DELHI ELECTRICITY REGULATORY COMMISSION, NEW DELHI

EXPLANATORY MEMORANDUM - DRAFT DELHI ELECTRICITY REGULATORY COMMISSION (BUSINESS PLAN) REGULATIONS, 2019

A. INTRODUCTION

a) In exercise of the powers vested under Sections 61 and 181 (2) of the Electricity Act 2003 (Act) and all other enabling powers and in compliance of the requirement under Section 181 (3) of the Act, the Commission has uploaded the draft of *DERC (Business Plan) Regulations, 2019*, in succession to *DERC (Business Plan) Regulations 2017*, on its website http://derc.gov.in/.

b) The Commission has invited comments/suggestions from stakeholders through Public Notices published in leading newspapers and also uploaded the same on Commission's website http://derc.gov.in/. The last date for submission of comments/suggestions from stakeholders on the said Regulations is 19/12/2019.

c) This Explanatory Memorandum has been issued with the intent of explaining the rationale and objective behind Draft *DERC (Business Plan) Regulations, 2019*.

d) It may be mentioned for the sake of clarity, that the term *"Commission"* in most of the cases refers to the officers of the Commission for carrying out the research/due diligence on the available information for preparation of Explanatory Memorandum for *Draft Delhi Electricity Regulatory Commission (Business Plan) Regulations, 2019*.

B. GENERATING ENTITY

1. MARGIN FOR RATE OF INTEREST ON LOAN

Regulation 5 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"5. MARGIN FOR RATE OF INTEREST ON LOAN

"Margin for rate of interest for the control period in terms of regulation 4(2) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for the Generating Entity shall be allowed as the difference in weighted average rate of interest on actual loan as on 1st April 2020 and 1 (one) year marginal cost of fund based lending rate (MCLR) of SBI as on 1st April 2020:

Provided that the margin on MCLR shall not exceed 3.50% for the purpose of rate of interest on loan:

Provided further that the rate of interest on loan (MCLR plus margin) shall not exceed approved base rate of return on equity i.e. 14.00%."

EXPLANATORY NOTE

a. The clause (d) of para 5.11 of Tariff Policy, 2016 stipulates that the Utilities should be encouraged and suitably incentivized to restructure their debt for bringing down the tariff. The Commission continues to allow the margin for rate of interest as the difference in weighted average rate of interest on actual loan as on 1st April of the financial year and 1 (one) year Marginal Cost of Fund based Lending Rate (MCLR) of SBI as on 1st April of the financial year. However, such margin on interest rates has been considered with revision in the ceiling, as, if higher rates are given as pass through in tariff, there may be no deterrent to reduce the interest rate for the Utilities. By introducing such ceiling, the Utilities shall be driven to perform to bring their borrowing costs below the proposed margin and ultimately reduce the interest cost in ARR. Accordingly, a ceiling of 350 basis points above SBI MCLR is proposed as the ceiling margin rate for interest on loan, subject to overall rate of interest on loan limited to 14.00%.

b. The Commission continues to maintain the incentive due to lower rate of interest on account of re-financing of loan in terms of Regulation 71 of the *DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017* from FY 2020-21 to FY 2022-23 as the product of total quantum of loan availed and difference of weighted average rate of interest on actual loans versus margin of 2.00% plus (+) SBI MCLR.

2. OPERATION AND MAINTENANCE EXPENSES

Regulation 6 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"6. 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 Generating Entity shall be as follows:

Table 1: O&M Expenses (Rs. Lakh/ MW)

Station	*2020-21*	*2021-22*	*2022-23*
Gas Turbine Power Station (GTPS)	*29.45*	*30.56*	*31.73*
Pragati Power Station (PPS-I)	*23.02*	*23.89*	*24.80*

(2) Additional Repair & Maintenance expenses on account of DLN burners for PPS-I, if any, shall be allowed on actual basis during the Control Period after prudence check at the time of True Up on submission of documentary evidence."

EXPLANATORY NOTE

a. The Generation Companies have submitted that the Normative O&M expenses as per DERC (Business Plan) Regulations 2017 for the Generating Entity was allowed as under:

O&M Expenses (Rs. Lakh/MW)

STATION	FY 17-18	FY 18-19	FY 19-20
GTPS	29.66	31.32	33.08
PPS-I	17.69	18.68	19.73

b. Accordingly, they have projected the normative O&M expenditure for the ensuing period with an annual escalation of 5.63% based on DERC (Business Plan) Regulations 2017 is as under:

O&M Expenses (Rs. Lakh/MW)

STATION	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
GTPS	34.94	36.91	38.99	41.18	43.50
PPS-I	20.84	22.01	23.25	24.56	25.95

c. Further the Additional R&M expenses is proposed by the Utilities for the ensuing control period as follows:

Additional R&M expenses (Rs in Cr.)

STATION	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
DLN (PPCL)	78.00	26.18	2.12	2.35	0.00
STP (IPGCL)	4.91	5.15	5.42	5.69	5.96
STP (PPCL)	6.00	6.30	6.62	6.95	7.29
Security Expenses	as per actual				
Capital Spares	as per actual				

d. Based on the above submission of the Utilities and the applicable guidelines/principles, the Commission has proposed the normative O&M expenses for the Utilities as indicated in the draft.

e. PPS I station utilizes dry low NOx (DLN) technology to control air pollution and incurs expenditure periodically for the same. The said expenditure under the head of "Additional Repair & Maintenance expenses" ,if any, shall be allowed separately based on the prudence check.

f. Further, the impact of statutory pay revision on account of 7th pay commission is already considered in the base cost while setting the O&M norms, thus no additional cost under this sub-head is being considered in the proposed DERC (Business Plan) Regulations 2019.

g. CERC has allowed an additional escalation of 3% on the worked out escalation rate to cover the increasing trend of CPI and WPI. Therefore, additional escalation of 3% on the worked out escalation rate has also been allowed. Accordingly, an escalation rate of 3.80% has been considered on year to year basis to determine the O&M Expenses.

3. CAPITAL INVESTMENT PLAN

Regulation 7 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"7. CAPITAL INVESTMENT PLAN

(1) The tentative Capital Investment plan for the Generation Entity for FY 2020-21 to FY 2022-23 is as follows: "

Table 2: Capital Investment plan (in Rs. Cr.)

Sl. No.	*Generating Station*	*FY 2020-21*	*FY 2021-22*	*FY 2022-23*
1.	*Gas Turbine Power Station (GTPS)*	*17.33*	*16.10*	*-*
2.	*Pragati Power Station (PPS-I)*	*26.70*	*51.58*	*-*

EXPLANATORY NOTE

a. The Generation Companies submitted their projection for capital expenditure as under:

(Rs. Crore)

Sl. No.	Generating Station	FY 2020-21	FY 2021-22	FY 2022-23
1.	Gas Turbine Power Station (GTPS)	17.33	16.10	-
2.	Pragati Power Station (PPS-I)	26.70	51.58	-

b. Based on the submission, the Capitalisation data as submitted by the Generating Station has been considered as the projection in the draft *DERC (Business Plan) Regulations 2019*.

4. AUXILIARY ENERGY CONSUMPTION

Regulation 8(3) of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"8(3). AUXILIARY ENERGY CONSUMPTION

Auxiliary Energy Consumption for existing Gas based Generating Stations of Delhi shall be as follows:

Table 4: Auxiliary Energy Consumption (%)

S. No	*Mode of operation*	*Percentage*
1	*Combined Cycle*	*2.75%*
2	*Open Cycle*	*1.00%*

EXPLANATORY NOTE

a. PPCL proposed the Auxiliary Energy Consumption at 2.75% in Combined cycle mode and 1% in Open cycle mode in line with CERC Regulations 2019. IPGCL proposed the Auxiliary Energy Consumption at 3.50% in Combined cycle mode owing to non-scheduling and regular backing down of available generation.

b. While implementing the mechanism of Auxiliary Consumption in parts (fixed and variable), the Commission observed various issues relating to declaration of capacity for payment of fixed charges by SLDC and computation of energy charges.

c. The Commission in order to simplify the norms for Auxiliary consumption has merged both the components i.e., Fixed and Variable Aux and has accordingly proposed the Norms of operation for thermal generating station in accordance with *Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019* for gas based generating stations as combined cycle mode – 2.75 % and open cycle mode – 1%.

5. INCENTIVE

Regulation 9 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

9. INCENTIVE

"(1) Incentive to a Generating Entity or unit thereof shall be payable at the rate of 65 paise/ kWh for ex-bus scheduled energy during Peak Hours and at the rate of 50 paise/ kWh for ex-bus scheduled energy during other hours corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) achieved on a cumulative basis in accordance with Regulation 8(1) of these Regulations.

(2) Peak hours and other hours shall be as per the slots defined in Order for Time of Day (ToD) Tariff issued in terms of the Regulation 133 & 153 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017:
Provided that in the absence of a separate Order, the Peak hours shall be taken as specified in the tariff order of the Distribution Licensee."

EXPLANATORY NOTE

The clause 6.2 of Tariff Policy, 2016 stipulates that the Appropriate Commission shall introduce differential rates of fixed charges for peak and off peak hours for better management of load, as follows:

"6.2 Tariff structuring and associated issues
(1) A two-part tariff structure should be adopted for all long-term and medium-term contracts to facilitate Merit Order dispatch……The Appropriate Commission shall introduce differential rates of fixed charges for peak and off peak hours for better management of load within a period of two years."

Accordingly, the provision of incentive in line with the *Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019* has been indicated for peak & off-peak hours. Further, 'Peak hours' and 'other hours' shall be considered in accordance with the (ToD) mechanism of Distribution Licensees implemented by the Commission in its Tariff Order from time to time.

6. INCENTIVE SHARING MECHANISM WITH RESPECT TO OPERATIONAL PARAMETERS

Regulation 10 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"10. INCENTIVE SHARING MECHANISM WITH RESPECT TO OPERATIONAL PARAMETERS

(1) The incentive sharing mechanism with respect to operational parameters in terms of Regulation 149 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 shall be applicable on controllable parameters viz. Gross Station Heat Rate (GHR) and Auxiliary Energy Consumption.

(2) The Net Gain shall be calculated as under –
Net gain = (Normative ECR– Actual ECR) x Scheduled Generation,
Where,
Normative Energy Charge rate shall be computed on the basis of norms specified for Station Heat rate and Auxiliary Energy Consumption,
Actual Energy Charge rate shall be computed on the basis of actual Station Heat rate and Auxiliary Energy Consumption.

(3) The Net Gain shall be computed as above on annual basis and shall be shared in 50:50 ratio between the Generating Entity and the beneficiaries. "

EXPLANATORY NOTE

Regulation 149 of the *DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017* provides for incentive sharing mechanism with respect to the operational parameters of the Generation utilities. The mechanism of such sharing of incentive has been adopted in line with the *Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019* for thermal Generating stations.

C. TRANSMISSION ENTITY

1. MARGIN FOR RATE OF INTEREST ON LOAN

Regulation 14 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"14. MARGIN FOR RATE OF INTEREST ON LOAN

Margin for rate of interest for the control period in terms of regulation 4(2) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for the Transmission Licensee shall be allowed as the difference in weighted average rate of interest on actual loan as on 1st April 2020 and 1 (one) year marginal cost of fund based lending rate (MCLR) of SBI as on 1st April 2020:

Provided that the margin on MCLR shall not exceed 3.50% for the purpose of rate of interest on loan:

Provided further that the rate of interest on loan (MCLR plus margin) shall not exceed approved base rate of return on equity i.e. 14.00%."

EXPLANATORY NOTE

a. The clause (d) of para 5.11 of Tariff Policy, 2016 stipulates that the Utilities should be encouraged and suitably incentivized to restructure their debt for bringing down the tariff. The Commission continues to allow the margin for rate of interest as the difference in weighted average rate of interest on actual loan as on 1st April of the financial year and 1 (one) year Marginal Cost of Fund based Lending Rate (MCLR) of SBI as on 1st April of the financial year. However, such margin on interest rates has been considered with revision in the ceiling, as, if higher rates are given as pass through in tariff, there may be no deterrent to reduce the interest rate for the Utilities. By introducing such ceiling, the Utilities shall be driven to perform to bring their borrowing costs below the proposed margin and ultimately reduce the interest cost in the ARR. Accordingly, a ceiling of 350 basis points above the SBI MCLR is proposed as the ceiling margin rate for interest on loan, subject to overall rate of interest on loan limited to 14.00%.

b. The Commission continues to maintain the incentive due to lower rate of interest on account of re-financing of loan in terms of Regulation 71 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 from FY 2020-21 to FY 2022-23 as the product of total quantum of loan availed and difference of weighted average rate of interest on actual loans versus margin of 2.00% plus (+) SBI MCLR.

2. OPERATION AND MAINTENANCE EXPENSES

Regulation 15 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"15. OPERATION AND MAINTENANCE EXPENSES

(1) The Normative, Bay wise and Circuit kilometres wise, Operation and Maintenance Expenses of a Transmission Licensee, including own consumption of energy for Transmission Licensee's installations and offices, shall be as follows:

Table 5: Bay wise Norms for HVAC (Rs. Lakh/bay)

Voltage Levels	*2020-21*	*2021-22*	*2022-23*
400kV	*59.208*	*61.391*	*63.653*
220kV & below	*18.706*	*19.395*	*20.110*

Table 6: Circuit km wise Norms for HVAC lines (Rs. Lakh/ckm.)

Voltage Levels	*2020-21*	*2021-22*	*2022-23*
400kV	*2.531*	*2.624*	*2.721*

Voltage Levels	*2020-21*	*2021-22*	*2022-23*
220kV & below	*4.742*	*4.917*	*5.098*

(2) The O&M expenses for a particular financial year of the control period shall be allowed by multiplying the norms for O&M expenses with the respective network capacity at the start of the financial year excluding spare bays and bus section bays. The Transmission licensees shall also be allowed to recover O&M expenses for the network capacity added during the year on pro-rata basis."

EXPLANATORY NOTE

a. The Commission has sought the details of Operational & Maintenance expenses from the Transmission Licensee. DTL has submitted the data vide its letter dated 8.11.2019 and further vide email dated 19.11.2019.
b. It was observed that the total Operational & Maintenance expenses submitted by DTL including the statutory taxes and levies were on higher side. From the audited accounts for FY 2016-17 to FY 2018-19, it was observed that the statutory taxes and levies pertains to total tax expenses and hence are the part of corporate Income tax. Therefore, same has not been considered while determining the O&M expenses.
c. DTL has submitted that the records are not maintained on the basis of Bay wise and circuit km. DTL further submitted that allocation of O&M expenses may be considered based on the norms in *DERC (Business Plan) Regulations, 2017*. Accordingly, the expenses on account of HVAC bays and HVAC lines circuit kilometre has been considered based on the ratio of O&M expenses considered in the *DERC (Business Plan) Regulations, 2017*.
d. DTL has not submitted the details of expenses on account of 7^{th}Pay Commission. However, the proportionate disallowance for the period from 01.01.2016 to 31.03.2016 has been considered based on the 7^{th} Pay Commission amount allowed to DTL in true-up of Tariff Order for FY 2017-18. Loss on retirement of assets for FY 2016-17 has also not been considered.
e. The norms for O&M expenses for FY 2020-21 to FY 2022-23 has been determined as under:
    i. The normative unit rates of O&M expenses Bay wise and circuit km wise has been determined by dividing the audited O&M expenses for FY 2016-17 to FY 2018-19 with the transmission capacity at the start of respective financial year.
    ii. In order to arrive the per unit values for FY 2020-21, the escalation has been provided two times on the average rate determined based on the data for FY 2016-17 to FY 2018-19.
    iii. Year to year escalation @3.80% (as considered for the O&M rates derived for DISCOMS's network) on the norms determined for FY 2020-21 has been provided to determine the norms for O&M expenses for FY 2021-22 and FY 2022-23.

f. Based on the above, the norms for O&M expenses have been proposed as indicated in the draft DERC (Business Plan) Regulations 2019. The norms have been determined including the impact of 7^{th} Pay Commission. Therefore, no additional of Pay revision shall be allowed.
g. The O&M expenses for a particular financial year of the control period shall be allowed by multiplying the norms for O&M expenses with the respective network capacity at the start of the financial year. The Transmission licensees will be allowed to recover O&M expenses for the network capacity added during the year on pro-rata basis. This will obviate the requirement of additional escalation for determining the norms for FY 2020-21 from the average value of FY 2016-17 to FY 2018-19.

3. CAPITAL INVESTMENT PLAN

Regulation 16 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"16. CAPITAL INVESTMENT PLAN

(1) The tentative Capital Investment Plan for the Transmission Licensee for FY 2020-21 to FY 2022-23 is as follows:

Table 7: Capital Investment Plan (Rs. Cr.)

Sr. No.	*Details of scheme*	*2020-21*	*2021-22*	*2022-23*
1 New Works				
400 kV				
a	*Substations*	*-*	*-*	*623*
b	*Lines*	*-*	*-*	*80*
220 kV				
c	*Substations*	*93*	*632*	*690*
d	*Lines*	*90*	*605*	*635*
e=a+b+c+d	*Sub Total*	*183*	*1,237*	*2,028*
2 Automation Works				
A	*400 kV*	*-*	*20*	
b	*220 kV*	*61*	*48*	*41*
c=a+b	*Sub Total*	*61*	*68*	*41*
3 Augmentation Works				
a	*400 kV*	*57*	*-*	*-*
b	*220 kV*	*266*	*215*	*40*
c	*66kV and below*	*68*	*89*	*45*
d=a+b+c	*Sub Total*	*391*	*304*	*85*
4	*Land Cost including Civil*	*27*	*27*	*-*
5=1+2+3+4	*Grand Total*	*662*	*1,636*	*2,154*

EXPLANATORY NOTE

a. The Capital Investment Plan data as submitted by the Transmission Licensee has been considered as the projection in the draft *DERC (Business Plan) Regulations 2019*.
b. Norms for allowing capitalisation of employee expenses and A&G expenses has not been specified in the draft *DERC (Business Plan) Regulations 2019*. It was further observed that the Commission in its Tariff Orders has been allowing a ceiling of 30% of employee expenses, which may be capitalised. Generally, it is observed that the value of employee expenses has been on lower side while capital Investment plan on higher side as compared to the distribution licensee. Since with the increase in O&M expenses, the 30% value of employee expenses may also increase which may be on higher side. Therefore, it is proposed to revise this ceiling and also include one more parameter of % of material cost. Accordingly, the lower of 25% of (employee cost and A&G expenses), 10% of material cost and actuals may be allowed to be capitalised in a particular financial year.

D. DISTRIBUTION ENTITY

1. MARGINAL RATE OF INTEREST ON LOAN

Regulation '22(1)' of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"22. MARGIN FOR RATE OF INTEREST ON LOAN

(1) Margin for rate of interest for the control period in terms of regulation 4(2) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for the Distribution Licensee shall be allowed as the difference in weighted average rate of interest on actual loan as on 1st April 2020 and 1 (one) year marginal cost of fund based lending rate (MCLR) of SBI as on 1st April 2020:

Provided that the margin on MCLR shall not exceed 3.50% for the purpose of rate of interest on loan:

Provided further that the rate of interest on loan (MCLR plus margin) shall not exceed approved base rate of return on equity i.e. 14.00%."

EXPLANATORY NOTE

a. The Clause (d) of para 5.11 of Tariff Policy, 2016 stipulates that the Utilities should be encouraged and suitably incentivized to restructure their debt for bringing down the tariff. The Commission continues to allow the margin for rate of interest as the difference in weighted average rate of interest on actual loan as on 1st April of the financial year and 1 (one) year Marginal Cost of Fund based Lending Rate (MCLR) of SBI as on 1st April of the financial year. However, such margin on interest rates has been considered with revision in the ceiling, as, if higher rates are given as pass through in tariff, there may be no deterrent to reduce the interest rate for the Utilities. By introducing such ceiling, the Utilities shall be driven to perform to bring their borrowing costs below the proposed margin and ultimately reduce the interest cost in the ARR. Accordingly, a ceiling of 350 basis points above the SBI MCLR is proposed as the ceiling margin rate for interest on loan, subject to overall rate of interest on loan limited to 14.00%.

b. The Commission continues to maintain the incentive due to lower rate of interest on account of re-financing of loan in terms of Regulation 71 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 from FY 2020-21 to FY 2022-23 as the product of total quantum of loan availed and difference of weighted average rate of interest on actual loans versus margin of 2.00% plus (+) SBI MCLR.

2. OPERATION AND MAINTENANCE EXPENSES

Regulation 23 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"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 as follows:

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

Particulars	*Unit*	*2020-21*	*2021-22*	*2022-23*
66 kV Line	*Rs. Lakh/ckt. km*	*4.976*	*5.165*	*5.361*
33 kV Line	*Rs. Lakh/ckt. km*	*4.976*	*5.165*	*5.361*
11kV Line	*Rs. Lakh/ckt. km*	*1.139*	*1.182*	*1.227*
LT Line system	*Rs. Lakh/ckt. km*	*6.026*	*6.255*	*6.439*
66/11 kV Grid S/s	*Rs. Lakh/MVA*	*1.010*	*1.049*	*1.088*
33/11 kV Grid S/s	*Rs. Lakh/MVA*	*1.010*	*1.049*	*1.088*

Particulars	*Unit*	*2020-21*	*2021-22*	*2022-23*
11/0.415 kV DT	*Rs. Lakh/MVA*	*2.518*	*2.614*	*2.713*

Table 9: Norms for O&M Expenses for BYPL for the Control Period

Particulars	*Unit*	*2020-21*	*2021-22*	*2022-23*
66 kV Line	*Rs. Lakh/ckt. km*	*4.789*	*4.971*	*5.160*
33 kV Line	*Rs. Lakh/ckt. km*	*4.789*	*4.971*	*5.160*
11kV Line	*Rs. Lakh/ckt. km*	*2.013*	*2.089*	*2.168*
LT Line system	*Rs. Lakh/Ckt. km*	*8.996*	*9.338*	*9.693*
66/11 kV Grid S/s	*Rs. Lakh/MVA*	*1.137*	*1.180*	*1.225*
33/11 kV Grid S/s	*Rs. Lakh/MVA*	*1.137*	*1.180*	*1.225*
11/0.415 kV DT	*Rs. Lakh/MVA*	*2.479*	*2.573*	*2.671*

Table 10: Norms for O&M Expenses for TPDDL for the Control Period

Particulars	*Unit*	*2020-21*	*2021-22*	*2022-23*
66 kV Line	*Rs. Lakh/ckt. km*	*3.107*	*3.225*	*3.347*
33 kV Line	*Rs. Lakh/ckt. km*	*3.107*	*3.225*	*3.347*
11kV Line	*Rs. Lakh/ckt. km*	*0.922*	*0.957*	*0.993*
LT Line system	*Rs. Lakh/ckt. km*	*7.126*	*7.396*	*7.677*
66/11 kV Grid S/s	*Rs. Lakh/MVA*	*0.821*	*0.852*	*0.884*
33/11 kV Grid S/s	*Rs. Lakh/MVA*	*0.821*	*0.852*	*0.884*
11/0.415 kV DT	*Rs. Lakh/MVA*	*1.449*	*1.504*	*1.561*

Table 11: Norms for O&M Expenses for NDMC for the Control Period

Particulars	*Unit*	*2020-21*	*2021-22*	*2022-23*
66 kV Line	*Rs. Lakh/ckt. km*	*3.107*	*3.225*	*3.347*
33 kV Line	*Rs. Lakh/ckt. km*	*3.107*	*3.225*	*3.347*
11kV Line	*Rs. Lakh/ckt. km*	*0.922*	*0.957*	*0.993*
LT Line system	*Rs. Lakh/ckt. km*	*7.126*	*7.396*	*7.677*
66/11 kV Grid S/s	*Rs. Lakh/MVA*	*0.821*	*0.852*	*0.884*
33/11 kV Grid S/s	*Rs. Lakh/MVA*	*0.821*	*0.852*	*0.884*
11/0.415 kV DT	*Rs. Lakh/MVA*	*1.449*	*1.504*	*1.561*

(2) The Distribution Licensee 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 excluding own consumption 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 excluding own consumption 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 network capacity at the start of the financial year. The Distribution Licensees shall also be allowed to recover O&M expenses for the network capacity added during the year on pro-rata basis.

(5) 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.

(6) 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.

(7) 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."

EXPLANATORY NOTE

a. The Commission has sought the details of Operation & Maintenance expenses from the Distribution Licensee. The break-up of data was sought as per the provisions of *DERC (Terms & Conditions of Tariff) Regulations, 2017* seeking separate data for statutory levies and taxes, water charges, expenses for raising loan for funding of working capital and regulatory assets etc.

b. Based on the data submitted by DISCOMs, following was observed:

   i. BRPL, BYPL and TPDDL has submitted the data for actual O&M expenses for the last 5 years for the period from FY 2014-15 to 2018-19. The norms for O&M expenses for FY 2017-18 to 2019-20 in (Business Plan) Regulations, 2017 were determined based on the data for last 5 years from FY 2011-12 to FY 2015-16. DISCOMs have further submitted that there had been major changes in the last 3 years regarding increase in minimum wages, implementation of GST, implementation of revision in pay on account of 7th Pay Revision etc. Further, the data for FY 2014-15 and FY 2015-16 had already been considered in determining the base for FY 2017-18.

   Therefore, the Commission in order to determine the norms for O&M expenses for FY 2020-21 to FY 2022-23, the data for FY 2016-17 to FY 2018-19 has been considered .

   ii. The break-up of data for statutory levies and taxes was sought from distribution licensee as per the provisions of *DERC (Terms & Conditions of Tariff) Regulations, 2017*. However, the distribution licensees were not able to furnish the requisite data as per the format.

   Therefore, the Operation & Maintenance expenses has been considered including statutory levies and taxes, water charges etc. as the data for last 3 years i.e. from FY 2016-17, 2018-19 is taken for determining the norms for O&M expenses.

   iii. It was further observed that the revision in the Pay Commission has been effected from 1.1.2016. Since the data from FY 2016-17 has been considered, therefore, the proportionate reduction on account of revision of pay for 3 months has been carried out from the expenses booked in FY 2017-18.

iv. The expenses for raising loan for working capital and regulatory assets has not been considered under Operation & Maintenance expenses as there has been a large variation on this account among 3 DISCOMs. DISCOMs may claim the expense on this account subject to prudence check separately at the time of true up on submission of documented evidence. If this amount has been included in the interest on working capital and Regulatory assets, the same shall not be allowed.

v. The information related to Legal expenses was sought from DISCOMs and was found to be at variance due to different reporting mechanism, hence not considered.
The Commission is of the view that the legal expenses on account of cases filed against commission before the Hon'ble ATE, High Court, Supreme Court etc., and the legal claims(compensation/penalty) paid to the consumer, if any, shall not be allowed. DISCOMs may claim other legal expenses separately subject to prudence check at the time of the true up of the expenses.

vi. Property tax and water charges reported by the DISCOMs for some of the years included the expenses for earlier period also. The data was sought from the distribution licensee regarding its break up. Therefore, the expenses on account of prior period for property tax and water charges has not been considered. Where the break-up of data has not been provided, the same has been considered based on the average of previous and next year expenses.

vii. Accordingly, the following expenses have been excluded for determining the norms for O&M expenses from the expenses of FY 2016-17 to 2018-19 as under:
   a. Proportionate reduction of 7th Pay Commission for 3 months from FY 2017-18.
   b. Expenses on account of corporate social responsibility/ donation (these amounts are required to be borne by the DISCOM itself)
   c. Provisions
   d. Loss on retirement of assets (these charges are required to be allowed as per the provisions of Regulations 45 to 47 of DERC (Terms & Conditions for Determination of Tariff) Regulations, 2017
   e. Expenses for raising loan for funding of working capital & Regulatory Asset
   f. Legal expenses
   g. Prior period expenses on account of property tax and water charges.

viii. **Escalation factor:** TPDDL has sought an escalation of 8.25% on year to year basis on O&M expenses. BRPL has proposed in escalation rate at 4.63% considering 80:20 weightages to consumer price index (CPI) to wholesale price index (WPI). BYPL has proposed an escalation rate at 4.51% considering 80:20 weightages to consumer price index (CPI) to wholesale price index (WPI).
The Commission in its (Business Plan) Regulations, 2017 has considered the escalation factor of 5.61% based on weightage of CPI and WPI in the ratio of 50:50.
CERC in its terms & conditions for Tariff Regulation has fixed the escalation rate of 3.51% for thermal Generating Stations and Transmission Systems. These escalations were based on 40:60 weightages for CPI and WPI for the Thermal Generating Stations and Transmission System. CERC has further provided additional margin of 3% for considering the rising trend of indices. MERC in its MYT Regulation 2019 has considered ratio of CPI to WPI as 70:30 for computing the normative O&M expenses.
It was observed that employee expenses for DISCOM constitute around 60% of total O&M expenses. The escalation rate at the ratio of CPI to WPI at 60:40 works out to be 3.69%. Since, CERC has allowed an additional escalation of 3% on the worked out escalation rate to cover the increasing trend of CPI and WPI. Therefore, additional

escalation of 3% on the worked out escalation rate has also been allowed. Accordingly, an escalation rate of 3.80% has been considered.

ix. It was observed that the break-up of O&M expenses by the DISCOMs under the lines and transformation capacity voltage wise has not been submitted on actual basis. BYPL has submitted that voltage wise O&M expenses has been done for FY 2018-19 as per the cost records. However, the actual booking for transformation capacity and line voltage wise has not been done. BYPL has assumed 60% of expenses for grid and 40% of line under HT and EHT system. BRPL has also submitted the allocation of O&M expenses on actual basis for LT, HT and EHT system. However, the actual booking for transformation capacity and line voltage wise has not been done. TPDDL has submitted the break-up of O&M expenses under three heads as EHT line system, HT line system and (LT line + EHV grid substation + HT substation).

x. The Commission in its *DERC (Business Plan) Regulations, 2017* has considered the allocation of O&M expenses as under:

Sl. No.	Voltage Level	Particulars	% allocation	Total
1.	EHV level	Line	4%	10%
		Grid sub-station	6%	
2.	HT level	Line	8%	20%
		Distribution sub-station	12%	
3.	LT level	Line	70%	70%

Accordingly, the similar ratio of allocation of expenses has been considered while determining the norms for O&M expenses.

c. In view of above, the norms for Operation & Maintenance expenses has been proposed as under:

i. The actual data for Operation & Maintenance expenses for FY 2016-17 to FY 2018-19 has been considered.

ii. The expenses excluded for determining the norms for Operation & Maintenance expenses from the expenses of FY 2016-17 to 2018-19 have been indicated above.

iii. The normative unit rates of Operation & Maintenance expenses for distribution lines have been worked out on per circuit km length of distribution lines and on per MVA transformation capacity basis for the sub-stations. These rates have been derived from data furnished by DISCOMs in respect of the audited O&M expenses for FY 2016-17 to FY 2018-19 and data furnished now by DISCOMS in respect of total length of distribution lines in circuit km length & total MVA transformation capacities installed at the start of respective financial years.

iv. The allocation of expenses under line and grid substation voltage wise has been considered as stated above.

v. In order to arrive the per unit values for FY 2020-21, the escalation @3.80% has been provided two times on the average rate determined based on the data for FY 2016-17 to FY 2018-19.

vi. Further, Year to year escalation @3.80% on the norms determined for FY 2020-21 has been provided to determine the norms for O&M expenses for FY 2021-22 and FY 2022-23.

vii. The DISCOMs may claim the expenses on account of raising loan for funding of working capital and regulatory asset and legal expenses as above.

d. The Commission in its *DERC (Business Plan) Regulations, 2017* has considered the norms for Operation & Maintenance expenses for NDMC based on the norms specified for TPDDL. Since

NDMC has not submitted the data, therefore, the norms for O&M expenses for FY 2020-21 to FY 2022-23 for NDMC has been considered as that of TPDDL.

e. Based on the above, norms for O&M expenses for distribution companies has been proposed in the draft *DERC (Business Plan) Regulations 2019*.

f. The O&M expenses for a particular financial year of the control period shall be allowed by multiplying the norms for O&M expenses with the respective network capacity at the start of the financial year. The distribution licensees will be allowed to recover O&M expenses for the network capacity added during the year on pro-rata basis. This will obviate the requirement of additional escalation for determining the norms for FY 2020-21 from the average value of FY 2016-17 to FY 2018-19.

3. CAPITAL INVESTMENT PLAN

Regulation 24 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"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*

Table 13: Capitalisation for BYPL for the Control Period (in Rs. Cr.)

Particulars	***2020-21***	***2021-22***	***2022-23***	***Total***
Capitalization	*375*	*397*	*428*	*1200*
Smart Meter	*33*	*33*	*35*	*101*
Less: Deposit Work	*21*	*18*	*23*	*62*
Total	*387*	*412*	*440*	*1,239*

Table 14: Capitalisation for TPDDL for the Control Period (in Rs. Cr.)

Particulars	***2020-21***	***2021-22***	***2022-23***	***Total***
Capitalization	*413*	*406*	*432*	*1,251*
Smart Meter	*102*	*87*	*74*	*263*
Less: Deposit Work	*50*	*50*	*50*	*150*
Total	*465*	*443*	*457*	*1,365*

(2) The distribution licensee shall take approval for capital investment schemes as per the provisions of Capital Investment Guidelines issued by the Commission from time to time.

(3) Capitalization of employee expenses and A&G expenses shall be allowed equivalent to lower of 10% of (employee cost and A&G expenses) or 10% of material cost or actuals in a particular financial year.

(4) The Licensee shall submit the quarterly Capital investment plan along with scheduled date of Commissioning in the Annual Tariff Petition for the relevant year, which shall form the basis for computing the Fixed Cost in terms of Regulation 130 (c) of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017.

(5) The Distribution Licensee shall submit an application including details of actual Capitalization on quarterly basis for physical verification and true up of capital cost within 1 (one) month of the completion of the relevant quarter.

(6) The quarterly Capital Cost submitted by the Distribution Licensee as per aforesaid sub-Regulation (3) shall be trued up by the Commission and financial impact on account of variation in projected capital cost in the tariff order vis-a-vis actual capital cost & scheduled date of commissioning vis-a-vis actual date of commissioning shall be dealt under the Annual true up of relevant financial year as follows:

(a) Any excess tariff recovered on account of variation in projected capitalization in the tariff order vis-a-vis trued up capitalization by more than 10% during the year, shall be adjusted in the Revenue Gap/Surplus of the relevant year along with interest rate at 1.20 times of applicable Weighted Average Cost of Capital (WACC) of respective year:

Provided that any excess tariff recovered on account of variation in projected capitalization in the tariff order vis-a-vis trued up capitalization due to reasons beyond the control of the Distribution Licensee i.e., delay in 'In-principle' approval of the schemes, road cutting permission from the concerned agencies etc., shall be adjusted in the Revenue Gap/Surplus of the relevant year along with interest rate equal to applicable Weighted Average Cost of Capital (WACC) of respective year.

(b) Any shortfall in tariff recovered on account of variation in projected capitalization in the tariff order vis-a-vis trued up capitalization by more than 10% during the year, shall be adjusted in the Revenue Gap/Surplus of the relevant year along with interest rate at 0.80 times of applicable Weighted Average Cost of Capital (WACC) of respective year."

EXPLANATORY NOTE

a. The Capitalisation data as submitted by the DISCOMs has been considered as the projection in the draft DERC (Business Plan) Regulations 2019. However, the distribution licensee shall be required to take approval for capital investment schemes as per the provisions of capital investment guidelines issued by the Commission from time to time.
b. It is observed that the Commission in its Tariff Orders has been allowing a ceiling of 10% of employee expenses, which may be capitalised. It is proposed to revise this ceiling and also include one more parameter of % of material cost. Accordingly, lower of 10% of (employee cost and A&G expenses), 10% of material cost and actuals may be allowed to be capitalised in a particular financial year.
c. Further, the financial impact on on account of variation in projected capital cost in the tariff order vis-a-vis actual capital cost & scheduled date of commissioning vis-a-vis actual date of commissioning has been based on the Weighted Average Cost of Capital for Capitalization (WACC) instead of the Bank rate as in DERC (Business Plan) Regulations 2017 as it is the WACC which is considered as part of the ARR. Any under recovery or over recovery in tariff should be linked to the cost considered while determining the ARR, which in this case if the WACC.

4. TARGET FOR DISTRIBUTION LOSS

Regulation 25 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"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

S. No.	*Distribution Licensee*	*2020-21*	*2021-22*	*2022-23*
1	*BSES Rajdhani Power Limited*	*8.10%*	*8.00%*	*7.90%*
2	*BSES Yamuna Power Limited*	*9.00%*	*8.75%*	*8.50%*
3	*Tata Power Delhi Distribution Limited*	*7.95%*	*7.85%*	*7.75%*
4	*New Delhi Municipal Council*	*9.00%*	*8.75%*	*8.50%*

(2) The amount for Overachievement/Underachievement on account of Distribution Loss target shall be computed as per the formula specified in the Regulation 159 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 for the Distribution Licensee.

(3) Any financial impact due to Underachievement on account of Distribution Loss target by the distribution licensee for the relevant year, (i.e. Actual Loss > Loss target), shall be to the account of distribution licensee as specified in Regulation 161 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017.

(4) Any financial impact due to Overachievement on account of Distribution Loss target by the distribution licensee for the relevant year shall be shared between the Distribution Licensee and Consumers as follows:

i. in case actual Distribution Loss is between the loss target and loss target minus [50%(Previous Year Target-Current Year Target)] for the relevant year shall be shared in the ratio of 2/3rd to Consumers and 1/3rd to the Distribution Licensee;*

ii. in case actual Distribution Loss is less than loss target minus [50%(Previous Year Target-Current Year Target)] for the relevant year shall be shared in the ratio of 1/3rd to Consumers and 2/3rd to the Distribution Licensee. "*

EXPLANATORY NOTE

a. The submission of the DISCOMs for the fixation of the Distribution Loss for the ensuing Control Period has been as below:

1. **TPDDL** submitted that due to net metering/roof top solar, the estimated billing loss in non-domestic and industrial category which may contribute to almost 95% of the net-metering consumption. Further, this is projected to shift the consumer mix towards domestic Consumers from 46% currently to 51% in next 5 years. The Distribution Licensee further submitted that the shift of consumer base towards open access is further leading to shift of HT consumers out of the network, thus increasing the consumer mix with more LT consumers. Loss at LT level submitted at present by the Distribution Licensee is indicated at 8.78%, while loss above LT level is indicated at 2.44%. Accordingly, the proposed Distribution Loss trajectory for FY 2020-21 to FY 2024-25 is as follows:

FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
7.95%	7.90%	7.85%	7.80%	7.75%

2. **BYPL** submitted to consider the Distribution Loss target for FY 2019-20 as the base. The Licensee further submitted that as the target loss level is higher than 10%, proposed reduction is in line with the reduction approved by the Commission (Fraction of 6.77%) for BRPL till the loss level reached below 9.50%. Thereafter, the loss reduction is proposed in line with the reduction approved by DERC (Fraction of 2.27%) for TPDDL.

FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
9.79%	9.13%	8.92%	8.72%	8.52%

3. **BRPL** submitted its actual Distribution Loss reduction from 16.14% in FY 2013-14 to 9.94% in FY 2017-18. Considering the actual Distribution Loss at 9.94% for FY 2017-18, and loss reduction in line with the reduction as approved by DERC for TPDDL, the proposed Distribution Loss by BRPL is as follows:

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

b. No submission have been received from NDMC in this regard.

c. The Commission observed that in *DERC (Business Plan) Regulations 2017* the Distribution Loss trajectory was determined with a drop of 0.19% on an average basis for TPDDL, 1.25% for BYPL, 0.72% for BRPL and 0.65% for NDMC.

d. During the true up of FY 2017-18, the Distribution Losses were approved as follows:

DISCOM	Target DL	Approved DL
TPDDL	8.38%	8.18%
BYPL	13.00%	10.67%
BRPL	10.93%	9.43%
NDMC	10.30%	13.73%

e. The Distribution Loss as approved for NDMC was not in trend of it performance in the past period and is erratic. The targets as submitted to be achieved by the DISCOMs for FY 2018-19 is as follows:

DISCOM	Target DL	As submitted
TPDDL	8.18%	No Submission
BYPL	11.69%	9.31%
BRPL	10.19%	8.36%
NDMC	9.63%	5.77%

f. TPDDL has not submitted its actual Distribution Loss for FY 2018-19, however, keeping in view the past trends, the Commission is of the view that the Distribution Loss achieved by TPDDL during FY 2018-19 would be approximately 8%.

g. It may be noted that the Distribution Loss trajectory as achieved by the DISCOMs (other than NDMC) in FY 2017-18 is already improved over the target set for FY 2018-19.

h. The Distribution Loss proposed by the DISCOMs for the first year of the ensuing Control period is higher than what has already been achieved by the them in FY 2018-19 for BRPL & BYPL.

i. With regard to the DISCOMs submission that fixation of Distribution Loss target has been set stringent for them, the Commission observes that electric power Transmission and Distribution Losses of various countries from the World Bank website for top 50 countries is in the range of 2.03% to 6.70% indicated in the table below.

Country Name	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LOSSES (%)											
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Singapore	5.51	5.89	3.12	2.69	2.87	2.54	1.79	2.85	2.54	1.90	2.30	2.03
Trinidad and Tobago	4.85	5.72	5.51	3.81	3.31	2.90	3.71	3.12	2.77	2.62	2.46	2.31
Slovak Republic	6.26	4.33	5.38	4.48	5.18	3.49	3.02	3.12	1.82	4.50	2.67	2.46
Iceland	5.76	4.43	4.39	4.16	4.13	3.50	3.02	4.10	2.92	2.77	2.06	2.75
Israel	3.05	2.93	2.86	2.72	2.65	2.10	3.20	2.76	2.75	2.76	4.19	2.86
Gibraltar	2.99	2.94	2.76	3.31	3.23	3.01	2.87	2.82	2.92	2.84	3.17	3.03
Korea, Rep.	3.21	3.49	3.54	3.63	3.60	3.63	3.71	3.63	3.35	3.26	3.40	3.35
Germany	4.47	4.62	4.76	4.49	4.63	4.75	4.24	3.83	4.08	3.94	3.87	3.88
Bahrain	1.93	2.46	2.12	2.05	1.88	8.49	9.03	6.77	6.42	5.72	5.21	3.94
Cyprus	3.92	5.07	3.75	4.75	4.41	3.01	3.62	4.13	3.25	2.90	4.34	3.98
Finland	4.09	3.49	4.31	3.71	3.75	4.31	3.85	3.43	3.67	4.14	3.66	4.07
Japan	4.61	4.40	4.27	4.25	4.22	4.46	4.52	4.14	4.36	4.10	4.49	4.39
Czech Republic	6.14	6.07	6.14	5.84	5.60	5.61	5.49	5.23	5.07	4.82	4.76	4.53
Malta	13.15	13.13	11.43	12.21	13.68	14.36	15.64	6.53	7.02	8.41	6.97	4.68
Netherlands	5.34	5.30	5.41	5.51	5.25	5.06	4.61	4.72	4.56	5.03	5.05	4.77
Sweden	7.88	7.21	7.39	7.58	7.16	7.33	7.25	7.13	7.03	6.59	6.54	4.78
Australia	6.54	7.55	6.72	6.75	6.02	6.09	5.90	6.48	6.52	5.80	5.34	4.78
Slovenia	6.19	5.72	6.30	5.71	5.76	4.95	5.44	6.04	5.18	5.63	5.36	4.78
Austria	5.67	5.53	5.36	5.12	5.26	5.00	5.40	4.93	5.31	4.89	5.25	5.33
East Asia & Pacific	6.28	6.16	6.25	6.10	5.94	5.90	5.84	5.82	5.70	5.61	5.61	5.42
Belgium	4.50	4.80	4.85	4.95	4.64	5.10	4.53	4.56	4.67	5.06	4.87	5.43
China	6.60	6.45	6.82	6.49	6.28	6.17	6.08	6.12	5.74	5.81	5.78	5.47

Source: World Bank website
http://data.worldbank.org/indicator/EG.ELC.LOSS.ZS?end=2014&locations=SG&start=2003&year_high_desc=false

j. The performance of various Indian Distribution companies wrt lowest Distribution Losses are as follows:

Distribution Licensee	FY 2017-18 (True – up/Provisional True-up)
Torrent Power Ltd. - Surat	**3.59%** (GERC Order in Case No. 1765 of 2018 dated 24/04/2019)
Torrent Power Ltd. – Ahmedabad	**6.31%** (GERC Order in Case No. 1764 of 2018 dated 24/04/2019)
Tata Power Company Ltd. - Mumbai	**0.75%** (MERC Order in Case No. 69 of 2018 dated 12/09/2018)
Reliance Infrastructure Ltd. - Mumbai	**8.11%** (MERC Order in Case No. 200 of 2018 dated 12/09/2018)
Noida Power Company Ltd. – Uttar Pradesh	**7.99%** (UPERC Order in Case No. 1382 of 2018 dated 03/09/2019)

k. Considering that Delhi being the Capital of the country it has to set a benchmark for Distribution Loss as there is 100% metering. Further, the Commission has allowed around Rs. 521 Crore as Capex for Smart Meter for 3 year period from FY 2020-21 to FY 2022-23 in Business Plan Regulations, 2019 in addition to approving various augmentation schemes to minimize losses and to improve quality & reliability of power supply.

l. The Commission takes cognizance of the actual Distribution Loss achieved and targets set in the *DERC (Business Plan) Regulations 2017*; and accordingly propose the targets for the Distribution Loss for all the DISCOMs as indicated in the draft DERC (Business Plan) Regulations 2019.

5. <u>TARGET FOR RENEWABLE PURCHASE OBLIGATION</u>

Regulation 27 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"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 Renewable Purchase Obligation 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%

(2) The Distribution Licensee shall comply with its RPO through procurement of Solar energy and Non-Solar energy: Provided that on achievement of Solar RPO compliance as specified in aforesaid sub-Regulation (1) to the extent of 85% and above, remaining shortfall if any, can be met by excess Non-Solar energy purchased beyond non-Solar RPO for that particular year:

Provided further that on achievement of Non-Solar RPO compliance as specified in aforesaid sub-Regulation (1) to the extent of 85% and above, remaining shortfall if any, can be met by excess Solar energy purchased beyond Solar RPO for that particular year:
*Provided also that the Distribution Licensee may purchase Renewable Energy Certificate ('**REC**') for any shortfall in meeting their total RPO targets for any financial year within three months from the date of completion of the relevant financial year.*

(3) Renewable Energy generation recorded through Renewable Energy meters installed in the premises of net metering Consumers shall be deemed to be part of RPO of the Distribution Licensee as specified in Delhi Electricity Regulatory Commission (Net Metering for Renewable Energy) Regulations, 2014, for the relevant year:
Provided that in case the annual generation from solar generation system recorded through Renewable Energy meters exceeds the Capacity Utilisation Factor (CUF) of 19%, the Distribution Licensee shall get the Renewable Energy meters tested by Independent third party, National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited meter testing lab.

(4) The cost of Renewable Energy purchased by the Distribution Licensee through Power Purchase Agreement approved by the Commission and the total power injected into the grid through net metering arrangement, in excess of RPO target shall be part of power purchase cost of the Distribution Licensee for the relevant year.

(5) Non-compliance of the RPO targets by the Distribution Licensee shall attract penalty at the rate of 10% of the weighted average Floor Price of Solar and Non- Solar Renewable Energy Certificate, as specified by Central Electricity Regulatory Commission for the relevant year, for quantum of shortfall in RPO.

(6) The amount of penalty imposed on the Distribution Licensee due to non- compliance of the RPO targets shall be reduced from the ARR during True up of the relevant Financial Year in terms of the Regulation 124 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017."

EXPLANATORY NOTE

a. BRPL submitted that they have executed the agreements for purchase of renewable energy and thus significant energy from renewable sources is projected to be available in the coming 5 years. In light of the shortfall in meeting the RPO during the past, the Licensee proposes that the RPO Target be made keeping the energy availability from renewable sources in FY 2020-21 fixed for all the remaining years. Accordingly, It is proposed to set off the shortfall of previous years from the excess energy available in the coming 5 years with the RPO targets as follows:

Source of Renewable Energy	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Solar	6.75%	6.45%	6.22%	5.97%	5.65%
Total	13.22%	12.63%	12.18%	11.68%	11.06%

b. BYPL also submitted that the actual RPO met from energy purchases is significantly lower than the targets specified due to capacity not tied up and that the agreements have been made for purchase of renewable energy and significant energy from renewable source s is projected to be available in the coming 5 years. In light of the shortfall in meeting the RPO during the past, the Licensee proposes to continue the target specified for FY 2019-20 for each of the next 5 year from FY 2020-21 to FY 2024-25. Highlights of the others SERC to waive off/defer/revise RPO targets of concerned DISCOMs have also been indicated as below:

i. RERC reduced the RPO target of FY 18-19 from 17% to 13.35%
ii. GERC in its order dated 31.12.2016 revised the Non –solar RPO
iii. MPERC in its order dated 9.12.2015 has waived off past solar RPO as DISCOM purchase more than the solar RPO Fixed for the FY 2015-16
iv. HERC carried forward the RPO for Previous years to FY 15-16 and FY 16-17

c. Accordingly, the target proposed by BYPL for next five years is 6.75% for Solar and 17.00% for Total.
d. TPDDL submitted that low inventory and consequent high price of RECs in the market is a matter of concern and accordingly in order to avoid tariff burden for consumers, the RPO percentage should not be increased further.
e. The Commission observed that BRPL, BYPL and NDMC have failed to meet the RPO targets as set by the Commission from time to time and that there is a continuous shortfall. However, TPDDL managed to meet its target by purchase of REC for earlier periods during FY 2017-18, thus covering up the shortfall upto FY 2017-18.
f. The target for the RPO have been determined by the Commission in accordance with the national initiative notified under Tariff Policy in para 6.4(1) on 28.01.2016 to achieve the target of 175 GW of renewable capacity by March, 2022. The Commission endorsed the RPO trajectory as notified by Ministry of Power vide order dated 22.07.2016 in its *DERC (Business Plan) Regulations, 2017* with slight modification that the targets set for a year under the said Order were shifted by one year while adopting the trajectory for the Delhi Distribution Licensees.
g. Similarly, continuing with the national initiative to meet the Renewable capacity target by March 2022, the Commission has proposed the Long Term RPO trajectory including the provision of 85% as mentioned in the draft Regulations in line with the Order issued by Ministry of Power, GoI dated 14.06.2018 in the draft *DERC (Business Plan) Regulation 2019* with slight modification that the targets set for a year under the said Order are shifted by one year while adopting the trajectory for the Delhi Distribution Licensees.

6. <u>MECHANISM FOR RECOVERY OF POWER PURCHASE COST ADJUSTMENT CHARGES</u>

Regulation 30 of DRAFT FOR BUSINESS PLAN REGULATION, 2019 states

"30. MECHANISM FOR RECOVERY OF POWER PURCHASE COST ADJUSTMENT CHARGES

The mechanism for recovery of Power Purchase Cost Adjustment Charges (PPAC) in terms of the Regulation 134 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017 from FY 2020-21 to FY 2022-23 of the Distribution Licensee shall be as follows:

(1) The Commission shall specify the detailed formula for computation of PPAC in the Tariff Order for the relevant year.
(2) The Distribution Licensee shall compute the PPAC for any quarter as per the specified formula for that relevant year:

Provided that a quarter refers to one-fourth of a year i.e., April, May and June (Q1); July, August and September (Q2); and October, November and December (Q3); January, February and March (Q4);

(3) The PPAC computation of any quarter shall be equally spread and adjusted over subsequent quarter only:

Provided that the Commission may allow to carry forward PPAC to more than one quarter in order to avoid any tariff shock to consumers in terms of Regulation 136 of the DERC (Terms and Conditions for Determination of Tariff) Regulations, 2017.

(4) The treatment of PPAC computation as per the specified formula shall be as follows:

a. in case PPAC does not exceed 5% for any quarter, the Distribution Licensee may levy PPAC at 90% of computed PPAC with prior intimation to the Commission without going through the regulatory proceedings.

b. in case PPAC exceeds 5% but does not exceed 10% for any quarter, the Distribution Licensee may levy 90% of the PPAC upto 5%, and thereafter 75% of the remaining PPAC (Actual PPAC% – 5%) with prior intimation to the Commission without going through the regulatory proceedings.

c. in case PPAC exceeds 10% for any quarter, the Distribution Licensee may levy PPAC as per sub-clause (a) and (b) as above without going through the regulatory proceedings and shall file an application for prior approval of the Commission for the differential PPAC claim (Actual PPAC% – 8.25%).

(5) The Distribution Licensee shall upload the computation of PPAC on its website before the same is levied in the consumers' electricity bills.

(6) Revenue billed on account of PPAC by the Distribution Licensee, without going through the regulatory proceedings, shall be trued up along-with the Power Purchase Cost of the relevant year and no Carrying Cost shall be allowed due to under-recovery of revenue for the same year.

(7) Revenue billed on account of PPAC by the Distribution Licensee, without going through the regulatory proceedings, shall be trued up along-with the Power Purchase Cost of the relevant year and Carrying Cost shall be at 1.20 times of carrying cost rate on the excess revenue recovered for the same year."

EXPLANATORY NOTE

a. TPDDL submitted that the capping of 4.5% may be removed along with the permission to charge 90% of PPAC on a quarterly basis. For the remaining 10% of the PPAC, the Licence will file a Petition. It shall result in benefit of savings in carrying costs by timely recovery of legitimate ARR through PPAC mechanism is in the interest of consumers.
b. BRPL and BYPL submitted that the formula to recover the PPAC be modified to allow recovery of variation in power purchase costs on a monthly basis without any ceiling limit, or in the alternative on monthly basis, with a ceiling limit of 20% of APPC. Further the carrying cost is also sought on account of under recovery of revenue for the same year with respect to variation in power purchase cost.
c. The Commission, in past, has observed that the PPAC percentage for the Distribution Licensees has crossed 10% at certain instances.
d. Further, the Commission observes various SERCs like MERC, HERC, RERC etc. have PPAC to the level of 20%, 15%, 15% respectively without regulatory proceedings beforehand.
e. Accordingly, the Commission in the interest of both DISCOMs for early realisation of Power Purchase Cost and for consumers to avoid burden of Carrying Cost for deferment of Power Purchase Cost has proposed to raise automatic PPAC from 4.50% to 8.25% in the draft *DERC (Business Plan) Regulations 2019*.

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