 towards capitalisation of Assets, Working Capital and Regulatory Assets for Distribution Licensee, is allowed as the difference between the weighted average rate of interest on actual loan portfolio and the MCLR as on 1st April of that financial year: Provided that the Margin shall not exceed 5.00%, 4.25% and 3.50% for the first, second and third year of the control period, respectively: Provided further that the rate of interest on loan (MCLR plus Margin) in any case shall not exceed approved base rate of return on equity i.e. 14.00%."

4.89 Accordingly, the Petitioner has considered the rate of interest on debt during FY 2020-21 equivalent to 12.90% as per DERC Business Plan Regulations, 2019 since the actual loans are expected to be costlier.

4.90 The Petitioner in accordance with Regulation 72 of DERC Tariff Regulations, 2019 has also considered the rate of Return on Equity on pre-tax basis using Corporate Tax rate applicable to it as the effective tax rate.

4.91 The WACC during FY 2020-21 has been computed below:

Table 4.33: Weighted Average Cost of Capital (WACC) for FY 2020-21 (Rs. Cr.)

S. No	Particulars	FY 2020-21	Remarks/Reference
A	Average Equity	2270	Table 4.32
B	Average Debt	2657	
C	Total	4927	(A+B)
D	Return on equity	16.00%	
E	Income Tax Rate	17.47%	
F	Grossed up Return on Equity	19.39%	D/(1-E)
G	Rate of Interest on Debt	12.90%	
F	Weighted average cost of Capital	15.89%	$((A/C)*F)+((B/C)*G)$

Return on Capital Employed (RoCE)

4.92 The Petitioner has computed RoCE during FY 2020-21 as under:

Table 4.34: RoCE for FY 2020-21 (Rs. Crore)



[Signature]

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	RRB (i)	4694	Table 4.31
B	WACC	15.89%	Table 4.33
C	RoCE	746	(A*B)

Non-Tariff Income

- 4.93 The Non-Tariff Income and income from other business during FY 2020-21 has been considered equivalent to actual NTI during FY 2018-19 as shown below:

Table 4.35: Non-Tariff Income for FY 2020-21 (Rs. Cr.)

S. No	Particulars	FY 2020-21	Remarks/ Reference
1	Non-Tariff Income	157.60	NTI for FY 2018-19

Carrying cost on revenue gap

- 4.94 Regulation 22 of the DERC Business Plan Regulations, 2019 provides that the rate of interest on loan shall not exceed approved base rate of return on equity for wheeling business i.e., 14%.
- 4.95 Accordingly, the Petitioner has considered the rate of carrying cost as 14%.

Aggregate Revenue Requirement

- 4.96 Based upon the above discussion, the Aggregate Revenue Requirement during FY 2020-21 is tabulated as under:

Table 4.36: Aggregate Revenue Requirement for FY 2020-21 (Rs. Cr.)

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	Net Power Purchase Cost including Transmission and SLDC Charges	8110	Table 4.20
B	O&M Expenses	1099	Table 4.24
C	Additional O&M Expenses	216	Table 4.25
E	Depreciation	340	Table 4.28
F	Return on Capital Employed (RoCE)	746	Table 4.34
G	Less: NTI	158	Table 4.35
H	Aggregate Revenue Requirement	10,353	SUM (A to F)-G

Revenue (Gap)/ Surplus

4.97 The Revenue (Gap)/ Surplus for FY 2020-21 is computed as under:

Table 4.37: Revenue (Gap) for FY 2020-21 (Rs. Cr.)

S. No	Particulars	Submission	Reference
A	ARR for FY 2020-21	10,353	Table 4.36
B	Revenue available towards ARR	9096	Table 4.9
C	Collection Efficiency	99.50%	As per Business Plan Regulations, 2019
D	Estimated Revenue Realisation	9050	D=B*C
E	Revenue (Gap)/ Surplus	-1,303	E=D-A

Chapter – 5



TARIFF PROPOSAL FOR FY 2020-21

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Background

- 5.1 Under Section 62 (1) of the 2003 Act, determination of tariff for Electricity Distribution Business/ Retail Tariff is the sole prerogative of the Hon'ble Commission. Therefore, in the treatment of Revenue Gap as proposed by the Petitioner, the Hon'ble Commission has the final say while finalizing tariff for Wheeling of Electricity and Retail Supply.
- 5.2 Despite continuous yearly tariff determination exercises undertaken by the Hon'ble Commission, there remains a huge unrecovered Regulatory Assets which is yet to be realized in terms of recovery through tariffs.
- 5.3 As is evident from the Petitioner's own past experience, the increase in Regulatory Assets has been mainly on account of increase in power purchase expenses. A simple comparison of Power purchase cost projected / allowed by the Hon'ble Commission on a year-to-year basis vis-à-vis the actual power purchase cost incurred by the Petitioner for respective financial years (as approved by this Hon'ble Commission during true-up exercise) shows a consistent trend wherein the projected power purchase cost always fell far short of the actual cost that was incurred by the Petitioner, as shown in the table below:

S. No	Particulars	Power Purchase Cost		
		ARR	True Up	Deficit
1	FY 2007-08	2298	2566	-268
2	FY 2008-09	2390	2616	-226
3	FY 2009-10	2473	3558	-1085
4	FY 2010-11	2479	4081	-1602
5	FY 2011-12	4527	5615	-1088
6	FY 2012-13	4891	5621	-730
7	FY 2013-14	5217	5873	-656
8	FY 2014-15	5944	6781	-837
9	FY 2015-16	6583	6177	406
10	FY 2016-17 #	6583	6719	-136
11	FY 2017-18	6620	6738	-118
12	Total	50005	56345	-6340

The only exception being FY 2015-16 during which the Petitioner incurred significantly lower Power purchase cost due to late implementation of CERC's Regulations and entire credit being passed to the Petitioner for the interim period during this FY. This however, was an exception as evident from the fact that the deficit in the Power purchase cost reoccurred from the subsequent FYs and continues till date.



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- 5.4 The Petitioner has endeavoured to raise loans to fund the revenue gap on account of increase in power purchase cost and to the extent of Regulatory Asset recognised. The Regulatory Assets are nothing but cost incurred (primarily power purchase cost) in the previous years by the Petitioner as approved by Hon'ble Commission, which is yet to be recovered through tariff. The Petitioner is continuously requesting the Hon'ble Commission to amortise the Regulatory Assets.
- 5.5 Despite the Petitioner's best efforts in raising loans, lenders have been getting increasingly reluctant in extending credit to the Petitioner owing to substantial unamortized Regulatory assets which in turn has a bearing on the credit rating of the Petitioner.
- 5.6 In view of the aforesaid submissions, it becomes all the more necessary that the Revenue Gap is allowed to be amortised by the Hon'ble Commission. In that backdrop, the Petitioner is proposing amortisation of Revenue Gap in the following two parts:
- Revenue Gap upto FY 2018-19 to be recovered through a suitable surcharge on the Regulatory Assets including carrying cost as explained in para 5.9.
 - Suitable cost reflective tariffs to take care of entire estimated standalone revenue gap during FY 2020-21.

Revenue (Gap)/ Surplus of DISCOM upto FY 2018-19

- 5.7 Revenue (Gap)/ Surplus till FY 2018-19 is tabulated below:

Table 5.1: Revenue (Gap)/ Surplus of till FY 2018-19 (Rs. Crore)

S. No.	Particulars	FY 2018-19
A	RA Creation	
1	Opening RA for FY 2018-19	3979
2	Revenue Gap during FY 2018-19	799
3	Rate of carrying cost	14%
4	Carrying cost accrued during the year	613
5	Amortisation through 8% surcharge	721
6	Amortisation of carrying cost	420
8	Closing RA for FY 2018-19 on stand-alone basis	4250
9	Add:	
a	Impact of past claims upto FY 2017-18 as per Table 1B13 of True-up Petition for FY 2018-19	14308
b	Carrying cost on past claims during FY 2018-19	2003
9	Total closing RA for FY 2018-19	20561

- 5.8 Without prejudice to the Writ Petition (C) No. 104 of 2014 filed before Hon'ble Supreme Court of India, the Petitioner requests the Hon'ble Commission to adjust 8% surcharge so as to ensure recovery within the time-frame specified in the amortization plan submitted before Hon'ble Supreme Court of India.
- 5.9 Further, the Petitioner requests the Hon'ble Commission to allow the carrying cost on Regulatory Assets recognized till FY 2018-19 as per directions given by Hon'ble Tribunal in Appeal 153 of 2009 and O.P. 1 of 2011, through a separate surcharge.

Revenue at Existing Tariff for FY 2020-21

- 5.10 The methodology adopted for computation of revenue at existing tariffs for FY 2020-21 has been detailed in Chapter IV of this Petition.
- 5.11 The revenue estimated on account of sales to various consumer categories during FY 2020-21 has been tabulated below:

Table 5.2: Revenue estimated during FY 2020-21 (Rs. Crore)

S No.	Tariff Category	Fixed charges	Energy charges	ToD Impact	Total Revenue
1	Domestic	498	3488		3986
1.1	Domestic	473	3357		3830
1.1.1	Upto 2 KW Connected Load	60	1471		1531
	0-200 Units	35	385		
	201-400 Units	18	553		
	401-800 Units	6	425		
	801-1200 Units	1	77		
	Above 1200 Units	0	30.6		
1.1.2	> 2 KW to ≤ 5 KW Connected Load	85	694		779
	0-200 Units	26	47		
	201-400 Units	31	169		
	401-800 Units	22	284		
	801-1200 Units	5	136		
	Above 1200 Units	1	58.0		
1.1.3	> 5 KW to ≤ 15 KW Connected Load	235	921		1155
	0-200 Units	54	20		
	201-400 Units	53	81		
	401-800 Units	67	244		
	801-1200 Units	32	220		
	Above 1200 Units	29	356.1		

S No.	Tariff Category	Fixed charges	Energy charges	ToD Impact	Total Revenue
1.1.4	> 15 KW to ≤ 25 KW Connected Load	44	120		163
	0-200 Units	4	0		
	201-400 Units	3	1		
	401-800 Units	7	5		
	801-1200 Units	7	11		
	Above 1200 Units	23	102.2		
1.1.6	> 25 KW Connected Load	50	151		201
	0-200 Units	2	0		
	201-400 Units	1	0		
	401-800 Units	2	1		
	801-1200 Units	3	2		
	Above 1200 Units	42	148.1		
1.2	Single Delivery Point on 11 KV for GHS	20	95		115
1.3	Hospital / Worship (11KV)	5	29		34
1.4	DVB Staff	0	6		7
2	Non Domestic	802	2860	24	3687
2.1	ND Up to 3 KVA	112	187		
2.2	ND above 3 KVA	690	2673		
3	Industrial	94	423	4	521
4	Agriculture and Mushroom Cultivation	4	3		8
5	Public Utilities	71	474	3	548
6	Delhi International Airport Limited (DIAL)	15	196	2	213
7	Temporary Supply	0	119	0	119
8	Advertisement and Hoardings	1	1		2
9	Charging Stations for E-Richshaw/ E-Vehicle on Single Delivery Point (w.e.f. 01.09.2017)	0	12		12
9.1	Supply at LT	0	12		
9.2	Supply at HT	0	0		
10	Self-Consumption	0	0		0
TOTAL		1486	7576	34	9096



[Signature]

Revenue (Gap)/ Surplus for FY 2020-21 at Existing Tariffs

5.12 The Revenue (Gap)/ Surplus for FY 2020-21 at Existing Tariffs is tabulated below:

Table 5.3: Revenue (Gap)/ Surplus at Existing Tariff for FY 2020-21 (Rs. Crore)

S. No	Particulars	FY 2020-21	Remarks/ Reference
A	Revenue Requirement for the year (excludes carrying cost)	10,353	Table-4.36
B	Revenue at existing tariff	9050	Revenue estimated to be billed through tariff X Collection Efficiency of 99.50% less carrying cost.
C	Revenue (Gap)/ Surplus for the year	-1,303	B-A

Pension Trust Surcharge:

5.13 The Hon'ble Commission revised the pension trust surcharge from 3.7% in its Tariff Order dated 31.08.2017 to 3.8% vide Tariff Order dated 31.07.2019 and directed the Petitioner to deposit the actual amount collected through the said surcharge directly in to a specified bank account, on a monthly basis. The relevant extract of the directive issued in this regard is extracted below:

"Tariff Schedule

7. The above tariff rates shall be subject to following additional surcharges to be applied only on the basic Fixed Charges and Energy Charges excluding all other charges e.g., LPSC, Arrears, Electricity Tax/Duty, PPAC, load violation surcharge, etc. for the consumers of BRPL, BYPL & TPDDL:

- a) 8% towards recovery of accumulated deficit, and,*
- b) 3.80% towards recovery of Pension Trust Charges of erstwhile DVB Employees/Pensioners as recommended by GoNCTD.*

Directives:

6.2 The Petitioner shall directly deposit the amount of pension trust surcharge collected from the consumer as per the tariff schedule in the following bank account, of Pension trust



[Signature]

1	A/C No.	10021675545
2	MICR No.	110002103
3	Bank	State Bank of India
4	IFSC Code	SBIN0004281
5	Name	DVB-ETBF-2002
6	Branch	Rajghat Power House, New Delhi-110002

..”

- 5.14 The Petitioner has been complying with the above directive of the Hon’ble Commission.



Tariff Proposal:

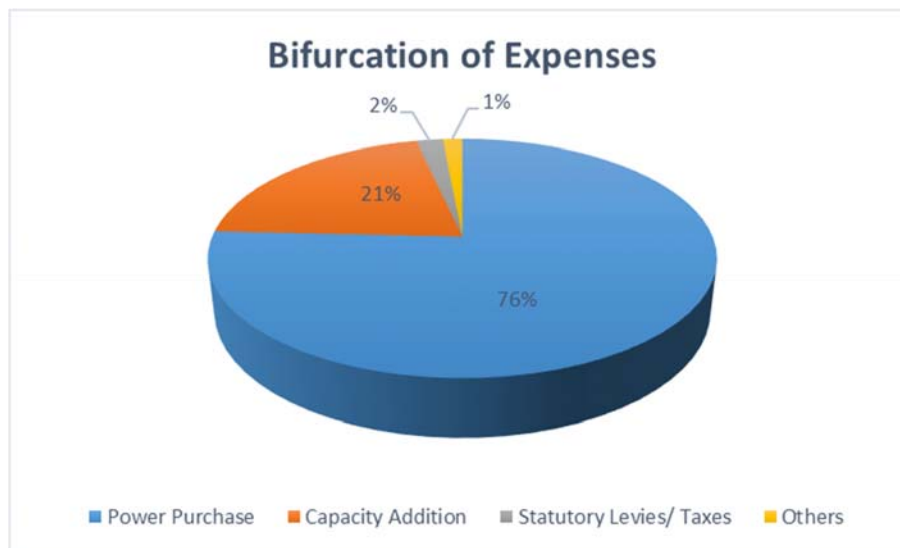
- 5.15 The revenue deficit projected by the Petitioner for FY 2020-21 at existing tariff is Rs. 1303 Crore.
- 5.16 The reasons for such deficit are listed as under:
- Adverse consumer mix which has resulted in a lower distribution margin at the hands of the licensee as compared to its peers;
 - High power purchase and transmission cost due to recent CERC Tariff Orders;
 - Tariffs being not reflective of their cost of supply, which make big consumer susceptible to open access, adversely impacting remaining low end LT consumers;
- 5.17 To address the revenue gap indicated above and to fully meet the tariff requirement of the Petitioner, the Hon'ble Commission is requested to determine a suitable cost reflective tariff.

Table 5.4: Tariff Revision Proposed

S. No	Particulars	Amount (Rs. Cr.)	Remarks/ Reference
A	Revenue (gap)/ surplus during FY 2020-21	-1,303	Table 5.3
B	Reason for revenue gap		
i	Power Purchase	8110	1. Power Purchase Cost estimated as per Petitions filed by Various Gencos 2. Realistic rate of sale of surplus power considered 3. Cheaper power from NHPC re-allocated back to BYPL
ii	O&M Expenses including Other Expenses and Statutory Levies	1316	Additional O&M expenses beyond the control of Petitioner considered
iii	RoCE/Finance Charge/ Income Tax	746	
iv	Depreciation	340	
C	Earlier revenue gap proposed to be liquidated during FY 2020-21	Recovery of RA till FY 2018-19 and carrying cost estimated to be incurred	1. Without <i>prejudice</i> , existing 8% surcharge to be suitably increased for principal recovery of RA within stipulated time as per plan proposed before Hon'ble SC.

S. No	Particulars	Amount (Rs. Cr.)	Remarks/ Reference
		during FY 2020-21	2. Carrying cost ought to be allowed as a separate surcharge on revenue instead of allowing in tariff as per requirements of Financial Institutions.
D	Tariff Hike Proposed (%)	Suitable cost reflective tariff.	
		Suitable surcharge for recovery of entire RA along with carrying cost as per the provisions of the National Tariff Policy.	

5.18 The below pie-chart clearly shows that the revenue gap is primarily on account of Power Purchase Cost which is not within the control of the Licensee:



Cost of Service Model

5.20 As regards ratio of allocation of ARR into Wheeling and Retail Supply, Regulation 32 of DERC Business Plan Regulations, 2019 states as under:

“32. Ratio of Allocation of ARR into Wheeling & Retail Supply

The ratio of allocation of ARR into Wheeling & Retail Supply Business in terms of the Regulation 4(9) (e) of the DERC (Terms and Conditions for determination of Tariff) Regulations, 2017 shall be as follows:

Table 17: Retail Business

Particulars	BRPL	TPDDL	BYPL
Cost of Power Purchase	100%	100%	100%
Inter-State Transmission Charges	100%	100%	100%
Intra-State Transmission Charges	100%	100%	100%
SLDC fees and charges	100%	100%	100%
Operation & Maintenance Costs	40%	38%	38%
Depreciation (including AAD)	21%	23%	19%
Return on Capital Employed	26%	28%	28%
Income Tax	26%	28%	28%
Non Tariff Income	85%	60%	85%

Table 18: Wheeling Business

Particulars	BRPL	TPDDL	BYPL
Operation & Maintenance Costs	60%	62%	62%
Depreciation (including AAD)	79%	77%	81%
Return on Capital Employed	74%	72%	72%
Income Tax	74%	72%	72%
Non Tariff Income	15%	40%	15%

....”

5.21 Employing the aforesaid ratios, the Petitioner has bifurcated the ARR into Retail and Wheeling Business as per the Table given below:

Table 5.5: Allocation of ARR into Retail and Wheeling Business

S. No	Particulars	Retail	Wheeling	Total
1	Cost of Power Purchase	8110	0	8110
2	Operation & Maintenance Costs	440	660	1099
3	Depreciation (including AAD)	71	269	340
4	Return on Capital Employed	204	580	783
	Additional expenses / other expenses	184	32	216
5	Non -Tariff Income	134	24	158
6	Total	9142	1564	10,391

5.22 Accordingly, the Petitioner requests the Hon’ble Commission to consider the aforesaid bifurcation.

Proposal on Tariff Structure

Time Bound Recovery of Regulatory Asset/Revenue Gap:

- 5.23 The Hon'ble Commission in Tariff Order dated July 31, 2019 has rationalized the Tariff. While doing so, the Hon'ble Commission has assumed a sanctioned load of 9257 MW for all consumers during FY 2019-20.
- 5.24 As compared to the projected sanctioned load, the Petitioner estimates the sanctioned load of 9676 MW for FY 2020-21 respectively. The Petitioner serves the largest percentage of Domestic consumers in Delhi. The Petitioner observed almost 62% of the total sales during FY 2020-21 on account of domestic consumers.
- 5.25 The 8% Additional Surcharge towards recovery of past accumulated deficit is not sufficient to recover the Regulatory asset in a time bound manner, where the annual revenue realization of the petitioner is much less in comparison to the accumulated gap.
- 5.26 The creation and maintenance of the Regulatory asset for such a long period is against the principles of natural justice to both the petitioner and its consumers. Petitioner is affected due to the reason that the financial health of the petitioner is adversely affected and the banks are reluctant to disburse any further loans to the petitioner. The consumer of the petitioner is adversely affected due to the fact that they would have to bear the impact of carrying cost on annual basis in the tariff.
- 5.27 The Hon'ble Commission is requested to kindly review the present 8% surcharge towards accumulated deficit and approve a revised Surcharge to ensure that the Regulatory asset of the petitioner along with the impact of past claims be recovered in a time bound manner along with the carrying cost.

Cross- Subsidy as per Tariff Policy:

- 5.28 As per Tariff Policy 2016, the appropriate Commission would notify a roadmap such that tariffs are brought within $\pm 20\%$ of the Average cost of Supply. Clause 8.3 of Tariff policy 2016 is reproduced below:

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

- 5.29 The Petitioner would like to bring to the kind notice of the Hon'ble Commission that the cross subsidy in the approved tariff is more than norms as mentioned



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in the Tariff Policy 2016. A comparative table of cross subsidy approved by the Hon'ble Commission in its tariff order from FY 2017-18 to FY 2019-20 is tabulated below:

Table 5.6: Comparison of Cross Subsidy approved in respective tariff orders

S. No	Category	Approved in TO Dated 31.07.2017	Approved in TO Dated 28.03.2018	Approved in TO Dated 31.07.2019	Projected on approved tariff of FY 2019-20
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Domestic	-19%	-20%	-26%	-38%
2	Non Domestic	39%	44%	53%	40%
3	Industrial	25%	25%	34%	25%
4	Agriculture	-59%	-57%	-55%	-54%
5	Public Lighting	-1%	-12%	0.3%	-7%
6	DMRC	-13%	-20%		
7	DJB	23%	6%		
8	DIAL	12%	-1%	10%	8%
9	E Vehicle			-33%	-43%

5.30 The issue related to cross subsidy and tariff simplification has also been addressed in agenda item no 4(a) 60th Meeting of Forum of Regulator Dated 23rd June 2017 which mentions that Domestic category may have within itself three subcategories i.e. Cross subsidizing, Cross Subsidized, and cross subsidy neutral.

5.31 It is pertinent to mention that as per cross subsidy as projected by the Petitioner for FY 2020-21 on the basis of approved tariff schedule of FY 2019-20 within Domestic category is not in line with the 60th meeting of Forum of Regulator. A comparison of Cross Subsidizing, Cross Subsidized and Cross Subsidy Neutral within Domestic category is tabulated below along with the percentage consumption.

Table 5.7: Comparison of Cross Subsidy within Domestic category

S. No	Category	% Units Billed	ACoS	ABR	Cross subsidy	Remarks
1	Domestic upto 2 KW	51.93%	7.89	3.75	-53%	95.12% Domestic consumption is Cross Subsidized
2	Domestic 2 to 5 KW	21.04%	7.89	4.71	-40%	
3	Domestic 5 to 15 KW	22.14%	7.89	6.63	-16%	

S. No	Category	% Units Billed	ACoS	ABR	Cross subsidy	Remarks
4	Domestic 15 to 25 KW	2.31%	7.89	9.01	14%	4.88% Domestic consumption is Cross Subsidizing
5	Domestic Above 25 KW	2.57%	7.89	9.91	26%	

5.32 In view of the above, Hon'ble Commission is requested to kindly address the issue of cross subsidization among all categories by restructuring the existing tariff structure. It is also suggested that common tariff may be adopted across all categories of consumer matching with average cost of supply of the Petitioner.

Tariff Simplification:

5.33 The Petitioner proposes to simplify the Tariff Slabs and Rationalise the Tariffs for different consumer categories as per the National Tariff Policy, 2016. The relevant extracts of the Policy are reproduced below:

"8.3 Tariff design: Linkage of tariffs to cost of service

It has been widely recognised that rational and economic pricing of electricity can be one of the major tools for energy conservation and sustainable use of ground water resources.

In terms of the Section 61(g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.

The State Governments can give subsidy to the extent they consider appropriate as per the provisions of section 65 of the Act. Direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross-subsidizing the tariff across the board. Subsidies should be targeted effectively and in transparent manner. As a substitute of cross subsidies, the State Government has the option of raising resources through mechanism of electricity duty and giving direct subsidies to only needy consumers. This is a better way of targeting subsidies effectively.

Accordingly, the following principles would be adopted:

1. Consumers below poverty line who consume below a specified level, as prescribed in the National Electricity Policy may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.

2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a



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roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy."

5.34 In addition, NITI Aayog also issued a Diagnostic Study of the Power Distribution Sector in April 2019, wherein the issue of Complex Retail Tariff Structure has issued way forward as below:

"Over time, because of considerable changes in the consumer mix, consumption pattern, and demand-supply situation, there has been substantial addition in the number of categories, sub-categories and slabs. While the introduction of these categories served the intended purpose initially, it has now become difficult for the regulatory commissions to do away with any of them, owing to socio-political reasons. In fact, the Economic Survey for fiscal 2016 noted the following key points regarding electricity tariffs:

- *Complexity of tariff schedules prevents economic actors from responding sufficiently to price signals*
- *Price and non-price barriers come in the way of single-nationwide electricity price through OA*
- *Existence of separate and multiple tariff categories, sub-categories and slabs create a complexity, which prevents consumers from fully responding to tariffs because of the high cost of processing the price information*

Currently, the tariffs framed by the SERC for retail consumers are complex with many sub-categories and conditions. This leads to confusion not just at the consumer level but even at the discom level.

It is, therefore, recommended that the tariff structures should be reviewed. While carrying out simplification of tariff categories, revenue neutrality needs to be ensured. We may merge/eliminate existing tariff categories, based on:

- *End-use*
- *Energy consumption*
- *Socio-economic profile/affordability*
- *Social factors (rural and urban area differentiation)*
- *Consumption pattern/load factor*



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- Voltage
- Efficient energy use

Based on the above exercise, standard tariff categories need to be defined across all states. Also, guidelines need to be laid out for determination of sub-categories and prescribing limit on the number of slabs under the standard tariff categories. Any tariff standardisation exercise at the national level will require a comprehensive assessment of the impact on revenue of the utilities. The tariff design should reflect the prudent and efficient cost of supply to the consumers while maintaining revenue neutrality. The new tariff structure should adequately recover fixed costs of the distribution utility through demand charges and variable costs through energy charge. Socio-economic development of the utility should be promoted by providing attractive and affordable tariffs to households, agricultural and industrial consumers. “

- 5.35 Some of the Commissions have started moving from the complicated Tariff Structures to a more simple and compact tariff structures. Commissions like Jharkhand State Electricity Regulatory Commission and Uttarakhand Electricity Regulatory Commission have made efforts towards reduction in slabs as well as clubbing similar categories in progressive manner so that it does not adversely affect the consumers.
- 5.36 Jharkhand State Electricity Commission in its Tariff Orders for FY 2018-19 and FY 2019-20 has completely done away with slabs in any Tariff Categories, making the Tariff Structure simple and have rationalised the Tariff Structure to better meet the Cost of Supply. As in FY 2019-20 all the consumer categories are within +/-10% of the average cost of supply except Irrigation and Agriculture (~19%). In FY 2018-19, the JSERC took the bold step for rationalising the tariff categories/sub-categories and slabs to around 16 from around existing 28 categories/sub-categories/slabs.
- 5.37 Furthermore, JSERC has merged all HT consumers except HT Domestic consumers into a single category and has implemented kVAh based Tariff for all HT consumers and LT Industrial consumers for FY 2019-20. JSERC has also restructured all consumers having contracted demand less than 5 kW as domestic consumers.
- 5.38 Similar developments have happened in Uttarakhand as well. The Total No. of Consumer Categories have been brought to 7, viz., Domestic, Non-Domestic,



Govt. Public Utilities (comprising Street Lights, Public Water Works, etc) Private Tubewells, Industries, Mixed Load and Railway Traction.

- 5.39 UERC has also set the tariff for all the consumer categories within +/-20% of the average cost of supply except PTW consumers. UERC has also implemented kVAh based Tariffs for all consumers having a contracted capacity above 25 kW.
- 5.40 In the light of the above submissions, the Petitioner requests the Hon'ble Commission to explore the possibility of further simplifying the tariff structure of the Petitioner without adversely affecting the interests of the consumers.

GoNCTD Subsidy amount to be passed on the basis of Direct Benefit Transfer (DBT):

- 5.41 The GoNCTD subsidy is given to the Domestic consumers including CGHS, Lawyer's Chambers and 1984 Sikh Riots Victims, Agricultural consumers, etc. Currently, the Subsidy amount is been discounted in the electricity bills of the consumers. In this regard, Hon'ble Commission is requested to kindly allow the payment of subsidy amount through direct benefit transfer as done in several schemes of Government of India such as payment of subsidy for LPG Gas cylinder. In this way consumer, would feel a sense of responsibility in usage of electricity as consumer have to pay the full electricity bills initially and the subsidy amount to such consumer would be passed through direct benefit transfer.

Exclusion of dishonest consumers for GoNCTD subsidy:

- 5.42 Subsidy should be given to the honest consumers so that the dishonest consumers are encouraged in making timely payment of electricity bills and/or avoid in indulging in activities like theft & unauthorized use of electricity etc. Hence, Petitioner requests the Hon'ble Commission to kindly allow for payment of subsidy only to those consumers whose electricity bills are clear upto the previous billing cycle. Further, it is also requested to approve, a subsidy lock on those consumers where a case of theft/ unauthorized use of electricity has been booked. The subsidy lock would be removed after one year of clearance of the full enforcement dues.

Time of Day tariff:

- 5.43 Hon'ble Commission in the tariff order dated 31st July 2019 had approved Time of Day tariff as per the following:-



"3. Time of Day (ToD) Tariff

e. ToD tariff shall be applicable on all consumers (other than Domestic) whose sanctioned load/MDI (whichever is higher) is 10kW/11kVA and above.

f. Optional for all other three phase (3 ϕ) connections including Domestic connections. If the consumer who has opted for ToD, the charges for up-gradation of meters, if any, shall be borne by respective consumers.

g. The Commission has decided to retain the Rebate during the Off Peak hours and Peak hours Surcharge at 20%. Optional ToD Consumers will have the option to move back to Non-ToD regime only once within one Financial Year. For other than Peak and Off-Peak hours normal Energy Charges shall be applicable.

h. The Commission has retained the time slots for Peak and Off-Peak hours as follows:

<i>Months</i>	<i>Peak Hours</i>	<i>Surcharge on energy charges</i>	<i>Off Peak Hours</i>	<i>Rebate on Energy charges</i>
<i>May to September</i>	<i>1400-1700 hrs and 2200 – 0100 hrs</i>	<i>20%</i>	<i>0400 – 1000 hrs</i>	<i>20%</i>

- 5.44 The Petitioner Requests the Hon'ble Commission to kindly retain the TOD Tariff as approved for FY 2019-20 while approving the tariff for FY 2020-21.

Waiving of the processing fee on account of digital payment:

- 5.45 The Digital India programme is the flagship program of Government of India with a vision to transform India into digitally empowered society and knowledge economy. Petitioner had also taken several initiatives to become digital by all means and contribute towards the national goal. One of the major key factors for contributing towards the Digital India Program is to adopt and promote the digital payment modes. Digital payment modes not only gives the convenience in bill payment 24x7, from the comfort of home or on the go, but it also results in monetary savings to consumers in their travelling cost and also saves the precious time of the consumers. Many of the petitioner's associated business partners like paytm, mobikwik, phonepay etc keep on sponsoring incentive schemes for promotion of digital payments thorough their platform. The Hon'ble Commission had also restricted the cash payment of electricity bills to Rs 4,000/- for promoting digital payment.

- 5.46 In view of promotion of Digital payments, Petitioner request the Hon'ble Commission to kindly waive of the processing charges charged by the Bank/ Gateway and allow the same as a pass through in the ARR of the Petitioner.

Levy of Disconnection penalty on account of non-Payment of dues by defaulting consumers:

- 5.47 Hon'ble Commission had empowered the DISCOMs under Regulation 50 of the DERC (Supply Code & Performance Standards) Regulations, 2017 to disconnect the supply in case of default in payment by the consumer. It is submitted that considerable manpower and cost is being deployed by the Petitioner to disconnect the supply of the defaulting consumers. There are instances that some consumers are continuous defaulters and licensee has to disconnect such consumers more than one times in a year.
- 5.48 The Hon'ble Commission is requested to kindly approve the disconnection penalty of 2% of defaulted amount to be recovered from the defaulting consumers, so that the consumers may also feel the sense of responsibility in making timely payment of their electricity dues so that disconnection can be avoided.

Tariff of Electric Vehicle

- 5.49 Currently the Tariff of electric vehicle is much lower than the average cost of supply and other tariff categories are cross subsidizing this lower tariff of electric vehicle. It is requested that the tariff for charging stations for electric vehicle may be approved equivalent to average cost of supply of the Petitioner. For any new category, the cross subsidy should not be provided and its tariff should be fixed equivalent to Average Cost of Supply as per the provisions of National Tariff Policy. Further, Time of day tariff is also required to be approved on the charging station for Electric vehicle category as their business model is suitable for shifting the electric load in the off peak time slots. This would help the DISCOM's Load curve. It is also proposed to approve dynamic pricing in the tariff for maintaining the grid security in low/ high demand time.

Expected Revenue with tariff revision proposed

5.50 The expected revenue from existing tariff and revised revenue as per proposal is tabulated below:

Table 5.8: Expected revenue category-wise (Rs./ Unit)

S. No	CATEGORY	FIXED CHARGES (Rs. Cr.)	ENERGY CHARGES (Rs. Cr)	TOD Sur+Rebate (Rs. Cr.)	TOTAL (Rs. Cr.)	Hike in Tariff %	Revised Rev Proposed (Rs. Cr.)
1	Domestic	498	3488		3986	To meet the above revenue gap, the retail tariff ought to be determined in such a manner that after considering a collection efficiency of 99.5%, there ought not to be any revenue gap during FY 2020-21.	
1.1	Domestic	473	3357		3830		
1.1.1	Upto 2 KW Connected Load	60	1471		1531		
	0-200 Units	35	385				
	201-400 Units	18	553				
	401-800 Units	6	425				
	801-1200 Units	1	77				
	Above 1200 Units	0	30.6				
1.1.2	> 2 KW to ≤ 5 KW Connected Load	85	694		779		
	0-200 Units	26	47				
	201-400 Units	31	169				
	401-800 Units	22	284				
	801-1200 Units	5	136				
	Above 1200 Units	1	58.0				
1.1.3	> 5 KW to ≤ 15 KW Connected Load	235	921		1155		
	0-200 Units	54	20				
	201-400 Units	53	81				
	401-800 Units	67	244				
	801-1200 Units	32	220				
	Above 1200 Units	29	356.1				
1.1.4	> 15 KW to ≤ 25 KW Connected Load	44	120		163		
	0-200 Units	4	0				
	201-400 Units	3	1				
	401-800 Units	7	5				
	801-1200 Units	7	11				
	Above 1200 Units	23	102.2				
1.1.6	> 25 KW Connected Load	50	151		201		
	0-200 Units	2	0				
	201-400 Units	1	0				
	401-800 Units	2	1				
	801-1200 Units	3	2				
	Above 1200 Units	42	148.1				
1.2	Single Delivery Point on 11 KV for GHS	20	95		115		
1.3	Hospital / Worship (11KV)	5	29		34		
1.4	DVB Staff	0	6		7		



S. No	CATEGORY	FIXED CHARGES (Rs. Cr.)	ENERGY CHARGES (Rs. Cr.)	TOD Sur+Rebate (Rs. Cr.)	TOTAL (Rs. Cr.)	Hike in Tariff %	Revised Rev Proposed (Rs. Cr.)
2	Non Domestic	802	2860	24	3687		
2.1	ND Up to 3 KVA	112	187				
2.2	ND above 3 KVA	690	2673				
3	Industrial	94	423	4	521		
4	Agriculture and Mushroom Cultivation	4	3		8		
5	Public Utilities	71	474	3	548		
6	Delhi International Airport Limited (DIAL)	15	196	2	213		
7	Temporary Supply	0	119	0	119		
8	Advertisement and Hoardings	1	1		2		
9	Charging Stations for E-Richshaw/ E-Vehicle on Single Delivery Point (w.e.f. 01.09.2017)	0	12		12		
9.1	Supply at LT	0	12				
9.2	Supply at HT	0	0				
10	Self-Consumption	0	0		0		
	Total	1486	7576	34	9096		

5.51 The revenue gap at current tariff is Rs. 1303 Crore. To meet the above revenue gap, the retail tariff ought to be determined in such a manner that after considering a collection efficiency of 99.5%, there ought not to be any revenue gap during FY 2020-21.

Ratio of Average Billing Rate to Average Cost of Supply:

5.52 The ratio of Average Billing Rate (ABR) to Average Cost of Supply (ACoS) at existing tariff and proposed tariff is tabulated below:

Table 5.9: Ratio of ABR to ACoS for FY 2020-21

S.No	CATEGORY	ACoS	ABR at current tariff	Hike in Tariff	ABR as per revised tariff	Ratio of ABR at revised tariff to ACoS	Revised Revenue Proposed (Rs. Cr.)
1	DOMESTIC	7.89	4.90	To meet the revenue gap, the retail tariff ought to be determined in such a manner that after considering a collection efficiency of 99.5%, there ought not to be any revenue gap during FY 2019-20.		To be determined by the Hon'ble Commission	
2	NON-DOMESTIC	7.89	11.06				
3	INDUSTRIAL	7.89	9.85				
4	AGRICULTURE	7.89	3.59				
5	MUSHROOM CULTIVATION	7.89	8.88				
6	PUBLIC UTILITIES	7.89	7.30				
7	DIAL	7.89	8.51				
8	ADVERTISEMENTS AND HOARDINGS	7.89	12.70				
9	TEMPORARY	7.89	11.87				
10	E-VEHICLE	7.89	4.50				
	Grand Total	7.89	6.91				

Tariff Schedule proposed:

5.53 The Tariff Schedule proposed during FY 2020-21 is tabulated below:

Table 5.10: Tariff Schedule proposed for FY 2020-21

S. No	Particulars	UoM	Amount	Reference
1	ARR estimated for FY 2020-21	Rs. Cr.	10353	Table 4.36
2	Revenue realization estimated for FY 2020-21	Rs. Cr.	9096	Table 4.9
3	Revenue actually required for FY 2020-21	Rs. Cr.	10353	3=1
4	Collection Efficiency	%	99.50%	Para-4.28
5	Revenue Billed required to be allowed for FY 2020-21 based on projections	Rs. Cr.	10405	5=3/ (1-4)

5.54 In view of the above the Petitioner proposes the Hon'ble Commission to determine a suitable cost reflective tariff, so as to recover the projected Revenue Gap.





TARIFF FORMATS

ARR FORMATS		
BSES RAJDHANI POWER LIMITED		
<u>INDEX OF FORMATS</u>		
1	S1	Profit & Loss Account
2	S3	Annual Revenue Requirement
3	F1	Power Purchase Cost Statement Monthwise/Yearwise
4	F2	Form 2.1a
5	F2 (a)	Supplement to Form F2 (Form 2.1a)
6	F4	Income from investments and Non-Tariff Income
7	F13	Contribution Grants & subsidies towards Capital assets
8	F1a	Energy Balance : Energy Input and Cost of Pool Power
9	F17	Allocation Statement - Wheeling Business
10	F18	Allocation Statement - Retail Supply Business
11	F22	Projection of Sales, Customers & Connected load for metered consumers
12	F23	Revenue from Proposed Tariff & Charges



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BSES RAJDHANI POWER LIMITED		FORM- S1
<u>Profit & Loss Account</u>		
Sr. No.	Particulars	in Rs Cr. FY 2020-21 Projection
A	Revenue	
1	Revenue from sale of power	9,050.19
2	Non-tariff income	157.60
3	Other Revenue/ subsidies /incentives	
4	Income from Open Access	
5	Less: Carrying cost	
	Total Revenue or Income	9,207.80
B	Expenditure	
1	Purchase of Power from Long term Sources net off rebate	7,005.57
2	Purchase of Power from Other than Long term Sources	
3	Transmission Charges	
	(a) Inter State	
	(b) Intra State	1,104.03
4	Other Transmission Charges	
5	Load Despatch Charges	
6	Less: Revenue from sale of surplus power	-
7	Less: Additional UI Charges	
8	Operations and Maintenance Expenditure	1,099.40
	(a) Repairs and Maintenance	
	(b) Employee costs (Excluding loans and advances to Staff)	
	(c) Administration and General expenses	
	(d) Other borrowing costs	
9	Addnl. O&M Expenses	216.10
8	Net prior period credit/(charges)	
9	Other Debits, Write-offs	
10	Extraordinary items	
11	Less: Expenses Capitalized (A&G/Employee Expenses)	
C	Profit before depreciation, interest and taxes	9,425.11
D	Depreciation	340.13
E	Provisions	
F	PBIT	9,765.23
1	Interest & Finance Charges	326.51
2	Return on Equity	346.08
3	Less: Interest Capitalized	
G	Total Interest and Finance Charges	673
H	TOTAL EXPENDITURE	10,438
I	Profit/Loss before Tax	- 1,230
J	Income Tax	73
K	Other Comprehensive Income	
L	Profit/Loss after Tax (Revenue Gap in case of Actuals)	- 1,303

*Claim as per DERC Traiff Regulations, 2017



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BSES RAJDHANI POWER LIMITED Annual Revenue Requirement		FORM- S3
Sr. No.	Particulars	in Rs Cr. FY 2020-21 Projection
1	Power Purchase (MU)	13,724
2	Sale of Power (MU)	0
3	Loss %	8.10%
3.1	Distribution	1112
3.2	Intra State	604
3.3	Inter State	
1	Receipts	
a	Revenue from tariffs	
i)	Fixed Charges	9050
ii)	Energy Charges	
iii)	PPAC	
iv)	Surcharge for Regulatory Asset (8%)	
v)	Surcharge for Pension Trust (3.8%)	
vi)	Electricity Duty	
vii)	Any Other Receipt	
b	Revenue subsidy from Govt.	
c	Less: Recovery on account of carrying cost	
	Less: Incentives/ Dis-incentive as per Regulation 157 of MYT Regulations, 2017	
i	Overachievement of T&D loss targets	
ii	Overachievement of CE targets	
iii	Sale Rate	
e	Less: Gain on a/c of Regulated Power	
f	Add: Income from Open Access	
	Total	9050
2	Expenditure	8110
a	Purchase of Power from Long Term Sources	6,457
b	Purchase of Power from Other than Long Term Sources	669
c	Transmission Charges	
i)	Intra State	1104
ii)	Inter State	
d	Other Transmission Charges	
e	Load Despatch Charges	
f	Less: Revenue from sale of surplus power	0
g	Less: Additional UI Charges	
	Less: Rebate	120
h	O&M Expenses	1099
v)	Additional O&M Expenses viz. wage revision, GST, 7th pay	216
i	commission, legal claims	
j	Depreciation	340
k	Interest & Finance Charges	327
l	ROE	346
m	Less: Interest capitalised	
n	Less: Finance charges capitalised	
o	Less: O&M capitalised	
p	Extraordinary Items	
q	Other (Misc.)-net prior period credit/ (charges)	
	Total	10438
3	Return as approved/ allowed by Commission	
4	Income-Tax	73
5	Less: Carrying Cost	
6	Other Income	158
7	Annual Revenue Requirement (2)+(3)+(4)+(5)-(6)	10353
8	Surplus(+) / Shortfall(-) : (1)-(7) before tariff revision	-1303
9	Tariff Revision Impact	Suitable Tariff Hike to be provided by the Hon'ble Commission
10	Surplus(+) / Shortfall(-) : (6)-(7) after tariff revision#	0



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BSES RAJDHANI POWER LTD.																	Form No. F1
Power Purchase Statement for FY 2020-21																	
Sl. No.	Station Name/ Agency	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(3)+(4)+(5) +(6)+(7)+(8)+(9)	(11)=(10)/(2)	(12)	(13)	(14)=(2)+(12)	(15)=(10)+(13)	(16)=(15)/(14)
			MUs Purchased /sold	Fixed Cost (in Rs./Cr.)	Variable Cost Other (in Rs./Cr.)	Arrears (in Rs./Cr.)	Interest on Arrears as approved by CERC, if any (in Rs./Cr.)	Late Payment Surcharge, if any (in Rs./Cr.)	Incentive/ adjustment, if any	Total Charges (in Rs./Cr.)	Per Unit Cost (Rs./Kwh)	Transmissio n Losses (MUs)	Transmission Open Access Charges (in Rs./Cr.)	MUs at Discoms Periphery	Total charges including transmission charges (in Rs./Cr.)	Per Unit cost at Discom Periphery (Rs./Kwh)	
Power Purchase Statement																	
1	Ahta Gas Power Project		38	10	15	0					25	6.69					
2	Auraiya Gas Power Station		43	15	22	0					37	8.53					
3	Badarpur Thermal Power Station		0	0	0	0					0	-					
4	Dudri Gas Power Station		103	17	40	0					57	5.53					
5	Feroze Gandhi Unchahar TPS 1		69	7	23	0					30	4.36					
6	Feroze Gandhi Unchahar TPS 2		131	13	44	0					57	4.36					
7	Feroze Gandhi Unchahar TPS 3		81	11	27	0					38	4.69					
8	Farakka STPS		61	6	15	0					21	3.45					
9	Kahalgaon Thermal Power Station 1		141	16	33	0					49	3.47					
10	National Capital Thermal Power Station		1,814	376	744	0				1,120	6.17						
11	Rihand Thermal Power Station 1		469	41	65	0				106	2.26						
12	Rihand Thermal Power Station 2		382	27	53	0				80	2.10						
13	Singrauli STPS		211	13	31	0				44	2.08						
14	Kahalgaon Thermal Power Station 2		443	53	98	0				151	3.41						
15	Dudri TPS-II		2,884	567	1,084	0				1,641	5.69						
16	Rihand Thermal Power Station 3		542	80	74	0				154	2.85						
17	Barasul		0	2	0	0				2	-						
18	Salal		295	23	18	24				65	2.21						
19	Chamera I		85	7	10	0				17	1.99						
20	Tanakpur		18	5	3	0				8	4.23						
21	Uri		137	13	11	4				28	2.08						
22	Dhauliganga		57	8	7	0				15	2.62						
23	Chamera - II		89	9	9	0				18	2.04						
24	Dulhasti		127	29	35	4				68	5.38						
25	Chamera - III		57	8	12	0				20	3.61						
26	SEWA-II		31	14	7	0				21	6.69						
27	Uri II		77	26	18	5				49	6.35						
28	Parbat-II		36	8	6	0				14	3.76						
29	Nuclear Power Corp. of India Ltd. Narora		223	0	66	0				66	2.97						
30	Nuclear Power Corp. of India Ltd. Kota UNIT - 566 RAPP		168	0	66	0				66	3.93						
31	Nathpa Jhakri		285	29	35	0				64	2.23						
32	Tehri		136	28	27	0				55	4.01						
33	Koteshwar		82	16	19	0				35	4.27						
34	Tala		33	0	7	0				7	2.16						
35	Meja Unit 6		211	71	67	0				138	6.54						
36	CTPS Units 7 & 8		764	107	157	0				264	3.46						
37	Indraprastha Power Generation Co.Ltd. RPH		0	0	0	0				0	-						
38	Indraprastha Power Generation Co.Ltd. GT		341	81	161	0				242	7.09						
39	Pragati Power Corp.Ltd. Pragati I		474	47	250	0				297	6.27						
40	Pragati Power Corp.Ltd. Pragati III (Bawana)		1,197	415	454	0				869	7.26						
41	Tinarpur Okhla Waste Management Company Private Ltd.		60	0	18	0				18	2.92						
42	Thyagraj Solar		0	0	0	0				0	-						
43	Delhi MSW Solution Limited		48	0	34	0				34	7.03						
44	Jhajjar		42	11	14	0				25	5.96						
45	Sasan		495	7	59	0				66	1.33						
46	SECI-ACME(20 MW)		44	0	24	0				24	5.50						
47	Tapovan Vishnugad		49	0	18	0				18	3.60						
48	INOX		87	0	31	0				31	3.53						
49	SECI-ACME		437	0	112	0				112	2.57						
50	SECI- Azure & Eden		127	0	34	0				34	2.66						
51	Wind-Alfimar		108	0	27	0				27	2.51						
52	Wind - Srijan		12	0	3	0				3	2.84						
53	Wind SITEC		192	0	56	0				56	2.89						
54	Kameng HEP		71	0	48	0				48	6.69						
55	Total Long Term Availability (A)		14,107	2,205	4,290	38				6,533	4.63						
56	Short Term Purchase (B)		1,783		669					669	3.75						
57	Short Term Purchase (C)		1,071		331					331	3.09						
58	Transmission Charges (D)																
59	REC Cost (E)									255							
60	Rebate (F)									120							
61	Net PP Cost (A+B+C+D+E-F)		14,819	2,205	4,627	38	0	0	0	7,006		492	1104	14,327	8,110	5.66	124



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BSES RAJDHANI POWER LIMITED		Form-F1a	
<u>Energy Balance</u>		FY 2020-21	
S. No	Particulars	%	Projection MU
1	Energy Sales		
	a) LT Sales	88%	11539
	b) HT Sales at 11kV	8%	1009
	c) HT Sales at 33kV/ EHT Sales	5%	619
	Total Energy Sales		13167
2	Distribution Losses		
	a) Distribution losses at 33kV level above		
	b) Distribution losses in HT 11kV		
	c) Distribution losses in LT system		
	Total Distribution Losses	8.10%	1161
3	Energy requirement at T-D boundary		14460
	a) 11kV and LT energy requirement combined		
	b) HT 33kV energy requirement		
	Total energy requirement at T-D boundary		14460
4	Intra-State Transmission Losses	0.92%	133
5	Energy requirement of EHT consumers		
6	Energy Requirement of Distribution system consumers after grossing up for Intra-State Transmission losses		
7	Energy Requirement of Distribution Licensee		14327
8	Inter-State Transmission Losses	3.00%	360
9	Total Energy requirement		14820
10	Total Energy available		15890
11	Surplus / (Deficit)		1070



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S.No	Tariff Category	Current Tariff		Consumer data				Total Revenue										ABR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Components of Tariff		Total No of Consumers	Sanctioned Load	MW/MKVA	No.	MU	MKVAh	Fixed Charges	Energy Charges	ToD Impact	Total Revenue excluding E tax & Surcharge		ABR	Electricity Tax	Recovery of Pension Trust Charges	Recovery of Accumulated deficit	Total Revenue including E tax & Surcharge																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Fxed Charges	Energy Charges										Rs Cr.	Rs Cr.						Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.	Rs Cr.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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BSES Rajdhani Power Limited														Form No: F2 (a)		
Supplement to Form F2 (a) -Ensting Year FY 2020-21																
Break up of Consumption details under respective slabs (in Kwh) as applicable from time to time in tariff order																
1	0-200			201-400 Units			401-800 Units			801-1200 units			Above 1200 Units			Total
	0-200	0-200	Total	0-200	0-200	Total	0-200	0-200	Total	0-200	0-200	Total	0-200	0-200	Total	
Domestic																
Energy Charges																
1.1 Upto 2 KW Connected Load	1,284	99	1,528	32	32	916	3	3	134	1	1	45	1	1	48	
1.2 > 2 KW to ≤ 5 KW Connected Load	158	30	466	30	30	589	21	21	173	5	5	67	10	10	96	
1.3 > 5 KW to ≤ 15 KW Connected Load	66	11	214	14	14	487	6	6	368	5	5	515	10	10	544	
1.4 > 15 KW to ≤ 25 KW Connected Load	1	0	2	0	0	11	0	0	18	1	1	142	2	2	147	
1.5 > 25 KW Connected Load	0	0	0	0	0	2	0	0	3	1	1	193	1	1	197	



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BSES Rajdhani Power limited				Form No: F4
Income from investments and Non-Tariff Income				
				in Rs. Cr.
Sr. No.	Particulars	FY 2018-19 Actuals	Reference	FY 2020-21 Projection
A	Other Operating Income	132.17	Note 33 of Audited Accounts	Considered same as FY 2018-19
B	Other Income	117.49	Note 34 of Audited Accounts	
I	Total Income as per Accounts	249.66	(A+B)	
C	Add: Interest on CSD	42.05		
D	Add: Differential in SLD	10.64		
II	Total Other Income	302.35	(I+C+D)	
E	Less: Income from other business		(a+b)	
a	Streetlight Maintenance	14.98		
III	Net Income to be considered	287.37	(II-E)	
A	Less: LPSC	30.28	Note 33 of Audited Accounts	
B	Less: Interest on CR		Note 34 of Audited Accounts	
C	Less: Write-back of misc. provisions	24.12	Note 34 of Audited Accounts	
D	Less: Short term gain	2.32	Note 34 of Audited Accounts	
E	Less: Transfer from Consumer contribution for capital works	38.10	Note 33 of Audited Accounts	
F	Less: Bad debts recovered	2.24	Group Income Expenses of Audited Accounts	
G	Less: Interest on Inter-company Loans	21.72	Note 34 of Audited Accounts	
H	Less: Commission on collection of Electricity Duty	10.99	Note 33 of Audited Accounts	
I	Net Non-Tariff Income	157.60	(III-sum A to I)	157.60



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BSES RAJDHANI POWER LIMITED											
Contributions towards Cost of Capital Assets											
FORM- F13 in Rs. Cr.											
Sl No	Particulars	FY 2018-19			FY 2019-20			FY 2020-21			
		Balance at the beginning of the year	Additions during the Year	Capitalized during the year	Balance at the end of the Year	Additions during the Year	Capitalized during the year	Balance at the end of the Year	Additions during the Year	Capitalized during the year	
	In Rs Crores										
1	Consumer Contribution Towards Cost Of Capital Assets	700	48	-	748	42	-	790	67	-	857
2	Grants towards cost of capital assets		-	-		-	-	-	-	-	-
	Total	700	48	-	748	42	-	790	67	-	857



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Allocation Statement - Revenue Requirement (for the year)		
FORM- F17		
in Rs. Cr.		
Wheeling Business		FY 2020-21 Projection
	Expenditure	
A	Power Purchase Cost	
B	O&M Expenses	660
C	Additional O&M Expenses	130
D	Other Expenses/ Statutory Levies	
E	Depreciation	269
F	ROCE	552
G	Total	1,610
H	NTI	24
I	ARR	1,586
J	Carrying Cost	
K	ARR with Carrying Cost	1,586



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Allocation Statement - Revenue Requirement (for the year)		
		FORM- F18
		in Rs. Cr.
Retail Business		FY 2020-21
		Projection
	Expenditure	
A	Power Purchase Cost	8,110
B	O&M Expenses	440
C	Additional O&M Expenses	86
D	Other Expenses/ Statutory Levies	
E	Depreciation	71
F	ROCE	194
G	Total	8,901
H	NTI	134
I	ARR	8,767
J	Carrying Cost	
K	ARR with Carrying Cost	8,767



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Projection of Sales, Customers & Connected load for metered consumers

Form No: F22

		EY Projection FY 2020-21		
S. No	Category	Projection of Sales (MU)	Projection of no. of Consumers	Projection of Connected Load (MW)
1.1	Domestic	8,136	2,434,926	6,360
1.1.1	Upto 2 KW Connected Load	4,085	1,772,883	2,501
0	0-200 Units	1,284	1,098,852	1,455
0	201-400 Units	1,628	497,153	752
0	401-800 Units	981	160,986	266
0	801-1200 Units	144	13,373	23
0	Above 1200 Units	48	2,519	4
1.1.2	> 2 KW to ≤ 5 KW Connected Load	1,655	410,230	1,411
0	0-200 Units	158	125,431	425
0	201-400 Units	496	150,306	510
0	401-800 Units	649	104,351	363
0	801-1200 Units	257	24,304	90
0	Above 1200 Units	96	5,838	23
1.1.3	> 5 KW to ≤ 15 KW Connected Load	1,742	233,977	1,958
0	0-200 Units	66	53,867	446
0	201-400 Units	225	56,767	440
0	401-800 Units	514	68,172	559
0	801-1200 Units	393	30,810	270
0	Above 1200 Units	544	24,362	243
1.1.4	> 15 KW to ≤ 25 KW Connected Load	181	9,351	183
0	0-200 Units	1	898	17
0	201-400 Units	2	631	12
0	401-800 Units	11	1,462	28
0	801-1200 Units	19	1,507	29
0	Above 1200 Units	147	4,853	96
1.1.6	> 25 KW Connected Load	202	3,635	165
0	0-200 Units	0	162	6
0	201-400 Units	0	103	4
0	401-800 Units	2	223	8
0	801-1200 Units	3	250	9
0	Above 1200 Units	197	2,896	140
1.2	Single Delivery Point on 11 KV for GHS	212	235	108
1.3	Hospital / Worship (11KV)	37	20	16
1.4	DVB Staff	21	4,593	18
2	Non Domestic	3,335	371,702	2,674
2.1	Upto 3 KVA	300	237,889	374
2.2	Above 3 KVA	3,035	133,813	2,300
3	Industrial	529	5,583	313
4	Agriculture	21	6,472	29
5	Mushroom Cultivation	0	14	0
6	Public Utilities	751	9,721	238
6.1	Public Lighting	151	6,109	51
6.2	Delhi Jal Board (DJB)	231	3,603	135
6.3	Railway Traction	-	-	-
6.4	DMRC	369	9	52
7	Delhi International Airport Limited (DIAL)	250	1	51
8	Temporary Supply	100	-	-
9	Advertisement and Hoardings	1	971	2
10	Charging Stations for E-Vehicle	28	1,247	7
10.1	Supply at LT	28	1,247	7
10.2	Supply at HT	-	-	-
11	Self Consumption	16	-	-
TOTAL		13,167	2,830,637	9,676



Revenue from Proposed Tariff & Charges

Form F-23

Ensuing Year (FY 2020-21)

S. No	Particulars	Energy Sales (MU)	No. of Consumers	Load (MW)	Fixed Charges	Energy Charges	Revenue from Fixed Charges (Rs. Crs.)	Revenue from Variable Charges (Rs. Crs.)	Total Revenue (Rs. Crs.)
1.1	Domestic	8,136	2,434,926	6,360					
1.1.1	Upto 2 KW Connected Load	4,085	1,772,883	2,501					
	0-200 Units	1,284	1,098,852	1,455					
	201-400 Units	1,628	497,153	752					
	401-800 Units	981	160,986	266					
	801-1200 Units	144	13,373	23					
	Above 1200 Units	48	2,519	4					
1.1.2	> 2 KW to ≤ 5 KW Connected Load	1,655	410,230	1,411					
	0-200 Units	158	125,431	425					
	201-400 Units	496	150,306	510					
	401-800 Units	649	104,351	363					
	801-1200 Units	257	24,304	90					
	Above 1200 Units	96	5,838	23					
1.1.3	> 5 KW to ≤ 15 KW Connected Load	1,742	233,977	1,958					
	0-200 Units	66	53,867	446					
	201-400 Units	225	56,767	440					
	401-800 Units	514	68,172	559					
	801-1200 Units	393	30,810	270					
	Above 1200 Units	544	24,362	243					
1.1.4	> 15 KW to ≤ 25 KW Connected Load	181	9,351	183					
	0-200 Units	1	898	17					
	201-400 Units	2	631	12					
	401-800 Units	11	1,462	28					
	801-1200 Units	19	1,507	29					
	Above 1200 Units	147	4,853	96					
1.1.6	> 25 KW Connected Load	202	3,635	165					
	0-200 Units	0	162	6					
	201-400 Units	0	103	4					
	401-800 Units	2	223	8					
	801-1200 Units	3	250	9					
	Above 1200 Units	197	2,896	140					
1.2	Single Delivery Point on 11 KV for GHS	212	235	108					
1.3	Hospital / Worship (11KV)	37	20	16					
1.4	DVB Staff	21	4,593	18					
2	Non Domestic	3,335	371,702	2,674					
2.1	Upto 3 KVA	300	237,889	374					
2.2	Above 3 KVA	3,035	133,813	2,300					
3	Industrial	529	5,583	313					
4	Agriculture	21	6,472	29					
5	Mushroom Cultivation	0	14	0					
6	Public Utilities	751	9,721	238					
6.1	Public Lighting	151	6,109	51					
6.2	Delhi Jal Board (DJB)	231	3,603	135					
6.3	Railway Traction	-	-	-					
6.4	DMRC	369	9	52					
7	Delhi International Airport Limited (DIAL)	250	1	51					
8	Temporary Supply	100	-	-					
9	Advertisement and Hoardings	1	971	2					
10	Charging Stations for E-Vehicle	28	1,247	7					
10.1	Supply at LT	28	1,247	7					
10.2	Supply at HT	-	-	-					
11	Self Consumption	16	-	-					
TOTAL		13,167	2,830,637	9,676					

The Hon'ble Commission is requested to allow suitable tariff hike to make cost reflective during FY 2018-19, apart from a suitable surcharge towards recovery of both principal and interest component, on the past accumulated deficit on account of RA.



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