

S. no.	Particular	NBPDC	SBPDCL
		Approved in True-up of FY 2019-20	Approved in True-up of FY 2019-20
2	Maintenance spares @40% of R&M expenses for one month	5.48	5.81
3	Sub-total (1+2)	1,268.17	1,537.81
4	Less:		
(i)	Power purchase cost, transmission charges and load dispatch charges of one month	598.89	741.81
(ii)	Depreciation, return on equity and contribution to contingency reserve to two months	56.92	68.27
(iii)	Amount of security deposits from consumers	401.21	630.52
5	Sub-total (4(i)+4(ii)+4(iii))	1,057.03	1,440.61
6	Net working capital requirement (3-5)	211.14	97.20
7	Rate of interest %	9.66%	9.66%
8	Interest on working capital (6*7)	20.39	9.39

4.19.8. Based on the above Table, the Commission approved the normative interest on working capital for NBPDC as Rs. 20.39 Crore and for SBPDCL as Rs. 9.39 Crore in True-up of FY 2019-20.

Actual interest on working capital

4.19.9. As per Regulation 9.2 of BERC Multi Year Distribution Tariff Regulation, 2018, working capital in controllable in nature, thus any gain/loss on account of variation in interest on working capital shall be treated as per Regulation 10 of BERC Multi Year Distribution Tariff Regulation, 2018.

4.19.10. In this regard, the Commission observes that the Petitioners have not claimed the sharing of gain/losses on account of interest on working capital in their Petition. Further, the Petitioners have not provided the details of actual interest on working capital loans for FY 2019-20 in their Petition.

4.19.11. Therefore, in order to ascertain actual interest on working capital for sharing of gains/losses, the Commission scrutinised details of Other Interest and Finance Charges as per Note 30 of Audited Accounts of NBPDC and Note 28 of Audited Accounts of SBPDCL for FY 2019-20. Accordingly, the Commission has observed the actual interest on working capital of NBPDC and SBPDCL as per the Audited Accounts for FY 2019-20 as shown in Table:

Table 124: Actual Interest on Working Capital of NBPDC and SBPDCL for FY 2019-20 (in Rs. Crore)

Loan Source	Actual Interest on working capital of	Actual Interest on working capital of
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	NBPDCCL	SBPDCL
Working Capital borrowing from PFC	75.13	-
Working Capital borrowing from REC	68.43	-
Working Capital borrowing from Other sources	-	53.51
Interest on OD		75.22
Total Interest on Working Capital	143.61	128.73

4.19.12. The Commission has considered the actual Interest on working capital for computation of sharing of gains/(losses) as shown in the table above. Accordingly, the Commission has worked out sharing of gain and loss on account interest on working capital as shown in Table below:

Table 125: Gain/(loss) on account of controllable factors of Interest on working capital for FY 2019-20 (in Rs. Crore)

Particular	Approved in True-up of FY 2019-20	Actual IoWC as per Audited Account	Gain/(Loss) due to Controllable Factors	2/3rd Gain or 1/3rd (Loss) to be passed on to Consumers	1/3rd Gain or 2/3rd (Loss) to be absorbed by licensee
	(1)	(2)	(3) = (1)-(2)	(4)	(5)
NBPDCCL					
Interest on Working Capital	20.39	143.61	(123.22)	(41.07)	(82.15)
SBPDCL					
Interest on Working Capital	9.39	128.73	(119.34)	(39.78)	(79.56)

4.19.13. The Commission, accordingly, approves the loss of Rs. 41.07 Crore and Rs. 39.78 Crore to be passed on to consumers on account of variation in interest on working capital for NBPDCCL and SBPDCL, respectively.

4.20. Provision for bad debt:

NBPDCCL's Submission:

4.20.1. NBPDCCL in its submission has claimed Provisioning of bad debts of Rs. 126 Crore.

Commission Analysis:

4.20.2. Regulation 28 of BERC Multi Year Distribution Tariff Regulation, 2018 stipulates as follows:

“Bad and Doubtful Debts shall be allowed as a legitimate business expense provided the distribution licensee actually identifies and writes off bad debts as per the transparent policy approved by the Commission. In case there is any recovery of bad debts already written off, the recovered bad debt will be treated as other income.”

- 4.20.3. The Commission observes that the NBPDCCL has claimed the provisioning of bad debts of Rs. 126 Crore in its Petition. However, NBPDCCL has neither provided any justification nor provided any documentary evidence to substantiate this claimed provision for bad debts in its Petition.
- 4.20.4. In order to evaluate the claim of NBPDCCL, the Commission scrutinised the details of bad debts written off during the year from the audited accounts FY 2019-20. The Commission observed that as per note 32 of Audited Accounts, Miscellaneous losses and write offs of Rs. 5.26 Crore and Bad and Doubtful debts of Rs. 712.09 Crore were included under the head of Other Expenses of NBPDCCL.
- 4.20.5. In response to the clarification sought by the Commission regarding Bad and Doubtful Debts of Rs. 712.09 Crore, NBPDCCL submitted that this write off was in compliance of Government of Bihar (GoB) letter No. 614 dated 05 March, 2019 in which Government of Bihar has allowed to write off debtors amounting to Rs. 1850 Core (Rs. NBPDCCL and SBPDCL) against the equity investment amounting to Rs. 1886.65 Crore. Upon further clarifications sought by the Commission, NBPDCCL provided the following break-up of write off of debtors of Rs. 1850 Crore, as shown in the Table below:

Table 126: Break-up of bad debts write offs against capital grant provided by GoB, as submitted NBPDCCL (in Rs. Crore)

Company	FY	Amount (Rs in Crore)
NBPDCCL	2018-19	500.70
NBPDCCL	2019-20	712.09
SBPDCL	2018-19	637.20
SBPDCL	2019-20	-
Total		1,850

- 4.20.6. Further, while scrutinising the above-mentioned letter No. 614 dated 05 March 2019, the Commission observed that GoB had provided the capital grant of Rs. 1886.65 Crore in lieu of the above-mentioned write-off of bad debt of Rs. 1850 Crore. This grant had been provided by the GoB to reduce AT&C losses by write-off doubtful debts of consumers under 'Kutir Joyti Yojana' and 'Rural-Domestic' categories. Since the write-off of abovementioned bad debts is already funded through grants by GoB, the Commission is of the view that such passing on of such write-offs in ARR is not prudent.
- 4.20.7. As regards other miscellaneous losses and write offs of Rs. 5.25 Crore booked under Note 32 of its Audited Accounts, NBPDCCL clarified that no write offs of bad debts was included under this head. NBPDCCL submitted that these miscellaneous losses of Rs. 5,25 Crore was pertaining to compensation paid towards accidents and deaths and were claimed as the part of actual A&G Expenses for FY 2019-20.

4.20.8. After the detailed scrutinization of audited accounts of 2019-20 of NBPDCCL, the Commission observed that write off of bad debts was not included in any other head. Therefore, due to lack of any justification and supporting documentary evidence provided by NBPDCCL towards claimed bad debts written off for FY 2019-20, the Commission is constrained to carry out further prudence check. Therefore, the Commission is of the view that such unsubstantiated claim of write off of bad debts cannot be passed on in the true-up for FY 2019-20.

4.21. Non- Tariff Income

NBPDCCL & SBPDCL's Submission:

4.21.1. Petitioners submitted detail of actual Non- Tariff Income for Truing-up for FY 2019-20, as against approved in the MYT Order as shown in Table below:

**Table 127: Non-Tariff Income claimed by NBPDCCL & SBPDCL for FY 2019-20
(in Rs. Crore)**

Particulars	NBPDCCL		SBPDCL	
	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20
Interest on Advances to Suppliers/Contractors		8.47		26.74
Interest on Saving Accounts		36.67		45.12
Interest Credit given by Holding Company		16.68		5.52
Interest Income		61.82		77.39
Delayed Payment Surcharge from Consumers		209.13		93.50
Income from trading		1.04		-
Miscellaneous Receipts		10.28		2.39
Rental Income		0.02		-
Rebate and Discount Received		67.51		-
Sale of scrap		-		11.99
Incentive for timely payment of power purchase bills		0.05		39.08
Miscellaneous Recoveries		15.05		120.23
Supervision Income		11.65		11.44
Other Income		314.73		278.64
Reimbursement from disaster Management		15.50		-
Excess provision written back		20.39		-
Meter Rent/ Service Line Rental		220.65		90.46
Receipt from BG Invocation		-		21.99
Others		-		112.45
Total Non-tariff income		633.08		468.47

Particulars	NBPDC		SBPDCL	
	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20
Delayed Payment Surcharge from Consumers		209.13		93.50
Principal amount on which DPS Charged		1,394.19		623.34
Interest Rate of funding DPS		9.65%		9.65%
Interest on funding Principal		134.54		60.15
Net Non-Tariff Income	323.88	498.54	359.7	408.32

Commission Analysis:

- 4.21.2. As regards to Non-Tariff Income, the Regulation 30 of BERC (MYT Distribution Tariff Regulation, 2018) stipulates as under:

“30.Non-Tariff Income

(a) All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to theft of energy, delayed payment surcharge, meter rent, profit derived from disposal of assets, rents, income from investments other than contingency reserves, miscellaneous receipts from the consumers, other miscellaneous receipts, income to Licensed business from the Other Business of the Distribution Licensee and any other income mentioned in Schedule-5 of The Electricity (Supply) Annual Accounts Rule 1985 shall constitute Non-Tariff Income of the Licensee.

Provided that Delayed Payment Surcharge to the extent of financing cost on the principal amount corresponding to the Delayed Payment Surcharge shall not be treated as non- tariff income. The financing Cost on the principal amount corresponding to the Delayed Payment Surcharge shall be allowed at weighted average MCLR of the concern Financial Year plus 150 basis points.

Provided further that the interest earned from investments made out of Return on Equity corresponding to the regulated Business of the Distribution Licensee shall not be included in Non-Tariff Income

(b) The amount received by the Licensee on account of Non-Tariff Income shall be deducted from the Aggregate Revenue Requirement in calculating the net revenue requirement of Distribution Licensee. “

- 4.21.3. The Commission notes that each item of the Non-Tariff Income claimed by the Petitioners in Format - 27A of the tariff petition is in accordance with their Audited Accounts.
- 4.21.4. Further during scrutiny, the Commission has observed that the for SBPDCL and NBPDC, in their audited accounts, have shown amortisation of grants of Rs. 234.41 Crore and Rs. 271.17 Crore under other income, respectively. However, the Petitioners have not considered the same as the part of Non-Tariff Income for FY 2019-20.

4.21.5. The Commission observes that the amortization of grant is depreciation on fixed assets created out of Grant and Consumer contribution. Further, in line with BERC Multi Year Distribution Tariff Regulation, 2018, the Commission has already deducted the deprecation on GFA created out of Grant, while computing depreciation for True-up of FY 2019-20. Hence, amortization of grant shall not be treated as non-Tariff income to avoid double accounting, in line with the submission of Petitioners.

Deposit for Electrification, Service Connection etc

4.21.6. The Commission observed that as per Note -15 of the Audited Account of SBPDCL and Note – 17 of audited account of NBPDCCL for FY 2019-20, addition of consumer contribution during the year is at Rs. 8.96 Cr and Rs. 97.75 Crore, respectively, which was not considered in the non-tariff income by the Petitioner. In its earlier Orders (true up order for FY 2018-19 and true-up order for FY 2017-18) for NBPDCCL and SBPDCL, the Commission had observed that the consumer contribution during the year was of the nature of supervision, labour and establishment charges for service connection. Accordingly, the Commission had considered consumer contribution during the year as Non-Tariff Income in true-up of FY 2018-19 and FY 2017-18. The relevant extract of the Order for True-up of FY 2017-18 is reproduced below:

“As per the audited accounts, Supervision, labour and establishment charges for service connection have not been accounted as non-tariff income for in FY 2017-18 (Audit Report of NBPDCCL and SBPDCL and response there on in additional information). Accordingly, Rs.18.21 crore for NBPDCCL and Rs.15.89 crore for SBPDCL is considered for FY 2017-18 in true up.”

4.21.7. Further, the relevant extract of the Order for true-up for FY 2018-19 is reproduced below:

“As stated in para 2(a) of auditor’s report of SBPDCL, consumer contribution as stated in audited account is Supervision, labour and establishment charges for service connection have not been accounted as non-tariff income. The Commission has addressed both the petitioner to justify non recognition of Supervision, labour and establishment charges for service connection as non-tariff income but both the petitioner through their letter dated 20.01.2020 without any supporting documents have simply replied that “The petitioner hereby once again affirms that consumer contribution is in the nature of grant and hence not accounted as income”. The Commission also observes that there are separate head in audited account under Other Non-Current Liabilities “Deposit for Electrification, Service Connection etc.” under note-18 of SBPDCL audited account and note-20 of NBPDCCL audited account showing accumulated amount of Rs.1501.01 Cr to be utilized for creation of capital assets. Further, information furnished by the petitioner in format-15 of the petition states that as on FY 2018-19 no assets have been created out of consumer contribution. It is also pertinent to mention that the Commission under para 4.27 of tariff order dated 25.02.2019 in case no- 40/2018 & 48/2018 (NBPDCCL), Case No. 41/2018 & 47/2018 (SBPDCL) have also considered it as a non-tariff income for FY 2017-18. The Commission firmly believe that Supervision, labour and establishment charges for service connection is not a grant rather it is non-tariff income. In contrast to this, any extension of line/network

from the end of consumer through his fund is considered as consumer contribution and is treated as capital grant. Hence, the Commission considers Rs.13.30 Crore (note-15 of SBPDCL audited account) and Rs.14.50 Crore (note-17 of NBPDC audited account) as non-tariff income on account of Supervision, labour and establishment charges received during the Year 2018-19 for service connection.”

- 4.21.8. The Commission sought justification for the same. In their response, the Petitioners submitted that, consumer contribution is in the nature of grant and is accordingly amortized as per the applicable standards and as per company accounting policy as depicted at Para 8 of their audited annual accounts. Hence, the same is not accounted as non-tariff income in the books of accounts and subsequently in the tariff petition.
- 4.21.9. Also, Commission observed that there is separate head of Other Non-Current Liabilities “Deposits for Electrification, Service Connection etc” under Note – 18 of Audited Account of SBPDCL and Note – 20 of Audited Account of NBPDC to be utilized for creation of capital assets. However, Commission noted that, Petitioner in its Format – 15 of the tariff petitions has not considered depreciation charges against the consumer contribution during the year. Accordingly, the Commission is of the view that nature of consumer contribution remains Supervision, labour and establishment charges for service connection
- 4.21.10. Hence, Commission considers Rs. 8.96 Crore and Rs. 97.75 Crore as non-tariff income of SBPDCL and NBPDC respectively for FY 2019-20.

Interest accrued on Capital fund

- 4.21.11. The Commission, in its earlier true-ups for FY 2017-18 and FY 2018-19 for NBPDC and SBPDCL, had considered the interest earned (refunded) on capital funds as a part of Non-Tariff Income During the True-up for FY 2017-18, the Commission, had considered entire interest earned on capital fund as Non-Tariff Income for FY 2017-18, along with directions for proper record-keeping for of actual interest on scheme wise grant, equity and loan fund and to claim separately the refund or utilization made in the year in which such amount is actually refunded or utilized.
- 4.21.12. Further, in true-up of FY 2018-19, the Commission had approved the Rs.6.64 Crore as expenditure of NBPDC and Rs.32.30 Crore as non tariff income of SBPDCL. The relevant extract of the Order for True-up of NBPDC and SBPDCL for FY 2018-19 is reproduced as under:

“The Commission under para 4.27 of tariff order dated 25.02.2019 in case no-40/2018 & 48/2018 (NBPDC), Case No. 41/2018 & 47/2018 (SBPDCL) have considered entire interest earned on capital fund as on 31.03.2018, Rs.193.89 Crore in SBPDCL and Rs.459.92 Crore in NBPDC as non tariff income for FY 2017-18 with a direction to the distribution licensee to keep proper record for recording of actual interest on scheme wise grant, equity and loan fund and to claim separately the refund or utilization made in the year in which such amount

is actually refunded or utilized. The DISCOMs have not furnished proper records of recording of actual interest on scheme wise grant, equity and loan fund and interest earned during the year. Based on the figures reported in Audited Account read with Annexure-4 of additional information furnished by NBPDCCL & SBPDCL vide their letter dated 20.01.2020, it has been observed that net interest of Rs.6.64 Crore have been refunded/utilized by the NBPDCCL and Rs.32.30 Crore have been earned by the SBPDCL in FY 2018-19 as interest income and accordingly the Commission considers Rs.6.64 Crore as expenditure of NBPDCCL and Rs.32.30 Crore as non tariff income of SBPDCL are detailed below:

..."

- 4.21.13. In this regard, the Commission sought scheme wise details of income earned on grant, equity and loan fund and refunded for FY 2019-20 from the Petitioners. In their response, the Petitioners submitted that stated that, scheme wise details of income earned on grant, equity and loan fund and refunded is not available separately. The Petitioner further requested the Commission to allow the actual interest earned /(refunded) as a pass through and adjust the amount of interest actually considered by the Commission in previous years' true-ups.
- 4.21.14. SBPDCL further submitted that, Rs. 10.39 Crore have been refunded during the FY 2019-20, which is not in conformity with the details furnished by SBPDCL in Appendix 8 of the replies to the data gaps dated 29 January, 2021. Due to inconsistency in the details furnished by SBPDCL, the Commission is constrained to determine the prudence of the submission. Accordingly, the Commission has not considered SBPDCL' submission.
- 4.21.15. Accordingly, in line with the methodology adopted by the Commission in earlier Order, the Commission computed net interest earned/(refunded) during the year for FY 2019-20 based on their respective Audited Accounts. The Commission has considered the opening and closing balances of interest accrued on capital funds as per the audited accounts of NBPDCCL and SBPDCL for FY 2019-20. Further, the Commission has observed that the no interest on capital funds has been recognised as a prior period income in the audited accounts of FY 2019-20, and same has been accordingly considered as NIL. The interest earned/(refunded) already recognised in Regulatory Accounts is considered as approved in the True-up of FY 2017-18 and FY 2018-19 for respective Petitioners.
- 4.21.16. Based, on the figures reported in the audited account of SBPDCL and NBPDCCL for FY 2019-20, it has been observed that, net interest earned on capital fund of SBPDCL and NBPDCCL during FY 2019-20, is Rs. 44.74 Crore and Rs.26.35 Crore. The computation is shown in Table mentioned below.

Table 128: Interest on Capital fund considered for True-up of FY 2019-20 (in Rs. Crore)

S No.	Interest accrued on Capital fund	NBPDC	SBPDCL
a)	Closing balance as on 31.03.2020 stated in audited account of FY 2019-20 (Rs. Cr.)	226.55	270.93
b)	Interest earned on Capital fund already recognised in Regulatory Accounts as on 31.03.2019 (Rs. Cr.)	200.20	226.19
c)	Net Interest earned/(refunded) on Capital fund during FY 2019-20 (a-b) (Rs. Cr.)	26.35	44.74

4.21.17. Accordingly, the Commission considers Rs. 44.74 Crore as non-tariff income of SBPDCL and Rs. 26.35 Crore as expenditure of NBPDC for FY 2019-20.

Rebate on Power Purchase

4.21.18. Hon'ble APTEL in its judgement in Appeal no.153 of 2009 between North Delhi Power Ltd. Vs DERC, has adjudged the rebate only to the extent of 1% of power purchase cost is to be considered as non-tariff income.

4.21.19. The Commission observes that as per their audited accounts, rebate for timely payment power purchase bills SBPDCL and NBPDC is Rs. 39.08 Crore. and Rs. 67.51 Crore, respectively. Commission verified the rebate received from Audited Account for FY 2019-20 and found the petitioner's claim in order.

4.21.20. The total power purchases (including transmission charges and excluding REC cost) for NBPDC is at Rs.7129.17 Crore for FY 2019-20 and the rebate at 1% works out to Rs.71.29 Crore. Similarly, for SBPDCL the rebate works out to Rs. 88.90 Crore at 1% on the total power purchase of Rs. 8,890.24 Crore.

4.21.21. Hence, Commission considers rebate of Rs. 88.90 Crore for SBPDCL and 71.29 Crore for NBPDC in non-tariff income for FY 2019-20.

Financing Cost of DPS

4.21.22. As per Regulation 30 of BERC Multi Distribution Tariff Regulation, 2018, DSP (Delayed Payment Surcharge) to the extent of financing cost on the principal amount corresponding to the Delayed Payment Surcharge shall not be treated as non-tariff income.

4.21.23. Petitioners, in their submission, have considered the financing cost on DPS (Rs. 134.66 Crore for NBPDC and Rs. 60.15 Crore for SBPDCL) and adjusted the same against the non-tariff income and net non-tariff income claimed in truing up for FY 2019-20. Commission found the claim of petitioner's in line with the methodology considered by the Commission for financing of outstanding dues and the judgment of the APTEL dated 30 July, 2010 in Appeal No. 153 of 2009 between North Delhi Power Ltd. Vs DERC. The Judgement given by APTEL is as below-

Para 58(i). Therefore, the State Commission is directed to rectify its

computation of the financing cost relating to the late payment surcharge for the FY 2007-08 at the prevalent market lending rate during that period keeping in view the prevailing Prime Lending Rate.

4.21.24. As per term and condition of supply approved by the Commission in Order dated 25 February, 2019, DPS charged to the Consumer at 1.25% per month (i.e. 15% per annum) for FY 2019-20. Accordingly, the Commission has determined the principle amount against which DPS is charged by dividing recovered DPS (Rs. 134.66 Crore for NBPDCCL and Rs. 60.15 Crore for SBPDCL) to the annual rate of 15%.

4.21.25. As per Regulation 30 of BERC Multi Distribution Tariff Regulation, 2018, funding cost of DPS is to be determined at weighted average MCLR of the concern Financial Year plus 150 basis points. Accordingly, the Commission has computed interest rate of funding DPS at 9.66% (i.e. weighted average SBI 1-year MCLR of 8.16% for FY 2019-20 + 150 basis points) in accordance with MYT Regulation 2018. Accordingly, non-tariff income is computed for FY 2019-20 as detailed in table below:

Table 129: Non-Tariff Income of SBPDCL and NBPDCCL approved for True-up of FY 2019-20 (in Rs. Crore)

Particulars	Approved in True-up of FY 2019-20 (NBPDCCL)	Approved in True-up of FY 2019-20 (SBPDCL)
Interest on Advances to Suppliers/ Contractors	8.46	26.74
Interest on Saving Accounts	36.67	45.12
Interest Credit given by Holding Company	16.68	5.52
Interest Income	61.82	77.39
Delayed Payment Surcharge from Consumers	209.13	93.50
Income from trading	1.04	-
Miscellaneous Receipts	10.28	2.39
Rental Income	0.02	-
Rebate and Discount Received	71.29	88.90
Sale of scrap	-	11.99
Incentive for timely payment of power purchase bills	0.05	-
Miscellaneous Recoveries	15.04	120.23
Supervision Income	11.65	11.44
Other Income	318.52	328.45
Reimbursement from disaster Management	15.50	-
Excess provision written back	20.39	-
Meter Rent/ Service Line Rental	220.65	90.46
Receipt from BG Invocation	-	21.99
Others	-	112.45
Total Non-tariff income	636.87	518.29
Delayed Payment Surcharge from Consumers	209.13	93.50
Principal amount on which DPS Charged	1,394.19	623.34

Particulars	Approved in True-up of FY 2019-20 (NBPDCCL)	Approved in True-up of FY 2019-20 (SBPDCL)
Interest Rate of funding DPS	9.66%	9.66%
Interest on funding Principal	134.66	60.20
Net Non-Tariff Income	502.21	458.09
Add: Addition of Consumer contribution	97.75	8.96
Add: Interest income on capital funds lying unutilized in the Bank	26.35	44.74
Net Non-Tariff Income	626.31	511.79

4.21.26. Accordingly, Commission approves Rs. 626.31 Crore for NBPDCCL and Rs. 511.79 Crore for SBPDCL as Non-tariff income for FY 2019-20.

4.22. ARR approved in the Truing-up for FY 2019-20

4.22.1. The ARR approved in the MYT Order dated 25 February 2019, actual claimed in Truing up and approved in the Truing up computed in accordance with the BERC (Multi Year Distribution Tariff) Regulations, 2018, is given in the Table below:

Table 130: Trued-up ARR of FY 2019-20 for NBPDCCL & SBPDCL, as approved by the Commission (in Rs. Crore)

S. no.	Particular	NBPDCCL			SBPDCL		
		FY 2019-20 (Approved in MYT Order)	FY 2019-20 (Claimed)	Approved in True-up of FY 2019-20	FY 2019-20 (Approved in MYT Order)	FY 2019-20 (Claimed)	Approved in True-up of FY 2019-20
1.	Purchase of power	6,012.76	6,020.79	7,186.73	6,745.25	7,546.17	8,901.71
2.	PGCIL & other Transmission Charges	421.12	522.94		494.36	659.01	
3.	STU & SLDC Charges	558.45	534.36		655.58	666.45	
4.	RE Purchase	59.05	61.65		58.26	70.34	
5.	O&M Expense	674.81	766.34	644.08	822.29	850.99	831.21
i.	Employee Expense	327.10	414.08	338.65	462.22	542.82	535.54
ii.	R&M Expense	202.85	145.82	164.44	212.62	148.73	174.39
iii.	A&G Expense	133.57	184.82	139.37	136.70	136.70	121.27
iv.	Holding Company Expense	11.29	21.62	21.62	10.75	22.73	22.73
6.	Depreciation	185.06	225.01	147.50	236.05	211.77	199.69
7.	Interest on loan	332.81	251.58	255.01	447.11	225.23	232.51

S. no.	Particular	NBPDCCL			SBPDCL		
		FY 2019-20 (Approved in MYT Order)	FY 2019-20 (Claimed)	Approved in True-up of FY 2019-20	FY 2019-20 (Approved in MYT Order)	FY 2019-20 (Claimed)	Approved in True-up of FY 2019-20
8.	Other Finance Charge	32.05	35.08	35.08	49.1	57.66	57.66
9.	Return on Equity	332.37	203.55	194.03	470.59	220.44	209.95
10.	Interest on Security Deposit	24.01	7.95	7.95	42.58	15.71	15.71
11.	Interest on Working capital	33.42	23.16	20.39	13.66	11.42	9.39
12.	Contingency Reserves	65.55	-	-	54.89	-	-
13.	Provisioning for Bad Debts	-	126.00	-	-	-	-
14.	Total Revenue Requirement (1 to 13)	8,731.47	8,778.42	8,510.78	10,089.72	10,535.18	10,480.57
15.	Less: Non-Tariff Income	323.88	498.54	626.31	359.7	408.32	511.79
16.	Net Revenue Requirement (14-15)	8,407.59	8,279.88	7,884.46	9,730.02	10,126.86	9,968.78

4.22.2. Accordingly, the Commission has approved the ARR of Rs. 7,884.46 Crore for NBPDCCL and Rs. 9,968.78 Crore for SBPDCL.

4.23. Revenue from sales of power at existing tariff for FY 2019-20

NBPDCCL & SBPDCL's Submission:

4.23.1. Petitioners submitted detail of category wise revenue based on the tariff approved for FY 2019-20, as shown in Table below:

Table 131: Revenue of Sale of power claimed by NBPDCCL for FY 2019-20

Category	Sales (MUs)	Total Revenue (Rs. Crore)	ABR (Rs/kWh)
Domestic	7,515.56	4,728	6.29
Kutir Jyoti	2,538.60	1,603	6.31
i. Un-metered	38.53	26	6.64
ii. Metred 0-50 kWh	2,500.07	1,577	6.31
Domestic Rural (DS-I)	3,420.72	2,062	6.03
i. Un-metered	625.29	269	4.30

Category	Sales (MUs)	Total Revenue (Rs. Crore)	ABR (Rs/kWh)
ii. Metred	2795.45	1,793	6.42
0-50 kWh	2044.43	1,257	6.15
51-100 kWh	430.36	275	6.40
101-200 kWh	320.66	215	6.70
Above 200 kWh	-	-	-
Domestic Urban (DS II)	1,556.22	1,063	6.83
0-100 kWh	928.44	571	6.15
101-200 kWh	295.72	206	6.95
201-300 kWh	135.63	106	7.80
Above 300 kWh	196.43	169	8.60
DS III	0.02	0.02	11
Non-Domestic Service	1,036.91	831	8.01
Non-Domestic (NDS I)	149.37	105	7.00
0-100 kWh	106.60	68	6.40
101-200 kWh	16.87	12	6.95
Above 200 kWh	25.90	19	7.50
Non-Domestic (NDS II)	887.54	726	8.18
i. Contract Demand <0.5 kW	1.74	2	9.90
ii. Contract Demand >0.5 kW	885.81	724	8.18
0-100 kWh	198.96	127	6.40
101-200 kWh	82.89	58	6.95
Above 200 kWh	603.96	453	7.50
Street Light Services	34.67	49	14.19
Streetlight I	5.78	4	7.06
Streetlight II	28.89	45	15.62
Irrigation & Allied Services	118.35	98	8.25
IAS I	79.59	57	7.19
i. Un-metered	6.13	5	8.48
ii. Metred	73.46	52	7.08
IAS II	38.76	40	10.44
Public Service Connections	51.62	46	8.95
Public Water Works	21.19	24	11.27
Har Ghar Nal	30.43	22	7.33
Low Tension Industrial Services	227.05	209	9.21
LTIS I (0-19 kW)	200.92	186	9.24
LTIS II (>19 kW - 74 kW)	26.13	23	8.97
High Tension	604.09	583	9.65
HTS I - 11 kV	383.27	375	9.77
HTS II - 33 kV	118.48	113	9.51

Category	Sales (MUs)	Total Revenue (Rs. Crore)	ABR (Rs/kWh)
HTS III -132 kV	53.11	58	10.86
HTS IV - 220 kV	-	-	-
HTS IV - 33/11 Kv	49.23	38	7.66
Railway Traction Services	146.30	142	9.72
Sub – Total	9,734.55	6,685.23	6.87
Nepal	708.02	441	6.22
Sales to Other State	130.18	66.26	-
Sales to Sugar Mills	13.67	12.23	-
SLDC Deviation	49.58	32.77	-
Total	10,636.00	7,237.49	6.80

Table 132: Revenue of Sale of power claimed by SBPDCL for FY 2019-20

Category	Sales (MUs)	Total Revenue (Rs. Crore)	ABR (Rs/kWh)
Domestic	7,141.72	4,721.79	6.61
Kutir Jyoti	1,159.78	731.71	6.31
i. Un-metered	60.46	35.27	5.83
ii. Metred 0-50 kWh	1,099.33	696.44	6.34
Domestic Rural (DS-I)	2,973.50	1,883.48	6.33
i. Un-metered	328.58	156.69	4.77
ii. Metred	2,644.91	1,726.79	6.52
0-50 kWh	1,120.76	689.27	6.15
51-100 kWh	802.00	513.28	6.40
101-200 kWh	672.15	450.34	6.70
Above 200 kWh	50.00	35.24	7.05
Domestic Urban (DS II)	3,008.40	2,106.61	7.00
0-100 kWh	2,068.90	1,272.98	6.15
101-200 kWh	493.50	342.99	6.95
201-300 kWh	255.00	198.91	7.80
Above 300 kWh	191.00	164.29	8.60
DS III	0.04	0.04	9
Non-Domestic Service	1,089.62	948.49	8.70
Non-Domestic (NDS I)	243.26	172.33	7.08
0-100 kWh	77.46	49.57	6.40
101-200 kWh	82.40	57.27	6.95
Above 200 kWh	83.40	62.55	7.50
Non-Domestic (NDS II)	846.36	776.16	9.17
i. Contract Demand <0.5 kW	5.49	5.47	9.96
ii. Contract Demand >0.5 kW	840.87	770.69	9.17

Category	Sales (MUs)	Total Revenue (Rs. Crore)	ABR (Rs/kWh)
0-100 kWh	287.30	183.84	6.40
101-200 kWh	179.94	125.05	6.95
Above 200 kWh	373.63	280.20	7.50
Street Light Services	71.55	56.09	7.84
Streetlight I	12.37	9.51	7.69
Streetlight II	59.19	46.58	7.87
Irrigation & Allied Services	814.58	355.69	4.35
IAS I	735.80	298.05	4.03
i. Un-metered	560.36	195.18	3.48
ii. Metred	175.43	102.86	5.78
IAS II	78.79	57.64	7.32
Public Service Connections	94.42	84.86	9.43
Public Water Works	79.37	74.89	9.94
Har Ghar Nal	15.05	9.96	6.75
Low Tension Industrial Services	427.04	345.40	7.99
LTIS I (0-19 kW)	295.82	234.19	7.92
LTIS II (>19 kW - 74 kW)	131.22	111.21	8.17
High Tension	2,085.96	1,506.03	7.22
HTS I - 11 kV	679.72	590.34	8.69
HTS II - 33 kV	425.71	360.76	8.47
HTS III -132 kV	171.72	110.44	6.43
HTS IV - 220 kV	-	-	-
HTS IV - 33/11 Kv	808.81	444.50	5.50
Railway Traction Services	102.03	79.34	7.78
Sub – Total	11,826.93	8097.70	6.85
Nepal	-	-	-
Sales to Other State	152.82	77.78	-
Sales to Sugar Mills	-	-	-
SLDC Deviation	58.21	33.46	-
Total	12,037.96	8,208.94	6.81

Commission Analysis:

Revenue from Sales to Consumers Categories:

4.23.2. The Petitioner under Format-30A of the petition has furnished slab-wise/sub-category wise/ category wise, number of consumers, connected load, energy sales, energy charges billed, and fixed charges billed etc. The Commission has observed that Energy sales and Revenue submitted in Format 30A, under the DS-II category is not tallying with the audited account. Also, DS-III category is not shown in audited account. Upon

query regarding same discrepancy in DS-II and DS-III categories petitioners clarified that Sales and Revenue shown under DS-II in audited account combines the figure for DS-II and DS-III categories.

4.23.3. Further, as regards discrepancy in quantum of energy sales regarding kVAh billing of LTIS, PWW, HTS HTSS and RTS categories (as elaborated in sales section), petitioners in its data gap reply has submitted the revised Format 30A, and accordingly the Commission has approved the actual revenue on sales to consumer categories as shown in Table below:

Table 133: Revenue from Sale of power by NBPDC to consumer categories for FY 2019-20, as approved by the Commission

Consumer Categories	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
Domestic	7,515.56		391.65	4,336.28	-	4,727.93	6.29
Kutir Jyoti	2,538.60		65.28	1,537.54		1,602.82	6.31
i. Un-metered	38.53		25.60	-		25.60	6.64
ii. Metred 0-50 kWh	2,500.07		39.68	1,537.54		1,577.22	6.31
Domestic Rural (DS-I)	3,420.72		314.73	1,747.49		2,062.22	6.03
i. Un-metered	625.29		268.76	-		268.76	4.30
ii. Metred	2795.45		45.97	1,747.49		1,793.46	6.42
0-50 kWh	2044.43			1,257.23		1,257.23	6.15
51-100 kWh	430.36			275.43		275.43	6.40
101-200 kWh	320.66			214.83		214.83	6.70
Above 200 kWh	-			-		-	-
Domestic Urban (DS II)	1,556.22		11.64	1,051.23		1,062.87	6.83
0-100 kWh	928.44			570.99		570.99	6.15
101-200 kWh	295.72			205.52		205.52	6.95
201-300 kWh	135.63			105.79		105.79	7.80
Above 300 kWh	196.43			168.93		168.93	8.60
DS III	0.02		0.001	0.02		0.02	10.50
Non-Domestic Service	1,036.91		93.63	738.41	(1.46)	830.58	8.01
Non-Domestic (NDS I)	149.37		5.18	99.38		104.56	7.00
0-100 kWh	106.60			68.23		68.23	6.40
101-200 kWh	16.87			11.72		11.72	6.95
Above 200 kWh	25.90			19.43		19.43	7.50
Non-Domestic (NDS II)	887.54		88.44	639.03	(1.46)	726.01	8.18

Consumer Categories	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
i. Contract Demand <0.5 kW	1.74		0.61	1.11		1.72	9.90
ii. Contract Demand >0.5 kW	885.81		87.83	637.92	(1.46)	724.29	8.18
0-100 kWh	198.96			127.34		127.34	6.40
101-200 kWh	82.89			57.61		57.61	6.95
Above 200 kWh	603.96			452.97		452.97	7.50
Street Light Services	34.67		16.39	32.82		49.21	14.19
Streetlight I	5.78		0.09	3.99		4.08	7.06
Streetlight II	28.89		16.30	28.83		45.13	15.62
Irrigation & Allied Services	118.35		30.77	66.92		97.69	8.25
IAS I	79.59		16.07	41.14		57.21	7.19
i. Un-metered	6.13		5.20	-		5.20	8.48
ii. Metred	73.46		10.87	41.14		52.01	7.08
IAS II	38.76		14.70	25.78		40.48	10.44
Public Service Connections	51.62		7.14	39.06		46.20	8.95
Public Water Works	21.19	23.54	5.37	18.52		23.89	11.27
Har Ghar Nal	30.43		1.77	20.54		22.31	7.33
Low Tension Industrial Services	227.05	252.28	51.22	157.92		209.14	9.21
LTIS I (0-19 kW)	200.92	223.24	45.36	140.33		185.69	9.24
LTIS II (>19 kW - 74 kW)	26.13	26.13	5.86	17.59		23.45	8.97
High Tension	604.09	671.21	110.85	468.04	3.76	582.65	9.65
HTS I - 11 kV	383.27	425.86	67.24	302.23	5.13	374.60	9.77
HTS II - 33 kV	118.48	131.64	19.26	92.94	0.45	112.65	9.51
HTS III -132 kV	53.11	59.01	13.00	45.99	(1.29)	57.70	10.86
HTS IV - 220 kV	-	-	-	-	-	-	-
HTS IV - 33/11 KV	49.23	54.70	11.35	26.87	(0.52)	37.70	7.66
Railway Traction Services	146.30	162.56	21.21	113.95	7.30	142.20	9.72
Nepal	708.02	-	-	440.63	7.30	440.63	6.22
Sales to sugar mill	13.67	-	-	12.23	-	12.23	8.95
Total	10,456.24	1,109.59	722.86	6,406.26	9.33	7,138.46	

Table 134: Revenue from Sale of power by SBPDCL to consumer categories for FY 2019-20, as approved by the Commission

Consumer Categories	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
Domestic	7,141.72		370.98	4,336.28	1.08	4,721.80	6.61
Kutir Jyoti	1,159.78		49.30	682.41	-	731.71	6.31
i. Un-metered	60.46		35.27	-		35.27	5.83
ii. Metred 0-50 kWh	1,099.33		14.03	682.41		696.44	6.34
Domestic Rural (DS-I)	2,973.50		194.27	1,688.13	1.08	1,883.48	6.33
i. Un-metered	328.58		156.69	-		156.69	4.77
ii. Metred	2,644.91		37.58	1,688.13	1.08	1,726.79	6.53
0-50 kWh	1,120.76			689.28		689.28	6.15
51-100 kWh	802.00			513.28		513.28	6.40
101-200 kWh	672.15			450.34		450.34	6.70
Above 200 kWh	50.00			35.24		35.24	7.05
Domestic Urban (DS II)	3,008.40		127.40	1,979.17	-	2,106.56	7.00
0-100 kWh	2,068.90		-	1,272.98	-	1,272.98	6.15
101-200 kWh	493.50		-	342.99	-	342.99	6.95
201-300 kWh	255.00		-	198.91	-	198.91	7.80
Above 300 kWh	191.00		-	164.29	-	164.29	8.60
DS III	0.04		0.01	0.03	-	0.04	9.47
Non-Domestic Service	1,089.62		185.62	761.99	0.87	948.48	8.70
Non-Domestic (NDS I)	243.26		2.94	169.39	-	172.33	7.08
0-100 kWh	77.46			49.57	-	49.57	6.40
101-200 kWh	82.40			57.27	-	57.27	6.95
Above 200 kWh	83.40			62.55	-	62.55	7.50
Non-Domestic (NDS II)	846.36		182.68	592.61	0.87	776.16	9.17
i. Contract Demand <0.5 kW	5.49		1.09	3.51	-	4.60	9.96
ii. Contract Demand >0.5 kW	840.87		181.59	589.10	0.87	771.56	9.17
0-100 kWh	287.30			183.84	-	183.84	6.40
101-200 kWh	179.94			125.05	-	125.05	6.95
Above 200 kWh	373.63			280.20	-	280.20	7.50
Street Light Services	71.55		46.78	9.31	1.42	56.09	7.84
Streetlight I	12.37		0.20	9.31	-	9.51	7.69
Streetlight II	59.19		46.58	-	-	46.58	7.87
Irrigation & Allied Services	814.58		202.33	151.94	-	355.69	4.37
IAS I	735.80		198.04	98.59	-	298.05	4.05
i. Un-metered	560.36		195.18	-	-	195.18	3.48
ii. Metred	175.43		2.85	98.59	-	102.86	5.86
IAS II	78.79		4.29	53.35	-	57.64	7.32
Public Service	94.42		11.23	73.62	-	84.85	8.99

Consumer Categories	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
Connections							
Public Water Works	71.43	79.37	11.00	63.89	-	74.89	9.44
Har Ghar Nal	15.05		0.23	9.73	-	9.96	6.62
Low Tension Industrial Services	384.34	427.04	63.49	281.91	-	345.40	8.09
LTIS I (0-19 kW)	266.24	295.82	41.78	192.41		234.19	7.92
LTIS II (>19 kW - 74 kW)	118.10	131.22	21.71	89.50		111.21	8.48
High Tension	2,020.88	2,085.96	275.60	1,208.49	21.96	1,506.05	7.22
HTS I - 11 kV	645.73	679.72	111.63	475.83	2.88	590.34	8.69
HTS II - 33 kV	404.42	425.71	61.60	297.66	1.50	360.76	8.47
HTS III -132 kV	170.01	171.72	13.85	96.59	-	110.44	6.43
HTS IV - 220 kV	-	-	-	-	-	-	-
HTS IV - 33/11 KV	800.72	808.81	88.52	338.41	17.58	444.51	5.50
Railway Traction Services	101.01	102.03	9.96	69.38	-	79.34	7.78
Nepal	-	-	-	-	-	-	-
Total	11,710.20	2,694.40	1,165.99	6,906.39	25.33	8,097.71	6.85

Sales to Other States:

4.23.4. Sales to other states includes energy supplied to RUVNL under banking arrangement. The Commission has provided post facto approval for banking of Power with RUVNL in its Order dated 10 December, 2019 in Case No. 29 of 2019. In the said Order, the Commission observed that the RUVNL will return the banked energy at 102% of energy banked. Further, as per the term and condition of RUVNL banking Transaction, this transition shall be on purely energy to energy basis. Relevant extract of the Order is reproduced below:

“4.3 ...

Commission observes from above table that the RUVNL shall return the banked energy @ 102% of energy banked meaning thereby the transmission losses incurred in transmission of such banked power is born by RUVNL.

4.4 Commission further observes from Para 5 of "Techno Commercial Terms and Conditions for Banking of Power" from the said bid document that "This banking arrangement shall be on purely energy to energy transaction basis. If RUVNL fails to return the returnable energy during a month owing to transmission constraints, the remaining energy for that month shall be returned by RUVNL in immediate succeeding month of the contracted return period or the return period as mutually agreed.

In case, RUVNL fails to return the returnable energy within the period mentioned

above due to any reason whatsoever/default by RUVNL, any shortfall in the returnable energy shall be paid by RUVNL at the settlement rate of Rs. 3.60 per unit.

Under the fact and circumstances discussed above, the commission hereby:

...

(ii) The Commission allows post facto approval of the instant proposal for banking of power with RUVNL for the said period without involvement of any trader in the interest of consumers with the condition that it should not lead a situation of additional burden of fixed charges which shall not be given a pass through. "

4.23.5. As regards this banking sale of power to RUVNL, the Commission observed that petitioners have booked the estimated revenue of Rs. 144.04 Crore (i.e. Rs. 66.26 Crore for NBPDCCL and Rs. 77.78 Crore for SBPDCL) towards banking transaction in their audited accounts on provisional basis. Petitioner has considered MUs sales and estimated Revenue for the banking sale to RUVNL as shown in Table below:

Table 135: Revenue and Sales submitted for banking sale to RUVNL

Particular	NBPDCCL	SBPDCL	Total
Power Supplied to RUVNL (MUs)	130.18	152.82	283.00
Revenue from banking sales as per audited account	66.26	77.78	144.04

4.23.6. Accordingly, the Commission observes that the Petitioners have estimated the revenue of Rs. 144 Crore @ Rs, 5.09/kWh.

4.23.7. In response to the clarification sought by the Commission, the Petitioner submitted that banking sale of power to RUVNL was undertaken as per the schedule shown in the following Table:

Table 136: Cost benefit analysis of banking transaction

Supply Period	Time Period (Hrs)	Total Energy (MU)
18-Nov-19 to 30-Nov-19	7:00 to 13:00	7.80
1 Dec-19 to 31-Dec-19	7:00 to 13:00	37.20
1-Jan-20 to 31-Jan-20	7:00 to 17:00	93.00
1-Feb-20 to 29-Feb-20	7:00 to 17:00	145.00
Total		283.00

4.23.8. The Commission scrutinised the Market Clearing Price from IEX for the period from November 2019 to February 2020 for the time slots specified in the Table above. The Commission observed that the MCP for the respective time slots for the November 2019, December 2019, January 2020 and February 2020 was Rs. 2.92/kWh, Rs.

3.30/kWh, Rs. 3.32/kWh and Rs. 3.23/kWh. Accordingly, the Commission is of the view that since the revenue estimated by the Petitioners at Rs. 5.09/kWh is above Market Clearing price. Accordingly, the Commission has considered the revenue from banking sale of Rs. 144.04 Crore, as booked by the petitioners in the Audited Account for FY 2019-20, for True-up.

SLDC Deviation

4.23.9. As discussed in earlier section of this Order, sales considered under SLDC deviation includes adjustment done by BSPTCL on account of UI deviation from the Railways and settlement of SCED benefit as per CERC Order dated 11 September, 2019. Accordingly, the Commission has considered the Revenue from such transaction. The Total Revenue of NBPDC & SBPDCL as shown in Table below:

Table 137: Revenue approved for NBPDC for True-up of FY 2019-20

Particular	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
Energy Sales to Category Consumers	10,442.57	1,896.28	724.32	6,392.57	9.33	7,126.23	6.82
Sales to Sugar Mill	13.67			12.23		12.23	8.95
SLDC Deviation	49.58			32.77		32.77	
Sales to Other state	130.18			66.26		66.26	5.09
Total Sales	10,636.00	1,896.28	724.32	6,503.83	9.33	7,237.49	6.80

Table 138: Revenue approved for SBPDCL for True-up of FY 2019-20

Particular	Sales (MkWh)	Sales (MkVAh)	Revenue from Fixed charges (Rs. Crore)	Revenue from Energy Charges (Rs. Crore)	Other Charges (Rs. Crore)	Total Revenue (Rs. Crore)	ABR (Rs./ kWh)
Energy Sales to Category Consumers	11,710.20	2,694.40	1,165.99	6,906.39	25.33	8,097.71	6.85
SLDC Deviation	58.21			33.46		33.46	
Sales to Other state	152.82			77.78		77.78	5.09
Total Sales	11,921.23	2,694.40	1,165.99	7,017.63	25.33	8,208.96	6.89

4.23.10. Accordingly, Commission has approved the Revenue of Rs. 7,237.49 Crore and Rs. 8,208.96 Crore in True-up of FY 2019-20.

4.24. Revenue Gap/(Surplus) for FY 2019-20

NBPDC's Submission:

4.24.1. NBPDC has submitted the net gap of Rs. 330.20 Crore for FY 2019-20.

4.24.2. SBPDCL further Submitted that, the Commission had approved a surplus revenue of Rs. 1199.768 crore (including carrying cost) for NBDCL while truing up of FY 2017-18 in the tariff order dated 25.02.2019 and had considered the same while approving the Net ARR of FY 2019-20 in the tariff order dated 25.02.2019. However, the trued-up revenue gap claimed by the Petitioner for FY 2017-18 was Rs. 731 Crore. The Petitioner has challenged the approved surplus for FY 2017-18 before the Hon'ble APTEL in its Appeal no. 225 of 2019. The matter is currently sub-judice and hence, the Petitioner has not considered the carried forward surplus Revenue of FY 2017-18 approved by the Hon'ble Commission while calculating its Revenue gap/surplus for FY 2019-20 in this petition. The Commission is hereby requested to consider the approach followed by the Petitioner and treat the gap/surplus of FY 2017-18 in the subsequent year's ARR, as and when the Hon'ble APTEL issues its judgement in the Appeal no. 225 of 2019.

Table 139: Revenue gap submitted by NBDCL for True-up of FY 2019-20

Particulars	Amount (Rs. Crore)
Actual ARR approved for FY 2019-20	8,407.59
Carried forward trued up revenue gap/(Surplus) of FY 2017-18 along with carrying cost	-
Total Revenue requirement (1+2)	8,407.59
Gain/(Loss) on account of controllable factor to be passed in tariff	(181.10)
(Loss)/Gain on account of Uncontrollable Factor to be passed in tariff	671.01
Subsidy Received	350.00
Net Revenue Required	7,567.68
Revenue from existing tariff	7,237.48
Net Gap/(Surplus)	330.20

SBPDCL's Submission:

4.24.3. SBPDCL has submitted the net gap of Rs. 776.44 Crore for FY 2019-20.

4.24.4. SBPDCL further Submitted that, the Commission had approved a revenue gap of Rs. 1137.82 crore (including carrying cost) for SBPDCL while truing up of FY 2017-18 in the tariff order dated 25.02.2019 and had considered the same while approving the Net ARR of FY 2019-20 in the tariff order dated 25.02.2019. However, the trued-up revenue gap claimed by the Petitioner for FY 2017-18 was Rs. 3518.44 Crore. The Petitioner has challenged the approved gap for FY 2017-18 before the Hon'ble APTEL in its Appeal no. 225 of 2019. The matter is currently sub-judice and hence the Petitioner has not considered the carried forward Revenue gap of FY 2017-18 approved by the Hon'ble Commission while calculating its Revenue gap/surplus for FY 2019-20 in this petition. The Commission is hereby requested to consider the approach followed by the Petitioner and treat the gap/surplus of FY 2017-18 in the subsequent year's ARR, as

and when the Hon'ble APTEL issues its judgement in the Appeal no. 225 of 2019.

Table 140: Revenue gap submitted by SBPDCL for True-up of FY 2019-20

Particulars	Amount (Rs. Crore)
Actual ARR approved for FY 2019-20	9730.02
Carried forward trued up revenue gap/(Surplus) of FY 2017-18 along with carrying cost	-
Total Revenue requirement (1+2)	9,730.02
Gain/(Loss) on account of controllable factor to be passed in tariff	(315.74)
(Loss)/Gain on account of Uncontrollable Factor to be passed in tariff	550.38
Subsidy Received	510.00
Net Revenue Required	8,985.38
Revenue from existing tariff	8,208.94
Net Gap/(Surplus)	776.44

Commission's Analysis:

- 4.24.5. The Commission has approved the Annual Revenue Requirement of NBPDCCL and SBPDCL for FY 2019-20 based on the expense and Gain/(losses) approved by the Commission in True-up of FY 2019-20.
- 4.24.6. The Commission has also considered the Subsidy received of Rs. 350 Crore for NBPDCCL and Rs. 510 Crore for SBPDCL, against OFR funding infused by GoB in terms of equity contribution towards meeting its shortfall in achieving the AT&C loss target. The Petitioner has considered such amount as income while arriving at the Revenue Gap for calculation of Annual Revenue Requirement for FY 2019-20. Upon query, Petitioners has submitted the following reconciliation of AT&C subsidy:

Table 141: Subsidy received by NBPDCCL and SBPDCL during FY 2019-20

Particulars	Amount (In Rs. Crore)
Total Sanctioned Amount by GOB	860.00
Amount received vide letter no	
<i>BSP(H)CL-04/2017-25</i>	71.80
<i>BSP(H)CL-04/2017-11</i>	71.80
<i>BSP(H)CL-04/2017-127</i>	143.60
<i>BSP(H)CL-04/2017-06</i>	71.80
<i>BSP(H)CL-04/2017-2832</i>	501.00
Amount allocated to SBPDCL	510.00
Amount allocated to NBPDCCL	350.00

4.24.7. Accordingly, the Commission has approved Revenue Gap/(Surplus)for FY 2019-20 as shown in Table Below:

Table 142: Revenue gap approved for NBDCL & SBPDCL for True-up of FY 2019-20

S no.	Particulars	Approved in True-up for NBDCL	Approved in True-up for SBPDCL
1	ARR approved in Ture-up of FY 2019-20	7,884.46	9,968.78
2	Add: Gain/(Loss) on account of Power purchase cost to be absorbed by Licensee (as per Para 4.7.13)	(356.26)	(807.59)
3	Less: Gain/(Loss) on account of O&M expense to be passed in tariff (as per Para 4.17.16)	6.87	(8.99)
4	Less: Gain/(Loss) on account of IoWC expense to be passed in tariff (as per Para 4.19.13)	41.07	39.78
5	Total Revenue requirement (1+2-3-4)	7,576.15	9,191.98
6	Carried forward trued up revenue gap/(Surplus) of FY 2017-18 along with carrying cost	(1,199.76)	1,137.82
7	Subsidy Received	350.00	510.00
8	Revised Revenue Required (5+6-7)	6,026.39	9,819.80
9	Revenue from existing tariff	7,237.49	8,208.96
10	Net Gap/(Surplus)	(1,211.09)	1,610.84

4.24.8. The Commission approves the **net revenue gap** of Rs.399.75 Crore (NBDCL Rs.(1,211.09) Crore and SBPDCL Rs.1,610.84 Crore) in True up of FY 2019-20.

5. Annual Performance Review for FY 2020-21

- 5.1.1. The Commission had issued MYT Order dated 25 February, 2019 approving Aggregate Revenue Requirement for the control period FY 2019-20 to FY 2021-22 to the Bihar Distribution Companies. Subsequently, the Commission issued Tariff Order dated 20 March 2020 wherein it has determined the revised Aggregate Revenue Requirement for FY 2020-21. The distribution licensees viz., SBPDCL and NBPDC have now filed the present Tariff Petitions on 31 December 2020 which includes Annual Performance Review (APR) for FY 2020-21. Discoms have projected the APR for FY 2020-21 based on the actual figures for 6 months (i.e. April 2020 to September 2020) for power purchase and pro-rata projections & escalation over previous year, keeping in mind the guiding principles defined by the Commission.
- 5.1.2. Review for FY 2020-21 is to be done according to the Regulation 8.1 of the Bihar Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2018. Accordingly, the “Review” exercise for FY 2020-21 has been undertaken by the Commission on the basis of Audited Annual Accounts for FY 2019-20 and revised estimates for FY 2019-20 submitted by the Petitioners and as per BERC (Multi Year Distribution Tariff) Regulations, 2018.
- 5.1.3. However, as per Regulation 14 (e) of BERC (Multi Year Distribution Tariff) Regulations, 2018 the revised estimated gap/surplus as a result of Review shall not be passed in the ARR of ensuing year

5.2. Energy Sales

NBPDC & SBPDCL’s Submission:

Number of Consumers

- 5.2.1. Petitioners submitted that rational estimation of category-wise energy sales for the ensuing year is essential to arrive at the optimum quantum of power to be purchased, and the likely revenue from sale of energy. Petitioner further submitted that while projecting energy sales for FY 2020-21, the impact due to Central schemes like Saubhagya and UDAY were considered. The Successful implementation of these schemes ensured that all the willing households are connected to the grid, leaving little scope for addition of new consumers from KJY, DS-I and DS-II categories. These initiatives aim for the overall development of the power sector in the State.
- 5.2.2. As above stated scheme are mainly targeted for rural consumers in KJ, DS-I category and for IAS-I category, many policies at state level have been adopted, hence the growth rate projected under this category is above the normal CAGR growth as large number of new connections are to be released in the ensuing years. The Petitioner has also considered 6 months provisional data for revising the growth in number of consumers for FY 20120-21 as shown in the Table below:

Table 143: Number of Consumers projected by NBPDCCL & SBPDCL for FY 2020-21

Category	NBPDCCL	SBPDCL
	Number of Consumer projected for	Number of Consumer projected for
Domestic	98,41,686	52,83,517
Kutir Jyoti	41,47,841	15,44,384
Domestic Rural (DS-I)	44,54,673	24,12,801
Domestic Urban (DS II)	12,39,106	13,26,157
DS III	65	174
Non-Domestic Service	5,88,413	4,46,230
Non-Domestic (NDS I)	2,41,949	1,16,786
Non-Domestic (NDS II)	3,46,464	3,29,444
Contract Demand <0.5 kW	1,297	8,127
Contract Demand >0.5 kW	3,45,168	3,21,318
Street Light Services	1,160	1,445
Streetlight I	357	852
Streetlight II	804	593
Irrigation & Allied Services	1,03,332	2,50,185
IAS I	96,997	2,44,900
IAS II	6,335	5,286
Public Service Connections	23,122	13,080
Public Water Works	1,564	2,780
Har Ghar Nal	21,558	10,300
Low Tension Industrial Services	49,230	56,159
LTIS I (0-19 kW)	48,040	52,342
LTIS II (>19 kW - 74 kW)	1,190	3,817
High Tension	1,120	1,855
HTS I - 11 kV	1,072	1,706
HTS II - 33 kV	42	131
HTS III -132 kV	3	5
HTS IV - 220 kV	-	-
HTS IV - 33/11 Kv	4	13
Railway Traction Services	3	1
Total	10,608,069	60,52,472

Category wise energy Sales

- 5.2.3. Petitioners submitted that they have already reached 100% electrification in its area. All willing BPL households in urban areas and both APL & BPL households in rural areas had already been provided electricity access under Saubhagya Scheme. Discoms have projected the category-wise sales based on the CAGR of the previous years' data and considering factors like available average consumption per consumer per month, new consumers to be added, population data, expected conversion of unauthorized connections, connected load factor and specific growth factors and wherever the data was incongruous such incongruity was ignored while projecting the load growth for the

ensuing years.

- 5.2.4. The Petitioners also submits that the specific consumption level along with the number of consumers in each category gives the sales figure for that particular sub-category and the final detailed calculations estimate the connected load for each Tariff category. Also, 6 months provisional figure was also used for revising the category wise sales for the above projected number of consumers for FY 2020-21. The units sold are projected by taking average consumption per consumer per month and multiplying the same to the projected number of consumers to arrive at units sold for a year.

Table 144: Energy Sales (MU) projected by NBPDCCL & SBPDCL for FY 2020-21

Category	NBPDCCL	SBPDCL
	Energy Sales projected for FY 2020-21	Energy Sales projected for FY 2020-21
Domestic	7,982.29	7,585.91
Kutir Jyoti	2,648.30	1,219.16
Domestic Rural (DS-I)	3,649.45	3,218.01
Domestic Urban (DS II)	1,684.51	3,148.66
DS III	0.03	0.08
Non-Domestic Service	1,255.07	1,213.63
Non-Domestic (NDS I)	189.96	309.55
Non-Domestic (NDS II)	1,065.11	904.08
Contract Demand <0.5 kW	2.08	5.34
Contract Demand >0.5 kW	1,063.03	898.74
Street Light Services	38.79	71.53
Streetlight I	6.91	14.71
Streetlight II	31.88	56.82
Irrigation & Allied Services	149.07	599.80
IAS I	122.56	520.82
IAS II	26.52	78.98
Public Service Connections	91.55	139.31
Public Water Works	21.74	87.36
Har Ghar Nal	69.81	51.95
Low Tension Industrial Services	320.55	455.74
LTIS I (0-19 kW)	273.26	341.97
LTIS II (>19 kW - 74 kW)	47.29	113.76
High Tension	528.93	1997.03
HTS I - 11 kV	332.14	598.84
HTS II - 33 kV	111.67	443.05
HTS III -132 kV	37.30	217.43
HTS IV - 220 kV	-	-
HTS IV - 33/11 Kv	47.83	737.72
Railway Traction Services	72.04	60.49
Nepal	151.61	-
Total	10,589.92	12,123.43

Connected load

5.2.5. The Petitioners have calculated the connected load considering average Load per consumer as per the actuals, CAGR of past years and multiplying it by projected number of consumers to arrive at the connected load.

Table 145: Connected Load projected by NBPDCCL & SBPDCL for FY 2020-21

Category	NBPDCCL	SBPDCL
	Connected load projected for FY 2020-21	Connected load projected for FY 2020-21
Domestic	6,939,136	6,585,191
Kutir Jyoti	632,117	211,243
Domestic Rural (DS-I)	4,750,293	2,560,212
Domestic Urban (DS II)	1,556,604	31,813,442
DS III	122	294
Non-Domestic Service	1,109,255	1,270,791
Non-Domestic (NDS I)	268,758	167,438
Non-Domestic (NDS II)	840,496	1,103,353
Contract Demand <0.5 kW	838	3,683
Contract Demand >0.5 kW	839,658	1,099,670
Street Light Services	20,545	19,912
Streetlight I	3,258	6,548
Streetlight II	17,287	13,364
Irrigation & Allied Services	302,448	712,718
IAS I	243,709	624,417
IAS II	58,739	88,301
Public Service Connections	73,293	70,360
Public Water Works	21,968	34,405
Har Ghar Nal	51,325	35955
Low Tension Industrial Services	487,402	607,701
LTIS I (0-19 kW)	429,245	426,282
LTIS II (>19 kW - 74 kW)	58,157	181,418
High Tension	347,589	762,500
HTS I - 11 kV	224,316	350,022
HTS II - 33 kV	67,886	247,756
HTS III -132 kV	43,349	31,827
HTS IV - 220 kV	-	-
HTS IV - 33/11 Kv	12,037	132,896
Railway Traction Services	23,407	9000
Total	93,03,074	10,038,173

Commission Analysis:

5.2.6. Upon scrutiny of the submissions, the Commission observes that SBPDCL has not made any projection in RTS category. On query sought by the Commission, SBPDCL

clarified that there is only 1 consumer left in the RTS category as of H1 of FY 2020-21. As per the current trend where all its RTS consumers have shifted to Open Access in the recent time, it has assumed that the remaining RTS consumer will also shift to Open Access in the coming time and it has therefore not projected any consumer or sales for RTS category in FY 2021-22. The Commission has noted the submission of SBPDCL and made the projections in Railway category accordingly. The subsequent paras provides a detailed summary of projection of number of consumers, connected load and sales as considered by the Commission for FY 2020-21.

Number of Consumers

- 5.2.7. For APR of number of consumers for FY 2020-21, the Commission has reviewed the actual number of consumers of first half i.e. H1 (April, 2020 to September, 2020) as well as the estimated no of consumers for H2 (October, 2020 to March, 2021) based on the historical sales trends submitted by Petitioners.
- 5.2.8. The Commission notes that the while projecting energy sales for FY 2020-21, the impact due to Central schemes like Saubhagya and UDAY has been considered by the Petitioners. The Commission also notes the submission of Petitioners that all unmetered connections in DS-I and DS-II category have been metered. Further, the growth rate considered by the Petitioner for KJ, DS-I category and for IAS-I category is above the normal CAGR growth as large number of new connections are to be released in the ensuing years.
- 5.2.9. The Commission observes that for IAS II category the growth rate considered for number of consumers were positive whereas the growth rate considered for sales were negative. Upon clarification sought, Discoms stated that there was a sudden surge in addition of IAS-II consumers (majorly Govt tubewells/pumpsets) in the first half of FY 2020-21, primarily due to installation of large number of tubewells/pumpsets. However, the drawl in these establishments was not as expected due to reasons beyond the control of the Petitioner. The weather was highly favourable to agricultural activities such as good rainfall leading to reduction in dependency of electrically operated pumpsets. This has led to reduction in usage of electricity by such consumers. The projection of the second half of FY 2020-21 has been done considering these factors. Therefore, there is a difference in the projection rate for consumers and sales in FY 2020-21 for the Petitioner for IAS-II category.
- 5.2.10. Considering the above, the Commission has projected the number of consumers for FY 2020-21. The Commission has analysed the year-on-year growth rate and the CAGRs for past 5 years for each category as shown in the Table below:

Table 146: CAGR for number of consumers over past 5 financial years for NBPDCCL for FY 2020-21

Category	5-year CAGR	4-year CAGR	3-year CAGR	2-year CAGR	YoY Growth
Domestic					
Kutir Jyoti	26.84%	22.01%	16.86%	16.75%	6.01%
DS-I	30.49%	28.74%	29.36%	40.18%	15.55%
DS II	7.33%	3.64%	0.39%	-2.72%	-2.34%
DS III	-	-	-	-	-
Non-Domestic Service					
NDS I	42.02%	37.93%	34.74%	43.78%	52.37%
NDS II	17.74%	14.85%	10.78%	14.74%	5.60%
CD <0.5 kW	17.75%	14.85%	10.77%	14.76%	79.65%
CD >0.5 kW	17.75%	14.85%	10.77%	14.76%	5.31%
Street Light Services					
SS II	84.24%	50.98%	87.34%	47.83%	-22.12%
S I	14.19%	19.62%	28.46%	-0.82%	0.67%
Irrigation & Allied					
IAS I	96.76%	115.05%	101.38%	167.81%	172.36%
IAS II	14.89%	14.56%	0.67%	-1.13%	14.49%
Public Service					
Public Water Works	20.20%	23.63%	96.82%	27.67%	28.01%
Har Ghar Nal	-	-	-	-	-
Low Tension Industrial					
LTIS I (0-19 kW)	42.12%	41.47%	51.50%	30.64%	27.47%
LTIS II (>19 kW - 74 kW)	13.83%	-1.03%	11.37%	18.35%	20.59%
High Tension					
HTS I - 11 kV	18.13%	15.43%	18.06%	19.98%	11.96%
HTS II - 33 kV	13.90%	16.47%	22.54%	19.90%	17.95%
HTS III -132 kV	8.45%	10.67%	14.47%	0.00%	-25.00%
HTS IV - 33/11 Kv	5.92%	7.46%	-7.17%	-10.56%	-20.00%
Railway Traction Services	0.00%	0.00%	-17.02%	-29.29%	-50.00%
Total	24.58%	21.46%	19.02%	22.43%	10.06%

Table 147: CAGR for number of consumers over past 5 financial for SBPDCL for FY 2020-21

Category	5-year CAGR	4-year CAGR	3-year CAGR	2-year CAGR	YoY Growth
Domestic					
Kutir Jyoti	28.79%	29.45%	21.27%	18.70%	4.34%
Domestic Rural (DS-I)	26.51%	22.43%	21.22%	23.06%	10.61%
Domestic Urban (DS II)	8.68%	8.01%	6.94%	4.34%	1.03%
DS III	-	-	-	-	-
Non-Domestic Service					
NDS I	42.26%	35.18%	33.49%	38.11%	49.99%
NDS II	13.27%	12.82%	11.86%	10.63%	5.70%

Category	5-year CAGR	4-year CAGR	3-year CAGR	2-year CAGR	YoY Growth
CD <0.5 kW	13.27%	12.82%	11.87%	10.63%	21.77%
CD >0.5 kW	13.27%	12.82%	11.86%	10.63%	5.28%
Street Light Services					
SS II	27.80%	22.85%	24.67%	18.95%	18.41%
S I	40.37%	40.50%	25.77%	27.03%	6.97%
Irrigation & Allied					
IAS I	38.09%	39.05%	17.83%	21.35%	58.24%
IAS II	12.19%	15.46%	-0.29%	-2.39%	1.76%
Public Service					
Public Water Works	23.88%	30.70%	23.59%	20.58%	6.70%
Har Ghar Nal	-	-	-	-	-
Low Tension Industrial					
LTIS I (0-19 kW)	40.68%	45.93%	31.53%	12.63%	10.08%
LTIS II (>19 kW - 74 KW)	26.69%	20.74%	18.89%	8.35%	6.61%
High Tension					
HTS I - 11 kV	12.15%	17.04%	12.76%	10.22%	6.41%
HTS II - 33 kV	12.17%	10.44%	8.18%	6.97%	6.25%
HTS III -132 kV	5.92%	7.46%	10.06%	-10.56%	0.00%
HTS IV - 33/11 Kv	1.49%	0.00%	2.50%	3.77%	7.69%
Railway Traction Services	-41.82%	-49.19%	-59.45%	-74.18%	-66.67%
Total	20.96%	19.80%	16.89%	16.24%	7.21%

5.2.11. From the above, the Commission observes that there is no fixed pattern in growth rate among the categories. The Commission therefore opines that the Discoms are in best position to estimate the growth in number of consumers. Hence, the Commission has provisionally considered the submission of Discoms in this regard. Based on above, the Commission has considered the same growth rate as requested by the Discoms and projected the number of consumers for each consumer category for APR of FY 2020-21 is as shown in the Table below:

Table 148: Number of Consumers approved for NBPDCCL and SBPDCL for FY 2020-21

Category	NBPDCCL		SBPDCL	
	Number of Consumer projected by petitioner for FY 2020-21	Number of Consumer as Approved by Commission	Number of Consumer projected for FY 2020-21	Number of Consumer as Approved by Commission
Domestic	98,41,686	98,41,686	52,83,517	52,83,517
Kutir Jyoti	41,47,841	41,47,841	15,44,384	15,44,384
Domestic Rural (DS-I)	44,54,673	44,54,673	24,12,801	24,12,801
Domestic Urban (DS II)	12,39,106	12,39,106	13,26,157	13,26,157
DS III	65	65	174	174
Non-Domestic Service	5,88,413	5,88,413	4,46,230	4,46,230

Category	NBPDC		SBPDCL	
	Number of Consumer projected by petitioner for FY 2020-21	Number of Consumer as Approved by Commission	Number of Consumer projected for FY 2020-21	Number of Consumer as Approved by Commission
Non-Domestic (NDS I)	2,41,949	2,41,949	1,16,786	1,16,786
Non-Domestic (NDS II)	3,46,464	3,46,464	3,29,444	3,29,444
Contract Demand <0.5	1,297	1,297	8,127	8,127
Contract Demand >0.5	3,45,168	3,45,168	3,21,318	3,21,318
Street Light Services	1,160	1,160	1,445	1,445
Streetlight I	357	357	852	852
Streetlight II	804	804	593	593
Irrigation & Allied	1,03,332	1,03,332	2,50,185	2,50,185
IAS I	96,997	96,997	2,44,900	2,44,900
IAS II	6,335	6,335	5,286	5,286
Public Service	23,122	23,122	13,080	13,080
Public Water Works	1,564	1,564	2,780	2,780
Har Ghar Nal	21,558	21,558	10,300	10,300
Low Tension Industrial	49,230	49,230	56,159	56,159
LTIS I (0-19 kW)	48,040	48,040	52,342	52,342
LTIS II (>19 kW - 74	1,190	1,190	3,817	3,817
High Tension	1,120	1,120	1,855	1,855
HTS I - 11 kV	1,072	1,072	1,706	1,706
HTS II - 33 kV	42	42	131	131
HTS III -132 kV	3	3	5	5
HTS IV - 220 kV	-	-	-	-
HTS IV - 33/11 Kv	4	4	13	13
Railway Traction	3	3	1	1
Total	10,608,069	10,608,069	60,52,472	60,52,472

Connected Load

5.2.12. The Petitioners have submitted that the category-wise connected load is calculated considering average connected load per consumer as per actual, CAGR of past years and multiplying it by projected number of consumers to arrive at the connected load.

5.2.13. The Commission has cross verified the detailed computation of connected load as submitted by the Discoms and found them to be in order. Accordingly, the Commission has approved the Connected load in review of FY 2020-21 as shown in the Table below:

Table 149: Connected Load approved for FY 2020-21 (kW)

Category	NBPDC		SBPDCL	
	Connected load projected for FY 2020-21 (kW)	Connected Load as Approved by Commission	Connected load projected for FY 2020-21 (kW)	Connected Load as Approved by Commission
Domestic	6,939,136	6,939,136	6,585,191	6,585,191
Kutir Jyoti	632,117	632,117	211,243	211,243
Domestic Rural	4,750,293	4,750,293	2,560,212	2,560,212
Domestic Urban	1,556,604	1,556,604	31,813,442	31,813,442
DS III	122	122	294	294
Non-Domestic	1,109,255	1,109,255	1,270,791	1,270,791
Non-Domestic	268,758	268,758	167,438	167,438
Non-Domestic	840,496	840,496	1,103,353	1,103,353
Contract Demand	838	838	3,683	3,683
Contract Demand	839,658	839,658	1,099,670	1,099,670
Street Light Services	20,545	20,545	19,912	19,912
Streetlight I	3,258	3,258	6,548	6,548
Streetlight II	17,287	17,287	13,364	13,364
Irrigation & Allied	302,448	302,448	712,718	712,718
IAS I	243,709	243,709	624,417	624,417
IAS II	58,739	58,739	88,301	88,301
Public Service	73,293	73,293	70,360	70,360
Public Water Works	21,968	21,968	34,405	34,405
Har Ghar Nal	51,325	51,325	35955	35955
Low Tension	487,402	487,402	607,701	607,701
LTIS I (0-19 kW)	429,245	429,245	426,282	426,282
LTIS II (>19 kW -	58,157	58,157	181,418	181,418
High Tension	347,589	347,589	762,500	762,500
HTS I - 11 kV	224,316	224,316	350,022	350,022
HTS II - 33 kV	67,886	67,886	247,756	247,756
HTS III -132 kV	43,349	43,349	31,827	31,827
HTS IV - 220 kV	-	-	-	-
HTS IV - 33/11 Kv	12,037	12,037	132,896	132,896
Railway Traction	23,407	23,407	9000	9000
Nepal				
Total	93,03,074	93,03,074	10,038,173	10,038,173

Energy Sales

5.2.14. The Commission notes that the Petitioner have projected category-wise sales for a year by taking average consumption per consumer per month and multiplying the same to the projected number of consumers. The Commission also notes the submission of the Petitioner wherein they have mentioned that the forecast for FY 2020-21 is based on expected growth relationships to income and price, effect of Demand Side Management

and impact of hours of service.

5.2.15. For the purpose of estimation of sales for FY 2020-21, the Commission finds the methodology considered by the Petitioners is acceptable. The Commission has verified the detailed working of sales projections as submitted by Discoms and found them to be in order. Accordingly, the Commission approves sales (MU) for FY 2020-21 as shown in Table below:

Table 150: Sales approved for NBPDC and SBPDCL for FY 2020-21 (RE) (MU)

Category	NBPDC		SBPDCL	
	Sales projected for FY 2020-21 (MU)	Sales as Approved by Commission	Sales projected for FY 2020-21 (MU)	Sales as Approved by Commission
Domestic	7,982.29	7,982.29	7,585.91	7,585.91
Kutir Jyoti	2,648.30	2,648.30	1,219.16	1,219.16
Domestic Rural (DS-I)	3,649.45	3,649.45	3,218.01	3,218.01
Domestic Urban (DS II)	1,684.51	1,684.51	3,148.66	3,148.66
DS III	0.03	0.03	0.08	0.08
Non-Domestic Service	1,255.07	1,255.07	1,213.63	1,213.63
Non-Domestic (NDS I)	189.96	189.96	309.55	309.55
Non-Domestic (NDS II)	1,065.11	1,065.11	904.08	904.08
Contract Demand <0.5 kW	2.08	2.08	5.34	5.34
Contract Demand >0.5 kW	1,063.03	1,063.03	898.74	898.74
Street Light Services	38.79	38.79	71.53	71.53
Streetlight I	6.91	6.91	14.71	14.71
Streetlight II	31.88	31.88	56.82	56.82
Irrigation & Allied Services	149.07	149.07	599.80	599.80
IAS I	122.56	122.56	520.82	520.82
IAS II	26.52	26.52	78.98	78.98
Public Service Connections	91.55	91.55	139.31	139.31
Public Water Works	21.74	21.74	87.36	87.36
Har Ghar Nal	69.81	69.81	51.95	51.95
Low Tension Industrial Services	320.55	320.55	455.74	455.74
LTIS I (0-19 kW)	273.26	273.26	341.97	341.97
LTIS II (>19 kW - 74 kW)	47.29	47.29	113.76	113.76
High Tension	528.93	528.93	1997.03	1997.03
HTS I - 11 kV	332.14	332.14	598.84	598.84
HTS II - 33 kV	111.67	111.67	443.05	443.05
HTS III -132 kV	37.30	37.30	217.43	217.43
HTS IV - 220 kV	-	-	-	-
HTS IV - 33/11 Kv	47.83	47.83	737.72	737.72
Railway Traction Services	72.04	72.04	60.49	60.49
Nepal	151.61	151.61	-	-
Total	10,589.92	10,589.92	12,123.43	12,123.43

5.3. Distribution losses

NBPDCCL & SBPDCL's Submission:

- 5.3.1. Petitioner submitted that in a letter to Ministry of Power in July 2019, they have expressed their inability to achieve the losses of 15% as agreed under UDAY. Petitioners further stated that difference between the loss target and the actual loss levels is practically impossible to achieve in the given period, and therefore this shall add on to the burden of the DISCOM. Petitioner also requested the Commission to see the growth rates in consumer base of Discoms and consider the challenging operating scenario of the Petitioner wherein most consumers being added are in rural and remote areas further adding to network losses, ongoing measures, and regulatory precedents to approve the distribution loss for FY 2020-21.
- 5.3.2. Accordingly, the Petitioners submitted that due to addition in the number of consumers, especially in rural and remote areas, it is expected the they may not be able to achieve the target for distribution loss. Accordingly, Petitioners have revised roadmap for Billing efficiency, Collection Efficiency and AT&C losses submitted to Ministry of Power, Govt. of India.
- 5.3.3. The revised roadmap in regard to reduction in AT&C from FY 2020-21 onwards in the State considering the actual as-is situation in the State is shown in Table below:

Table 151: Revised AT&C Loss Road Map, as submitted by Discoms

S. no.	Particular	Distribution loss road map of NBPDCCL	Distribution loss road map of SBPDCL
1	FY 2020-21 (Projected)	29.90%	39.00%
2	FY 2021-22 (Projected)	25.50%	34.00%
3	FY 2022-23 (Projected)	23.00%	29.00%
4	FY 2023-24 (Projected)	18.00%	23.00%

- 5.3.4. Petitioner also submitted that during the COVID 19, the Metering, Billing and Collection (MBC) operations, which is mostly handled through manual interventions, has been severely hampered. With limited off-take requirements from DISCOMS, the supply side has been impacted which is devastating for the entire value chain. Impact of which is not only limited to present year but would also have a cascading effect for next 1-2 years. The demand has gone down and even the infrastructure as created under different schemes are underutilized. Accordingly, the Petitioners has requested to consider the below revised projections as shown in Table below:

Table 152: Revised Distribution loss, Billing Efficiency and AT&C losses projected by NBPDCCL & SBPDCL for FY 2020-21

S. no.	Particular	NBPDCCL		SBPDCL	
		Approved in MYT Order for FY 2020-21	Projected in APR for FY 2020-21	Approved in MYT Order for FY 2020-21	Projected in APR for FY 2020-21
1	Distribution loss	15%	21.00%	15%	24%
2	Collection efficiency	100%	88.70%	100%	80%
3	AT&C Losses	15%	29.90%	15%	39%

Commission Analysis:

- 5.3.5. The Commission in previous Tariff proceedings have held that the distribution loss is a controllable parameter and it is the responsibility of the Distribution Licensee to take appropriate effective steps to bring down the distribution loss to the approved levels. Further, in this connection, the Commission had given a number of directives to improve the performance of distribution licensees, which if implemented in true spirit, should have brought down the Distribution loss level considerably.
- 5.3.6. The Commission further notes that the Government of Bihar and the Discoms had signed a tripartite Memorandum of Understanding (MoU) of Ujwal Discom Assurance Yojna (UDAY) with the Ministry of Power, Government of India on 22 February, 2016 wherein the Petitioners have agreed to reduce the AT&C losses and achieve 15% of AT&C losses by FY 2019-20. Based on the UDAY agreement and in line with the Hon'ble APTEL Judgement in Appeal No. 141 of 2016 dated 25 November, 2016, the Commission had revised the Distribution loss trajectory for second control Period and for FY 2019-20 as shown in the Table below:

Table 153: Distribution Loss Trajectory approved in MYT Order dated 25 February, 2019

Distribution Loss	FY 2017-18	FY 2018-19	FY 2019-20
NBPDCCL			
Earlier approved vide T.O. dated 21.03.2016	17.50%	16.25%	15.00%
Revised in Order dated 24.03.2017	24%	20%	15.00%
SBPDCL			
Earlier approved vide T.O. dated 21.03.2016	17.50%	16.25%	15.00%
Revised in Order dated 24.03.2017	30%	22%	15.00%

- 5.3.7. Further, the Commission in its MYT Order based on the Petitioner submission has retained the distribution loss level for the Control Period FY 2019-20 to FY 2021-22 as 15%, i.e., at same level as agreed under UDAY for FY 2019-20.
- 5.3.8. Subsequently, the Petitioner vide its previous Petition have again sought for revision in approved losses, however, the Commission in its Tariff Order for FY 2020-21, had retained the distribution loss target for FY 2020-21 for NBPDCCL and SBPDCL at the same level as approved in MYT Order. The relevant extract of the said is reproduced below:
- “The Commission does not deem it prudent and appropriate to revise the distribution loss trajectory time and again in the interest of operational efficiency of the Discoms and consumers’ interest. Therefore, the Commission decides to retain the Distribution loss for the Discoms for FY 2020-21 at 15% as shown in the table 6.9 below.”*
- 5.3.9. The Commission opines that it has already undertaken upward revision of distribution loss target for the Petitioners for FY 2017-18 to FY 2019-20. However, the Discoms have failed to achieve the same. Further, in MYT Order for FY 2019-20 to FY 2021-22, the Commission had retained the distribution loss trajectory for the Control Period at 15% in line with the Discoms submission, which has also not been achieved by the Discoms. The Petitioners have already been given a sufficient opportunity to reduce their actual distribution losses below specified targets. Therefore, the Commission does not find any merit in further reducing the distribution loss target. It is the responsibility of the Discoms to achieve the agreed distribution loss target.
- 5.3.10. Therefore, the Commission decides to retain the Distribution loss for the Discoms for FY 2020-21 at 15% as for the purpose of Energy Balance as shown in the Table below:

Table 154: Distribution Loss Approved for Discoms for FY 2020-21

Name of DISCOM	Approved in Tariff Order dated 1.04.2020	Projected in the Petition for FY 2020-21	Approved by the Commission for FY 2020-21
NBPDCCL	15%	21%	15%
SBPDCL	15%	24%	15%

- 5.3.11. **Collection Efficiency:** As per UDAY scheme, the Discoms have agreed to achieve the collection efficiency of 100% in FY 2019-20. The Commission has approved 100% collection efficiency for FY 2019-20 for the Discoms in the MYT Order dated 25 February 2019 and retains the same for the Control Period FY 2019-20 to FY 2021-22 at 100%. Therefore, the collection efficiency is retained at 100% for FY 2020-21 (RE) against SBPDCL’s claim of 80% and NBPDCCL’s claim of 88.70%.
- 5.3.12. **AT&C Loss:** In the Tariff Petition for FY 2019-20 the Discoms have submitted that they are endeavouring to bring down AT&C loss to below 15% by FY 2019-20. From the UDAY MoU, the Commission has also noted that the AT&C loss target for FY 2019

20 is agreed by the Discoms at 15%. The Commission had approved the AT&C losses for the Discoms for FY 2019-20 at 15% in the MYT Order dated 25 February 2019. Therefore, the AT&C loss is retained at 15% for FY 2020-21 (RE). The Distribution Loss, Collection Efficiency and AT&C loss as considered by the Commission in review of FY 2020-21 is shown in the Table below:

Table 155: Distribution Loss, Collection Efficiency and AT&C Loss for FY 2020-21 (RE)

Particulars	NBPDCCL		SBPDCL	
	Projected in the Petition for FY 2020-21	Approved by the Commission for FY 2020-21	Projected in the Petition for FY 2020-21	Approved by the Commission for FY 2020-21
Distribution	21%	15%	24%	15%
Collection Efficiency	88.70%	100%	80%	100%
AT&C Loss	29.90%	15%	39%	15%

5.4. Transmission Losses

NBPDCCL & SBPDCL's Submission:

- 5.4.1. The Petitioner has considered Transmission Loss of 3.00% as approved by the Commission in its previous Tariff Order as the State transmission loss. The basis for this figure is the approved normative loss, as the actual loss incurred during the period between April 2020 and September 2020 is still in the process of getting reconciled.

Commission Analysis

- 5.4.2. The Commission observes that, Petitioners claim of Transmission Loss of 3% is in line to the approved Transmission Loss of BSPTCL for FY 2020-21 as approved in Tariff Order dated 17 March, 2021. Thus, Commission also approves 3% Transmission Loss for FY 2020-21.

5.5. Central Transmission Loss for FY 2020-21

NBPDCCL & SBPDCL's Submission:

- 5.5.1. The Petitioner has considered Transmission Loss of 1.73% as per latest 52 weeks moving average <https://erldc.in/market-operation/52weeksloss/> and accordingly requests the Commission to consider the same.

Commission Analysis

- 5.5.2. The Commission considers the CTU loss at 1.73% for FY 2020-21 (RE) as proposed by the Petitioners.

5.6. Energy Balance for FY 2020-21

NBDCL & SBPDCL's Submission:

- 5.6.1. Based on above discussed elements such as sales, losses & power availability, the revised projected energy balance for FY 2020-21 is as under:

Table 156: Energy balance projected by NBDCL & SBPDCL for FY 2020-21

S. No.	Particular	Unit	NBDCL	SBPDCL
			Projected for FY 2020-21	Projected for FY 2020-21
A	Energy Requirement			
1.	Energy Sales	MUs	10,589.92	12,123.43
2.	Less: Inter-State Sales	MUs	151.61	-
3.	Energy sales excluding Inter-State sales	MUs	10,438.30	12,123.43
4.	Distribution Loss	%	21.00%	24.00%
5.	Add: Distribution loss	MUs	2,774.74	3,828.45
6.	Energy Requirement at Distribution periphery	MUs	13,213.04	15,951.87
7.	Add: Inter-State sales	MUs	151.61	-
8.	Total Energy Requirement at Distribution periphery	MUs	13,364.65	15,951.87
9.	State Transmission Loss	%	3.00%	3.00%
10.	Add: State Transmission Loss	MUs	413.34	493.36
11.	Total Energy Required at STU periphery	MUs	13,777.99	16,445.23
B	Energy Availability			
12.	From Central Sector	MUs	11,643.92	13,703.67
13.	From IPPs	MUs	1,398.21	1,644.83
14.	From State Generating Stations	Mus	789.41	929.61
15.	From Renewable Sources	MUs	887.53	1,045.94
16.	UI (net)	MUs	-	-
17.	Other Power Purchase	MUs	570.16	669.98
18.	CTU Loss	%	1.73%	1.73%
19.	Add: CTU Loss	MUs	225.63	265.53
20.	Net Power Available at State Periphery	MUs	15,063.60	17,728.51
21.	Energy Surplus/ (Deficit at State Periphery)	MUs	1,285.61	1,283.28

Commission Analysis

- 5.6.2. The Energy Balance for FY 2020-21 has been computed based on the approved energy sales in Table for FY 2020-21 in this year.

- 5.6.3. SBPDCL has not projected any inter-State sales for FY 2020-21, hence, the Commission has also not considered any interstate sales for FY 2020-21. Distribution loss has been considered as 15% as approved by the Commission for FY 2020-21.
- 5.6.4. Further, Energy required at State transmission periphery is computed based on the intra-State Transmission loss of 3% as approved in paras above. The Central Transmission loss on Central station, IPPs, etc has been arrived based on the CTU losses approved as 1.73% in paras above.
- 5.6.5. The Commission observed that the Discoms have projected higher power purchase requirement for FY 2020-21 resulting in surplus energy availability at State periphery. Although the Commission has noted that the total energy availability for discoms, it has considered power purchase quantum wherein the power purchase quantum is reduced to the approved requirement at the regional periphery duly following Merit Order Principle (MOD). The surplus power available to discoms after satisfying the approved requirement has been dealt separately.
- 5.6.6. The details of energy requirement and energy availability during FY 2020-21 is Computed in below:

Table 157: Energy Balance for FY 2020-21 as considered by the Commission

Sr No	Particulars	Unit	NBPDC	SBPDCL
			FY 2020-21	FY 2020-21
A	Energy Requirement			
1	Energy sales	MU	10,589.92	12,123.43
2	Less: Inter-state sales	MU	151.61	-
3	Energy sales excluding Inter-state sales	MU	10,438.30	12,123.43
4	Distribution Loss	%	15.00%	15.00%
5	Add: Distribution Loss	MU	1,842.05	2,139.43
6	Total energy required at Distribution periphery	MU	12,280.36	14,262.86
7	Add: Inter-state sales	MU		
8	Total energy required at Distribution periphery	MU	12,280.36	14,262.86
9	State Transmission Loss	%	3.00%	3.00%
10	Add: State Transmission Loss	MU	379.80	441.12
11	Total energy required at State Transmission Periphery	MU	12,660.16	14,703.98
7	Add: Inter-state sales	MU	151.61	
			12,811.77	14,703.98
B	Energy Available			
1	From Central Sector	MU	10,714.99	12,228.95
2	From IPP	MU	1,398.21	1,644.83
3	From State Generating Stations	MU	20.61	24.28
4	From Renewable Sources	MU	887.53	1,045.94
5	UI (Net)	MU	-	-

Sr No	Particulars	Unit	NBPDC	SBPDCL
			FY 2020-21	FY 2020-21
6	Others (please specify)	MU	-	
7	CTU losses	%	1.73%	1.73%
8	CTU Losses	MU	209.56	240.02
9	Net power available at State periphery (1+2+3+4+5+6-8)	MU	12,811.77	14,703.98
C	Energy Surplus/(Deficit) at State Periphery	MU	-	-

5.7. Power Purchase Expenses for FY 2020-21

NBPDC & SBPDCL's Submission:

Power Purchase Quantum

- 5.7.1. Petitioners submitted that, it has to rely on allocation from central generating stations and state projects for procuring power for sale in the state. Bihar State Power Holding Company Ltd (BSPHCL) issued vide its Resolution No.55-10 dated 14 July 2017 for approval regarding distribution of power purchase agreement between NBPDC and SBPDCL. Accordingly, power purchased has been allocated between DISCOMs in proportion to 46:54 as determined by the board resolution. Petitioner has also submitted the above-mentioned board resolution regarding power sharing ratio between DISCOM.
- 5.7.2. For projecting the Power Purchase Quantum for FY 2020-21, The Petitioner has considered the actual Power Purchase quantum for the period April to June 2020.
- 5.7.3. **NHPC, NTPC & PTC:** The power purchase for existing sources has been NTPC, NHPC and PTC has been considered based on the 24 X 7 Power for All (PFA) projection and recent trends of the power plant. The power purchase is further segregated into NBPDC and SBPDCL as per allocation ratio.
- 5.7.4. **Medium/Short Term Sources:** The power purchase from these sources are namely GMR Kamalanga and PTC. An agreement with PTC and PFCCL is executed under pilot scheme for medium term through PFC consulting limited as Nodal agency and PTC India Limited as an aggregator for 200 MW.
- 5.7.5. The Petitioner shall purchase power through short term from MSTC (DEEP Portal/IEX) during the year in any financial year where the quantum and rate of this short term power purchase shall be within the limit of total quantum and rate of power purchase approved by the Commission.
- 5.7.6. **New Sources:** The power purchase for the new sources has been considered based on the commissioning status received from generators and CEA reports. Further the allocation of power from the new projects is in the ratio of 46:54 for NBPDC & SBPDCL as per the board resolution.

- 5.7.7. As per the communication from SECI, part capacities from Phase – III (100 MW) Wind and Phase – V (175 MW) wind are expected to commercially operationalize from December 2020. Accordingly, power purchase has been projected from the said plants
- 5.7.8. **Open Market Purchase:** Petitioner is currently procuring power from IEX, DB power, GMR ETL and TATA ETL on the basis of Demand.
- 5.7.9. Petitioner further, submitted that the PAA with Korba and Talcher had expiring on September 2019 and February 2021 respectively.
- 5.7.10. The Petitioners have considered the actuals data of April 2020 to September 2020. The and added the month wise projections data for the months of October 2020 to March 2021 to arrive at the total power purchase requirement for FY 2020-21. Accordingly, the revised projections of power purchase for FY 2020-21 is Tabulated below:

Table 158: Power purchase projected by NBPDCCL and SBPDCL for FY 2020-21

Name of the Source	NBPDCCL		SBPDCL		Consolidated	
	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)
Central Generating	2,067.90	11,643.92	2,427.53	13,703.67	4,495.43	25,347.59
FSTPP I &II	231.09	1,219.54	271.28	1,435.60	502.37	2,655.14
FSTPP III	49.49	291.99	58.10	343.62	107.59	635.61
KHSTPP I	161.74	954.43	189.87	1,123.42	351.61	2,077.85
KHSTPP II	34.36	191.26	40.34	225.16	74.70	416.42
Barh Stage II	550.95	2,868.41	646.77	3,376.30	1,197.72	6,244.71
BRBCL Unit I – III	34.50	148.91	40.50	175.27	75.00	324.18
Talcher Stage I	189.73	1,322.74	222.73	1,556.82	412.46	2,879.56
KBUNL Stage II	134.50	554.11	157.89	651.90	292.39	1,206.01
NPGCL Unit I	257.35	1,793.29	302.11	2,110.61	559.46	3,903.90
Darlipali STPS Unit I	43.64	176.60	51.24	207.87	94.88	384.47
Darlipali STPS Unit II	43.64	86.94	51.24	102.62	94.88	189.56
Chuka	36.80	308.25	43.20	362.50	80.00	670.75
Rangit	9.66	56.01	11.34	65.92	21.00	121.93
Tala	118.45	557.80	139.05	656.28	257.50	1,214.08
Teesta	49.88	323.83	58.55	381.02	108.43	704.85
Mangdechu	122.11	656.08	143.35	771.76	265.46	1,427.84
Banking (RUVNL)	-	133.74			0.00	133.74
State Generating	291.78	789.41	342.52	929.61	634.30	1,719.02
BSPHC	24.98	20.61	29.32	24.28	54.30	44.89
KBUNL Stage I	101.20	183.87	118.80	216.91	220.00	400.78
BTPS Stage I Unit I	50.60	93.00	59.40	109.71	110.00	202.71
BTPS Stage II Unit I	115.00	491.94	135.00	578.71	250.00	1,070.65

Name of the Source	NBDCL		SBPDCL		Consolidated	
	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)
IPPs	224.48	1,398.21	263.52	1,644.83	488.00	3,043.04
GMR	119.60	755.25	140.40	888.70	260.00	1,643.95
JITPL	104.88	642.96	123.12	756.13	228.00	1,399.09
Renewables	472.14	887.53	554.26	1,045.94	1,026.40	1,933.47
Sunmark Energy	4.60	7.31	5.40	8.61	10.00	15.92
Response renewable	4.60	7.14	5.40	8.40	10.00	15.54
Avantika Contractors	2.30	3.48	2.70	4.10	5.00	7.58
Glatt Solutions Pvt Ltd	1.38	1.95	1.62	2.29	3.00	4.24
Alfa Infracorp Pvt Ltd	9.20	14.53	10.80	17.11	20.00	31.64
Udipta Energy &	2.30	3.41	2.70	4.01	5.00	7.42
Azure Power India Pvt	4.60	6.41	5.40	7.55	10.00	13.96
Welspun Renewables	4.60	7.34	5.40	8.64	10.00	15.98
Welspun Renewables	6.90	10.94	8.10	12.88	15.00	23.82
Welspun Renewables	6.90	11.02	8.10	12.98	15.00	24.00
Acme Cleantech Project	6.90	10.58	8.10	12.45	15.00	23.03
Acme Cleantech Project	4.60	7.21	5.40	8.49	10.00	15.70
Solar Energy	4.60	8.01	5.40	9.42	10.00	17.43
Wind ISTS Scheme	92.00	214.48	108.00	252.47	200.00	466.95
Wind ISTS Scheme	46.00	140.68	54.00	165.55	100.00	306.23
SECI Green Infra	46.00	122.72	54.00	144.47	100.00	267.19
Torrent Power	22.91	3.29	26.89	3.86	49.80	7.15
Adani Green	23.00	17.57	27.00	20.84	50.00	38.41
Alfanar	23.00	15.94	27.00	18.92	50.00	34.86
Betam	23.09	78.27	27.11	92.12	50.20	170.39
Boreas Renewable	80.50	68.39	94.50	81.09	175.00	149.48
New Swadeshi Sugar	4.60	10.66	5.40	12.58	10.00	23.24
Hasanpur Sugar Mill	6.67	14.66	7.83	17.31	14.50	31.97
Bharat Sugar Mills	6.90	15.04	8.10	17.76	15.00	32.80
Hari Nagar Sugar Mills	6.67	16.73	7.83	19.73	14.50	36.46
HPCL Biofuels Ltd,	9.20	20.20	10.80	23.84	20.00	44.04
HPCL Biofuels Ltd,	9.20	20.14	10.80	23.78	20.00	43.92
Riga Sugar Company	1.38	3.00	1.62	3.55	3.00	6.55
Siddhashram Rice Mill	0.46	1.83	0.54	2.15	1.00	3.98
Bihar Distillers &	4.32	17.95	5.08	21.17	9.40	39.12
Tirupati Sugar	2.76	6.64	3.24	7.83	6.00	14.47
Others	110.00	570.16	59.40	669.98	169.40	1,240.14
PTC(IEX)	-	300.54	-	352.80	-	653.34
PTC JITPL	68.75	177.39	37.13	208.64	105.88	386.03
PTC SKS Power	41.25	92.24	22.28	108.53	63.53	200.77

Name of the Source	NBPDC		SBPDCL		Consolidated	
	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)	Share Allocated (MW)	Unit Purchased (MUs)
Total	3,166.30	15289.23	3,647.23	17994.04	6,813.53	33,283.27

Power Purchase Cost

5.7.11. The Petitioner submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two-part Tariff stations i.e. NTPC, NHPC & PTC. For projecting power purchase cost petitioner has adopted following methodology:

- (i) Petitioner has considered the new plants as per information available with the Petitioner. The new plants for which cost details are not available, the cost break-up of similar capacity plants has been considered for projection.
- (ii) The power purchase cost projections have been undertaken by considering the average of actual fixed cost and fuel costs respectively for the previous 6 months.

5.7.12. Power purchase cost projection submitted by NSPDCL and SBPDCL for APR period FY 2020-21 is summarized shown in Table below:

Table 159: Power Purchase Cost projected by NBPDC for FY 2020-21

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Avg. Cost
Central Generating Stations	2,067.90	11,643.92	1,884.47	2,792.28	30.4	4,707.16	4.04
<i>FSTPP I & II</i>	231.09	1,219.54	132.43	336.89	9.25	478.57	3.92
<i>FSTPP III</i>	49.49	291.99	46.97	79.49	0.19	126.64	4.34
<i>KHSTPP I</i>	161.74	954.43	108.31	209.04	0.08	317.43	3.33
<i>KHSTPP II</i>	34.36	191.26	21.05	39.67	0.02	60.73	3.18
<i>Barh Stage II</i>	550.95	2,868.41	691.48	769.62	12.46	1,473.56	5.14
<i>Nabinagar (BRBCL) Unit I - III</i>	34.5	148.91	54.4	36.2	0.02	90.62	6.09
<i>Talcher Stage I</i>	189.73	1,322.74	119.05	266.61	5.41	391.07	2.96
<i>KBUNL Stage II</i>	134.5	554.11	182.89	149.37	2.32	334.58	6.04
<i>NPGCL Unit I</i>	257.35	1,793.29	431.2	360.23	0.16	791.59	4.41
<i>Darlipali STPS Unit I</i>	43.64	176.6	38.28	18.37	0.48	57.12	3.23
<i>Darlipali STPS Unit II</i>	43.64	86.94	18.84	9.04	-	27.89	3.21
<i>Chuka</i>	36.8	308.25	-	74.03	-	74.03	2.4
<i>Rangit</i>	9.66	56.01	10.38	10.67	0.01	21.05	3.76
<i>Tala</i>	118.45	557.8	-	120.49	-	120.49	2.16
<i>Teesta</i>	49.88	323.83	29.2	37.66	0.03	66.89	2.07
<i>Mangdechu</i>	122.11	656.08	-	274.9	-	274.9	4.19
<i>Banking (RUVNL)</i>	-	133.7386	-	-	-	-	-
						-	
State Generating Stations	291.78	789.41	284.7	234.41	39.94	559.05	7.08
<i>BSPHC</i>	24.98	20.61	-	4.96	-	4.96	2.41
<i>KBUNL Stage I</i>	101.2	183.87	90.63	61.44	-	152.06	8.27

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Avg. Cost
<i>BTPS Stage I Unit I</i>	50.6	93	41.91	29.35	39.9	111.15	11.95
<i>BTPS Stage II Unit I</i>	115	491.94	152.16	138.66	0.05	290.87	5.91
						-	
IPPs	224.48	1,398.21	320.92	160.49	47.57	528.98	3.78
<i>GMR</i>	119.6	755.25	141.27	90.4	56.24	287.91	3.81
<i>JITPL</i>	104.88	642.96	179.65	70.08	-8.67	241.07	3.75
						-	
Renewables	472.14	887.53	-	337.29	-	337.29	3.8
<i>M/s Sunmark Energy Projects Limited (Formerly MBCEL)</i>	4.6	7.31	-	4.15	-	4.15	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	4.6	7.14	-	4.05	-	4.05	5.67
<i>M/s Avantika Contractors Ltd., Hyderabad</i>	2.3	3.48	-	2.68	-	2.68	7.69
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	1.38	1.95	-	1.1	-	1.1	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	9.2	14.53	-	11.44	-	11.44	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	2.3	3.41	-	2.72	-	2.72	7.98
<i>Azure Power India Pvt. Ltd.</i>	4.6	6.41	-	5.38	-	5.38	8.39
<i>Welspun Renewables Project - I</i>	4.6	7.34	-	6.39	-	6.39	8.7
<i>Welspun Renewables Project – II</i>	6.9	10.94	-	9.45	-	9.45	8.64
<i>Welspun Renewables Project – III</i>	6.9	11.02	-	9.44	-	9.44	8.56
<i>Acme Cleantech Project (Nalanda)</i>	6.9	10.58	-	9.23	-	9.23	8.73
<i>Acme Cleantech Project (Magadh)</i>	4.6	7.21	-	6.3	-	6.3	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	4.6	8.01	-	4.4	-	4.4	5.5
<i>Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)</i>	92	214.48	-	75.71	-	75.71	3.53
<i>Wind ISTS Scheme Tranche II (SECI) (Orange)</i>	46	140.68	-	38.13	-	38.13	2.71
<i>SECI Green Infra</i>	46	122.72	-	27.18	-	27.18	2.22
<i>Torrent Power</i>	22.91	3.29	-	0.89	-	0.89	2.71
<i>Adani Green</i>	23	17.57	-	4.78	-	4.78	2.72
<i>Alfanar</i>	23	15.94	-	4.32	-	4.32	2.71
<i>Betam</i>	23.09	78.27	-	19.72	-	19.72	2.52
<i>Boreas Renewable</i>	80.5	68.39	-	19.35	-	19.35	2.83
<i>New Swadeshi Sugar Mill, Narkataganj</i>	4.6	10.66	-	5.41	-	5.41	5.08
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	6.67	14.66	-	9.12	-	9.12	6.22
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	6.9	15.04	-	5.3	-	5.3	3.53
<i>Hari Nagar Sugar Mills, Hari</i>	6.67	16.73	-	9.31	-	9.31	5.57

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Avg. Cost
<i>Nagar, West Champaran</i>							
<i>HPCL Biofuels Ltd., Sugauli, East Champaran</i>	9.2	20.2	-	11.24	-	11.24	5.57
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	9.2	20.14	-	11.21	-	11.21	5.57
<i>Riga Sugar Company Ltd.</i>	1.38	3	-	1.88	-	1.88	6.26
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	0.46	1.83	-	1.35	-	1.35	7.39
<i>Bihar Distillers & Bottlers Pvt ltd</i>	4.32	17.95	-	11.42	-	11.42	6.36
<i>Tirupati Sugar</i>	2.76	6.64	-	4.21	-	4.21	6.34
						-	
REC Purchase	-						
						-	
Others	110	570.16	-	199.51	0.11	199.62	3.5
<i>PTC(IEX)</i>	-	300.54	-	96.67	0.11	96.78	3.22
<i>PTC JITPL</i>	68.75	177.39	-	73.53	-	73.53	4.14
<i>PTC SKS Power</i>	41.25	92.24	-	29.31	-	29.31	3.18
						-	
Transmission and Other Charges	-	-	1,119.31	-	-	1,119.31	
<i>SLDC</i>	-	-	2.98	-	-	2.98	
<i>BGCL</i>	-	-	211.69	-	-	211.69	
<i>BSPTCL</i>	-	-	392.63	-	-	392.63	
<i>POSO</i>	-	-	2.3	-	-	2.3	
<i>PGCIL</i>	-	-	509.71	-	-	509.71	
Total	3,166.30	15289.23	3,609.41	3,723.97	118.03	7,451.41	4.87

Table 160: Summary of Power Purchase Cost projected by NBPDC for FY 2020-21

Name of Source	Unit Purchased (MUs)	Fixed Charge (Rs. Crore)	Energy Cost (Rs. Crore)	Miscellaneous Cost (Rs. Crore)	Total Cost (Rs. Crore)	Average Cost (Rs/kWh)
Central Generating	11,643.92	1,884.47	2,792.28	30.40	4,707.16	4.04
State Generating	789.41	284.70	234.41	39.94	559.05	7.08
IPPs	1,398.21	320.92	160.49	47.57	528.98	3.78
Renewables	887.53	-	337.29	-	337.29	3.80
Other Sources	570.16	-	199.51	0.11	199.62	3.50
Transmission and		1,119.31	-			-
Total	15,289.23	3,609.41	3,723.97	118.03	7,451.41	4.87

Table 161: Power Purchase Cost projected by SBPDCL for FY 2020-21

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
Central	2,427.53	13,703.67	2218.037	3286.23	35.79	5540.05	4.04

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Misce-llaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
Generating Stations							
<i>FSTPP I & II</i>	271.27	1,435.60	155.89	396.58	10.88	563.35	3.92
<i>FSTPP III</i>	58.0	343.62	55.27	93.54	0.22	149.03	4.33
<i>KHSTPP I</i>	189.86	1123.42	127.49	246.05	0.09	373.6	3.32
<i>KHSTPP II</i>	40.33	225.16	24.77	46.70	0.02	71.49	3.17
<i>Barh Stage II</i>	646.76	3,376.30	813.91	905.89	14.66	1734.47	5.13
<i>Nabinagar (BRBCL) Unit I – III</i>	40.50	175.27	64.03	42.61	0.017	106.6	6.08
<i>Talcher Stage I</i>	222.72	1,556.82	140.11	313.79	6.37	460.2	2.95
<i>KBUNL Stage II</i>	157.89	651.90	215.17	175.73	2.72	393.63	6.03
<i>NPGCL Unit I</i>	302.10	2,110.61	507.50	423.97	0.18	931.66	4.41
<i>Darlipali STPS Unit I</i>	51.23	207.87	45.05	21.62	0.56	67.23	3.23
<i>Darlipali STPS Unit II</i>	51.23	102.62	22.24	10.67	-	32.91	3.20
<i>Chuka</i>	43.20	362.49	-	87.05	-	87.05	2.40
<i>Rangit</i>	11.34	65.92	12.21	12.56	0.007	24.78	3.75
<i>Tala</i>	139.05	656.27	-	141.75	-	141.75	2.16
<i>Teesta</i>	58.55	381.01	34.36	44.31	0.03	78.70	2.06
<i>Mangdechu</i>	143.35	771.75	-	323.36	-	323.36	4.19
<i>Banking (RUVNL)</i>	-	156.99	-	-	-	-	-
						-	
State Generating Stations	342.52	929.61	335.10	276.10	47.12	658.33	7.08
<i>BSPHC</i>	29.32	24.27	0	5.84	0	5.84	2.40
<i>KBUNL Stage I</i>	118.80	216.91	106.74	72.47833	0	179.21	8.26
<i>BTPS Stage I Unit I</i>	59.41	109.70	49.36	34.62371	47.06	131.05	11.94
<i>BTPS Stage II Unit I</i>	135	578.71	179.00	163.1577	0.05	342.21	5.91
IPPs	263.52	1,644.83	377.50	188.79	55.90	622.28	3.78
<i>GMR</i>	140.4	888.70	166.23	106.37	66.18	338.78	3.81
<i>JITPL</i>	123.12	756.12	211.27	82.41	(10.19)	283.49	3.74
Renewables	554.256	1045.944	0	397.47	0	397.47	3.80
<i>M/s Sunmark Energy Projects Limited (Formerly MBCEL)</i>	5.4	8.61	0	4.88	0	4.88	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	5.4	8.40	0	4.76	0	4.76	5.66

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
<i>M/s Avantika Contractors Ltd., Hyderabad</i>	2.7	4.10	0	3.15	0	3.15	7.69
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	1.62	2.29	-	1.30	-	1.30	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	10.8	17.10	-	13.46	-	13.46	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	2.7	4.01	-	3.20	-	3.20	7.98
<i>Azure Power India Pvt. Ltd.</i>	5.4	7.55	-	6.33	-	6.34	8.39
<i>Welspun Renewables Project - I</i>	5.4	8.64	-	7.51	-	7.52	8.7
<i>Welspun Renewables Project - II</i>	8.1	12.87	-	11.12	-	11.13	8.64
<i>Welspun Renewables Project - III</i>	8.1	12.97	-	11.11	-	11.11	8.56
<i>Acme Cleantech Project (Nalanda)</i>	8.1	12.45	-	10.87	-	10.87	8.73
<i>Acme Cleantech Project (Magadh)</i>	5.4	8.49	-	7.42	-	7.42	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	5.4	9.42	-	5.18	-	5.18	5.5
<i>Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)</i>	108	252.47	-	89.12	-	89.12	3.53
<i>Wind ISTS Scheme Tranche II (SECI) (Orange)</i>	54	165.54	-	44.86	-	44.86	2.71
<i>SECI Green Infra</i>	54	144.46	-	32.00	-	32.00	2.21
<i>Torrent Power</i>	26.892	3.86	-	1.05	-	1.05	2.71
<i>Adani Green</i>	27	20.83	-	5.67	-	5.67	2.72
<i>Alfanar</i>	27	18.92	-	5.13	-	5.13	2.71
<i>Betam</i>	27.108	92.11	-	23.21	-	23.21	2.52
<i>Boreas Renewable</i>	94.5	81.09	-	22.95	-	22.95	2.83
<i>New Swadeshi Sugar Mill, Narkataganj</i>	5.4	12.57	-	6.39	-	6.39	5.07
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	7.83	17.30	-	10.76	-	10.76	6.21
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	8.1	17.75	-	6.26	-	6.26	3.52

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy cost (Rs Crs)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost
<i>Hari Nagar Sugar Mills, Hari Nagar, West Champaran</i>	7.83	19.73	-	10.99	-	10.99	5.56
<i>HPCL Biofuels Ltd., Sugauli, East Champaran</i>	10.8	23.83	-	13.27	-	13.27	5.57
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	10.8	23.77	-	13.23	-	13.24	5.57
<i>Riga Sugar Company Ltd.</i>	1.62	3.54	-	2.21	-	2.22	6.26
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	0.54	2.15	-	1.59	-	1.59	7.40
<i>Bihar Distillers & Bottlers Pvt ltd</i>	5.076	21.16	-	13.46	-	13.47	6.36
<i>Tirupati Sugar</i>	3.24	7.83	-	4.96	-	4.97	6.34
Others	59.4	669.98	-	234.45	0.13	234.58	3.50
<i>PTC(IEX)</i>	-	352.80	-	113.48	0.13	113.61	3.22
<i>PTC JITPL</i>	37.13	208.64	-	86.48	-	86.48	4.14
<i>PTC SKS Power</i>	22.28	108.53	-	34.48	-	34.49	3.18
Transmission and Other Charges	-	-	1313.98	-	-	1313.98	-
<i>SLDC</i>	-	-	3.50	-	-	3.50	-
<i>BGCL</i>	-	-	248.51	-	-	248.51	-
<i>BSPTCL</i>	-	-	460.91	-	-	460.91	-
<i>POSO</i>	-	-	2.70	-	-	2.70	-
<i>PGCIL</i>	-	-	598.35	-	-	598.35	-
Total	3,647.23	17994.04	4244.62	4383.06	139.022	8766.71	4.87201

Table 162: Summary of Power Purchase Cost projected by SBPDCL for FY 2020-21

Name of Source	Unit Purchase (MUs)	Fixed Charge (Rs. Crore)	Energy Cost (Rs. Crore)	Miscellaneous Cost (Rs. Crore)	Total Cost (Rs. Crore)	Average Cost (Rs/kWh)
Central Generating	13,703.67	2,218.04	3,286.23	35.79	5,540.05	4.04
State Generating	929.61	335.11	276.11	47.12	658.38	7.08
IPPs	1,644.83	377.50	188.80	55.99	622.29	3.78
Renewables	1,045.94	-	397.47	-	397.47	3.80
Other Sources	669.98	-	234.45	0.13	234.58	3.50
Transmission and	-	1,313.98	-	-	1,313.98	-
Total	17,994.04	4,244.62	4,383.06	139.02	8,766.71	4.87

5.7.13. Petitioner submitted that transmission charges considered based on actual per month

charges billed to the Petitioner by BSPTCL, POSOCO & BGCL in the first six months of FY 2020-21. Accordingly, the transmission and related charges for inter-state as well as intra-state transmission transactions for FY 2020-21 is considered as shown in Table below:

Table 163: Transmission Cost projected by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
Interstate Transmission Charges (Paid to PGCIL, POSOCO/ERLDC, Open Access charges)	1,119.31	1,313.98
Intrastate Transmission Charges (Paid to BSPTCL, BGCL, SLDC)		

Commission Analysis:

Power Purchase quantum

5.7.14. The Commission has compared the power purchase projected by DISCOMs from various sources for FY 2020-21 (RE) with the Power Purchase approved for FY 2020-21 in MYT Order dated 25 February 2019 and in Tariff Order dated 20 March 2020 as detailed in the Table below:

Table 164: Comparison of Power Purchase as claimed by petitioner for FY 2020-21 (MU)

Name of the Discom	Power Purchase approved in T.O. dated 25.02.2019 (MU)	Power Purchase approved in T.O. dated 20.03.2019 (MU)	Power projected in present Petition (MU)
SBPDCL	18040	17487.49	17994.04
NBPDCCL	15989	14896.75	15289.23

5.7.15. The above variations are mainly due to the reasons that in previous Tariff Orders the power purchase requirement for entire year was based on the estimation. Whereas, in APR of FY 2020-21, the same has been determined based on the six month actual data and six month projections in line with the Regulation 14.1 D of the BERC (Multi Year Distribution Tariff) Regulations, 2018.

5.7.16. For Projecting the Power Purchase Quantum for FY 2020-21, The Commission notes that the Petitioners have considered the actual Power Purchase quantum for the period April to September 2020 and projected for remaining months based on the following methodology:

- (i) Share allocation has been considered as per Eastern Regional Power Committee.
- (ii) The Plant Load Factor (PLF) for each plant has been considered as per CEA Report-Monthly/Annual Report for existing conventional plants based on average of average PLF

of last 4 years as applicable and the current six months PLF of FY 2020-21. For new and upcoming plants, the minimum technical level PLF of 55% is considered for projection.

(iii) Normative auxiliary consumption provided by Central Electricity Regulatory Commission (CERC) for the thermal and hydro plants and the auxiliary consumptions specified for plants. For the state plants PLF highest among the PLF norms specified by BERC and the plant wise auxiliary consumption determined by BERC for thermal, and biomass has been considered. For the solar plants highest among the CUF of 19%.

(iv) Considering the PLF as mentioned above and using the power purchase allocation data mentioned in the above table total number of units purchased were calculated from every source/ plant for every month separately.

5.7.17. Based on the same methodology as mentioned above, the Commission has projected the power purchase requirement for FY 2020-21. Further, the Commission has noted from the Energy Requirement based on the power purchase as projected by DISCOMs, there will be a surplus of power available at 1283.27 MU for SBPDCL and at 1285.61 MU for NBPDC. However, as against this the Commission has projected the power purchase quantum wherein the power purchase quantum is reduced to the approved requirement at the regional periphery duly following Merit Order Principle (MOD). Further, the Commission has treated Hydro projects and Renewable generators as Must Run.

5.7.18. The Commission has considered the actual six-month data as submitted by the Petitioner. The power purchase quantum for the remaining six months of FY 2020-21 has been worked out based on the PLF as estimated by the Petitioner and duly following MOD principle as shown in the Table below:

Table 165: Power Purchase quantum considered by the Commission for NBPDC for FY 2020-21 (MU)

Sr No	April 19 to March 20	NBPDC			SBPDCL		
		Units Claimed (MUs)	Unit Considered (MUs)	Surplus Units (MUs)	Units Claimed (MUs)	Unit Considered (MUs)	Surplus Units (MUs)
A							
1	<i>Darlipali STPS Unit I</i>	176.60	176.60		207.87	207.87	
2	<i>Darlipali STPS Unit II</i>	86.94	86.94		102.62	102.62	
3	<i>JITPL</i>	642.96	642.96		756.13	756.13	
4	<i>GMR</i>	755.25	755.25		888.70	888.70	
5	<i>NPGCL Unit I</i>	1793.29	1,793.29		2,110.61	2,110.61	
6	<i>Talcher Stage I</i>	1322.74	1,322.74		1,556.82	1,556.82	
7	<i>KHSTPP II</i>	191.26	191.26		225.16	225.16	
8	<i>KHSTPP I</i>	954.43	954.43		1,123.42	1,123.42	
9	<i>Nabinagar (BRBCL) Unit I - III</i>	148.91	148.91		175.27	175.27	
10	<i>Barh Stage II</i>	2868.41	2,868.41		3,376.30	3,376.30	
11	<i>KBUNL Stage II</i>	554.11	554.11		651.90	651.90	
12	<i>FSTPP III</i>	291.99	291.99		343.62	304.50	39.12
13	<i>FSTPP I & II</i>	1219.54	290.61	928.93	1,435.60		1,435.60

Sr No	April 19 to March 20	NBPDC			SBPDCL		
		Units Claimed (MUs)	Unit Considered (MUs)	Surplus Units (MUs)	Units Claimed (MUs)	Unit Considered (MUs)	Surplus Units (MUs)
14	<i>BTPS Stage II Unit I</i>	491.94		491.94	578.71		578.71
15	<i>BTPS Stage I Unit I</i>	93.00		93.00	109.71		109.71
16	<i>KBUNL Stage I</i>	183.87		183.87	216.91		216.91
17	<i>PTC(IEX)</i>	300.54		300.54	352.80		352.80
18	<i>PTC JITPL</i>	177.39		177.39	208.64		208.64
19	<i>PTC SKS Power</i>	92.24		92.24	108.53		108.53
	Sub Total (A)	12345.38	10077.49	2267.90	14529.35	11479.31	3050.04
	<i>Must-Run Sources</i>						
27	<i>Teesta</i>	323.83	323.83		381.02	381.02	
28	<i>Rangit</i>	56.01	56.01		65.92	65.92	
29	<i>Tala</i>	557.80	557.80		656.28	656.28	
30	<i>Chuka</i>	308.25	308.25		362.50	362.50	
31	BSPHCL	20.61	20.61		24.28	24.28	
32	<i>Mangdechu</i>	656.08	656.08		771.76	771.76	
33	Renewables	887.53	887.53		1,045.94	1045.94	
	Sub-total (B)	2810.11	2810.11		3307.69	3307.69	
C	RUVNL (Banking)	133.74	133.74		157.00	157.00	
D	Total (A+B+C)	15289.23	13021.33	2267.90	17994.04	14944.00	3050.04

Power Purchase cost

5.7.19. The Sources wise analysis is as detailed in the paras below:

Power Purchase from NTPC

5.7.20. The Commission has considered share allocation for NBPDC and SBPDCL from NTPC generating stations as per the share allocated to Bihar from ERPC.

5.7.21. As PPA with Korba has expired in September 19, hence, no power purchase has been considered for projections in FY 2020-21. Also, considering that PPA with Talcher has expired in February 2021. Hence, power purchase from Talcher has been considered only till February 2021.

5.7.22. Auxiliary Energy Consumption of existing generating station has been considered from ERLDC website and for newly commission generating station the same has been considered as claimed by Petitioners.

5.7.23. The power purchase cost has been considered only for required quantum and following Merit Order Dispatch principle as approved in this Order. The fixed charges, variable charges and other charges have been considered as projected by the Petitioners. However, wherever the power purchase quantum has been reduced as deliberated in paras above, energy cost has also been reduced on pro-rata basis.

Power Purchase from IPPs

5.7.24. The sources of IPPs for Discoms include GMR and JITPL. The quantum for these sources has been projected considering the six month actual purchase and historical PLF trend. The power purchase cost has been considered only for required quantum following Merit Order Dispatch principle as approved in this Order. The fixed charges, variable charges and other charges have been considered as projected by the Petitioners.

Power Purchase from State Generating Stations

5.7.25. The sources under State Generating Stations includes KBUNL Stage I, BTPS Stage I Unit I, BTPS Stage II Unit I and BSPHC. The power quantum requirement has been projected considering the six month actual purchase and historical PLF trend duly following the MOD principle. The fixed charges, variable charges and other charges have been considered as projected by the Petitioners. However, wherever the power purchase quantum has been reduced as deliberated in paras above, energy cost has also been reduced on pro-rata basis.

Power Purchase from NHPC and Renewable Generating Stations

5.7.26. The Commission has treated RE sources as must run and has considered power purchase quantum for RE sources as projected by the Petitioners. Further, the fixed cost, energy cost and misc. expenditure has been considered as claimed by Petitioners.

5.7.27. Accordingly, the Commission has Computed quantum and cost of power purchased as shown in Table below:

Table 166: Power Purchase cost of NBPDCCL approved by Commission for FY 2020-21

Name of The Source	Units Claimed (MUs)	Energy Cost Claimed (Rs. Crore)	Fixed Cost claimed (Rs. Crore)	Mis. Cost Claimed (Rs. Crore)	Unit Approved (MUs)	Energy Charges (Rs./ kWh)	Fixed Charges (Rs./ kWh)	Energy Cost considered (Rs. Crore)	Fixed Cost Approved (Rs. Crore)	Misc. Cost Approved (Rs. Crore)	Total PP Cost Approved (Rs. Crore)	Avg. Tariff (Rs./ kWh)
MOD Sources												
<i>Darlipali STPS Unit I</i>	176.60	18.37	38.28	0.48	176.60	1.04	2.17	18.37	38.28	0.48	57.12	3.21
<i>Darlipali STPS Unit II</i>	86.94	9.04	18.84	-	86.94	1.04	2.17	9.04	18.84	0.00	27.89	3.21
<i>JITPL</i>	642.96	70.08	179.65	(8.67)	642.96	1.09	2.79	70.08	179.65	(8.67)	241.07	3.88
<i>GMR</i>	755.25	90.40	141.27	56.24	755.25	1.20	1.87	90.40	141.27	56.24	287.91	3.07
<i>NPGCL Unit I</i>	1793.29	360.23	431.20	0.16	1793.29	2.01	2.40	360.23	431.20	0.16	791.59	4.41
<i>Talcher Stage I</i>	1322.74	266.61	119.05	5.41	1322.74	2.02	0.90	266.61	119.05	5.41	391.07	2.92
<i>KHSTPP II</i>	191.26	39.67	21.05	0.02	191.26	2.07	1.10	39.67	21.05	0.02	60.73	3.17
<i>KHSTPP I</i>	954.43	209.04	108.31	0.08	954.43	2.19	1.13	209.04	108.31	0.08	317.43	3.32
<i>Nabinagar (BRBCL) Unit I - III</i>	148.91	36.20	54.40	0.02	148.91	2.43	3.65	36.20	54.40	0.02	90.62	6.08
<i>Barh Stage II</i>	2868.41	769.62	691.48	12.46	2868.41	2.68	2.41	769.62	691.48	12.46	1473.56	5.09
<i>KBUNL Stage II</i>	554.11	149.37	182.89	-	554.11	2.70	3.30	149.37	182.89	0.00	332.27	6.00
<i>FSTPP III</i>	291.99	79.49	46.97	0.19	291.99	2.72	1.61	79.49	46.97	0.19	126.64	4.33
<i>FSTPP I & II</i>	1219.54	336.89	132.43	9.25	290.61	2.76	1.09	80.28	31.56	4.52	116.36	3.85
<i>BTPS Stage II Unit I</i>	491.94	138.66	152.16	0.05		2.82	3.09					5.91
<i>BTPS Stage I Unit I</i>	93.00	29.35	41.91	39.90		3.16	4.51					7.67

Name of The Source	Units Claimed (MUs)	Energy Cost Claimed (Rs. Crore)	Fixed Cost claimed (Rs. Crore)	Mis. Cost Claimed (Rs. Crore)	Unit Approved (MUs)	Energy Charges (Rs./ kWh)	Fixed Charges (Rs./ kWh)	Energy Cost considered (Rs. Crore)	Fixed Cost Approved (Rs. Crore)	Misc. Cost Approved (Rs. Crore)	Total PP Cost Approved (Rs. Crore)	Avg. Tariff (Rs./ kWh)
<i>KBUNL Stage I</i>	183.87	61.44	90.63	2.32		3.34	4.93					8.27
<i>PTC(IEX)</i>	300.54	96.67		0.11		3.22						3.22
<i>PTC JITPL</i>	177.39	73.53		-		4.24						4.24
<i>PTC SKS Power</i>	92.24	29.31		-		4.24						4.24
Sub-Total A	12345.38	2863.98	2450.51	118.00	10077.49			2178.41	2064.94	70.90	4314.25	
<i>Must-Run Sources</i>												
<i>Teesta</i>	323.83	37.66	29.20	0.03	323.83	1.16	0.90	37.66	29.20	0.03	66.89	2.06
<i>Rangit</i>	56.01	10.67	10.38	0.01	56.01	1.91	1.85	10.67	10.38	0.01	21.05	3.76
<i>Tala</i>	557.80	120.49			557.80	2.16		120.49			120.49	2.16
<i>Chuka</i>	308.25	74.03			308.25	2.40		74.03			74.03	2.40
<i>BSPHCL</i>	20.61	4.96			20.61	2.41		4.96			4.96	2.41
<i>Mangdechu</i>	656.08	274.90			656.08	4.19		274.90			274.90	4.19
Renewables	887.53	337.29			887.53	3.80		337.29			337.29	3.80
Sub-total (B)	2,810.11	859.99	39.58	0.03	2,810.11			859.99	39.58	0.03	899.61	
RUVNL (Banking)	133.74				133.74							
Total (A+B+C)	15,289.23	3,723.97	2,490.09	118.03	13,021.33			3,038.41	2,104.52	70.93	5,213.86	

Table 167: Power Purchase cost of SBPDCL approve by Commission for FY 2020-21

Name of The Source	Units Claimed (MUs)	Energy Cost Claimed (Rs. Crore)	Fixed Cost claimed (Rs Crore)	Mis. Cost Claimed (Rs. Crore)	Unit Approved (MUs)	Energy Charge s (Rs./ kWh)	Fixed Charge s (Rs./ kWh)	Energy Cost considere d (Rs. Crore)	Fixed Cost Approve d (Rs Crore)	Misc. Cost Approve d (Rs. Crore)	Total PP Cost Approved (Rs. Crore)	Avg. Tariff (Rs. /kWh)
<i>Darlipali STPS Unit I</i>	207.87	21.62	45.05	0.56	207.87	1.04	2.17	21.62	45.05	0.56	67.24	3.21
<i>Darlipali STPS Unit II</i>	102.62	10.67	22.24		102.62	1.04	2.17	10.67	22.24	-	32.92	3.21
<i>JITPL</i>	756.13	82.42	211.27	(10.19)	756.13	1.09	2.79	82.42	211.27	(10.19)	283.50	3.88
<i>GMR</i>	888.70	106.38	166.23	66.18	888.70	1.20	1.87	106.38	166.23	66.18	338.79	3.07
<i>NPGCL Unit I</i>	2,110.61	423.98	507.50	0.18	2,110.61	2.01	2.40	423.98	507.50	0.18	931.66	4.41
<i>Talcher Stage I</i>	1,556.82	313.79	140.11	6.37	1,556.82	2.02	0.90	313.79	140.11	6.37	460.27	2.92
<i>KHSTPP II</i>	225.16	46.70	24.78	0.02	225.16	2.07	1.10	46.70	24.78	0.02	71.50	3.17
<i>KHSTPP I</i>	1,123.42	246.05	127.49	0.09	1,123.42	2.19	1.13	246.05	127.49	0.09	373.64	3.32
<i>Nabinagar (BRBCL) Unit I - III</i>	175.27	42.61	64.03	0.02	175.27	2.43	3.65	42.61	64.03	0.02	106.66	6.08
<i>Barh Stage II</i>	3,376.30	905.90	813.91	14.66	3,376.30	2.68	2.41	905.90	813.91	14.66	1,734.47	5.09
<i>KBUNL Stage II</i>	651.90	175.74	215.17	2.73	651.90	2.70	3.30	175.74	215.17	2.73	393.63	6.00
<i>FSTPP III</i>	343.62	93.54	55.27	0.22	304.50	2.72	1.61	82.89	48.98	0.20	132.07	4.33
<i>FSTPP I &II</i>	1,435.60	396.58	155.89	10.89		2.76	1.09					3.85
<i>BTPS Stage II Unit I</i>	578.71	163.16	179.00	0.06		2.82	3.09					5.91
<i>BTPS Stage I Unit I</i>	109.71	34.62	49.36	47.07		3.16	4.50					7.66

Name of The Source	Units Claimed (MUs)	Energy Cost Claimed (Rs. Crore)	Fixed Cost claimed (Rs Crore)	Mis. Cost Claimed (Rs. Crore)	Unit Approved (MUs)	Energy Charges (Rs./ kWh)	Fixed Charges (Rs./ kWh)	Energy Cost considered (Rs. Crore)	Fixed Cost Approved (Rs Crore)	Misc. Cost Approved (Rs. Crore)	Total PP Cost Approved (Rs. Crore)	Avg. Tariff (Rs. /kWh)
<i>KBUNL Stage I</i>	216.91	72.48	106.74			3.34	4.92					8.26
<i>PTC(IEX)</i>	352.80	113.48	-	0.13		3.22	-					3.22
<i>PTC JITPL</i>	208.64	86.48	-			4.19	-					4.24
<i>PTC SKS Power</i>	108.53	34.49	-			4.19	-					4.24
Sub-Total A	14,529.35	3,370.69	2,884.07	138.98	11,479.31			2,458.75	2,386.78	80.83	4,926.35	
Must-Run Sources												
<i>Teesta</i>	381.02	44.31	34.36	0.03	381.02	1.16	0.90	44.31	34.36	0.03	78.71	2.06
<i>Rangit</i>	65.92	12.56	12.21	0.01	65.92	1.91	1.85	12.56	12.21	0.01	24.78	3.76
<i>Tala</i>	656.28	141.76			656.28	2.16		141.76			141.76	2.16
<i>Chuka</i>	362.50	87.06			362.50	2.40		87.06			87.06	2.40
<i>BSPHCL</i>	24.28	5.85			24.28	2.41		5.85			5.85	2.41
<i>Mangdechu</i>	771.76	323.37			771.76	4.19		323.37			323.37	4.19
<i>Renewables</i>	1,045.94	397.47			1,045.94	3.80		397.47			397.47	3.80
Sub-total (B)	3,307.69	1,012.37	46.58	0.04	3,307.69	3.06		1,012.37	46.58	0.04	1,058.99	3.06
RUVNL (Banking)	157.00				157.00			-				
Total (A+B+C)	17,994.04	4,383.06	2,930.65	139.02	14,944.00			3,471.12	2,433.35	80.87	5,985.34	

Transmission Charges:

- 5.7.28. The Commission notes the Petitioners have considered POWERGRID charges as actually incurred in FY 2020-21 per month without the rebate provided in the month of April and May. However, the rebate provided by POWERGRID in the month of April and May has been reduced by the Petitioners from the annual charges.
- 5.7.29. Further, the Commission notes that the Petitioner have actual per month charges billed to the Petitioners by BSPTCL, POSOCO & BGCL in the first six months of FY 2020-21. SLDC charges has been considered as approved for FY 2020-21.
- 5.7.30. The Commission has considered POSOCO, PGCIL and Open Access Charges for FY 2020-21 as approved in the True Up of FY 2019-20 in this Order. BGCL, BSPTCL and SLDC charges are considered based on those approved in their Tariff Orders dated 20 March, 2020 for FY 2020-21 as the same are being billed during FY 2020-21. The Transmission charges considered for FY 2020-21 (RE) are as given in the Table mentioned below:

Table 168: Transmission charges approved by Commission for FY 2020-21

Particulars	SBPDCL	NBPDCCL	Total
PGCIL	545.03	509.71	1,054.74
POSOCO Charges	2.70	2.30	5.00
BSPTCL Charges	470.29	400.61	870.90
SLDC Charges	4.08	3.47	7.55
BGCL Charges	248.51	211.69	460.20
Sub-Total	1,270.60	1,127.79	2,398.39

5.8. Renewable Purchase Obligation (RPO)

NBPDCCL & SBPDCL's Submission:

- 5.8.1. Further, Petitioners have submitted the details of RPO to be met by NBPDCCL & SBPDCL for FY 2020-21 as detailed in the Table below:

Table 169: RPO detail submitted by NBPDCCL and SBPDCL for FY 2020-21

Particular		Units	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	A	MUs	10438.30	12123.43
Hydro Power Purchase	B	MUs	1901.97	2237.47
Inter-State Transmission Loss	C	%	1.73%	1.73%
Inter-State Transmission Loss	$D=B*C$	MUs	32.90	38.71
Intra-State Transmission Loss	E	%	3.00%	3.00%
Intra-State Transmission Loss	$F=E*(B-D)$	MUs	56.07	65.96
Distribution Loss	G	%	21.00%	24.00%

Particular		Units	NBPDCCL	SBPDCL
Distribution Loss	$H=G*(B-D-F)$	MUs	380.73	511.87
Hydro Power Consumed	$I=B-D-F-H$	MUs	1432.27	1620.93
Conventional Power Consumed	$J=A-I$	MUs	9006.04	10502.49
RPO Targets		%	14.25%	14.25%
Solar RPO %	K	%	6.75%	6.75%
Non-Solar RPO %	L	%	7.50%	7.50%
RPO Targets		MUs	1283.36	1496.60
Solar RPO	$J*K$	MUs	607.91	708.92
Non-Solar PRO	$J*L$	MUs	675.45	787.69
Renewable Power Purchase		MUs	911.01	1073.60
Solar Power Purchased		MUs	99.34	116.95
Non-Solar Power Purchased		MUs	811.68	956.65
Captive Consumption Solar		MUs	12.86	17.89
BREDA Off-grid solar		MUs	3.15	5.09
BREDA GCRT solar		MUs	0.85	0.39
DDG Standalone		MUs	1.7	2.27
DDG Mini grid		MUs	2.43	2.89
IPDS		MUs	0.51	0.57
Net/Gross Meter Consumer		MUs	3.37	4.91
SPV Plant Solar Generation		MUs	0.85	1.76
Captive Consumption Non-Solar BERDA		MUs	74.00	92.29
REC Purchase		MUs	0.00	0.00
Solar		MUs	0.00	0.00
Non-Solar		MUs	0.00	0.00
Total Solar RPO Compliance		MUs	112.20	134.84
Total Non-Solar RPO Compliance		MUs	885.68	1048.94
RPO Shortfall		MUs	285.49	312.83
Solar Shortfall/ (Surplus)		MUs	495.71	574.08
Non-Solar Shortfall/ (Surplus)		MUs	(210.22)	(261.25)
Carried Forward Shortfall from FY 2019-20		MUs	146.32	134.83
Carried Forward Solar Shortfall		MUs	156.11	192.26
Carried Forward Non-Solar Shortfall		MUs	(9.79)	(57.43)
Total Shortfall		MUs	431.81	447.67
Solar Shortfall		MUs	651.82	766.35
Non-Solar Shortfall		MUs	(220.01)	(318.68)

5.8.2. The Petitioners submitted that they have already been drawing solar power from a few sources like SECI, Welspun, ACME clean tech, Avantika and Azure Power. The Petitioners have also made PPA with SECI & NTPC for purchase of renewable power (Solar and Non-Solar) to the tune of 2,000 MW which were expected to be in commercial operation by FY 2020-21. However, the plants have extended their SCD date in FY 2021-22 owing to various technical and commercial reasons one

of which is the impact of COVID-19. The Petitioners have planned its power purchase in FY 2020-21 as per the original SCD of the upcoming plants. However, due to the extension in SCD of the renewable plants as well as non-availability of RECs due to non-operational short-term market (owing to COVID-19) has led to a huge burden of shortfall in achieving the RPO targets for the Petitioners.

- 5.8.3. The Petitioner therefore requested that the shortfall if any on actuals may either be allowed to carry forward to next year so as to meet the total RPO on cumulative basis or the RPO targets may be relaxed for the FY 2020-21 as all the related factors in fulfilling the set RPO target are uncontrollable in nature for the Discoms. The Petitioners requested that target for FY 2020-21 may be set on actual Renewable purchased by the Discoms in FY 2020-21.

Commission Analysis:

- 5.8.4. The Commission notes that the BSPHCL on behalf of Discoms has filed an instant Petition wherein it has prayed to carry forward the shortfall of RPO for FY 2019-20 into FY 2020-21 on account of difficulty faced due to COVID-19 outbreak. The Commission vide its Order dated 17 June, 2020 in Case No. 12 of 2020 has allowed the request of the Discoms for carry forward of RPO.
- 5.8.5. In the present Petition also, the Commission observed that the Discoms have not been able to achieve their RPO obligations as set out by the Commission and have further sought for either relaxation or carry forward to next year.
- 5.8.6. The Commission notes that it has given repetitive directions wherein the Discoms have been directed to put forth more efforts to procure the balance solar energy required to meet the RPO requirements as set out by the Commission or otherwise to purchase solar RECs to meet the stipulated RPO of the year. Had the Discoms made sincere efforts to fulfil the RPO obligations this situation would not have arisen. Therefore, the Commission expresses its dissatisfaction over the efforts undertaken by the Discoms to fulfil their RPO obligation. However, considering that FY 2020-21 being impacted by COVID-19 outbreak, the Commission has given a thoughtful consideration and has provisionally allowed to carry forward the of the shortfall of RPO for FY 2020-21 to FY 2021-22.
- 5.8.7. In view of the above, the Renewable Energy to be procured as per RPO Regulations, and the balance RE to be procured by the Discoms are as given in the Table below.

Table 170: RPO considered for NBPDCCL and SBPDCL for FY 2020-21

Particular	units	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	MU	10,589.92	12123.43
Hydro Power Purchase (B)	MU	1901.97	2237.47
Inter-State Transmission Loss in % (C)	%	1.73%	1.73%

Particular	units	NBPDCCL	SBPDCL
Inter-State Transmission Loss in % (D=B*C)	MU	32.90	38.71
Intra-State Transmission Loss in % (E)	%	3.00%	3.00%
Intra-State Transmission Loss (F=E*(B-D))	MU	56.07	65.96
Distribution Loss (%) (G)	%	15.00%	15.00%
Distribution Loss (H=G*(B-D-F))	MU	271.95	319.92
Hydro Power Consumed (I=B-D-F-H)	MU	1541.05	1812.88
Conventional Power Consumed (J=A-I)	MU	9048.87	10,310.55
RPO Targets (%)	%	14.250%	14.250%
Solar % (K)	%	6.750%	6.750%
Non-Solar % (L)	%	7.500%	7.500%
RPO Targets	MU	1289.46	1549.83
Solar (J*K)	MU	610.80	734.13
Non-Solar (J*L)	MU	678.67	815.70
Renewable Power Purchase		908.14	1070.22
Solar	MU	99.34	116.95
Non-Solar	MU	808.80	953.27
Captive Consumption Solar	MU	9.71	12.79
BREDA Off-grid solar	MU	0.00	0.00
BREDA GCRT solar		0.85	0.39
NBPDCCL DDG Standalone	MU	1.70	2.27
NBPDCCL DDG Minigrid	MU	2.43	2.89
NBPDCCL IPDS		0.51	0.57
NBPDCCL Net/Gross Meter Consumer		3.37	4.91
SPV Plant Solar Generation		0.85	1.76
Captive Consumption Non Solar BERDA	MU	74.00	92.29
REC Purchase	MU		0.00
Solar	MU	0.00	0.00
Non Solar	MU	0.00	0.00
Total Solar RPO Compliance	MU	109.05	129.74
Total Non Solar RPO Compliance	MU	882.80	1045.56
RPO Shortfall	MU		
Solar Shortfall	MU	501.75	604.39
Non-Solar Shortfall	MU	(204.13)	(229.86)
Carried forward shortfall of FY 2019-20			
Solar Short fall	MU	159.20	192.29
Non- Solar Shortfall	MU	(8.71)	(62.49)
Cumulative Solar Shortfall		660.95	796.68
Cumulative Non -Solar Shortfall		(212.30)	(292.35)

5.8.8. The Commission hereby directs the DISCOMs to put forth more efforts to procure

the balance solar energy required to meet the RPO requirements as detailed in the Table above. No relaxation shall be given in RPO obligations. Further, considering the cheaper Renewable Power available/discovered through various competitive biddings, the Discoms are advised to opt for Renewable Power instead of REC purchase to optimize the power purchase cost.

5.9. Capital Expenditure and Capitalisation

NBPDC & SBPDCL's Submission:

5.9.1. Petitioners have submitted that they have estimated capital expenditure, capitalisation and funding taking into account the recent developments and targets to be achieved under various schemes during the forthcoming years. In line with the above, the Petitioner has computed the capitalization of investment on the assumption that 80% of the capitalization will come from Opening CWIP and 20% of the capitalization from fresh investment would capitalize in FY 2020-21. Discoms have submitted the details of opening CWIP, investment during the year, capitalisation and funding of capitalisation for FY 2020-21 as detailed in the Table below:

Table 171: CWIP, Capex, Capitalization and Funding projected by NBPDC & SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDC	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Opening CWIP	7030.16	4905.95
2	New Investment	1832.49	2063.75
3	Less: Capitalization (4+5)	581.13	742.98
4	CWIP	464.90	594.38
5	New Investment	116.23	148.60
6	Closing CWIP (1+2-3)	8281.52	6226.72
7	Funding		
8	CWIP Capitalization (9+10+11)	464.90	594.38
9	Grant	210.72	263.58
10	Equity	187.05	263.57
11	Loan	67.14	215.83
12	New Investment (13+14+15)	116.23	148.60
13	Grant	52.68	52.72
14	Equity	46.76	52.71
15	Loan	16.78	43.17
16	Total Capitalization (8+12)	581.13	742.98
17	Total Grant (9+13)	263.39	263.58
18	Total Equity (10+14)	233.81	263.57

S. No.	Particulars	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
19	Total Loan (11+15)	83.92	215.83

5.9.2. NBPDCCL submitted that, Discom is specifically focusing on capitalization of assets created under various schemes post unbundling of BSEB. Petitioner said that during FY 2020-21 and forthcoming years Petitioner is owing to huge capitalization since, various schemes (BRGF, RAPDRP, RGGVY, MP LADS, NABARD etc.) are in the final stage of completion.

5.9.3. Whereas SBPDCL submitted that during FY 2020-21, the amount of capitalization is comparatively less as compared to capitalization done in previous years due to hampering of operations of the Discoms in the first quarter of 2020-21 owing to Covid- 19 pandemic.

Commission Analysis:

5.9.4. The Commission had approved the capital investment plan and capitalisation in the Business plan for the control period FY 2019-20 to FY 2021-22. As per the Business plan, the approved capex and capitalisation for FY 2020-21 relating to NBPDCCL and SBPDCL is as given hereunder:

Table 172: Capex and Capitalization approved in Business Plan for NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDCCL	SBPDCL
		Approved for FY 2020-21 (Table 6.38 of Business plan)	Approved for FY 2020-21 (Table 6.35 of Business plan)
1	Capital investment	2523.69	1208.51
2	Capitalization	3159.26	1574.49

5.9.5. Further, the Commission in its previous Tariff Order dated 20 March, 2020, i.e., while deriving the revised ARR for FY 2020-21 has observed that the Discoms have furnished Capital expenditure and Capitalization in line with figures approved in business plan. Accordingly, the Commission had provisionally disallowed the excessive Capex and Capitalization for various schemes which have not been approved by the Commission. Accordingly, the Commission had approved the revised Capex and Capitalization for Discoms has reproduced in the Table below:

Table 173: Capex and Capitalization approved in previous T.O. for NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDCCL	SBPDCL
		Approved for FY 2020-21 (Table 6.37 of T.O. dated 20.03.2020)	Approved for FY 2020-21 (Table 6.37 of T.O. dated 20.03.2020)
1	Capital investment	970.50	178.61
2	Capitalization	1451.61	1216.61

5.9.6. During the present Tariff proceedings, Discoms have furnished the scheme-wise details of capital expenditure and capitalisation for FY 2020-21 in Format 11 enclosed to the petition. As per the details, the projected capex and capitalisation for FY 2020-21 is as under:

Table 174: Capex and Capitalization projected by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Capital investment	1832.49	2063.75
2	Capitalization	581.13	742.98

5.9.7. The Commission observes that projections made by Discoms in present Petition is further deviating with the approved figures. The Discoms, without furnishing any information in support of deviation in figures of capital expenditure and capitalization from Business Plan, have simply replied that Business plan is an estimate which is prepared under various assumptions keeping in mind factors like government preferences, Right of Way (RoW), man power requirement, land issues, general elections etc., which are important factors in determination of progress of work, Due to change in the assumptions on account of these factors, capex filed is not in line with the figures approved in Business Plan.

5.9.8. The Commission does not satisfy with the reasoning provided by the Discoms. The Commission finds that for many schemes capital expenditure projected for FY 2020-21 are in excess of the expenditure approved in Business Plan. This simply shows that these excessive capital expenditure projected by the petitioner are for new capital work that has to be undertaken in FY 2020-21, which have not been approved by the Commission yet, accordingly the Commission does not consider these capital expenditure and their capitalization of FY 2020-21 which have not been approved by the Commission yet.

5.9.9. For the purpose of estimation of capital expenditure and capitalization for FY 2020-21 (RE), the Commission has restricted the same to the tune of capital expenditure and capitalization as approved in Business Plan. The Commission has considered the cumulative capital expenditure and capitalization as approved by the Commission till

FY 2019-20. The Commission has then worked out the scheme wise difference of cumulative capital expenditure and capitalization as on 31 March, 2020 with that of approved in Business plan. The difference so computed is than compared with the capital expenditure and capitalization as projected by the Discoms for FY 2020-21. The Commission has considered expenditure and capitalization only for those schemes in which the projection made by Discoms were within the approved limit. The excessive projections of capital expenditure and capitalization have not been considered by the Commission.

- 5.9.10. The commission has approved capital expenditure of NBPDCCL and SBPDCL for FY 2020-21 following the above-mentioned approach and explanations against the disallowance have been mentioned in the subsequent paras.

Reconductoring Scheme:

- 5.9.11. The Commission notes that, Reconductoring scheme is not approved by the Commission. In response to the justification sought by the Commission regarding capital expenditure and capitalisation towards unapproved scheme/project, the Petitioners submitted that for implementation of smart meter petition has already been filed by the Petitioner in the month of March 2020 for obtaining necessary approvals from the Commission. The Petitioner also stated that it will formulate appropriate procedures so that necessary prior approval can be taken from the Commission for each scheme undertaken by the DISCOMs.
- 5.9.12. The Commission opines that implementation of Reconductoring Scheme is in view of strengthening of distribution network to provide quality and uninterrupted 24x7 power to all. Thus, the Commission noting the fact that, petitioners have already incurred investment against the scheme without taking prior approval, the Commission after thoughtful consideration has taken the Reconductoring Scheme for projection of capitalization only for FY 2020-21. However, the Commission is not inclined to consider any capital expenditure against the said scheme. The Commission hereby clarifies mere one time consideration of capitalization without prior approval does not imply that the Discoms shall undertake such practice in future also. Further, the Commission reiterates its direction to petitioners to take prior approval for each scheme to be undertaken by the DISCOMs. Therefore, in view of above, the Commission disallows any proposed capital expenditure by NBPDCCL and SBPDCL in reconductoring scheme for FY 2020-21.

Capital Expenditure of SBPDCL:

State Plan-Others

- 5.9.13. The total capital expenditure as approved in Business Plan for State Plan-Others Scheme was Rs. 582.02 Crore. The Commission has already approved Rs. 582.02 Crore against the said scheme till FY 2019-20. Thus, claim of Rs. 70.00 Crore for FY 2020-21 by the Petitioner implies over expenditure in State Plan – Others

Scheme. Considering the above fact, the Commission has not considered any expenditure for FY 2020-21 for the above mentioned scheme.

IPDS Scheme

5.9.14. The total capital expenditure as approved in Business Plan for IPDS Scheme was Rs. 1121.99 Crore. The Commission has already approved Rs. 1046.55 Crore capital expenditure till FY 2019-20. The Commission finds Rs. 378.06 Crore as capital expenditure as claimed by Petitioner for FY 2020-21 is an over expenditure. Thus, the Commission considers Rs. 71.44 Crore as capital expenditure for FY 2020-21 in IPDS Scheme.

RGGVY Scheme

5.9.15. The total capital expenditure as approved in Business Plan in RGGVY Scheme was Rs. 1649.16 Crore. The Commission has already approved Rs. 1542.36 Crore till FY 2019-20. Thus, the Commission finds the claim of petitioner of Rs. 643.36 Crore for FY 2020-21 as over expenditure in the scheme. Thus, the Commission considers Rs. 106.80 Crore for FY 2020-21 in RGGVY Scheme.

DDUGJY Scheme

5.9.16. The total capital expenditure as approved in Business Plan in DDUGJY Scheme was Rs. 2421.71 Crore. The Commission has already approved Rs. 2421.71 Crore till FY 2019-20. Thus, the Commission finds the claim of petitioner of Rs. 267.40 Crore for FY 2020-21 as over expenditure in the scheme. Thus, the Commission has not considered any capital expenditure for FY 2020-21 RGGVY Scheme.

5.9.17. In view of the above, the capital expenditure as considered by the Commission for SBPDCL in Review of FY 2020-21 is as shown in the Table below:

Table 175: Capital expenditure for SBPDCL as approved by Commission vis a vis Claimed by petitioner for FY 2020-21 (Rs. Crore)

Name of Schemes	Capital Expenditure as claimed by Petitioner for FY 2020-21	Capital expenditure as approved by the Commission for FY 2020-21
BRGF	257.58	257.58
ADB	9.90	9.90
Burnt DTR State Plan	6.00	6.00
State Plan -Others	70.00	-
Ongoing Schemes (A)	343.48	273.48
Reconductoring	203.79	-
IPDS	378.06	71.44
New Schemes (B)	581.85	71.44
RGGVY	643.36	106.80
RGGVY (C)	643.36	106.80

Name of Schemes	Capital Expenditure as claimed by Petitioner for FY 2020-21	Capital expenditure as approved by the Commission for FY 2020-21
DDUGJY	267.40	-
APL Connection/Saubhagya	224.54	224.54
New Schemes (D)	491.94	224.54
Grand Total (A+B+C+D)	2,060.63	676.26
Own Sources	3	3.12
Total	2,063.75	679.38

5.9.18. The Commission approves Rs. 679.38 Crore as capital expenditure for FY 2020-21 to SBPDCL against claim of Rs. 2063.75 Crore.

Capital Expenditure of NBPDCCL:

BRGF Scheme

5.9.19. The Commission notes that, the approved capital expenditure in Business Plan for FY 2018-19 in BRGF Scheme was Rs. 2740.81 Crore. The Commission has already approved Rs. 2342.47 Crore of capital expenditure till FY 2019-20. Thus, the Commission finds claim of petitioner of Rs. 572.81 Crore as capex in FY 2020-21 unreasonable. Hence, the Commission considers Rs. 398 Crore as Capex for FY 2020-21 in BRGF Scheme.

IPDS Scheme

5.9.20. The Commission notes that, the total approved capital expenditure in Business Plan for IPDS Scheme was Rs. 78.89 Crore. The Commission has already approved Rs. 619.86 Crore of capital expenditure till FY 2019-20. Thus, the Commission finds claim of Petitioner of Rs. 108.77 Crore as capex in FY 2020-21 unreasonable. Hence, the Commission has not considered any Capex for FY 2020-21 in IPDS Scheme.

DDUGJY Scheme

5.9.21. The Commission notes that the approved capital expenditure in Business Plan for DDUGJY Scheme was Rs. 3393.3 Crore. The Commission has already approved Rs. 3228.56 Crore of capital expenditure till FY 2019-20. Hence, the Commission considers Rs. 165 Crore as Capex for FY 2020-21 in DDUGJY Scheme.

5.9.22. In view of the above, the capital expenditure as considered by the Commission for NBPDCCL in Review of FY 2020-21 is as shown in the Table below:

Table 176: Capital expenditure for NBPDCCL as approved by Commission vis a vis Claimed by petitioner for FY 2020-21 (Rs. Crore)

Name of Schemes	Capital Expenditure as claimed by Petitioner for FY 2020-21	Capital expenditure as approved by the Commission for FY 2020-21
BRGF	572.81	398
Ongoing Schemes (A)	572.81	398.34
Reconductoring	149.59	-
IPDS	108.77	-
New Schemes (B)	258.36	-
DDUGJY	878.87	165
APL Connection/Saubhagya	122.45	122
New Schemes (C)	1,001.32	287.19
Grand Total (A+B+C)	1,832.49	685.53
Total	1,832.49	685.53

5.9.23. The Commission approves Rs. 685.53 Crore as capital expenditure for FY 2020-21 to NBPDCCL against claim of Rs. 1832.49 Crore.

Capitalisation of SBPDCL:

5.9.24. The Commission have accessed the capitalisation claimed by Petitioner against the approved schemes for FY 2020-21. The Commission observes that, capitalisation claimed by Petitioner in BRGF, R-APDRP, NABARD Phase VIII, NABARD Phase XI, MP/CM LAD, Deposit Scheme, ADB, ACA State Plan and Burnt DTR State Plan Scheme is within the limit of capitalisation approved in Business Plan for present control Period.

5.9.25. Hence, the Commission considers Rs. 742.98 Crore as capitalisation for FY 2020-21 as claimed by petitioner.

Capitalisation of NBPDCCL:

5.9.26. The Commission observes that, capitalisation claimed by Petitioner for FY 2020-21 in BRGF, State Plan, RGGVY, DDUGJY is within the limit of capitalisation approved in the Business Plan in FY 2018-19 for the present control period. Thus, Commission considers the capitalisation claimed by Petitioner for above said schemes.

5.9.27. Further, Commission notes that, Petitioner has already claimed over capitalisation in IPDS Scheme till FY 2019-20 as compared to the capitalisation approved in Business Plan of 2018. Thus, seeing the overcapitalisation in above scheme, the Commission disallows the claim of Petitioner for capitalisation of Rs. 186.22 Crore for FY 2020-21.

5.9.28. The Commission takes the note that, Petitioner has already claimed over capitalization in APL Connection/Saubhagya Scheme as compared to approved capitalization of Rs. 36.18 Crore in Business Plan for present control Period. The

Commission has analysed that, petitioner has already capitalised Rs. 573.16 Crore till FY 2019-20 and claiming Rs. 95.34 Crore for FY 2020-21. The Commission notes that, Saubhgya is a Central Govt. Scheme funded by Central Govt. through Grant which is to be implemented by every DISCOM to achieve 100% household electrification. Thus, the Commission approves the claim of petitioner for FY 2020-21 under APL Scheme.

5.9.29. Hence, the Commission approves Rs. 394.91 Crore as capitalisation for FY 2020-21 to NBPDCCL against claim of Rs. 581.13 Crore.

5.9.30. In view of the above, the summary of capitalization as considered by the Commission for SBPDCL and NBPDCCL in Review of FY 2020-21 is as shown in the Table below:

Table 177: Capitalisation as approved by Commission for FY 2020-21 for NBPDCCL and SBPDCL (Rs. Crore)

Name of Schemes	NBPDCCL		SBPDCL	
	Capitalisation as claimed by Petitioner for FY 2020-21	Capitalisation as approved by the Commission for FY 2020-21	Capitalisation as claimed by Petitioner for FY 2020-21	Capitalisation as approved by the Commission for FY 2020-21
BRGF	96.18	96.18	110.88	110.88
R-APDRP	-	-	46.23	46.23
NABARD Phase VIII	-	-	0.00	-
NABARD Phase XI	-	-	0.60	0.60
MP/CM LAD	-	-	0.81	0.81
Deposit Scheme	-	-	2.40	2.40
ADB	-	-	87.15	87.15
ACA State Plan	-	-	16.54	16.54
Burnt DTR State Plan	-	-	12.62	12.62
State Plan -Others	23.32	23.32	50.50	50.50
Ongoing Schemes (A)	119.50	119.50	327.73	327.73
Reconductoring	86.35	86.35	34.88	34.88
IPDS*	186.22	-	201.47	201.47
New Schemes (B)	272.57	86.35	236.35	236.35
RGVY (C)	0.30	0.30	56.42	56.42
DDUGJY*	93.42	93.42	54.55	54.55
APL Connection/Saubhgya	95.34	95.34	55.38	55.38
New Schemes (D)	188.76	188.76	109.93	109.93
Grand Total (A+B+C+D)	581.13	394.91	730.43	730.43
Own Sources	-	-	12.55	12.55
Total	581.13	394.91	742.98	742.98

5.9.31. Based on the above, the Commission has worked out the opening and closing

balance for CWIP, Capex and Capitalisation for FY 2020-21. The Commission has considered Trued-up closing balance of CWIP for FY 2019-20 i.e. Rs. 6282.75 Crore, as the opening balance of CWIP for FY 2020-21 for NBPDCCL and Rs. 4219.90 Crore as Opening balance of CWIP for FY 2020-21 for SBPDCL. The detailed working is as shown in the Table below:

Table 178: CWIP, Capitalisation and funding of capitalization considered for FY 2020-21

S. No.	Particulars	Considered for NBPDCCL	Considered for SBPDCL
1	Opening CWIP	6,282.75	4,219.90
2	New Investment	685.53	679.38
3	Less: Capitalization (4+5)	394.91	742.98
4	CWIP	315.93	438.30
5	New Investment	78.98	109.58
6	Closing CWIP (1+2-3)	6,573.37	4,156.30
7	Funding		
8	CWIP Capitalization (9+10+11)		
9	Grant	121.33	155.49
10	Equity	56.88	57.22
11	Loan	137.72	225.59
12	New Investment (13+14+15)		
13	Grant	30.33	38.87
14	Equity	14.22	14.30
15	Loan	34.43	56.40
16	Total Capitalization (8+12)		
17	Total Grant (9+13)	151.66	194.36
18	Total Equity (10+14)	71.10	71.52
19	Total Loan (11+15)	172.15	281.99

5.10. Gross Fixed Asset

NBPDCCL & SBPDCL's Submission:

5.10.1. Discoms have submitted the computation of GFA based on the opening GFA and capitalisation schedule for FY 2020-21 as detailed in the Table below:

Table 179: GFA detail projected by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Particulars	NBDPCL	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Opening GFA	13689.79	10,660.22
Additions during the year	581.13	742.98
Add: IDC	-	-
Less: Adjustment for assets sold/ discarded etc	-	-
Closing GFA	14,270.92	11,403.20

Commission Analysis:

- 5.10.2. The Commission has considered opening GFA for FY 2020-21 for NBDPCL and SBPDCL, at same level as closing GFA approved in the True-up for FY 2019-20 in this Order. Further, the addition to the GFA during FY 2020-21 is considered as capitalization as approved for NBDPCL and SBPDCL in this Order. Accordingly, the opening GFA, additions during the year and closing GFA for FY 2020-21 for NBDPCL and SBPDCL computed by the Commission is as shown in the Table below.

Table 180: GFA of NBDPCL & SBPDCL for FY 2020-21 as approved by the Commission (Rs. Crore)

Particulars	NBDPCL	SBPDCL
	Approved for FY 2020-21	Approved for FY 2020-21
Opening GFA	14,571.18	11,848.07
Net Additions during the year	394.91	742.98
Closing GFA	14,966.09	12,591.05

5.11. Operation and Maintenance (O&M) Expenses

NBDPCL & SBPDCL's Submission:

Employee Expenses

- 5.11.1. In terms of Regulation 22 of the BERC (Multi Year Distribution Tariff) Regulations 2018, the Commission had determined norms for computation of Employee cost for control period of FY 2019-20 to FY 2021-22 in the MYT Tariff Order dated 20 February 2019. Accordingly, petitioner has computed the Employee cost for APR of FY 2020-21 as shown in the table below:

Table 181: Employee Expense projected by NBDPCL and SBPDCL for FY 2020-21 (in Rs. Crore)

	NBDPCL	SBPDCL
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S. No.	Particulars	Base Value	Projected for FY 2020-21	Base Value	Projected for FY 2020-21
1	Average annual CPI index		5.34%		5.34%
2	Norms-Number of personnel per 1000 consumers	0.1676	0.1676	0.2667	0.2667
3	Norms-Number of personal per substation	16.287	16.287	19.4782	6052
4	No. of consumers (1000)		10608		550
5	No of substations		571		0.0486
6	Annual expenses per personnel (Rs. Cr)	0.0306	0.0411	0.0436	78.42
7	Employee cost per 1000 consumers		73.05		520.44
8	Employee cost per substation		382.11		6052
9	Total Employee cost		455.16		598.86

5.11.2. The Commission is therefore requested to approve the employee expenses for FY 2020-21 as shown in Table above.

Commission Analysis:

5.11.3. As regards to O&M Expense, Regulation 22 (a) & (b) of BERC (Multi Year Distribution Tariff) Regulations 2018 stipulates as follows:

“(a)The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repair and Maintenance (R&M) expense and Administrative and General (A&G) expense.

Provided that such norms may be specified for a specific Distribution Licensee or a class of Distribution Licensees.

(b) Norms shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per substation along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per 1000 consumers for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses.” (Emphasis added)

5.11.4. The Commission, in its MYT Order dated 25 February 2019, had specified the norms for number of employees per 1000 consumers and number of personnel per substation. In the MYT Order, the Commission also specified the methodology for determination of annual employee expenses per personnel.

5.11.5. Accordingly, the Commission has considered the base value of norms for number of employees per 1000 consumers, number of personnel per substation and annual expenses per personnel as specified for in the MYT Order, which is shown in the

table below:

Table 182: Norms specified for per consumer and per substation (Rs. Crore)

Particulars	NBPDCCL	SBPDCL
Norms-Number of personnel per 1000 consumers	0.1676	0.2667
Norms-Number of Personnel per substation	16.287	19.4782
Base year Annual expenses per personnel (Rs. Crore)	0.0306	0.0436

5.11.6. Further, the Annual expenses per personnel for FY 2020-21 is derived by escalating base year value with Consumer Price Index (CPI) for FY 2020-21. As per Regulation 22.1 of BERC (Multi Year Distribution Tariff) Regulations 2018, CPI inflation is defined as the average increase in the CPI for immediately preceding three years. Accordingly, the Commission has worked out CPI inflation for FY 2020-21 as detailed in the Table below:

Table 183: CPI Inflation rate considered for FY 2020-21

Particular	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Weighted Charges CPI	275.92	284.42	299.92	322.50
Year-on-Year inflation		3.08%	5.45%	8%
CPI inflation for FY 2020-21				5.34%

5.11.7. Further, the Discoms have furnished the details of projected total number of consumers and total no. of substations for FY 2020-21 as reproduced in the Table below:

Table 184: No. of consumers and no. of substations considered for FY 2020-21

Particulars	NBPDCCL	SBPDCL
No. of substations	548	550
No. of consumers	10608	6125

5.11.8. The Commission sought justification for projection of number of substations and number of Consumers from the Petitioners. The Commission also observed that despite of direction given by the Commission in previous Tariff Order towards disclosure of the quantitative details of no. of substations and no. of personnel in the Audited Accounts, the Discoms have not shown the same in their Audited Accounts. Upon clarification sought, Discoms have stated that they have projected the number of substations and number of personal for FY 2020-21 and going forward they will include the details pertaining against the same in their Audited Accounts.

5.11.9. The Commission expresses its dissatisfaction for non-compliance of its directive. The Commission hereby reiterates its directive that the Discoms to disclose the quantitative details of no.of substations and no.of personnel in their from next Tariff Proceedings.

5.11.10. Further, in absence of proper justification of projection of number of substations and personal for FY 2020-21 by the Petitioners, the Commission has considered the number of substations as approved in the True-up of FY 2019-20. Further, the Commission has considered the number of consumers as projected in Para xxx of this Order for FY 2020-21. Accordingly, in line with methodology the Commission has worked out normative employee expense for NBPDCCL and SBPDCL for FY 2020-21 as shown in the Table below:

Table 185: Normative Employee Expense as approved for FY 2020-21

S. No.	Particulars	NBPDCCL		SBPDCL	
		Base Value	Approved in this Order	Base Value	Approved in this Order
1	Average CPI inflation		5.34%		5.34%
2	Norms-Number of personnel per 1000 consumers	0.1676	0.1676	0.2667	0.2667
3	Norms-Number of personal per substation	16.287	16.287	19.4782	19.4782
4	No. of consumers (1000)		10608		6052.47
5	No of substations		548		525
6	Annual expenses per personnel (Rs. Crore)	0.0319	0.0336	0.04545	0.0479
7	Employee cost on the norm's of 1000 consumers (2*4*6) (Rs. Crore)		59.74		77.32
8	Employee cost based on norms of substation (3*5*6) (Rs. Crore)		299.89		489.83
9	Total Employee cost (Rs. Crore)		359.63		567.85

Repair & Maintenance (R&M) Expenses

NBPDCCL & SBPDCL's Submission:

5.11.11. Petitioner submitted that Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2018, specify R&M expenses as percentage (as per the norm determined) of Gross Fixed Assets excluding land cost for the year. Accordingly, Commission has determined the R&M norm i.e. 'K' factor at 1.66% for NBPDCCL and 2.16% for SBPDCL for the MYT control period of FY 2019-20 to FY 2021-22 in the MYT Tariff Order dated 25 February 2019. The detailed computation of R&M expenses submitted by the petitioner for APR of FY 2020-21 is shown in

Table below:

Table 186: R&M Expense projected by NBPDCCL and SBPDCL for FY 2020-21 (in Rs. Crore)

S. No	Particulars	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Opening GFA	13689.79	10660.22
2	Opening Land Cost	1031.39	1544.56
3	Opening GFA excluding land cost	12658.39	9,115.66
4	K Factor	1.66%	2.16%
5	R&M Expense	210.13	196.90

Commission's Analysis:

5.11.12. The Commission has examined the R&M expenses projected the by the Petitioner for FY 2020-21. As regards R&M Expenses, Regulation 22.2 of BERC (Multi Year Distribution Tariff) Regulations 2018, stipulates as follows:

“Repairs and Maintenance expense shall be calculated as percentage (as per the norm determined) of Opening Gross Fixed Assets excluding land cost for the year governed by following formula:

$$R\&M_n = K_b * GFAn$$

Where:

R&M_n : Repairs & Maintenance expense for nth year

GFAn : Opening Gross Fixed Assets for nth year

K_b : Percentage point as per the norm”

5.11.13. The Commission had determined the R&M norm, i.e., ‘K’ factor at 1.66% for NBPDCCL and 2.16% for SBPDCL for the MYT control period of FY 2019-20 to FY 2021-22 in the Tariff Order dated 25 February, 2019. Further, Commission has considered the opening GFA balance (excluding land cost) as approved in this Order for FY 2020-21. Accordingly, the Commission has computed R&M Expenses for the Petitioners for APR of FY 2020-21 as shown in the Table below:

Table 187: R&M Expense approved for FY 2020-21 (Rs. Crore)

Sr. No	Particulars	NBPDCCL		SBPDCL	
		As per MYT Order	Approved in this Order	As per MYT Order	Approved in this Order
1	Opening GFA		14556.93		11848.07
2	Opening Land Cost		1038.46		1544.56
3	Opening GFA	11770.88	13518.47	9683.17	10,303.51

	excluding land cost				
4	K Factor	1.66%	1.66%	2.16%	2.16%
5	R&M Expense	195.40	224.41	209.16	222.56

Administration & General (A&G) Expenses

NBPDCCL & SBPDCL's Submission's

5.11.14. Petitioner submitted that in terms of Regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2018, the Commission had determined A&G norm for the MYT control period of FY 2019-20 to FY 2021-22 in the MYT Tariff Order dated 20 February 2019. Accordingly, A&G expense is computed by the petitioner for APR of FY 2020-21 as shown in Table below:

Table 188: A&G Expense projected by NBPDCCL and SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDCCL		SBPDCL	
		Base Value	Projected for FY 2020-21	Base Value	Projected for FY 2020-21
1	Average annual WPI CPI index		2.95%		2.95%
2	Norms-A&G expenses per 1000 consumers	1.1174	1.1174	1.778	1.778
3	No. of consumers (1000)		10608		6052
4	No of employees		10668		12183
5	Annual expenses per 1000 consumers	0.004978	0.0085	0.00356	0.01094
6	Annual expenses per employee	0.007576	0.0100	0.00942	0.00647
7	A&G cost per 1000 consumers		90.04		66.21
8	A&G cost per employee		106.50		78.78
9	Total A&G cost		196.54		144.99

Commission Analysis:

5.11.15. As regards to A&G expense, Regulation 22.3 of BERC (Multi Year Distribution Tariff) Regulations 2018 has stipulated as below:

“A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

Where:

A&G_n: A&G expense for the year n

A&Gb: A&G expense as per the norm WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years.

Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.”

5.11.16. As stipulated in Regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2018, the Commission in its MYT Order dated 25 February, 2019 has specified the norms for number of employees per 1000 consumers. In the MYT Order, the Commission also specified the methodology for determination of Annual A&G expense per 1000 consumers and Annual A&G expense per personnel.

5.11.17. Accordingly, the Commission has considered the base value of norms for number of employees per 1000 consumers, Annual A&G expense per 1000 consumers and Annual A&G expense per personnel as per the MYT Order, as shown in Table below:

Table 189: Norms for A&G expenses

Particular	A&G Expense Norms of NBPDC	A&G Expense Norms of SBPDCL
Norms - Number of personnel per 1000 consumers	1.1174	1.1174
Annual A&G expense per 1000 consumers (Rs. Crore)	0.004978	0.004978
Annual A&G expense per personnel (Rs. Crore)	0.007576	0.007576

5.11.18. Further, annual A&G expense per 1000 consumers and Annual A&G expense per personnel for the Base year, i.e., FY 2019-20 is to be escalated by Wholesale Price Index (WPI) inflation to determine the annual A&G expense norms for FY 2020-21. The Commission has accordingly determined WPI inflation as the average increase in the WPI for immediately preceding three years. Working of WPI inflation for FY 2020-21 is shown in Table below:

Table 190: WPI considered for FY 2020-21

Particular	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Weighted Charges WPI	111.62	114.87	119.79	121.80
Year-on-Year inflation		2.91%	4.29%	2%
WPI inflation for FY 2019-20				2.96%

5.11.19. For computing the normative A&G Expenses for FY 2020-21, the Commission has considered the base value of norms for number of employees per 1000 consumers as specified in the MYT Order. The number of consumers for FY 2020-21 has been considered as approved in this Order for FY 2020-21.

5.11.20. Annual A&G expense per 1000 consumers and Annual A&G expense per personnel for FY 2020-21 has been computed by escalating the base value by WPI inflation computed in the table above. Accordingly, the Commission has worked

out the Normative A&G expense as shown in Table below:

Table 191: Normative A&G Expense of NBPDCCL approved for FY 2020-21

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2020-21	Base Value as per MYT Order	Normative Expense approved for FY 2020-21
1	Average annual WPI inflation	2.98%	2.95%		2.96%
2	Norms- Number of personnel per 1000 consumers	1.1174	1.1174	1.1174	1.1174
3	No. of consumers (1000)	10609	10608		10608
4	No of employees	11854	10668		11853
5	Annual expenses per 1000 consumers	0.0053	0.0085	0.004978	0.0053
6	Annual expenses per employee	0.0080	0.0100	0.007576	0.0080
7	A&G cost for per 1000 consumers norms	56.23	90.04		56.22
8	A&G cost for per employee norms	94.83	106.50		94.83
9	Total A&G Cost	151.06	196.54		151.05

Normative A&G Expense of SBPDCL approved in True-up of FY 2020-21

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2020-21	Base Value as per MYT Order	Normative Expense approved for FY 2020-21
1	Average annual WPI inflation	2.98%	2.95%		2.96%
2	Norms- Number of personnel per 1000 consumers	1.1178	1.778	1.778	1.778
3	No. of consumers (1000)	6335	6052		6052
4	No of employees	11264	12183		10761
5	Annual expenses per 1000 consumers	0.0038	0.01094	0.00356	0.0038
6	Annual expenses per employee	0.0100	0.00647	0.00942	0.0100
7	A&G cost for per 1000 consumers norms	24.07	66.21		23.00
8	A&G cost for per employee norms	112.64	78.78		107.61
9	Total A&G Cost	151.06	144.99		130.61

5.11.21. The Commission has considered the normative A&G expense of Rs. 151.05 Crore and Rs. 130.61 Crore, as against Rs. 196.54 Crore and Rs. 144.99 Crore claimed by NBPDC and SBPDCL, respectively for FY 2020-21.

5.12. Allocation of Holding Company Expenses

NBPDC & SBPDCL's Submission:

5.12.1. Petitioner submitted that the holding company expense for APR of FY 2020-21 is computed by considering 10% escalating to expense incurred during FY 2019-20:

Table 192: Holding Company Expense projected by NBPDC and SBPDCL for FY 2020-21 (in Rs. Crore)

Particulars	NBPDC	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Holding company expenses considered for FY 2019-20	21.62	22.73
Escalation % considered	10%	10%
Increase Considered	2.16	2.27
Total Holding Company Expense	23.78	25.00

Commission Analysis:

5.12.2. The Commission has elaborately discussed the allocation of holding company expenses to the Discoms and other subsidiary companies of BSPHCL (Holding Company) in paragraph True up of FY 2019-20 of this order. The Commission has considered the holding company expenses approved in Truing up for FY 2019-20 as base holding company expenses and further escalation with CPI inflationary increase of 5.34% (as adopted for Employee expenses) and projected for FY 2020-21.

5.12.3. The Commission has considered the holding company expenses for FY 2020-21 in review, in terms of Bihar State Electricity Reforms Transfer Scheme, 2012 as shown in Table below:

Table 193: Holding Company expenses considered for FY 2020-21

Particulars	NBPDC	SBPDCL
	Considered for FY 2020-21	Considered for FY 2020-21
Holding company expenses considered for FY 2018-19 (RE)	21.62	22.73
Escalation % considered	5.34%	5.34%
Increase Considered	1.15	1.71

Total Holding Company Expense	22.77	23.94
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5.13. Depreciation

NBPDC & SBPDCL's Submission:

- 5.13.1. As per regulation 23 of Bihar Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2018 the Petitioner has estimated the depreciation on the Gross Fixed assets reduced by grants. The Petitioner has calculated depreciation on GFA based on the Capitalization plan for FY 2020-21 as shown in Table below:

Table 194: Depreciation projected by NBPDC & SBPDCL for FY 2020-21 (in Rs. Crore)

S. No.	Particulars	NBPDC	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Opening GFA	9,809.99	10,660.22
2	Less: Value of land	1,025.49	1,544.56
3	Net opening GFA (1- 2)	8784.49	9,115.66
4	Additions during the year (excl. value of land)	3883.63	645.19
5	IDC	-	-
5A	Adjustment for assets sold/ discarded etc	9.73	-
6	Expenses capitalized	-	-
7	Closing GFA (3+4+5+6)	12658.39	9760.84
8	Average GFA (3+7)/2	10721.44	9438.25
9	Weighted average rate of depreciation	4.63%	4.91%
10	Depreciation for the year	496.17	463.14
11	Opening Grants	6049	4,368.48
12	Grants during the year	1711	227.41
13	Total Grants (11+12)	7760	4,595.89
14	Average Grants (11+13)/2	6904	4,482.18
15	Weighted average rate of Depreciation	3.93%	5.36%
16	Depreciation for GFA on Grants (14*15)	271.17	240.39
17	Depreciation for GFA on Loans (10-16)	225.01	222.75

- 5.13.2. As shown in above Table, the Petitioner is not claimed any depreciation on account of assets that has been capitalized through grants. Therefore, the Petitioner has reduced the Depreciation on the assets, which were added through grants.

Commission Analysis:

- 5.13.3. The Commission has examined the computation of depreciation claimed by the

Discoms for FY 2019-20 as per Regulation 23 of BERC (Multi Year Distribution Tariff) Regulations, 2018, which stipulates as under:

“23. Treatment of Depreciation

a) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year.

b) Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.

c) Depreciation shall be calculated annually on the basis of assets capitalised and put to use based on the straight line method over the useful life of the asset at rate not exceeding the rate specified by the Central Electricity Regulatory Commission for Transmission utility.

d) The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset.

The Distribution Licensee shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.

Provided that freehold land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

Provided further that cost of leasehold land shall be amortized evenly within the leased period.

e) Depreciation shall be charged from the first year of commercial operation of the asset. Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.

f) A provision of replacement of assets shall be made in the capital investment plan.”

- 5.13.4. The Commission has considered opening value of depreciable assets for FY 2020-21 based on the closing value of depreciable assets approved in True up for FY 2019-20 in this Order. The opening grants (net of land) for FY 2020-21 is considered based on the closing grants (net of land) approved in True up of FY 2020-21.
- 5.13.5. Capitalisation and Grants during the year FY 2020-21 are considered based on the capitalisation and funding for FY 2020-21 as considered.
- 5.13.6. Regulation 23 (d) of the BERC (Multi Year Distribution Tariff) Regulations 2018, specifies that “Freehold land shall not be treated as a depreciable asset and its cost shall be excluded from the capital cost”. Accordingly, for the purpose of computation of depreciation, the addition to assets is considered excluding value of land as projected by the Discoms in Format xx submitted along with the Tariff petitions.

- 5.13.7. The Commission has considered the opening depreciable assets and opening grants for FY 2020-21 based on the closing GFA and Grants approved in the Truing up for FY 2019-20 as shown in the Table below:

S. No.	Particulars	NBDCL	SBPDCL
1	Opening Depreciable Assets	13,532.69	10,303.51
2	Opening Grants	8,992.605	5,669.29

- 5.13.8. Further, the Commission has considered weighted average rate of depreciation on assets and grants for Discoms (NBDCL and SBPDCL) in line with the weighted average rate of depreciation considered in True up for FY 2019-20.
- 5.13.9. The opening GFA, additions to GFA, closing GFA, rate of depreciation and depreciation on assets created out of grants and depreciation considered by the Commission for FY 2019-20 in review is as detailed in the Table below:

Table 195: Depreciation approved for NBDCL and SBPDCL FY 2020-21 (Rs. Crore)

Particulars	NBDCL	SBPDCL
	Considered for FY 2020-21	Considered for FY 2020-21
Opening GFA balance for FY 2020-21	14,571.18	11,848.07
Less: Value of land	1,038.49	1,544.56
Net opening GFA (excl. land value)	13,532.69	10,303.51
Additions during the year (excl. value of land)	364.08	646
Adjustment of assets sold/ discarded	-	
Closing GFA balance of depreciable asset for FY 2020-21	13,896.77	10,949.63
Average GFA	13,714.73	10,626.57
Weighted average rate of depreciation	4.19%	4.86%
Depreciation for the Year	574.58	516.00
Net opening grant balance (excl. value of land)	8,992.60	5,669.29
Grant added during year (excl. value of land)	139.96	229.22
Closing Grants balance for FY 2020-21 (excl. value of land)	9,132.56	5,898.50
Average Grants	9,062.6	5,783.90
Weighted average rate of Depreciation	4.19%	4.86%
Depreciation for GFA on Grants	379.68	280.85
Net Depreciation	194.90	235.15

5.13.10. Accordingly, the Commission has considered Net Depreciation of Rs. 194.90 Crore for NBPDC and Rs. 235.15 Crore for SBPDCL for FY 2020-21.

5.14. Interest on Loan

NBPDC & SBPDCL's Submission:

5.14.1. The Petitioners have calculated normative loan additional as 70% of the addition in GFA (excluding contribution from Grant). The interest on normative debt is calculated at the weighted average rate on the project loan. The detail computation of the weighted average rate of interest is shown in Table below:

Table 196: Loan portfolio of NBPDC for FY 2020-21 (in Rs. Crore)

Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Amount of interest paid
REC (RGGVY) Term Loan	291.25	10.50%	-	125.00	166.62	24.04
PFC (R-APDRP) Part- A, Term Loan	13.69	9%	-	-	13.69	1.23
PFC (R-APDRP) Part- B, Term Loan	50.71	9%	-	2.50	48.21	3.77
PFC (Counter Part)	89.39	11%	29.00	6.60	89.39	8.33
REC (DDUGJY) Term Loan	600.00	10.22%	200.00	-	800.00	43.14
REC (IPDS) Term Loan	99.98	10.22%	100.00	-	199.98	12.67
State Gov. Non-Plan Loan	223.22	10.50%	15.00	-	237.90	24.21
BSPHCL (ADB) Loan	56.01	10.50%	-	-	56.01	5.88
Total	1,424.25		314.68	130.73	1,608.21	122.92
Average Loan during the year						1,516.23
Weighted average rate of Interest						10.29%

Table 197: Loan portfolio of SBPDCL for FY 2020-21 (in Rs. Crore)

Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Amount of interest paid
REC (RGGVY) Term Loan	136.88	10.33%	18.90	11.99	143.79	14.61
REC (R-APDRP) Term Loan	349.26	10.40%	-	34.93	314.33	36.32
PFC (R-APDRP) Term Loan	260.11	9.00%	100.71	-	360.82	22.53
REC (IPDS) Term Loan	100.00	10.19%	242.00		342.00	13.67
REC (DDUGJY) Term Loan	600.02	10.19%	100.00		700.02	44.97

Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Amount of interest paid
State Govt. Non-Plan Loan	58.58	10.50%	35.85		94.43	5.78
BSPHCL (ADB) Loan	6.28	10.50%	-	-	6.28	0.64
Total	1511.13		497.46	46.92	1961.67	138.52
Average Loan during the year						1736.40
Weighted average rate of Interest						10.04%

5.14.2. Further, NBPDCCL & SBPDCL has considered normative repayment for the period equal to depreciation calculated for FY 2020-21. The Table below shows interest expense against loans for FY 2020-21:

Table 198: Interest on Loans projected by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Calculation for Interest on Loan	NBPDCCL	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Opening loan balance	3,083	2500
Additions during the year	222	336
Normative Repayment	235	223
Closing Loans (1+2-3)	3,070	2,613
Average Loans $\{(1+4)/2\}$	3,077	2,557
Interest rate	10.29%	10.04%
Interest Charges (5*6)	316.56	256.77

Commission Analysis:

5.14.3. As regards interest on loan, Regulation 25 (g) of BERC (Multi Year Distribution Tariff) Regulations 2018 stipulates as under:

The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or nonconvertible debentures.

Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable;

Provided further that if no actual loan is outstanding but normative loan is still outstanding and the last available weighted average rate of interest is also not available, rate of interest equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') shall

be applicable;

Provided further that the interest on loan shall be calculated on the normative weighted average loan of the year by applying the weighted average rate of interest;

Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects;”

- 5.14.4. The Commission has considered opening loan for FY 2020-21 based on the closing loan approved for NBPDCCL Rs.2893 Crore and SBPDCL Rs.2511.43 Crore in True up for FY 2019-20. Further, the Commission has considered the addition to loan based on the funding of capitalisation and grants in line with Regulation 25(j) as approved in this Order for FY 2020-21.
- 5.14.5. The Commission, in terms of Regulation 25(e) of BERC (Multi Year Distribution Tariff) Regulations 2015, has considered repayment of loan equal to the depreciation allowed for the year 2020-21 in this Order.
- 5.14.6. Further, Regulation 25(g) stipulates weighted average rate of interest need to be computed based on actual loan portfolio at the beginning of financial year. However, the Commission observed that the Petitioners have computed the weighted average rate of interest on the actual loan portfolio during the year. Accordingly, the Commission has rectified this error and computed the weighted average interest rate based on the actual loan portfolio at the beginning of the FY 2020-21.
- 5.14.7. In True-up of FY 2019-20, the Commission has verified the details of actual loan balance form the audited account of Petitioners, as detailed in True-up section of this Order. The Commission has considered the actual loan portfolio at the end of FY 2019-20 as the actual loan portfolio at the beginning of FY 2020-21. Accordingly, the Commission has computed the weighted average interest rate based on the actual loan portfolio at the beginning of the financial year as shown in Table below:

Table 199: Weighted average interest rate at the beginning of FY 2020-21 (in Rs. Crore)

Loan portfolio of NBPDCCL			Loan portfolio of SBPDCL		
Particulars	Opening Balance	Rate of Interest	Particular	Opening Balance	Rate of Interest
REC (RGGVY) Term Loan	291.25	10.50%	REC (RGGVY) Term Loan	136.88	10.33%
PFC (R-APDRP) Part- A, Term Loan	13.69	9%	REC (R-APDRP) Term Loan	349.26	10.40%

Loan portfolio of NBPDC			Loan portfolio of SBPDCL		
Particulars	Opening Balance	Rate of Interest	Particular	Opening Balance	Rate of Interest
PFC (R-APDRP) Part- B, Term Loan	50.71	9%	PFC (R-APDRP) Term Loan	260.11	9.00%
PFC (Counter Part)	89.39	11%	-	100.00	10.19%
REC (DDUGJY) Term Loan	600.00	-	REC (DDUGJY) Term Loan	600.02	10.19%
REC (IPDS) Term Loan	99.98	-	REC (IPDS) Term Loan	58.58	10.50%
State Gov. Non-Plan Loan	223.22	10.22%	State Govt. Non-Plan Loan	6.28	10.50%
BSPHCL (ADB) Loan	56.01	10.22%	BSPHCL (ADB) Loan	136.88	10.33%
Total	1,424.25			1,511.13	
Weighted average rate of Interest	10.30%			10.06%	

5.14.8. The Commission has considered weighted average rate of interest at for FY 2020-21 for NBPDC and SBPDCL as computed in the Table above. Accordingly, the Commission has computed the interest on loan for review of FY 2020-21 as shown in Table below:

Table 200: Interest on Loan Approved for FY 2020-21 (Rs. Crore)

S. no.	Particular	NBPDC	SBPDCL
		Considered for FY 2020-21	Considered for FY 2020-21
1	Opening loan balance	3,149.22	2,644.96
2	Additions during the year	172.15	382.41
3	Normative Repayment	194.90	235
4	Closing Loans (1+2-3)	3,126.46	2,792.22
5	Average Loans $\{(1+4)/2\}$	3,137.84	2718.59
6	Interest rate	10.30%	10.06%
7	Interest Charges (5*6)	323.32	273.48

5.14.9. The Commission has considered Rs. 323.32 Crore for NBPDC and Rs. 273.48 Crore interest on loan for SBPDCL for FY 2020-21.

5.15. Other Finance Charges

NBPDC & SBPDCL's Submission:

5.15.1. The Petitioners have submitted that Other Finance charges includes power factor rebate, Interest to suppliers/ contractors, rebate to consumers etc. The Petitioners estimated the finance charges for FY 2020-21 by escalating the Finance charges for FY 2019-20 by 10%. The Table below demonstrates the Finance charges estimated

for FY 2020-21:

Table 201: Other Finance Charges projected by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Other Finance Charges for the FY 2019-20	35.08	57.66
Escalation Considered	10%	10%
Escalated Amount	3.51	5.77
Finance Charges for FY 2020-21	38.59	63.43

Commission Analysis:

Other Finance Charges

- 5.15.2. As elaborated in Truing-up section of this Order, the Commission has approved other finance charges as Rs. 35.08 Crore and Rs. 57.66 Crore for NBPDCCL and SBPDCL, respectively in True-up for FY 2019-20.
- 5.15.3. The Commission has considered year on year escalation of 10% in respect of other finance charges for the MYT control period in Tariff Order dated 25 February, 2019. In line the methodology adopted by the Commission in MYT Order, the Commission has considered the escalation of 10% over the other finance charges approved in True-up of FY 2019-20. Accordingly, the Commission, has computed other finance charges for FY 2020-21 as given in the Table below:

Table 202: Other finance charges considered for FY 2020-21

Particulars	NBPDCCL	SBPDCL
	Considered for FY 2020-21	Considered for FY 2020-21
Other finance charges as approved in true up for FY 2019-20	35.08	57.66
Escalation percentage	10%	10%
Add: increase in finance charges	3.51	5.77
Other finance charges	38.58	63.43

- 5.15.4. The Commission, accordingly, has considered other finance charges in review for FY 2020-21 as computed in the Table above.

5.16. Interest on Security Deposit

NBPDCCL & SBPDCL's Submission:

- 5.16.1. For interest on consumer security deposit, Petitioners submitted that they have taken the opening balance of consumer security deposit actually paid as per the audited financial statement for FY 2019-20. Additions to the balance of consumer security deposits is as per actual addition in FY 2019-20. The interest on consumer security deposits is calculated in following Table considering rate of 4.25% which is bank rate of RBI as on 04 December 2019:

Table 203: Interest on consumer security deposit of NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Particulars	NBPDCCL	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Opening Security Deposit	401.21	630.52
Addition / (Deletion) during the year	41.49	63.49
Closing Security Deposit	442.7	694.0
Average Security Deposit (1+3)/2	421.96	662.27
RBI Bank Rate	4.25%	4.25%
Interest on Security Deposit paid during the year	17.93	28.15

- 5.16.2. The Petitioner requested the Commission to approve the computation of interest on security deposit for FY 2020-21 as shown in the Table above.

Commission Analysis:

- 5.16.3. Regarding interest on security deposit, Regulation 26 of the BERC (Multi Year Distribution Tariff) Regulations, 2018 stipulates as follows:

“Provided further that interest shall be allowed on consumer security deposits and security deposits from Distribution System users held during the year at the Bank Rate as of the date on which petition for determination is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.” (emphasis added)

- 5.16.4. Further, Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person. The BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers.
- 5.16.5. For computation of interest on consumer security deposit for review of FY 2020-21, the Commission has considered opening Security Deposit (SD) from consumers

based on the closing SD approved in the True up of FY 2019-20. Further, the addition to consumer security deposit during FY 2020-21 is considered at the same level as approved in True-up for FY 2019-20. The RBI rate has been considered as 4.25%. Accordingly, the Interest on Consumer Security Deposit considered by the Commission for review of FY 2020-21 as computed in the Table below:

Table 204: Interest on Security Deposit considered for FY 2020-21 (RE) (in Rs. Crore)

S.N.	Particulars	NBPDCCL	SBPDCL	Total
1	Opening balance of interest payable to consumers	401.21	630.52	1031.74
2	Addition / (Deletion) during the year	41.49	63.50	104.98
3	Closing balance of interest payable to consumers (1+2)	442.7	694.0	1136.72
4	Average SD (1+3)/2	421.96	662.27	1084.23
5	RBI Bank Rate	4.25%	4.25%	
6	Interest on Security Deposit (4*5)	17.93	28.15	46.08

5.16.6. Accordingly, the Commission considers the interest on consumer security deposit for review of FY 2020-21 as shown in the table above.

5.17. Return on Equity

NBPDCCL & SBPDCL's Submission:

5.17.1. The Petitioner has calculated return on equity on the basis of the closing balance of fixed assets as claimed in True up for FY 2019-20. The 30% of the addition in GFA is added to the opening GFA which is further reduced by the amount of grant contributing to the addition of Fixed Assets. Further, RoE shall be allowed @14% on the net capital base as on 31 March 2016 and @15.50% on the net capital base w.e.f. 01 April 2016. Table below demonstrates the calculation for Return on equity for APR of FY 2020-21:

Table 205: Return on Equity claimed by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

S no.	Particulars	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Closing equity to end of 31.03.2016	440.86	638.06
2	Rate of return on equity %	14.00%	14.00%
3	Return on Equity	61.72	89.33
	Equity with effect from 1st April 2016		
4	Opening equity	1,241.07	1002.92
5	Equity Addition during the year	95.32	143.82
6	Closing Equity	1336.39	1146.74
7	Average Equity	1288.73	1074.83
8	Rate of return on equity with effect	15.50%	15.50%

S no.	Particulars	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
9	Return on Equity	199.75	166.60
10	Total Return on Equity (3+9)	261.47	255.93

Commission Analysis:

- 5.17.2. The Regulation 27(c) of BERC (Multi Year Distribution Tariff) Regulations, 2018 stipulates that Return on Equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01 April, 2016. However, Return on Equity for the projects commissioned prior to 01 April, 2016 shall be allowed at the rate of 14%.
- 5.17.3. Accordingly, the Commission had bifurcated the equity into two periods, i.e., equity on assets commissioned prior to 1 April 2016 and equity on asset commissioned after 1 April, 2016. The closing balance of equity, bifurcated in the aforementioned periods, as approved by the Commission in Table/Para xx of this Order for True-up of FY 2019-20 for NBPDCCL and SBPDCL is show in Table below:

Table 206: Detail of closing equity for FY 2018-19 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
Equity at the end of 31 March, 2016	440.86	638.06
Closing equity in respect of projects commissioned w.e.f.01.04.2016	61.72	89.33

- 5.17.4. Accordingly, the Commission has considered the opening equity for the assets commissioned prior to 1 April, 2016 as shown in the Table above for review of FY 2020-21. As regards projects commissioned since 1 April 2016, the Commission has considered closing balance of equity as approved in True-up of FY 2019-20 (as shown in the Table above) as opening equity balance for FY 2020-21. Further, Commission has considered the addition to equity during FY 2020-21 in line with the capitalization approved in this Order for FY 2020-21.
- 5.17.5. Regulation 29 of BERC (Multi Year Distribution Tariff) Regulations, 2018 provides for the grossing up of the base Return on Equity for the effective tax rate of the respective year. In true-up for FY 2019-20, the Commission observed that the PBT of both Petitioners for was negative, and accordingly, tax paid by the Petitioners during FY 2019-20 was NIL. As a result, the effective tax rate in true-up of FY 2019-20 was considered 0%. Since no grossing up of rate RoE was considered in true-up of FY 2019-20 and the Petitioners, in their submissions, have also not projected the pre-tax RoE for review of FY 2020-21, the Commission has not considered the grossing up of the base Return on Equity for review FY 2020-21. The same shall be subject to true-up as per actual effective tax rate for FY 2020-

21 as per actuals effective tax rate.

5.17.6. Accordingly, the Commission has considered Petitioners' submission and has considered RoE at 15.5% without considering the effect of IT for future FYs.

5.17.7. The Commission accordingly has considered opening equity and in terms of Regulation 27(c) has considered Rate of RoE at 14% on equity up to 31 March, 2016 and 15.50% on equity w.e.f. 01 April, 2016. Accordingly, the Commission has computed the Return on Equity as shown in Table below:

Table 207: Return on Equity approved for FY 2020-21 (RE) (in Rs. Crore)

S no.	Particulars	NBPDC	SBPDCL
		Approved in True Up for FY 2019-20	Approved in True Up for FY 2019-20
1	Closing equity to end of 31.03.2016	440.86	638.06
2	Rate of return on equity %	14.00%	14.00%
3	Return on Equity	61.72	89.33
	Equity with effect from 1st April 2016		
4	Opening equity	1,118.20	867.63
5	Equity Addition during the year	71.10	96.99
6	Closing Equity	1,189.30	964.62
7	Average Equity	1,153.75	916.13
8	Rate of return on equity with effect	15.50%	15.50%
9	Return on Equity	178.83	142.00
10	Total Return on Equity (3+9)	240.55	231.33

5.17.8. Accordingly, the Commission has considered Return on Equity as computed in the Table above for review of FY 2020-21.

5.18. Interest on working capital

NBPDC & SBPDCL's Submission:

5.18.1. Petitioners submitted that it has arrived at the working capital requirement according to the applicable norms for Distribution function as provided in the BERC (Multi Year Distribution Tariff) Regulations, 2018.

5.18.2. The Petitioner has not considered any grant against disallowed power purchase for low distribution loss, since the support in terms of OFR by State Govt. is being infused in terms of equity and not in terms of grant.

5.18.3. The Petitioners also submitted that they have taken short term loans from REC and PFC for payment of Power Purchase liability. In addition to it there are other short-term loans like bank overdraft etc. on which they are bearing huge interest burden. In the light of the above facts, the Petitioner stated that they are incurring the interest on working capital at a higher level than as calculated as per normative requirement.

5.18.4. The interest on working capital is calculated at the rate of 9.25% which is SBI one-year MCLR rate plus 150 points is submitted in the following Table:

Table 208: Interest on Working Capital claimed by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

S. no.	Particular	NBPDCCL	SBPDCL
		Projected for FY 2020-21	Projected for FY 2020-21
1	Two months equivalent expected revenue	1,373.76	1,584.07
2	Maintenance spares @40% of R&M expenses for one month	7.00	6.56
3	Sub-total (1+2)	1380.76	1,590.63
4	Less:		
(i)	Power purchase cost, transmission charges and load dispatch charges of one month	561.74	670.37
(ii)	Depreciation, return on equity and contribution to contingency reserve to two months	82.70	79.78
(iii)	Amount of security deposits from consumers	401.21	630.52
5	Sub-total (4(i)+4(ii)+4(iii))	1045.85	1,380.92
6	Net working capital requirement (3-5)	335.30	209.96
7	Rate of interest %	9.25%	9.25%
8	Interest on working capital (6*7)	31.00	19.42

Commission Analysis:

5.18.5. As regards interest on Working Capital, Regulation 26 of BERC (Multi Year Distribution Tariff) Regulation, 2018 stipulates as under:

“The Distribution Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:

a) Two months equivalent of expected revenue.

b) Maintenance spares@40% of R&M expenses for one month:

Less:

(i) Power purchase cost, transmission charges and load dispatch charges for one month.

(ii) Depreciation return on equity and contribution to contingency reserves equivalent to two months.

(iii) Amount of security deposits from consumers, if any, held during the year.

Provided that the interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points."

- 5.18.6. The Commission has computed the interest on working capital as per the norms prescribed in the BERC (Multi Year Distribution Tariff) Regulations, 2018. For normative working capital computation, the Commission has considered the two months of expected revenue based on the ARR for NBPDC & SBPDCL for FY 2020-21 as approved in this Order. Further, the Commission has considered the maintenance spare as 40% of the normative R&M expenses for FY 2020-21, as approved in this Order for FY 2020-21 .
- 5.18.7. The Commission has considered the one-month power purchase cost and transmission charges and load dispatch charges based on the cost approved in review of FY 2020-21 in this Order. Depreciation and Return on equity for 2 months is computed based on the Depreciation and Return on equity approved by the Commission for review of FY 2020-21 in this Order.
- 5.18.8. The SBI MCLR as on 31 December 2020 is at 7% The Commission has considered rate of interest at 8.50% (7% plus 1.50% (i.e.150 basis as per regulation 26) and accordingly, the same is applied on the working capital for computing interest on working capital in review for FY 2020-21. The Commission has, accordingly, computed the interest on working as shown in Table below:

Table 209: Interest on Working Capital approve for FY 2020-21

S. no.	Particular	NBPDC	SBPDCL
		Considered for FY 2020-21	Considered for FY 2020-21
1	Two months equivalent expected revenue	1292.51	1555.72
2	Maintenance spares @40% of R&M expenses for one month	7.48	7.42
3	Sub-total (1+2)	1299.99	1563.14
4	Less:		
(i)	Power purchase cost, transmission charges and load dispatch charges of one month	528.47	657.34
(ii)	Depreciation, return on equity and contribution to contingency reserve to two months	72.58	77.75
(iii)	Amount of security deposits from consumers	421.96	630.52
5	Sub-total (4(i)+4(ii)+4(iii))	1023.00	1365.60
6	Net working capital requirement (3-5)	276.98	145.05
7	Rate of interest %	8.50%	8.50%
8	Interest on working capital (6*7)	23.54	12.33

5.18.9. Accordingly, the Commission has considered interest on working capital for NBPDCCL and SBPDCL as shown in the Table above for review of FY 2020-21.

5.19. Non- Tariff Income

NBPDCCL & SBPDCL's Submission:

5.19.1. Petitioners submitted that Non-Tariff income includes bank charges, interest on investments and bank balances, miscellaneous recoveries etc. The Petitioners have projected non-tariff income for FY 2020- 21 on the basis of 20% escalation on the non-Tariff income in FY 2019-20.

5.19.2. Further, the deemed rebate on power purchase is considered as 1% of the total power purchase cost. The petitioners have also not considered Meter Rent/ Service Line Rental in FY 2020-21, on account of abolishment of meter rent from FY 2020-21 and receipt from BG invocation as it is considered as a onetime expense. Therefore, the effective rate in increase turns out to be 17% and 18% for NBPDCCL & SBPDCL, respectively. The Petitioner has then deducted the cost of funding the DPS from the total Non-Tariff Income and calculated the net Non-Tariff income as follows:

Table 210: Non-Tariff Income claimed by NBPDCCL & SBPDCL for FY 2020-21 (in Rs. Crore)

Particulars	NBPDCCL	SBPDCL
	Projected for FY 2020-21	Projected for FY 2020-21
Base Non-tariff Income (excluding meter rent and receipt from BG invocation)	376.54	356.02
Rate of Increase	17%	18%
Increase in Non-tariff Income	64.01	65.40
Sub-total	440.55	421.42
Rebate @ 1% on power purchase		
Additional income due to release of new connections		
Interest on funding of DPS	155	69.19
Total non-tariff income	284.30	352.23

Commission Analysis:

5.19.3. The Commission in True up for FY 2019-20 has considered Non-Tariff Income of Rs. 369.45 Crore for NBPDCCL and Rs. 459.77 Crore for SBPDCL. The Commission notes that the meter rent was discontinued from FY 2020-21 and same should not be considered in base Non-Tariff Income for FY 2019-20. Further, as regards Petitioners' submission pertaining BG invocation, the Commission is of the view that same is one-time receipt. Accordingly, in line with the methodology adopted by the Commission in APR for FY 2019-20, the Commission has considered the Non-Tariff Income approved in True-up of FY 2019-20 as base for

the purpose of projections (after excluding one time incomes, meter rent and, rebate on payment of power purchase bills and financing cost of DPS).

- 5.19.4. The Commission has considered rate of escalation at 20%, in-line with the escalation rate considered in the APR for FY 2019-20. Further, the Commission has considered rebate @1% of the power purchase cost including PGCIL and transmission charges for FY 2020-21, in accordance with the judgement of the APTEL in Appeal no.153 of 2009 between North Delhi Power Ltd. Vs Delhi Electricity Regulatory Commission. The Commission, accordingly, has computed non-tariff income for FY 2020-21 in review as detailed in the Table below.

Table 211: Non-Tariff Income for FY 2019-20 (RE) as approved by the Commission (in Rs. Crore)

Sr. No	Particulars	FY 2020-21 (RE) for NBPDCCL	FY 2020-21 (RE) for SBPDCL
1	Interest on Advances to Suppliers/Contractors	10.16	32.09
2	Interest on Saving Accounts	44.01	54.15
3	Interest from others	20.01	6.62
A	Interest Income	74.18	92.86
1	Delayed Payment Surcharge from Consumers		
3	Income from Interest on TDS Refund	-	
4	Income from trading	1.25	
5	Miscellaneous Receipts	12.34	2.87
6	Sale of Scrap		14.39
7	Rental Income	0.02	
7	Rebate and Discount Received	63.42	
8	Incentive for timely payment of power purchase bills	0.06	72.56
9	Supervision charges	18.06	13.72
10	Miscellaneous Recoveries	13.98	144.28
C	Others	109.13	247.82
	Re-imbursement from Disaster Management		
	Excess Provision Written Back		-
	Meter Rent/ Service Line Rental		
D	Total Non-tariff income	183.31	340.68
1	Delayed Payment Surcharge from Consumers	-	-
2	Principal amount on which DPS Charged	-	
3	Interest Rate of funding DPS	9.66%	9.66%
4	Interest on funding Principal	-	
E	Net Non-Tariff Income	183.31	340.68

- 5.19.5. The Commission, accordingly, considered the non-tariff income for Discoms for FY 2020-21 (RE) as detailed in the Table above.

5.20. Revenue from sale of power at existing tariff

NBPDCCL & SBPDCL's Submission:

- 5.20.1. Petitioners submitted that above revenue has been computed based on the approved tariffs and revised projections of sales, consumers and load for respective years and requests the Commission to approve the same.
- 5.20.2. SBPDCL and NBPDCCL submitted that they have estimated to receive an amount of Rs. 814 Crore and Rs. 452 Crore, respectively, as OFR funding infused by GoB in terms of equity contribution towards meeting its shortfall in achieving the AT&C loss target. The Discoms have considered such amount as income while arriving at the Revenue Gap for calculation of Annual Revenue Requirement for FY 2020-21.
- 5.20.3. Category wise revenue based on the existing tariff for FY 2020-21 has been computed by Discoms as shown in the Table below:

Table 212: Revenue for FY 2020-21 as claimed by petitioner (Rs. Crore)

Category	NBPDCCL		SBPDCL	
	Sales (MU)	Total Revenue (Rs. Crores)	Sales (MU)	Total Revenue (Rs. Crores)
Domestic	7,982.29	5,206.79	7,585.91	5,061.69
Kutir Jyoti	2,648.30	1,652.00	1,219.16	756.13
DS I Rural	3,649.45	2,358.99	3,218.01	2,083.19
DS II Demand Based	1,684.51	1,195.77	3,148.66	2,222.32
DS III	0.03	0.03	0.08	0.06
Non-Domestic Service	1,255.07	1,040.03	1,213.63	1,040.30
NDS I - Metered	189.96	132.54	309.55	217.48
NDS II - Demand Based	1,065.11	907.49	904.08	822.83
Contract Demand <0.5 kW	2.08	1.44	5.34	4.18
Contract Demand >0.5 kW	1,063.03	906.04	898.74	818.65
Street Light Services	38.79	83.10	71.53	71.42
SS Metered	6.91	5.31	14.71	11.28
SS Unmetered	31.88	77.79	56.82	60.14
Irrigation & Allied Services	149.07	125.90	599.79	734.69
IAS I	122.56	91.45	520.82	659.84
IAS II	26.52	34.44	78.98	74.85
Public Service Connections	91.55	76.24	139.31	120.76
Public Water Works	21.74	26.51	87.36	83.91
Har Ghar Nal	69.81	49.73	51.95	36.86
Low Tension Industrial Services	320.55	285.46	455.73	396.16
LTIS I (0-19 kW)	273.26	243.57	341.97	287.07
LTIS II (>19 kW - 74 kW)	47.29	41.89	113.76	109.09
High Tension	528.93	491.84	2,057.51	1,556.83
HTS I - 11 kV	332.14	316.49	636.65	552.50
HTS II - 33 kV	111.67	103.28	460.91	402.56
HTS III -132 kV	37.30	41.18	226.62	166.43
HTS IV - 220 kV	-	-	-	-
HTSS	47.83	30.88	733.34	435.34
Railway Traction Services	72.04	62.37		48.39

Category	NBPDCCL		SBPDCL	
	Sales (MU)	Total Revenue (Rs. Crores)	Sales (MU)	Total Revenue (Rs. Crores)
RTS				48.39
Nepal	151.61	98.85		48.39
Total	10589.92	7470.58	12,123.42	9,030.26

Commission Analysis:

5.20.4. The Commission analysed the submissions of Discoms and observes that SBPDCL has not made any projection in RTS category. On query sought by Commission, SBPDCL clarified that, there is only 1 consumer left in the RTS category as of H1 of FY 2020-21. As per the current trend where all its RTS consumers have shifted to Open Access in the recent time, it has assumed that the remaining RTS consumer will also shift to Open Access in the coming time and it has therefore not projected any consumer or sales for RTS category in FY 2021-22. The Commission hereby noted the submission of SBPDCL and made the projections in Railway category accordingly.

5.20.5. The Commission has computed category wise revenue on approved tariffs based on revised projections of sales, consumers and load for FY 2020-21 as approved by the Commission in this Order in review of FY 2020-21. The expected revenue from sale of power has been shown in the Table below:

Table 213: Revenue considered by Commission for FY 2020-21 (Rs. Crore)

Category	NBPDCCL			SBPDCL		
	Sales (MU)	Total Revenue (Crores)	ABR (Rs/kWh)	Sales (MU)	Total Revenue (Crores)	ABR (Rs/kWh)
Domestic	7,982.29	5,206.79	6.52	7,585.91	5,061.71	6.67
Kutir Jyoti	2,648.30	1,652.00	6.24	1,219.16	756.13	6.20
Unmetered (Now Metered)	-	-	-	-	-	-
Metered 0-50	2,648.30	1,652.00	6.24	1,219.16	756.13	6.20
DS I Rural	3,649.45	2,358.99	6.46	3,218.01	2,083.19	6.47
Unmetered (Now Metered)	-	-	-	-	-	-
Metered (Now Demand Based)	3,649.45		-	3,218.01	2,083.19	6.47
First 50 Units	2,669.00			1,363.61		
51-100 Units	561.83			975.78		
101-200 Units	418.62			817.79		
Above 200 Units	-	-		60.83		
DS II Demand Based	1,684.51	1,195.77	7.10	3,148.66	2,222.32	7.06
First 100 Units	1,004.98			2,165.36		
101-200 Units	320.10			516.51		
201-300 Units	146.81			266.89		
Above 300 Units	212.62			199.91		
DS III	0.03	0.03	9.18	0.08	0.07	9.25
Non_Domestic Service	1,255.07	1,071.90	8.54	1,213.63	1,081.06	8.91

Category	NBPDCCL			SBPDCL		
	Sales (MU)	Total Revenue (Crores)	ABR (Rs/kWh)	Sales (MU)	Total Revenue (Crores)	ABR (Rs/kWh)
NDS I - Metered Now Demand Based	189.96	134.15	7.06	309.55	218.48	7.06
First 100 Units	135.57			98.57		
101-200 Units	21.45			104.85		
Above 200 Units	32.94			106.13		
NDS II - Demand Based	1,065.11	937.74	8.80	904.08	862.58	9.54
Contract Demand <0.5 kW	2.08	1.47	7.05	5.34	4.34	8.12
Contract Demand >0.5 kW	1,063.03	936.27	8.81	898.74	858.24	9.55
First 100 Units	238.76			307.07		
101-200 Units	99.47			192.32		
Above 200 Units	724.79			399.34		
Street Light Services	38.79	83.10	21.42	71.53	71.42	9.98
SS Metered	6.91	5.31	7.68	14.71	11.28	7.67
SS Unmetered	31.88	77.79	24.41	56.82	60.14	10.58
Irrigation & Allied Services	149.07	127.63	8.56	599.80	739.87	12.34
IAS I	122.56	91.45	7.46	520.82	659.84	12.67
Unmetered	9.96	18.45	18.53	260.43	505.44	19.41
Metered	112.60	73.00	6.48	260.39	154.41	5.93
IAS II	26.52	36.18	13.64	78.98	80.03	10.13
Metered (Now Demand Based)	26.52	36.18	13.64	78.98	80.03	10.13
Public Service Connections	91.55	78.16	8.54	139.31	128.48	9.22
Public Water Works	21.74	28.43	13.08	87.36	91.62	10.49
Har Ghar Nal	69.81	49.73	7.12	51.95	36.86	7.10
Low Tension Industrial Services	320.55	324.32	10.12	455.74	449.46	9.86
LTIS I (0-19 kW)	273.26	276.73	10.13	341.97	325.03	9.50
LTIS II (>19 kW - 74 kW)	47.29	47.58	10.06	113.76	124.44	10.94
High Tension	528.93	516.08	9.76	1,997.03	1,619.48	8.11
HTS I - 11 kV	332.14	331.45	9.98	598.84	575.83	9.62
HTS II - 33 kV	111.67	107.81	9.65	443.05	419.08	9.46
HTS III -132 kV	37.30	44.07	11.82	217.43	168.55	7.75
HTS IV - 220 kV	-	-	-	-	-	-
HTSS	47.83	32.76	6.85	737.72	456.01	6.18
Railway Traction Services	72.04	62.37	8.66	60.49	48.39	8.00
RTS	72.04	62.37	8.66	60.49	48.39	8.00
Nepal	151.61	98.85	6.52			
Nepal	151.61	98.85	6.52			
Total	10,589.92	7,569.20	7.15	12,123.43	9,199.87	7.05

5.21. Annual Revenue Requirement and Revenue Gap at existing tariff projected for FY 2020-21 (RE)

NBPDCCL & SBPDCL's Submission:

- 5.21.1. Petitioners have submitted that Gross ARR for the distribution company consist of the power purchase costs, interest and finance costs, O&M costs, depreciation and interest on working capital. Petitioners have computed the net gap for FY 2020-21 taking into account all the expenses estimated for the entire year reduced by revenue from sale of power and Other income.
- 5.21.2. Petitioners further submits that, they have not treated the surplus/gap of FY 2020-21 in FY 2021-22 during the ARR. The same will be considered by the Petitioner at the time of Truing up for FY 2020-21.
- 5.21.3. The Table below shows the total revenue requirement for FY 2020-21:

Table 214: ARR for FY 2020-21 as claimed by petitioners (Rs. Crore)

Particulars	NBPDCCL		SBPDCL	
	Approved in ARR of FY 2020-21	FY (2020-21) (RE)	Approved in ARR of FY 2020-21	FY (2020-21) (RE)
Purchase of power	6448.61	6,268.78	7135.6	7,378.20
PGCIL & Other transmission charges	535.80	506.89	628.99	595.04
BSPTCL & BGCL transmission charges and SLDC charges	615.77	601.23	722.88	705.79
RE purchases	19.49		24.72	
Deemed rebate on Power Purchase (@1%)				
Treatment of Surplus Power		635.97		634.61
O & M Expenses (A+B+C+D)	731.83	885.62	841.28	965.75
Employee expenses	366.71	455.16	475.25	598.86
R&M expenses	195.40	210.13	209.16	196.90
A&G expenses	151.06	196.54	136.71	144.99
Holding company expenses	18.66	23.78	20.16	25.00
Depreciation	180.77	234.76	204.77	222.75
Interest on loan	301.09	355.15	266.39	320.20
Other finance charges	53.93		64.79	
Return on equity	221.90	261.47	238.25	255.93
Interest on SD	23.40	17.93	35	28.15
Prior Period Expense		-	-	
Deposit for RPO obligation		-	-	
Contingency Reserve			-	

Particulars	NBPDCCL		SBPDCL	
	Approved in ARR of FY 2020-21	FY (2020-21) (RE)	Approved in ARR of FY 2020-21	FY (2020-21) (RE)
Interest on working capital	29.69	31.00	16.23	19.42
Total Revenue requirement (1 to 12)	9162.27	8,526.85	10178.88	9,856.64
Less: Non-tariff income	366.98	284.30	446.04	352.23
Net Revenue requirement (13-14)	8795.29	8,242.55	9732.84	9,504.41
Revenue from Existing tariff	8886.79	7,470.58	9891.35	9,030.26
Subsidy		451.78		814.22
Gross Gap / (Surplus) (15-16-17)		320.19		
Add: Trued up Gap/(Surplus)	112.49		112.49	
Net Gap / (Surplus) for FY 2020-21 (18+19)	(46.02)	320.19	(46.02)	(340.07)

Commission Analysis:

5.21.4. The Commission has computed the net annual revenue requirement based on the costs approved in the preceding paragraphs in the review as detailed in the Table shown below:

Table 215: Revenue approved for FY 2020-21 by Commission (Rs. Crore)

Sr. No.	Particulars	NBPDCCL	SBPDCL
1	Power purchase cost	6332.10	7,452.73
	Treatment of surplus power	(1,118.23)	(1,467.40)
2	PGCIL, OA, & other transmission charges	1,127.79	1,270.60
3	State Transmission charges		
4	O&M Expenses		920.31
i)	Employee Cost	359.63	567.15
ii)	R&M expenses	224.41	222.56
iii)	A&G expenses	151.05	130.61
5	Share of Holding Company expenses	22.77	23.94
6	Depreciation	194.90	235.15
7	Interest and Finance charges	361.91	336.91
8	Interest on working capital	23.54	12.33
9	Return on equity	240.55	231.33
10	Income Tax		-
11	Interest on security deposit	17.93	28.15
12	Bad debts (if any)		-
13	Contingency reserves (if any)		-
14	Deposit for RPO Obligation		-