

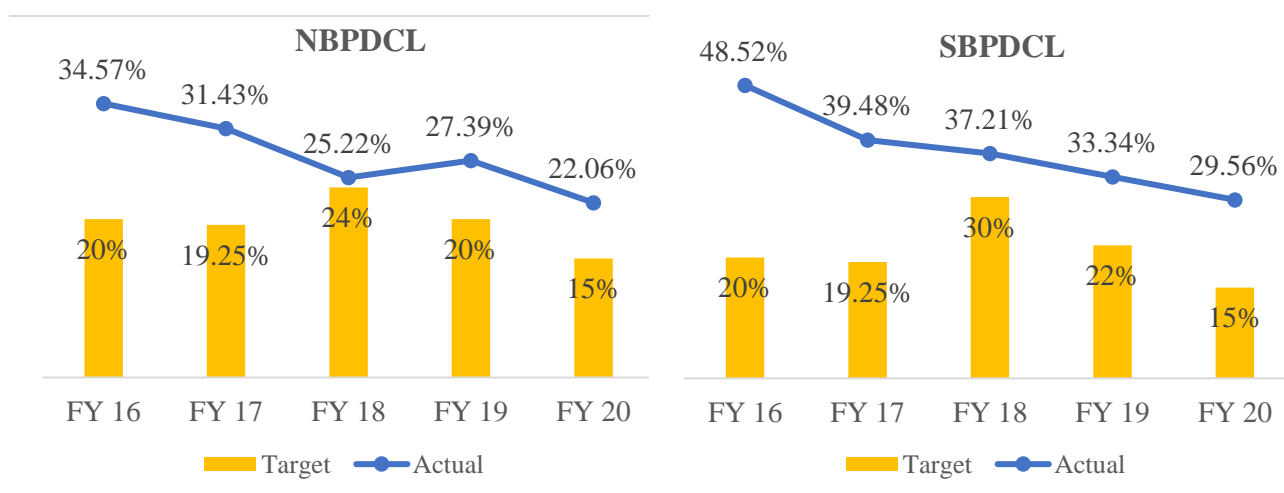
SBPDCL	15%	42.86%
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Commission’s Analysis:

4.3.11. The Commission in its Tariff Order dated 25 February 2019 has approved distribution loss trajectory for the Control period (i.e., from FY 2019-20 to FY 2020-21). As requested by the DISCOMs and adjudged by the Hon’ble APTEL in its judgement dated 25 November 2016, the Commission has revised Distribution loss target at 15% for SBPDCL and NBPDCCL for FY 2019-20, in line with trajectory approved in UDAY MoU.

4.3.12. The following graph shows the trend of actual distribution losses achieved by the Petitioners as compared to the distribution loss targets stipulated by the Commission in last 5 financial years:

Figure 7: Actual Distribution loss of NBPDCCL and SBPDCL vis-à-vis Target Distribution losses from FY 2016-17 to FY 2019-20



4.3.13. From the above graphs, the Commission observes that although the actual distribution losses of NBPDCCL and SBPDCL have reduced from 34.57% and 48.52% in FY 2015-16, respectively, to 22.06% and 29.56%, respectively in FY 2019-20, the Discoms have failed to achieve the distribution loss targets stipulated by the Commission for all the years. Further, as requested by the Petitioners, the Commission had approved an upward revision distribution loss target in FY 2017-18, in line with the Distribution Loss trajectory agreed by the Petitioners in UDAY MoU.

4.3.14. The Commission is of the view that the responsibility of achieving agreed distribution loss target lies with the Petitioners. Further, distribution losses are considered as controllable factor subject to sharing of gains/losses as per BERC (Multi Year Distribution Tariff) Regulations, 2018. Accordingly, 1/3rd impact of losses due to higher distribution losses is already being passed on to the consumers as tariff burden in line with the above stated Regulations. Therefore, Commission is of the opinion that

revising distribution loss targets to actuals for FY 2019-20 would be akin to passing on the entire burden of inefficiency on account of distribution losses on to the consumers.

4.3.15. Further, the Commission in its Tariff Order dated 20th March 2020 had retained the distribution loss target at 15% for SBPDCL and NBPDC & SBPDCL for FY 2019-20. Therefore, Commission is not inclined to revise the Distribution trajectory again. Accordingly, the Commission has retained the distribution loss target at 15% for SBPDCL and NBPDC & SBPDCL for FY 2019-20.

4.3.16. In Order dated 20 March, 2020, the Commission had directed NBPDC & SBPDCL to compute AT&C losses as per Formula and Methodology specified by Regulation 18.5 of BERC Multi Year Tariff Regulation, 2018. However, the Commission observed that petitioners have not submitted the computation of AT&C losses as per the formula and methodology specified therein. In this regard, the Commission sought computation of AT&C losses as per the specified formula in data gaps. However, petitioner failed to submit computation in the requested format.

4.3.17. Accordingly, the Commission has followed the following approach for computation of Distribution losses, Collection efficiency and AT&C losses in accordance with methodology specified in BERC Multi Year Distribution Tariff Regulation, 2018:

- a) For computation of Gross Energy Purchased at State Periphery and Energy Sold shall not include Energy Traded and Interstate sales. Thus, the Commission has considered the energy purchased as approved in Para 4.6.75 and 4.6.76.
- b) Similarly, sales under, 'Other State Sales' and 'Sales to Nepal' is also considered under Energy Traded /Inter State Sales.
- c) Further, Central Transmission losses is considered same as approved in Table 26, i.e., 2.60%.
- d) Revenue Actually realized from sale of power (as stated in row "F" in the table below) does not include amount of Tariff Subsidy booked and Revenue from Energy Traded /Inter-State Sales. Accordingly, the Commission has considered the revenue approved in Para 4.23.10 and excluded revenue associated to above mentioned Energy Traded /Inter State Sales.
- e) Tariff Subsidy booked and Tariff subsidy actually received by the licensee is shown by the petitioner in their Audited statement, and same is considered by the Commission for AT&C computation.

4.3.18. Accordingly, the Commission has computed Distribution losses, Collection efficiency and AT&C losses as per the following format specified in MYT Regulation:

Table 22: AT&C losses Computation for FY 2019-20 of NBPDC & SBPDCL, as approved by the Commission

Legend	Particular		Units	NBPDC L	SBPDCL L
1	Total Power Purchase			14198.84	17708.66
2	Energy Traded /Inter State Sales			838.20	152.82
3	Central Transmission losses			301.10	375.53
A	Gross Energy Purchased at State Periphery		MUs	13059.54	17180.31
B	State Transmission Loss		MUs	477.98	628.80
C	Net Energy at Distribution Periphery	A-B	MUs	12581.56	16551.51
D	Distribution Loss (Mus)	C-E	MUs	2788.09	4783.10
	Distribution loss%	D/C	%	22.16%	28.90%
E	Energy Sold (Mus)		MUs	9793.46	11768.41
F	Revenue from sale of power without subsidy		(Rs. in Crore)	4976.65	6226.11
G	Tariff Subsidy actually received		(Rs. in Crore)	2636.01	2078.37
H	Net Revenue from sale of energy on subsidy received basis	F+G	(Rs. in Crore)	7612.65	8304.48
I	Tariff Subsidy booked		(Rs. in Crore)	2636.01	2552.86
J	Revenue from sale of energy on subsidy booked basis	F+I	(Rs. in Crore)	7612.65	8778.97
K	Opening Debtors for Sale of Energy		(Rs. in Crore)	1724.27	4247.42
L	Closing Debtors for Sale of Energy			2190.60	6077.99
M	Any amount written off during the year directly from "L" above			-	-
N	Adjusted closing debtor for sales of energy	L+M		2190.60	6077.99
O	Collection Efficiency	(H+K-N) * 100/J		93.87%	73.74%
P	Unit Realised	E*O/100		9193.54	8678.41
Q	Unit Un-Realised	C-P		3388.02	7873.10
R	AT&C loss	Q*100/C		26.93%	47.57%

4.3.19. Accordingly, the Commission has approved the actual Distribution losses, Collection efficiency and AT&C losses for the Petitioners in True-up of FY 2019-20 as shown in Table Below:

Table 23: AT&C losses for FY 2019-20 of NBPDC & SBPDCL, as approved by the Commission

Particular	NBPDC	SBPDCL
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	Approved Target	Claimed for FY 2019-20	Approved in True-up	Approved Target	Claimed by SBPDCL	Approved in True-up
Distribution loss	15%	21.61%	22.16%	15%	27.89%	28.90%
Collection Efficiency	100%	93.50%	93.87%	100%	79.24%	73.74%
AT&C loss	15%	26.71%	26.93%	15%	42.86%	47.57%

4.3.20. From the above Table, Commission has observed that the AT&C loss of both the petitioner is significantly higher compared to approved AT&C losses.

4.3.21. In view of above, the Commission sought justification from Petitioners for such high AT&C losses. SBPDCL has submitted that a small base of 22.35 lakh consumers of SBPDCL in 2015, has now increased to 100% of households in the state, serving a consumer base of 57.9 Lakh at the end of FY 2020. This has led to skewed LT:HT Ratio wherein sales are in proportion to 92.4:7.6 and consumer ratio in proportion to 99.97:0.03, respectively.

4.3.22. Similarly, NBPDCCL has submitted that NBPDCCL's base of 35.5 lakh consumers of SBPDCL in 2015, has now increased to 100% of households in the state, serving a consumer base of 100.87 Lakh at the end of FY 2020. This has led to a skewed LT:HT Ratio (excluding sales to Nepal) wherein sales are in proportion to 92.29:7.71 and consumer ratio in proportion to 99.99:0.01 respectively.

4.3.23. Petitioners further submitted that higher volume of sales to LT consumers leads to low energy per consumer having relatively higher technical losses. As a fact that most consumers added recently to the network under the Saubhagya scheme are LT consumers due to which the LT network length has further increased. This has led to a rise in AT&C loss against the stringent norms determined by the Commission. Increase in AT&C losses also led to increase in financial losses.

4.3.24. In view of failure of petitioner to meet the Distribution loss targets, the Commission sought the details of initiatives taken by the Petitioner to reduce distribution losses in FY 2019-20. In their response petitioners submitted that following initiative are undertaken to reduce Distribution losses:

- (i) Installation of Air Bunched Cables in Urban Areas.
- (ii) Instructions for replacement of non-performing meter readers being given out on routine basis to Spot billing agencies (SBA)'s and the RRF's.
- (iii) Increased sampling of the Spot billing cases by the supervisors/ junior engineer for cross verification purpose.
- (iv) Meter shifting activity has been expedited whereby the meters at improper heights are to be reinstalled at readable height thereby reducing the no of consumer billed on assessed units. Spot billing agencies (SBA) have been tasked with installation of these meters for accuracy in the Spot Billing based on actual Meter Readings.

- (v) Creating billing cycles, ensuring billing of each consumer by 25th of every month and lowering dependence at the fag-end of the month.
- (vi) Granting permission to the field employees for localized procurement of Smart Mobile handsets and Bluetooth printers (at predefined and approved rates), facilitating them to ensure billing of certain consumers left out of billing by the meter readers of SBAs and RRFs.
- (vii) Classifying each consumer into a unique Meter reading Unit (MRU), for better planning, accurate tracking and monitoring the Metering, Billing and collection activities
- (viii) Plan to rollout a self-billing app, permitting certain consumer categories to generate their own bill by uploading the meter readings.
- (ix) Launch of SUVIDHA app in Jan 2020 for issuance of new connection, load enhancement, name or/and address change, rooftop solar net metering etc. can be applied from home.
- (x) Creating a roadmap for establishing checks and balances, ensuring billing of consumers as per actual purpose of use that is observed on site.
- (xi) Defective meter is being replaced and consumers are being billed on actual consumption.
- (xii) Standardization of the meter reading codes, giving actionable insights into the Billing Performance, key on site information.
- (xiii) Weekly review of the unbilled consumers, and action plan for ensuring billing such consumers within same billing month.

4.3.25. The Commission has noted petitioner's submission. The Commission further directs petitioner to continue its effort in reducing Distribution loss and AT&C loss. Petitioner shall also submit the quarterly status report for the initiative taken by the petitioner to reduce AT&C loss during the Year.

4.4. Transmission Losses

NBDCL' Submission:

4.4.1. Petitioner s Submitted that has taken the Intra-State transmission loss as per actuals i.e. 507.73 MUs from the audited accounts for FY 2019-20. Petitioner has also submitted that it has taken the Central Transmission loss as per actuals i.e. 333.19 MUs from the audited accounts for FY 2019- 20.

SBPDCL' Submission:

4.4.2. Petitioner submitted that has taken the Intra-State transmission loss as per actuals, i.e., 631.99 MUs from the audited accounts for FY 2019-20. Petitioner has also submitted that it has taken the Central Transmission loss as per actuals, i.e., 415.55 MUs from the audited accounts for FY 2019-20.

Commission Analysis:

- 4.4.3. In response to the clarification sought by the Commission, Petitioner submitted the month wise computation of inter-state and intra-state Transmission losses. The Commission carried out the prudence check of Petitioners' submission and found it to be in line with Regional Energy Accounting (REA) and UI deviation accounts for the period FY 2019-20 for Bihar from the ERPC website. Accordingly, the Commission has computed inter-state Transmission loss as shown in Table below:

Table 24: Inter-state Transmission losses for FY 2019-20

	Particular		Unit	Computation
A	Billed Energy in Central Sector		MUs	30921.36
B	Actual energy as per ERPC (kWh)		MUs	30457.15
C	Railway		MUs	522.68
D	STOA		MUs	37.86
E	Over/Under Injection by Bhutan		MUs	(65.90)
F	Infirm Injection by Mangdechu		MUs	155.64
G	UI (kWh)		MUs	(130.30)
H	DISCOM Drawal Schedule	B-C-D-G	MUs	30026.91
i.	Difference against Billed Energy and Schedule Drawal of DISCOM	I=A-E-F-H	MUs	804.70
j.	Inter-State Transmission losses	I/A		2.60%

- 4.4.4. Accordingly, the Commission considers Interstate- transmission loss at 2.60% in Truing up for FY 2019-20.
- 4.4.5. The Commission has considered the Intra state transmission loss at 3.92% as approved in Truing-up for FY 2019-20 in the Tariff Order dated 19 March, 2021 of BSPTCL for FY 2021-22.

4.5. Energy balance

NBDCL & SBPDCL Submission:

- 4.5.1. Petitioners has submitted that energy balance is calculated based on the actual sales, distribution losses and power availability during FY 2019-20. Detailed computation as submitted by the petitioner vis-à-vis the Energy balance approved by the Commission in MYT Order dated 25th February 2019 is shown in Table below:

Table 25: Energy Balance for Truing-up of FY 2019-20, as submitted by NBDCL & SBPDCL

S. No.	Particular	Unit	NBDCL		SBPDCL	
			Approved in MYT Order for FY 2019-20	Actual Claimed for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual Claimed for FY 2019-20
A	Energy Requirement					
1.	Energy Sales	MUs	13,045.43	10,636.00	14,240.66	12037.96

S. No.	Particular	Unit	NBPDC		SBPDCL	
			Approved in MYT Order for FY 2019-20	Actual Claimed for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual Claimed for FY 2019-20
2.	Less: Inter-State Sales	MUs	1,503.00	838.20	-	152.82
3.	Energy sales excluding Inter-State sales	MUs	11,542.43	9,797.80	14,240.66	11885.14
4.	Distribution Loss	%	15%	21.62%	15%	27.89%
5.	Add: Distribution loss	MUs	2036.90	2,702.31	2513.06	4597.46
6.	Energy Requirement at Distribution periphery	MUs	13,579.33	12,500.11	16,753.72	16482.60
7.	Add: Inter-State sales	MUs	1,503.00	838.20	-	152.82
8.	Total Energy Requirement at Distribution periphery	MUs	15,082.33	13,338.31	16,753.72	16635.42
9.	State Transmission Loss	%	3.92%	3.66%	3.92%	3.66%
10.	Add: State Transmission Loss	MUs	615.35	506.73	683.54	631.99
11.	Total Energy Required at STU periphery	MUs	15,697.68	13,845.04	17,437.26	17267.41
B	Energy Availability					
12.	From Central Sector	MUs		10,044.09		12526.90
13.	From IPPs	MUs		1,536.72		1916.59
14.	From Renewable Sources	MUs		548.18		683.68
15.	UI (net)	MUs		(118.53)		(147.83)
16.	Other Power Purchase	MUs		1,849.22		2306.33
17.	From State Generating Station	MUs		318.55		397.29
18.	CTU Loss	%		2.88%		2.88%
19.	Add: CTU Loss	MUs		333.19		415.55
20.	Net Power Available at State Periphery	MUs		13,845.04		17267.41
21.	Energy Surplus/ (Deficit at State Periphery)	MUs		-		-

Commission Analysis:

- 4.5.2. The Energy Balance for FY 2019-20 has been computed based on the approved energy sales in para 4.2.42 in the True-up of the year.
- 4.5.3. Sales at distribution network is determined by deducting inter-state sales (i.e., Sales to Nepal, Inter-state sales, etc). Distribution loss, as determined based on actual loss computed in para 4.3.19, is added in distribution network sales to arrive at the energy

requirement at distribution network periphery.

4.5.4. Further, Energy required in state transmission periphery is computed based on the intra-state Transmission loss as approved in para 4.4.5. The Central Transmission loss on Central station, IPPs, etc has been arrived based on the CTU losses approved in this Order.

4.5.5. The details of energy requirement and energy availability during FY 2019-20 is Computed in below:

Table 26: Energy Balance for Truing-up of FY 2019-20, as approved by the Commission

Sr No	Particulars	Unit	NBDCL	SBPDCL
			Actual FY 2019-20	Actual FY 2019-20
A	Energy Requirement			
1	Energy sales	MU	10,636.00	11,921.23
2	Less: Inter-state sales	MU	838.20	152.82
3	Energy sales excluding Inter-state sales	MU	9,797.80	11,768.41
4	Distribution Loss	%	22.16%	28.90%
5	Add: Distribution Loss	MU	2,788.09	4,783.10
6	Total energy required at Distribution periphery (excluding inter-state sales)	MU	12,581.56	16,551.51
7	State Transmission Loss	%	3.66%	3.66%
8	Add: State Transmission Loss	MU	477.98	628.80
9	Total energy required at Transmission periphery	MU	13,059.54	17,180.31
10	Add: Inter-state sales	MU	838.20	152.82
11	Total energy required at State Transmission Periphery	MU	13,897.74	17,333.13
B	Energy Available			
1	From Central Sector	MU	10,044.09	12,526.90
2	From IPP	MU	1,536.72	1,916.59
3	From State Generating Stations	MU	318.55	397.29
4	From Renewable Sources	MU	548.18	683.68
5	UI (Net)	MU	(97.92)	(122.13)
6	Others (please specify)	MU	1,849.22	2,306.33
7	CTU losses	%	2.60%	2.60%
8	CTU Losses	MU	301.10	375.53
9	Net power available at State periphery (1+2+3+4+5+6-8)	MU	13,897.74	17,333.13
C	Energy Surplus/(Deficit) at State Periphery	MU	-	-

4.6. Power Purchase Expenses

NBDCL & SBPDCL's Submission:

- 4.6.1. Petitioner submitted that the Bihar being an underdeveloped power generation state. As a result, the State power distribution companies rely heavily on central generating stations and other inter-state power purchase to meet consumers demand within the State. This dependence consequently creates uncertainty in terms of reliability and also significantly pushes up the power purchase costs (due to the fact that sometimes the power allocation is made from inefficient plants in addition to the higher inter- state transmission charges and losses). Power procurement from both the petitioner is executed by the power management cell of BSP(H)CL, and this is allocated between the two DISCOMs, NBPDCCL and SBPDCL, in the proportion as determined by the board resolution based on the demand growth requirement and consequent power supply requirement.
- 4.6.2. **Long Term Power Purchase** from existing source has primarily been NTPC, NHPC and the same has been considered based on the actual quantum with adjustments to capture overall power purchase cost in a reasonable manner. Other sources of power include power procured from State Generating companies (RE and Non-RE Sources) and IPPs. Medium / Short Term power are purchase from sources namely IEX, DEEP Portal etc.
- 4.6.3. Renewable Power Purchase Obligation Petitioner submitted that the Commission has notified the BEREC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 and BEREC (Terms and Conditions for Tariff Determination from Solar Energy Sources) Regulations, 2010. Further, the Commission notified 2nd amendment to the RPO Regulation dated 29 March 2017. RPO target specified by the 2nd amendment to the above mentioned RPO Regulations is shown in Table below:

Table 27: Renewable Purchase Obligation (%) as per relevant RPO Regulations

From Renewable Sources	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
RPO (%)	6.50%	7.75%	9.25%	11.50%	14.25%	17.00%
Solar (%)	1.50%	2.25%	3.25%	4.75%	6.75%	8.00%
Non-Solar (%)	5.00%	5.50%	6.00%	6.75%	7.50%	9.00%

- 4.6.4. The Commission has also come up with its 3rd amendment in due course BEREC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 and amended Clause 4 as follows:

"Provided that on achievement of Solar RPO compliance to the extent of 85% and above in any year, remaining shortfall, if any, may be met by purchase of excess non-solar energy beyond the percentage specified for Non-Solar RPO for that particular year.

Provided further that on achievement of Non-Solar RPO compliance to the extent of 85 % and above in any year, remaining shortfall, if any, may be met

by purchase of excess solar energy beyond the percentage specified for solar RPO for that particular year".

- 4.6.5. In line with the above, Petitioners has submitted the detail of the Renewable Energy based power procured during FY 2019-20.

Actual Power Purchase Quantum

- 4.6.6. The details of actual power purchased from various sources in FY 2019-20 as submitted by NBPDCCL and SBPDCL is shown in Table below:

Table 28: Actual Power Purchase for FY 2019-20, as claimed by NBPDCCL & SBPDCL

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 Stations	2,035.75	10,044.09	2,389.90	12,526.90	4,425.65	22,570.99
FSTPP I &II	231.09	1,277.94	271.28	1,593.84	502.37	2,871.78
FSTPP III	49.49	272.73	58.10	340.18	107.59	612.91
KHSTPP I	161.74	1,007.12	189.87	1,256.07	351.61	2,263.19
KHSTPP II	34.36	245.95	40.34	306.75	74.70	552.70
Barh Stage II	550.95	3,170.37	646.77	3,954.06	1,197.72	7,124.43
BRBCL Unit I – III	34.5	224.84	40.50	280.42	75.00	505.26
Korba	11.50	33.85	13.50	42.22	25.00	76.07
Talcher Stage I	189.73	1,048.87	222.73	1,308.14	412.46	2,357.01
KBUNL Stage II	134.50	721.72	157.89	900.12	292.39	1,621.84
NPGCL Unit I	257.35	950.68	302.11	1,185.68	559.46	2,136.36
Darlipali STPS Unit I	43.64	17.53	51.24	21.86	94.88	39.39
Chuka	36.80	234.71	43.20	292.73	80.00	527.44
Rangit	9.66	53.85	11.34	67.16	21.00	121.01
Tala	118.45	335.65	139.05	418.62	257.50	754.27
Teesta	49.88	258.87	58.55	322.86	108.43	581.73
Mangdechhu	122.11	189.40	143.35	236.22	265.46	425.62
State Generating Stations	176.78	318.55	207.52	397.29	384.30	715.84
BSPHC	24.98	12.80	29.32	15.96	54.30	28.76
KBUNL Stage I	101.20	239.70	118.80	298.95	220.00	538.65
BTPS Stage I Unit I	50.60	66.05	59.40	82.38	110.00	148.43
IPPs	224.48	1,536.72	263.52	1,916.59	488.00	3,453.31
GMR	119.60	772.00	140.40	962.84	260.00	1,734.84
JITPL	104.88	764.72	123.12	953.75	228.00	1,718.47
Renewables	322.74	548.18	378.33	683.67	701.07	1,231.85
Sunmark Energy	4.60	6.81	5.40	8.49	10.00	15.30

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)
Projects Ltd						
Response renewable Energy	4.60	6.80	5.40	8.48	10.00	15.28
Avantika Contractors Ltd	2.30	2.96	2.70	3.69	5.00	6.65
Glatt Solutions Pvt Ltd	1.38	2.12	1.62	2.65	3.00	4.77
Alfa Infraprop Pvt Ltd	9.20	13.51	10.80	16.85	20.00	30.36
Udipta Energy & Equipment Pvt Ltd	2.30	2.89	2.70	3.60	5.00	6.49
Azure Power India Pvt Ltd	4.60	5.17	5.40	6.45	10.00	11.62
Welspun Renewables Project – I	4.60	6.81	5.40	8.50	10.00	15.31
Welspun Renewables Project – II	6.90	9.96	8.10	12.42	15.00	22.38
Welspun Renewables Project – III	6.90	10.20	8.10	12.72	15.00	22.92
Acme Cleantech Project (Nalanda)	6.90	9.73	8.10	12.14	15.00	21.87
Acme Cleantech Project (Magadh)	4.60	6.84	5.40	8.53	10.00	15.37
Solar Energy Corporation of India Ltd	4.60	8.07	5.40	10.06	10.00	18.13
Wind ISTS Scheme Tranche I	92.00	178.22	108.00	222.26	200.00	400.48
Wind ISTS Scheme Tranche II	46.00	126.70	54.00	158.02	100.00	284.72
SECI Green Infra	46.00	49.42	54.00	61.64	100.00	111.06
Betam	23.09	14.78	27.11	18.43	50.20	33.21
New Swadeshi Sugar Mill	4.60	6.57	5.40	8.19	10.00	14.76
Hasanpur Sugar Mill	6.67	8.14	7.83	10.16	14.50	18.30
Bharat Sugar Mills	6.90	17.47	8.10	21.79	15.00	39.26
Hari Nagar Sugar Mills	6.67	23.63	7.83	29.47	14.50	53.10
HPCL Biofuels Ltd, Sugali	9.20	6.00	10.80	7.48	20.00	13.48
HPCL Biofuels Ltd, Lauria	9.20	7.94	10.80	9.90	20.00	17.84
Riga Sugar Company Ltd	1.38	0.90	1.62	1.12	3.00	2.02
Siddhashram Rice Mill Cluster Pvt Ltd	0.46	1.09	0.54	1.35	1.00	2.44
Bihar Distillers & Bottlers Pvt Ltd	4.32	7.60	5.08	9.48	9.40	17.08

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)
Tirupati Sugar	2.76	7.85	3.24	9.79	6.00	17.64
PTC 5 Wind	-	0.01	-	0.01	-	0.02
Others	50.60	1,730.69	-	2,158.50	50.60	3,889.19
PTC (IEX)	-	1,244.24	-	1,551.80	-	2,796.04
PTC Short Term	-	310.04	-	386.68	-	696.72
TATA Energy Trading Ltd	-	77.81	-	97.05	-	174.86
Manikaran	-	20.38	-	25.41	-	45.79
NEA	-	48.14	-	60.04	-	108.18
Unscheduled Interchange (UI)	-	(118.53)	-	(147.83)	-	(266.36)
DB Power	-	21.50	-	26.81	-	48.31
PTC JITPL	31.63	84.28	-	105.12	31.63	189.40
PTC SKS Power	18.98	41.79	-	52.12	18.98	93.91
UPPCL	-	1.05	-	1.31	-	2.36
Total	2,810.35	14178.23	3,299.10	17682.96	6,109.45	31,861.19

Actual Power Purchase Cost

- 4.6.7. Petitioner submitted that power purchase cost mainly comprises of fixed charges and energy charges for two-part Tariff essentially with NTPC, NHPC, GMR Kamalanga, Sugar mills, biomass, bagasse and only energy charges in case of single part Tariff based PPAs, which are typically for BSHPC, Solar and short term power purchase, etc. The Petitioner has presented the actual expenditure incurred on power purchase based on bills raised by the various power sellers.
- 4.6.8. Petitioner also submits that the schedule and drawl of power from the grid is a factor of sale to consumers which further impacts the demand of the Petitioner and hence becomes uncontrollable in nature for the Petitioner. Further, the DSM settlement mechanism regulation issued by the CERC provides commercial settlement of deviations and seeks to maintain grid frequency. However, maintaining zero deviation in schedule and drawl by any entity is an ideal scenario which is practically a huge challenge for any entity.
- 4.6.9. NBPDC has submitted that, it has suffered an underdrawal of 118.53 MU which has resulted into a DSM charge of Rs. 20.09 Crore. NBPDC submitted that the power purchase cost also includes prior period expenses of Rs. 70.63 Crore. It has also included REC Cost of Rs. 61.65 Crore and the Transmission Charges of Rs. 1,056.57 Crore (excluding prior period expenses) along with the rebate availed by the Petitioner on account of prompt payment to generators and transmission companies. Accordingly, NBPDC has claimed power purchase cost to an amount of Rs 7,139.75 Crore for FY

2019-20. The Summary of power purchase detail submitted by the NBPDC for FY 2019-20 is shown in Table below:

Table 29: Power Purchase Cost for FY 2019-20, as claimed by NBPDC

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 Station	10,044.09	1,686.20	2,367.31	19.21	4,072.72	4.05
State Generating Station	318.55	101.61	99.87	17.05	218.54	6.86
IPPs	1,536.72	374.06	175.42	48.75	598.23	3.89
Renewables	548.18	-	230.47	0.27	230.74	4.21
REC	-	-	-	61.65	61.65	-
Other Sources	1,849.22	-	870.53	6.82	877.34	4.74
Unscheduled Interchanges	(118.53)	-	20.09	-	20.09	(1.69)
Transmission and Other Charges	-	1,057.30	-	-	1,057.30	-
Prior Period Expense	-	-	-	70.63	70.63	-
Rebate for Promat Payment	-	-	-	(67.51)	(67.51)	-
Total	14,178.23	3,219.17	3,763.69	156.88	7,139.75	5.04

4.6.10. Similarly, SBPDCL has suffered an under-drawal of 147.83 MU which has resulted into a DSM charge of Rs. 25.05 Crore. SBPDCL submitted that the power purchase cost also includes including the prior period expenses of Rs. 87.15 Crore. It has also included REC Cost of Rs. 70.34 Crore and the Transmission Charges of Rs. 1,318.64 Crore (excluding prior period expenses) along with the rebate availed by the Petitioner on account of prompt payment to generators and transmission companies. Accordingly, SBPDCL has claimed power purchase cost to an amount of Rs 8,941.99 Crore for FY 2019-20. The Summary of power purchase submitted by the SBPDCL for FY 2019-20 is shown in Table below:

Table 30: Power Purchase Cost for FY 2019-20, as claimed by SBPDCL

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 Station	12,526.90	2,102.78	2,952.49	23.96	5,079.22	4.05
State Generating Station	397.29	126.73	124.56	21.27	272.56	6.86

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)
IPPs	1,916.59	466.52	218.79	60.80	746.11	3.89
Renewables	683.68	-	287.45	0.34	287.79	4.21
REC	-	-	-	70.34	70.34	-
Other Sources	2,306.33	-	1,085.71	8.50	1,094.22	4.74
Unscheduled Interchanges	(147.83)	-	25.05	-	25.05	(1.69)
Transmission and Other Charges	-	1,318.64	-	-	1,318.64	-
Prior Period Expense	-	-	-	87.15	87.15	-
Rebate for Promat Payment	-	-	-	(39.08)	(39.08)	-
Total	17,682.96	4,014.67	4,694.04	233.28	8941.99	5.06

4.6.11. Further, petitioner also submitted the summary of the expenses towards inter-state and intra-state Transmission Charges (including prior period expense) for FY 2019-20 based on actual audited accounts is given in the table below:

Table 31: Transmission Cost claimed by NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDC	SBPDCL
Interstate Transmission Charges (Paid to PGCIL, POSOCO/ERLDC, Open Access charges)	522.94	658.15
Intrastate Transmission Charges (Paid to BSPTCL, BGCL, SLDC)	534.36	666.45

4.6.12. Petitioner requested the Commission to adopt the actual distribution loss for FY 2019-20 for calculation of disallowance of power purchase cost due to excess distribution loss.

4.6.13. The Petitioner further submitted that, in previous years, the methodology adopted by the Commission for arriving at surplus is based on very idealistic situation where it is assumed that entire energy purchased less normative loss in a year is billed to consumers in that particular year and difference of the two is termed as surplus energy on account of higher loss than approved one. This assumption is against the pragmatic scenario where some portion of the difference so arrived (energy purchased minus normative loss minus energy billed to consumers) is absorbed in network and some portion are consumed by the consumers to be billed in subsequent year.

4.6.14. Further, the energy rate considered by the State Commission to regulate the power purchase cost against the disallowed power purchase quantum has been arrived at by dividing total power purchase cost from a source by summation of total quantum of energy purchased during various time blocks of the year from that source. Those

sources whose energy rates so arrived are higher, have been identified for disallowance. This implies that the State Commission instead of comparing energy rates of different sources in same time block has wrongly compared annual average rate of energy of different sources. This approach is not only against the MoD principle which states for comparison of variable charges of different sources in same time block but practically non implementable as such assumption ignores the variation in price and demand of power in different time blocks of a day. Accordingly, the Petitioners requested the Commission to revisit the methodology to regulate power purchase quantum and cost for future purpose.

4.6.15. In view of above, Petitioners submitted the summary of the Gain/(Loss) on account of controllable and uncontrollable factors of power purchase in the Table below.

Table 32: Gains/(Loss) on account of truing up of Power Purchase Expenses for FY 2019-20 as submitted by Petitioners (in Rs. Crore)

S. No.	Particulars	Unit	NBDCL		SBPDCL	
			With Actual Distribution loss	With Approved Distribution loss	With Actual Distribution loss	With Approved Distribution loss
1	Energy Sales	MU	10,636.00	10,636.00	12,038.00	12,038.00
2	Less: Interstate Sales	MU	838.20	838.20	153.00	153.00
3	Energy sales excluding Inter-state Sales	MU	9,797.80	9,797.80	11,885.00	11,885.00
4	Distribution Loss	%	21.62%	15.00%	27.89%	15.00%
5	Add: Distribution Loss	MU	2,702.31	1,729.02	4,597.00	2,097.00
6	Energy Requirement at Distribution Periphery	MU	12,500.11	11,526.82	16,483.00	13,983.00
7	Add: Inter-State Sales	MU	838.20	838.20	153.00	153.00
8	Energy Requirement at Distribution Periphery	MU	13,338.31	12,365.02	16,635.00	14,135.00
	Additional Energy requirement due to excess distribution loss	MU		973.29		2,500.00
	Additional Power Purchase cost at APPC	Rs. Crore		490.52		1260.00

Table 33: Gain/(loss) on account of controllable and uncontrollable factors of power purchase for FY 2019-20 as submitted by Petitioners (in Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed in True-up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBDCL					
Power Purchase Cost	6,012.76	6,020.79	(8.03)	(490.52)	482.49
PGCIL & Other	421.12	522.94	(101.82)		(101.82)

transmission charges					
BSPTCL & BGCL transmission Charges, and SLDC Charges	558.45	534.36	24.09		24.09
RE Purchase	59.05	61.65	(2.60)		(2.60)
Total	7,051.38	7136	(88.37)	(490.52)	402.16
SBPDCL					
Power Purchase Cost	6,745.25	7,546.17	(800.92)	(1,259.83)	458.91
PGCIL & Other transmission charges	494.36	659.01	(164.65)		(164.65)
BSPTCL & BGCL transmission Charges, and SLDC Charges	655.58	666.45	(10.87)		(10.87)
RE Purchase	58.26	70.49	(12.08)		(12.23)
Total	7,953.45	8,941.97	(988.52)	(1,259.83)	271.32

4.6.16. Further in the submission, NBPDC & SBPDCL has stated that they had received an amount of Rs. 510 Crore and Rs. 350 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 Petitioner has considered such amount as income while arriving at the Revenue Gap for calculation of Annual Revenue Requirement for FY 2019-20.

Commission Analysis:

4.6.17. The Commission has undertaken a detailed scrutiny of the power purchase cost claimed by the petitioners in Format 5 of their petition and the power purchase cost provided in their Audited Accounts for FY 2019-20. On scrutiny, discrepancy was found in the power purchase cost claimed by Petitioners in the format compared to the Audited Accounts. The details of variation is shown in the table below:

Table 34: Power Purchase cost claimed vis-à-vis Power Purchase cost as per audited account for FY 2019-20

Sl. No.	Particulars	NBPDC			SBPDCL		
		Claimed for FY 2019-20	As per Audited Accounts of FY 2019-20	Difference	Claimed for FY 2019-20	As per Audited Accounts of FY 2019-20	Difference
1	Energy Purchase (MU)	14178.23	14178.23	-	17682.96	17682.96	-
2	Total Power Purchase Cost (Rs. Crore)	7139.75	7145.60	5.85	8941.99	8910.71	31.28

4.6.18. The Commission sought clarification on the above variation. In response, Petitioners submitted that in Table 15 of the Petition which provided the details of the power purchase cost, the cost towards procurement of RECs (Rs. 61.65 Crore for NBPDC &

and Rs. 70.34 Crore for SBPDCL) and Rebate on power purchase of (Rs. (67.51) Crore for NBPDC and Rs. (39.71) Crore for SBPDCL) have been adjusted. Accordingly, NBPDC and SBPDCL have arrived at a power purchase cost of Rs. 7145.60 Crore and Rs. 8910.71 Crore, respectively. The Commission has noted the petitioners' submissions on adjustment of REC and rebate on power purchase cost and the treatment for the same is accorded in subsequent paras of this Order.

4.6.19. The Commission has undertaken detailed scrutiny of the submissions/claims made by the Petitioners and sought clarification on various matters on the power purchase cost for FY 2019-20. The power purchase source-wise scrutiny and approval of cost and quantum of power purchase for NBPDC and SBPDCL is accorded in subsequent paragraphs.

I. Power Purchase from Central Generating station

4.6.20. The Commission undertook the detailed scrutiny of all the power purchase bills submitted by the Petitioners for Central Generating Stations (CGS) and found to be in Order.

a. NTPC Power Stations:

4.6.21. Petitioners have claimed the power purchase of 9,277.36 MUs for NBPDC at a cost of Rs. 3,999.48 Crore and 11,570.64 MUs for SBPDCL at a cost of Rs 4,980.39 Crore, from NTPC Power station. The Commission has verified the source-wise power purchase quantum and cost of all the NTPC stations and reconciled it with the Audited Accounts for FY 2019-20. However, discrepancy in power purchase cost claimed by SBPDCL was identified and the same was enquired by the Commission through a data gap query.

4.6.22. In response to the above data gap query, SBPDCL submitted that prior period expenses have been included in the power purchase expenses of each NTPC power stations in its Audited Accounts for FY 2019-20.

Table 35: Power Purchase Cost of SBPDCL from NTPC generating stations for FY 2019-20

Claimed by SBPDCL	As per Annual Account for FY 2019-20 of SBPDCL	Difference
Rs. 4980.39 Crore	Rs. 5039.99 Crore	Rs.59.60 Crore

4.6.23. The Commission noted, the power purchase expense of SBPDCL excluding prior period expenditure is Rs. 4980.39 Crore. The Commission verified the fixed charge, energy charge and quantum of power procured (as shown in Table below) by NBPDC and SBPDCL from the actual bill submitted by the petitioner and found the claim of petitioner in order.

Table 36: Power Purchase Quantum, Fixed Charge and Energy Charge for FY 2019-20

	Quantum	Fixed Charge	Energy Charge
NBPDC	9,277.36	1,745.95	2,215.60
SBPDCL	11,570.64	2,177.30	2,763.27

- 4.6.24. The Commission noted miscellaneous expense claimed by petitioner in power purchase cost of NBPDC as Rs. 31.93 Crore and by SBPDCL as and Rs. 39.82 Crore for FY 2019-20. The Commission undertook detailed verification of miscellaneous expense claimed by petitioner. The Commission observes miscellaneous expense of NTPC power station is against RLDC Charges, Energy Charges on Coal, Compensation Charges, Deferred Tax Liability, Publication Expenses, Filing Charges and Water & Pollution Cess.
- 4.6.25. The Commission opines that miscellaneous expenses as mentioned above is prudent and is beyond the control of the discoms. . Hence, Commission approves power purchase cost of Rs. 3993.48 Crore for NBPDC and Rs. 4980.39 Crore for SBPDCL from NTPC generating stations for FY 2019-20.
- 4.6.26. The Commission carried out detailed scrutiny of prior period expenditure of NBPDC and SBPDCL in later para of this section.
- 4.6.27. Accordingly, station wise details of approved power purchase quantum and cost NTPC generating stations for FY 2019-20, is shown in Table Below:

Table 37 Power Purchase of NBPDC from NTPC generating stations approved for FY 2019-20

Name of NTPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs. /kWh)
<i>FSTPP I & II</i>	1,277.94	125.64	2.55	325.60	11.08	462.32	3.62
<i>FSTPP III</i>	272.73	47.87	2.51	68.52	(0.19)	116.20	4.26
<i>KHSTPP I</i>	1,007.12	109.50	2.20	221.33	(0.24)	330.59	3.28
<i>KHSTPP II</i>	245.95	25.06	2.09	51.34	(0.12)	76.28	3.10
<i>Barh Stage II</i>	3,170.37	683.07	2.47	784.06	(2.63)	1,464.50	4.62
<i>Nabinaga (BRBCL) Unit I - III</i>	224.84	55.29	2.34	52.58	(0.32)	107.56	4.78
<i>Korba</i>	33.85	4.76	1.32	4.48	0.26	9.51	2.81
<i>Talcher Stage I</i>	1,048.87	105.95	2.03	212.90	3.75	322.61	3.08
<i>KBUNL Stage II</i>	721.72	236.52	2.73	196.93	3.11	436.56	6.05
<i>KBUNL Stage I</i>	239.70	69.87	3.27	78.28	0.08	148.23	6.18
<i>BTPS Stage I Unit I</i>	66.05	31.74	2.79	18.41	16.98	67.12	10.16
<i>NPGCL Unit I</i>	950.68	250.97	2.09	199.07	0.09	450.13	4.73
<i>Darlipali STPS</i>	17.53	3.92	1.19	2.08	0.07	6.07	3.47

Name of NTPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
<i>Unit I</i>							
<i>Capacity Charge Refund by NTPC</i>	-	(4.21)		-	-	(4.21)	
Total	9,277.36	1,745.95	2.39	2,215.60	31.93	3,993.48	4.30

Table 38: Power Purchase of SBPDCL from NTPC generating stations approved for FY 2019-20

Name of NTPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
<i>FSTPP I & II</i>	1,593.84	156.69	2.55	406.09	13.82	576.60	3.62
<i>FSTPP III</i>	340.15	59.71	2.51	85.45	(0.23)	144.93	4.26
<i>KHSTPP I</i>	1,256.07	136.56	2.20	276.05	(0.30)	412.31	3.28
<i>KHSTPP II</i>	306.75	31.25	2.09	64.03	(0.15)	95.13	3.10
<i>Barh Stage II</i>	3,954.06	851.92	2.47	977.87	(3.28)	1,826.51	4.62
<i>Nabinaga (BRBCL) Unit I - III</i>	280.42	68.96	2.34	65.58	(0.40)	134.15	4.78
<i>Korba</i>	42.22	5.94	1.32	5.59	0.33	11.86	2.81
<i>Talcher Stage I</i>	1,308.14	132.14	2.03	265.53	4.68	402.35	3.08
<i>KBUNL Stage II</i>	900.12	294.98	2.73	245.61	3.88	544.48	6.05
<i>KBUNL Stage I</i>	298.95	87.14	3.27	97.63	0.10	184.87	6.18
<i>BTPS Stage I Unit I</i>	82.38	39.59	2.79	22.95	21.17	83.71	10.16
<i>NPGCL Unit I</i>	1,185.68	313.00	2.09	248.28	0.12	561.40	4.73
<i>Darlipali STPS Unit I</i>	21.86	4.89	1.19	2.60	0.08	7.58	3.47
<i>Capacity Charge Refund by NTPC</i>	-	(5.49)		-	-	(5.49)	
Sub-total	11,570.64	2,177.30	2.39	2,763.27	39.82	4,980.39	4.30

b. NHPC Power Station:

- 4.6.28. Power Purchase from NHPC is claimed to be 312.72 MUs for NBPDC & 309.02 MUs for SBPDCL.
- 4.6.29. NBPDC has claimed power purchase cost of Rs. 86.44 Crore against total power purchase of 312.72 MUs from Rangit and Teesta generating stations of NHPC. The Commission has validated the power purchase cost and quantum from Audited Accounts and the invoices submitted by NBPDC. Accordingly, the Commission found NBPDC's submission consistent to the Audited Account.
- 4.6.30. During scrutiny of SBPDCL's submission, the Commission has found discrepancy in power purchase cost claimed by SBPDCL compared to the Audited Accounts for FY

2019-20 of SBPDCL. In response to the clarification sought by the Commission, SBPDCL submitted that prior period expenses have been included in the power purchase expenses for each NHPC power stations in the Audited Accounts for FY 2019-20.

Table 39: Power purchase of SBPDCL from NHPC generating Stations for FY 2019-20

Claimed by SBPDCL	As per Annual Account for FY 2019-20 of SBPDCL	Difference
Rs. 107.80 Crore	Rs. 121.81 Crore	Rs.14.01 Crore

4.6.31. The Commission observes power purchase cost from NHPC generating stations except prior period expenditure (as claimed by petitioner) for SBPDCL is Rs. 107.80 Crore. The Commission carried out detailed scrutiny of quantum of power purchased, fixed charge and energy charge of NBPDC and SBPDCL from actual bill submitted and found the claim of petitioner in order.

4.6.32. The Commission observes, Rs. 4.33 Crore and Rs. 5.41 Crore has been claimed as miscellaneous expense by NBPDC and SBPDCL respectively for NHPC generating stations. The Commission took detail assessment of miscellaneous expense claimed as above. Commission observes that, miscellaneous expense is due to RLDC charges and beneficiary effective tax rate change impact.

4.6.33. The Commission opines that, the nature of miscellaneous cost from NHPC generating station is prudent and is beyond the control of the discoms. Hence, Commission approves Rs. 86.44 Crore power purchase cost for NBPDC and Rs. 107.80 Crore for SBPDCL from NHPC generating stations for FY 2019-20. The Commission carried out detailed scrutiny of prior period expenditure of NBPDC and SBPDCL in later para of this section.

4.6.34. Station wise detail of approved power purchase quantum and cost from NHPC generating stations for FY 2019-20, is shown in Table Below:

Table 40: Power Purchase of SBPDCL & NBPDC from NHPC generating stations approved for FY 2019-20

Name of NHPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs. /kWh)
NBPDC							
Rangit	53.85	10.52	1.88	10.14	0.36	21.01	3.90
Teesta	258.87	31.34	1.16	30.11	3.98	65.43	2.53
Total	312.72	41.86	1.29	40.24	4.33	86.44	2.76
SBPDCL							
Rangit	67.16	13.12	1.88	12.64	0.45	26.20	3.90
Teesta	322.86	39.09	1.16	37.55	4.96	81.60	2.53
Sub-Total	390.02	52.21	1.29	50.19	5.41	107.80	2.76

Name of NHPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
Total	390.02	52.21	1.29	50.19	19.42	121.81	3.12

II. Power Purchase from State Generating stations

4.6.35. NBPDC and SBPDCL has purchased 12.80 MUs and 15.96 MUs, respectively from BSHPC. The Commission observes only energy cost for claimed by petitioner for power purchased from BSHPC. The Commission has verified the power purchase cost of Rs. 3.19 Crore for NBPDC and Rs. 3.97 Crore for SBPDCL from their Audited Accounts for FY 2019-20 and the actual submitted bills. The Commission observes that, energy cost of Rs. 2.49 per kWh being charged by BSHPC is as approved by Commission on provisional basis. After detailed scrutiny Commission found the claimed power purchase cost for BSHPC to be in order. Hence, the Commission approves Rs. 3.19 Crore and 3.97 Crore as claimed by NBPDC and SBPDCL, respectively.

4.6.36. Detail of approved power purchase quantum and cost from BSHPCs generating stations for FY 2019-20, is shown in Table Below:

Table 41: Power Purchase of SBPDCL & NBPDC from BSHPC generating stations approved for FY 2019-20

Particular	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
<i>BSHPC power purchase from NBPDC</i>	12.80	-	2.49	3.19	-	3.19	2.49
<i>BSHPC power purchase from SBPDCL</i>	15.96	-	2.49	3.97	-	3.97	2.49

III. Power Purchase from Bhutan

4.6.37. Power purchased from Bhutan includes Tala, Chuka and Mangdechu Power Stations. NBPDC and SBPDCL is procuring power from above mentioned power stations through PTC India Ltd. NBPDC and SBPDCL have purchased 759.76 MUs and 947.57 MUs, respectively, from these stations. Accordingly, NBPDC claimed Rs. 208.15 Crore and SBPDCL claimed Rs. 259.61 Crore against the power purchase cost from Tala, Chuka and Mangdechu power stations. The Commission has validated the quantum of power procured from Tala, Chuka and Mangdechu from REA Accounting Statement for FY 2019-20. Further, Commission validated the claim of petitioner from Audited Account and bills submitted by petitioners of PTC India Ltd. and found the

submissions to be in order.

Table 42: Power Purchase Cost and Quantum from Bhutan stations for FY 2019-20, as approved by the Commission

Name of NHPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
NBPDC							
Tala	335.65	-	2.16	72.38	-	72.38	2.16
Chuka	234.71	-	2.41	56.59	-	56.59	2.41
Mangdechhu	189.40	-	4.18	79.19	-	79.19	4.18
Total	759.76	-	2.74	208.15	-	208.15	2.74
SBPDCL							
Tala	418.62	-	2.16	90.27	-	90.27	2.16
Chuka	292.73	-	2.41	70.57	-	70.57	2.41
Mangdechhu	236.22	-	4.18	98.76	-	98.76	4.18
Total	947.57	-	2.74	259.61	-	259.61	2.74

IV. Power Purchased from IPPs

4.6.38. Power purchase from IPPs includes Power purchased from GMR and JITPL. NBPDC and SBPDCL have submitted power purchased Quantum of 1,536.73 MUs and 1,916.59 MUs, respectively from IPPs. The Commission has validated the claim from audited accounts of respective petitioners and crossed verified the same from the power purchase bills submitted by the Petitioners.

4.6.39. Further, NBPDC claimed Rs. 598.23 Crore (Rs. 301.19 Crore for GMR + Rs. 297.04 Crore for JITPL) as power purchase cost from IPPs. The Commission verified the cost of power purchase from GMR and JITPL. The Commission notes that, power purchase cost from GMR and JITPL claimed by NBPDC is consistent with the Audited Accounts for FY 2019-20 of NBPDC and actual bills submitted.

4.6.40. Similarly, SBPDCL claimed Rs. 746.11 Crore as power purchase cost from IPPs (Rs. 375.64 Crore from GMR + Rs. 370.47 Crore from JITPL). The Commission found variation in Power purchase cost claimed by petitioner vis-à-vis cost booked in Audited Accounts of SBPDCL for FY 2019-20. The same is shown in the table below:

Table 43: Power purchase from IPP of SBPDCL for FY 2019-20

IPP Stations	Claimed by SBPDCL	Annual Account for FY 2019-20 of SBPDCL	Difference
GMR	Rs. 375.64 Crore	Rs. 382.37 Crore	Rs. 6.73 Crore
JITPL	Rs. 370.47 Crore	Rs. 370.47 Crore	Rs. 0.00 Crore

4.6.41. The Commission sought clarification from SBPDCL on the above variation. In response, SBPDCL clarified that the difference is due to inclusion of prior period

expenses of Rs. 6.73 Crore in the Annual Accounts against GMR power station. The Commission notes the submission of SBPDCL and considered Rs. 375.64 Crore for GMR and Rs. 370.47 Crore for JITPL for SBPDCL for further evaluation.

- 4.6.42. The Commission observed that miscellaneous cost of Rs. 48.75 Crore (63.80 Crore from GMR + Rs. (15.05) Crore from JITPL) has been claimed by NBPDC and Rs. 60.80 Crore (Rs. 79.57 Crore from GMR + (18.77) Crore from JITPL) by SBPDCL. The Commission validated the submission of SBPDCL from the power purchase bills and found to be in order.
- 4.6.43. The Commission observes the miscellaneous expense claimed by petitioner from IPP is for adjustment of POC charges. Further, Commission states that, prior period expenditure has been dealt in the later para of this section.
- 4.6.44. Hence, the Commission approves the power purchase cost and quantum from IPPs for FY 2019-20 as shown in Table below:

Table 44: Power Purchase from IPPs stations approved for FY 2019-20

Name of NHPC Stations	Units Purchased (MU)	Fixed Charge (Rs Crore)	Energy Cost (Rs/kWh)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
NBPDC							
GMR	772.00	145.58	1.19	91.81	63.80	301.19	3.90
JITPL	764.72	228.47	1.09	83.61	(15.05)	297.04	3.88
Total	1,536.72	374.06	1.14	175.42	48.75	598.23	3.89
SBPDCL							
GMR	962.84	181.57	1.19	114.50	79.57	375.64	3.90
JITPL	953.75	284.95	1.09	104.28	(18.77)	370.47	3.88
Sub-Total	1,916.59	466.52	1.14	218.79	60.80	746.11	3.89
Total	1,916.59	466.52	1.14	218.79	67.53	752.84	3.93

V. Renewable Power Purchase

- 4.6.45. NBPDC and SBPDCL has purchased 548.18 MUs and 683.68 MUs from Renewable Energy Sources, respectively. Against the aforesaid renewable power purchase NBPDC and SBPDCL has claimed purchase cost of Rs. 292.40 Crore and Rs. 358.13 Crore, respectively. The Commission observed that the claimed power purchase cost was not matching with the Audited Accounts for FY 2019-20. The same is shown in the table below:

Table 45: Renewable Power Purchase for FY 2019-20

SBPDCL		Difference	NBPDC		Difference
Claim in Petition	Annual Account for FY 2019-20		Claim in Petition	Annual Account for FY 2019-20	
358.13	287.79	70.34	292.40	230.75	61.65

4.6.46. In response to clarification sought by the Commission on above Petitioner clarified that, difference as shown above is cost of REC purchase, which has not been accounted in the Audited Accounts.

4.6.47. The Commission verified the cost of renewable power (except cost of REC purchase) from the Audited Account for FY 2019-20 of SBPDCL and NBPDC and actual bill submitted by petitioner. The Commission found the claim of petitioner in order. Miscellaneous charge of Rs. 0.34 Crore has been claimed by NBPDC and SBPDCL from SECI. The Commission observes that, the misc. charge claimed is amount of transmission charge to be reimbursed by distribution companies.

4.6.48. The Commission finds the misc. charge claimed is prudent in nature. Hence, the Commission approves renewable power cost of Rs. 287.79 Crore for SBPDCL and Rs. 230.75 Crore for NBPDC.

Table 46: Power Purchase of SBPDCL from RE sources approved for FY 2019-20

Renewables	Units purchased (MU)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs. /kWh)
Solar					
<i>M/s Sunmark Energy Projects Limited (Formerly MBCEL)</i>	8.49	4.82	-	4.82	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	8.48	4.81	-	4.81	5.67
<i>M/s Avantika Contractors Ltd., Hyderabad</i>	3.69	2.84	-	2.84	7.69
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	2.65	1.50	-	1.50	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	16.85	13.26	-	13.26	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	3.60	2.88	-	2.88	7.98
<i>Azure Power India Pvt. Ltd.</i>	6.45	5.41	-	5.41	8.39
<i>Welspun Renewables Project - I</i>	8.50	7.39	-	7.39	8.70
<i>Welspun Renewables Project – II</i>	12.42	10.73	-	10.73	8.64
<i>Welspun Renewables Project – III</i>	12.72	10.89	-	10.89	8.56
<i>Acme Cleantech Project (Nalanda)</i>	12.14	10.60	-	10.60	8.73

Renewables	Units purchased (MU)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
<i>Acme Cleantech Project (Magadh)</i>	8.53	7.45	-	7.45	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	10.06	5.53	0.34	5.88	5.84
Total- Solar	114.58	88.10	0.34	88.44	7.72
Non-Solar					
<i>Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)</i>	222.26	78.46	-	78.46	3.53
<i>Wind ISTS Scheme Tranche II (SECI) (Orange)</i>	158.02	42.82	-	42.82	2.71
<i>SECI Green Infra</i>	61.64	11.71	-	11.71	1.90
<i>Betam</i>	18.43	4.64	-	4.64	2.52
<i>New Swadeshi Sugar Mill, Narkataganj</i>	8.19	4.13	-	4.13	5.05
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	10.16	6.31	-	6.31	6.22
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	21.79	10.94	-	10.94	5.02
<i>Hari Nagar Sugar Mills, Hari Nagar, West Champaran</i>	29.47	16.59	-	16.59	5.63
<i>HPCL Biofuels Ltd., Sugauli, East Champaran</i>	7.48	4.21	-	4.21	5.63
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	9.90	5.57	-	5.57	5.63
<i>Riga Sugar Company Ltd.</i>	1.12	0.70	-	0.70	6.25
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	1.35	1.00	-	1.00	7.40
<i>Bihar Distillers & Bottlers Pvt ltd</i>	9.48	6.04	-	6.04	6.37
<i>Tirupati Sugar</i>	9.79	6.21	-	6.21	6.34
<i>PTC 5 Wind</i>	0.01	0.00	-	0.00	3.53
Total- Non-Solar	569.09	199.35	-	199.35	3.50
Total	683.68	287.45	0.34	287.79	4.21

Table 47: Power Purchase of NBPDC from RE sources approved for FY 2019-20

Renewables	Units purchased (MU)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
Solar					
<i>M/s Sunmark Energy Projects</i>	6.81	3.86	-	3.86	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	6.80	3.85	-	3.85	5.67
<i>M/s Avantika Contractors Ltd.,</i>	2.96	2.27	-	2.27	7.69

Renewables	Units purchased (MU)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs./kWh)
<i>Hyderabad</i>					
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	2.12	1.20	-	1.20	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	13.51	10.63	-	10.63	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	2.89	2.31	-	2.31	7.98
<i>Azure Power India Pvt. Ltd.</i>	5.17	4.34	-	4.34	8.39
<i>Welspun Renewables Project - I</i>	6.81	5.93		5.93	8.70
<i>Welspun Renewables Project – II</i>	9.96	8.60		8.60	8.64
<i>Welspun Renewables Project – III</i>	10.20	8.73		8.73	8.56
<i>Acme Cleantech Project (Nalanda)</i>	9.73	8.50	-	8.50	8.73
<i>Acme Cleantech Project (Magadh)</i>	6.84	5.97	-	5.97	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	8.07	4.44	0.27	5.97	5.84
Total	91.87	70.64	0.27	70.91	6.45
Non-Solar					
<i>Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)</i>	178.21	62.91	-	62.91	3.53
<i>Wind ISTS Scheme Tranche II (SECI) (Orange)</i>	126.70	34.34	-	34.34	2.71
<i>SECI Green Infra</i>	49.42	9.39	-	9.39	1.90
<i>Betam</i>	14.78	3.72	-	3.72	2.52
<i>New Swadeshi Sugar Mill, Narkataganj</i>	6.57	3.31	-	3.31	5.05
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	8.14	5.06	-	5.06	6.22
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	17.47	8.77	-	8.77	5.02
<i>Hari Nagar Sugar Mills, Hari Nagar, West Champaran</i>	23.63	13.30	-	13.30	5.63
<i>HPCL Biofuels Ltd., Sugauli, East Champaran</i>	6.00	3.37	-	3.37	5.63
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	7.94	4.47	-	4.47	5.63
<i>Riga Sugar Company Ltd.</i>	0.90	0.56	-	0.56	6.25
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	1.09	0.80	-	0.80	7.40
<i>Bihar Distillers & Bottlers Pvt ltd</i>	7.60	4.84	-	4.84	6.37

Renewables	Units purchased (MU)	Energy Cost (Rs Crore)	Misce. cost (Rs Crore)	Total Cost (Rs Crore)	APPC (Rs. /kWh)
<i>Tirupati Sugar</i>	7.85	4.98	-	4.98	6.34
<i>PTC 5 Wind</i>	0.01	0.00	-	0.00	3.53
Total Non-Solar	456.30	159.84	-	159.84	3.83
Total	548.18	230.47	0.27	230.75	4.20

VI. Power Purchase cost from Other Sources

4.6.49. Power purchased from short term bilateral, Exchange, NEA and UPPCL is claimed under Other Power purchase sources. NBPDC has purchased 1,849.22 MUs and 2,306.33 MUs from Other sources.

4.6.50. NBPDC has claimed Rs. 877.34 Crore and SBPDCL has claimed Rs. 1094.22 Crore against the power purchased from short term, NEA and UPPCL. The Commission verified the claim submitted by petitioner from Audited Accounts for FY 2019-20 and actual bill submitted. and found the claim of petitioner in order. The Commission also notes that, short term power was procured through a Competitive bidding process and hence approves the power purchase as claimed by the Petitioners. Hence, the Commission approves Rs. 1094.22 crore for SBPDCL and Rs. 877.34 Crore for NBPDC as power purchase cost from other sources.

VII. UI Charges:

4.6.51. The Commission observes that SBPDCL has claimed Rs. 25.05 Crore DSM charge against 147.83 MU of under-drawal and NBPDC has claimed Rs. 20.09 Crore of DSM charge against 118.53 MU under-drawal.

4.6.52. The Commission scrutinised the data for (under-drawl)/over-drawl of power from ERLDC website. The Commission found that, DISCOMs have net under-drawl of 130.31 MUs, while petitioner has claimed 265.44 MU under-drawl (147.83 MU of NBPDC and 118.53 MU of SBPDCL).

4.6.53. Similarly, the Commission also observed discrepancy in UI charges. As per UI statement of ERLDC, the Commission observed that the cumulative UI charges levied to the Petitioners are Rs. 91.11 Crore as against Rs. 45.14 Crore (Rs. 25.05 for SBPDCL and Rs. 20.09 Crore for NBPDC) submitted by the petitioners. In this regard, the Commission sought clarification and reconciliation of unscheduled power purchase from petitioner.

4.6.54. In response to the above, Petitioners submitted the reconciled sheet of unscheduled power claiming 220.05 MU over-drawal power. Petitioners further submitted that UI settlement has been bifurcated under three heads, namely (Under-drawal) / Over-drawal of DISCOMs, Settlement of Infirm Power Injection of Mangdechu and Under-injection/ Over-injection of Tala, Teesta and Mangdechu, as shown in Table below.

Table 48: UI settlement and Charges for FY 2019-20, as submitted by petitioner

S. no.	Particulars	Deviation Quantum (Under Drawal)/ Over Drawal (MUs)	Deviation Charges (Rs. Crore)
A	UI - Over-drawal/ (Under-drawal) of Bihar	(130.31)	91.11
B	Infirm Injection by Mangdechu	(155.64)	(45.59)
C	Over/(Under) Injection by Bhutan Plants	65.90	-
D	Net Units to be adjusted under UI	(220.05)	45.52

4.6.55. The Commission verified the above-mentioned quantum submitted by petitioner from ERPC website and found it to be in order. The Commission allocates the quantum of UI energy to SBPDCL (122.13 MU) and NBPDC (97.92 MU) as per their share allocation of 55.5% and 44.5% respectively. The Commission verified the above-mentioned quantum submitted by petitioner from ERPC and found to be in order.

4.6.56. The Commission further verified the DSM charge claimed by petitioner from ERPC and found the discrepancy in the claim of petitioner to the ERPC website as shown below:

Table 49: UI settlement and Charges submitted by Petitioner for FY 2019-20

S. No.	Particulars	Deviation Quantum (Under Drawal)/ Over Drawal (MUs)	Deviation Charges (Rs. Crore)
A	UI (Overdrawal/ Underdrawal of Bihar)	(130.31)	91.11
<i>i</i>	<i>Deviation Charges</i>		53.80
<i>ii</i>	<i>Additional Deviation Charges (Volume)</i>		32.08
<i>iii</i>	<i>Additional Deviation Charges (Sing Change)</i>		5.23
B	Infirm Injection by Mangdechu	155.64	(23.01)
C	Over/Under Injection by Bhutan Plants	(65.90)	(22.58)
D	Net Units to be adjusted under UI (A+C+D)	(220.05)	45.52

4.6.57. It's to be noted that UI rate is frequency dependent and its settlement is governed by Central Electricity Regulatory Commission (Deviation Settlement Mechanism & Related Matters) Regulations, 2014 and amendments thereon. CERC in 4th Amendment dated 20 August 2018 introduced Additional Deviation Charges for "Sign Change Violation" applicable from 01 January 2019. The licensee while (under-drawal)/over-drawal of UI energy should adhere to the above-mentioned Regulations and their (under-drawal) /over-drawal should be strictly within the specified limit to avoid any

additional deviation charges. No over-drawal of electricity by any buyer shall be permissible when grid frequency is below 49.85 Hz.

- 4.6.58. The additional charges on account of deviation in volume and Sign change are penal in nature. Hence, it's not prudent to allow such charges to pass on to the consumers. Therefore, the Commission disallows these additional deviation charges of Rs. 37.31 Crore (i.e. Rs. 32.08 Crore of additional charge on deviation in Quantum and Rs. 5.23 Crore of additional charge on sign change).
- 4.6.59. Further, the remaining deviation charges of Rs. 8.21 Crore (i.e. Rs. 45.52 Crore minus Rs. 37.31 Crore) is shared to SBPDCL & NBPDC in the power purchase sharing ratio of 55.50:44.50, respectively.

Table 50: UI settlement and Charges approved for FY 2019-20

Particular	Total	Share of NBPDC (44.50%)	Share of SBPDCL (55.50%)
UI Quantum (MUs)	(220.05)	(97.92)	(122.13)
UI charges	8.21	3.66	4.56

VIII. Prior Period Expense

- 4.6.60. SBPDCL and NBPDC has claimed Rs. 87.15 Crores. and Rs. 70.63 Crores. as prior period expense in FY 2019-20. Petitioner has claimed prior period expenditure from NTPC, NHPC, IPP, POSOCO and PGCIL. The Commission verified the claim of SBPDCL and NBPDC from the actual bill submitted for the prior period expenses.
- 4.6.61. The Commission observes that, the prior period expenses from NTPC power generating station has occurred due to RLDC Charges, Energy Charges on Coal, Compensation Charges, Deferred Tax Liability, Publication Expenses, Filing Charges and Water & Pollution Cess.
- 4.6.62. Prior period expenses from NHPC power generating station is due to beneficiary FERV and beneficiary deferred tax materialized. Prior period expense from IPP power generating stations is due to quarterly trued up POC charges by PGCIL. Prior period expense from PGCIL is RTDA deviation charges issued by ERPC.
- 4.6.63. The Commission opines that, above expenses as claimed in prior period for FY 2019-20 is prudent. The Commission carried out detailed scrutiny of prior period expense claimed by petitioners for FY 2019-20 and found the claim in order. Hence, the Commission approves the prior period expense claimed by petitioner as Rs. 87.15 Crores. and Rs. 70.63 Crores for SBPDCL and NBPDC respectively.

IX. Renewable Energy Certificate

- 4.6.64. The Commission observes that, REC cost of Rs. 61.65 Crore of NBPDC and Rs. 70.34 Crore of SBPDCL has not been mentioned in their Audited Account for FY 2019-20.

However, Renewal power obligation expense of Rs. 61.65 Crore in Note 32 of Audited Account of NBPDC and Rs. 11.48 Crore in Note 30 of Audited Account of SBPDCL. The Commission sought clarification from both the DISCOMs on the same and asked to provide the reconciliation of Solar and Non-Solar REC purchased in FY 2019-20. Petitioners in their response submitted that, Note-30 and Note 32 of Audited Account of SBPDCL and NBPDC, respectively has incorporated provision created for shortfall in RPO Compliance for FY 2019-20. However, it is to mention that the Commission vide order dated 17 June 2020 in case no. 12/2020 has allowed carry forward of shortfall due to unprecedented Covid-19 lockdown. It is requested to consider the same. Petitioner has also furnished the detail of REC Purchase along with REC certificate and Obligation report from exchange as shown in Table below:

Table 51: REC detail submitted by Petitioner for FY 2019-20

Particular	NBPDC		SBPDCL	
	Number of Certificate	REC Cost (Rs. Crore)	Number of Certificate	REC Cost (Rs. Crore)
Solar	1,66,501	44.95	1,96,948	53.19
Non- Solar	73,949	12.61	1,19,266	17.30
Total		57.56		70.49

- 4.6.65. The Commission observes the difference in the REC cost as claimed by NBPDC in its petition to the REC cost of Rs. 57.56 Crore submitted by NBPDC as shown in above table. The Commission sought clarification from NBPDC. In response to that NBPDC stated that, it has booked Rs. 4.09 Crore as provisional basis in its Audited Account for the purchase of REC.
- 4.6.66. The Commission validated the cost of REC of NBPDC for FY 2019-20 from actual bill and found claim of Rs. 57.56 Crore in order. Therefore, Commission approves Rs. 57.56 Crore as cost of REC for NBPDC.
- 4.6.67. The Commission has further scrutinised the detail of REC submitted by the SBPDCL from the actual bill for FY 2019-20 and found REC cost of Rs. 70.49 Crore in Order. However, the Commission noted that, Rs. 11.48 Crore has been only booked in the Audited Accounts for FY 2019-20 of SBPDCL as Renewable Power purchase Obligation and entire cost of REC purchase of Rs. 70.49 Crore has not been accounted in the Audited Accounts of SBPDCL for FY 2019-20. The Commission opines that SBPDCL has not provided any details of booking the balance expenditure in the audited accounts. Since the expenditure may also get booked in the subsequent financial year and the same would come up in the true up petition of the corresponding year, the Commission is constrained to pass through the balance cost only on the basis of REC certificate and power exchange obligation report. Especially the expenditure needs to be booked in the Audited Accounts, which becomes the basis of consideration of these expenses in the True up approved by the Commission. Thus, the Commission approves Rs. 11.48 Crore only as cost of REC purchase for SBPDCL for True-up of FY 2019-20 based on the amount verified in the Audited Accounts.

X. Inter-State and Intra-State Transmission Charges

4.6.68. SBPDCL claimed Rs. 1,318.64 Crore. and NBPDC claimed Rs. 1,057.30 Crore. in transmission and other charges for True up of FY 2019-20 as shown in Table Below:

Table 52: Transmission and SLDC Charges for FY 2019-20, as claimed by Petitioners

Particulars	Claimed by NBPDC for FY 2019-20 (Rs. Crore)	Claimed by NBPDC for FY 2019-20 (Rs. Crore)
SLDC	1.70	2.13
BGCL	92.49	115.35
BSPTCL	440.17	548.97
POSOCO	4.76	5.96
PGCIL	517.45	645.36
Open Access Charges	0.73	0.86
Total Transmission Charges	1,057.30	1,318.64

4.6.69. Transmission and Other Charges claimed by NBPDC in its petition found to be in order and is in line with the Audited Annual Account for FY 2019-20. Further, the Commission has verified the transmission charges as claimed by NBPDC from the actual bills submitted and found the claim of petitioner in order.

4.6.70. During scrutiny of SBPDCL's submission on Transmission charges, the Commission observed variation with the Audited Accounts of SBPDCL for FY 2019-20. The same is shown in the Table below:

Table 53: Transmission and SLDC Charges of SBPDCL for FY 2019-20

Particulars	Claimed by SBPDCL for FY 2019-20 (Rs. Crore)	As per Audited Accounts for FY 2019-20 of SBPDCL (Rs. Crore)	Difference
SLDC	2.13	2.13	0.00
BGCL	115.35	115.35	0.00
BSPTCL	548.97	548.97	0.00
POSOCO	5.96	6.43	0.47
PGCIL	645.36	651.72	6.36
Open Access Charges	0.86	0.86	0.00
Total Transmission Charges	1318.64	1325.46	6.83

4.6.71. The Commission sought clarification on the above, to which SBPDCL clarified that the difference is due to inclusion of prior period expenses of POSOCO and PGCIL in Audited Accounts of SBPDCL for FY 2019-20.

4.6.72. The Commission verified the cost of transmission and other charges claimed by petitioners from actual bills submitted by SBPDCL and found the cost claimed by petitioner in order. Hence, Commission approves the Rs. 1318.64 Crores for SBPDCL and Rs. 1057.30 Crores for NBPDC as transmission and other charges for true up of FY 2019-20.

4.6.73. **Rebate on Power Purchase:** SBPDCL and NBPDC has claimed Rs. 39.08 and Rs. 67.51 Crores, respectively as rebate on power purchase cost. The Commission opines that rebate on power purchase is Non-Tariff income of petitioner. Hence, the Commission has deducted the rebate claimed by petitioner from power purchase cost and accounted the same in Non-Tariff Income in True up of FY 2019-20

4.6.74. Based on the above, the summary of Power Purchase cost and quantum approved by the Commission in True-up of FY 2019-20 is provided in the tables below:

Table 54: Summary of Power Purchase Quantum and Cost of NBPDC for FY 2019-20, as approved by the Commission

Name of Source	Unit Purchased (MUs)	Fixed Charge (Rs. Crore)	Energy Cost (Rs. Crore)	Misce. Cost (Rs. Crore)	Total Cost (Rs. Crore)	Average Cost (Rs/kWh)
NTPC	9,277.36	1,745.95	2,215.60	31.93	3,993.48	4.30
NHPC	312.72	41.86	40.24	4.33	86.44	2.76
BSHPC	12.80	-	3.19	-	3.19	2.49
Bhutan	759.76	-	208.15	-	208.15	2.74
IPPs	1,536.72	374.06	175.42	48.75	598.23	3.89
Renewables	548.18	-	230.47	0.27	230.75	4.21
Other Sources	1,849.22	-	870.53	6.82	877.34	4.74
Unscheduled Interchanges	(97.92)	-	3.66	-	3.66	-
Transmission and Other Charges	-	1,057.30	-	-	1,057.30	-
Prior Period Expense	-	-	-	70.63	70.63	-
REC purchase	-	-	-	57.56	57.56	-
Rebate for Promat Payment	-	-	-	-	-	-
Total	14,198.84	3,219.17	3,747.26	220.30	7,186.73	5.06

4.6.75. Accordingly, the Commission has approved power purchase quantum of 14,198.84 MUs and power purchase cost of Rs. 7,186.73 Crore, for NBPDC in True-up of FY 2019-20.

Table 55: Summary of Power Purchase Quantum and Cost of SBPDCL for FY 2019-20, as approved by the Commission

Name of Source	Unit Purchased (MUs)	Fixed Charge (Rs. Crore)	Energy Cost (Rs. Crore)	Misce. Cost (Rs. Crore)	Total Cost (Rs. Crore)	Average Cost (Rs/kWh)
NTPC	11,570.64	2,177.30	2,763.27	39.82	4,980.39	4.30
NHPC	390.02	52.21	50.19	5.41	107.80	2.76
BSHPC	15.96	-	3.97	-	3.97	2.49

Name of Source	Unit Purchased (MUs)	Fixed Charge (Rs. Crore)	Energy Cost (Rs. Crore)	Misce. Cost (Rs. Crore)	Total Cost (Rs. Crore)	Average Cost (Rs/kWh)
Bhutan	947.57	-	259.61	-	259.61	2.74
IPPs	1,916.59	466.52	218.79	60.80	746.11	3.89
Renewables	683.68	-	287.45	0.34	287.79	4.21
Other Sources	2,306.33	-	1,085.71	8.50	1,094.22	4.74
Unscheduled Interchanges	(122.13)	-	-	-	-	-
Trans. and Other Charges		1,318.64	-	-	1,318.64	-
Prior Period Expense	-	-	-	87.15	87.15	-
REC purchase	-	-	-	70.49	70.49	-
Rebate for Promat Payment	-	-	-	-	-	-
Total	17,708.66	4,014.67	4,673.55	272.51	8,960.73	5.06

4.6.76. Total Source wise share of power purchase quantum as well as cost for the State of Bihar is depicted in Table below:

Figure 5: Source wise share of power purchase cost of Bihar

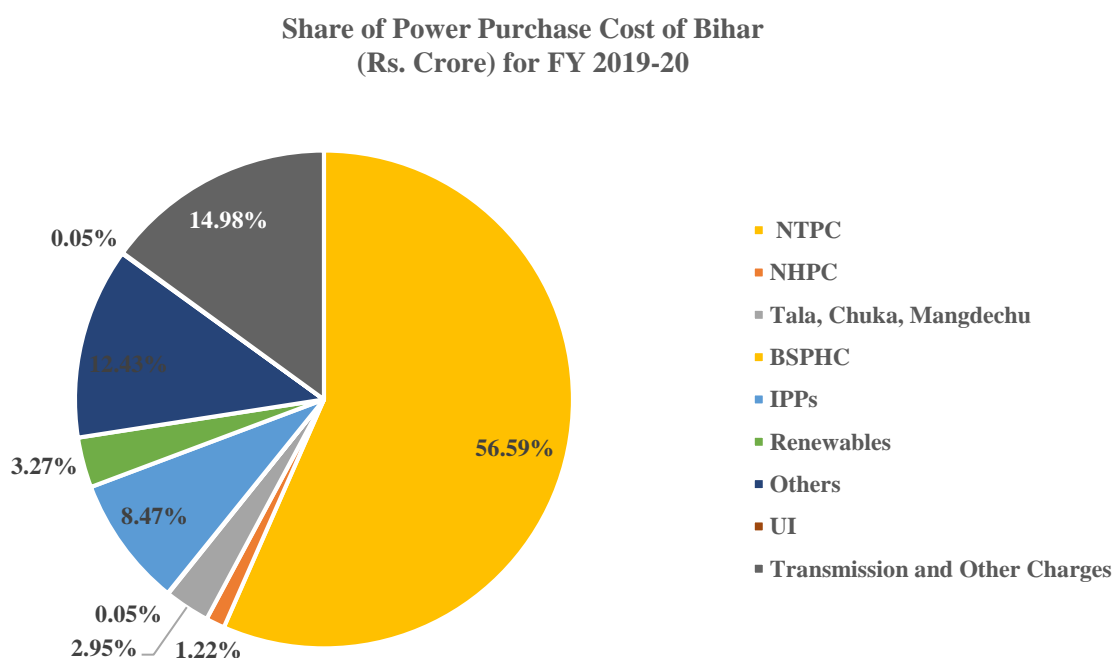
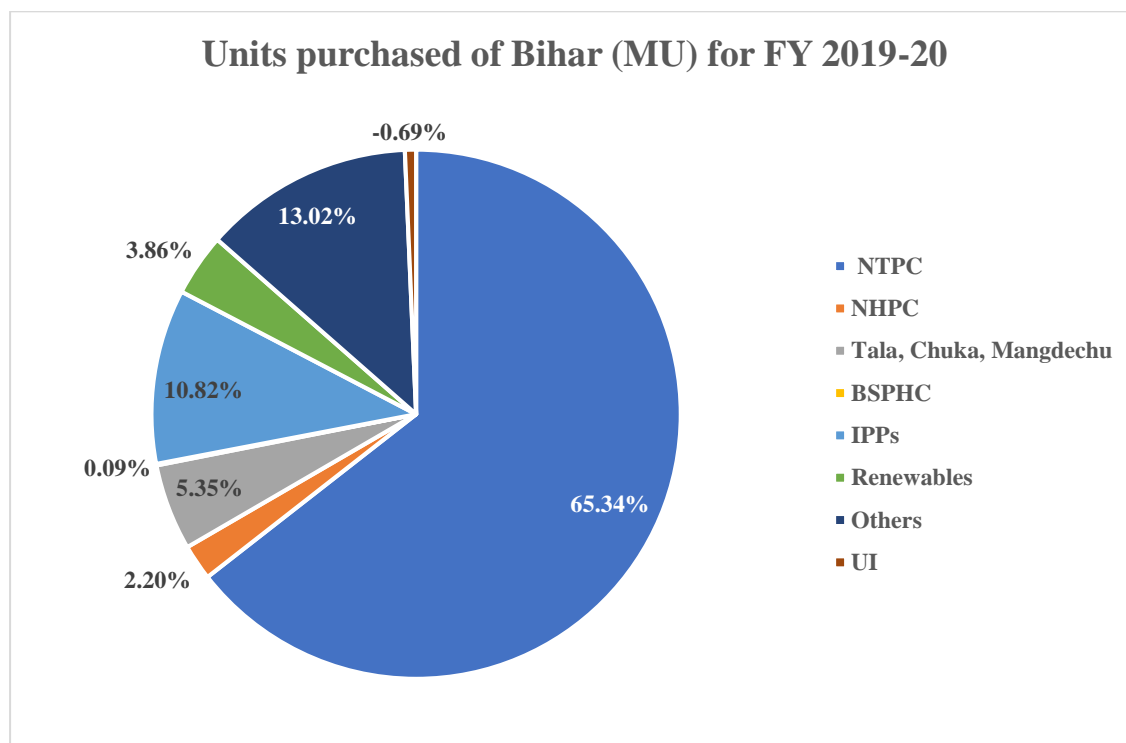


Figure 6: Source wise share of power purchase Quantum of Bihar



4.6.77. The Commission has approved power purchase quantum of 17,708.66 MUs and power purchase cost of Rs. 8,960.73 Crore, for SBPDCL in True-up of FY 2019-20. Source wise detailed power purchase is shown in Tables below:

Table 56: Power Purchase Quantum and Cost of NBPDC for FY 2019-20, as approved by the Commission

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Charge+Energy Charge)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
Central Generating Stations	2,035.75	10,044.09	1,686.20	2.36	2,367.31	4,053.51	19.21	4,072.72	4.05
<i>FSTPP I & II</i>	231.09	1,277.94	125.64	2.55	325.60	451.24	11.08	462.32	3.62
<i>FSTPP III</i>	49.49	272.73	47.87	2.51	68.52	116.39	(0.19)	116.20	4.26
<i>KHSTPP I</i>	161.74	1,007.12	109.50	2.20	221.33	330.83	(0.24)	330.59	3.28
<i>KHSTPP II</i>	34.36	245.95	25.06	2.09	51.34	76.39	(0.12)	76.28	3.10
<i>Barh Stage II</i>	550.95	3,170.37	683.07	2.47	784.06	1,467.13	(2.63)	1,464.50	4.62
<i>Nabinagar (BRBCL) Unit I - III</i>	34.50	224.84	55.29	2.34	52.58	107.88	(0.32)	107.56	4.78
<i>Korba</i>	11.50	33.85	4.76	1.32	4.48	9.25	0.26	9.51	2.81
<i>Talcher Stage I</i>	189.73	1,048.87	105.95	2.03	212.90	318.85	3.75	322.61	3.08
<i>KBUNL Stage II</i>	134.50	721.72	236.52	2.73	196.93	433.45	3.11	436.56	6.05
<i>NPGCL Unit I</i>	257.35	950.68	250.97	2.09	199.07	450.04	0.09	450.13	4.73
<i>Darlipali STPS Unit I</i>	43.64	17.53	3.92	1.19	2.08	6.01	0.07	6.07	3.47
<i>Chuka</i>	36.80	234.71	-	2.41	56.59	56.59	-	56.59	2.41
<i>Rangit</i>	9.66	53.85	10.52	1.88	10.14	20.65	0.36	21.01	3.90
<i>Tala</i>	118.45	335.65	-	2.16	72.38	72.38	-	72.38	2.16
<i>Teesta</i>	49.88	258.87	31.34	1.16	30.11	61.45	3.98	65.43	2.53
<i>Mangdechu</i>	122.11	189.40	-	4.18	79.19	79.19	-	79.19	4.18
<i>Capacity Charge Refund by NTPC</i>	-	-	(4.21)		-	(4.21)	-	(4.21)	
								-	
State Generating Stations	176.78	318.55	101.61	3.14	99.87	201.48	17.05	218.54	6.86
<i>BSPHC</i>	24.98	12.80	-	2.49	3.19	3.19	-	3.19	2.49
<i>KBUNL Stage I</i>	101.20	239.70	69.87	3.27	78.28	148.15	0.08	148.23	6.18
<i>BTPS Stage I Unit I</i>	50.60	66.05	31.74	2.79	18.41	50.15	16.98	67.12	10.16
								-	
IPPs	224.48	1,536.72	374.06	1.14	175.42	549.48	48.75	598.23	3.89

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Charge+Energy Charge)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
<i>GMR</i>	119.60	772.00	145.58	1.19	91.81	237.39	63.80	301.19	3.90
<i>JITPL</i>	104.88	764.72	228.47	1.09	83.61	312.09	(15.05)	297.04	3.88
								-	
Renewables	322.74	548.18	-	4.20	230.47	230.47	57.84	288.31	5.26
<i>M/s Sunmark Energy Projects Limited (Formerly MBCEL)</i>	4.60	6.81	-	5.67	3.86	3.86	-	3.86	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	4.60	6.80	-	5.67	3.85	3.85	-	3.85	5.67
<i>M/s Avantika Contractors Ltd., Hyderabad</i>	2.30	2.96	-	7.69	2.27	2.27	-	2.27	7.69
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	1.38	2.12	-	5.67	1.20	1.20	-	1.20	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	9.20	13.51	-	7.87	10.63	10.63	-	10.63	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	2.30	2.89	-	7.98	2.31	2.31	-	2.31	7.98
<i>Azure Power India Pvt. Ltd.</i>	4.60	5.17	-	8.39	4.34	4.34	-	4.34	8.39
<i>Welspun Renewables Project - I</i>	4.60	6.81	-	8.70	5.93	5.93	-	5.93	8.70
<i>Welspun Renewables Project – II</i>	6.90	9.96	-	8.64	8.60	8.60	-	8.60	8.64
<i>Welspun Renewables Project – III</i>	6.90	10.20	-	8.56	8.73	8.73	-	8.73	8.56
<i>Acme Cleantech Project (Nalanda)</i>	6.90	9.73	-	8.73	8.50	8.50	-	8.50	8.73
<i>Acme Cleantech Project (Magadh)</i>	4.60	6.84	-	8.73	5.97	5.97	-	5.97	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	4.60	8.07	-	5.50	4.44	4.44	0.27	4.71	5.84
<i>Wind ISTS Scheme Tranche I (PTC) (Green Infra, Inox, Mytrah & Ostro)</i>	92.00	178.21	-	3.53	62.91	62.91	-	62.91	3.53

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Charge+Energy Charge)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
<i>Wind ISTS Scheme Tranche II (SECI) (Orange)</i>	46.00	126.70	-	2.71	34.34	34.34	-	34.34	2.71
<i>SECI Green Infra</i>	46.00	49.42	-	1.90	9.39	9.39	-	9.39	1.90
<i>Betam</i>	23.09	14.78	-	2.52	3.72	3.72	-	3.72	2.52
<i>New Swadeshi Sugar Mill, Narkataganj</i>	4.60	6.57	-	5.05	3.31	3.31	-	3.31	5.05
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	6.67	8.14	-	6.22	5.06	5.06	-	5.06	6.22
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	6.90	17.47	-	5.02	8.77	8.77	-	8.77	5.02
<i>Hari Nagar Sugar Mills, Hari Nagar, West Champaran</i>	6.67	23.63	-	5.63	13.30	13.30	-	13.30	5.63
<i>HPCL Biofuels Ltd., Sugauli, East Champaran</i>	9.20	6.00	-	5.63	3.37	3.37	-	3.37	5.63
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	9.20	7.94	-	5.63	4.47	4.47	-	4.47	5.63
<i>Riga Sugar Company Ltd.</i>	1.38	0.90	-	6.25	0.56	0.56	-	0.56	6.25
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	0.46	1.09	-	7.40	0.80	0.80	-	0.80	7.40
<i>Bihar Distillers & Bottlers Pvt ltd</i>	4.32	7.60	-	6.37	4.84	4.84	-	4.84	6.37
<i>Tirupati Sugar</i>	2.76	7.85	-	6.34	4.98	4.98	-	4.98	6.34
<i>PTC 5 Wind</i>	-	0.01	-	3.53	0.004	0.004	-	0.004	3.53
								-	
REC Purchase	-	-	-		-		57.56	57.56	
								-	
Others	50.60	1,751.30	-	4.99	874.18	874.18	6.82	881.00	5.03
<i>PTC(IEX)</i>	-	1,244.24	-	4.29	534.39	534.39	-	534.39	4.29
<i>PTC Short Term</i>	-	310.04	-	6.11	189.53	189.53	-	189.53	6.11

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Charge+Energy Charge)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
<i>TATA Energy Trading Ltd.</i>	-	77.81	-	5.38	41.86	41.86	-	41.86	5.38
<i>Manikaran</i>	-	20.38	-	4.83	9.84	9.84	-	9.84	4.83
<i>NEA</i>	-	48.14	-	6.18	29.75	29.75	-	29.75	6.18
<i>UI</i>	-	(97.92)	-	(0.37)	3.66	3.66	-	3.66	(0.37)
<i>DB Power</i>	-	21.50	-	6.11	13.14	13.14	-	13.14	6.11
<i>PTC JITPL</i>	31.63	84.28	-	4.14	34.93	34.93	3.89	38.82	4.61
<i>PTC SKS Power</i>	18.98	41.79	-	3.91	16.32	16.32	2.93	19.25	4.61
<i>UPPCL</i>	-	1.05	-	7.30	0.77	0.77	-	0.77	7.30
								-	
Transmission and Other Charges	-	-	1,057.30		-	1,057.30	-	1,057.30	
<i>SLDC</i>	-	-	1.70		-	1.70	-	1.70	
<i>BGCL</i>	-	-	92.49		-	92.49	-	92.49	
<i>BSPTCL</i>	-	-	440.17		-	440.17	-	440.17	
<i>POSOCO</i>	-	-	4.76		-	4.76	-	4.76	
<i>PGCIL ULDC CHG</i>	-	-	-		-	-	-	-	
<i>PGCIL</i>	-	-	517.45		-	517.45	-	517.45	
<i>Open Access Charges</i>	-	-	0.73		-	0.73	-	0.73	
								-	
<i>Prior Period Expense</i>	-	-	-		-		70.63	70.63	
<i>Rebate for Prompt Payment</i>	-	-	-		-		-	-	
Total	2,810.35	14198.84	3,219.17	2.64	3,747.26	6,966.43	220.30	7186.73	5.06

Table 57: Power Purchase Quantum and Cost of SBPDCL for FY 2019-20, as approved by the Commission

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Cost+Energy Cost)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
Central Generating Stations	2,389.80	12,526.90	2,102.78	2.36	2,952.49	5,055.26	23.96	5,079.22	4.05
<i>FSTPP I & II</i>	271.28	1,593.84	156.69	2.55	406.09	562.78	13.82	576.60	3.62
<i>FSTPP III</i>	58.10	340.15	59.71	2.51	85.45	145.16	(0.23)	144.93	4.26
<i>KHSTPP I</i>	189.87	1,256.07	136.56	2.20	276.05	412.61	(0.30)	412.31	3.28
<i>KHSTPP II</i>	40.34	306.75	31.25	2.09	64.03	95.28	(0.15)	95.13	3.10
<i>Barh Stage II</i>	646.77	3,954.06	851.92	2.47	977.87	1,829.79	(3.28)	1,826.51	4.62
<i>Nabinagar (BRBCL) Unit I - III</i>	40.50	280.42	68.96	2.34	65.58	134.54	(0.40)	134.15	4.78
<i>Korba</i>	13.50	42.22	5.94	1.32	5.59	11.54	0.33	11.86	2.81
<i>Talcher Stage I</i>	222.73	1,308.14	132.14	2.03	265.53	397.67	4.68	402.35	3.08
<i>KBUNL Stage II</i>	157.89	900.12	294.98	2.73	245.61	540.60	3.88	544.48	6.05
<i>NPGCL Unit I</i>	302.11	1,185.68	313.00	2.09	248.28	561.29	0.12	561.40	4.73
<i>Darlipali STPS Unit I</i>	51.24	21.86	4.89	1.19	2.60	7.49	0.08	7.58	3.47
<i>Chuka</i>	43.20	292.73	-	2.41	70.57	70.57	-	70.57	2.41
<i>Rangit</i>	11.34	67.16	13.12	1.88	12.64	25.76	0.45	26.20	3.90
<i>Tala</i>	139.05	418.62	-	2.16	90.27	90.27	-	90.27	2.16
<i>Teesta</i>	58.55	322.86	39.09	1.16	37.55	76.64	4.96	81.60	2.53
<i>Mangdechu</i>	143.35	236.22	-	4.18	98.76	98.76	-	98.76	4.18
<i>Capacity Charge Refund by NTPC</i>	-	-	(5.49)		-	(5.49)	-	(5.49)	
State Generating Stations	207.52	397.29	126.73	3.14	124.56	251.29	21.27	272.56	6.86
<i>BSPHC</i>	29.32	15.96	-	2.49	3.97	3.97	-	3.97	2.49
<i>KBUNL Stage I</i>	118.80	298.95	87.14	3.27	97.63	184.77	0.10	184.87	6.18
<i>BTPS Stage I Unit I</i>	59.40	82.38	39.59	2.79	22.95	62.54	21.17	83.71	10.16
								-	
IPPs	263.52	1,916.59	466.52	1.14	218.79	685.31	60.80	746.11	3.89

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Cost+Energy Cost)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
<i>GMR</i>	140.40	962.84	181.57	1.19	114.50	296.07	79.57	375.64	3.90
<i>JITPL</i>	123.12	953.75	284.95	1.09	104.28	389.23	(18.77)	370.47	3.88
						-		-	
Renewables	378.86	683.68	-	4.20	287.45	287.45	11.82	299.26	4.38
<i>M/s Sunmark Energy Projects Limited (Formerly MBCEL)</i>	5.40	8.49	-	5.67	4.82	4.82	-	4.82	5.67
<i>M/s Response renewable Energy Ltd, Kolkata.</i>	5.40	8.48	-	5.67	4.81	4.81	-	4.81	5.67
<i>M/s Avantika Contractors Ltd., Hyderabad</i>	2.70	3.69	-	7.69	2.84	2.84	-	2.84	7.69
<i>M/s Glatt Solutions Pvt. Ltd, Kolkata.</i>	1.62	2.65	-	5.67	1.50	1.50	-	1.50	5.67
<i>Alfa Infraprop Pvt. Ltd.</i>	10.80	16.85	-	7.87	13.26	13.26	-	13.26	7.87
<i>Udipta Energy & Equipment Pvt. Ltd.</i>	2.70	3.60	-	7.98	2.88	2.88	-	2.88	7.98
<i>Azure Power India Pvt. Ltd.</i>	5.40	6.45	-	8.39	5.41	5.41	-	5.41	8.39
<i>Welspun Renewables Project - I</i>	5.40	8.50	-	8.70	7.39	7.39	-	7.39	8.70
<i>Welspun Renewables Project – II</i>	8.10	12.42	-	8.64	10.73	10.73	-	10.73	8.64
<i>Welspun Renewables Project – III</i>	8.10	12.72	-	8.56	10.89	10.89	-	10.89	8.56
<i>Acme Cleantech Project (Nalanda)</i>	8.10	12.14	-	8.73	10.60	10.60	-	10.60	8.73
<i>Acme Cleantech Project (Magadh)</i>	5.40	8.53	-	8.73	7.45	7.45	-	7.45	8.73
<i>Solar Energy Corporation of India Ltd., Government of India</i>	5.40	10.06	-	5.50	5.53	5.53	0.34	5.88	5.84
<i>Wind ISTS Scheme Tranche I (PTC)</i>	108.00	222.26	-	3.53	78.46	78.46	-	78.46	3.53
<i>Wind ISTS Scheme Tranche II</i>	54.00	158.02	-	2.71	42.82	42.82	-	42.82	2.71

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Cost+Energy Cost)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
<i>(SECI) (Orange)</i>									
<i>SECI Green Infra</i>	54.00	61.64	-	1.90	11.71	11.71	-	11.71	1.90
<i>Betam</i>	27.11	18.43	-	2.52	4.64	4.64	-	4.64	2.52
<i>New Swadeshi Sugar Mill, Narkataganj</i>	5.40	8.19	-	5.05	4.13	4.13	-	4.13	5.05
<i>Hasanpur Sugar Mill, Dalsinghsarai</i>	7.83	10.16	-	6.22	6.31	6.31	-	6.31	6.22
<i>Bharat Sugar Mills, Sidhwalia, Gopalganj</i>	8.10	21.79	-	5.02	10.94	10.94	-	10.94	5.02
<i>Hari Nagar Sugar Mills, Hari Nagar</i>	7.83	29.47	-	5.63	16.59	16.59	-	16.59	5.63
<i>HPCL Biofuels Ltd., Sugauli</i>	10.80	7.48	-	5.63	4.21	4.21	-	4.21	5.63
<i>HPCL Biofuels Ltd., Lauria, West Champaran</i>	10.80	9.90	-	5.63	5.57	5.57	-	5.57	5.63
<i>Riga Sugar Company Ltd.</i>	1.62	1.12	-	6.25	0.70	0.70	-	0.70	6.25
<i>Siddhashram Rice Mill Cluster Pvt ltd</i>	0.54	1.35	-	7.40	1.00	1.00	-	1.00	7.40
<i>Bihar Distillers & Bottlers Pvt ltd</i>	5.08	9.48	-	6.37	6.04	6.04	-	6.04	6.37
<i>Tirupati Sugar</i>	3.24	9.79	-	6.34	6.21	6.21	-	6.21	6.34
<i>PTC 5 Wind</i>	-	0.01	-	3.53	0.005	0.005	-	0.005	3.53
								-	
REC Purchase					-		11.48	11.48	
								-	
Others	59.40	2,184.20	-	4.99	1,090.27	1,090.27	8.50	1,098.78	5.03
<i>PTC(IEX)</i>	-	1,551.80	-	4.29	666.49	666.49	-	666.49	4.29
<i>PTC Short Term</i>	-	386.68	-	6.11	236.38	236.38	-	236.38	6.11
<i>TATA Energy Trading Ltd.</i>	-	97.05	-	5.38	52.20	52.20	-	52.20	5.38
<i>Manikaran</i>	-	25.41	-	4.83	12.27	12.27	-	12.27	4.83

Order on approval of Truing-up for FY 2019-20, APR of FY 2020-21 and ARR for FY2021-22 for NBPDC & SBPDCL

Name of The Source	Share allocated (MW)	Units purchased (MU)	Fixed charge (Rs Crs)	Energy Cost (Rs/kWh)	Energy cost (Rs Crs)	Total Cost (Fixed Cost+Energy Cost)	Miscellaneous cost (Rs Crs)	Total Cost (Rs Crs)	Average Cost (Rs./kWh)
NEA	-	60.04	-	6.18	37.10	37.10	-	37.10	6.18
UI	-	(122.13)	-	(0.37)	4.56	4.56	-	4.56	(0.37)
DB Power	-	26.81	-	6.11	16.38	16.38	-	16.38	6.11
PTC JITPL	37.13	105.12	-	4.14	43.57	43.57	4.85	48.42	4.61
PTC SKS Power	22.28	52.12	-	3.91	20.36	20.36	3.65	24.01	4.61
UPPCL	-	1.31	-	7.30	0.96	0.96	-	0.96	7.30
								-	
Transmission and Other Charges	-	-	1,318.64		-	1,318.64	-	1,318.64	
SLDC	-	-	2.13		-	2.13	-	2.13	
BGCL	-	-	115.35		-	115.35	-	115.35	
BSPTCL	-	-	548.97		-	548.97	-	548.97	
POSOCO	-	-	5.96		-	5.96	-	5.96	
PGCIL ULDC CHG	-	-	-		-	-	-	-	
PGCIL	-	-	645.36		-	645.36	-	645.36	
Open Access Charges	-	-	0.86		-	0.86	-	0.86	
	-	-	-		-	-	-	-	
Prior Period Expense	-	-	-		-	-	87.15	87.15	
Rebate for Prompt Payment	-	-	-		-	-	-	-	
Total	3,299.10	17708.66	4014.67	2.64	4,673.55	8,688.21	213.50	8901.71	5.03

4.7. Additional Power Purchase due to excess distribution loss

NBPDCCL & SBPDCL's Submission:

- 4.7.1. The Petitioner further submits that, in previous years, the methodology adopted by the Commission for arriving at surplus is based on an idealistic situation where it is assumed that entire energy purchased less normative loss in a year is billed to consumers in that particular year and difference of the two is termed as surplus energy on account of higher loss than approved one. This assumption is against the pragmatic scenario where some portion of the difference so arrived (energy purchased minus normative loss minus energy billed to consumers) is absorbed in network and some portion are consumed by the consumers to be billed in subsequent year.
- 4.7.2. Further, the energy rate considered by the State Commission to regulate the power purchase cost against the disallowed power purchase quantum has been arrived at by dividing total power purchase cost from a source by summation of total quantum of energy purchased during various time blocks of the year from that source. Those sources whose energy rates so arrived which are higher have been identified for disallowance. This implies that the State Commission instead of comparing energy rates of different sources in same time block has wrongly compared annual average rate of energy of different sources. This approach is not only against the MoD principle which states for comparison of variable charges of different sources in same time block but practically non implementable as such assumption ignores the variation in price and demand of power in different time blocks of a day. Accordingly, the Petitioners requested the Commission to revisit the methodology to regulate power purchase quantum and cost for future purpose.
- 4.7.3. In view of above Petitioners submitted the summary of the Gain/(Loss) on account of controllable and uncontrollable factors of power purchase in the Table below.

Table 58: Gains/(Loss) on account of truing up of Power Purchase Expenses for FY 2019-20 as submitted by Petitioners (in Rs. Crore)

S. No.	Particulars	Unit	NBPDCCL		SBPDCL	
			With Actual Distribution loss	With Approved Distribution loss	With Actual Distribution loss	With Approved Distribution loss
1	Energy Sales	MU	10,636.00	10,636.00	12,038.00	12,038.00
2	Less: Interstate Sales	MU	838.20	838.20	153.00	153.00
3	Energy sales excluding Inter-state Sales	MU	9,797.80	9,797.80	11,885.00	11,885.00
4	Distribution Loss	%	21.62%	15.00%	27.89%	15.00%
5	Add: Distribution Loss	MU	2,702.31	1,729.02	4,597.00	2,097.00
6	Energy Requirement	MU	12,500.11	11,526.82	16,483.00	13,983.00

S. No.	Particulars	Unit	NBPDC		SBPDCL	
			With Actual Distribution loss	With Approved Distribution loss	With Actual Distribution loss	With Approved Distribution loss
	at Distribution Periphery					
7	Add: Inter-State Sales	MU	838.20	838.20	153.00	153.00
8	Energy Requirement at Distribution Periphery	MU	13,338.31	12,365.02	16,635.00	14,135.00
	Additional Energy requirement due to excess distribution loss	MU		973.29		2,500.00
	Additional Power Purchase cost at APPC	Rs. Crore		490.52		1260.00

Table 59: Gain/(loss) on account of controllable and uncontrollable factors of power purchase for FY 2019-20 as submitted by Petitioners (in Rs. Crore)

Particulars	Approved in the MYT Order	Actual Claimed in True-up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Power Purchase Cost	6,012.76	6,020.79	(8.03)	(490.52)	482.49
PGCIL & Other transmission charges	421.12	522.94	(101.82)		(101.82)
BSPTCL & BGCL transmission Charges, and SLDC Charges	558.45	534.36	24.09		24.09
RE Purchase	59.05	61.65	(2.60)		(2.60)
Total	7,051.38	7136	(88.37)	(490.52)	402.16
SBPDCL					
Power Purchase Cost	6,745.25	7,546.17	(800.92)	(1,259.83)	458.91
PGCIL & Other transmission charges	494.36	659.01	(164.65)		(164.65)
BSPTCL & BGCL transmission Charges, and SLDC Charges	655.58	666.45	(10.87)		(10.87)
RE Purchase	58.26	70.49	(12.08)		(12.23)
Total	7,953.45	8,941.97	(988.52)	(1,259.83)	271.32

4.7.4. Further in the submission NBPDC and SBPDCL has stated that they had received an amount of Rs. 510 Crore and Rs. 350 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 Petitioner has considered such amount as income while arriving at the Revenue Gap for calculation of Annual Revenue Requirement for FY 2019-20.

Commission Analysis:

- 4.7.5. As per Regulation 9.2 (b) of BERC (Multi Year Distribution Tariff) Regulations 2018, Distribution losses are considered as Controllable factor and are subject to sharing of Gain/(losses) in order to share the benefits of better performance of the Utility with the consumers, while at the same time protecting the interest of stakeholder. The sharing is to be done with respect to actual expenses incurred against the normative expenses approved by the Commission.
- 4.7.6. Accordingly, the Commission has computed the variation in power purchase cost incurred by the petitioners due to higher actual distribution losses as compared to normative power purchased cost that would have been incurred at the target distribution loss for FY 2019-20.
- 4.7.7. The Commission has computed the actual distribution losses for Petitioners in Table 23 of this Order and the same has been considered for computation of excess power purchase quantum. Further, as explained in para 4.3.14, the Commission has considered the target distribution loss of 15% for FY 2019-20 as approved in the MYT Order 25 February, 2019 as shown in Table below:

Table 60: Additional power purchase due to excess distribution losses for FY 2019-20

S. No.	Particulars	Unit	NBPDC		SBPDCL	
			With Actual Distribution loss	With Approved Distribution loss	With Actual Distribution loss	With Approved Distribution loss
1	Energy Sales	MU	10631.7	10631.7	11,921.20	11,921.20
2	Less: Interstate Sales	MU	838.2	838.2	152.82	152.82
3	Energy sales excluding Inter-state Sales	MU	9793.5	9793.5	11,768.40	11,768.40
4	Distribution Loss	%	22.16%	15%	28.90%	15.00%
5	Add: Distribution Loss	MU	2788.1	1728.3	4783.1	2,076.80
6	Energy Requirement at Distribution Periphery	MU	12581.56	11521.72	16551.51	13,845.18
7	Add: Inter-State Sales	MU	838.2	838.2	152.82	152.82
8	Energy Requirement at Distribution Periphery	MU	13419.76	12359.92	16704.33	13,998.00
	Additional Energy requirement due to excess distribution loss	MU		1059.84		2706.33

- 4.7.8. The Commission has computed additional energy procured by the Petitioners due to excess distribution loss. as shown in the Table above. The Commission is of the opinion that this additional energy requirement not only leads to incremental power purchase from costlier sources, but it also leads to additional contracted capacity as compared to contracted capacity Petitioners would have required had they met the distribution loss

target. Consequently, it also leads to higher Transmission charges incidental to additional energy requirement.

4.7.9. Therefore, the Commission is of the view that the power procurement from costliest sources as per MOD principle is purely incidental to additional power purchased due to higher distribution losses. Accordingly, after scrutinising the source wise power purchase quantum, the Commission has observed that the additional power purchase as per aforesaid MOD is mainly from the short term & Medium-term power sources.

4.7.10. While validating the PPA from such sources, the Commission has observed that the Petitioner has to bear the Transmission Charges and losses for power purchase from such sources. However, it's difficult to substantiate the actual transmission charges incurred by the petitioner for power purchase from the identified sources. Hence, the Commission has considered the proportionate Transmission charges incidental to additional power purchase, as the additional Transmission charges incurred by the Petitioners due to excess distribution loss.

4.7.11. Accordingly, the Commission has computed additional power purchase cost due to excess distribution loss as shown in the Table below:

Table 61: Additional power purchase cost due to excess distribution losses for FY 2019-20

Sources	Energy Charges (kWh)	NBPDC		SBPDCL	
		Additional power purchase quantum (MUs)	Energy Cost for additional Power Purchase (Rs. Crore)	Additional power purchase quantum (MUs)	Energy Cost for additional Power Purchase (Rs. Crore)
UPPCL	7.30	1.05	0.77	1.31	0.96
NEA	6.18	48.14	29.75	60.04	37.10
PTC Short Term	6.11	310.04	189.53	386.68	236.38
DB Power	6.11	21.50	13.14	26.81	16.38
TATA Energy Trading Ltd.	5.38	77.81	41.86	97.05	52.20
Manikaran	4.83	20.38	9.84	25.41	12.27
PTC(IEX)	4.29	580.93	249.50	1,551.80	666.49
PTC JITPL	4.14			105.12	43.57
PTC SKS Power	3.91			52.12	20.36
KBUNL Stage I	3.27			298.95	97.63
BTPS Stage I Unit I	2.79			82.38	22.95
KBUNL Stage II	2.73			18.66	5.09
Total		1,059.84	534.38	2,706.33	1,211.39

4.7.12. Accordingly, the Commission has computed the sharing of gain/(losses) on account of additional power purchase to excess distribution losses as shown below:

Table 62: Sharing of Gain/(loss) on account of variation in distribution losses for FY 2019-

20 (in Rs. Crore)

Particular	Approved Power purchase Expense of FY 2019-20	Gain/(Loss) due to Controllable Factors	2/3 rd Gain or 1/3 rd (Loss) to be passed on to Consumers	1/3 rd Gain or 2/3 rd (Loss) to be absorbed by petitioner
NBPDC				
Power Purchase Cost (including Transmission & SLDC charges)	7,186.73	(534.38)	(178.13)	(356.26)
SBPDCL				
Power Purchase Cost (including Transmission & SLDC charges)	8,901.71	(1211.39)	(403.80)	(807.59)

4.7.13. The Commission has approved the loss of Rs. 356.26 Crore and Rs. 807.59 Crore for NBPDC and SBPDCL to be absorbed by the license on account of additional power purchase.

4.8. Renewable Power Purchase Obligation

NBPDC's Submission:

4.8.1. Petitioner submitted that the Commission has notified the BEREC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 and BEREC (Terms and Conditions for Tariff Determination from Solar Energy Sources) Regulations, 2010. Further, Commission notified 2nd amendment to the RPO Regulation dated 29 March 2017. RPO target specified by the 2nd amendment to the RPO Regulation is shown in Table below:

Table 63: Renewable Purchase Obligation (%)

From Renewable Sources	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
RPO (%)	6.50%	7.75%	9.25%	11.50%	14.25%	17.00%
Solar (%)	1.50%	2.25%	3.25%	4.75%	6.75%	8.00%
Non-Solar (%)	5.00%	5.50%	6.00%	6.75%	7.50%	9.00%

4.8.2. The Commission has also come up with its 3rd amendment in due course BEREC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 and amended Clause 4 as follows:

"Provided that on achievement of Solar RPO compliance to the extent of 85% and above in any year, remaining shortfall, if any, may be met by purchase of excess non-solar energy beyond the percentage specified for Non-Solar RPO for that particular year.

Provided further that on achievement of Non-Solar RPO compliance to the extent of 85 % and above in any year, remaining shortfall, if any, may be

met by purchase of excess solar energy beyond the percentage specified for solar RPO for that particular year".

- 4.8.3. In line with the above, Petitioners has submitted the detail of the Renewable Energy based power procured during FY 2019-2 and the same has been given in the table below as per the Regulation and amendments issued therein:

Table 64: RPO detail for FY 2019-20, as submitted by NBPDCCL and SBPDCL

Particular		units	NBPDCCL	SBPDCL
Energy Sale (excluding interstate sales)	A	MUs	9797.82	11885.14
Hydro Power Purchase	B	MUs	1072.49	1337.60
Inter-State Transmission Loss	C	%	2.88%	2.88%
Inter-State Transmission Loss	$D=B*C$	MUs	30.86	38.48
Intra-State Transmission Loss	E	%	3.66%	3.66%
Intra-State Transmission Loss	$F=E*(B-D)$	MUs	38.12	47.55
Distribution Loss	G	%	21.62%	27.89%
Distribution Loss	$H=G*(B-D-F)$	MUs	216.96	349.10
Hydro Power Consumed	$I=B-D-F-H$	MUs	786.55	902.47
Conventional Power Consumed	$J=A-I$	MUs	9011.27	10982.67
RPO Targets		%	11.50%	11.50%
Solar RPO %	K	%	4.75%	4.75%
Non-Solar RPO %	L	%	6.75%	6.75%
RPO Targets		MUs	1036.30	1263.01
Solar RPO	$J*K$	MUs	428.04	521.68
Non-Solar PRO	$J*L$	MUs	608.26	741.33
Renewable Power Purchase		MUs	562.67	701.79
Solar Power Purchased		MUs	92.57	114.58
Non-Solar Power Purchased		MUs	470.10	587.21
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	240.45	316.22
Solar		MUs	166.50	196.95
Non-Solar		MUs	73.95	119.27
Total Solar RPO Compliance		MUs	271.93	329.42
Total Non-Solar RPO Compliance		MUs	618.05	798.76
RPO Shortfall		MUs	146.32	134.83

Particular		units	NBPDC	SBPDCL
Solar Shortfall/ (Surplus)		MUs	156.11	192.26
Non-Solar Shortfall/ (Surplus)		MUs	(9.79)	(57.43)

4.8.4. In line with the Commission Order in petition no. 12/2020 dated 17th June 2020, petitioners, requested the Commission to carry forward the shortfall of RPO in FY 2019-20 to FY 2020-21.

Commission Analysis:

4.8.5. BERC (Renewable Purchase Obligation, its compliance and REC Framework implementation) Regulations 2010, as amended from time to time, stipulates the RPO targets for Discoms. RPO targets are stipulated as a set percentage of its total energy consumption, excluding consumption from hydropower, as shown in the table below:

Table 65: RPO Target for FY 2019-20

S No.	From Renewable Sources	FY 2019-20
1	Renewable Purchase Obligation (%)	11.50%
2	Solar (%)	4.75%
3	Non-Solar (%)	6.75%

4.8.6. For RPO computation, NBPDC and SBPDCL have submitted renewable power purchase of 562.67 MUs and 701.79 MUs for FY 2019-20. During scrutiny of submission, the Commission observed that there was a discrepancy between the renewable power purchase submitted by the Petitioners in Table 12 of petition and in Format – 5. Same has been highlighted in the table below:

Table 66: Renewable power purchase submitted by Petitioner for FY 2019-20

	Submitted in table 12 of petition (MUs)	Submitted in Format – 5 of petition (MUs)	Variation (MUs)
NBPDC	562.67	548.18	14.49
SBPDCL	701.79	683.68	18.11

4.8.7. The Commission sought clarification from Petitioners for this variation in renewable power purchase quantum. NBPDC has not submitted any response on the clarification sought till the time of pronouncement of this Order. Further, SBPDCL submitted the following clarification towards the clarifications sought:

- (a) RE Generation from Bihar State Hydel Power Corporation 17.51 MU has also been considered.
- (b) In case of M/s Alfa Infraprop Solar Plant, RPO compliance has been considered taking into account its total export (17.54 MUs for SBPDCL) while invoice has been admitted (16.85 MUs) after deducting applicable transmission losses.

- 4.8.8. The Commission identifies that, SBPDCL in Format -5 of its tariff petition has claimed 15.96 MUs of power drawn from BSHPC instead of 17.54 MUs, the same has been verified from the Audited Accounts for FY 2019-20.
- 4.8.9. On detailed analysis of BSHPC invoices, the Commission observed that the power purchase from BSHPC constitutes of power purchase from Micro, Mini and Small hydro sources. In line with the approach of the Commission in its Tariff Order dated 20 March 2020, power drawn from BSHPC is considered for non-solar RPO.
- 4.8.10. The Commission notes that, SBPDCL has been billed on the actual energy drawn by M/s Alfa Infra-prop Pvt. Ltd., i.e., 16.85 MUs which has been verified from the bills submitted. Thus, Commission considers 16.85 MUs power drawn from M/s Alfa Infraprop Pvt. Ltd instead of 17.54 MUs as claimed by SBPDCL in table 12 of its tariff petition.
- 4.8.11. Based on above, the Commission considered the quantum of renewable power purchased as 560.97 MUs for NBPDCCL and 699.64 MUs for SBPDCL for RPO Compliance as below:

Table 67: Renewable power purchase quantum considered for RPO of FY 2019-20 (MUs)

Particular	RE purchase considered for NBPDCCL	RE purchase considered for SBPDCL
Renewable Power Purchase	683.68	548.18
BSHPC	15.96	12.80
Total RE Power Purchase	699.64	560.97
Solar Power Purchase	114.58	92.57
Non -Solar Power Purchase	585.06	468.40

- 4.8.12. Further, during technical validation NBPDCCL mentioned that renewable power from BREDA off-grid solar may be considered as 3.69 MUs instead of the previously submitted 3.15 MU in petition and NBPDCCL submitted quarter wise purchase details from BREDA.
- 4.8.13. SBPDCL and NBPDCCL further clarified during the Technical Validation Session that meters have not been installed for recording the power purchase from consumers of BREDA off grid plants. The Commission observes that, solar energy generated by off grid generators is not metered and only estimated based on installed capacity, utilization factor, etc. Therefore, due to lack of boundary metering and without proper energy accounting, the Commission is constrained to undertake prudence check on quantum of energy procured from BREDA off-grid solar in computation of RPO compliance. Accordingly, Commission has not considered quantum of power from BREDA-off grid plant towards RPO compliance for FY 2019-20.
- 4.8.14. Further Petitioners are directed to install meters and carry out proper energy accounting

in this regard. Accordingly, the Commission has worked out shortfall/(Surplus) RPO of SBPDCL and NBPDC as mentioned below:

Table 68: RPO compliance approved for FY 2019-20 (MUs)

Particular		units	NBPDC	SBPDCL
Energy Sale (excluding interstate sales)	A	MUs	9793.46	11768.41
Hydro Power Purchase	B	MUs	1072.49	1337.60
Inter-State Transmission Loss	C	%	2.60%	2.60%
Inter-State Transmission Loss	$D=B*C$	MUs	27.88	34.78
Intra-State Transmission Loss	E	%	3.66%	3.66%
Intra-State Transmission Loss	$F=E*(B-D)$	MUs	38.23	47.68
Distribution Loss	G	%	22.16%	28.90%
Distribution Loss	$H=G*(B-D-F)$	MUs	223.01	362.71
Hydro Power Consumed	$I=B-D-F-H$	MUs	783.36	892.42
Conventional Power Consumed	$J=A-I$	MUs	9010.11	10875.98
RPO Targets		%	11.500%	11.500%
Solar RPO %	K	%	4.750%	4.750%
Non-Solar RPO %	L	%	6.750%	6.750%
RPO Targets		MUs	1036.16	1250.74
Solar RPO	$J*K$	MUs	427.98	516.61
Non-Solar PRO	$J*L$	MUs	608.18	734.13
Renewable Power Purchase		MUs	560.97	699.64
Solar Power Purchased		MUs	92.57	114.58
Non-Solar Power Purchased		MUs	468.40	585.06
Captive Consumption Solar		MUs	9.71	12.79
BREDA Off-grid solar		MUs	0.00	0.00
BREDA GCRT solar		MUs	0.85	0.39
DDG Standalone		MUs	1.70	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		316.21
Solar		MUs	166.50	196.95
Non-Solar		MUs	73.95	119.27
Total Solar RPO Compliance		MUs	268.78	324.32
Total Non-Solar RPO Compliance		MUs	616.35	796.61
RPO Shortfall		MUs		

Particular		units	NBPDC	SBPDCL
Solar Shortfall/ (Surplus)		MUs	159.20	192.29
Non-Solar Shortfall/ (Surplus)		MUs	(8.17)	(62.49)
Target Achieved				
Solar			63%	63%
Non-Solar			101%	109%

4.8.15. As regards RPO shortfall for FY 2019-20, the Commission in its Order in Case No. 12 of 2020, had stated as under:

“4.12 In view of above, Commission is satisfied that although the petitioner has made advance planning and its sincere efforts to fulfil its RPO trajectory for FY 2019-20 yet it could not succeed to purchase the total bid quantity of solar REC from IEX/PXIL, due to non-clearance till the month of Feb'20. The Commission also understands the difficulties of the petitioner in non-participation in trading session on 26.03.2020 due to country-wide lockdown imposed by the Govt. of India to contain COVID-19 outbreak.

4.13 In view of above-mentioned facts and circumstances, Commission allows the prayer of petitioner to carry forward of the shortfall of RPO for FY 2019-20 into FY 2020-21. The petitioner is at liberty to purchase either solar power or solar REC in FY 2020-21 to fulfil such shortfall of RPO for FY 2019-20.”

4.8.16. In view of above, the Commission has considered the impact of RPO shortfall for FY 2019-20 in the APR of FY 2020-21.

4.8.17. Further, as regards RPO shortfall for FY 2018-19, the Commission, in its Order in Case 06/2019, the Commission had rejected Petitioners’ request for carrying forward the shortfall in RPO for FY 2018-19 to FY 2019-20. The relevant extract is the said Order is reproduced as under:

“Para 4.12As per that the prayer of the petitioners with respect to carry forward of the RPO to next financial year is rejected the unfulfilled RPO will be dealt with as per the Clause 9.1 of BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 (as amended up-to-date) which stipulates as;

" If an obligated entities does not fulfil the renewable purchase obligation as provided in these regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by such obligated entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price decided by the Central Commission:....."

4.8.18. Accordingly, the Petitioners were directed to deposit into RPO fund for shortfall in RPO targets for FY 2018-19. In this regard, submitted that, petitioner has not complied with the direction given by Commission in its tariff petition. In this regard, the Commission sought clarification from the petitioner on creation of RPO fund.

- 4.8.19. Petitioners in its response submitted that they are been facing acute shortage of funds and do not have any available funds to block such a huge amount in the name of RPO funds as directed by the Commission. The Petitioners also requested the Commission to revise its RPO trajectory till FY 2021-22. The Commission also notes that, not creating RPO fund for shortfall of RPO in FY 2018-19 is non-compliance of the Commission's directive.
- 4.8.20. For shortfall in RPO in FY 2019-20, in line with the Commission's Order dated 17 June 2020 in Case no 12 of 2020 petitioners are directed to carry forward the shortfall of RPO for FY 2019-20 into FY 2020-21. Considering the cheaper RE power available in the market, the petitioner are advise to procure cheaper RE power through competitive bidding instead of REC in order to optimise their power purchase cost.

4.9. Capital Expenditure and Capitalisation

NBPDC's Submission:

- 4.9.1. NBPDC has furnished capitalisation of Rs. 3,889.53 Crore of which Rs. 3,111.62 Crore of capitalisation pertains to Capital Works in Progress (CWIP) and Rs. 777.91 Crore of capitalisation is towards new capital investment in FY 2019-20. As depicted in the Table below, out of total capitalisation, Rs. 1,715.80 Crore pertains to grants which were received under various schemes. Apart from grants, remaining capitalisation is funded through loan Rs. 79.99 Crore and equity Rs. 2,093.74 Crore. Accordingly, NBPDC has submitted the Capital Works in Progress (CWIP), Gross Fixed Assets (GFA) and Grants etc. for FY 2019-20 as per the Audited Accounts, as shown in the Table below:

Table 69: CWIP, Capex, Capitalization and Funding for FY 2019-20, as submitted by NBPDC (in Rs. Crore)

S. No.	Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019- 20
1	Opening CWIP	3654.55	7925.50
2	New Investment	2676.59	2994.19
3	Less: Capitalization (4+5)	3453.82	3889.53
4	CWIP	2877.32	3111.62
5	New Investment		777.90
6	Closing CWIP (1+2-3)		7030.16
7	Funding		
8	CWIP Capitalization (9+10+11)		3111.62
9	Grant	962.69	1372.64
10	Equity	1971.09	1674.99
11	Loan	520.04	63.99
12	New Investment (13+14+15)		777.90

S. No.	Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019- 20
13	Grant		343.16
14	Equity		418.75
15	Loan		16
16	Total Capitalization (8+12)		3889.52
17	Total Grant (9+13)		1715.80
18	Total Equity (10+14)		2093.74
19	Total Loan (11+15)		79.99

SBPDCL's Submission:

4.9.2. SBPDCL has furnished capitalisation of Rs. 2,234.92 Crore of which Rs. 1,787.93 Crore of capitalisation pertains to Capital Works in Progress (CWIP) and Rs. 446.98 Crore of capitalisation is towards new capital investment in FY 2019-20. As depicted in the Table below, out of total capitalisation, Rs. 1,187.88 Crore pertains to grants which were received under various schemes. Apart from grants, remaining capitalisation is funded through loans Rs. 638.43 Crore and equity Rs. 408.61 Crore. Accordingly, SBPDCL has submitted the Capital Works in Progress (CWIP), Gross Fixed Assets (GFA) and Grants etc. for FY 2019-20 as depicted by the Audited Balance in Table below:

Table 70: CWIP, Capex, Capitalization and Funding for FY 2019-20, as submitted by SBPDCL (in Rs. Crore)

S. No.	Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019- 20
1	Opening CWIP	1775.24	4334.09
2	New Investment	2967.62	2806.77
3	Less: Capitalization (4+5)	3794.09	2234.92
4	CWIP		1787.93
5	New Investment		446.98
6	Closing CWIP (1+2-3)	948.77	4905.95
7	Funding		
8	CWIP Capitalization (9+10+11)		1787.93
9	Grant	1652.46	950.31
10	Equity	1358.92	326.89
11	Loan	782.71	510.74
12	New Investment (13+14+15)		446.98
13	Grant		237.58
14	Equity		81.72
15	Loan		127.69
16	Total Capitalization (8+12)		2234.92

S. No.	Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019- 20
17	Total Grant (9+13)		1187.88
18	Total Equity (10+14)		408.61
19	Total Loan (11+15)		638.43

Commission's Analysis:

- 4.9.3. During the scrutiny of Petitioners' submissions, the Commission observed that opening balance of CWIP considered by the petitioners is as per the audited accounts. Opening and closing balance of CWIP as per audited account of petitioner is shown as below:

Table 71: CWIP of SBPDCL and NBPDCCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
CWIP balance as on 31.03.2019 (<i>opening balance</i>)	7,925.51	4,334.09
CWIP balance as on 31.03.2020 (<i>closing balance</i>)	7,030.17	4,905.94

- 4.9.4. The Commission, in its order dated 20 March, 2020 for True-up of FY 2018-19 has approved the closing CWIP of NBPDCCL and SBPDCL as Rs. 7,930.88 Crore and Rs. 4,334.09 Crore, respectively. Thus, Commission notes that for NBPDCCL, there was a mismatch between closing balance of CWIP approved in True-up of FY 2018-19 and opening balance of CWIP submitted by the Petitioners for FY 2019-20.
- 4.9.5. In response to clarification sought by the Commission in this regard, petitioner has replied that, Ind AS – 16 Property, Plant and Equipment defines carrying cost as the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses. As such, the value of Property, Plant, Equipment and other asset class have been considered based on the opening balances of the books of accounts for FY 2019-20. Hence, there is a difference between the opening balance adopted in the tariff petition for FY 2019-20 and the closing balance of FY 2018-19 approved in Tariff order dated 20 March, 2020.
- 4.9.6. The Commission in Tariff order dated 25 February, 2019 has explicitly deliberated the issue of adjustments made in the books of accounts by the Discoms due to adoption of Ind AS. The extract of same is reproduced below:

“The Commission opines that the adjustments made by NBPDCCL (Rs.1121.70 crore accumulated depreciation to end of 31.3.2016) and SBPDCL (Rs.1187.86 crore accumulated depreciation to end of 31.3.2016) in the annual accounts as per change in their accounting policy is the presentation requirement to present net value of assets as on 1st April 2016 and accordingly the accumulated depreciation is adjusted against the GFA as on 31.3.2016 and net value of GFA is presented in the annual accounts. There is no impact on the overall historical value of the GFA, therefore opening GFA is considered based on the closing GFA approved in true up for FY 2016-17 in Tariff

order dated 21.03.2018.”{Emphasis Added}

- 4.9.7. Accordingly, in line with the approach adopted by the Commission in earlier Orders, closing CWIP approved in the true-up for FY 2018-19 is considered as the opening CWIP for FY 2019-20 for respective Discoms. Accordingly, the Commission has worked out the capital expenditure of FY 2019-20 as shown in Table below:

Table 72: CAPEX considered by the Commission for FY 2019-20 (in Rs. Crore)

S. no.	Particular	NBPDC	SBPDCL
1	Closing balance CWIP (as per audited account)	7,030.17	4,334.09
2	Capitalisation (as per Note 1 of audited account)	3,889.53	2,234.92
3	Opening balance CWIP (approved closing balance of FY 2018-19)	7,930.88	4,334.09
4	Prior period rectification	*5.38	
5	New Investment (1+2-3-4)	2,994.19	2,806.77

*balance adjustment of CWIP in audited account of FY 2019-20

- 4.9.8. During scrutiny of details submitted by the petitioners in Format 11 of their Petition, the Commission has observed the variation between actual capital expenditure and capital expenditure approved in MYT Order dated 25 February, 2019 as shown in Tables below:

Table 73: Scheme wise CAPEX details for FY 2019-20, as submitted by NBPDC & SBPDCL (in Rs. Crore)

Name of Scheme	NBPDC			SBPDCL		
	CAPEX approved in MYT Order for FY 2019-20	Actual CAPEX for FY 2019-20	Variation in CAPEX	CAPEX approved in MYT Order for FY 2019-20	Actual CAPEX for FY 2019-20	Variation in CAPEX
BRGF	-	1.28	1.28	146.98	154.46	7.48
R-APDRP	-	38.26	38.26	-	51.27	51.27
NABARD Phase VIII	-	-	-	-	3.36	3.36
NABARD Phase XI	-	-	-	14.04	0.21	(13.83)
MP/CM LAD	2.95	0.65	(2.30)	2.19	0.45	(1.74)
Deposit Scheme	0.19	0.04	(0.15)	4.28	1.22	(3.06)
ADB	107.14	14.13	(93.01)	3.09	0.22	(2.87)
ACA State Plan	19.20	21.29	2.09	10.00	17.00	7.00
Burnt DTR State Plan	297.88	-	(297.88)	-	(0.55)	(0.55)
State Plan -Others	475.88	406.50	(69.38)	125.00	546.84	421.84
CM seven resolution	302.00	-	(302.00)	630.00	-	(406.00)
Reconductoring	-	617.84	617.84	-	309.52	309.52

Name of Scheme	NBPDC			SBPDCL		
	CAPEX approved in MYT Order for FY 2019-20	Actual CAPEX for FY 2019-20	Variation in CAPEX	CAPEX approved in MYT Order for FY 2019-20	Actual CAPEX for FY 2019-20	Variation in CAPEX
IPDS	6.15	285.50	279.35	406.00	400.52	(5.48)
RGVY	47.00	106.99	59.99	336.18	419.45	83.27
DDUGJY	1,402.00	1,328.04	(73.96)	1,167.83	781.02	(340.23)
APL Connection/ Saubhagya	16.21	170.85	(154.64)	62.62	109.20	46.58
Own Sources	-	2.82	2.84	59.40	12.58	(46.82)
Total	2,676.60	2,994.19	317.59	2,967.62	2,806.77	(160.84)

4.9.9. For FY 2019-20, NBPDC has done capital investment of Rs. 2,994.19 Crore against the approved Capital investment of Rs. 2,676.60 Crore, which is Rs. 317.59 Crore higher than the approved Capital expenditure. SBPDCL has done capital investment of Rs. 2,806.77 Crore against the approved Capital investment of Rs. 2,967.62 Crore, which is Rs. 160.84 Crore less than the approved Capital expenditure.

4.9.10. Similarly, the Commission has observed following variation between actual capitalisation and capitalisation approved in MYT Order dated 25 February, 2019:

Table 74: Scheme wise Capitalisation details for FY 2019-20, as submitted by NBPDC & SBPDCL (in Rs. Crore)

Name of scheme	NBPDC			SBPDCL		
	Capitalisation approved in MYT Order for FY 2019-20	Actual Capitalisation for FY 2019-20	Variation in Capitalisation	Capitalisation approved in MYT Order for FY 2019-20	Actual Capitalisation for FY 2019-20	Variation in Capitalisation
BRGF	877.06	872.28	(4.78)	268.98	67.60	(201.38)
R-APDRP	69.58	20.61	(48.97)	108.46	324.58	216.12
NABARD Phase VIII	0.96	7.91	6.95	-	4.46	(4.46)
NABARD Phase XI	-	0.77	0.77	16.67	0.59	(16.08)
MP/CM LAD	5.80	9.89	4.09	1.99	0.45	(1.54)
Deposit Scheme	1.38	0.05	(1.33)	4.08	1.22	(2.86)
ADB	51.30	79.99	28.69	25.13	-	(25.13)
ACA State Plan	11.65	21.26	9.61	15.74	17.00	1.26
Burnt DTR State Plan	243.72	-	(243.72)	-	-	-
State Plan -Others	350.40	374.45	(24.05)	121.08	171.76	50.68
CM seven resolution	279.98	109.28	(170.70)	600.00	-	(600.00)

Name of scheme	NBPDC			SBPDCL		
	Capitalisation approved in MYT Order for FY 2019-20	Actual Capitalisation for FY 2019-20	Variation in Capitalisation	Capitalisation approved in MYT Order for FY 2019-20	Actual Capitalisation for FY 2019-20	Variation in Capitalisation
Reconductoring	-	-	-	-	54.92	54.92
IPDS	0.97	308.57	307.70	646.92	252.26	(394.66)
RGVY	223.09	932.45	709.36	379.66	623.84	244.18
DDUGJY	1,255.41	825.49	429.92	1,335.50	585.94	(749.56)
APL Connection/ Saubhagya	8.20	202.65	194.45	164.29	116.79	(47.50)
Own Sources	74.43	123.88	49.45	105.58	13.51	(92.07)
Total	3,453.83	3,889.53	435.70	3,794.08	2,234.92	(1,559.16)

4.9.11. From above Table it is observed that the NBPDC and SBPDCL have submitted the Capitalisation of Rs. 3,889.53 Crore and Rs. 2234.92 Crore, respectively, as against the approved Capitalisation of Rs. Rs. 3,453.83 Crore and Rs. 3,794.08 Crore for FY 2019-20. The Commission has further verified the claimed capitalisation with the audited account and found in line with the Capitalisation shown in Note 1 of the audited accounts of respective Petitioners.

4.9.12. The Commission observed that the capitalisation in SBPDCL for FY 2019-20 is Rs. 1,559.16 Crore lower than the approved capitalisation. However, the Capitalisation of NBPDC for FY 2019-20 is Rs. 435.70 Crore higher as compared to approved capitalisation, such variation in capitalisation of NBPDC would have substantial impact on the consumer Tariff.

4.9.13. With respect to variation capital expenditure Regulation 9.2 of BERC (Multi Year Distribution Tariff) Regulations, 2018 had stipulated as follow:

“The “controllable factors” shall comprise but not limited to the following factors which are within the control of, and are attributable to the applicant:

(a) Variations in capital expenditure on account of time and/or cost overruns/ efficiencies in the implementation of a capital project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;”

4.9.14. The Commission noted that Regulation 9.2 (a), with Regulation 10 of BERC (Multi Year Distribution Tariff) Regulations, 2018 stipulates variation in capital cost on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project and its impact on ARR components such as RoE, Depreciations, Interest on Loan as controllable factor. Further, this Regulations also specifies that variation in capitalisation is subjected to mechanism of sharing of gain and losses. Therefore, the Commission is inclined to undertake detailed analysis of such a deviation

in project cost.

- 4.9.15. Upon query sought by the Commission for reasoning on such variation in actual capital expenditure and Capitalisation, Petitioner have submitted that the Capital Expenditure and Capitalisation submitted for 3rd MYT Control Period (i.e. from FY 2019-20 to FY 2021-22) was an estimate based on assumptions like Government preferences, right of way, Manpower requirement, Land issues, political compulsions, developments and targets to be achieved under various schemes during the forthcoming years, which are important factors in determination of the progress of work. With the passage of time these factors keep changing, resulting in difference between estimated and actual capitalization. Even though there is a difference in actual vs. projected capital expenditure and capitalization, the Petitioner submitted there is no cost overrun for the same. As a result, no undue burden is passed on to consumers.
- 4.9.16. However, from the information submitted by the Petitioners it couldn't be ascertained if the variation in capitalisation is not on account of time and/or cost overruns/inefficiencies in the implementation of a capital expenditure project. Hence, the Commission directs the Petitioner to provide detailed justifications along with supporting documents demonstrating that no cost overrun and undue burden is passed on to consumers.
- 4.9.17. Further, the Commission in its in previous Order had directed petitioner to maintain work-wise, scheme-wise capex and capitalisation details for prior approval of CAPEX. Extract of same is shown below:

“The Commission has been observing that both the Discoms NBPDC and SBPDCL have been strengthening its infrastructure either under Central Government scheme or under State Government scheme without obtaining mandatory prior regulatory approval of the Commission. The Commission has also been observing that the respective Discoms have not been adhering to the scheduled completion time of such capex, including time over-run/cost over-run cost in year on year ARR and truing-up violating the regulatory provisions. The Commission, accordingly, directs both the Discoms to strictly adhere to regulatory provisions with respect to Capex and Capitalisation and obtain prior regulatory approval of the Commission for the work-wise, scheme-wise capex and capitalisation giving full details of the same such as funding, scheduled completion date, etc. before starting such capex work.”

- 4.9.18. In regard to the query for capital expenditure in unapproved scheme/project Petitioners have further highlighted 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.
- 4.9.19. However, despite repeated data gap sought by commission regarding variation in

Capitalisation in each of the schemes, neither supporting documentary evidence nor detailed justifications has been provided by petitioners against same. Due to absence of required data, it will be difficult to ascertain the stipulated variation and reasoning for the same. Hence, the very purpose of aforesaid Regulations would get defeated. The Commission is of the view that, it is the responsibility of the Petitioner to demonstrate the claim-ability of such variation in capitalization and its impact on the corresponding components by identifying each and every element of variation along with sufficient reasoning.

- 4.9.20. Further, the Petitioners have not provided the project/work -wise break-up of variation in capital expenditure and capitalisation vis a vis approved values. Hence, due to lack of proper justification and documentary evidence the Commission constrained to compute the sharing of gain/losses on variation in Capitalisation.
- 4.9.21. Accordingly, the Commission directs NBPDC & SBPDCL to provide detailed justification for the aforesaid deviation in Capital expenditure and capitalisation for FY 2019-20 and also submit detailed reasoning, along with supporting documents, against the amended project cost as compared the original project cost for each project/work of the aforesaid scheme before the next Tariff proceedings.
- 4.9.22. For the purpose of Truing-up of capital expenditure and capitalization for FY 2019-20, the Commission has restricted the same to the tune of capital expenditure and capitalization as approved in Business Plan for the present control period. The Commission has considered the cumulative capital expenditure and capitalization as approved by the Commission till FY 2018-19. The Commission has then worked out the scheme wise difference of cumulative capital expenditure and capitalization as on 31 March, 2019 with that of approved in Business plan. The difference so computed is than compared with the capital expenditure and capitalization as claimed by the Discoms for FY 2019-20. 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.
- 4.9.23. The commission has approved capital expenditure of NBPDC & SBPDCL for FY 2019-20 following the above-mentioned approach and explanations against the disallowance have been mentioned in the subsequent paras.
- 4.9.24. As regards to Reconductoring scheme, the Commission notes that the same 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.

4.9.25. 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 for FY 2019-20. 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 NBPDC & SBPDCL in reconductoring scheme for FY 2019-20.

I. Capital Expenditure of NBPDC & SBPDCL for FY 2019-20

a. SBPDCL:

4.9.26. **SBPDCL** has claimed capital expenditure in BRGF, R-APDRP, NABARD Phase VIII, NABARD Phase XI, MP/CM LAD, Deposit Scheme, ADB, ACA State Plan, Burnt DTR State Plan, State Plan -Others, Reconductoring, IPDS, New Schemes, RGGVY, DDUGJY, APL Connection/Saubhagya, and Own Sources.

4.9.27. The Commission has validated the capital expenditure as claimed by petitioner to the approved in Business Plan 2019. The Commission observes that, capital expenditure as claimed by petitioner in BRGF, R-APDRP, NABARD Phase VIII, NABARD Phase XI, MP/CM LAD, Deposit Scheme, ADB, ACA State Plan, Burnt DTR State Plan, IPDS, New Schemes, RGGVY, DDUGJY, APL Connection/Saubhagya, and Own Sources is within the limit of capital expenditure as approved in Business Plan 2019. Thus, the Commission approves capital expenditure as claimed by petitioner in above mentioned schemes. However, the Commission has disallowed capital expenditure in Reconductoring Scheme as dealt in para above.

4.9.28. Further, the Commission observes that the total capital expenditure as approved for State Plan-Others scheme in Business Plan is Rs. 582.02 Crore. The Petitioner has claimed Rs. 546.84 Crore in FY 2019-20 towards State Plan -Others scheme. The Commission notes that, it has already approved cumulative capex amounting to Rs. 395.73 Crore till FY 2018-19. Thus, claim of petitioner seems to be over expenditure in FY 2019-20. Hence, the Commission has approved Rs. 186.30 Crore for FY 2019-20 in the said scheme.

4.9.29. In view of above, the Commission has approved Rs. 2120.72 Crore in capital expenditure against claim of 2806.77 crore in FY 2019-20 for SBPDCL.

b. NBPDC:

- 4.9.30. NBPDC has claimed capital expenditure in BRGF, R-APDRP, MP/CM LAD, Deposit Scheme, ADB, ACA State Plan, State Plan -Others, CM Seven, Reconductoring, IPDS, RGGVY, RGGVY, DDUGJY, APL Connection and Own Sources Scheme.
- 4.9.31. The Commission has validated the capital expenditure as claimed by petitioner with the approved in Business Plan for present control period. The Commission observes that, capital expenditure claimed in BRGF, R-APDRP, MP/CM LAD, Deposit Scheme, ADB, ACA State Plan, State Plan -Others, CM Seven, DDUGJY, APL Connection and Own Sources Scheme is within the limit of capex as approved in Business Plan 2019. Hence, the Commission approves the capex as claimed by petitioner in above said schemes. Further, the Commission disallows, capital expenditure as claimed by petitioner in Reconductoring Scheme as discussed in para above.
- 4.9.32. The Commission notes that the total capex of Rs. 78.89 Crore was approved towards IPDS scheme as per Business plan 2019. NBPDC has claimed Rs. 285.50 Crore for IPDS Scheme in FY 2019-20. The Commission notes that, claim of petitioner is excess to that of approved in Business Plan 2019. Thus, the Commission disallows, capital expenditure as claimed by petitioner for FY 2019-20.
- 4.9.33. NBPDC has claimed Rs. 106.99 Crore as capital expenditure in FY 2019-20 towards RGGVY scheme. The Commission observes that, total capital expenditure as approved in Business Plan 2019 was Rs. 3983.51 Crore. The Commission observes that Rs. 3949.29 Crore has already been approved by the Commission till FY 2018-19 for RGGVY Scheme. Thus, claim of petitioner of Rs. 106.99 Crore seems to be excess to that of approved in Business Plan 2019. Hence, the Commission disallows Rs. 72.77 Crore from the claim of petitioner and accordingly approves Rs. 34.22 Crore as capex for FY 2019-20 in RGGVY Scheme.
- 4.9.34. In view of above, the Commission has approved Rs. 1998.99 Crore in capital expenditure against claim of 2994.19 Crore in FY 2019-20 for NBPDC.

II. Capitalisation of NBPDC and SBPDCL for FY 2019-20

a. SBPDCL:

- 4.9.35. SBPDCL has claimed cumulative of Rs. 2234.92 Crore as capitalisation for FY 2019-20 against BRGF, RAPDRP, NABARD phase VIII, NABARD Phase XI, MP/CM LAD, Deposit Scheme, ACA State Plan, State plan Others, Reconductoring, IPDS, RGGVY, DDUGJY, APL Connection and Own Source Scheme. The Commission has validated the capitalisation claimed by petitioner toward each of the scheme (Except Reconductoring) against the approved figure in the Business Plan 2019. As regards to reconductoring scheme, the Commission has considered capitalisation as claimed by petitioner in Reconductoring scheme as explained in para 4.9.25. Thus, the Commission has approved the claim of petitioner of Rs. 2234.92 crore as capitalisation for FY 2019-20.

b. NBPDC:

- 4.9.36. NBPDC has claimed Rs. 3889.53 Crore as capitalisation for FY 2019-20 in BRGF, RAPDRP, NABARD phase VIII, NABARD Phase XI, MP/CMLAD, Deposit Scheme, ACA State Plan, State plan Others, IPDS, RGGVY, DDUGJY, APL Connection and Own Source Scheme. The Commission has validated the capitalisation claimed by petitioner toward each of the scheme (Except Reconductoring) against the approved figure in the Business Plan 2019.
- 4.9.37. The Commission has observed that, capitalisation claimed in BRGF, RAPDRP, NABARD phase VIII, NABARD Phase XI, MP/CMLAD, Deposit Scheme, ACA State Plan, State plan Others, RGGVY, DDUGJY, APL Connection and Own Source Scheme is within the limit of capitalisation as approved in Business plan 2019. Thus, the Commission approves capitalisation as claimed by petitioner for above mentioned scheme for FY 2019-20.
- 4.9.38. Further, the Commission observes that for IPDS scheme, total capitalisation approved in as per Business Plan 2019 is Rs. 7.05 Crore. NBPDC has claimed Rs. 308.57 Crore for FY 2019-20. The Commission observes the claim of petitioner is excess to that of approved figure in business plan 2019. However, the Commission observes that the opening CWIP for IPDC scheme for FY 2019-20 stands at Rs. 601.75 Crore. Thus, considering the opening CWIP for FY 2019-20, the Commission opines that claim of NBPDC as capitalisation of Rs. 308.57 Crore is within the limit of CWIP. Hence, the Commission approves proportionate capitalisation of Rs. 60.78 Crore in FY 2019-20 and considers rest of the capitalisation in ensuing year.
- 4.9.39. In view above, the Commission approves Rs. 3641.74 Crore as capitalisation in FY 2019-20 against claim of Rs. 3889.53 Crore for NBPDC.
- 4.9.40. Accordingly, Capital expenditure and capitalization approved by the Commission in True up for FY 2019-20 vis-à-vis claim of NBPDC and SBPDCL is shown in Table below:

Table 75: Capital expenditure and capitalization approved in Truing up for FY 2019-20

Particular	NBPDC			SBPDCL		
	Approved in MYT Order for FY 2019-20	Claimed for FY 2019-20	Approved in True-up for FY 2019-20	Approved in MYT Order for FY 2019-20	Claimed for FY 2019-20	Approved in True-up for FY 2019-20
Capital expenditure	2676.60	2,994.19	1998.99	2,967.61	2,806.77	2120.72
Capitalisation	3,453.83	3,889.53	3641.74	3,794.08	2,234.92	2,234.92

- 4.9.41. The Commission has accordingly worked-out the funding of capitalisation as shown in Table below:

Table 76: Capitalisation and Funding approved for FY 2019-20 (in Rs. Crore)

S. No.	Particulars	Approved in True-up of NBPDCCL	Approved in True-up of SBPDCL
1	Opening CWIP	7925.50	4334.09
2	New Investment	1998.99	2120.72
3	Less: Capitalization (4+5)	3641.74	2234.92
4	CWIP	2762.34	1787.93
5	New Investment	879.40	446.98
6	Closing CWIP (1+2-3)	6285.75	4219.90
7	Funding		
8	CWIP Capitalization (9+10+11)	2762.34	1787.93
9	Grant	1273.79	950.31
10	Equity	431.18	326.89
11	Loan	1057.37	510.74
12	New Investment (13+14+15)	879.40	446.98
13	Grant	318.45	237.58
14	Equity	107.79	81.72
15	Loan	453.16	127.69
16	Total Capitalization (8+12)	3641.74	2234.92
17	Total Grant (9+13)	1592.24	1187.88
18	Total Equity (10+14)	538.97	181.26
19	Total Loan (11+15)	1510.53	865.78

4.10. Gross Fixed Asset

NBPDCCL & SBPDCL's Submissions

4.10.1. NBPDCCL has submitted the computation of Gross Fixed Assets considering the opening GFA as per Audited Annual Accounts. The details of the opening and closing GFA for FY 2019-20 have been provided in Table below:

Table 77: GFA detail of NBPDCCL for FY 2019-20 (in Rs. Crore)

Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20
Opening GFA	14076.36	9809.99
Additions during the year	3453.82	3,889.53
Add: IDC		
Add: Employee cost capitalized		
Less: Adjustment for assets sold/ discarded etc		9.73
Closing GFA	17530.18	13,689.79

- 4.10.2. SBPDCL has submitted the computation of Gross Fixed Assets considering the opening GFA as per Audited Annual Accounts. The details of the opening and closing GFA for FY 2019-20 have been provided in Table below:

Table 78: GFA detail of SBPDCL for FY 2019-20 (in Rs. Crore)

Particulars	Approved in MYT Order for FY 2019-20	Actual for FY 2019-20
Opening GFA	12,456.17	8,427.73
Additions during the year	3,794.09	2,232.48
Add: IDC		
Add: Employee cost capitalized		
Less: Adjustment for assets sold/ discarded etc		
Closing GFA	16,250.26	10,660.22

Commission's Analysis:

- 4.10.3. The Commission has further observed that petitioner has claimed the opening GFA balance for FY 2019-20 as per audited account and accordingly sought the reasons for adopting revised value of opening GFA. Petitioner in its data gap reply has submitted that the Ind AS – 16 Property, Plant and Equipment defines carrying cost as the amount at which an asset is recognized after deducting any accumulated depreciation and accumulated impairment losses. As such, the value of Property, Plant, Equipment and other asset class have been considered based on the opening balances of the books of accounts for FY 2019-20, hence, there is a difference in the opening balance adopted in the tariff petition for FY 2019-20 with the closing balance of FY 2018-19 approved in Tariff Order dated 20 March, 2020. The Petitioner further submitted that by adopting closing balances approved in truing up for FY 2018-19 in Tariff Order dated 20 March, 2020, there will be complete deviation from the books of accounts for FY 2019-20. Petitioner has accordingly requested the Commission to consider the opening GFA balances as per the audited books of accounts for FY 2019-20.

- 4.10.4. In line with the reasons specified in Para 4.9.6 of this Order, the Commission has considered opening balance of GFA for FY 2019-20 based on the GFA balance approved in true up for FY 2018-19 in Tariff order dated 20 March, 2020. Accordingly, the Commission has computed the opening GFA, additions to GFA and closing GFA as detailed in the Table below:

Table 79: GFA of NBPDC & SBPDCL for FY 2019-20, as approved by the Commission (in Rs. Crore)

Particulars	GFA of NBPDC	GFA of SBPDCL
	FY 2019-20	FY 2019-20
Opening GFA	10,939.17	9,615.59

Particulars	GFA of NBPDC	GFA of SBPDCL
	FY 2019-20	FY 2019-20
Additions during the year	3,632.01	2,232.48
Closing GFA	14,571.18	11,848.07

4.10.5. Accordingly, the Commission has approved GFA of NBPDC and SBPDCL in True-up of FY 2019-20 as shown in above Table.

Net Capitalisation and funding of capitalisation during FY 2019-20

4.10.6. The Commission in Table 76 has approved the capitalisation of Rs. 3,641.74 Crore for NBPDC and Rs. 2,234.92 Crore for SBPDCL in True-up for FY 2019-20. Out of total approved capitalisation, funding through the grant for NBPDC and SBPDCL is Rs. 1,592.24 Crore and Rs. 1,187.88 Crore, respectively. Rest of the capitalisation is funded through the loan and equity.

4.10.7. Regarding funding of capitalisation through equity Regulation 27 (a) of BERC (Multi Year Distribution Tariff) Regulations, 2018, as stipulated below:

“27. Treatment of Return on equity

(a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower.

Provided that assets funded by consumer contribution, capital subsidies/ grants and corresponding depreciation shall not form part of the capital base. Actual equity invested in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation.

Provided further that the premium if any raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the Scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.”

4.10.8. Further, regarding excess equity deployed Regulation 25 (b) specified as follows:

25. Treatment of loan and other finance charges

(b) If the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30 % shall be treated as normative loan. the capital cost, the actual loan shall be considered for determination of interest on loan.

4.10.9. Accordingly, the Commission has considered the funding of remaining capitalisation (net of grants) for FY 2019-20 as per normative Debt: Equity ratio of 70:30, in line with

Regulation 25 (b) of BERC (Multi Year Distribution Tariff) Regulations, 2018, as shown in the Table below:

Table 80: Approved Capitalisation and sources of funding in the True- up for FY 2019-20 (in Rs. Crore)

S. no.	Particular	Approved in True-up for NBPDCCL	Approved in True-up for SBPDCL
1	Capitalisation approved for FY 2019-20	3,641.74	2,234.92
2	Less: Adjustment to GFA on account of assets sold/discarded etc	9.73	2.44
3	Net Capitalisation (1-2)	3,632.01	2,232.48
	Funding of net capitalised Asset		
4	Capitalisation through Grant as approved in True-up of FY 2019-20	1,592.24	1,187.88
5	Net Capitalisation (3-4)	2,039.77	1,044.60
6	Normative Equity @30% of (5) or actual equity infuse, whichever is less	529.24	178.82
7	Normative Loan (5-6)	1,510.53	865.78

4.11. Depreciation

NBPDCCL & SBPDCL's Submission:

4.11.1. Petitioner submitted that as per Regulation 23 of Bihar Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2018, it has claimed the depreciation expense after deducting the value of grant, depreciation on land and consumer contribution amortized in the ratio of depreciation.

Table 81: Depreciation for FY 2019-20, as claimed by NBPDCCL & SBPDCL (in Rs. Crore)

S. No.	Particulars	NBPDCCL		SBPDCL	
		Approved in MYT Order for FY 2019-20	Actual claimed for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual claimed for FY 2019-20
1	Opening GFA		9809.99	9843.43	8427.73
2	Less: Value of land		1025.49		1541.93
3	Net opening GFA (1- 2)	12220.04	8784.49		6885.81
4	Additions during the year (excl. value of land)	2957.10	3883.63	2914.66	2229.85
5	IDC				
5A	Adjustment	-	9.73	-	-
6	Expenses capitalized	-	-	-	-
7	Closing GFA (3+4+5+6)	15177.14	12658.39	12758.09	9115.66
8	Average GFA (3+7)/2	13698.59	10721.44	11300.76	8000.73
9	Weighted average rate of depreciation	4.10%	4.63%	4.07%	5.58%

S. No.	Particulars	NBPDC		SBPDCL	
		Approved in MYT Order for FY 2019-20	Actual claimed for FY 2019-20	Approved in MYT Order for FY 2019-20	Actual claimed for FY 2019-20
10	Depreciation for the year	561.64	496.17	459.94	446.17
11	Opening Grants	9481.08	6049	4674.86	3181.98
12	Grants during the year	962.69	1711	1652.46	1186.49
13	Total Grants (11+12)	10443.77	7760	6327.32	4368.47
14	Average Grants (11+13)/2	9962.43	6904	5501.09	3775.24
15	Weighted average rate of Depreciation	3.78%	3.93%	4.07%	6.21%
16	Depreciation for GFA on Grants (14*15)	376.58	271.17	223.89	234.41
17	Depreciation for GFA on Loans (10-16)	185.06	225.01	236.05	211.77

Table 82: Gain/(loss) on account of controllable and uncontrollable factors of Depreciation for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Depreciation	185.06	225.01	(39.95)	(39.95)	-
SBPDCL					
Depreciation	236.05	211.77	24.28	24.28	-

Commission Analysis:

4.11.2. 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.”

- 4.11.3. It is to be noted that as per above Regulation 23 (a), 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. Same has been verified by the Commission through accounting policies as specified in the Audited account of the petitioners.
- 4.11.4. Above mentioned Regulation 23 (d), stipulates that the freehold land shall not be treated as a depreciable asset while the cost on account of leasehold land shall be amortized evenly within the leased period. In this regard, the Commission observed that in the Audited Accounts of NBPDCCL and SBPDCL, the segregation of opening GFA and Capitalisation between heads ‘leasehold land’ and ‘freehold land’ was not available.
- 4.11.5. In response to the clarification sought by the Commission, NBPDCCL and SBPDCL submitted that due to unavailability of fixed asset register they were unable to provide the segregation of opening GFA of Rs. 1,032.97 Crore and Rs. 1,541.93 Crore, respectively, pertaining to ‘leasehold land’ and ‘Freehold Land’ of respective Discoms. Due to unavailability of the same, the Commission has considered the opening GFA of Rs. 1,032.97 Crore and Rs. 1,541.93 Crore as the part of Freehold Land for NBPDCCL and SBPDCL, respectively.
- 4.11.6. NBPDCCL further submitted that the bifurcation of capitalisation addition of Rs. 5.24 Crore during FY 2019-20, in to ‘leasehold land’ and ‘Freehold Land’ was not available. SBPDCL submitted that capitalisation addition during FY 2019-20 towards ‘Leasehold Land’ and ‘Freehold Land, is Rs. 1.29 Crore and Rs. 1.34 Crore, respectively. However, as the supporting lease documents were not shared by SBPDCL in this regard, the Commission has considered the capitalisation of Rs. 2.63 Crore (Rs. 1.29 Crore + Rs. 1.34 Crore) towards freehold land.
- 4.11.7. For Computation of weighted average rate of depreciation, the Commission has

considered opening GFA and addition to GFA for FY 2019-20, same as approved in this Order.

4.11.8. It is to noted that Opening GFA and GFA addition considered in above para also includes GFA related to land asset. As land is not a depreciable asset, the Commission has reduced the value of land for arriving at the effective weighted average rate of depreciation.

4.11.9. The effective weighted average rate of depreciation is worked out on the depreciable assets for FY 2019-20 as below:

Table 83: Weighted average rate of depreciation for FY 2019-20 (in Rs. Crore)

S. No.	Particulars	NBPDC	SBPDCL
		Approved in True-up of FY 2019-20	Approved in True-up of FY 2019-20
1	Opening GFA balance for FY 2019-20	10,939.17	9,615.59
2	Less: Value of land	1,032.97	1,541.93
3	Net opening GFA (1- 2)	9,906.20	8,073.66
4	Additions during the year (excl. value of land)	3,883.63	2,232.29
5	Adjustment of assets sold/ discarded	9.73	2.44
6	Closing GFA balance of depreciable asset for FY 2019-20 (3+4-5)	13,780.10	10,303.51
7	Average GFA (3+6)/2	11,843.15	9,188.59
8	Net Depreciation as per audited account	496.17	446.17
9	Weighted average rate of depreciation	4.19%	4.86%

4.11.10. As per Regulation 23 (b) of the above-mentioned Regulations, depreciation shall not be allowed on the asset funded by capital subsidy, grant or consumer contribution. The Discoms have furnished the details of grants utilised for creation of assets in Format - 14 for True-up of FY 2019-20. The Commission observes that opening balance of depreciable assets created out of grants as stated in Format-14 is not in agreement with the opening balance approved in True-up of FY 2019-20, due to revised GFA balance considered by the petitioners in submitted (detailed in Para 0).

4.11.11. In view of above, the Commission has considered the opening GFA, additions to GFA, closing GFA created out of grant as approved by the Commission in Table 79 and **Error! Reference source not found.** for NBPDC and SBPDCL, respectively. The weighted average rate of depreciation has been considered as per the table above. The Commission has worked the depreciation for FY 2019-20 as shown in Table below:

Table 84: Depreciation in True-up of FY 2019-20, as approved by the Commission (in Rs. Crore)

Particulars	NBPDC		SBPDCL	
	Approved in MYT Order for FY 2019-20	Approved in True-up of FY 2019-20	Approved in MYT Order for FY 2019-20	Approved in True-up of FY 2019-20
Opening GFA balance for FY 2019-20		10,939.17		9,615.59
Less: Value of land		1,032.97		1,541.93
Net opening GFA (excl. land value)	12,220.04	9,906.20	9,843.43	8,073.66
Additions during the year (excl. value of land)	2,957.10	3,636.21	2,914.66	2,232.29
Adjustment of assets sold/ discarded		9.73		2.44
Closing GFA balance of depreciable asset for FY 2019-20	15,177.14	13,532.69	12,758.09	10,303.51
Average GFA	13,698.59	11,719.44	11,300.76	9,188.59
Weighted average rate of depreciation	4.10%	4.19%	4.07%	4.86%
Depreciation for the Year	561.64	490.99	459.94	446.17
Net opening grant balance (excl. value of land)	9,481.08	7404.74	4,674.86	4,482.80
Grant added during year (excl. value of land)	962.69	1587.87	1,652.46	1,186.49
Closing Grants balance for FY 2019-20 (excl. value of land)	10,443.77	8,992.60	6,327.32	5,669.29
Average Grants	9,962.43	8,198.69	5,501.09	5,706.04
Weighted average rate of Depreciation	3.78%	4.19%	4.07%	4.86%
Depreciation for GFA on Grants	376.58	343.49	223.89	246.48
Net Depreciation	185.06	147.50	236.05	199.69

4.11.12. Accordingly, the Commission has approved Depreciation of Rs. 147.50 Crore and Rs. 199.96 Crore as against Rs. 225.01 Crore and Rs. 211.77 Crore claimed by NBPDC and SBPDCL, respectively in True-up for FY 2019-20.

4.11.13. Regulation 9.2 (c) of BERC (Multi Year Distribution Tariff) Regulations, 2018 specifies that the depreciation expense is controllable in nature on account of time/ cost overrun / efficiency in implementation of Capex. However, if variation is attributable to an approved change in scope of such project, change in statutory levies or force majeure events, depreciation expense is considered as un-controllable in nature.

4.11.14. Depreciation is component which dependent on the value of the assets capitalised and any variation in the capitalisation will lead to variation in Depreciation. Hence, such variations in depreciation on account of uncontrollable reasons are a clear pass through in tariffs. However, the variations in depreciation on account of controllable reasons

needs to be shared.

4.11.15. However, due to the reasons detailed in Section 4.8.19 of this Order, the Commission has approved Capitalisation for FY 2019-20 on provisional basis due to unavailability of details sought from the Petitioners. Accordingly, the Commission will undertake the prudence check of the detailed submissions for capitalisation for FY 2019-20 during next tariff filing. The Commission will accordingly determine the variation in capitalisation on account of controllable and non-controllable components.

4.11.16. Accordingly, the Commission is of the view that sharing of gains/losses on account of depreciation is not possible before ascertaining the controllable and non-controllable components of capitalisation. Based on the observations and findings of the Commission during next tariff filing, the Commission will accord the appropriate treatment of sharing of gains/losses on account of Depreciation for FY 2019-20 as per the provisions of BERC (Multi Year Distribution Tariff) Regulations, 2018, subject to the information submitted by the Petitioners.

4.12. Interest on Loan

NBPDC's Submission:

4.12.1. NBPDC submitted that interest on loans includes loans against schemes, central and state government loans, Bank Overdrafts, public bonds etc. For computing the interest rate on the normative debt, the weighted average rate of actual loan portfolio is calculated as 10.33%. The Table provided below captures the calculation of weighted average rate of interest for FY 2019-20.

Table 85: Loan portfolio of NBPDC for FY 2019-20 (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	472.56	10.50%	-	181.00	291.25	40.10
PFC (R-APDRP) Part- A, Term Loan	13.69	9%	-	-	13.69	1.23
PFC (R-APDRP) Part- B, Term Loan	35.00	9%	18.01	1.95	50.71	3.84
PFC (Counter Part)	67.00	11%	29.00	6.60	89.39	8.33
REC (DDUGJY) Term Loan	200.00	10.22%	400.00	-	600.00	40.88
REC (IPDS) Term Loan	100.00	10.22%	-	-	99.98	10.22
State Gov. Non-Plan Loan	197.00	10.50%	26.12	-	223.22	22.07
BSPHCL (ADB) Loan	56.01	10.50%	-	-	56.01	5.88
Total	1,140.98		473.13	189.86	1,424.25	132.55
Average Loan during the year						1,282.62

Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Amount of interest paid
Weighted average rate of Interest						10.33%

4.12.2. Further, NBPDC has considered Rs. 225.01 Crore claimed under depreciation as normative repayment for the period. The Table below shows interest expense shown against loans for FY 2019-20:

Table 86: Interest on Loans for FY 2019-20 as claimed by NBPDC (in Rs. Crore)

Calculation for Interest on Loan	Approved in MYT Order for FY 2019-20	Claimed in True Up for FY 2019-20
Opening loan balance	2512.48	1,786.19
Additions during the year	1743.79	1,522
Normative Repayment	185.06	225.01
Closing Loans (1+2-3)	4071.21	3,083
Average Loans $\{(1+4)/2\}$	3291.84	2,434
Interest rate	10.11%	10.33%
Interest Charges (5*6)	332.81	251.58

SBPDCL's Submission:

4.12.3. SBPDCL submitted that interest on loans includes loans against schemes, central and state government loans, Bank Overdrafts, public bonds etc. For computing the interest rate on the normative debt, the weighted average rate of actual loan portfolio is calculated as 10.06%. The Table provided below captures the calculation of weighted average rate of interest for FY 2019-20.

Table 87: Loan portfolio of SBPDCL for FY 2019-20 (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	144.95	10.33%	-	8.07	136.88	14.88
REC (R-APDRP) Term Loan	349.26	10.40%	-	-	349.26	36.42
PFC (R-APDRP) Term Loan	213.59	9.00%	46.52	-	260.11	20.01
REC (IPDS) Term Loan	100.00	10.19%	-	-	100.00	10.47
REC (DDUGJY) Term Loan	200.02	10.19%	400.00	-	600.02	33.52
State Govt. Non-Plan Loan	43.69	10.50%	14.89	-	58.58	6.32
BSPHCL (ADB) Loan	6.06	10.50%	0.22	-	6.28	1.65
Total	1057.57		461.63	8.07	1511.13	123.27

Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing balance	Amount of interest paid
Average Loan during the year						1284.35
Weighted average rate of Interest						10.06%

4.12.4. Further, SBPDCL has considered Rs. 211.77 Crore claimed under depreciation as normative repayment for the period. The Table below shows interest expense shown against loans for FY 2019-20:

Table 88: Interest on Loans for FY 2019-20 as claimed by SBPDCL (in Rs. Crore)

Calculation for Interest on Loan	Approved in MYT Order for FY 2019-20	Claimed in True Up for FY 2019-20
Opening loan balance	3817.35	1,978.99
Additions during the year	1499.14	732.92
Normative Repayment	236.05	211.77
Closing Loans (1+2-3)	5080.44	2,500.15
Average Loans {(1+4)/2}	4448.90	2,239.57
Interest rate	10.05%	10.06%
Interest Charges (5*6)	447.11	225.23

4.12.5. Base on above submission NBPDC & SBPDCL has submitted the computation of Gain/(loss) on account of controllable and uncontrollable factors of interest on loan as shown in Table below:

Table 89: Gain/(loss) on account of controllable and uncontrollable factors of interest on loan of NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Interest on Loan	332.81	251.58	81.23	-	81.23
SBPDCL					
Interest on Loan	447.11	225.23	221.88	-	221.88

Commission Analysis:

4.12.6. The Commission in its Tariff Order dated 20 March 2020 for True-up of FY 2018-19 has approved closing loan balance of NBPDC and SBPDCL as Rs. 1,786.19 Crore and Rs. 1,978.88 Core, respectively. The Commission has considered the same as opening loan balance for FY 2019-20 for respective DISCOMs The addition to loan

during FY 2019-20 is considered as computed by the Commission as approved in Table 80 above.

4.12.7. As per Regulation 25 (e) of BERC (Multi Year Distribution Tariff) Regulations, 2018, Commission has considered the repayment of loan equal to the depreciation approved in True-up of FY 2019-20.

4.12.8. Further, Regulation 25 (g) of BERC (Multi Year Distribution Tariff) Regulations, 2018, stipulates as under:

“(g) 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;”

4.12.9. The Commission has verified the loan balance from the audited account of Petitioners. Further, Commission has also examined the loan document/agreement and loan statement submitted by the Petitioners.

4.12.10. Accordingly, the Commission has considered the weighted average interest rate as submitted by the petitioner.

4.12.11. Further, as per Regulation 25 (e) of the above-mentioned Regulations, the Commission has considered the Depreciation approved in Table 84 during True-up of FY 2019-20, as normative repayment during the year.

4.12.12. Accordingly, the Commission has computed the interest on loan for True-up of FY 2019-20 as shown in Table below:

Table 90: Interest on Loans approved in True-up for FY 2019-20 (in Rs. Crore)

S. no.	Particular	NBPDC		SBPDCL	
		Approved in MYT Order for FY 2019-20	Approved in True Up for FY 2019-20	Approved in MYT Order for FY 2019-20	Approved in True Up for FY 2019-20
1	Opening loan balance	2,512.48	1,786.19	3,817.35	1,978.88
2	Additions during the year	1,743.79	1,510.53	1,499.14	865.78
3	Normative Repayment	185.06	147.50	236.05	199.69
4	Closing Loans (1+2-3)	4,071.21	3,149.22	5,080.44	2,644.96
5	Average Loans $\{(1+4)/2\}$	3,291.84	2,467.70	4,448.90	2311.92
6	Interest rate	10.11%	10.33%	10.05%	10.06%
7	Interest Charges (5*6)	332.81	255.01	447.11	232.51

4.12.13. Accordingly, Commission has approved interest on loan of Rs. 255.01 Crore and Rs. 232.51 Crore as against Rs. 251.58 Crore and Rs. 225.23 Crore as claimed by NBPDC and SBPDCL, respectively in True-up for FY 2019-20.

4.12.14. Regulation 9.2 (c) of BERC (Multi Year Distribution Tariff) Regulations, 2018 specifies that the interest expense is controllable in nature on account of time/ cost overrun / efficiency in implementation of Capex. However, if variation is attributable an approved change in scope of such project, change in statutory levies or force majeure events, interest on loan is considered as un-controllable in nature.

4.12.15. It is pertinent to note that interest on loan is a component which is dependent on the value of the assets capitalised and any variation in the capitalisation will lead to variation in interest on loan. Hence, such variations in interest on loan on account of uncontrollable reasons are a clear pass through in tariffs. However, the variations in Interest on loan on account of controllable reasons needs to be shared.

4.12.16. However, due to the reasons detailed in Section 4.9 of this Order, the Commission has approved Capitalisation for FY 2019-20 on provisional basis due to unavailability of details sought from the Petitioners. Accordingly, the Commission will undertake the prudence check of the detailed submissions for capitalisation for FY 2019-20 during next tariff filing. The Commission will accordingly determine the variation in capitalisation on account of controllable and non-controllable components.

4.12.17. Accordingly, the Commission is of the view that sharing of gains/losses on account of Interest on loan is not possible before ascertaining the controllable and non-controllable components of capitalisation. Based on the observations and findings of the Commission during next tariff filing, the Commission will accord the appropriate treatment of sharing of gains/losses on account of Interest on loan for FY 2019-20 as per the provisions of BERC (Multi Year Distribution Tariff) Regulations, 2018, subject to the information submitted by the Petitioners.

4.13. Other Finance Charge

NBPDC & SBPDCL's Submission:

4.13.1. NBPDC & SBPDCL submitted Other finance charges which includes power factor rebate, interest to suppliers, bank charges etc. Table below shows various head wise other finance charges as incurred for FY 2019-20:

Table 91: Other Finance Charges claimed by NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

S. No.	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
1	Discount to consumers for timely payment of Bills (Rebate)		35.07		52.43
3	Other Bank Charges		0.0032		5.22
4	Other finance charges as per base year				
5	Other finance charges	32.05	35.08	49.10	57.66

4.13.2. Petitioners further submitted that, as per Section 47(1) (a) of the Electricity Act, 2003 any person who requires a supply of electricity, should provide a reasonable amount of security deposit in respect of the electricity supplied to such person. Further, 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. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle. Accordingly, as per Regulation 26 (iii) of BERC (Multi Year Distribution Tariff) Regulations 2018, NBPDC & SBPDCL submitted details of interest on consumer's security deposit is being passed on to the consumers. A summary of the same is shown in Table below:

Table 92: Interest on Security Deposit claimed by NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

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
Opening Security Deposit	349.85		607.72	
Opening balance of interest payable to consumers		116.19		189.15
Interest payable during FY 2019-20		21.74		35.87
Addition / (Deletion) during the year	39.16	137.93	94.74	225.02
Closing Security Deposit	389.01		702.46	

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
Closing balance of interest payable to consumers		130.00		209.31
Average Security Deposit (1+3)/2	369.43		655.09	
RBI Bank Rate	6.50%		6.50%	
Interest on Security Deposit paid during the year	24.01	7.95	42.58	15.71

Table 93: Gain/(loss) on account of controllable and uncontrollable factors of other finance charge of NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Other Finance Charge	32.05	35.08	(3.03)	-	(3.03)
Interest on Security Deposit	24.01	7.95	16.06	-	16.06
SBPDCL					
Other Finance Charge	49.10	57.66	(8.56)	-	(8.56)
Interest on Security Deposit	42.58	15.71	26.87	-	26.87

Commission Analysis:

4.13.3. Regulation 25 (k) of BERC (Multi Year Distribution Tariff) Regulations, 2018 specifies as follows:

“Details of expenses on account of rebates for prompt payment, Power factor rebate for maintaining power factor above 0.90 and cost of raising finance such as Bank Commission etc. shall also be separately filed by the licensee with the ARR under the head “Interest on loan and other finance charges”.”

4.13.4. The Commission in its Tariff Schedule notified through the Tariff Order dated 25 February, 2019 for FY 2019-20 has specified the rebate for prompt payment of energy bill, online payment rebate, power factor rebate, etc. In this regard, NBPDC and SBPDCL submitted that a rebate of Rs. 35.08 Crore and Rs. 52.44 Crore was given to the consumers. The Commission has verified the same from audited accounts

4.13.5. Further, NBPDC and SBPDCL has incurred Rs. 5.22 Crore and Rs. 0.0032 Crore against other bank charge. These bank charges paid by SBPDCL to bank for opening

LC for arranging payment of power purchase bills and other bank charges represent bank collection charges, other finance charges, etc. The Commission has verified the same from Audited Accounts of respective petitioners for FY 2019-20

- 4.13.6. Accordingly, Commission has considered the other finance charges for True-up of FY 2019-20 as Table below:

Table 94: Other Finance Charges approved in True-up of FY 2019-20, , as approved by the Commission (in Rs. Crore)

Particulars	NBDCL		SBPDCL	
	Approved in MYT Order for FY 2019-20	Approved in True-up of FY2019-20	Approved in MYT Order for FY 2019-20	Approved in True-up of FY2019-20
Discount to consumers for timely payment of Bills (Rebate)		35.07		52.43
Other Bank Charges		0.0032		5.22
Other finance charges	32.05	35.08	49.10	57.66

4.14. Interest on Security Deposit

- 4.14.1. Regarding interest on security deposit, Regulation 26 of 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.”

- 4.14.2. The Commission has observed from the audited accounts for FY 2019-20, that DISCOMs have made provision towards interest on security deposit to consumers in the accounts and interest on security deposit is partially passed on to the consumers.
- 4.14.3. On a query regarding non-payment of interest on consumer security deposit, petitioners have submitted that Interest on Security Deposit to HT Consumers are passed through on a regular basis. The Petitioner further submitted that during the migration process to SAP for urban areas and NIC for rural areas in the year 2016, security deposit details of all consumers did not get migrated completely. To update the correct status of security deposits in its database, the Petitioner urged the consumers to visit their nearby electricity offices with the original receipt of their security deposit and update the status of their security deposit amount in the database of the DISCOMs.
- 4.14.4. The Commission in its Order dated 20 March 2020 for the purpose of computing interest on security deposit had restricted the amount to the extent of interest actually passed on to the consumers. The relevant excerpt of the said order is reproduced below:

“The Commission observes that Discoms have made provision towards interest on security deposit to consumers in the accounts and actually not passed on to the consumers and hence not considered as pass through in the ARR in true up for FY 2018-19. If the unpaid interest on consumers security deposit is allowed in the ARR as pass through, it tantamount to recovery of the interest from the consumers itself. As such, the Commission considers actual interest payout to the consumers in true up for FY 2018-19. However, the distribution licensee may claim interest on security deposit as and when paid to the consumers by them for FY 2018-19.”

- 4.14.5. Accordingly, the Commission has computed the interest on security deposit actually paid during FY 2019-20 as shown in Table below:

Table 95: Interest on Security Deposit approved in True-up for FY 2019-20 (in Rs. Crore)

Particulars	NBDCL	SBPDCL
	Approved in True-up of FY 2019-20	Approved in True-up of FY 2019-20
Opening balance of interest payable to consumers	116.19	189.15
Interest payable during FY 2019-20	21.74	35.87
Addition / (Deletion) during the year	137.93	225.02
Closing balance of interest payable to consumers	130.00	209.31
Interest on Security Deposit paid during FY 2019-20	7.95	15.71

- 4.14.6. The Commission has approved the Interest on Security Deposit of Rs. 7.95 Crore and Rs. 15.71 Crore, for NBDCL and SBPDCL, respectively, in True-up of FY 2019-20.
- 4.14.7. Further, regarding sharing of gain/losses, Commission is of view that other finance cost and interest on consumer security deposit are uncontrollable in nature. Hence, sharing of gain/losses on account of other finance cost and interest on consumer security deposit is not prudent.

4.15. Return on Equity

NBDCL & SBPDCL's Submission:

- 4.15.1. Petitioners submitted that the actual equity infused in the company is greater than the norm of 30% of capital base. Hence, in line with the Regulation 27 of the BERC (Multi Year Distribution Tariff) Regulations, 2018, the return on equity is calculated on 30% of the capital base only.

Table 96: Return on Equity for FY 2019-20, as claimed by NBDCL & SBPDCL (in Rs. Crore)

S no.	Particulars	NBPDC		SBPDCL	
		Approved in MYT Order for FY 2019- 20	Claimed in True Up for FY 2019-20	Approved in MYT Order for FY 2019- 20	Claimed in True Up for FY 2019-20
1	Closing equity to end of 31.03.2016	440.86	440.86	638.06	638.06
2	Rate of return on equity %	21.55%	14.00%	14.00%	14.00%
3	Return on Equity	78.67	61.72	113.87	89.33
	Equity with effect from 1st April 2016				
4	Opening equity	910.38	588.95	1484.24	688.81
5	Equity Addition during the year	747.34	652.12	642.49	314.11
6	Closing Equity	1657.72	1241.07	2126.73	1002.92
7	Average Equity	1284.05	915.01	1805.49	845.87
8	Rate of return on equity with effect	21.55%	15.50%	19.76%	15.5%
9	Return on Equity	253.70	141.83	356.72	131.11
10	Total Return on Equity (3+9)	332.37	203.55	470.59	220.44

Table 97: Gain/(loss) on account of controllable and uncontrollable factors of Return on Equity for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Return on Equity	332.37	203.55	128.82	128.82	-
SBPDCL					
Return on Equity	470.59	220.44	250.15	250.15	-

Commission Analysis:

- 4.15.2. 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. 01.04.2016. However, Return on Equity for the projects commissioned prior to 01.04.2016 shall be allowed at the rate of 14%.
- 4.15.3. Accordingly, the Commission had bifurcated the equity into two periods i.e., equity on assets commissioned prior to 1 April 2015 and equity on asset commissioned after 1 April 2015. The closing balance of equity, bifurcated in the aforementioned periods, as approved by the Commission in its Tariff Order dated 20 March 2020 for True-up of FY 2018-19 for NBPDC and SBPDCL is show in Table below:

Table 98: Detail of closing equity for FY 2018-19 (in Rs. Crore)

Particular	NBPDC	SBPDCL
Equity at the end of 31 March, 2016	440.86	638.06
Equity from 1 April 2016 to 31 March, 2020	588.96	688.81

4.15.4. Accordingly, the Commission has considered the opening equity for the assets commissioned prior to 1 April 2015 as shown in the Table above for FY 2019-20.

4.15.5. As regards projects commissioned since 1 April 2016, the Commission has considered closing balance of equity approved in true-up of FY 2018-19 (as shown in the table above) as opening equity balance for FY 2019-20. Further, Commission has considered the addition to equity during FY 2019-20 as approved in this Order.

4.15.6. Further, the 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 this regard, the Commission notes that the PBT of both Petitioners for FY 2019-20 is negative, and accordingly, tax paid by the Petitioners during FY 2019-20 was NIL. As a result, the effective tax rate applicable for FY 2019-20 is 0%. Therefore, the Commission has not considered the grossing up of the base Return on Equity for FY 2019-20.

4.15.7. Accordingly, Commission has computed the Return on Equity as shown in Table below:

Table 99: Return on Equity in True-up for FY 2019-20, as approved by the Commission (in Rs. Crore)

S no.	Particulars	NBPDC		SBPDCL	
		Approved in MYT Order for FY 2019- 20	Approved in True Up for FY 2019-20	Approved in MYT Order for FY 2019- 20	Approved in True Up for FY 2019-20
1	Closing equity to end of 31.03.2016	440.86	440.86	638.06	638.06
2	Rate of return on equity %	21.55%	14.00%	14.00%	14.00%
3	Return on Equity	78.67	61.72	113.87	89.33
	Equity with effect from 1st April 2016				
4	Opening equity	910.38	588.95	1484.24	688.81
5	Equity Addition during the year	747.34	529.24	642.49	178.82
6	Closing Equity	1657.72	1118.20	2126.73	867.63
7	Average Equity	1284.05	853.58	1805.49	778.22
8	Rate of return on equity with effect	21.55%	15.50%	19.76%	15.50%
9	Return on Equity	253.70	132.31	356.72	131.05
10	Total Return on Equity (3+9)	332.37	194.03	470.59	209.95

4.15.8. Accordingly, Commission has approved Return on Equity of Rs. 194.03 Crore and Rs.

209.95 Crore as against Rs. 203.55 Crore and Rs. 220.44 Crore as claim by NBPDCCL and SBPDCL, respectively in True-up for FY 2019-20.

4.15.9. Regulation 9.2 (c) of BERC (Multi Year Distribution Tariff) Regulations, 2018 specifies that the return on equity is controllable in nature on account of time/ cost overrun / efficiency in implementation of CAPEX. However, if variation is attributable an approved change in scope of such project, change in statutory levies or force majeure events, return on equity is considered as un-controllable in nature.

4.15.10. It is pertinent to note that return on equity is a component which is dependent on the value of the assets capitalised and any variation in the capitalisation will lead to variation in return on equity. Hence, such variations in return on equity on account of uncontrollable reasons are a clear pass through in tariffs. However, the variations in Return on equity on account of controllable reasons needs to be shared.

4.15.11. However, due to the reasons detailed in Section 4.8 of this Order, the Commission has approved Capitalisation for FY 2019-20 on provisional basis due to unavailability of details sought from the Petitioners. Accordingly, the Commission will undertake the prudence check of the detailed submissions for capitalisation for FY 2019-20 during next tariff filing. The Commission will accordingly determine the variation in capitalisation on account of controllable and non-controllable components.

4.15.12. Accordingly, the Commission is of the view that sharing of gains/losses on account of Return on equity is not possible before ascertaining the controllable and non-controllable components of capitalisation. Based on the observations and findings of the Commission during next tariff filing, the Commission will accord the appropriate treatment of sharing of gains/losses on account of Return on equity for FY 2019-20 as per the provisions of BERC (Multi Year Distribution Tariff) Regulations, 2018, subject to the information submitted by the Petitioners.

4.16. Operation and Maintenance (O&M) Expenses

4.16.1. Petitioners submitted that, O&M expenses considered in the submission is accordance to Regulation 22 BERC (Multi Year Distribution Tariff) Regulations, 2018.

NBPDCCL & SBPDCL's Submission:

I. Employee Expenses

4.16.2. Petitioner has submitted the employee cost computed for 2019-20 as shown in Table below:

Table 100: Employee Expense for FY 2019-20 (in Rs. Crore) as claimed by NBPDCCL and SBPDCL

	NBPDCCL	SBPDCL
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S. No.	Particulars	Approved in MYT Order	Actual		Approved in MYT Order	Actual	
			Base Value	FY 2019-20		Base Value	FY 2019-20
1	Average annual CPI index	4.28%		5.34%	4.28%		5.34%
2	Norms-Number of personnel per 1000 consumers	0.175	0.1676	0.1676	0.278	0.2667	0.2667
3	Norms-Number of personal per substation	16.984	16.287	16.287	20.312	19.4782	19.4782
4	No. of consumers (1000)	10588		10088	6564		5790
5	No of substations	494.61		548	410.48		525
6	Annual expenses per personnel (Rs. Cr)	0.0319	0.0306	0.0390	0.0455	0.0436	0.0461
7	Employee cost per 1000 consumers	59.05		65.95	83.02		71.21
8	Employee cost per substation	268.06		348.14	379.20		471.61
9	Total Employee cost	327.10		414.08	462.22		542.82

Commission Analysis:

4.16.3. 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)

4.16.4. 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.

4.16.5. 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 101: Employee Expense norms of NBPDC & SBPDCL as approved in MYT Order for Base Year

Particular	Employee Expense Norms of NBPDC	Employee Expense Norms of SBPDCL
Number of personnel per 1000 consumers	0.1676	0.2667
Number of personal per substation	16.287	19.478
Annual expenses per personnel (in Rs. Crore)	0.0306	0.0436

4.16.6. Further, the Annual expenses per personnel for FY 2019-20 is derived by escalating base year value by CPI inflation for FY 2019-20. As per Regulation 22.1 of BERC (Multi Year Distribution Tariff) Regulations 2018, CPI inflation is defined as the average increase in the Consumer Price Index (CPI) for immediately preceding three years. Accordingly, the Commission has worked out CPI inflation for FY 2019-20 as in Table below:

Table 102: CPI inflation workout for FY 2019-20

Particular	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Weighted Charges CPI	265.00	275.92	284.42	299.92
Year-on-Year inflation		4.12%	3.08%	5.45%
CPI inflation for FY 2019-20				4.22%

4.16.7. The Commission observed that Petitioner has not computed Annual expenses per personnel as per approved norms. In clarification sought by the Commission for considering revised employee expense norms, petitioner has submitted that for the purpose of True-up computation, annual expenses per personnel is computed based on the actual employee cost and actual number of employees for FY 2019-20.

4.16.8. As per Regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2018, O&M expense of the distribution license has to be approved as per the Norms approved by the Commission for the Control period. Further, employee costs, being the component of O&M Expenses, have been considered as controllable factor and is subject sharing of Gain/(losses) with an intent to incentivise the Petitioners to optimise their costs. Accordingly, the Commission is of the view that allowing actual employee would defeat the principle of incentivising the Petitioners for optimising their costs and would pass on the undue burden of cost inefficiencies of the Petitioners on to the consumers. Therefore, Commission finds no merit in Petitioners' request for revising the Employee cost norms based on actual employee costs. Therefore, the Commission has considered the norms as approved in MYT Order dated 25 February, 2019.

4.16.9. For computing the normative Employee Expenses for FY 2019-20, the Commission has considered the base value of norms for number of employees per 1000 consumers and number of personnel per substation as specified in the MYT Order. The number of consumers has been considered as approved in 4.2.11 above. Number of substations considered for normative employee expense computation is considered as per the Petitioners' submission, and same has been verified from their annual report.

4.16.10. The annual expenses per personnel for FY 2019-20 has been computed by escalating the base value of annual expenses per personnel by CPI inflation computed in the table above. Accordingly, Commission has worked out the Normative Employee Expense as shown in Tables below:

Table 103: Normative Employee Expense of NBPDC as approved by the Commission in True-up of FY 2019-20

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
1	Average CPI inflation	4.28%	5.34%		4.22%
2	Norms-Number of personnel per 1000 consumers	0.175	0.1676	0.1676	0.1676
3	Norms-Number of personal per substation	16.984	16.287	16.287	16.287
4	No. of consumers (1000)	10588	10088		10088
5	No of substations	494.61	548		548
6	Annual expenses per personnel (Rs. Crore)	0.0319	0.0390	0.0306	0.0319
7	Employee cost on the norms of 1000 consumers (2*4*6) (Rs. Crore)	59.05	65.95		53.93
8	Employee cost based on norms of substation (3*5*6) (Rs. Crore)	268.06	348.14		284.72
9	Total Employee cost (Rs. Crore)	327.10	414.08		338.65

*Arrived after escalating the base value by applying CPI inflation for FY 2019-20

Table 104: Normative Employee Expense of SBPDCL as approved by the Commission in True-up of FY 2019-20

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
1	Average CPI inflation	4.28%	5.34%		4.22%
2	Norms-Number of personnel per 1000 consumers	0.278	0.2667	0.2667	0.2667
3	Norms-Number of personal per substation	20.312	19.4782	19.4782	19.4782
4	No. of consumers (1000)	6564	5790		5790
5	No of substations	410.48	525		525
6	Annual expenses per personnel (Rs. Crore)	0.0455	0.0461	0.043614	*0.04545

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
7	Employee cost on the norms of 1000 consumers (2*4*6) (Rs. Crore)	83.02	71.21		70.26
8	Employee cost based on norms of substation (3*5*6) (Rs. Crore)	379.20	471.61		465.29
9	Total Employee cost (Rs. Crore)	462.22	542.82		535.54

*Arrived after escalating the base value by applying CPI inflation for FY 2019-20

4.16.11. Accordingly, the Commission has approved the normative employee cost of Rs. 338.65 Crore and Rs. 535.54 Crore, as against Rs. 414.08 and Rs. 542.82 Crore claimed by NBPDC & SBPDCL, respectively for true-up of FY 2019-20.

II. Repair & Maintenance (R&M) Expenses

NBPDC & SBPDCL's Submission:

4.16.12. Petitioners 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 R&M norm i.e. 'K' factor at 1.66% for NBPDC & 2.16% for SBPDCL for the MYT control period of FY 2019-20 to FY 2021-22 in the MYT Order dated 20 February, 2019. In line with Regulation 22.2 Petitioners have computed R&M expense for the FY 2019-20 as shown in Table below:

Table 105: R&M Expense for FY 2019-20, as claimed by NBPDC & SBPDCL (in Rs. Crore)

S. No	Particulars	NBPDC		SBPDCL	
		Approved in MYT Order	Actual	Approved in MYT Order	Actual
1	Opening GFA		9809.99		8427.73
2	Opening Land Cost		1025.50		1541.93
3	Opening GFA excluding land cost	12220.04	8784.49	9843.43	6,885.81
4	K Factor	1.66%	1.66%	2.16%	2.16%
5	R&M Expense	202.85	145.82	212.62	148.73

Commission's analysis:

4.16.13. As regards R&M Expense, 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:

$$R\&Mn = Kb * GFAn$$

Where:

R&Mn : Repairs & Maintenance expense for nth year

GFAn : Opening Gross Fixed Assets for nth year

Kb : Percentage point as per the norm”

4.16.14. The Commission has determined R&M norm i.e. ‘K’ factor at 1.66% for NBPDC & 2.16% for SBPDCL for the MYT control period of FY 2019-20 to FY 2021-22 in the MYT Order dated 20 February 2019.

4.16.15. For Computation of normative R&M expense for FY 2019-20, the Commission has considered ‘K’ factor as specified in MYT Order. Further, it was observed that the Petitioners have considered the opening GFA balance for FY 2019-20 as per its audited account balance for computation of normative R&M expense. In line with the approach adopted in approval of GFA in this Order, the Commission has considered the closing GFA balance approved in the True-up of FY 2018-19 as the opening GFA balance for FY 2019-20.

4.16.16. Accordingly, the Commission has computed the Normative R&M expense as shown in Table below:

Table 106: Normative R&M Expense as approved by the Commission in True-up of FY 2019-20 (in Rs. Crore)

S. No	Particulars	NBPDC			SBPDCL		
		Approved in MYT Order	Claimed for True-up	Normative Expense approved for FY 2019-20	Approved in MYT Order	Claimed for True-up	Normative Expense approved for FY 2019-20
1	Opening GFA		9809.99	10,939.17		8427.73	9615.59
2	Opening Land Cost		1025.50	1032.97		1541.93	1541.93
3	Opening GFA excluding land cost	12220.04	8784.49	9906.20	9843.43	6,885.81	8073.66
4	K Factor	1.66%	1.66%	1.66%	2.16%	2.16%	2.16%
5	R&M Expense	202.85	145.82	164.44	212.62	148.73	174.39

4.16.17. The Commission approves the normative R&M expense of Rs. 164.44 Crore and Rs. 174.39 Crore, as against Rs. 145.82 Crore and Rs. 148.73 Crore claimed by NBPDC & SBPDCL, respectively for True-up of FY 2019-20.

III. Administration & General (A&G) Expenses

NBPDCCL & SBPDCL's Submission:

4.16.18. Petitioners submitted that in term of Regulation 22 of BERC (Multi Year Distribution Tariff) Regulations 2018, Commission had determined A&G expense for the MYT control period of FY 2019-20 to FY 2021-22 in the MYT Order dated 20 February 2019. Accordingly, petitioner has submitted the A&G expense computed for 2019-20 as shown in Table below:

Table 107: A&G Expense claimed by NBPDCCL and SBPDCL for FY 2019-20 (in Rs. Crore)

S. No.	Particulars	NBPDCCL			SBPDCL		
		Approved in MYT Order	Actual		Approved in MYT Order	Actual	
			Base Value	FY 2019-20		Base Value	FY 2019-20
1	Average annual WPI CPI index	2.70%		2.95%	2.70%		2.95%
2	Norms-A&G expenses per 1000 consumers	1.117	1.1174	1.1174	1.778	1.778	1.778
3	No. of consumers (1000)	10588		10088	6564		5790
4	No of employees	10,211		10483	11648		11970
5	Annual expenses per 1000 consumers	0.0051	0.004978	0.0082	0.0037	0.00356	0.01063
6	Annual expenses per employee	0.0078	0.007576	0.0097	0.0097	0.00942	0.00628
7	A&G cost per 1000 consumers	54.12		83.17	24.01		61.52
8	A&G cost per employee	79.45		101.65	112.69		75.19
9	Total A&G cost	133.57		184.82	136.70		136.70

Commission Analysis:

4.16.19. 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&G_b: 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.”

4.16.20. 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.

4.16.21. 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 108: A&G Expense norms of NBPDC & SBPDCL as approved in MYT Order

Particular	A&G Expense Norms of NBPDC	A&G Expense Norms of SBPDCL
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

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

Table 109: WPI inflation workout for FY 2019-20

Particular	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Weighted Charges WPI	109.72	111.62	114.87	119.79
Year-on-Year inflation		1.73%	2.91%	4.29%
WPI inflation for FY 2019-20				2.98%

4.16.23. It was observed that the Petitioners have considered the revised norms for the purpose of True-up. Petitioner has computed the revised norms based on the actual A&G expense and actual no of employees for FY 2019-20. However, as per the approach considered by the Commission in Para 4.16.8, the Commission has computed A&G expense as per the norms approved by the Commission for FY 2019-20 in the MYT Order.

4.16.24. For computing the normative A&G Expenses for FY 2019-20, 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 has been considered as approved by the Commission in Above section.

4.16.25. Annual A&G expense per 1000 consumers and Annual A&G expense per personnel for FY 2019-20 has been computed by escalating the base value by WPI inflation computed in the table above. Accordingly, Commission has worked out the Normative A&G expense as shown in Table below:

Table 110: Normative A&G Expense of NBDCL, as approved by the Commission in True-up of FY 2019-20

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
1	Average annual WPI inflation	2.70%	2.95%		2.98%
2	Norms- Number of personnel per 1000 consumers	1.117	1.1174	1.1174	1.1174
3	No. of consumers (1000)	10588	10088		10088
4	No of employees	10,211	10483		11272
5	Annual expenses per 1000 consumers	0.0051	0.0082	0.0050	*0.0051
6	Annual expenses per employee	0.0078	0.0097	0.0076	*0.0078
7	A&G cost for per 1000 consumers norms	54.12	83.17		51.45
8	A&G cost for per employee norms	79.45	101.65		87.92
9	Total A&G Cost	133.57	184.82		139.37

**Arrived after escalating the base value by applying WPI inflation for FY 2019-20*

Table 111: Normative A&G Expense of SBPDCL, as approved by the Commission in True-up of FY 2019-20

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
1	Average annual WPI inflation	2.70%	2.95%		2.98%
2	Norms- Number of personnel per 1000 consumers	1.778	1.778	1.778	1.778
3	No. of consumers (1000)	6564	5790		5790
4	No of employees	11648	11970		10294
5	Annual expenses per 1000 consumers	0.0037	0.01063	0.003562	*0.003668
6	Annual expenses per employee	0.0097	0.00628	0.009420	*0.009700

S. No.	Particulars	Approved in MYT Order	Claimed in True-up of FY 2019-20	Base Value as per MYT Order	Normative Expense approved for FY 2019-20
7	A&G cost for per 1000 consumers norms	24.01	61.52		21.42
8	A&G cost for per employee norms	112.69	75.19		99.85
9	Total A&G Cost	136.70	136.70		121.27

**Arrived after escalating the base value by applying WPI inflation for FY 2019-20*

4.16.26. The Commission has approved the normative A&G expense of Rs. 139.37 Crore and Rs. 121.27 Crore, as against Rs. 184.82 Crore and Rs. 136.70 Crore claimed by NBPDC & SBPDCL, respectively for True-up of FY 2019-20.

4.17. Sharing of gains/(losses) on account of O&M Expense

NBPDC & SBPDCL's Submission:

4.17.1. The summary of the gain/(loss) on account of controllable and uncontrollable factors of O&M Expense, as submitted by NBPDC & SBPDCL, is shown in the Table below:

Table 112: Gain/(loss) on account of controllable and uncontrollable factors of O&M Expense claimed for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Employee Expense	327.10	414.08	(86.98)	(86.98)	-
R&M Expense	202.85	145.82	57.03	57.03	-
A&G Expense	133.57	184.82	(51.25)	(51.25)	-
SBPDCL					
Employee Expense	462.22	542.82	(80.60)	(80.60)	-
R&M Expense	212.62	148.73	63.89	63.89	-
A&G Expense	136.70	136.70	-	-	-

Commission Analysis:

4.17.2. As per Regulation 9.2 (e) of BERC (Multi Year Distribution Tariff) Regulations 2018. O&M Expenses are considered as Controllable factor and are subject to sharing of Gain/(losses) in order to share the benefits of better performance of the Utility with the consumers, while at the same time protecting the interest of stakeholder. The sharing is

to be done with respect to actual expenses incurred against the normative expenses approved by the Commission. Accordingly, the Commission has considered the Actual Employee Expenses, R&M Expenses and A&G Expenses as detailed in subsequent paragraphs.

I. Actual Employee Expense

4.17.3. The Commission has examined the Employee Expense of NBPDC & SBPDCL as per the audited account for Truing-up of FY 2019-20. Break-up of Employee expense as per Audited Account is shown below:

Table 113: Employee Expense as per audited account of NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDC	SBPDCL
Salaries	220.86	301.59
Over Time	1.51	5.87
Dearness Allowance	32.46	45.68
Other Allowances	32.62	56.50
Medical Expenses Reimbursement	0.95	1.29
Free Electricity	-	0.57
Payment under Workmen Compensation Act	-	1.93
Staff Welfare Expenses	0.69	0.80
Terminal Benefit	119.51	137.82
Bonus	0.30	-
Total Employee Expense	408.90	552.04

4.17.4. From above Table, the Commission has observed that Employee Expense of SBPDCL, includes Rs. 0.57 Crore, under the head of 'Free Electricity'. In response to the clarification sought by the Commission, SBPDCL has clarified that the free electricity is the expense on reimbursement of electricity charges paid to employees of the DISCOM, to the extent applicable as per BHPDC notice no. H-V/Misc-10012/15(P) dated 07/09/2018. The Commission has scrutinised SBPDCL's submission and found it to be in order. Accordingly, as per the approach adopted by the Commission in true-up for FY 2018-19, same has been considered by the Commission.

4.17.5. Accordingly, the Commission has considered the actual employee expense as per audited account for Truing-up of FY 2019-20.

Actual R&M Expense

4.17.6. The Commission has examined the R&M Expense of NBPDC & SBPDCL for FY 2019-20 as per the audited account. Break-up of R&M expense as per Audited Account is shown below:

Table 114: R&M Expense as per audited account of NBPDC & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
Plant and Machinery	7.821	23.376
Building	1.457	2.562
Civil Work	6.101	10.938
Hydraulic works	0.003	0.001
Line cable	101.458	107.670
Vehicles	-	0.009
Furniture and Fixture	0.004	0.005
Office Equipment	0.056	0.378
Total R&M Expense	116.900	145.939

4.17.7. After the prudence check of R&M expenses claimed by the Petitioners, the Commission finds the Petitioners submissions to be in order. Accordingly, the Commission has considered the actual R&M expense as per audited account for Truing-up of FY 2019-20.

Actual A&G Expense

4.17.8. The Commission has examined the A&G Expense of NBPDCCL & SBPDCL as shown in the audited account. Further, petitioners have also included the “Miscellaneous loss and Write-off” in A&G expense. Break-up of A&G expense as per Audited Account is shown below:

Table 115: A&G Expense as per audited account of NBPDCCL & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
A&G Expense as per Audited Account	179.57	135.46
Miscellaneous loss and Write-off	5.26	1.25
Total A&G Expense	184.82	136.70

4.17.9. The Commission sought the details of the nature of expense booked under head of ‘Miscellaneous loss and Write-off’ from Petitioners. Petitioners submitted that this expense includes compensation paid by the DISCOMs for Injuries, Death and Damages to Employees or Outsiders (Other than employee). Further, Petitioners have submitted the break-up of ‘Miscellaneous loss and Write-off’ expense as shown in Table below:

Table 116: Miscellaneous loss and Write-off as per audited account of NBPDCCL & SBPDCL for FY 2019-20 (in Rs. Crore)

Particular	NBPDCCL	SBPDCL
Compensation for Injuries, Death and Damages -Outsiders	5.12	1.10
Compensation for Injuries, Death and Damages - Staff	0.14	0.15
Total A&G Expense	5.26	1.25

4.17.10. It is to be noted that these compensations to be paid by the Distribution license is as per BERC (Compensation to Victims of Electrical Accidents) Regulation, 2018. Regulation 3 of BERC (Compensation to Victims of Electrical Accidents) Regulation, 2018

stipulates that it's liability of the licensee to maintain safety standard and eliminate the risks of any injury to any person (including licensee employee) or animal. Extract of the Regulation 3 is reproduced below:

“Safety Standards:—

(1) The works of licensees shall be so installed, constructed, maintained or operated or used as to protect the public (including the persons engaged in the generation, transmission or distribution or trading) animals and property from dangers arising from the generation, transmission or distribution or trading of electricity or use of electricity supplied and eliminate the risks of any injury to any person or animal.

(2) The licensees shall comply with all the mandatory safety requirements and take all necessary measures to protect human beings and animals from injury by reason of contact with, or the proximity of, or by reason of the defective or dangerous condition of any appliance or apparatus used in the generation, transmission, distribution, supply or use of energy.

(3) The licensees shall strictly comply with the Central Electricity Authority (measures relating to safety and electric supply) Regulations, 2010 as amended from time to time and any further suitable measures or requirements that may be specified by the Central Electricity Authority under Section 53 (a) and (b), Section 73 (c) and Section 177 (2) (b) of the Electricity Act, Central Act 36 of 2003 relating to safety and electric supply.

The above safety standards shall be in addition to the safety standards prescribed in SoP Regulations.”

4.17.11. BERC (Compensation to Victims of Electrical Accidents) Regulation, 2018 also specifies that if licensee fails to meet the standards of performance specified in Regulation 3 above shall be liable to pay compensation for loss of human or animal life or injury to human beings or animals or property in consequence of an electrical accident. However, the BERC (Compensation to Victims of Electrical Accidents) Regulation, 2018 and BERC Multi Year Distribution Tariff Regulation is silent on passing of paid compensation to Tariff.

4.17.12. Electricity supply being a hazardous business, the personal operating and maintaining the electricity supply system are highly prone to accidental risk. Even after the all the mandatory safety requirements and all necessary measures to protect personal, electrical accident of Staff may occur. Hence, Compensation paid to staff as per BERC (Compensation to Victims of Electrical Accidents) Regulation, 2018 is a part of electricity distribution business and are legitimate in nature.

4.17.13. Accordingly, the Commission has considered the actual A&G expense of Rs. 184.82 Crore and Rs. 136.71 Core as per audited account for Truing-up of FY 2019-20.

4.17.14. As per Regulation 9.2 (e) of BERC Multi Year Distribution Tariff Regulation, 2018, variation in O&M expense has to considered as controllable in nature except those variation attributable to directions of the Commission or to change in Government

policy/law. The Commission has, accordingly considered sharing of actual expenses incurred against the normative expenses approved by the Commission.

4.17.15. Sharing the gains/(losses) on account of O&M Expenses as approved by the commission is shown in Table below:

Table 117: Gain/(loss) on account of controllable factors of O&M Expense approved for FY 2019-20 (in Rs. Crore)

Particular	Approved Normative Expense of FY 2019-20	Actual Expense for FY 2019-20	Gain/(Loss) due to Controllable Factors	2/3 rd Gain or 1/3 rd (Loss) to be passed on to Consumers	1/3 rd Gain or 2/3 rd (Loss) to be absorbed by petitioner
	(1)	(2)	(3)= (1)-(2)	(4)	(3)-(4)
NBPDC					
Employee Expense	338.556	408.90	(70.25)	(23.42)	(46.90)
R&M Expense	164.44	116.90	47.54	31.70	(15.85)
A&G Expense	139.37	184.82	(45.46)	(15.15)	(26.71)
Total	642.46	710.62	(68.16)	(6.87)	(61.29)
SBPDCL					
Employee Expense	535.54	552.04	(16.50)	(5.50)	(11.00)
R&M Expense	174.39	144.94	29.45	19.64	9.82
A&G Expense	121.27	136.71	(15.44)	(4.84)	(10.29)
Total	831.21	833.69	(2.48)	8.99	(11.47)

4.17.16. Accordingly, Commission has approved net loss of Rs. (6.87) Crore for NBPDC and net gain of Rs. 8.99 Crore for SBPDCL to be absorbed by the Consumer on account of O&M Expenses.

4.18. Allocation of Holding Company Expenses

4.18.1. Petitioners submitted that allocation of the Holding company expenses for FY 2019-20 as per the provisions of the Transfer Scheme 2012, and based on the actual audited accounts is shown in Table below:

Table 118: Holding Company Expense claimed by NBPDC and SBPDCL for FY 2019-20 (in Rs. Crore)

Particulars	NBPDC		SBPDCL	
	Approved in MYT Order FY 2019-20	Actual for FY 2019-20	Approved in MYT Order FY 2019-20	Actual for FY 2019-20

Holding company expenses	11.29	21.62	10.75	22.73
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Table 119: Gain/(loss) on account of controllable and uncontrollable factors of Holding Company Expense for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					
Holding company expense	11.29	21.62	(10.33)	-	(10.33)
SBPDCL					
Holding company expense	10.75	22.73	(11.98)	-	(11.98)

Commission Analysis:

- 4.18.2. As per the Clause (i) of the Schedule-D of the Bihar State Electricity Reforms Transfer Scheme, 2012, the operating expenses of BSPHCL (Holding Company) shall be shared between all the subsidiary Companies in the ratio of their respective equity.
- 4.18.3. As per Clause (i) of the schedule 'D', the Holding Company shall handle all issues relating to the subsidiary companies in respect of business of purchasing, importing, exporting and trading of power subject to the provision of Electricity Act, 2003 and to supply electric power generated by other plants to transmission companies, distribution companies, trading companies, other generation companies and other persons, and in this regard execute agreements with Central and State Generating authorities, departments or companies, independent Power Producers and other persons. Clause (i) of the Schedule-D of the Bihar State Electricity Reforms Transfer Scheme, 2012, also states the operating expenses of BSPHCL (Holding Company) shall be shared between all the subsidiary Companies in the ratio of their respective equity.
- 4.18.4. NBPDC and SBPDCL has claimed the holding company expense as Rs. 21.62 Crore and Rs. 22.73 Crore for FY 2019-20 based on the audited accounts. In view of above the Commission has sought detail computation of holding company expense.
- 4.18.5. Base on the Submission of petitioner, the Commission has scrutinised the expense of BHPCL , with its audited account and accordingly, verified sharing of holding company expense as Rs. 21.62 Crore and Rs. 22.73 Crore for NBPDC and SBPDCL, respectively.
- 4.18.6. In view of the above, the Commission approves the Holding Company expenses as Rs. 21.62 Crore and Rs. 22.73 Crore for NBPDC and SBPDCL in Truing-up of FY 2019-20.

4.19. Interest on working capital

NBPDC & SBPDCL's Submission:

4.19.1. Petitioner 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, the calculation for which has been submitted in the following Table:

Table 120: Interest on Working Capital for FY 2019-20, claimed by NBPDC & SBPDCL (in Rs. Crore)

S. no.	Particular	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
1	Two months equivalent expected revenue	1401.26	1,261.28	1621.67	1,497.56
2	Maintenance spares @40% of R&M expenses for one month	6.76	4.86	7.09	4.96
3	Sub-total (1+2)	1408.03	1266.14	1628.76	1,502.52
4	Less:				
(i)	Power purchase cost, transmission charges and load dispatch charges of one month	587.62	594.98	662.79	745.16
(ii)	Depreciation, return on equity and contribution to contingency reserve to two months	97.16	71.43	126.92	72.03
(iii)	Amount of security deposits from consumers	389.02	359.73	702.46	567.03
5	Sub-total (4(i)+4(ii)+4(iii))	1073.80	1026.13	1492.17	1,384.23
6	Net working capital requirement (3-5)	334.23	240.01	136.59	118.30
7	Rate of interest %	10.00%	9.65%	10.00%	9.65%
8	Interest on working capital (6*7)	33.42	23.16	13.66	11.42

Table 121: Gain/(loss) on account of controllable and uncontrollable factors of Interest on working capital for FY 2019-20 (in Rs. Crore)

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
NBPDC					

Particular	Approved in the MYT Order	Actual Claimed in Truing up	Deviation	Gain/(Loss) due to Controllable Factors	Gain/(Loss) due to Uncontrollable Factors
Interest on Working Capital	33.42	23.16	10.26	-	10.26
SBPDCL					
Interest on Working Capital	13.66	11.42	2.24	-	2.24

Commission Analysis:

4.19.2. The Commission has computed the interest on working capital as per the norms prescribed in Regulation 26 of BERC (Multi Year Distribution Tariff) Regulation, 2018. Extract of Regulation 26 is reproduced below:

“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.”

4.19.3. The Commission has considered the components of normative working capital requirement such as Power Purchase cost, maintenance spares, depreciation, RoE and Contribution to Contingency reserves based on detail analysis and ruling as set out in this Order for Truing-up of FY 2019-20.

4.19.4. For normative working capital computation, the Commission has considered the two months of expected revenue based on the ARR for NBPDC & SBPDCL after sharing of gains / losses on account of controllable factors as approved in Table 142 of this Order. Further, the Commission has considered the maintenance spare as 40% of the

normative O&M expense as approved in para 4.16.17.

4.19.5. The Commission has considered the one-month power purchase cost and transmission charges and load dispatch charges base on the cost approved in Para 4.6.75 & 4.6.76. And Depreciation and Return on equity for 2 months is computed based on the Depreciation and Return on equity approved by the Commission in Para 4.11.12 and Para 4.15.8, respectively.

4.19.6. For the purpose of True-up of FY 2019-20, weighted average of SBI- 1 Year MCLR is computed as 8.16% for FY 2019-20. Accordingly, the Commission has considered interest rate of 9.66% (8.16%+ 1.50%) for computation of interest on working capital for FY 2019-20. The detailed working of weighted average One-year MCLR rate is as shown in the Table below:

Table 122: Average One-year MCLR rate of Interest, as approved by the Commission

S. No.	Date of MCLR Revision	Date applicable from	Date applicable to	Applicable number of days	SBI MCLR Rates*
1	10.03.2020	10-03-20	01-04-20	21	7.75%
2	10.02.2020	10-02-20	09-03-20	29	7.85%
3	10.01.2020	10-01-20	09-02-20	31	7.90%
4	10.12.2019	10-12-19	09-01-20	31	7.90%
5	10.11.2019	10-11-19	09-12-19	30	8.00%
6	10.10.2019	10-10-19	09-11-19	31	8.05%
7	10.09.2019	10-09-19	09-10-19	30	8.15%
8	10.08.2019	10-08-19	09-09-19	31	8.25%
9	10.07.2019	10-07-19	09-08-19	31	8.40%
10	10.06.2019	10-06-19	09-07-19	30	8.45%
11	10.05.2019	10-05-19	09-06-19	31	8.45%
12	10.04.2019	10-04-19	09-05-19	30	8.50%
13	10.03.2019	01-04-19	09-04-19	9	8.55%
14	Weighted Average SBI 1-Year MCLR				8.16%
15	Rate of interest on Working Capital				9.66%

4.19.7. The Commission has, accordingly, computed the interest on working as shown in Table below:

Table 123: Interest on Working Capital as approved by the Commission in True-up of FY 2019-20 (in Rs. Crore)

S. no.	Particular	NBPDC	SBPDCL
		Approved in True-up of FY 2019-20	Approved in True-up of FY 2019-20
1	Two months equivalent expected revenue	1,262.69	1,532.00