

**Revised Petition for
Truing up of the Aggregate Revenue
Requirement (ARR) and Revenue for FY 2017-18
& 2018-19, Provisional Truing up for FY 2019-20
and Multi Year Tariff for the Fourth Control
Period FY 2020-21 to FY 2024-25**



**Brihan Mumbai Electric Supply & Transport
Undertaking**

(of the Brihan Mumbai Mahanagar Palika)

Main Petition

Volume I of IV

January 2020



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List of Abbreviations

A&G	Administrative & General
ABR	Average Billing Rate
ACoS	Average Cost of Supply
APDRP	Accelerated Power Development and Reforms Program
ARR	Aggregate Revenue Requirement
APP	Agreement for procurement of Power
APTEL	Appellate Tribunal for Electricity
BEST	Brihan Mumbai Electric Supply and Transport Undertaking
CAGR	Compounded Annual Growth Rate
COS	Cost of Supply
CWIP	Capital Works in Progress
CPI	Consumer Price Index
DSM	Demand Side Management
DPR	Detailed Project Report
EA 2003	The Electricity Act, 2003
ECS	Electronic Clearing System
ED	Electricity Duty
EPA	Energy Purchase Agreement
FY	Financial Year
FBSM	Final Balancing Settlement Mechanism
FAC	Fuel Adjustment Cost
GFA	Gross Fixed Assets
H1	First half of the financial year
H2	Second half of the financial year
HT	High Tension
IDC	Interest During Construction
InSTS	Intra-state Transmission
IoWC	Interest on Working Capital
IPDS	Integrated Power Development Scheme
kV	Kilovolt
kWh	Kilowatt Hour
kW	Kilowatt
kVA	Kilo Volt Ampere
LT	Low Tension
LoI	Letter of Intent
MCGM	Municipal Corporation of Greater Mumbai
MERC	Maharashtra Electricity Regulatory Commission
MTR	Mid Term Review
MYT	Multi Year Tariff
MMC Act	Mumbai Municipal Corporation Act
MMRDA	Mumbai Metropolitan Region Development Authority
MSLDC	Maharashtra State Load Dispatch Centre
MU	Million Units
NEF	National Electricity Fund
NTI	Non-Tariff Income
O&M	Operation and Maintenance
PF	Power Factor
PPA	Power Purchase Agreement



RE	Renewable Energy
REC	Renewable Energy Certificates
REC Ltd.	Rural Electrification Corporation Ltd.
RLNG	Re-gasified Liquefied Natural Gas
R&M	Repair and Maintenance



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1 Background

1.1 Background

- 1.1.1 Maharashtra Electricity Regulatory Commission has notified the MERC (Multi Year Tariff) Regulation, 2015 (herein after referred as MYT Regulations, 2015) and its First Amendment. These Regulations are applicable for the third MYT control period from FY 2016-17 to FY 2019-20.
- 1.1.2 Maharashtra Electricity Regulatory Commission has notified the MERC (Multi Year Tariff) Regulations, 2019 (herein after referred as MYT Regulations, 2019). These Regulations are applicable for the Fourth MYT control period from FY 2020-21 to FY 2024-25.
- 1.1.3 BEST filed MYT Petition for the Third MYT Control Period on 26th April 2016. The Hon'ble Commission issued MYT Order in Case No. 33 of 2016 for BEST Undertaking for the third control period from FY 2016-17 to FY 2019-20 along with Truing-up of ARR for FY 2012-13 to FY 2014-15, Provisional Truing-up for FY 2015-16 on 28th October 2016. Further, BEST had filed Petition for review of MYT Order 33 of 2016 on 23rd December 2016 and the Hon'ble Commission has issued Order no. 4 of 2017 on 12th January 2018 in this regard.
- 1.1.4 Further, on 21st December 2017 BEST had filed its MTR Petition for Truing up of Aggregate Revenue Requirement (ARR) for FY 2015-16 and FY 2016-17, Provisional Truing up of ARR for FY 2017-18 and Revised ARR and Tariff for FY 2018-19 and FY 2019-20 and the Hon'ble Commission has issued Order dated 12th September, 2018 in Case No. 203 of 2017 regarding the same.
- 1.1.5 In line with regulation 5 of MERC (MYT) Regulations, 2019, BEST is hereby submitting its MYT Petition for Truing up of the Aggregate Revenue Requirement (ARR) and Revenue for FY 2017-18 & 2018-19, Provisional Truing up for FY 2019-20 and Multi Year Tariff for Control Period FY 2020-21 to FY 2024-25 along with audited accounts for FY 2017-18 & provisional accounts for FY 2018-19 and the details in the stipulated formats. The Extract of the relevant regulations is reproduced below for the ready reference.

"5 Petitions to be filed in the Control Period

5.1 The Petitions to be filed in the Control Period under these Regulations are as under:

a) Multi-Year Tariff Petition, which is complete in all aspects as per these Regulations, shall be filed by November 1, 2019 by Generating Companies and Transmission Licensees and SLDC, and by November 30, 2019, by Distribution Licensees, comprising:

i. Truing-up for FY 2017-18 and FY 2018-19 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015:

Provided that the Commission may, if it considers appropriate, carry out the Truing-up for years prior to FY 2017-18 under the Maharashtra Electricity



Regulatory Commission (Multi Year Tariff) Regulations, 2015, along with the Truing-up for FY 2017-18, in case such Truing-up is yet to be completed;

ii. Provisional Truing-up for FY 2019-20 to be carried out under the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015;

iii. Aggregate Revenue Requirement for each year of the Control Period under these Regulations;

iv. Revenue from the sale of power at existing Tariffs and charges and projected revenue gap for each year of the Control Period under these Regulations;

v. Proposed category-wise Tariff or Fees & Charges for each year of the Control Period under these Regulations.

.....

1.2 Special Status of BEST Undertaking

1.2.1 The erstwhile Bombay Electric Supply & Tramways Company (BEST) started supplying electricity to the Mumbai city in 1905. In 1947, the Company was municipalized and came to be known as Bombay Electric Supply & Transport Undertaking ('BEST Undertaking' or 'BEST'). BEST is an undertaking of Brihanmumbai Mahanagarpalika and is in the business of providing electricity in the old city limits and public transport (bus transport) covering the entire city and suburbs and some areas of the Mumbai metropolitan region.

1.2.2 BEST is recognised as a 'Local Authority' under the Electricity Act 2003 (herein after referred as "the Act"). Historically, there was a common administration set up for both the business activities, i.e., the electric supply division and the transport division. Prior to enactment of the Act, the revenue of electricity utilities was approved under provisions of Schedule VI of the Electricity Supply Act 1948, however, the 'Local Authority' was exempted from applicability of provisions of Schedule VI of the Electric Supply Act 1948. Thus, BEST being a 'Local Authority', and with the objective of providing better and essential services of Electricity supply and transport to the citizens of Mumbai as its social obligation.

1.3 Exemptions granted to a Local Authority in Electricity Act 2003:

1.3.1 BEST submits that the EA, 2003 grants certain exemptions to Local Authorities engaged in the business of electricity distribution under Section 51 & 42(3), which is reproduced below:

"Section 51. (Other businesses of distribution licensees):

A distribution licensee may, with prior intimation to the Appropriate Commission, engage in any other business for optimum utilisation of its assets:



Provided that a proportion of the revenues derived from such business shall, as may be specified by the concerned State Commission, be utilised for reducing its charges for wheeling:

Provided further that the distribution licensee shall maintain separate accounts for each such business undertaking to ensure that distribution business neither subsidises in any way such business undertaking nor encumbers its distribution assets in any way to support such business.

Provided also that nothing contained in this section shall apply to a local authority engaged, before the commencement of this Act, in the business of distribution of electricity.”
(emphasis added)”

BEST being a local authority has been exempted from offering its network for wheeling of electricity. Relevant section of Electricity Act 2003 is reproduced below:

“Section 42 (3): (Duties of distribution licensee and open access):

Where any person, whose premises are situated within the area of supply of a distribution licensee, (not being a local authority engaged in the business of distribution of electricity before the appointed date) requires a supply of electricity from a generating company or any licensee other than such distribution licensee, such person may, by notice, require the distribution licensee for wheeling such electricity in accordance with regulations made by the State Commission and the duties of the distribution licensee with respect to such supply shall be of a common carrier providing non-discriminatory open access .”



1.4 Transport deficit

- 1.4.1 The Hon'ble Commission had disallowed the deficit of transport division as a part of ARR of FY 2004-05 and FY 2005-06, which was further upheld by Hon'ble APTEL in Appeal No.61 of 2007. Subsequently BEST Undertaking filed Civil Appeal No. 848 of 2007 with Hon'ble Supreme Court against Hon'ble Commission's Order and Hon'ble ATE's Judgment. Hon'ble Supreme Court issued its Judgment on 8th February 2011 in the matter of Civil Appeal No. 848 of 2007, setting aside the Judgment of the Hon'ble ATE in Appeal No.61 of 2007.
- 1.4.2 BEST submitted its Petition for Truing up for FY 2009-10 and provisional Truing up of FY 2010-11 on 26th August' 2011 for the approval of the Hon'ble Commission. In view of the Judgment of the Hon'ble Supreme Court, dated 8th February 2011, in the matter of Civil Appeal no. 848 of 2007, the Transport division deficit was included in the ARR of Supply business in the Truing up Petition for FY 2009-10 and provisional Truing up for FY 2010-11 (Case No. 125 of 2011). The Hon'ble Commission issued the Order on 16th March 2012, in Case No 125 of 2011, allowing recovery of Transport division deficit of the respective years.
- 1.4.3 BEST submitted its Petition for approval of Annual Revenue Requirement for FY 2011-12 as per MERC (Terms and conditions of Tariff) Regulations 2005 on 30th November 2011. BEST included deficit of Transport division for FY 2011-12 in the Petition for approval of ARR and determination of Tariff for FY2011-12. The Hon'ble Commission issued its Order dated 16th May 2012 in Case No. 171 of 2011.
- 1.4.4 BEST filed its Petition for seeking recovery of deficit of its Transport division for the period of FY 2004-05 to FY 2008-09 on 9th August 2012. The Hon'ble Commission vide its order dated 26th December 2012, in Case No.80 of 2012 allowed the recovery of transport deficit of Rs. 1,187.71 crore (Net of RoE & RoIF) for the period from FY 2004-05 to FY 2008-09 to be recovered through the tariff of the electricity distribution business. The Hon'ble Commission directed BEST to propose an appropriate recovery mechanism of the above amount in the MYT Petition for the Second Control period, FY 2013-14 to FY 2015-16.
- 1.4.5 M/s Indian Hotel & others had filed an Appeal (DFR No. 642 of 2013) before Hon'ble APTEL against Hon'ble Commission's Order in Case No.171 of 2011. Hon'ble APTEL in its judgment dated 4th July 2014, has dismissed the said Appeal on the ground of delay.
- 1.4.6 M/s Indian Hotel & others had filled Appeal before Hon'ble APTEL against Hon'ble Commission's Order in Case No.80 of 2012. Hon'ble APTEL in its Judgment dated 31st October 2014 has allowed appeal of M/s Indian Hotel & others and set aside Order of the Hon'ble Commission in Case No.80 of 2012. The Hon'ble APTEL directed the Hon'ble Commission to issue consequential Order in this regard. On 17th November 2014, BEST filed Civil Appeal No.10488 of 2014, before the Hon'ble Supreme Court, against the Judgment of Hon'ble APTEL in Appeal No. 155 of 2013.
- 1.4.7 Further, Hon'ble Supreme Court vide in Civil Appeal No.10488 of 2014 its Judgement dated 05th October 2016 had directed as follows



“We direct that there shall be no collection of TDLR for the period 2016-2017 onwards. However, in case, there remains anything to be collected for the period 2004-2005 to 2008-2009, the same may be collected, subject to the result of these matters.”

1.4.8 Accordingly, BEST had immediately stopped recovery of TDLR charges from billing month of October 2016. BEST submits that it has recovered total Rs. 2,505.23 crore against TDLR charges during FY 2012-13 to FY 2015-16. BEST submits that Hon’ble Supreme Court in its Judgement dated 05th October 2016 had directed that, *“...in case there remains anything to be collected for the period 2004-2005 to 2008-2009, the same may be collected, subject to the result of these matters.”* Hon’ble Supreme Court had directed that the collection of TDLR shall be discontinued from FY 2016-17 onwards.

1.4.9 Further, the Hon’ble Supreme Court issued the judgement in the In the Civil appeal No.10488 of 2014. The Hon’ble Supreme court vide above Judgement dated 05th October 2016 has referred the matter to bench of three Hon’ble Judges to decide whether Transport deficit can be taken into account while fixing the electricity Tariff of BEST under the Electricity Act 2003, as follows:

“we are of the view that it is necessary that these matters be referred to a bench of three Hon'ble Judges for a final determination of the vexed question that arises in this appeal (and the connected SLP), namely, whether transport business deficit can at all be taken into account in fixing tariffs under the Electricity Act, 2003.”

1.4.10 BEST had filed MYT Petition on 22nd April 2016, for approval of ARR and determination of Tariff for Third MYT Control Period FY2016-17 to FY2019-20 without proposing recovery of any Transport deficit with effect from FY 2016-17 onwards. Hon’ble Commission issued MYT Order in Case No.33 of 2016 on 28th October 2016.

1.4.11 Further, the Hon’ble Supreme Court disposed the Appeal No.10488 of 2014 on hearing dated 10th July 2019, by directing no refund to be made. The Judgement of the Hon’ble Supreme Court is attached as Annexure XV. Thus, BEST has not considered any recovery or refund of Transport deficit with effect from FY 2016-17 onwards.

2 Adjustment in GFA due to reversal of excess IDC booked

2.1 Background

2.1.1 In MYT Order in Case No. 33 of 2016 dated 28th October 2016; the Hon’ble Commission had deducted Consumer Contribution of Rs. 64.83 crore in FY 2012-13 from the opening balance of GFA. In Review Petition of above MYT Order in Case No. 4 of 2017, BEST stated that it had already reduced the annual GFA by the amount of Consumer Contribution for arriving at the average depreciation rate for each year. Since this was not taken into account by the Hon’ble Commission, that amount has been deducted twice in the MYT Order.



- 2.1.2 In relation to above, the Hon'ble Commission carried out scrutiny of the Annual Accounts for FY 2012-13 to FY 2014-15 and asked query about adjustment entries of Rs.3.73 Crore in FY 2012-13 and Rs 10.58 Crore in FY 2013-14. BEST Undertaking inadvertently submitted that these adjustments are due to transfer of assets from Supply division to Transport division.
- 2.1.3 Accordingly, the Hon'ble Commission in the point number 3.3.7.1 of the MTR Order considered these adjustments as the transfer of assets from Electricity Supply business to Transport business. The relevant extract of the MTR Order is reproduced below for ready reference.

“3.3.7.1 During scrutiny of the annual accounts for FY 2012-13 to FY 2014-15, it has come to notice that BEST has not submitted details pertaining to transfer of assets from Electricity Business to Transport Business and vice-a-versa at the time of Truing-up for FY 2012-13 to FY 2014-15. It is observed that in FY 2012-13 and FY 2013-14, there were Rs. 3.73 Crore and Rs. 10.58 Crore worth of assets which were transferred from Electricity Business to Transport Business. Similarly, in FY 2014-15, Rs. 0.14 Crore worth of assets were transferred from Transport Business to Electricity Business. The impact of this transfer was not considered at the time of Truing-up for FY 2012-13 to FY 2014-15 and accordingly, BEST has claimed higher recovery through the ARR on account of assets which did not pertain to Electricity Business.”

2.2 Adjustment of excess IDC booked

- 2.2.1 However, the above entries are adjustments in GFA to reflect disallowance by the Hon'ble Commission in IDC of FY 2009-10 and FY 2010-11. Disallowance of IDC was due to difference in calculation methodology of BEST undertaking and that of the Hon'ble Commission.
- 2.2.2 The Undertaking did not want to book excess IDC in Audited Accounts vis-à-vis regulatory IDC approved by the Hon'ble Commission. Therefore, the Undertaking reversed excess IDC booked and recorded it as 'Adjustments in respect of Transfer' in Audited Accounts.
- 2.2.3 Reversal of entry of excess IDC booked was also explained in the notes of Audited Accounts of FY 2012-13 and FY 2013-14. The relevant extract of the Audited Accounts is reproduced below for ready reference and the Audited Accounts of FY 2012-13 and FY 2013-14 are attached as Annexure- XVIII and Annexure XIX.

Table 2: Notes in audited accounts of FY 2012-13 & FY 2013-14 regarding reversal of excess IDC booked

Appendix No. E-6 of Audited Account	Note
FY 2012-13	<i>Includes IDC amount of Rs. 3.73 Crore for FY 2009-10 and FY 2010-11 is reverted</i>
FY 2013-14	<i>IDC Rs. 10.58 Crore of FY 2010-11 reverted in FY 2013-14...</i>



2.2.4 The calculation of the above-mentioned adjustment in IDC for FY 2009-10 and FY 2010-11 which was booked as 'Adjustments in respect of Transfer' in Audited Accounts of FY 2012-13 is shown in the table below.

Table 3: Break-up of adjustment in GFA of FY 2012-13 due to reversal of excess IDC booked (Rs. Crore)

Particulars of IDC	FY 2009-10	FY 2010-11
Submitted by BEST in the Petition for Case No. 125 of 2011	10.48	13.80
Re-calculated by BEST as per view of the Hon'ble Commission	8.24	12.31
Adjustment of IDC in closing GFA	2.24	1.48
Total adjustment of IDC in closing GFA	3.73	

2.2.5 The following table shows the breakup of 'Adjustments in respect of Transfer' in Audited Accounts of FY 2013-14.

Table 4: Break-up of adjustment in GFA of FY 2013-14 due to reversal of excess IDC booked (Rs. Crore)

Particulars of IDC	Amount (Rs. Crore)
Submitted by BEST in the Petition for Case No. 26 of 2013	12.31
Approved by the Hon'ble Commission	1.74
Adjustment of the IDC in closing GFA	10.58

2.2.6 In view of above, the IDC amount is erroneously deducted again from the GFA for FY 2012-13 and FY 2013-14 due to the inadvertent submission of BEST considered by the Hon'ble Commission. Therefore, the Hon'ble Commission is requested to rectify this and provide the impact on the ARR of the respective years on account of these adjustments. The impact of this deduction of IDC in the ARR is provided in the following section.

2.3 Impact on ARR of FY 2012-13 to FY 2014-15

2.3.1 Change in GFA will impact components of ARR like depreciation, normative O&M expenses, interest on long term loan, return on equity and contribution to contingency reserves, interest on working capital.

2.3.2 The revised GFA for these years may be taken as submitted in the MTR Petition of the third control period. As per the corrected GFA figures, calculation of depreciation for FY 2012-13 to FY 2014-15 is as shown in table below.

Table 5: Variation in Depreciation for FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No.	Particulars	FY 2012-13	FY 2013-14	FY 2014-15
1	Depreciation sought by BEST	90.67	96.39	99.72
2	Depreciation approved	90.58	95.95	99.02
3	Impact of reversal of IDC as transfer of assets on depreciation	0.09	0.44	0.71



2.3.3 Table 13 of MTR Order in Case No. 203 of 2017 in which the Hon'ble Commission had re-worked ARR of FY 2012-13 to FY 2014-15 is reproduced below for ready reference.

Table 6: ARR re-worked in Table 13 of MTR Order in Case No. 203 of 2017 (Rs. Crore)

Sr. No.	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		As per Case No. 33 of 2016	As per Case No. 203 of 2017	As per Case No. 33 of 2016	As per Case No. 203 of 2017	As per Case No. 33 of 2016	As per Case No. 203 of 2017
1	Power Purchase Expenses including Transmission, SLDC and Stand-by Charges	2,880.89	2,881.81	2,598.84	2,601.27	2,682.02	2,685.52
2	Operation & Maintenance Expenses	406.35	406.35	442.59	442.42	434.68	434.03
3	Depreciation	87.37	90.58	92.65	95.95	95.64	99.02
4	Interest on Long-term Loan	10.18	9.87	8.58	7.38	7.04	5.16
5	Interest on Working Capital	19.98	19.97	31.24	31.20	31.98	31.93
6	Interest on Security Deposit	23.18	23.18	22.50	22.50	30.51	30.51
7	Provision for Bad and Doubtful Debts	5.69	5.69	6.50	6.50	7.83	7.83
8	Other Expenses	78.38	78.38	90.21	90.21	106.58	106.58
9	Income Tax	-	-	-	-	-	-
10	Contribution to Contingency Reserves	4.60	4.60	4.88	4.88	5.10	5.10
11	Incentive for Reduction in Distribution Loss	23.09	23.09	31.75	31.75	25.14	25.14
12	Incentive for Wires and Supply Availability	3.70	3.70	0.96	0.95	1.00	0.99
13	Sharing of Efficiency (Gain)/ Loss	(6.49)	(6.49)	39.58	39.65	67.16	67.39
14	Total Revenue Expenditure	3,536.91	3,540.72	3,370.27	3,374.66	3,494.68	3,499.21
15	Return in Equity	112.01	111.92	116.30	115.88	120.96	120.26
16	Return as Interest on Internal Funds	5.28	5.28	5.28	5.28	5.28	5.28
17	Aggregate Revenue Requirement	3,654.19	3,657.92	3,491.86	3,495.82	3,620.92	3,624.74
18	Less: Non-Tariff Income	66.82	66.82	70.32	70.32	70.47	70.47
19	Total Aggregate Revenue Requirement	3,587.37	3,591.10	3,421.54	3,425.50	3,550.45	3,554.27
20	Add: Deficit of Transport Division	273.80	273.80	260.98	260.98	228.85	228.85
21	Aggregate Revenue Requirement including deficit in Transport Division	3,861.17	3,864.90	3,682.52	3,686.47	3,779.30	3,783.12



2.3.4 Additional power purchase cost allowed by the Hon'ble Commission is detailed in tables 5, 6 and 7 of MTR Order. The Undertaking has no further prayers related to effect of change in power purchase cost of FY 2012-13 to FY 2014-15 due to RE charges.

2.3.5 Further, the Undertaking has computed impact on interest on term loan as shown in table below for FY 2012-13 to FY 2014-15.

Table 7: Variation in Interest on Term Loan for FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST
1	Opening balance of loan	97.82	97.82	87.73	90.25	49.49	58.97
2	Loan drawl during the year	80.49	83.10	57.71	65.12	100.01	99.91
3	Loan repayment during the year	90.58	90.67	95.95	96.39	99.02	99.72
4	Closing balance of loan	87.73	90.25	49.49	58.97	50.48	59.16
5	Applicable interest rate (%)	10.64%	10.64%	10.75%	10.75%	10.33%	10.33%
6	Interest on loan capital	9.87	10.01	7.38	8.02	5.16	6.10
7	Impact of reversal of IDC as transfer of assets on interest on loan		0.13		0.64		0.94

2.3.6 Impact on return on equity is computed as shown in table below for FY 2012-13 to FY 2014-15.

Table 8: Variation in return on equity for FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST
1	Regulatory Equity at the beginning of the year	694.91	694.91	725.69	726.81	745.86	750.15
2	Equity portion of capitalization	34.49	35.61	24.73	27.91	42.86	42.82
3	Reduction in Equity due to Retirement/Replacement of Assets	3.72	3.72	4.56	4.56	2.64	2.64
4	Regulatory Equity at the end of the year	725.69	726.81	745.86	750.15	786.08	790.33



Sr. No	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST
5	Rate of Return	15.76%	15.76%	15.75%	15.75%	15.70%	15.70%
6	Return on Regulatory Equity at the beginning of the year	109.49	109.49	114.29	114.46	117.10	117.77
7	Return on Equity portion of capitalization	2.42	2.51	1.59	1.84	3.16	3.15
8	Total Return on Regulatory Equity	111.92	112.01	115.88	116.30	120.26	120.93
9	Impact of reversal of IDC as transfer of assets on RoE		0.09		0.43		0.67

2.3.7 The Undertaking has computed impact on net entitlement of O&M expense as shown in table below.

Table 9: Variation in net entitlement of O&M expense for FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No.	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST
1	Opening GFA	1,838.84	1,838.84	1,949.81	1,953.53	2,025.29	2,039.60
2	Impact of reversal of IDC as transfer of assets on opening GFA		-		3.72		14.31
3	R&M Expenses for Distribution Business		4.50%		4.50%		4.50%
4	Impact of reversal of IDC as transfer of assets on normative O&M expense		-		0.17		0.64
5	Impact on actual O&M expense		-		-		-
6	Impact on sharing of gain/(loss) of O&M (1/3 of impact on normative O&M expense)		-		0.06		0.21
7	Total impact of O&M expense along with sharing of gain/loss		-		0.11		0.43



2.3.8 The Undertaking has computed impact on net entitlement of interest on working capital as shown in table below.

Table 10: Variation in net entitlement of interest working capital for FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No.	Particulars	FY 2012-13		FY 2013-14		FY 2014-15	
		Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST	Approved in MTR Order	Submission of BEST
1	Impact of reversal of IDC as transfer of assets on normative O&M expense		-		0.167		0.644
2	Impact of reversal of IDC as transfer of assets on normative working capital		-		0.014		0.054
3	Rate of loWC	14.45%	14.45%	14.45%	14.45%	14.45%	14.45%
4	Impact of reversal of IDC as transfer of assets on normative loWC		-		0.002		0.008
5	Impact on sharing of gain/(loss) on loWC (1/3 of impact on normative loWC)		-		0.001		0.003
6	Total impact of loWC along with sharing of gain/loss		-		0.001		0.005

2.3.9 Therefore, the Undertaking has computed total impact of adjustment in GFA due to reversal of excess IDC as shown in table below for FY 2012-13 to FY 2014-15.

Table 11: Effect on ARR of FY 2012-13 to FY 2014-15 due to IDC reversal considered as transfer of assets (Rs. Crore)

Sr. No.	Particulars	FY 2012-13	FY 2013-14	FY 2014-15
1	Depreciation	0.09	0.44	0.71
2	Interest on loan	0.13	0.64	0.94
3	Return on Equity	0.09	0.43	0.67
4	Net entitlement of O&M expense	-	0.11	0.43
5	Net entitlement of loWC	-	0.001	0.005
6	Total impact on ARR	0.31	1.62	2.75

2.3.10 Impact is computed considering that it is adjusted in ARR of FY 2017-18 as shown in table below.



Table 12: Impact of considering IDC adjustment as Transfer of Assets for FY 2012-13 to FY 2014-15 along with carrying cost (Rs. Crore)

S.No	Particulars	Legend	FY 2012-13	FY 2013-14	FY 2014-15
1	ARR deducted due to IDC inadvertently considered as transfer of assets		0.31	1.62	2.75
2	Carrying Cost for FY 2012-13 @ 14.62%	14.62%	0.02		
3	Carrying Cost for FY 2013-14 @ 14.58%	14.58%	0.05	0.12	
4	Carrying Cost for FY 2014-15 @ 14.75%	14.75%	0.05	0.24	0.20
5	Carrying Cost for FY 2015-16 @ 14.45%	14.45%	0.05	0.23	0.40
6	Carrying Cost for FY 2016-17 @ 10.79%	10.79%	0.03	0.18	0.30
7	Carrying Cost for FY 2017-18 @ 10.18%	10.18%	0.02	0.08	0.15
8	Total along with carrying cost		0.53	2.47	3.78
9	Adjustment in ARR of FY 2017-18 due to inadvertently considering IDC as transfer of assets		6.78		

2.4 Impact on ARR of FY 2015-16 and FY 2016-17

- 2.4.1 Closing GFA of FY 2014-15 is considered to be opening GFA of FY 2015-16. As closing GFA of FY 2014-15 is reduced, True up of ARR of FY 2015-16 and FY 2016-17 has also got affected.
- 2.4.2 Following table compares various parameters sought by the Undertaking in True-up of ARR of FY 2015-16 and FY 2016-17 and those approved by the Hon'ble Commission along with its impact on ARR.

Table 13: Break-up of stand-alone impact of considering IDC adjustment as transfer of assets for FY 2015-16 and FY 2016-17 (Rs. Crore)

Particulars	BEST submission	Approved in MTR Order	Difference	Impact on ARR
	a	b	c=a-b	
FY 2015-16				
Net entitlement of O&M expense	465.50	465.04	0.46	0.46
Depreciation	106.35	105.62	0.73	0.73
Interest on Loan Capital	4.88	3.97	0.91	0.91
Return on Equity	126.52	125.86	0.66	0.66
Interest on Working Capital	37.51	37.50	0.01	0.01
Supply & wire availability	1.40	1.39	0.01	0.01
A)	Total impact for FY 2015-16			2.78
FY 2016-17				
Net entitlement of O&M expense	528.64	528.32	0.32	0.32
Depreciation	107.98	107.27	0.71	0.71
Interest on Loan Capital	1.83	1.08	0.75	0.75
Return on Equity	131.25	130.59	0.66	0.66



Particulars	BEST submission	Approved in MTR Order	Difference	Impact on ARR
	a	b	c=a-b	
Interest on Working Capital	7.44	7.42	0.02	0.02
B)	Total impact for FY 2016-17			2.47

2.4.3 Therefore, the Undertaking has computed impact of adjustment in GFA due to reversal of excess IDC as shown in table below for FY 2015-16 and FY 2017-18. Impact is computed along with Carrying Cost considering that it is adjusted in ARR of FY 2017-18. BEST humbly requests the Hon'ble Commission to approve the additional amount of ARR for FY 2017-18 on account of adjustment in GFA for the period of FY 2012-13 to FY 2016-17 due to reversal of IDC.

Table 14: Impact of considering IDC adjustment as transfer of assets for FY 2015-16 and FY 2016-17 along with carrying cost (Rs. Crore)

Particulars	Legend	FY 2015-16	FY 2016-17
Impact of considering IDC adjustment as Transfer of Assets as approved in MTR Order for FY 2015-16 & FY 2016-17		2.78	2.47
Carrying Cost for FY 2015-16 @ 14.45%	14.45%	0.20	
Carrying Cost for FY 2016-17 @ 10.79%	10.79%	0.30	0.13
Carrying Cost for FY 2017-18 @ 10.18%	10.18%	0.14	0.13
Total along with carrying cost		3.43	2.73
Adjustment in ARR of FY 2017-18 due to inadvertently considering IDC as transfer of assets		6.15	

2.4.4 BEST humbly requests the Hon'ble Commission to approve the additional amount of Rs. 12.94 crores of ARR for FY 2017-18 on account of adjustment in GFA for the period of FY 2012-13 to FY 2016-17 due to reversal of IDC.



3 Truing up for FY 2017-18 and FY 2018-19

3.1 Truing up details

- 3.1.1 The Annual Accounts of BEST for FY 2017-18 have been approved by the BEST Committee and audited by the Municipal Auditors and is being submitted with this Petition.
- 3.1.2 The Annual Accounts of BEST for FY 2018-19 have been internally audited and BEST has initiated the process of getting the accounts audited by the Municipal Auditors. BEST requests the Hon'ble Commission to admit this Petition based on the Provisional Accounts and BEST will submit the Accounts audited by the Municipal Auditors as and when received by the BEST.
- 3.1.3 BEST proposes Truing up of its expenses and revenues based on the Accounts audited by the Municipal Auditors for FY 2017-18 and Provisional Accounts of FY 2018-19 (Internally Audited Accounts), provisions of MERC MYT Regulations, 2015 and other aspects as submitted in the Petition.
- 3.1.4 The variation in expenses and revenue for FY 2017-18 and FY 2018-19 with respect to expenses and revenue approved by the Hon'ble Commission in the MTR Order No. 203 of 2017 dated 12th September 2018 is detailed out in subsequent sections.

3.2 Energy Sales and Energy Balance

- 3.2.1 The summary of the category-wise sales as approved by the Hon'ble Commission in the MTR Order and actual for FY 2017-18 and FY 2018-19 shown in Table below:

Table 15 Tariff Category-wise energy consumption for FY 2017-18 and FY 2018-19 (MU)

Consumer Category	FY 2017-18			FY 2018-19		
	Approved in MTR Order	Actual	True-Up requirement	Approved in MTR Order	Actual	True-Up requirement
HT Category						
HT - I Industry	138.98	138.98	-	137.90	156.86	18.96
HT - II Commercial	269.70	269.70	-	269.41	246.81	-22.60
HT - III Group Housing	32.13	32.13	-	32.33	30.67	-1.65
HT IV- PWW	38.46	38.46	-	38.17	35.75	-2.42
HT V- Railways, Metro, Monorail	2.28	2.28	-	2.28	2.14	-0.14
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	26.46	26.46	-	26.44	26.61	0.17
HT VI-(B) Public services (Others)	167.06	167.06	-	166.88	161.08	-5.79
HT-VII Temporary Supply	11.98	11.98	-	14.78	21.31	6.54
Sub-total	687.07	687.07	-	688.18	681.24	-6.93
LT Category						



Consumer Category	FY 2017-18			FY 2018-19		
	Approved in MTR Order	Actual	True-Up requirement	Approved in MTR Order	Actual	True-Up requirement
LT-I (A) Residential (BPL)	0.22	0.22	-	0.35	0.07	-0.28
<u>LT - I(B) Residential</u>						
0 – 100 units	734.42	734.42	-	770.24	739.96	-30.28
101 – 300 units	667.72	667.72	-	691.16	684.18	-6.98
301 - 500 units	206.21	206.21	-	217.41	219.00	1.59
> 501 units	359.14	359.14	-	392.26	377.46	-14.80
<u>LT - II (a) Commercial</u>						
0 - 500 units	550.18	550.18	-	567.98	681.00	113.01
> 500 units	329.75	329.75	-	357.42	207.73	-149.68
LT - II (b) Commercial >20 & <=50 kW	214.43	214.43	-	214.83	211.31	-3.52
LT - II (c) Commercial >50	368.80	368.80	-	369.48	370.32	0.84
<u>LT - III (A) Industry (up to 20 kW)</u>						
0 - 500 units	19.51	19.51	-	20.99	29.48	8.49
> 500 units	23.58	23.58	-	22.92	13.79	-9.13
LT-III (b) Industrial above 20 kW	90.04	90.04	-	89.35	90.39	1.04
LT-IV PWW	6.87	6.87	-	6.82	6.82	0.01
LT - V Advertisement & Hoardings	1.63	1.63	-	1.62	1.52	-0.10
LT - VI Street Lights	28.22	28.22	-0.00	21.84	23.00	1.16
LT - VII (a) Temporary Supply Religious	0.21	0.21	-	0.21	0.20	-0.01
LT - VII (b) Temporary Supply Others	32.40	32.40	-	32.15	14.91	-17.24
LT - VIII Crematorium and Burial Grounds	1.66	1.66	-	1.89	1.54	-0.34
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	55.20	55.20	-	58.06	54.78	-3.28
LT - IX (B) Public Services -others	166.92	166.92	-	167.23	163.26	-3.97
LT-X (A) Agriculture-Pump sets	-	-	-	-	-	-
LT-X (B) Agriculture-Others	-	-	-	-	-	-
LT XI Vehicle Charging	-	-	-	-	0.03	0.03
Sub-total	3,857.13	3,857.13	-0.00	4,004.21	3,890.76	-113.44
Total	4,544.20	4,544.19	-0.00	4,692.38	4,572.01	-120.38



- 3.2.2 The actual Energy Sales of 2018-19 was lower than the Energy Sales approved by the Hon'ble Commission in the MTR Order.
- 3.2.3 BEST submits that energy sales has decreased in recent years for many consumer categories. Such decrease is not specific to any geographic area. There is insignificant growth in industrial consumption in last few years due to slow down in overall growth. There is insignificant growth in lighting load due to widespread use of LED lighting. Above trend is reflected in lower than expected sales growth in various categories vis-à-vis approved sales in the last MYT Order of BEST.
- 3.2.4 BEST further submits that, the maximum demand in BEST area of supply has remained more-or-less constant during past few years. Moreover, sales growth in BEST area of supply for past years has shown the following trend.

Table 16: Annual sales growth rate

Financial Year	Year-on-year annual sales growth rate (%)
FY 2008-09	2.07
FY 2009-10	0.44
FY 2010-11	3.54
FY 2011-12	0.44
FY 2012-13	2.49
FY 2013-14	-0.94
FY 2014-15	1.55
FY 2015-16	3.57
FY 2016-17	-3.79
FY 2017-18	3.21
FY 2018-19	0.61



- 3.2.5 The above table shows that the sales growth during the past years not followed linear path. This may be due to composite effects of various factors such as economy, developments, seasonal variations, etc. it has been observed that, impact of various seasons, such as timing of arrival of monsoon, impact of October heat (increase in humidity levels) and prolonged winter season, etc. influencing energy sales as these largely impacts usage of Air conditioners by the commercial/residential consumers.
- 3.2.6 The consumers are increasingly becoming aware of the need of energy conservation due to the initiatives taken by various authorities in promotion of energy conservation. Overall inflationary trend coupled with availability of star rated appliances at affordable prices is prompting the consumers to switch to energy efficient LED Lamps/Tube lights, Star rated Fans/refrigerators, etc.
- 3.2.7 The Energy Balance for FY 2017-18 and FY 2018-19 is as summarized in table below:

Table 17: Energy balance for FY 2017-18 and FY 2018-19

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Sales (MU)	4,544.20	4,544.19	4,692.38	4,572.01
2	Distribution loss (%)	5.82%	5.82%	5.70%	4.18%
3	Energy Requirement at T-D interface (MU)	4,824.85	4,824.85	4,976.02	4,771.21
4	Intra-state Transmission loss (%)	3.31%	3.31%	3.30%	3.10%
5	Energy Requirement at G-T interface (MU)	4,989.85	4,989.85	5,145.63	4,923.79

- 3.2.8 BEST has adopted following method to workout Intra-state Transmission loss (%) for FY 2017-18 and FY 2018-19. BEST's monthly energy drawl at T<>D interface is grossed-up by monthly InSTS loss available on MSLDC's website to derive energy requirement at G<>T interface. The summation of energy drawl at T<>D Interface & summation of energy drawl at G<>T Interface is considered for working out InSTS loss for respective year. BEST has considered actual Intra-State Transmission loss to determine energy requirement at G<>T interface. BEST has achieved the target Distribution loss of 5.82% during the FY 2017-18 as approved by the Hon'ble Commission in the MTR Order. BEST has achieved distribution loss of 4.18% vis-à-vis approved distribution loss of 5.70% for FY 2018-19 in MTR Order.
- 3.2.9 BEST has considered actual Intra-State Transmission loss to determine energy requirement at G<>T interface. On account of the lower distribution loss vis-à-vis distribution loss approved in MTR Order and lower than expected sales, the overall energy requirement at G<>T interface for FY 2018-19 is lesser than that approved in MTR Order.



3.3 Power Purchase expense for FY 2017-18 and FY 2018-19

3.3.1 BEST has considered actual power purchase from various sources, while ascertaining the Truing up requirement for FY 2017-18 and FY 2018-19. Power purchase expense has been considered as per Accounts for FY 2017-18 and FY 2018-19. BEST has procured power primarily from TPC-G. The summary of power purchase from TPC-G is as under:

Table 18: Summary of Power Purchase Expenses from TPC-G for FY 2017-18

Unit of TPC-G	Power Purchase Quantum	Fixed/ Capacity Charges	Fixed/ Capacity Charges Rate	Total Variable Cost	Variable Charges Rate	Total Power Purchase Cost	Total Power Purchase Rate
	(MU)	(Rs. Crore)	(Rs. /Kwh)	(Rs. Crore)	(Rs. /Kwh)	(Rs. Crore)	(Rs. /Kwh)
Unit-5	1,548.87	244.07	1.58	546.13	3.53	790.20	5.10
Unit-6	(10.27)	79.67	(77.58)	-	-	79.67	
Unit-7	672.61	94.21	1.40	107.49	1.60	201.70	3.00
Unit-8	651.20	108.10	1.66	231.46	3.55	339.56	5.21
Hydro	763.01	77.64	1.02	88.49	1.16	166.13	2.18
Thermal Incentive		0.17				0.17	
Total	3,625.43	603.85	1.67	973.57	2.69	1,577.42	4.35

Table 19: Summary of Power Purchase Expenses from TPC-G for FY 2018-19

Unit of TPC-G	Power Purchase Quantum	Fixed/ Capacity Charges	Fixed/ Capacity Charges Rate	Total Variable Cost	Variable Charges Rate	Total Power Purchase Cost	Total Power Purchase Rate
	(MU)	(Rs. Crore)	(Rs. /Kwh)	(Rs. Crore)	(Rs. /Kwh)	(Rs. Crore)	(Rs. /Kwh)
Unit-5	1,498.41	239.98	1.60	575.68	3.84	815.67	5.44
Unit-6	-	-	-	-	-	-	-
Unit-7	701.74	89.46	1.27	142.30	2.03	231.76	3.30
Unit-8	754.03	104.76	1.39	303.91	4.03	408.67	5.42
Hydro	791.49	74.97	0.95	91.13	1.15	166.11	2.10
Thermal Incentive		2.22				2.22	
Total	3,745.67	511.39	1.37	1,113.03	2.97	1,624.43	4.34

3.3.2 BEST submits that it has purchased the power from TPC-G at average rate of Rs. 4.35/kWh and Rs. 4.34/kWh during FY 2017-18 and FY 2018-19 respectively. Unit-6 of TPC-G was used as stand-by during FY 2017-18 and BEST had borne the share of the net auxiliary consumption as per the PPA. Therefore, BEST had borne 10.27 MUs towards its share in the net auxiliary consumption of Unit-6 during the FY 2017-18 as shown in the Table 18.

3.3.3 Further, Summary of Power Purchase expenses for FY 2017-18 are shown in Table below:



Table 20: Summary of Power Purchase Expenses for FY 2017-18

Sr. No.	Particulars	Approved in MTR Order			Actual		
		Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)
1	Long term / Medium term Sources						
1.1	TPC-G	3,625.43	1,577.42	4.35	3,625.43	1,577.42	4.35
1.2	Welspun Energy Maharashtra	31.50	26.96	8.56	33.06	27.85	8.43
1.3	Spark Green Energy Ahmednagar	-	-	-	-	-	-
1.4	Spark Green Energy Satara Ltd.	-	-	-	-	-	-
2	Short term Sources						
2.1	Bilateral Power Purchase	568.30	186.10	3.27	568.30	186.42	3.28
2.2	REC Procurement-Solar	-	6.83	-	-	-	-
2.3	REC Procurement-Non-Solar	-	57.63	-	-	58.19	-
2.4	Short Term Non-Solar Purchase	190.61	123.16	6.46	190.61	123.25	6.47
2.5	Short Term Mini Micro Hydro Purchase	0.42	0.24	5.74	0.42	0.24	5.78
2.6	Pool Imbalances	567.88	187.97	3.31	566.32	-	-
2.7	Stand by Energy Purchase	5.72	2.35	4.11	5.72	-	-
3	Other Charges						
3.1	Stand-by Charges	-	105.72	-	-	105.72	-
3.2	Bilateral Rebate	-	(4.64)	-	-	(3.38)	-
3.3	RPS Rebate	-	(2.57)	-	-	(4.09)	-
3.4	Rebate of 1% on Trans. Charges	-	(2.46)	-	-	(2.46)	-
3.5	Rebate of 1% on monthly MSLDC Charges	-	(0.01)	-	-	(0.01)	-
3.6	Additional power procurement charges to RE generators as per Review Case No. 4 of 2017		1.51			-	
3.7	Transmission charges		248.24			248.28	
3.4	MSLDC Charges		0.80			0.80	
	Total	4,989.85	2,515.24	5.04	4,989.85	2,318.23	4.65



- 3.3.4 BEST has procured bilateral power from various power Traders/ Generators, for FY 2017-18 & FY 2018-19 after inviting e-tender through Ministry of Power's DEEP e-portal, in line with MoP guidelines on short term competitive bidding. The results of the competitive bidding are attached as **Annexure-8A (12)** and **Annexure-8B (12)**.
- 3.3.5 In the MTR Order, the Hon'ble Commission approved quantum for pool imbalance as 567.88 MUs and cost as 187.97 Crores for FY 2017-18. However, BEST has worked out actual balancing quantum of pool imbalance as 566.32 MUs. BEST has computed quantum of actual pool imbalance by deducting power purchase from all the remaining sources (TPC-G, RPS, External sources, etc.) from the total power purchase at G-T interface, which is considered as actual pool imbalance quantum for FY 2017-18. Further, it is to be stated that quantum of Welspun Energy (Solar) is increased by 1.56MUs due to excess generation (from 31.50 MUs to 33.06 MUs); hence, the pool imbalance quantum which is a balancing figure is reduced accordingly by 1.56 MU. Same is shown in MYT Petition Form No. 1.4 under head RPS & MSLDC Pool imbalance for FY 2017-18.
- 3.3.6 As regards to payments made under UI charges under regional DSM for WRPC, we would like to state that FBSM bill itself is generated to find the share of individual utility in regional UI payments. For all the unscheduled energy exchanged by Maharashtra state with the regional pool the due date for making payment is 15 to 25 days from the end of the week. However, the liability share / contribution of individual SPP cannot be estimated without generation of FBSM bill. Since FBSM bill lags behind by around 2 years, an advance payment is being collected from Discoms in terms of WRPC DSM bill as per methodology decided in MSPC Sub-Committee meeting held on 22nd February 2019, as and when a bill is raised by WRPC (copy of MoM attached as **Annexure-8B (7)**).

Table 21: Summary of Power Purchase Expenses for FY 2018-19

Sr. No.	Particulars	Approved in MTR Order			Actual		
		Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)
1	Long term / Medium term Sources						
1.1	TPC-G	3,521.45	1,530.85	4.35	3,745.67	1,624.43	4.34
1.2	TPC-G Past Revenue Gap/(Surplus)	-	(95.15)	-	-	(95.15)	-
1.3	Welspun Energy Maharashtra	31.50	26.96	-	32.40	26.96	-
2	Short term Sources						
2.1	Bilateral Power Purchase	917.14	329.25	3.59	660.18	284.15	4.30
2.2	REC Procurement-Solar	110.03	38.79	3.53	-	22.04	-
2.3	REC Procurement-Non-Solar	564.95	192.72	3.41	-	64.23	-
2.4	REC GST				-	(0.63)	-



Sr. No.	Particulars	Approved in MTR Order			Actual		
		Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)
2.5	Short Term Non-Solar Purchase	-	-	-	68.22	48.11	-
2.6	Pool Imbalances	-	-	-	414.22	-	-
2.7	Stand by Energy Purchase	-	-	-	3.09	-	-
3	Other Charges	-	-	-			
3.1	Stand-by Charges	-	102.96	-	-	103.31	-
3.2	O/c provision for Payment of FBSM Bills to be received for FY 2016-17	-	80.54	-	-	(37.64)	-
3.3	MSLDC Adjustment done by MSLDC of receivable amount from provisional FBSM Bills towards variable cost of FBSM pool of Rs. 187.97 Crores of FY 2017-18. (03-04-2017 to 24-09-2017)				-	24.22	-
3.4	MSLDC Payment of charges to MSLDC UI Account for paying the weekly DSM bills issued by WRPC for FY 2018-19.				-	11.84	-
3.5	O/c provision for Standby support Energy availed from MSEDCL for FY 2016-17	-	0.90	-	-	-	-
3.6	Bilateral Rebate				-	(4.65)	-
3.7	RPS Rebate				-	(0.74)	-
3.8	Delayed payment Charges paid to TPC-G				-	-	-
3.9	Rebate 1% Trans. Ch. Excluding TDS Amt.				-	(2.32)	-
3.10	Rebate 1% Monthly SLDC. Ch. Amt.				-	(0.01)	-
3.11	Payment of Standby Energy purchase of FY 2016-17 (Jan-16 & Feb-16)				-	-	-
3.12	REC GST to PXIL (Prior Period)				-	3.28	-
3.13	Transmission charges		204.03			231.75	
3.14	MSLDC Charges		0.67			0.73	



Sr. No.	Particulars	Approved in MTR Order			Actual		
		Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)	Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)
	Total	5,145.07	2,412.52	4.69	4,923.79	2,303.91	4.68

3.3.7 BEST incurred Rs. 0.27 crore in FY 2017-18 and Rs. 4.60 crore in FY 2018-19 towards delay payment charges but BEST is not claiming delay payment charges as the same was not allowed by the Hon'ble Commission in the previous Orders for BEST.

3.3.8 The cost of procurement of renewable energy including energy, wheeling and STOA charges is shown in Table 22 and Table 23. In FY 2017-18 and FY 2018-19, non-solar renewable energy was procured from bagasse, biogas, biomass, small hydro and mini hydro. Following is the detailed break-up of cost of non-solar renewable energy procured after adjusting the rebate.

Table 22: Non-Solar RE purchase including additional Charges for FY 2017-18

No.	Source	Total Cost (Rs. Cr.)
1	Bagasse	1.38
2	Biomass	121.75
3	Small Hydro	0.18
4	Mini Hydro	0.24
	Total	123.5

Table 23: Non-Solar RE purchase including additional Charges for FY 2018-19

No.	Source	Total landed cost (Rs. crore)
1	Bagasse	4.97
2	Biomass	39.88
3	Prior payment of FY 2016-17 and FY 2017-18	2.42
	Total	48.11

3.3.9 BEST did not make any prior period payments during the FY 2017-18. Further, the details of the prior period payment for FY the 2018-19 is shown in Tables below:

Table 24: Summary of prior period payments for FY 2018-19

S.No.	Particulars	Rs. Cr.
1	MSLDC Payment of FBSM Bills of FY 2016-17 (From 30-05-2016 onwards)	(37.64)
2	MSLDC Adjustment done by MSLDC of receivable amount from provisional FBSM Bills towards variable cost of FBSM pool of Rs. 187.97 Crores of FY 2017-18. (03-04-2017 to 24-09-2017)	24.22
3	REC GST to PXIL (Prior Period)	3.28



3.3.10 The Hon'ble Commission has provided the details of approved non-solar RE power purchase charges in Table 158 of MTR Order for FY 2017-18. In this table, the short-term open access charges for Manas Agro Ind Ltd and Lokmangal Agro Limited are inadvertently interchanged. Therefore, BEST is requesting the Hon'ble Commission to allow the corrected Total Charges and Unit Purchase Rate as submitted in the following table.

Table 25: Proposed rectification of Open Access charges for FY 2017-18.

Generator	Approved in MTR Order			Corrected figures		
	STOA charges (Rs. Crore)	Total charges (Rs. Crore)	RE Unit Rate (Rs. /kWh)	STOA charges (Rs. Crore)	Total charges (Rs. Crore)	RE Unit Rate (Rs. /kWh)
Manas Agro	0.17	12.68	-	1.16	13.67	6.46
Lokmangal Agro	1.16	2.55	10.75	0.17	1.56	6.58

3.4 Operation and Maintenance Expenses

3.4.1 O&M expenses consist of the following expenditure heads:

- a) Employee Expenses
- b) Administrative and General Expenses
- c) Repairs and Maintenance Expenses

3.4.2 BEST undertaking has made extensive efforts for reduction in Operation and Maintenance expenses and incurred lower expenses than the approved expenses in the MTR Order for the FY 2017-18 and FY 2018-19. In FY 2017-18, BEST incurred Rs. 57.67 crores lesser in O&M expenses than the expenses approved by the Hon'ble Commission. Further, in FY 2018-19 it incurred Rs. 81.5 crore lesser than the approved O&M expenses. The Actual expense of BEST vis-à-vis approved O&M in the MTR Order are shown in Table as below.

Table 26: Operation and Maintenance Expenses for FY 2017-18 and FY 2018-19 (Rs. crore)

S. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Employee Expenses	552.49	329.12	580.43	324.14
2	R&M Expenses		57.61		65.99
3	A&G Expenses		108.09		108.80
4	Total O&M Expenses	552.49	494.82	580.43	498.93



3.4.3 Normative O&M expense of FY 2017-18 is computed by applying escalation factor of 5.05% on normative O&M expense of FY 2015-16. Normative O&M expense of FY 2015-16 is computed as per MYT Regulations, 2011 according to which normative O&M expense depends upon GFA, sales and number of consumers.

3.4.4 However, as submitted in Chapter 2 above, O&M expense for FY 2015-16 is computed with reduced GFA due to consideration of IDC reversal as transfer of assets by the Hon'ble Commission. As per the Undertaking, O&M expense for FY 2015-16 should be Rs. 411.07 Crore instead of approved Rs. 410.60 Crore. Accordingly, normative O&M expense for FY 2017-18 is computed in table below.

Table 27: Normative operation and maintenance expenses (Rs. crore)

Sr. No.	Particulars	Approved in MTR Order	BEST submission
1	O&M expenses for FY 2015-16 (Revised Normative)	410.60	411.29
2	Total efficiency losses	109.99	109.30
3	Efficiency losses shared by consumers	36.66	36.43
4	O&M expense for FY 2015-16 after sharing of efficiency losses	447.26	447.73
5	Impact of wage agreement for FY 2015-16	53.33	53.33
6	Estimated final trued-up O&M expenses for FY 2015-16 after sharing of efficiency loss	500.59	501.06
7	Normative O&M expense of FY 2016-17 after applying escalation factor	525.90	526.39
8	Normative O&M expense of FY 2017-18 after applying escalation factor	552.49	544.72*
9	Normative O&M expense of FY 2018-19 after applying escalation factor	580.43	560.16*

* Escalation factor of 3.48% p.a. and 2.83% p.a. for FY 2017-18 and FY 2018-19 respectively

Employee Expenses

3.4.5 BEST submits the details of actual employee expense as per Audited Accounts of 2017-18 and provisional accounts of FY 2018-19 in Table below:

Table 28: Employee Expenses for FY 2017-18 and FY 2018-19 (Rs. crore)

S.No.	Particulars	FY 2017-18	FY 2018-19
1	Basic Salary	117.90	102.95
2	Dearness Allowance (DA)	141.73	127.32
3	House Rent Allowance	26.75	25.57
4	Conveyance Allowance	1.04	0.97
5	Leave Travel Allowance	3.20	3.29
6	Earned Leave Encashment	6.25	0.49
7	Medical Reimbursement	4.43	4.14
8	Overtime Payment	6.85	11.21
9	Interim Relief / Wage Revision	0.05	-
10	Provident Fund Contribution	31.22	30.37
11	Gratuity Payment	39.78	40.86



S.No.	Particulars	FY 2017-18	FY 2018-19
12	Functional Allowance as per Agreement	8.09	8.36
13	Gross Employee Expenses	387.29	355.53
14	Less: Expenses Capitalised	58.17	31.39
15	Net Employee Expenses	329.12	324.14

3.4.6 Management of BEST has been putting conscious efforts to bring in efficiency in its operations. BEST has improved utilization of its human resources while simultaneously ensuring that quality and performance is maintained. As a result, BEST did not have to fill up all the posts vacant due to superannuation. This has resulted in reduction of salary & dearness allowance.

A&G Expenses

3.4.7 The actual A&G Expense incurred by BEST as per Audited Accounts of FY 2017-18 and provisional accounts of FY 2018-19

3.4.8 BEST has submitted actual A&G expenses of Rs. 108.09 crore and Rs. 108.80 crore for FY 2017-18 and FY 2018-19 respectively as detailed in table below along with year on year variation in the A&G expenses.

Table 29: A&G expense for FY 2017-18 and FY 2018-19 (Rs. Crore)

S.No.	Particulars	FY 2017-18	FY 2018-19	FY 2018-19	
				YoY Increase	YoY rate (%)
1	Rent Rates & Taxes	6.41	6.43	0.02	0%
2	Insurance	0.36	1.45	1.09	303%
3	Telephone & Postage, etc.	5.40	4.87	-0.53	-10%
4	Legal charges & Audit fee	0.67	0.98	0.31	46%
5	Professional, Consultancy, Technical fee	0.59	0.33	-0.26	-44%
6	Electricity charges	5.07	5.14	0.07	1%
7	Security arrangements	11.86	12.20	0.34	3%
8	Printing & Stationery	1.69	1.51	-0.18	-11%
9	Advertisements	1.27	2.18	0.91	72%
10	License Fee and other related fee	1.02	0.91	-0.11	-11%
11	Vehicle Running Expenses Truck / Delivery Van	6.67	6.88	0.21	3%
12	Bank Charges	1.08	2.03	0.95	88%
13	Miscellaneous Expenses	8.90	8.39	-0.51	-6%
14	Share of General Administration Expenses	57.10	55.50	-1.60	-3%
15	Gross A &G Expenses	108.09	108.80	0.71	1%
16	Less: Expenses Capitalised	-	-	-	0%
17	Net A &G Expenses	108.09	108.80	0.71	1%



3.4.9 The break-up of other miscellaneous expenses is shown in table below:

Table 30: Break-up of other costs for FY 2017-18 and FY 2018-19 (Rs. crore)

S. No.	Particulars	FY 2017-18 (Actual)
1	Clothing	0.60
2	Accident compensation to staff	0.01
3	Consumer advisory services	0.01
4	Miscellaneous and general expenses	8.84
5	Motor vehicle and third-party insurance fund	0.01
6	Free issue of petrol to Officers	0.62
7	Provision for obsolescence of stores	0.04
8	TOTAL	10.13
9	(less) other cost of [CAS & T&E (Rs. 0.55 crore), Street lighting Dept. (Rs. 0.61 crore), Electrical works (Rs. 0.08 crore)]	-1.23
	Total	8.90

Table 31: Break-up of other costs for FY 2017-18 and FY 2018-19 (Rs. crore)

S. No.	Particulars	FY 2018-19 (Actual)
1	Clothing	0.57
2	Accident compensation to staff	0.02
3	Consumer advisory services	-
4	Miscellaneous and general expenses	8.46
5	Motor vehicle and third-party insurance fund	-
6	Free issue of petrol to Officers	0.63
7	Provision for obsolescence of stores	0.04
8	TOTAL	9.72
9	(less) other cost of [CAS & T&E (Rs. 0.48 crore), Street lighting Dept. (Rs. 0.83 crore), Electrical works (Rs. 0.02 crore)]	- 1.33
	Total	8.39

3.5 Share of General Administration expense

3.5.1 BEST has considered the allocation of the general administration expenses between Electric Supply & Transport Division based on the number of employees deployed in respective division. The percentage of the allocation considered for FY 2017-18 and FY 2018-19 for General Administration departments is as under:

Table 32: Allocation of General Administration between Electricity Supply and Transport

Particulars	FY 2017-18		FY 2018-19	
	Transport	Supply	Transport	Supply
Security & Vigilance	68%	32%	69%	31%



Particulars	FY 2017-18		FY 2018-19	
	Transport	Supply	Transport	Supply
Civil Engineering Department	55%	45%	55%	45%
Time keeping, Personnel, Welfare, Medical etc.	81%	19%	80%	20%
EDP Department	50%	50%	45%	55%
Legal, Audit, Account, Cash, Secretarial, PRO etc.	50%	50%	50%	50%

3.5.2 Details of allocation of General Administration to the Supply Division for FY 2017-18 and FY 2018-19 are as under:

Table 33: Details of allocation of General Administration to Supply Division (Rs. crore)

S. No.	Particulars	FY 2017-18 (Audited)	FY 2018-19 (Actual)
1	Establishment cost	42.93	41.79
2	Administration and General Expense	13.81	13.41
3	Repair and Maintenance work	6.22	6.75
4	Other cost including depreciation	6.00	5.75
5	Sub-total	68.96	67.7
	(less) Security expense	11.86	12.2
	Net Share of General Administration	57.1	55.5

R&M Expenses

3.5.3 The details of actual expense incurred by BEST with Year-on-Year (YoY) increment in actual expenses are shown below:

Table 34: Head wise Year-on-year comparison of actual R&M Expenses (Rs. crore)

S. No.	Particulars	FY 2016-17 (Actual)	FY 2017-18 (Actual)	FY 2017-18	FY 2018-19	FY 2018-19
				YoY	(Actual)	YoY
1	Plant & Machinery	11.88	7.07	-40%	5.75	-19%
2	Buildings	0.03	0.01	-67%	-	-100%
3	Civil Works	23.30	27.50	18%	31.64	15%
4	Hydraulic Works	-	-	0%	-	0%
5	Lines & Cable Networks	13.64	17.85	31%	21.03	18%
6	Vehicles	-	-	0%	-	0%
7	Furniture & Fixtures	0.25	0.14	-44%	0.25	79%
8	Office Equipment	2.49	2.11	-15%	3.03	44%
9	Meter & Equipment	3.43	2.93	-15%	4.29	46%
	Gross R&M Expenses	55.02	57.61	5%	65.99	15%
	Less: R&M Expenses Capitalised	-	-	0%	-	0%
	Net R&M Expenses	55.02	57.61	5%	65.99	15%



-
- 3.5.4 Increase in R&M expenses in FY 2017-18 is primarily due to increase of Rs. 4.20 crore in civil works and Rs. 4.21 crore in lines and cable network.
- 3.5.5 Similarly, increase in R & M expenses in FY 2018-19 vis-à-vis FY 2017-18 is primarily due to increase of Rs. 4.14 crore in civil works, Rs. 3.18 crore in Lines & cable network and Rs. 1.36 crore in Meter & Equipment.



3.6 Depreciation

- 3.6.1 The opening GFA for FY 2017-18 and FY 2018-19 is Rs. 2402.07 crore and Rs. 2459.35 crore as per 'schedule of fixed assets' given in Audited proforma accounts of FY 2017-18 and provisional accounts of FY 2018-19 for electricity supply division submitted as Annexure-II and Annexure-V along with this MYT Petition. However, details of GFA and depreciation are submitted in the Form-5 of the Tariff formats submitted by BEST along with this Petition. All annexures are submitted in volume IV of MYT Petition.
- 3.6.2 BEST does not consider depreciation from assets funded by grants. Average rate of depreciation is computed considering such depreciation which excludes assets funded from grant. However, such assets funded by grants are included in GFA.
- 3.6.3 As per audited accounts of FY 2017-18 and provisional accounts of FY 2018-19, BEST has incurred depreciation expense of Rs. 105.78 crore in FY 2017-18 and Rs. 103.37 crores in FY 2018-19 as shown in accounts for electric supply division submitted along with MYT Petition. For truing-up, BEST has calculated depreciation using average depreciation rate of 4.35 % in FY 2017-18 and 4.07 % in FY 2018-19. Depreciation rate is arrived by dividing depreciation as per audited accounts by average of opening and closing GFA as per accounts.
- 3.6.4 Average depreciation rate as arrived above is applied on average of opening GFA and closing GFA submitted by BEST for approval of the Hon'ble Commission. Closing GFA of FY 2016-17 is re-computed after reversing effect of considering extra IDC booked as transfer of assets. Closing GFA of FY 2016-17 as arrived above is considered as opening GFA of FY 2017-18. Similar approach is adopted for computation of depreciation for FY 2018-19 Following table summarizes depreciation calculation for truing-up of FY 2017-18 and FY 2018-19 as given in **format 5.3.**

Table 35: Depreciation for FY 2017-18 (Rs. crore)

Particulars	FY 2017-18 (Actual)	FY 2018-19 (Actual)
<u>Calculation of average GFA</u>		
Opening GFA after adjusting consumer contribution	2,405.37	2,461.55
Capitalisation with IDC during FY 2015-16	94.98	199.73
Retirement of assets	38.79	39.51
Closing GFA	2,461.56	2,621.77
Average GFA [A]	2,433.46	2,541.66
<u>Calculation of Average Depreciation Rate</u>		
Opening GFA (as per accounts)	2,402.06	2,459.35
Closing GFA (as per accounts)	2,459.35	2,614.34
Average GFA (as per accounts)	2,430.71	2,536.85
Depreciation (as per accounts)	105.78	103.37
Average Depreciation on average GFA [B] (as per accounts)	4.35%	4.07%



Particulars	FY 2017-18 (Actual)	FY 2018-19 (Actual)
<u>Calculation of depreciation</u>		
Depreciation [C]=[A]*[B]	105.90	103.57

3.6.5 BEST therefore requests the Hon'ble Commission to approve the depreciation for FY 2017-18 and FY 2018-19 as submitted in table above.

3.7 Capital Expenditure and Capitalisation

3.7.1 As per MYT Regulations 2015, the Hon'ble Commission may approve for each year of the Control Period, an additional amount equivalent to 20% of the total capital expenditure approved for respective financial year of the Control Period towards unplanned capital expenditure or the capital expenditure that is included under the Business Plan but is yet to be approved by the Hon'ble Commission. The Hon'ble Commission had approved capital expenditure of Rs. 94.97 crore for FY2017-18 and Rs. 201.42 crore for FY 2018-19 in Case No. 203 of 2017 which includes expenditure towards unplanned capital expenditure. However, BEST incurred total capital expenditure of Rs. 92.79 crore in FY 2017-18 and Rs. 207.05 crore in FY 2018-19. Break-up of which is as follows:

Table 36: Break-up of capital expenditure for FY 2017-18 and FY 2018-19 (Rs crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	(Actual)	Approved in MTR Order	(Actual)
1	Capital Expenditure	94.97	92.79	201.42	207.05
2	Capitalisation	94.97	94.97	201.42	194.49
3	IDC	-	-	-	5.24
4	Capitalisation + IDC	94.97	94.97	201.42	199.73

3.7.2 BEST has submitted the IDC computation as **Annexure – 16 (2)**

3.7.3 BEST has to incur capital expenditure for creating sufficient redundancy in the network to give reliable and quality power to consumers, for meeting universal supply obligation and future demand in the area of supply and also for introducing IT/Automation to give better service and meet the standard of performance obligations as stipulated in Regulations by the Hon'ble Commission.

3.7.4 The Capital expenditure and Capitalisation achieved in the FY 2018-19 is lower vis-à-vis Capital Expenditure and Capitalisation approved in the MTR Order.

3.7.5 The scheme wise, reasons for the lower capitalisation are listed below:

- 1. Wadala Truck Terminal (WTT), BEST/13/09B:** During FY 2018-19, for commissioning of Lodha Crown RSS at WTT, the Capital Expenditure was proposed to be Rs. 6.77 Cr. However, commissioning work of RSS is completed except installation of 1x16 MVA, 33/11 kV power



Transformer and 2x 2300 MVA capacitors. Receiving Substation building is constructed by the developer which has resulted in lower Capital Expenditure and Capitalization.

- 2. Pratiksha Nagar RSS, BEST/F.Y.14/01:** During the FY 2018-19, for commissioning of Pratiksha Nagar RSS, capital Expenditure was proposed to be Rs. 2.32 Cr. Afterwards, BEST undertaking has decided to execute the scheme of commissioning of Pratiksha Nagar RSS under IPDS. M/s. L&T had also scheduled the same job in FY 2018-19 under IPDS. However, delivery of electrical equipment required for commissioning of RSS were delayed by the executing firm. Due to which commissioning work is delayed and resulted in lower capital cost.
- 3. Commissioning of Central Railway (Nirmal Park) RSS and Installation of additional T/F at Elphinstone Mill RSS, BEST/F.Y.09/01:** During the FY 2018-19, for laying of 2x300 sq.mm. 33 kV, XLPE cable & construction of Nirmal Park RSS building and installation of additional 33/11 kV, 16 MVA, T/F at Elphinstone Mill RSS, Capital Expenditure was proposed to be Rs. 8.49 Cr. However, the job of construction of RSS building is delayed even after issuing work order for civil work to the contractor. While taking trial pit at the RSS site, EHV cables of Central Railways were found passing through the plot. Hence, Central Railway and BEST mutually decided to re-locate new space for RSS construction. Because of which civil work of RSS building is delayed and has resulted in lower capitalisation.
 - 3.1** Initially the work of commissioning of additional T/F at Elphinstone Mill RSS is scheduled by BEST in FY 2018-19. Afterwards, BEST undertaking has decided to execute the scheme under IPDS. However, delivery of electrical equipment required for commissioning of RSS was delayed by the executing firm. Due to which commissioning work is delayed and resulted in lower capital cost.
- 4. Commissioning of MGM Hosp, Sai Sunder, Dosti Acres and Wankhede RSS, BEST/F.Y.16/01:** During FY 2018-19, for construction of RSS building of MGM Hosp, Sai Sunder and Dosti Acre RSS and commissioning of 1x16 MVA, 33/11 kV T/F and associated equipments at Wankhede RSS, a capital expenditure of Rs. 16.30 Crore was proposed. However, due to delay in finalization of tenders for carrying out civil works at said RSS, only part work costing Rs. 3.28 Crore is completed at MGM and Sai Sunder RSS. The work of commissioning of Wankhede RSS was scheduled in FY 2018-19. Afterwards, BEST undertaking has decided to execute the scheme under IPDS. Due to delay of delivery of electrical equipment required for commissioning of RSS resulted in lower capitalization cost as against proposed.
- 5. Installation of Automatic Fire Fighting System (AFF) under various DPRs:** During the FY 2018-19, it was proposed to commission Automatic Fire Fighting system (AFF) at various RSS. The work order for commissioning of AFF system was placed on various firms. Viz. M/s. New Age, M/s. Ackruti, M/s. Swastika. Government of India has implemented GST in July 2018 and accordingly, firms were insisted for revision in Purchase Orders with GST which resulted in delay of proposed work and lower capitalization.
- 6. BEST/F.Y.14/02:** During FY 2018-19, for replacement of age-old cables at Worli & Mahalaxmi RSS and for installation of additional T/F at Sitaladevi RSS, capital expenditure was proposed



to RS. 11.84 Crore. However, the work of replacement of age-old cables at Worli and Mahalaxmi RSS is carried out under IPDS costing RS. 8.59 Crore. Further to this, the work of commissioning of Sitaladevi T/F is delayed due to installation of earthing and NIFP system.

7. **BEST/F.Y.15/02:** During the FY 2018-19, the work of replacement of AFF system, at various RSS is delayed. The work order for commissioning of AFF system was placed on various firms. Viz. M/s. New Age, M/s. Ackruti, M/s. Swastika. Government of India has implemented GST and accordingly, firms were insisted for revision in Purchase Orders with GST which results in lower capitalization.
8. **BEST/F.Y.16/02, BEST/F.Y.17/02 & BEST/F.Y.18/02:** During the FY 2018-19, the work of replacement of T/Fs, switchgears at various RSS were delayed due to provision of earthing for these RSS. Also, due to shortage of required manpower, the work is delayed as the work under IPDS is in progress and most of manpower is utilized for supervising IPDS jobs. As the schemes under IPDS are to be completed before December 2019.

3.8 Funding of Capitalization

3.8.1 The Financing Plan linked to the Capital Expenditure Plan is prepared based on the existing approved funding and the limitations in terms of infusion of equity or internal accrual.

3.8.2 BEST humbly informs the Hon'ble Commission that, BEST has incurred capitalisation of Rs. 94.97 crore and Rs. 199.73 crore for FY 2017-18 and FY 2018-19.

Table 37: Details of funding of Capitalisation for FY 2017-18 and FY 2018-19 (Rs. crore)

S. no.	Particulars	FY 2017-18	FY 2018-19
		Actual	Actual
1	Capital Connection Fee	12.12	10.69
2	Grants	2.33	56.50
3	Loan	56.36	92.78
4	Internal Source	24.16	39.76
	Total of Capitalisation including IDC	94.97	199.73

3.9 Interest on Long term loan

3.9.1 The actual interest expenses incurred by BEST in FY 2017-18 and FY 2018-19 are as shown in table below:

Table 38: Details of Actual Interest Expenses for FY 2017-18 (Rs. crore)

S. No.	Particulars	FY 2017-18				
		Opening Balance	Addition	Repayment	Closing Balance	Interest Expense
1	APDRP Loan	17.83	0.00	2.22	15.61	1.74



S. No.	Particulars	FY 2017-18				
		Opening Balance	Addition	Repayment	Closing Balance	Interest Expense
2	REC	240.07	80.88	0.00	320.95	26.80
	Total	257.90	80.88	2.22	336.56	28.54
	Approved under case No.203 of 2017					0.00

Table 39: Details of Actual Interest Expenses for FY 2018-19 (Rs. crore)

Particulars	FY 2018-19				
	Opening Balance	Addition	Repayment	Closing Balance	Interest Expense
APDRP Loan	15.61	0.00	2.22	13.39	1.51
REC	320.95	74.36	0.00	395.31	37.66
Total	336.56	74.36	2.22	408.70	39.17
Approved under case No.203 of 2017					0.89

3.9.2 Further, BEST submits that as per the Government of India Scheme, interest subsidy on the loan will be provided to the eligible Power Utilities to improve the distribution network under the National Electricity Fund (NEF). As per the guidelines of NEF issued Ministry of Power, under eligibility criteria, it is specified that on reaching Aggregate Technical & Commercial Losses (AT&C Loss) levels of absolute 8%, the Utility would be expected to maintain the same level to achieve maximum marks. Accordingly, the Utilities are eligible to interest subsidy on maintaining the existing level of AT & C Losses.

3.9.3 REC Ltd. is nodal agency appointed by the Government of India for launching NEF to provide interest subsidy on the loan to the eligible Power Utilities. Accordingly, BEST has submitted Detailed Project Report (DPR) of various projects initially to the Hon'ble Commission & thereafter vide letter no. DO/GM/DGM(ES)/18240/2013 dated 3rd April 2014 to Distribution Reform Committee which was appointed as per the Maharashtra Government G.R. No. 2012 dated 28th June 2012. Eleven DPR has been approved vide letter dated 3rd March 2014 by Steering Committee of NEF with loan amount of Rs.405.19 crore. BEST Undertaking had also received sanction letter from REC Ltd. on 29th March 2014 & 23th April 2014 for loan of Rs.395.32 crore which consists 11 projects for the period from FY 2013-14 to FY 2015-16. BEST Undertaking has already taken the approval of BEST Committee vide BCR No. 112 dated 14th July 2014 & MCGM sanction vide CR No.501 dated 11th August 2014 for availing the said long term loan so that long term benefit can be passed on to the consumers. Subsequently, Govt. of Maharashtra has given approval for the said loan vide GR No. BEST-2514/P.K.918/UR.21 dated 2nd March 2015. Accordingly, BEST has submitted the claim of Rs. 167.45 crore for the FY 2013-14 & 2014-15 to REC. In turn REC has released the amount of Rs.134.09 crore at 11.75% interest rate on 4th August 2015 & 6th August 2015. Further, BEST has submitted a claim of Rs. 83.11 crore for the FY 2015-16 to REC on 8th February 2017 and 22nd February 2017. In turn REC has



release the amount of Rs. 105.98 crores including the balance of earlier year contribution at 10.75% interest rate on 31st March 2017. BEST submitted a claim of Rs. 115.54 crore for the FY 2016-17 to REC on 27th March 2018. In turn, REC has released the amount of Rs. 80.88 crore at 10.50% interest rate. Further, BEST has submitted a claim of 74.36 crores for the FY 2017-18 to REC dated 29th October 2018. In turn, REC has released the amount of Rs.74.36 crores at 10.75% interest rate. Details about implementation of projects funded under NEF scheme are included in Annexure to the Petition.

- 3.9.4 BEST submits that it has computed the interest on long term loan as per Regulation 26 of MERC MYT Regulations, 2015. The weighted average interest rates are computed as per actual loan portfolio during the year. Tranche of Rs. 80.88 Crore availed in FY 2017-18 is not considered for computation of weighted average interest rate for FY 2017-18, as it was availed on 29 March, 2018. Therefore, it was outstanding only for 2 days. Inclusion of this tranche in closing balance of FY 2017-18 will yield interest rate which will not be correct representation of FY 2017-18.
- 3.9.5 BEST has considered the opening balance of net normative loan for the FY 2017-18 as Rs. 8.69 crores. This is revised opening balance after adjusting GFA due to reversal of excess IDC booked as explained in the Chapter 2 of this Petition.
- 3.9.6 The normative interest expenses as computed in table below which is lower (i.e., zero) than the actual interest expenses incurred by BEST in FY 2017-18. The computation of interest expenses is submitted as under:

Table 40: Details of Normative Interest on loan for FY 2017-18 and FY 2018-19 (Rs. crore)

Source of Loan	FY 2017-18		FY 2018-19	
	MTR Order	Actual	MTR Order	Actual
Opening Balance of Net Normative Loan	-	8.69	-	-
Less: Reduction of Normative Loan due to retirement or replacement of assets		27.15	-	27.66
Less: Reduction of Normative Loan due to consumer contribution & grant	7.04	10.12*	7.04	47.03 [^]
Addition of Normative Loan due to capitalisation during the year	66.48	66.479*	140.99	139.81 [^]
Repayment of Normative loan during the year	59.44	37.90	117.83	65.12
Closing Balance of Net Normative Loan	-	-	16.12	-
Average Balance of Net Normative Loan	-	4.35	8.06	-
Weighted average Rate of Interest on actual Loans (%)	11.07%	11.12%	11.07%	10.52%
Interest Expenses	-	0.48	0.89	-
Total Interest & Financing Charges	-	0.48	0.89	-

* Addition in normative loan as per Table 37 is Rs. 56.36 Crore which is Rs. 66.48 Crore net off reduction in normative loan due to consumer contribution & grant of Rs. 10.12 Crore

[^] Addition in normative loan as per Table 37 is Rs. 92.78 Crore which is Rs. 139.81 Crore net off reduction in normative loan due to consumer contribution & grant of Rs. 47.03 Crore



3.9.7 The Hon'ble Commission in previous MTR Order approved the interest expenses as shown in the above table, BEST humbly requests the Hon'ble Commission to approve the revised normative interest and financing charges as submitted above.

3.10 Interest on Working Capital (IoWC)

3.10.1 BEST submits that it has incurred the actual Interest on Working Capital (IWC) of Rs. 48.42 crore in FY 2017-18 and Rs. 11.09 crore in FY 2018-19. BEST has computed the IoWC on normative basis as per Regulation 31 of MERC MYT Regulations, 2015. The computation of IoWC on normative basis is as under:

Table 41: Interest on Working Capital details for FY 2017-18 and FY 2018-19 (Rs. crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Normative submitted by BEST	Approved in MTR Order	Normative submitted by BEST
1	O&M expenses for a month	46.04	45.39	48.37	46.68
2	Maintenance Spares at 1% of Opening GFA	23.90	24.05	24.72	24.62
3	One and half month's equivalent of the expected revenue from charges for use of Distribution Wires	466.33	467.56	420.85	456.55
4	Less: Amount held as Security Deposit from Distribution System Users	365.12	378.29	376.07	398.62
	Less: One-month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	209.60	193.19	201.04	191.99
5	Total Working Capital Requirement	-38.45	-34.47	-83.17	-62.76
6	Computation of Working Capital Interest				
7	Interest Rate (%) - SBI Base Rate +150 basis points	10.20%	10.18%	9.45%	9.89%
8	Interest on Working Capital	1.75	1.62	1.11	1.28
9	Actual Working Capital Interest	-	48.42	-	11.56



3.10.2 The normative interest on working capital for retail supply business is nil since there is no working capital requirement on account of high consumer security deposit. However, the wires business the interest on working capital has been worked out and the same is provided in the table above.

3.10.3 Canara bank O.D. is used for electric supply as well as transport. Amount of actual interest on O.D account is allocated to electric supply based on usage of O.D. limit by electric supply division. Actual interest of Working capital has been detailed in the below table:

Table 42: Actual Interest on Working Capital for FY 2017-18 (Rs. crore)

Name of the Bank	Opening Balance of loan	Rate of Interest (%)	Loan amount raised	Loan amount paid during the year	Loan balance at the end of the year	Interest Expenses
Canara O.D.	225	9.65	0	0	225	8.11
MCGM	664.35	10	0	485.27	179.08	40.31
Total	889.35		0	253.02	404.08	48.42

Table 43: Actual Interest on Working Capital for FY 2018-19 (Rs. crore)

Name of the Bank	Opening Balance of loan	Rate of Interest (%)	Loan amount raised	Loan amount paid during the year	Loan balance at the end of the year	Interest Expenses
Canara O.D.	225	8.6	0	0	225	6.69
MCGM	179.09	10	0	157.45	21.64	4.87
Total	404.09		0	253.02	246.64	11.56
Gross Total (H1+H2)						11.56
Approved under case no.203 of 2017						1.11



3.10.4 BEST humbly request the Hon'ble Commission to approve normative Interest on Working Capital as shown in table above and approve sharing of gains/(losses) based on the actual loWC.

3.11 Interest on consumer security deposit

3.11.1 In MTR Order for final Truing-up of FY 2015-16 and FY 2016-17, the Hon'ble Commission allowed interest on CSD based on whether interest on CSD claimed by BEST was actually paid to consumers or not. BEST has considered interest on CSD for FY 2017-18 as per audited actual accounts and for FY 2018-19 based on provisional actual interest on CSD.

3.11.2 Amount claimed as interest on CSD is adjusted against consumer's bill. BEST humbly requests the Hon'ble Commission to approve interest on consumer security deposit on actual basis as shown in table below.

Table 44: Interest on Consumer Deposit for FY 2017-18 and FY 2018-19 (Rs. crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
	Opening balance of security deposit	37.24*	365.12	35.02^	378.29
	Addition during the year		13.17		20.33
	Closing balance of security deposit		378.29		398.62
	Net Interest on Security Deposit for current year		34.19		36.05

*As per Table 186 of MTR Order ^As per Table 245 of MTR Order

3.12 Contribution to Contingency Reserves

3.12.1 BEST is submitting the Contribution to Contingency Reserves for FY 2017-18 and FY 2018-19 as shown in the following table.

Table 45: Contribution to Contingency Reserve for FY 2017-18 and FY 2018-19 (Rs. crore)

Sr. No.	Particular	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Contribution to Contingency Reserve	5.97	5.99	6.18	6.14



3.12.2 BEST has invested amount of Rs. 4.60 Crore in Assam SDL and Rs. 1.00 Crore in Rajasthan SDL on 28 March, 2019 against Rs. 5.99 Crore claimed for FY 2017-18. Investment corresponding to Contribution to Contingency Reserves for FY 2018-19 is being expedited by BEST.

3.13 Other expenses

3.13.1 BEST has incurred other expense of Rs. 89.90 crore in FY 2017-18 and Rs. 74.87 crore in FY 2018-19. The break-up of other expense is as given below:

Table 46: Other Expenses Details for FY 2017-18 and FY 2018-19 (Rs. crore)

S.No	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Prompt payment Discount	19.51	14.65	20.09	14.56
2	Power factor Incentive	90.00	70.24	45.00	55.49
3	ECS discount	0.60	0.48	0.62	0.35
4	Load factor Incentive	4.50	4.53	4.64	3.62
5	Reimbursement of transaction charges against payment through Visa Master Debit/Credit card				0.79
6	Discount on Digital Payment to Consumers				0.06
	Total	114.61	89.90	70.35	74.87



3.13.2 BEST submits that in the other expenses, Power factor incentives and Prompt payment discount are the major expenses and BEST requests the Hon'ble Commission to approve as submitted in the above table

3.14 Provision for Bad and doubtful Debts

3.14.1 Hon'ble Commission had provisionally allowed Rs. 7.24 crore as provision for bad debts for FY 2017-18 and FY 2018-19 in the previous MTR Order.

3.14.2 BEST submits that the amount of Rs. 8.54 crore was written off against pending dues for FY 2017-18 and Rs. 6.74 crore for FY 2018-19. BEST had made extensive efforts for recovery of such amount. The recovery of some dues is not expected due to various reasons such as demolition of premises / buildings /structures change in ownership of premises, shifting of consumer to outside BEST license area and addresses of such consumers not available etc. As per Regulation 73 of MYT Regulations, 2015, the Hon'ble Commission may allow a provision for bad and doubtful debts.

3.14.3 Accordingly, BEST submits the actual bad debts written off based on accounts as under:

Table 47: Bad Debts written off for FY 2017-18 and FY 2018-19

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order (Rs. crore)	Actual (Rs. crore)	Approved in MTR Order (Rs. crore)	Actual (Rs. crore)
1	Bad debts written off / provision for bad and doubtful debts	7.24	8.54	7.24	6.74

3.14.4 BEST humbly request the Hon'ble Commission to approve provision towards bad and doubtful debt as shown in table above.

3.15 Income Tax

3.15.1 As per the Income Tax Act under Section 10(20), the income of local authority is exempted. The said provision is reproduced as below:

10(20) the income of a local authority which is chargeable under the head "Income from house property", "Capital gains" or "Income from other sources" or from a trade or business carried on by it which accrues or arises from the supply of a commodity or services [(not being water or electricity) within its own jurisdictional area or from the supply of water or electricity within or outside its own jurisdictional area].

Explanation – For the purpose of this clause, the expression "local authority" means:

- Panchayat as referred to in clause (d) of article 243 of the Constitution; or
- Municipality as referred to in clause (e) of article 243 P of the Constitution, or



- iii. Municipal Committee and District Board, legally entitled to, or entrusted by the Government with, the control or management of a Municipal or local fund, or
- iv. Cantonment Board as defined in Section 3 of the Cantonments Act, 1924 (2 of 1924)

3.15.2 Hence, BEST has not considered any Income Tax for FY 2017-18 and FY 2018-19.

3.16 Return on Equity

3.16.1 BEST submits that it has considered the Return on equity computed as per Regulation 28 of MERC MYT Regulations, 2015. For the propose of arriving at the Regulatory Equity at the beginning of the year for FY 2017-18, BEST has considered the closing equity of FY 2016-17 computed by adjustment in GFA due to reversal of excess IDC booked as explained in Chapter 2 of this Petition.

3.16.2 BEST submits that the allocation of assets of wire and supply business for FY 2017-18 are in ratio of 90:10. BEST has considered the weighted average rate of RoE as per Regulation 28 of MERC MYT Regulation 2015 with weights as given in Allocation Matrix. BEST submits the details of Return on Equity as under:

Table 48: Return on Equity for FY 2017-18 and FY 2018-19 (Rs. crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Regulatory Equity at the beginning of the year	846.31	850.53	867.96	863.05
2	Capitalisation during the year		94.97		199.73
3	Consumer Contribution and Grants used during the year for Capitalisation		14.45		67.19
4	Equity portion of capitalisation during the year	25.47	24.16	57.41	39.76
5	Reduction in Equity Capital on account of retirement / replacement of assets	3.83	11.64	3.83	11.85
6	Regulatory Equity at the end of the year	867.96	863.05	921.53	890.96
	Return on Equity Computation				
7	Return on Regulatory Equity at the beginning of the year	132.87	133.53	136.27	135.50
8	Return on Regulatory Equity addition during the year	1.70	0.98	4.21	2.19
9	Total Return on Equity	134.57	134.52	140.47	137.69



3.16.3 BEST requests Hon'ble Commission to approve Return on Equity on normative basis as shown in table above for FY 2017-18 and FY 2018-19.

3.17 Return as Interest on Internal Funds

3.17.1 BEST submits the Interest on internal funds as under:

Table 49: Return on Internal Fund Detail (Rs. crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Return as Interest on Internal funds	5.28	5.28	5.28	5.28

3.17.2 BEST requests the Hon'ble Commission to approve the above Return on Internal Fund of Rs. 5.28 crore for FY 2017-18 and FY 2018-19.

3.18 Non-tariff Income

3.18.1 BEST submits that it has earned the non-tariff income of Rs. 22.03 crore in FY 2017-18 and Rs. 38.92 crore in FY 2018-19 based on the Annual Accounts of FY 2017-18 and FY 2018-19. The details of non-tariff income under various sub-heads are as given below:

Table 50: Details of the Non-Tariff income for FY 2017-18 and FY 2018-19 (Rs. crore)

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
1	Rents of land or buildings		0.85		0.93
2	Sale of Scrap		-		-
3	Income from investments		3.40		3.92
4	Interest on advances to suppliers/contractors		-		-
5	Rental from staff quarters		-		-
6	Rental from contractors		-		17.48
7	Income from hire charges from contractors and others		-		4.20
8	Supervision charges for capital works		-		-
9	Income from consumer charges levied in accordance with Schedule of Charges approved by the Hon'ble Commission		0.75		0.43
10	Income from recovery against theft and/ or pilferage of electricity		13.09		8.83
11	Income from advertisements		5.17		5.17
12	Income from sale of tender documents		0.28		0.27
13	Others		3.20		6.94
14	Share of General Administration		6.92		3.90



Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Approved in MTR Order	Actual	Approved in MTR Order	Actual
15	Less: Sale of Scrap Capitalised Assets		-11.63		-13.15
	Total	36.13	22.03	37.21	38.92

3.18.2 BEST requests the Hon'ble Commission to approve non-tariff income as shown in table above.

3.19 Incentive on reduction of Distribution loss

3.19.1 BEST has achieved an actual distribution loss of 4.18 % against the normative target of 5.70% as approved by the Hon'ble Commission for FY 2018-19. Hence BEST has calculated incentive for reduction in distribution loss as shown in table below:

Table 51: Details of the Incentive on reduction of Distribution loss

Particulars	Units	FY 2017-18	FY 2018-19
Normative Distribution loss (target)	%	5.80%	5.70%
Normative sales considering same Energy input	MU	4545.00	4499.25
Actual sales	MU	4544.19	4572.01
Additional sales due to actual distribution loss less than the normative target	MU	-0.81	72.76
Actual revenue for the year	Rs. Crore	3740.47	3652.43
Average billing rate	Rs. / unit	8.23	7.99
Revenue gain/(loss) due to actual distribution loss	Rs. Crore	-0.67	58.12
Amount retained by BEST (1/3rd of incentive/(loss))	Rs. Crore	-0.45	19.37

3.19.2 BEST proposes recovery of the incentive for reduction of distribution loss in true-up of FY 2017-18 and FY 2018-19 as shown in the above Table 51.

3.20 Sharing of gain due to lower O&M expenses

3.20.1 BEST submits actual O&M expense of for FY 2017-18 are lower than normative O&M expense for FY 2017-18. Therefore, as per Regulation 11 of MERC MYT Regulations 2015; BEST is sharing gains with the consumers as shown in table below:

Table 52: Sharing of O&M expense gain for FY 2017-18 and FY 2018-19 (Rs crore)

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Normative O&M expenses ¹	544.72	560.16

¹ Computed considering impact of reversal of IDC which was taken as transfer of assets in MTR Order



Sr. No.	Particulars	FY 2017-18	FY 2018-19
2	Actual O&M expenses	494.82	498.93
3	Sharing of Gains	16.63	20.41

3.20.2 BEST submits that gain on account of lower O&M expenses be included in ARR of FY 2017-18 and FY 2018-19 as shown in table above.

3.21 Sharing of Loss of interest on working capital (IoWC)

3.21.1 The sharing of loss of interest on working capital is as shown in table below:

Table 53: Sharing of IoWC gain/loss for FY 2017-18 and FY 2018-19 (Rs crore)

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1.	Normative IoWC (A)	1.62	1.28
2.	Actual IoWC (B)	48.42	11.56
3.	Loss (C)=(B)-(A)	46.80	10.28
4.	Controllable Loss shared (D)=1/3*(C)	15.60	3.43

3.22 True-up of Aggregate Revenue Requirement of FY 2017-18 and FY 2018-19

3.22.1 BEST submits the Truing up for FY 2017-18 and FY 2018-19 is based on comparison of the actual expense incurred and the revenue earned during the year vis-à-vis the figures approved by the Hon'ble Commission in MTR Order. The Truing up summary for FY 2017-18 and FY 2018-19 is as under:

Table 54: True-up of Aggregate Revenue Requirement for FY 2017-18 (Rs. crore)

Particulars	MTR Order	Actual	Deviation
Power Purchase Expenses (excluding Inter-State Transmission & SLDC Charges)	2,266.20	2,069.15	-197.05
Operation & Maintenance Expenses	552.49	494.82	-57.67
Depreciation	111.62	105.90	-5.72
Interest on Loan Capital	-	0.48	0.48
Interest on Working Capital	1.75	1.62	-0.13
Interest on Consumer Security Deposit	37.24	34.19	-3.05
Provision for bad and doubtful debts	7.24	8.54	1.30
Contribution to contingency reserves	5.97	5.99	0.02
Income Tax	-	-	-
Other expenses	114.61	89.90	-24.71
Intra State Transmission & SLDC charges	249.04	249.08	0.04
Total Revenue Expenditure	3,346.16	3,059.67	
Add: Return on Equity Capital	134.57	134.52	-0.05
Add: Return as interest on internal funds	5.28	5.28	-
Add: Sharing of Gain/(Loss) of distribution loss	-	-0.45	-0.45
Add: Sharing of Gain/(Loss) on IoWC	-	15.60	15.60



Particulars	MTR Order	Actual	Deviation
Add: O&M sharing of gain and loss		16.63	16.63
Aggregate Revenue Requirement	3,486.01	3,231.25	
Less: Non-Tariff Income	36.13	22.03	-14.10
Less: Income from other business	-	-	-
Less: Receipts on account of Cross-Subsidy Surcharge	-	-	-
Less: Receipts on account of Additional Surcharge, if any	-	-	-
Aggregate Revenue Requirement from Retail Tariff	3,449.88	3,209.22	
Add: Deficit of Transport Operations			-
Aggregate Revenue Requirement adding deficit of transport operations	3,449.88	3,209.22	
Past recoveries of BEST along with carrying cost	358.99	358.99	-
Adjustment in GFA due to reversal of excess IDC	-	12.94	12.94
Aggregate Revenue Requirement from Total Distribution business	3,808.87	3,581.15	
Revenue			
Revenue from sale of electricity	3,730.63	3,740.47	9.84
			-
Total Revenue Gap/(Surplus)	78.24	(159.32)	-237.56

Table 55: True-up of Aggregate Revenue Requirement for FY 2018-19 (Rs. crore)

Sr. No.	Particulars	MTR Order	Actual	Deviation
1	Power Purchase Expenses (excluding Inter-State Transmission & SLDC Charges)	2,207.82	2,071.44	-136.38
2	Operation & Maintenance Expenses	580.43	498.93	-81.50
3	Depreciation	117.83	103.57	-14.26
4	Interest on Loan Capital	0.89	0.00	-0.89
5	Interest on Working Capital	1.11	1.28	0.16
6	Interest on Consumer Security Deposit	35.02	36.05	1.03
7	Provision for bad and doubtful debts	7.24	6.74	-0.50
8	Contribution to contingency reserves	6.18	6.14	-0.04
9	Intra-State Transmission Charges	204.03	231.75	27.72
10	MSLDC Fees & Charges	0.67	0.725	0.06
11	Income Tax	0	0	-
12	Other expenses	70.35	74.87	4.52
13	Total Revenue Expenditure	3,231.58	3,031.49	
14	Add: Return on Equity Capital	140.47	137.69	-2.78



Sr. No.	Particulars	MTR Order	Actual	Deviation
15	Add: Return as interest on internal funds	5.28	5.28	-
	Add: Sharing of Gain/(Loss) of distribution loss	-	19.37	19.37
	Add: Sharing of Gain & Loss on IoWC	-	3.43	3.43
	Add: Sharing of Gain & Loss on O&M expense	-	20.41	20.41
	Aggregate Revenue Requirement	3,377.33	3,217.67	
16	Less: Non-Tariff Income	37.21	38.92	1.71
	ARR from Wire & Retail Supply	3,340.12	3,178.75	
17	Add: Revenue Gap from 2nd control period	168.52	168.52	-
18	Add: Revenue Gap from FY 2016-17 & FY 2017-18	-177.88	-431.86	-253.98
19	Total Revenue Requirement from Wire & Retail Supply	3,330.75	2,915.41	
B	Revenue			
15	Revenue from sale of electricity	3,629.34	3652.43	23.09
	Revenue Gap/ (Surplus) @ Existing Tariff	-298.58	-737.02	-438.43

3.23 Revenue Gap of FY 2017-18 and FY 2018-19

3.23.1 The Hon'ble Commission in MTR Order had approved provisional revenue surplus of Rs. 212.87 crore for FY 2016-17. The carrying/(holding) cost the revenue gap/(surplus) is as shown in the Table 56.

3.23.2 The Hon'ble Commission in the MTR Order had provisionally approved cumulative revenue surplus of Rs. 177.88 crores for FY 2018-19. As against this, the actual revenue gap works out as given in the table below:

Table 56: Summary Revenue Gap with carrying cost for FY 2016-17 and FY 2017-18

S. No	Particulars	Rate	MTR Order	MYT Petition
1	Revenue Gap/ (Surplus) for FY 2016-17 excluding Carrying/ (Holding) Cost		-212.87	-212.87
	Carrying/ (Holding) Cost for FY 2016-17	10.79%	-11.48	-11.48
	Carrying/ (Holding) Cost for FY 2017-18	10.18%	-21.71	-21.67
	Carrying/ (Holding) Cost for FY 2018-19	9.89%	-10.06	-10.53
	Revenue Gap of FY 2016-17 including carrying cost up to FY 2018-19		-256.12	-256.55
2	Revenue gap for FY 2017-18		78.24	-159.32
	Carrying/(Holding) cost for FY 2017-18	10.18%		-8.11
	Carrying/(Holding) cost for FY 2018-19	9.89%		-7.88
	Revenue Gap of FY 2017-18 including carrying cost up to FY 2018-19		78.24	-175.31
	Cumulative Revenue Gap/ (Surplus) to be passed on in FY 2018-19		-177.88	-431.86



Table 57: Revenue Gap for FY 2018-19

Particulars	Legend	Rate	MYT Petition
Revenue gap for FY 2018-19			-737.02
Holding cost for FY 2018-19		9.89%	-36.45
Holding cost for FY 2019-20		9.50%	-70.02
Revenue Gap of FY 2018-19 including carrying cost up to FY 2019-20	a		-843.48

3.23.3 The revenue gap/(surplus) of BEST undertaking for the FY 2017-18 and FY 2018-19 is as shown in the above tables respectively. BEST propose to refund the revenue gap/(surplus) for the FY 2017-18 and FY 2018-19 in the next control period.

3.23.4 BEST humbly requests Hon'ble Commission to approve cumulative revenue surplus at the end of FY 2017-18 and FY 2018-19 as shown above.



4 Provisional Truing up for FY 2019-20

4.1 Background

- 4.1.1 Regulation 5.1 (a) (ii) of MYT Regulations 2019 specifies for provisional truing up to be filed for FY 2019-20 in line with the MYT Regulations, 2015 along with the Multi Year Tariff Petition for FY 2020-21 to FY 2024-25.
- 4.1.2 In line with these Regulations, BEST has carried out provisional truing up of FY 2019-20 in this chapter. BEST would like to submit that since FY 2019-20 is not yet completed, it has considered latest available actual figures and estimated value for the rest of the year. The details are explained in subsequent sections.
- 4.1.3 The estimated numbers are therefore compared with the numbers approved in last MTR Order.

4.2 Energy Sales

- 4.2.1 The summary of the category-wise sales as approved by the Hon'ble Commission in the MTR Order, actual sales from April to September 2019, estimated sales for October 2019 to March 2020 and sales considered for provisional True-Up are shown in the Table below:

Table 58: Category wise energy consumption for FY 2019-20 (MUs)

Consumer Category	FY 2019-20				
	Approved in MTR Order	Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)	Provisional True-Up requirement
HT Category					
HT - I Industry	137.28	92.74	64.03	156.77	19.50
HT - II Commercial	270.00	118.72	127.95	246.67	-23.33
HT - III Group Housing	32.63	15.75	14.90	30.65	-1.98
HT IV- PWW	37.99	18.98	16.75	35.73	-2.27
HT V- Railways, Metro, Monorail	2.29	1.12	1.02	2.14	-0.14
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	26.49	13.81	12.78	26.59	0.10
HT VI-(B) Public services (Others)	167.24	84.80	76.19	160.99	-6.25
HT-VII Temporary Supply	18.31	9.14	17.13	26.27	7.96
Sub-total	692.23	355.06	330.76	685.82	-6.42
LT Category					
LT-I (A) Residential (BPL)	0.58	0.01	0.06	0.07	-0.50
<u>LT - I(B) Residential</u>					
0 – 100 units	813.80	379.35	370.17	749.52	-64.28
101 – 300 units	730.25	379.69	313.33	693.02	-37.23
301 - 500 units	229.70	127.89	93.93	221.82	-7.88



Consumer Category	FY 2019-20				
	Approved in MTR Order	Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)	Provisional True-Up requirement
> 501 units	414.44	208.14	174.19	382.33	-32.11
<u>LT - II (a) Commercial</u>					
0 - 500 units	599.54	287.00	400.74	687.74	88.20
> 500 units	377.27	175.31	32.87	208.18	-169.10
LT - II (b) Commercial >20 & <=50 kW	215.93	110.22	100.97	211.19	-4.75
LT - II (c) Commercial >50	371.38	194.65	175.46	370.11	-1.27
<u>LT - III (A) Industry (upto 20 kW)</u>	44.90	23.75	19.49	43.25	-1.65
LT-III (b) Industrial above 20 kW	88.94	43.55	46.79	90.33	1.40
LT-IV PWV	6.78	2.67	4.15	6.82	0.03
LT - V Advertisement & Hoardings	1.63	0.71	0.81	1.52	-0.11
LT - VI Street Lights	18.65	8.96	10.09	19.05	0.40
LT - VII (a) Temporary Supply Religious	0.21	0.12	0.08	0.20	-0.01
LT - VII (b) Temporary Supply Others	32.00	5.49	9.41	14.90	-17.10
LT - VIII Crematorium and Burial Grounds	2.15	0.77	0.78	1.54	-0.61
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	61.28	29.63	25.59	55.22	-6.06
LT - IX (B) Public Services -others	168.09	85.42	77.75	163.17	-4.92
LT-X (A) Agriculture-Pumpsets	-	-	-	-	-
LT-X (B) Agriculture-Others	-	-	-	-	-
LT XI Vehicle Charging	-	0.12	0.12	0.24	0.24
Sub-total	4,177.52	2,063.44	1,856.78	3,920.22	-257.30
Total	4,869.75	2,418.49	2,187.54	4,606.03	-263.72

4.2.2 Sales of all months in H2 is computed by taking into consideration seasonality of energy sales. Annual sales of FY 2019-20 are estimated as per category-wise CAGR. Actual sales for each category for H1 are deducted from estimated sales to arrive at sales for October 2019 to March 2020. Estimated sales for October 2019 to March 2020 is divided on pro-rata basis of sales in FY 2018-19 for that month vis-à-vis total actual sales for H2-FY 2019.



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- 4.2.3 BEST submits that the actual sales for FY 2011-12, FY 2012-13, FY 2013-14, FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18 and FY 2019-20 (till September) are available.
- 4.2.4 BEST has adopted a Trend Analysis Method for projecting the annual energy sales based on the available data as specified in chapter 4.2.2 of this Petition. As per this method, CAGR has been worked out from the actual sales figures in the past years for respective tariff categories. This has given the sales growth trend for 1 year, 2-year, 3-year, 4-year, 5 year and 7-year CAGR. Based on the available trend, BEST has considered the minimum CAGR for escalating the category wise sales FY 2019-20. However, for any category where CAGR is found to be negative, Nil growth has been considered. In the case where the past sales data for these categories are not available due to change in categories, for projecting the sales growth, BEST has considered the combined CAGR for these categories along with similar Categories.
- 4.2.5 BEST has considered the category wise actual sales data for the FY 2019-20 from April 2019 to September 2019. The difference of Annual sales estimated through Trend analysis method and the actual sales is distributed over the period of October 2019 to March 2020 by considering the ratio of category wise sales to total sales in corresponding month of previous year. The estimated impact on sales due to DSM, Net metering and Roof top has been adjusted accordingly.
- 4.2.6 Energy sales to LT (IX) Vehicle charging category has commenced very recently (i.e. from February 2019) resulting in data insufficiency for adopting the Trend Analysis Method which was used for estimating the sales of remaining categories. Therefore, BEST has considered the average of actual monthly consumption from April 2019 to September 2019 as the estimated monthly sales for the period of October 2019 to March 2020 for the LT (IX) Vehicle charging category.
- 4.2.7 BEST submits that provisional actual sales figures for FY 2019-20 are as shown in the above table any change as compare to the actual sales is subject to final truing up. BEST therefore request the Hon'ble Commission to approve the sales as submitted for FY 2019-20, for provisional Truing-up purpose.



4.3 Distribution Losses and Energy Balance

4.3.1 BEST for the purpose of estimation for FY 2019-20 has considered target distribution loss of 5.60%, as that of approved in last MTR Order.

4.3.2 BEST submits that it has considered the transmission loss of 3.17% for FY 2019-20 which are the estimated transmission losses incurred from April 2019 to September 2019 in InSTS Petition.

4.3.3 Based on target distribution loss of 5.60% and provisional actual transmission loss of 3.17% (as estimated by InSTS in its MYT Tariff Petition), BEST has estimated energy requirement for FY 2019-20 at G-T interface as shown in the below table.

4.3.4 The following table shows the energy balance for FY 2019-20.

Table 59: Energy Balance for FY 2019-20

Sr. No.	Particulars	FY 2019-20	
		MTR Order	April - March (Estimated)
1	Sales (MU)	4,869.75	4,606.03
2	Distribution loss (%)	5.60%	5.60%
3	Energy Requirement at T-D interface (MU)	5,158.63	4,879.27
4	Intra-state Transmission loss (%)	3.30%	3.17%
5	Energy Requirement at G-T interface (MU)	5,334.47	5,039.00

4.3.5 BEST has been taking various initiatives such as continuous vigilance activities, raids, consumer awareness on theft and energy conservation, legal actions against theft incidences and faulty meter replacements. Through these initiatives BEST has been able to consistently maintain its distribution losses in the range of 5% to 6% which are almost near to the technical minimum of the network. The distribution losses for FY 2018-19 is an aberration in a single year and is not a consistent achievement. Reducing losses at higher loss levels is easier than reducing losses at efficient levels. BEST's distribution losses are at most efficient levels and further reducing or even maintaining the same is highly difficult proposition.

4.3.6 The distribution losses have been varying both upwards and downwards in the past many years. The same is evident in the table below.

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Distribution loss (%)	5.90%	6.53%	5.83%	5.58%	5.82%



- 4.3.7 Therefore, it is quite possible that even maintaining the losses at 4.18% in the future period would not be possible unless the losses remains at this level for a consistent period. Further, the distribution losses are impacted by various technical, commercial and other parameters; such as sales mix such as weather variations, vintage of the network and equipment, line loading, etc.
- 4.3.8 Further, the purchase units are recorded on 1st of every month i.e. the purchase are for 365 days. Whereas BEST has a total of 24 billing cycles of 30 days billing period for its around 10.36 lacs consumers, these cycles have different meter reading dates spread throughout the month. At sometimes there is possibility of this period getting reduced or increased by a day or two due to holidays etc. Hence in some years the billing period can vary from 365 days to 366 days. BEST has daily average sale of 12.5 MUs. Hence, any such variation in billing cycle for a day or two can also cause the loss to vary by 0.5%. Therefore, the distribution loss targets for the future periods should have buffer to accommodate such variations.
- 4.3.9 The present distribution losses are one of the lowest in the country and any further reduction will not be possible. In case the Hon'ble Commission doesn't consider BEST's proposal for distribution loss targets as submitted by BEST, it may get penalised for not achieving the loss target even though it is operating at the most efficient level. BEST is committed to continue making efforts for maintaining and keeping the losses lower, the Hon'ble Commission is requested to consider BEST's loss target proposal and keep a room to perform at the efficient levels.
- 4.3.10 BEST therefore request the Hon'ble Commission to approve energy requirement and distribution loss as shown in the above table for FY 2019-20 at G<>T interface. Any variation in actual distribution loss may be adjusted at time of final truing-up of FY 2019-20.

4.4 Power Purchase expense for FY 2019-20

- 4.4.1 Based on the energy balance submitted above, BEST has worked out power purchase expenses for FY 2019-20.
- 4.4.2 BEST has considered the power purchase cost towards TPC-G and Walwhan Solar Energy Maharashtra (Erstwhile Welspun Energy) as approved by the Hon'ble Commission in the MTR Order
- 4.4.3 In FY 2018-19, BEST has procured 68.22 MUs from short term non solar Renewable Energy. Therefore, BEST has estimated the Power procurement from Short term Non-Solar Renewable Energy as 68 MU for FY 2019-20.
- 4.4.4 BEST has estimated the cost towards Solar and Non-solar based on the RPO obligation for FY 2019-20 and the recent cost of REC's in the market.



4.4.5 BEST has assumed that the short fall in power requirement will be procured from the Short-term Bilateral power purchase and computed the power purchase cost at a tariff of Rs.4.00/kWh. (the average tariff of bilateral power for the period April 2019 to September 2019 is Rs. 4.12/kwh so BEST assumed the tariff for FY 2019-20 as Rs. 4.00/kWh). BEST has procured bilateral power from various Traders/ Generators, for FY 2019-20 (H1) after inviting e-tender through Ministry of Power's DEEP e-portal, in line with MoP guidelines on short term competitive bidding. This short-term power is purchased on RTC basis as well as for particular time slots depending upon BEST's requirement to meet the demand. Also, power is purchased through Power Exchange to meet any shortfall.

4.4.6 Following table shows the power purchase cost estimated for FY 2019-20.

Table 60: Estimated Power Purchase for FY 2019-20

Particulars	Estimated		
	Quantum (MU)	Total Cost (Rs. crore)	Rate (Rs. / kWh)
Long term / Medium term Sources			
TPC-G	3,521.45	1,529.59	4.34
Walwhan Solar Energy Maharashtra (Erstwhile Welspun)	31.50	26.96	8.56
Short term Sources			
Bilateral Power Purchase	1,418.05	567.22	4.00
Short Term Non-Solar RE Purchase	68.00	47.40	6.97
REC Procurement-Solar	144.41	39.16	2.71
REC Procurement-Non-Solar	504.65	142.82	2.83
Payment for stand-by energy purchase in FY 2016-17 & FY 2017-18	-	2.78	-
Prior period payments for pool imbalances of FY 2017-18 & FY 2018-19	-	183.77	-
Stand by Charges	-	102.64	-
Transmission charges		224.52	
MSLDC Charges		1.13	
Total	5,039.00	2,867.98	



- 4.4.7 BEST has signed a medium term PPA for procuring 100MW power with M/s Manikaran Power Limited on 24th May 2019 through M/s. Sai Wardha Power Generation Ltd.
- 4.4.8 The Hon'ble Commission in its Order dated 2nd January 2019 in Case No. 249 of 2018, allowed BEST to tie up 100 MW Power with M/s. Manikaran Power Ltd. through M/s. Sai Wardha Power Generation Ltd. Thereafter, BEST initiated the internal process for execution of the PPA with M/s. Manikaran Power Ltd. and the same was put up before the BEST's management. However, the Code of Conduct was imposed due to General Lok Sabha Elections, 2019. BEST had forwarded the proposal of execution of PPA to the Chief Secretary, Mantralaya for seeking approval. Since the code of conduct was in place, approval from the Election Commission was also sought and the same was approved by the end of March 2019. Post the approval, BEST undertook the balance process and signed the PPA on 24th May 2019.
- 4.4.9 While both the parties initiated the process to fulfill the Conditions Precedent as per the terms of the PPA, M/s Sai Wardha Power Generation Ltd. (SWPGL) was admitted to Corporate Insolvency Resolution Process (CIRP) by the Hon'ble NCLT, Hyderabad. All the major decisions related to operation of plants were to be approved by the Committee of Creditors (CoC)/NCLT. The resolution plan was approved by CoC on 25th July 2019 and filed with NCLT for its approval in 6th August 2019, due to which MTOA application could not be submitted. Thereafter, the resolution plan of SWPGL was approved by the Hon'ble NCLT, Hyderabad vide their order dated 17th October 2019.
- 4.4.10 Post the Order, M/s Manikaran Power Ltd. has submitted the Application for MTOA to MSETCL and is awaiting for the approval. Therefore, commencement of power is expected from FY 2020-21 onwards and power from M/s Manikaran is not considered in FY 2019-20.

Table 61: Summary of Prior Period Payments during FY 2019-20 (Rs. Crore)

Prior Period Payment	Amount
Payment of Provisional Variable charge FBSM bills for FY 2017-18.	99.11
Payment of Provisional Fixed charge FBSM bill for FY 2011-12 to 2017-18 as per MERC Order in Case No. 297 of 2018.	22.53
Payment of Provisional Variable charge FBSM bills for FY 2018-19.	62.13
Total (A)	183.77
Payment towards Standby Energy support availed from MSEDCL during FY 2016-17.	0.77
Payment towards Standby Energy support availed from MSEDCL during FY 2017-18.	2.01
Total (B)	2.78
Grand Total (C=A+B)	186.55



4.5 O&M expenses

4.5.1 BEST has computed normative O&M expense for FY 2019-20 as shown in table below.

Table 62: O&M Expenses for FY 2019-20 (Rs Crore)

Sr. No.	Particular	Total
1	Normative O&M expense for FY 2018-19	560.16
2	Provisional normative O&M expense for FY 2019-20	576.03*

* Note- Escalation rate of 2.83% p.a. of FY 2018-19 is assumed for FY 2019-20.

4.5.2 BEST submits that there was revision in pay scale as per MoU entered between employee union and management. This MoU is over and above wage agreement considered in the last MYT Order. Due to this MoU, employee expenses are expected to increase mid-year (from October 2019 onwards). Accordingly, estimated actual O&M expense for FY 2019-20 submitted by BEST is Rs. 584.87 Crore.

4.5.3 It may be note that these expenses do not reflect increase in entire year for all employees. In spite of the same, estimated O&M expense is higher than normative O&M expense computed above. As pay scale revision is implemented for all employees and for the entire year, O&M expense is expected to increase further.

4.5.4 The Hon'ble Commission had approved O&M Expense of Rs. 609.78 Crore in MTR Order without considering impact of wage revision. In spite of the same, approved O&M expense is higher than estimated actual O&M expense which includes impact of wage revision, because It was escalated at escalation factor of 5.056% vis-à-vis 3.48% for FY 2017-18 and 2.83% for FY 2018-19 in this Petition.

4.5.5 Therefore, BEST requests the Hon'ble Commission to consider estimated actual O&M expense in ARR of this Petition for FY 2019-20 instead of normative O&M expense as shown in table below.

Table 63: O&M Expenses for FY 2019-20 (Rs. Crore)

Particulars	Approved	Revised normative*	Revised Normative without efficiency factor deduction	Estimated actual	Submitted
O&M Expenses	609.78	576.03	592.96	584.87	584.87

* Note- Computed at revised escalation rate after deducting efficiency factor of 1%



Employee Expenses

4.5.6 Various employee expenses like bonus are back-loaded in the financial year. Therefore, estimated employee expenses of H2 are higher than that of H1 of FY 2019-20. Further, there was revision in pay scale as per MoU entered between recognized and approved unions and management. This agreement is over and above wage agreement considered in the last MYT Order. Due to this MoU, employee expenses are expected to increase mid-year. Moreover, these expenses do not reflect increase in entire year for all employees. Therefore, in ensuing years increase in employee expenses is expected to be higher than increase in FY 2019-20. Any variation in actual O&M expenses should be considered at time of final Truing-up.

4.5.7 BEST has estimated the Employee Expenses for FY 2019-20 are as shown in the table below:

Table 64: Employee Expenses for FY 2019-20 (Rs Crore)

Particulars	FY 2019-20		
	Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)
Basic Salary	59.84	88.82	148.66
Dearness Allowance (DA)	61.69	65.36	127.05
House Rent Allowance	6.80	18.77	25.57
Conveyance Allowance	0.23	0.74	0.97
Leave Travel Allowance	-	3.50	3.50
Earned Leave Encashment	-	0.49	0.49
Other Allowances	0.99	3.15	4.14
Medical Reimbursement	2.68	8.53	11.21
Overtime Payment	-	6.91	6.91
Bonus/Ex-Gratia Payments	0.01	28.22	28.23
Provision for PF Fund	15.80	17.84	33.64
Gratuity Payment	10.09	29.91	40.00
Functional Allowance as per Agreement	3.99	4.10	8.09
Gross Employee Expenses	162.12	276.34	438.46
Less: Expenses Capitalised	21.45	22.55	44.00
Net Employee Expenses	140.67	253.79	394.46

Administrative & General Expenses

4.5.8 BEST has considered Administrative & General Expenses as shown in the table below:

Table 65: Administrative & General Expenses for FY 2019-20 (Rs Crore)

S.No.	Particulars	FY 2019-20		
		Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)
1	Rent Rates & Taxes	0.19	6.36	6.55
3	Telephone & Postage, etc.	1.73	3.54	5.27
4	Legal charges & Audit fee	0.99	0.03	1.02



S.No.	Particulars	FY 2019-20		
		Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)
5	Professional, Consultancy, Technical fee	0.12	0.20	0.32
7	Electricity charges	-	6.00	6.00
9	Security arrangements	5.05	7.15	12.20
13	Printing & Stationery	0.77	1.27	2.04
14	Advertisements	0.18	2.94	3.12
17	License Fee and other related fee	0.75	0.09	0.84
18	Vehicle Running Expenses Truck / Delivery Van	1.51	5.09	6.60
24	Training	-	0.01	0.01
25	Bank Charges	-	1.10	1.10
26	Miscellaneous Expenses	4.61	7.44	12.05
28	Share of General Administration Expenses	19.60	58.68	78.28
31	Total A &G Expenses	35.50	99.90	135.40

4.5.9 Share of general administration (GA) is significant portion of A&G expense. For FY 2019-20, it is Rs. 78.28 Crore out of Rs. 135.40 Crore. General administration expense depends upon number of employees catering to general administration and their salaries and other expenses. Due to agreement for revision in wages, expense on these employees has increased, which has resulted in increase in share of general administration.

Repair & Maintenance Expenses

4.5.10 BEST has considered Repair & Maintenance Expenses as shown in the table below:

Table 66: Repair and Maintenance Expenses for FY 2019-20 (Rs Crore)

S. No.	Particulars	FY 2019-20		
		Apr-Sep (Actual)	Oct-Mar (Estimated)	April - March (Estimated)
1	Plant & Machinery	2.94	3.04	5.98
2	Buildings	0	0.04	0.04
3	Civil Works	2.87	11.38	14.25
4	Hydraulic Works	0	0	-
5	Lines & Cable Networks	13.95	12.32	26.27
6	Vehicles	0	0	-
7	Furniture & Fixtures	0.06	0.79	0.85
8	Office Equipment	2.05	0.85	2.90
9	Meter & Equipment	2.06	2.66	4.72
	Gross R&M Expenses	23.93	31.08	55.01
	Less: R&M Expenses Capitalised			
	Net R&M Expenses	23.93	31.08	55.01



4.6 Capital Expenditure

4.6.1 The provisional Capital Expenditure for FY 2019-20 estimated by BEST is Rs. 215.22 crore as against approved value of Rs. 147.69 Crores in MTR Order. The provisional capital expenditure and capitalization for FY 2019-20 is shown in the table below.

Table 67: Details of Capital expenditure and capitalization for FY 2019-20 (Rs Crore)

Sr. No.	Particulars	FY 2019-20		
		Approved in MTR Order	Estimated	Provisional True-Up requirement
1	Capital Expenditure	147.69	202.66	54.97
2	Capitalisation	147.69	215.22	67.53
3	IDC			
4	Capitalisation + IDC	147.69	215.22	67.53

4.6.2 Break-up of capital expenditure for FY 2019-20 is as follows:

Table 68: Capital Expenditure for Distribution Wire business (Rs. Crore)

Particulars	FY 2019-20	FY 2019-20
	Capital Expenditure	Capitalization
i) In principle approved by MERC		
-New RSS commissioning	7.58	7.58
-Augmentation/Replacement of existing RSS	4.27	4.27
-SCADA and digitization	5.84	5.84
-IPDS Project (60% Grant from GoI)	81.26	93.82
(ii) Yet to receive in-principle MERC approval		
-Augmentation/Replacement of existing RSS	6.55	6.55
-Extension of Distribution Network	45.05	45.05
(iii) Non DPR SCHEMES except Street Lighting	7.84	7.84
(iv) Street Lighting (100 % MCGM Grant)	2.25	2.25
(v) New Distribution Substation & Augmentation & alteration to existing DSS	25.58	25.58
TOTAL (A)	186.22	198.78
Retail Supply business		
i) In principle approved by MERC		
IPDS DPR-Energy Meter	7.45	7.45
(ii) Yet to receive in-principle MERC approval		
Energy Meter	8.99	8.99
TOTAL (B)	16.44	16.44
Total (A) + (B)	202.66	215.22



4.6.3 The Government of India (GoI) has sanctioned grant worth Rs.104.65 Crore for execution of Capital Schemes under IPDS to the BEST Undertaking. MTR Order was issued by the Hon'ble Commission in September, 2018. Scheme for IPDS project was approved by the Hon'ble Commission on 26 July, 2019. Therefore, capex corresponding to this scheme was not included in approved capitalisation. Therefore, estimated capital expenditure is higher than approved capital expenditure for FY 2019-20.

4.7 Funding of Capital Expenditure

4.7.1 The funding of capitalization is through capital connection fee, loan, equity and grant. BEST has considered the normative debt: equity ratio of 70:30 after deducting the capital connection fee and Government grants. Capital connection fee i.e. consumer's contribution considered for FY 2019-20 is same as that for FY 2018-19. Any variation in actual consumer contribution may be adjusted at time of final Truing-up of FY 2019-20.

4.7.2 BEST humbly submits to the Hon'ble Commission that in FY 2019-20, Rs.215.22 crores shall be capitalized. BEST has considered Interest During Construction (IDC) for the FY 2019-20 is considered as 'Nil'. BEST has received Rs. 37.99 crores as grants for IPDS scheme during FY 2019-20 and BEST has considered the same in this Petition. However, final grant allowed depends upon scope of work completed within prescribed timeline. Therefore, final grant approved will change as per project progress achieved within prescribed deadline. Any variation in actual grant received for IPDS project may be adjusted at time of final truing-up of FY 2019-20. BEST is envisaging that 100% of grants for street lighting shall be received as Rs. 2.25 crore for FY 2019-20.

4.7.3 The funding of capitalisation is as shown in the below table.

Table 69: Details of funding for capitalisation for FY 2019-20

S. no.	Particulars	Amount (Rs. Cr.)
1	Capital Connection Fee	10.69
2	Government Grant	40.24
3	Loan	115.00
4	Internal Source	49.29
	Total of Capitalisation including IDC	215.22



4.7.4 Further, any change in debt and equity due to actual capital connection fee realised may be considered during final truing up of FY 2019-20.

4.8 Depreciation

4.8.1 For arriving at depreciation for provisional Truing up of FY 2019-20, BEST has considered the same approach as submitted in Truing up for FY 2018-19. BEST has considered the closing GFA for FY 2018-19 in section 3.6 as the opening GFA for FY 2019-20. Closing GFA of FY 2018-19 is arrived at by adding capitalisation with IDC and deducting value of assets retired in FY 2019-20 as submitted by BEST in this Petition. Assets to be retired in FY 2019-20 are estimated to be equal to assets retired in FY 2018-19 as per provisional accounts. Following table reproduces calculation of average GFA considered for calculation of depreciation for Truing up of FY 2019-20 given in **Form F5.3** of the MYT Petition Formats.

Table 70: Gross fixed assets for FY 2019-20

S.No.	Particular	Amount (Rs. Cr.)
1	Opening GFA	2,621.77
2	Capitalisation with IDC	215.22
3	Retirement	39.51
4	Closing GFA	2,797.48
5	Average GFA	2,709.62

4.8.2 BEST does not consider depreciation from assets funded by grants. Average rate of depreciation is computed considering such depreciation which excludes assets funded from grant. However, such assets funded by grants are included in GFA.

4.8.3 BEST has considered the average depreciation rate of 4.07% that was derived for FY 2018-19 based on Provisional Accounts of FY 2018-19 as explained in section 3.6 of this Petition. The Depreciation for FY 2019-20 is calculated based on the average depreciation rate of 4.07% over the Average GFA of FY 2019-20. Detailed calculation of depreciation is given in Format F5.3 of the tariff formats as submitted along with this Petition. The following table shows the opening balance of Gross block and the corresponding depreciation that has been charged during the year.

Table 71: Depreciation Expense for FY 2019-20

Particulars	Amount (Rs. Cr.)
Average GFA (Rs. crores)	2,709.62
Average Rate of Depreciation (%)	4.07%
Depreciation (Rs. crores)	110.41



4.8.4 BEST requests the Hon'ble Commission to approve depreciation expense for FY 2019-20 as shown in table above.

4.9 Interest on Long Term Loans

4.9.1 The following table shows the details of provisional loan portfolio and interest expenses incurred during FY 2019-20.

Table 72: Provisional Interest Expense for FY 2019-20 (Rs Crore)

Particulars	Opening Balance	Addition	Repayment	Closing Balance	Interest Expenses
APDRP Loan	13.39	-	2.22	11.17	1.28
REC	395.31	-	39.53	355.78	40.44
Total	408.70	-	41.75	366.95	41.72

4.9.2 Loan repayment is considered equal to depreciation and loan addition is considered as per funding of capitalisation mentioned above. Change in loan addition due to change in amount of assets retired may be considered at time of final truing-up.

4.9.3 BEST has worked out the weighted average interest rate based on opening loan balance of FY 2019-20 and applied on the normative loan as specified in the Regulation 29 of MERC MYT Regulations 2015.

Table 73: Normative Interest on loan for FY 2019-20 (Rs Crore)

Sr. No.	Source of Loan	FY 2019-20		
		MTR Order	Estimated	Provisional True-Up requirement
3	Opening Balance of Net Normative Loan	16.12	-	
4	Less: Reduction of Normative Loan due to retirement or replacement of assets	-	27.66	
5	Less: Reduction of Normative Loan due to consumer contribution & grant	7.04	35.65*	
6	Addition of Normative Loan due to capitalisation during the year	103.38	150.65*	
7	Repayment of Normative loan during the year	112.46	87.35	
8	Closing Balance of Net Normative Loan	0.00	-	
9	Closing Balance of Gross Normative Loan			
10	Average Balance of Net Normative Loan	8.06	-	
11	Weighted average Rate of Interest on actual Loans (%)	11.14%	11.27%	
12	Interest Expenses	0.90	-	
13	Financing Charges			
14	Total Interest & Financing Charges	0.90	-	-0.90

* Note- Normative loan addition is Rs. 115.00 Crore net of Rs. 35.65 Crore due to consumer contribution/ grant



4.9.4 BEST therefore request the Hon'ble Commission to approve the interest expense on normative basis for FY 2019-20.

4.10 Interest on Working Capital Loans

4.10.1 During FY 2019-20, MCGM has provided interest free loan of Rs. 21.64 crores for ex gratia bonus. Therefore, it is not considered in the following table summarizing estimated interest on working capital loan for FY 2019-20.

Table 74: Estimated Interest on Working Capital for FY 2019-20 (Rs. crores)

Name of the Bank	Opening Balance	Rate of Interest	Amount raised	Amount paid during the year	Interest (Rs. Crore)	Balance at the end of the year
Canara Bank Overdraft.	225.00	9.00	0.00	0.00	10.16	225.00

4.10.2 BEST has calculated interest on working capital on normative basis as per Regulation 35 of MERC MYT Regulations, 2015. Rate of IoWC is considered as SBI MCLR as on 1 December, 2019 viz. 8.00% + 150 basis point. The computation of Interest on Working Capital on normative basis is as under:

Table 75: Normative Interest on Working Capital for FY 2019-20 (Rs. crores)

Sr. No.	Particulars	FY 2019-20	
		Approved in MTR Order	Normative submitted by BEST
1	O&M expenses for a month	50.81	48.00
2	Maintenance Spares at 1% of Opening GFA	26.61	26.22
3	One and half month's equivalent of the expected revenue from charges for use of Distribution Wires	425.70	430.94
4	Less: Amount held as Security Deposit from Distribution System Users	387.36	410.58
	Less: One-month equivalent of cost of power purchase, Transmission Charges and MSLDC Charges	205.6	239.00
5	Total Working Capital Requirement	-89.83	-144.42
6	Computation of Working Capital Interest		
7	Interest Rate (%) - SBI Base Rate +150 basis points	9.45%	9.50%
8	Interest on Working Capital	1.09	0.90
9	Actual Working Capital Interest	-	10.16



4.10.3 The normative interest on working capital for retail supply business is nil, due to 90% of consumer security deposit being adjusted from working capital requirement as per allocation matrix in Tariff Regulations. However, the IoWC of distribution wires business is not nil.

4.10.4 BEST therefore requests the Hon'ble Commission to approve the interest on Working Capital on normative basis as mentioned in the above Table 75 in accordance with the MYT Regulations 2015.

4.11 Interest on Consumer Security Deposit

4.11.1 BEST has considered the closing balance of FY 2018-19 as the opening balance of security deposit for FY 2019-20. FY 2019-20 being the current year of operation, no closing balance is available for computation of interest on CSD. Therefore, BEST has considered annual growth rate of 3% on amount of CSD held for computation of interest on CSD.

4.11.2 Rate of Interest considered for computation of interest on CSD is Base Rate as defined in Tariff Regulations + 150 basis points. The Hon'ble Commission is requested to approved Interest on Consumer Deposit for FY 19-20 as shown in table below. Any variation in actual interest on CSD may be considered at time of Truing-up of FY 2019-20.

Table 76: Interest on Consumer Deposit for FY 2019-20 (Rs Crore)

Particulars	FY 2019-20	
	Approved in MTR Order	submitted by BEST
Average Consumer Security Deposit	381.71	404.60
Interest Rate (%) - SBI Base Rate +150 basis points	9.65%	9.50%
Interest on Security Deposit	36.07	38.44

4.12 Contribution to Contingency Reserves

4.12.1 BEST has estimated contribution to contingency reserves to be 0.25% of opening GFA as per Regulation 34.1 of MYT Regulations 2015 which is quoted below.

“Where the Licensee has made a contribution to the Contingency Reserve, a sum not less than 0.25 per cent and not more than 0.5 per cent of the original cost of fixed assets shall be allowed annually towards such contribution in the calculation of Aggregate Revenue Requirement.”

4.12.2 The details of contribution to contingency reserves are as shown in the table below:

Table 77: Contribution to contingency reserve for FY 2019-20 (Rs Crore)

Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
1	Opening Balance of Contingency Reserves	48.02	48.00
2	Opening Gross Fixed Assets	2,660.77	2,621.77



Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
3	Opening Balance of Contingency Reserves as % of Opening GFA	1.80%	1.83%
4	Contribution to Contingency Reserves during the year	6.80	6.55
5	Utilisation of Contingency Reserves during the year	-	-
6	Closing Balance of Contingency Reserves	54.82	54.56
7	Closing Balance of Contingency Reserves as % of Opening GFA	2.06%	2.08%

4.12.3 BEST is committed to invest contribution to contingency reserves in approved securities in timely manner.

4.13 Other Expenses

4.13.1 BEST submits that the 'other expense' estimated for FY 2019-20 are lower than approved as per MTR Order as shown in the table below.

Table 78: Other Expenses for FY 2019-20 (Rs Crore)

Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
1	Prompt payment Discount	20.70	30.00
2	Power factor Incentive	45.00	14.70
3	ECS discount	0.64	
4	Incentives related to load factor/load management	4.77	6.00
	Total	71.11	50.75

4.13.2 BEST requests the Hon'ble Commission to approve the provisional amount as submitted by BEST for 'other expenses' as shown in Table 78. Any variation may be adjusted at time of final Truing-up of FY 2019-20.

4.14 Provision for Bad and doubtful Debts

4.14.1 BEST submits that it has kept provision for Bad and Doubtful Debts at the rate of 1.5% of the amount shown as Trade Receivables. As FY 2019-20 is being provisionally Trued-up, BEST has considered Receivables for the year to be same as that for FY 2018-19.

Table 79: Provision for Bad and doubtful Debts for FY 2019-20 (Rs Crore)

Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
1	Opening Balance of Provision for bad and doubtful debts	-	-
2	Receivables for the year	482.74	449.33
3	Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%
4	Provision for bad & doubtful debts during the year	7.24	6.74
5	Actual bad and doubtful debts written off		
6	Closing Balance of Provision for bad and doubtful debts	-	-



4.14.2 BEST requests the Hon'ble Commission to approve the Provision for Bad and doubtful Debts of as shown in table above for FY 2019-20. Any variation in bad and doubtful debts written off may be adjusted at time of final Truing-up of FY 2019-20.

4.15 Income Tax

4.15.1 As per the Income Tax Act under Section 10(20), the income of local authority is exempted from Income Tax. The said provision is reproduced as below:

10(20) the income of a local authority which is chargeable under the head "Income from house property", "Capital gains" or "Income from other sources" or from a trade or business carried on by it which accrues or arises from the supply of a commodity or services [(not being water or electricity) within its own jurisdictional area or from the supply of water or electricity within or outside its own jurisdictional area].

4.15.2 Explanation – For the purpose of this clause, the expression "local authority" means:

- i. Panchayat as referred to in clause (d) of article 243 of the Constitution; or
- ii. Municipality as referred to in clause (e) of article 243 P of the Constitution, or
- iii. Municipal Committee and District Board, legally entitled to, or entrusted by the
- iv. Government with, the control or management of a Municipal or local fund, or
- v. Cantonment Board as defined in Section 3 of the Cantonments Act, 1924 (2 of 1924)

4.15.3 As BEST is not paying any Income Tax, BEST has not considered any Income Tax for FY 2019-20.

4.16 Return on Equity

4.16.1 BEST submits that it has considered the Return on equity computed as per Regulation 28 of MERC MYT Regulations, 2015. For the purpose of arriving at the Regulatory Equity at the beginning of FY 2019-20, BEST has considered the closing equity at the end of FY 2018-19 as submitted in True-Up of FY 2018-19.

4.16.2 BEST submits the details of Return on Equity as under:

Table 80: Return on Equity for FY 2019-20 (Rs Crore)

Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
1	Regulatory Equity at the beginning of the year	921.53	890.96
2	Capitalisation during the year		215.22
3	Consumer Contribution and Grants used during the year for Capitalisation		50.93
4	Equity portion of capitalisation during the year	41.29	49.29
5	Reduction in Equity Capital on account of retirement / replacement of assets	3.83	11.85
6	Regulatory Equity at the end of the year	958.99	928.39
	Return on Equity Computation		
7	Return on Regulatory Equity at the beginning of the year	144.68	139.88



Sr. No.	Particulars	FY 2019-20	
		MTR Order	Estimated
8	Return on Regulatory Equity addition during the year	2.94	2.94
9	Total Return on Equity	147.62	142.82

4.16.3 BEST requests the Hon'ble Commission to approve the Return on Equity of as shown in table above for FY 2019-20.

4.17 Return as Interest on Internal Funds

4.17.1 BEST submits the Return as Interest on internal funds as under:

Table 81: Return on Interest on Internal Funds for FY 2019-20 (Rs Crore)

S. No	Particulars	FY 2019-20	
		Approved in MYT Order	Provisional
1	Cumulative Grants at the end of the year		87.99
2	Interest on Internal funds (at 6%)		5.28
3	Normative debt component		0
4	On Government assistance at the start of the year	5.28	5.28

4.17.2 BEST requests the Hon'ble Commission to approve the Return as Interest on internal funds as shown in table above for FY 2019-20.

4.18 Non-Tariff Income

4.18.1 Non-Tariff Income of BEST has not exhibited any cohesive pattern in recent years. Therefore, BEST has considered the Non-tariff income of FY 2019-20 by escalating the Non-tariff income of FY 2018-19 with an escalation of 3% resulting income of Rs. 40.09 crore.

4.18.2 Any variation in actual Non-tariff income may be adjusted at time of final truing-up of FY 2019-20.



4.19 Revenue from Existing Tariff

- 4.19.1 The revenue from existing tariff has been worked out based on provisional actual data for FY 2019-20. BEST considered the projected sales based on the number of consumers, demand charges, fixed charges, contract demand, energy charges and wheeling charges as per the Hon'ble Commission approved in the MTR Order. BEST has considered the estimated sales for FY 2019-20. BEST estimated the revenue from FAC by considering the actual data available from April 2019 to September 2019 and assumed that equal amount will be collected for the second half of the FY 2019-20.
- 4.19.2 Expected revenue from existing tariff for FY 2019-20 is calculated as summation of revenue from fixed charge, demand charge, energy charge, wheeling charge, FAC charges and other estimated revenue which includes PF penalty, ToD charges etc.
- 4.19.3 BEST requests the Hon'ble Commission to approve the revenue for provisional truing-up of FY 2019-20 as submitted in Form F13.

4.20 Provisional True-up of Aggregate Revenue Requirement of FY 2019-20

- 4.20.1 BEST submits the Truing up for FY 2019-20 is based on comparison of the revised estimates of expense incurred and the revenue earned during the year vis-à-vis the figures approved by the Hon'ble Commission in MTR Order. The Truing up summary for FY 2019-20 is as under:

Table 82: Provisional True-up of Aggregate Revenue Requirement of FY 2019-20 (Rs Crore)

Particulars	FY 2019-20		
	MTR Order	April - March (Estimated)	Provisional True-Up requirement
Power Purchase Expenses (including Inter-State Transmission Charges)	2,241.63	2,642.33	400.70
Operation & Maintenance Expenses	609.78	584.87	-24.91
Depreciation	125.26	110.41	-14.86
Interest on Loan Capital	0.90	-	-0.90
Interest on Working Capital	1.09	0.90	-0.20
Interest on Consumer Security Deposit	36.07	38.44	2.36
Write-off of Provision for bad and doubtful debts	7.24	6.74	-0.50
Contribution to contingency reserves	6.80	6.55	-0.24
Intra-State Transmission Charges	224.47	224.52	0.05
MSLDC Fees & Charges	1.13	1.13	0.00
Income Tax	-	-	-
Other Expenses	71.11	50.75	-20.36
Total Revenue Expenditure	3,325.48	3,666.64	341.15



Particulars	FY 2019-20		
	MTR Order	April - March (Estimated)	Provisional True-Up requirement
Add: Return on Equity Capital	147.62	142.82	-4.80
Add: Return on Internal fund	5.28	5.28	-
Add: Sharing of Gain & Loss on IoWC	-	-	-
Aggregate Revenue Requirement	3,478.38	3,814.74	370.29
Less: Non-Tariff Income	38.33	40.09	1.76
Less: Income from other business	-	-	-
Less: Receipts on account of Cross-Subsidy Surcharge	-	-	-
Less: Receipts on account of Additional Surcharge, if any	-	-	-
Aggregate Revenue Requirement from Retail Supply	3,440.05	3,774.65	334.59
Recovery of gap/(surplus) of previous years till the third control period			
Recovery of gap/(surplus) of previous years in the fourth control period			
Revenue from sale of electricity at existing/proposed Tariff	3405.62	3447.52	41.90
Revenue gap/(surplus)	34.43	327.13	

4.20.2 BEST requests the Hon'ble Commission to approve the revenue gap as shown in table above for provisional truing up of FY 2019-20.

4.21 Revenue gap/(surplus) of FY 2019-20

4.21.1 BEST proposes that revenue gap/(surplus) of FY 2019-20 is to be recovered in the next control period. The revenue gap/(surplus) of FY 2019-20 is as shown in the table below.

Table 83: Cumulative Revenue gap/(surplus) of FY 2019-20

Particulars	Amount (Rs Crore)
Cumulative Revenue gap/(surplus) for FY 2019-20	327.13

4.21.2 However, this being provisional truing up, no carrying/holding cost is considered. Any variation in carrying cost will be considered at the time of final truing up. BEST requests the Hon'ble Commission to approve the revenue gap/(surplus) as shown in table above for provisional truing up of FY 2019-20.



Table 84: Summary of Cumulative Revenue gap/(surplus) of FY 2019-20 including carrying cost

Particulars	Legend	Rate	Amount (Rs Crore)
Revenue gap for FY 2018-19			-737.02
Holding cost for FY 2018-19		9.89%	-36.45
Holding cost for FY 2019-20		9.50%	-70.02
Revenue Gap of FY 2018-19 including carrying cost up to FY 2019-20	a		-843.48
Revenue gap for FY 2019-20	b		327.13
Cumulative revenue gap till FY 2019-20	c= a + b		-516.35

4.21.3 As explained in Chapter 3.23 of this Petition, the revenue gap/(surplus) including carrying cost at the end of FY 2018-19 is as shown in the above table. The cumulative revenue gap/(surplus) till the end of FY 2019-20 is as shown in the Table 84.

4.21.4 BEST humbly requests Hon'ble Commission to approve cumulative revenue gap/(surplus) including carrying cost at the end of FY 2019-20 as shown above.



5 MYT Petition for FY 2020-21 to FY 2024-25

5.1 Background

5.1.1 Maharashtra Electricity Regulatory Commission has notified the MYT Regulations, 2019 for the Fourth MYT Control period from FY 2020-21 to FY 2024-25 on 1st August 2019. As per provisions of MERC MYT Regulations, 2019, BEST is filling MYT Petition for approval of ARR and determination of Tariff for FY 2020-21 to FY 2024-25 under MYT Regulations, 2019.

5.2 Demand Projection

5.2.1 BEST has considered the Base load demand for the Fourth MYT control period same as the estimated base load for FY 2019-20. The Peak load demand is estimated as per the actual peak demand data of FY 2017-18 to FY 2019-20 and escalated it with the CAGR. The following table shows the Base load and Peak load considered by BEST for the MYT period or FY 2020-21 to FY 2024-25. However, in current scenario it is difficult to estimate load for the next five years due to conversion to LED Lighting load, net metering for solar rooftop installations, upcoming demand for EV charging etc. lower than expected industrial and commercial growth in recent past.

Table 85: Peak Demand Projections for the MYT period or FY 2020-21 to FY 2024-25 (MW)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
		Projected	Projected	Projected	Projected	Projected
1	Base Load	383.04	383.04	383.04	383.04	383.04
2	Peak Load	963.16	968.18	973.23	978.30	983.40

5.3 Demand Projections in MUs

5.3.1 In section 5.6 of this Petition BEST has projected category wise energy sales for the third control period. Considering the same assumption of CAGR growth, the projected sales in MUs is as shown in the table below:

Table 86: Projected Category wise energy sales in (MUs)

Consumer Category	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT Category					
HT - I Industry	156.73	156.66	156.56	156.41	156.18
HT - II Commercial	246.60	246.49	246.33	246.09	245.73
HT - III Group Housing	30.65	30.63	30.61	30.58	30.54
HT IV- PWW	35.71	35.70	35.68	35.64	35.59
HT V- Railways, Metro, Monorail	2.14	2.14	2.14	2.14	2.14
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	26.59	26.57	26.56	26.53	26.49
HT VI-(B) Public services (Others)	160.95	160.88	160.77	160.61	160.38



Consumer Category	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT-VII Temporary Supply	32.38	39.92	49.21	60.65	74.76
HT – VIII Electric Vehicle (EV) Charging Stations	-	-	-	-	-
Sub-total	691.74	698.99	707.85	718.66	731.81
LT Category					
LT-I (A) Residential (BPL)	0.07	0.07	0.07	0.07	0.07
<u>LT - I(B) Residential</u>					
0 – 100 units	759.42	769.35	779.27	789.08	798.67
101 – 300 units	702.17	711.36	720.52	729.59	738.47
301 - 500 units	224.75	227.69	230.63	233.53	236.37
> 501 units	387.39	392.45	397.51	402.51	407.41
LT - II (a) Commercial	903.43	910.88	918.20	925.31	932.05
LT - II (b) Commercial >20 & <=50 kW	211.13	211.04	210.90	210.69	210.39
LT - II (c) Commercial >50	370.00	369.84	369.60	369.24	368.70
LT - III (A) Industry (upto 20 kW)	43.23	43.21	43.19	43.14	43.08
LT-III (b) Industrial above 20 kW	90.31	90.27	90.21	90.12	89.99
LT-IV PWW	6.82	6.81	6.81	6.80	6.79
LT - V Advertisement & Hoardings	1.52	1.52	1.52	1.52	1.51
LT - VI Street Lights	15.94	14.09	14.09	14.09	14.09
LT - VII (a) Temporary Supply Religious	0.20	0.20	0.20	0.20	0.20
LT - VII (b) Temporary Supply Others	14.90	14.89	14.88	14.87	14.85
LT - VIII Crematorium and Burial Grounds	1.54	1.54	1.54	1.54	1.54
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	55.68	56.14	56.59	57.03	57.45
LT - IX (B) Public Services -others	163.12	163.05	162.94	162.78	162.55
LT-X (A) Agriculture- Pumpsets	-	-	-	-	-
LT-X (B) Agriculture- Others	-	-	-	-	-
LT XI Electric Vehicle (EV) Charging Stations	0.30	0.37	0.46	0.58	0.72
Sub-total	3,951.92	3,984.79	4,019.14	4,052.71	4,084.90
Total	4,643.66	4,683.78	4,726.99	4,771.37	4,816.71



5.3.2 BEST has considered the Intra State Transmission losses as 3.17% as per the Petition in Case No. 327 of 2019 before the Hon'ble Commission by MSETCL.

5.3.3 Based on above sales, the demand projection for the period FY 2020-21 to FY 2024-25 is as shown in the table below:

Table 87: Energy Balance for the MYT control period

Particulars	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total Power Purchase at G<>T Periphery	MU's	5,074.80	5,113.23	5,154.96	5,197.87	5,241.72
Intra State Transmission Losses	MU's	160.87	162.09	163.41	164.77	166.16
Intra State Transmission Losses	%	3.17%	3.17%	3.17%	3.17%	3.17%
Energy Input at Distribution Periphery	MU's	4,913.93	4,951.14	4,991.54	5,033.09	5,075.56
Distribution Losses	MU's	270.27	267.36	264.55	261.72	258.85
Distribution Losses	%	5.50%	5.40%	5.30%	5.20%	5.10%
Energy sales to consumers	MU's	4,643.66	4,683.78	4,726.99	4,771.37	4,816.71

5.4 Supply Projections

5.4.1 Supply projections are made based on the installed capacity of M/s Tata Power and the capacity allocated to BEST as per the PPA along with PPA with M/s Manikaran Power Limited, RE Generators of Solar and Biomass. The details of existing PPAs of BEST are as presented in the table below:

Table 88: Available PPAs as on date

Sr. No	Power Project / Agency	Type of Source	BEST's Contracted Capacity (MW)
PPA-1	TPC-G	Hydro	228
	TPC-G Unit No-5	Thermal	256
	TPC-G Unit No-7	Thermal	92
	TPC-G Unit No-8	Thermal	100
PPA-2	Welspun Energy Maharashtra/ Walwhan Solar MH Limited	Solar PV	20
PPA-3*	Spark Green Energy Ahmednagar Ltd.	Biomass	25
	Spark Green Energy Satara Ltd.	Biomass	25
PPA-4	Manikaran Power Limited	Thermal	100
	Total		846



**Note: Power supply from Spark Green Energy is not considered and the details are as explained in the subsequent sections of this Petition.*

5.4.2 The supply projections for future years were made considering the transmission losses and weighted average auxiliary consumption. The Hon'ble Commission in MTR Order has not considered costly power purchase from TPC-G Unit-6 (Oil & RLNG) for FY 2019-20 and accordingly the unit was withdrawn under economy shutdown. Also, in the revised PPA Unit 6 was not mentioned, so the availability from Unit-6 has been projected as nil.

5.4.3 The projected availability in is as shown in table below:

Table 89: Availability Projections in MU's

Power Project / Agency	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
TPC-G	3,584.33	3,654.53	3,567.89	3,608.21	3652.67
Manikaran Power Limited	744.60	744.60	744.60	744.60	744.60
Bilateral	714.36	682.61	498.35	390.56	257.02
Walwhan Solar MH Limited (Welspun Energy Maharashtra)	31.50	31.50	31.50	31.50	31.50
Other Renewable sources	-	-	312.61	423.00	555.93
Total	5,074.80	5,113.23	5,154.96	5,197.87	5,241.72

Demand Supply Gap

5.4.4 As can be seen from the above Demand and Supply position, BEST will have power shortfall of power supply and will have to explore additional supply sources to meet the demand supply gap. Based on the above calculated demand and supply projections, demand supply gap is projected to be met through bilateral purchase sources for the FY 2020-21 and FY 2024-25 and BEST is planning to procure additional power from renewable energy sources through bidding from FY 2022-23 onwards for meeting the demand and also for RPO compliance as detailed in section 5.8 of this Petition.

5.4.5 BEST submits that the PPA with TPC-G will expire in FY 2023-24, but BEST considered the availability of power from TPC-G for FY 2024-25 envisaging the business between BEST and Tata Power will be continued as usual. In case the renewal of PPA with TPC-G fails, BEST will have to explore the availability of additional power from other sources for FY 2024-25.

5.5 Aggregate Revenue Requirement for FY 2020-21 to FY 2024-25

5.5.1 The following sections describe the Aggregate Revenue Requirement for MYT period of FY 2020-21 to FY 2024-25.



Components of Aggregate Revenue Requirement

5.6 Energy Sales

- 5.6.1 BEST's energy demand predominantly comprises of commercial and residential consumers. BEST submits that the actual sales for FY 2011-12, FY 2012-13, FY 2013-14, FY 2014-15, FY 2015-16, FY 2016-17, FY 2017-18 and FY 2019-20 (till September) are available. For projecting category wise sales for remaining period of FY 2019-20 (October 2019 to March 2020), ratio of category wise sales to total sales in corresponding month of previous has been considered.
- 5.6.2 BEST has adopted a Trend Analysis Method for projecting the energy sales. As per this method, CAGR has been worked out from the past actual sales figures in the past years for respective tariff categories. This has given the sales growth trend for 1 year, 2-year, 3-year, 4-year, 5 year and 7-year CAGR. Based on the available trend, BEST has considered the minimum CAGR for projecting the category wise sales for Fourth MYT Control Period of FY 2020-21 to FY 2024-25. However, for any category where CAGR is found to be negative, Nil growth has been Considered. In the case where the past sales data for these categories are not available due to change in categories, for projecting the sales growth, BEST has considered the combined CAGR for these categories along with similar Categories.
- 5.6.3 The category wise CAGR growth rate considered for sales projections is as presented in the table below

Table 90: Category wise energy sales from FY 2011-12 to FY 2018-19 (in MU) and CAGR (in %)

Tariff category before November 2016	Tariff category from November 2016	Actual								CAGR %						
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	YOY	2 Years	3 Years	4 Years	5 Years	7 Years	Escalation Considered
HT Category																
HT - I Industry		149.14	169.40	178.77	185.40	199.51	199.31	177.44	192.61	8.55%	-1.70	-1.17	1.28	3.80	8.90	0.00
	HT - I Industry	149.14	169.40	178.77	185.40	199.51	185.36	138.98	156.86							0.00
	HT IV- PWW from FY2016-17 - (Previously up to FY2015-16 billed under HT-I Industrial)	-	-	-	-	-	13.95	38.46	35.75							0.00
HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	423.99	415.70	432.68	456.33	472.36	468.55	465.51	436.65	-6.20	-3.46	-2.59	-1.46	0.46	0.99	0.00
HT - II Commercial		423.99	381.59	350.52	358.01	362.65	332.12	269.70	246.81							0.00
HT V- Railways, Metro, Monorail from Nov 16- (previously up to FY2015-16 billed under HT-II Commercial)		-	-	-	-	-	0.94	2.28	2.14							0.00
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions) from FY2016-17		-	-	-	-	-	75.20	26.46	26.61							0.00



Tariff category before November 2016	Tariff category from November 2016	Actual								CAGR %						
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	YOY	2 Years	3 Years	4 Years	5 Years	7 Years	Escalation Considered
(Previously up to FY2015-16 billed under HT V)																
HT V (a) Hospital and Educational Institutions		0.00	34.11	82.15	98.32	109.71	0.00	0.00	0.00							0.00
HT VI-(B) Public services (Others) from FY2016-17 (Previously up to Fy2015-16 billed under HT V)		-	-	-	-	-	60.29	167.06	161.08							0.00
HT - III Grp. Housing	HT - III Grp. Housing	31.76	32.27	32.82	33.19	32.02	31.69	32.13	30.67	-4.53	-1.62	-1.42	-2.59	-3.33	-1.16	0.00
HT - IV Temp	HT-VII Temporary	5.02	4.01	7.84	11.37	7.78	8.60	11.98	21.31	77.88	57.42	39.93	23.29	64.90	61.89	23.29
HT-VII Temporary Supply from FY 2016-17 (Previously up to FY2015-16-billed under HT - IV Temporary)		-	-	-	-	-	8.60	11.98	21.31							23.29
HT - IV Temp		5.02	4.01	7.84	11.37	7.78	0.00	0.00	0.00							23.29
Total HT Category		609.91	621.38	652.11	686.29	711.66	708.15	687.07	681.24	-0.12	-1.56	-1.21	0.00	2.58	4.01	0.00
LT Category																
BPL	LT-I (A) Residential (BPL)	0.23	0.39	0.07	0.05	0.21	0.06	0.22	0.07	-65.99	6.99	-30.08	14.48	1.88	-32.04	0.00



Tariff category before November 2016	Tariff category from November 2016	Actual								CAGR %						
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	YOY	2 Years	3 Years	4 Years	5 Years	7 Years	Escalation Considered
LT - I Residential	LT - I(B) Residential	1731.06	1800.26	1795.93	1846.51	1940.99	1855.43	1967.49	2020.60	2.70	4.36	1.35	3.05	6.07	5.29	1.35
0 - 100		668.00	687.85	698.58	706.79	721.19	724.82	734.42	739.96							1.35
101 - 300		561.44	584.31	588.58	609.68	648.11	623.99	667.72	684.18							1.35
301 - 500		171.18	178.53	173.43	186.52	204.38	181.99	206.21	219.00							1.35
> 501		330.44	349.57	335.33	343.51	367.31	324.64	359.14	377.46							1.35
LT - II (a) Commercial	LT - II (a) Commercial and LT - IX(a) Pub Hosp/Sch	896.82	933.50	904.97	899.66	919.40	882.69	935.14	943.51	0.90	3.39	0.87	1.60	2.11	1.71	0.87
0 - 500		522.60	543.37	539.94	542.73	556.15	536.82	550.18	888.73							0.87
> 500		374.23	379.49	353.35	344.47	349.55	316.82	329.75								
LT - IX (a) Hospital and Educational Institutions		0.00	10.64	11.68	12.45	13.70	8.38	0.00	0.00							0.87
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions<=20 Kw)		-	-	-	-	-	20.67	55.20	54.78							0.87
LT - II (b) and (c) Commercial and LT - IX (b)	LT - II (b) and (c) Commercial and LT - IX (b)	819.26	813.11	778.05	771.49	785.61	743.04	750.16	744.89	-0.70	0.12	-1.76	-1.16	-2.15	-3.12	0.00
LT - II (b) Commercial		273.14	260.89	240.95	234.59	236.19	221.87	214.43	211.31							0.00
LT - II (c) Commercial		546.12	516.42	470.70	462.91	462.17	407.91	368.80	370.32							0.00



Tariff category before November 2016	Tariff category from November 2016	Actual								CAGR %						
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	YOY	2 Years	3 Years	4 Years	5 Years	7 Years	Escalation Considered
LT - IX (b) Hospital and Educational Institutions		0.00	35.80	66.40	73.99	87.25	54.70	0.00	0.00							0.00
LT - IX (B) Public Services -others from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions>20 Kw)		-	-	-	-	-	58.56	166.92	163.26							0.00
LT - III Industrial	LT - III (A) Industry (upto 20 kW)	50.52	48.25	45.19	43.62	43.11	41.97	43.09	43.27	0.42	1.54	0.12	-0.26	-2.14	-5.03	0.00
0 - 500		23.37	22.44	21.28	20.79	20.50	20.05	19.51	43.27							0.00
> 500		27.16	25.81	23.91	22.83	22.61	21.92	23.58								
LT - IV (a) and (b) Industrial	LT - IV (a) and (b) Industrial	103.02	103.79	99.96	99.80	100.11	97.67	96.91	97.21	0.31	-0.24	-0.98	-0.87	-1.38	-1.92	0.00
LT - IV (a) Industrial		54.45	54.28	51.95	52.11	51.82	30.45	0.00	0.00							0.00
LT - IV (b) Industrial		48.57	49.51	48.01	47.70	48.29	28.75	0.00	0.00							0.00
LT-IV PWW (Previously up to FY2015-16 billed under LT IV (A) & (B) Industrial)		-	-	-	-	-	2.68	6.87	6.82							0.00
LT-III (b) Industrial		-	-	-	-	-	35.79	90.04	90.39							0.00
LT - V Adv & Hoardings	LT - V Adv & Hoardings	3.21	2.66	1.81	1.60	1.68	1.69	1.63	1.52	-6.54	-5.24	-3.19	-1.67	-8.29	-22.02	0.00
LT - VI St. Lighting	LT - VI St. Lighting	29.90	30.17	30.99	29.99	29.79	29.61	28.22	23.00	18.48 %	11.86	-8.26	-8.46	-13.85	-8.37	0.00
LT - VII (a) and (b) Temp - Religious	LT - VII (a) and (b) Temp - Religious	40.85	38.20	41.03	38.64	42.75	41.19	32.62	15.11	-53.67	-39.43	-29.29	-26.87	-39.32	-28.22	0.00



Tariff category before November 2016	Tariff category from November 2016	Actual								CAGR %						
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	YOY	2 Years	3 Years	4 Years	5 Years	7 Years	Escalation Considered
LT - VII (a) Temp - Religious		0.09	1.60	4.06	2.27	2.36	2.69	0.21	0.20							0.00
LT - VII (b) Temp - Others		40.76	36.60	36.97	36.37	40.38	38.50	32.40	14.91							0.00
LT - VIII Crematorium	LT - VIII Crematorium	1.26	1.24	1.41	1.20	1.30	1.46	1.66	1.54	-7.26	2.91	5.90	8.75	4.48	6.86	0.00
LT XI Vehicle Charging	LT XI Vehicle Charging	-	-	-	-	-	-	-	0.03	0.00	0.00	0.00	0.00	0.00	0.00	25.00
Total LT Category		3676.14	3771.57	3699.41	3732.54	3864.94	3694.81	3857.13	3890.76	0.87	2.62	0.22	1.39	2.55	1.91	0.22
Total HT and LT Category		4286.05	4392.95	4351.52	4418.83	4576.60	4402.96	4544.19	4572.01	0.61	1.90	-0.03	1.14	2.50	2.18	0.00

Table 91: Category wise energy sales estimated from FY 2019-20 to FY 2024-25 and impact of others (in MU)

Tariff category before November 2016	Tariff category from November 2016	Estimated sales based on CAGR						Less Impact of DSM, Net Metering and Rooftop solar					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT Category													
HT - I Industry		192.61	192.61	192.61	192.61	192.61	192.61	0.11	0.17	0.25	0.37	0.56	0.84
	HT - I Industry	156.86	156.86	156.86	156.86	156.86	156.86	0.09	0.14	0.20	0.30	0.46	0.69
	HT IV- PWW from FY2016-17 - (Previously up to FY2015-16 billed under HT-I Industrial)	35.75	35.75	35.75	35.75	35.75	35.75	0.02	0.03	0.05	0.07	0.10	0.16
HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	436.65	436.65	436.65	436.65	436.65	436.65	0.25	0.38	0.57	0.85	1.27	1.91
HT - II Commercial		246.81	246.81	246.81	246.81	246.81	246.81	0.14	0.21	0.32	0.48	0.72	1.08
HT V- Railways, Metro, Monorail from Nov 16-(previously up to FY2015-16 billed under HT-II Commercial)		2.14	2.14	2.14	2.14	2.14	2.14	0.00	0.00	0.00	0.00	0.01	0.01



Tariff category before November 2016	Tariff category from November 2016	Estimated sales based on CAGR						Less Impact of DSM, Net Metering and Rooftop solar					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY -20	FY -21	FY -22	FY -23	FY -24	FY -25
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions) from FY2016-17 (Previously up to FY2015-16 billed under HT V)		26.61	26.61	26.61	26.61	26.61	26.61	0.02	0.02	0.03	0.05	0.08	0.12
HT V (a) Hospital and Educational Institutions		-	-	-	-	-	-	-	-	-	-	-	-
HT VI-(B) Public services (Others) from FY2016-17 (Previously up to Fy2015-16 billed under HT V)		161.08	161.08	161.08	161.08	161.08	161.08	0.09	0.14	0.21	0.31	0.47	0.70
HT - III Grp. Housing	HT - III Grp. Housing	30.67	30.67	30.67	30.67	30.67	30.67	0.02	0.03	0.04	0.06	0.09	0.13
HT - IV Temp	HT-VII Temporary	26.28	32.40	39.94	49.25	60.72	74.86	0.01	0.02	0.03	0.04	0.06	0.09
HT-VII Temporary Supply from FY 2016-17 (Previously up to FY2015-16- billed under HT - IV Temporary)		26.28	32.40	39.94	49.25	60.72	74.86	0.01	0.02	0.03	0.04	0.06	0.09
HT-VIII Electrical vehicle		-	-	-	-	-	-	-	-	-	-	-	-
Total HT Category		686.21	692.33	699.87	709.18	720.65	734.79	0.39	0.59	0.88	1.32	1.99	2.98
LT Category		-	-	-	-	-	-						
BPL	LT-I (A) Residential (BPL)	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00
LT - I Residential	LT - I(B) Residential	2,047.86	2,075.48	2,103.48	2,131.85	2,160.61	2,189.75	1.16	1.75	2.62	3.93	5.89	8.84
0 - 100		749.94	760.06	770.31	780.70	791.24	801.91	0.43	0.64	0.96	1.44	2.16	3.24
101 - 300		693.41	702.76	712.24	721.85	731.59	741.46	0.39	0.59	0.89	1.33	1.99	2.99
301 - 500		221.95	224.94	227.98	231.05	234.17	237.33	0.13	0.19	0.28	0.43	0.64	0.96
> 501		382.55	387.71	392.94	398.24	403.61	409.06	0.22	0.33	0.49	0.73	1.10	1.65



Tariff category before November 2016	Tariff category from November 2016	Estimated sales based on CAGR						Less Impact of DSM, Net Metering and Rooftop solar					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
LT - II (a) Commercial	LT - II (a) Commercial and LT - IX(a) Pub Hosp/Sch	951.68	959.93	968.24	976.63	985.09	993.63	0.54	0.82	1.22	1.83	2.75	4.13
0 - 500		896.43	904.20	912.03	919.93	927.90	935.94	0.51	0.77	1.15	1.73	2.59	3.89
> 500		-	-	-	-	-	-	-	-	-	-	-	-
LT - IX (a) Hospital and Educational Institutions		-	-	-	-	-	-	-	-	-	-	-	-
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions<=20 Kw)		55.25	55.73	56.21	56.70	57.19	57.69	0.03	0.05	0.07	0.11	0.16	0.24
LT - II (b) and (c) Commercial and LT - IX (b)	LT - II (b) and (c) Commercial and LT - IX (b)	744.89	744.89	744.89	744.89	744.89	744.89	0.43	0.64	0.97	1.45	2.17	3.26
LT - II (b) Commercial		211.31	211.31	211.31	211.31	211.31	211.31	0.12	0.18	0.27	0.41	0.62	0.92
LT - II (c) Commercial		370.32	370.32	370.32	370.32	370.32	370.32	0.21	0.32	0.48	0.72	1.08	1.62
LT - IX (b) Hospital and Educational Institutions		-	-	-	-	-	-	-	-	-	-	-	-
LT - IX (B) Public Services -others from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions>20 Kw)		163.26	163.26	163.26	163.26	163.26	163.26	0.09	0.14	0.21	0.32	0.48	0.71
LT - III Industrial	LT - III (A) Industry (upto 20 kW)	43.27	43.27	43.27	43.27	43.27	43.27	0.02	0.04	0.06	0.08	0.13	0.19
0 - 500		43.27	43.27	43.27	43.27	43.27	43.27	0.02	0.04	0.06	0.08	0.13	0.19
> 500		-	-	-	-	-	-	-	-	-	-	-	-



Tariff category before November 2016	Tariff category from November 2016	Estimated sales based on CAGR						Less Impact of DSM, Net Metering and Rooftop solar					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY -20	FY -21	FY -22	FY -23	FY -24	FY -25
LT - IV (a) and (b) Industrial	LT - IV (a) and (b) Industrial	97.21	97.21	97.21	97.21	97.21	97.21	0.06	0.08	0.13	0.19	0.28	0.43
LT - IV (a) Industrial		-	-	-	-	-	-	-	-	-	-	-	-
LT - IV (b) Industrial		-	-	-	-	-	-	-	-	-	-	-	-
LT-IV PWW (Previously up to FY2015-16 billed under LT IV (A) & (B) Industrial)		6.82	6.82	6.82	6.82	6.82	6.82	0.00	0.01	0.01	0.01	0.02	0.03
LT-III (b) Industrial		90.39	90.39	90.39	90.39	90.39	90.39	0.05	0.08	0.12	0.18	0.26	0.40
LT - V Adv & Hoardings	LT - V Adv & Hoardings	1.52	1.52	1.52	1.52	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.01
LT - VI St. Lighting	LT - VI St. Lighting	23.00	23.00	23.00	23.00	23.00	23.00	3.95	7.06	8.91	8.91	8.91	8.91
LT - VII (a) and (b) Temp - Religious	LT - VII (a) and (b) Temp - Religious	15.11	15.11	15.11	15.11	15.11	15.11	0.01	0.01	0.02	0.03	0.04	0.07
LT - VII (a) Temp - Religious		0.20	0.20	0.20	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00
LT - VII (b) Temp - Others		14.91	14.91	14.91	14.91	14.91	14.91	0.01	0.01	0.02	0.03	0.04	0.07
LT - VIII Crematorium	LT - VIII Crematorium	1.54	1.54	1.54	1.54	1.54	1.54	0.00	0.00	0.00	0.00	0.00	0.01
LT XI Vehicle Charging	LT XI Vehicle Charging	0.24	0.30	0.37	0.46	0.58	0.72	0.00	0.00	0.00	0.00	0.00	0.00
Total LT Category		3,926.40	3,962.33	3,998.71	4,035.57	4,072.90	4,110.73	2.23	3.34	5.01	7.52	11.28	16.92
Total HT and LT Category		4,612.60	4,654.65	4,698.59	4,744.74	4,793.55	4,845.51	2.62	3.93	5.90	8.84	13.26	19.90



5.6.4 The category wise estimated sales for the Fourth MYT control period is as shown in the below table

Table 92: Category wise energy sales estimated from FY 2019-20 to FY 2024-25 and impact of others (in MU)

Tariff category before November 2016	Tariff category from November 2016	Total sales after Considering the Impact					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT Category		-	-	-	-	-	-
HT - I Industry		192.50	192.44	192.36	192.24	192.05	191.77
	HT - I Industry	156.77	156.73	156.66	156.56	156.41	156.18
	HT IV- PWW from FY2016-17 - (Previously up to FY2015-16 billed under HT-I Industrial)	35.73	35.71	35.70	35.68	35.64	35.59
HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	HT - II Commercial + HT - V Public Hosp/Sch and Charitable Org	436.40	436.27	436.08	435.80	435.37	434.74
HT - II Commercial		246.67	246.60	246.49	246.33	246.09	245.73
HT V- Railways, Metro, Monorail from Nov 16-(previously up to FY2015-16 billed under HT-II Commercial)		2.14	2.14	2.14	2.14	2.14	2.14
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions) from FY2016-17 (Previously up to FY2015-16 billed under HT V)		26.59	26.59	26.57	26.56	26.53	26.49
HT V (a) Hospital and Educational Institutions		-	-	-	-	-	-
HT VI-(B) Public services (Others) from FY2016-17 (Previously up to FY2015-16 billed under HT V)		160.99	160.95	160.88	160.77	160.61	160.38
HT - III Grp. Housing	HT - III Grp. Housing	30.65	30.65	30.63	30.61	30.58	30.54
HT - IV Temp	HT-VII Temporary	26.27	32.38	39.92	49.21	60.65	74.76
HT-VII Temporary Supply from FY 2016-17 (Previously up to FY2015-16- billed under HT - IV Temporary)		26.27	32.38	39.92	49.21	60.65	74.76
HT-VIII Electrical vehicle		-	-	-	-	-	-
Total HT Category		685.82	691.74	698.99	707.85	718.66	731.81
		-	-	-	-	-	-
LT Category		-	-	-	-	-	-
BPL	LT-I (A) Residential (BPL)	0.07	0.07	0.07	0.07	0.07	0.07
LT - I Residential	LT - I(B) Residential	2,046.69	2,073.73	2,100.86	2,127.92	2,154.72	2,180.92



Tariff category before November 2016	Tariff category from November 2016	Total sales after Considering the Impact					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
0 – 100		749.52	759.42	769.35	779.27	789.08	798.67
101 - 300		693.02	702.17	711.36	720.52	729.59	738.47
301 - 500		221.82	224.75	227.69	230.63	233.53	236.37
> 501		382.33	387.39	392.45	397.51	402.51	407.41
LT - II (a) Commercial	LT - II (a) Commercial and LT - IX(a) Pub Hosp/Sch	951.14	959.11	967.02	974.80	982.34	989.50
0 - 500		895.92	903.43	910.88	918.20	925.31	932.05
> 500		-	-	-	-	-	-
LT - IX (a) Hospital and Educational Institutions		-	-	-	-	-	-
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions<=20 Kw)		55.22	55.68	56.14	56.59	57.03	57.45
LT - II (b) and (c) Commercial and LT - IX (b)	LT - II (b) and (c) Commercial and LT - IX (b)	744.46	744.25	743.93	743.45	742.72	741.64
LT - II (b) Commercial		211.19	211.13	211.04	210.90	210.69	210.39
LT - II (c) Commercial		370.11	370.00	369.84	369.60	369.24	368.70
LT - IX (b) Hospital and Educational Institutions		-	-	-	-	-	-
LT - IX (B) Public Services -others from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions>20 Kw)		163.17	163.12	163.05	162.94	162.78	162.55
LT - III Industrial	LT - III (A) Industry (upto 20 kW)	43.25	43.23	43.21	43.19	43.14	43.08
0 - 500		43.25	43.23	43.21	43.19	43.14	43.08
> 500		-	-	-	-	-	-
LT - IV (a) and (b) Industrial	LT - IV (a) and (b) Industrial	97.15	97.12	97.08	97.02	96.93	96.78
LT - IV (a) Industrial		-	-	-	-	-	-
LT - IV (b) Industrial		-	-	-	-	-	-
LT-IV PWW (Previously up to FY2015-16 billed under LT IV (A) & (B) Industrial)		6.82	6.82	6.81	6.81	6.80	6.79
LT-III (b) Industrial		90.33	90.31	90.27	90.21	90.12	89.99
LT - V Adv & Hoardings	LT - V Adv & Hoardings	1.52	1.52	1.52	1.52	1.52	1.51
LT - VI St. Lighting	LT - VI St. Lighting	19.05	15.94	14.09	14.09	14.09	14.09
LT - VII (a) and (b) Temp - Religious	LT - VII (a) and (b) Temp - Religious	15.10	15.10	15.09	15.08	15.07	15.04
LT - VII (a) Temp - Religious		0.20	0.20	0.20	0.20	0.20	0.20
LT - VII (b) Temp - Others		14.90	14.90	14.89	14.88	14.87	14.85
LT - VIII Crematorium	LT - VIII Crematorium	1.54	1.54	1.54	1.54	1.54	1.54
LT XI Vehicle Charging	LT XI Vehicle Charging	0.24	0.30	0.37	0.46	0.58	0.72



Tariff category before November 2016	Tariff category from November 2016	Total sales after Considering the Impact					
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total LT Category		3,920.22	3,951.92	3,984.79	4,019.14	4,052.71	4,084.90
		-	-	-	-	-	-
Total HT and LT Category		4,606.03	4,643.66	4,683.78	4,726.99	4,771.37	4,816.71

5.7 Energy Balance

5.7.1 BEST has been taking various initiatives such as continuous vigilance activities, raids, consumer awareness on theft and energy conservation, legal actions against theft incidences and faulty meter replacements. Through these initiatives BEST has been able to consistently maintain its distribution losses in the range of 5% to 6% which are almost near to the technical minimum of the network. The distribution losses for FY 2018-19 is an aberration in a single year and is not a consistent achievement. It is appreciable that reducing losses at higher loss levels are far more easier than reducing losses at efficient levels. BEST's distribution losses are at most efficient levels and further reducing or even maintaining the same is highly difficult proposition.

5.7.2 The distribution losses have been varying both upwards and downwards in the past many years. The same is evident in the table below.

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Distribution loss (%)	5.90%	6.53%	5.83%	5.58%	5.82%

5.7.3 Therefore, it is quite possible that even maintaining the losses at 4.18% in the future period would not be possible unless the losses remains at this level for a consistent period. Further, the distribution losses are impacted by various technical, commercial and other parameters; such as sales mix such as weather variations, vintage of the network and equipment, line loading, etc.

5.7.4 Further, the purchase units are recorded on 1st of every month i.e. the purchase are for 365 days. Whereas BEST has a total of 24 billing cycles of 30 days billing period for its around 10.36 lacs consumers, these cycles have different meter reading dates spread throughout the month. At sometimes there is possibility of this period getting reduced or increased by a day or two due to holidays etc. Hence in some years the billing period can vary from 365 days to 366 days. BEST has daily average sale of 12.5 MUs. Hence, any such variation in billing cycle for a day or two can also cause the loss to vary by 0.5%. Therefore, the distribution loss targets for the future periods should have buffer to accommodate such variations.

5.7.5 The present distribution losses are one of the lowest in the country and any further reduction will not be possible. In case the Hon'ble Commission doesn't consider BEST's proposal for distribution loss targets for MYT period, it may get penalised for not achieving the loss target as would be fixed by the Hon'ble Commission even though it is operating at the most efficient level. Even though BEST is committed to continue making efforts for maintaining and keeping the losses lower, the Hon'ble Commission is requested to consider BEST's loss target proposal and keep a room to perform at the efficient levels.

5.7.6 The Hon'ble Commission has approved distribution losses as 5.60 % for the FY 2019-20. BEST has projected reduction in distribution loss for the Fourth MYT control period by 0.1% each year vis-à-vis 5.60% approved by the Hon'ble Commission for FY 2019-20.



5.7.7 BEST submits that the Intra-State Transmission (InSTS) loss of 3.17% has been considered while estimating the energy balance for the Fourth MYT Control Period as submitted by InSTS Tariff Petition for the fourth control period.

5.7.8 Based on the Target distribution loss considered by BEST and Transmission loss of 3.17%, BEST has estimated energy requirement for MYT period of FY 2020-21 to FY 2024-25. The following table shows the energy balance for MYT period of FY 2020-21 to FY 2024-25.

Table 93: Energy Balance for the MYT Control Period

Particulars	Unit	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total Power Purchase at G<>T Periphery	MU's	5,074.80	5,113.23	5,154.96	5,197.87	5,241.72
Intra State Transmission Losses	MU's	160.87	162.09	163.41	164.77	166.16
Intra State Transmission Losses	%	3.17%	3.17%	3.17%	3.17%	3.17%
Energy Input at Distribution Periphery	MU's	4,913.93	4,951.14	4,991.54	5,033.09	5,075.56
Distribution Losses	MU's	270.27	267.36	264.55	261.72	258.85
Distribution Losses	%	5.50%	5.40%	5.30%	5.20%	5.10%
Energy sales to consumers	MU's	4,643.66	4,683.78	4,726.99	4,771.37	4,816.71

5.8 Power Purchase Expenses

5.8.1 Based on the energy balance and estimated distribution & transmission loss, BEST has estimated the energy requirement for MYT period of FY 2020-21 to FY 2024-25. BEST has proposed to meet its power purchase requirement from various sources. Accordingly, the Power Purchase Expenses are estimated as follows:

- Power Purchase from TPC-G;
- Power Purchase from Manikaran Power Limited;
- Purchase from Renewable energy sources;
- Power Purchase from external sources (Energy Exchange);
- Transmission Charges, MSLDC charges and Standby charges.
- Others



Power Purchase from TPC-G

- 5.8.2 BEST undertaking has signed a Power Purchase Agreement with TPC-G for extension to its earlier PPAs dated 21st December 2006, 5th February 2010 and 26th March 2018. BEST has signed this PPA in accordance with direction of the Hon'ble Commission in Case No. 249 of 2018.
- 5.8.3 BEST has considered net generation of each of the TPC-G units based on the estimated net generation planned of TPC-G received by BEST. The allocation in the net generation to BEST has been considered based on the percentage allocation of capacity to the BEST from each of the unit as per the Power Purchase Agreement. In accordance with the Power Purchase Agreement dated 28th March 2019, BEST has not considered any purchase of power from Unit 6.
- 5.8.4 For the purpose of estimating the power purchase cost for the Fourth MYT control period, BEST has considered the variable charges of TPC-G same as the actual average charges of Variable paid by BEST for the H1 of FY 2019-20. BEST has considered the fixed cost Fourth MYT control period as Rs. 492.62 crores i.e. the fixed cost approved by the Hon'ble Commission for FY 2019-20 in the MTR Order. BEST did not consider any escalation of Variable charge or Fixed charge for this period.
- 5.8.5 Based on above principles, the unit wise power purchase cost from TPC-G has been estimated, as shown in the tables below:

Table 94: Generation from TPC-G for FY 2020-21 to FY 2024-25

Power Project / Agency	Type of Source	Estimated Net Generation from TPC-G (MUs)					Net Generation Allocated to BEST (MUs)				
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Unit-5	Thermal	2968	3181	2964	3125	3158	1519	1628	1517	1599	1616
Unit-7	Thermal	1241	1241	1241	1244	1165	635	635	635	637	596
Unit-8	Thermal	1719	1622	1683	1574	1744	688	649	673	630	698
Bhira	Hydro	885	885	885	885	885	453	453	453	453	453
Bhivpuri	Hydro	288	288	288	288	288	147	147	147	147	147
Khopoli	Hydro	279	279	279	279	279	143	143	143	143	143
TOTAL		7380	7496	7340	7395	7519	3584	3655	3568	3608	3653

- 5.8.6 Following table summarizes power purchase cost from TPC-G for the next control period.

Table 95: Estimated Variable and Fixed Cost of TPC-G for FY 2020-21 to FY 2024-25 (MUs)

Financial year	Net Generation to BEST (MU)	Variable Charge (Rs./kWh)	Variable Cost (Rs. Crores)	Total Fixed Cost (Rs. Crores)	Total Cost (Variable + Fixed) (Rs. Crores)	Avg. Rate (Rs./kWh)
FY 2020-21	3584.33	3.01	1078.88	492.62	1571.50	4.38
FY 2021-22	3654.53	3.01	1100.01	492.62	1592.63	4.36
FY 2022-23	3567.89	3.01	1073.93	492.62	1566.55	4.39
FY 2023-24	3608.21	3.01	1086.07	492.62	1578.69	4.38
FY 2024-25	3652.67	3.01	1099.45	492.62	1592.07	4.36



Power Purchase from Manikaran Power Limited

5.8.7 BEST undertaking has signed a 100MW medium-term Agreement for Procurement of Power (APP) with M/s Manikaran Power Limited dated 24th May 2019 through M/s Sai Waradha Power Generation Ltd for 5 years from 1st April 2019 to 31st March 2024. BEST undertaking did not receive any power from the supplier/generator till the time of filing this Petition due to the reasons explained in the previous provisional truing up sections of this Petition. Therefore, BEST is envisaging the commencement of power supply from FY 2020-21 onwards.

5.8.8 The Fixed and variable charge rate are subjected to escalation as per the clause 11.3 and 12.3 of the APP. The relevant extract of the APP is reproduced below for ready reference

“11.3 Fixed Charge

For determining the Fixed Charge due and payable to the Supplier, the Base Fixed Charge shall be revised annually to reflect 20% (twenty per cent) of the variation in WPI occurring between January 31 immediately preceding the Bid Date and January 31 immediately preceding the Accounting Year for which such revision is undertaken. For the avoidance of doubt and by way of illustration, if (a) the Bid Date occurs in March 2015; (b) the appointed date occurs in May 2019; and (c) WPI increases by 20% (twenty per cent) between January 31, 2015 and January 31, 2019, the Fixed Charge for the Accounting Year commencing from April 1, 2019 shall be 104% (one hundred and four per cent) of the Base Fixed Charge.

12.3.2 The Parties agree that the generating cost component of Base Variable Charge specified in Clause 12.2 shall be increased for every Accounting Year following the Base Year so as to reflect 50% (fifty per cent) of the variation in WPI occurring between January 31 immediately preceding the Base Year and January 31 immediately preceding the Accounting Year for which such revision is undertaken. For the avoidance of doubt and by way of illustration, if (a) the Base Variable Charge specified hereinabove is assumed as 80 paise (eighty paise) and (b) WPI between the two aforesaid dates, the latter being 1 (one) year after the first such date, increases by 5% (five per cent), the Variable Charge in the Accounting Year following the first Accounting Year shall be 82 paise (eighty two paise).]

5.8.9 For the purpose of estimating the cost of power procurement from Manikaran Power Limited, BEST in accordance with the terms of the PPA, escalated the Variable charges and Fixed charges with an escalation factor of 2.76% computed based on WPI of Jan 2018 and Jan 2019



Purchase from Renewable energy sources

5.8.10 For MYT period of FY 2020-21 to FY 2024-25, BEST has considered the quantum of energy purchase requirement from Renewable Energy for the purpose of fulfilling the Renewable Purchase Obligation based on the MERC (Renewable Purchase Obligation, its compliance and implementation of REC framework) Regulations, 2019. As per MERC RPO Regulations 2019, the Hon'ble Commission has increased the Solar RPO targets from 4.5% to 13.5% from FY 2020-21 to FY 2024-25. as shown in the table below:

Table 96: RPO % for FY 2020-21 to FY 2024-25 (as per RE RPO Regulations)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Solar RPO (%)	4.50%	6.00%	8.00%	10.50%	13.50%
Non-Solar RPO (%)	11.50%	11.50%	11.50%	11.50%	11.50%

5.8.11 BEST has entered into long term PPA to procure 31.5 MUs of Solar power annually, from Walwhan Solar Energy Maharashtra (Erstwhile Welspun) at tariff of Rs. 8.56 kWh.

5.8.12 BEST has estimated the power purchase cost from renewable energy sources by considering that BEST will meet the shortfall in Non-Solar RPO targets through purchasing REC certificates for the period of FY 2020-21 to FY 2024-25. Further, for the purpose of fulfillment of Solar RPO compliance, BEST is planning to procure additional Solar power from FY 2022-23 onwards through long term sources through bidding process. The reasons for considering the same is detailed in the subsequent sections.

5.8.13 It must be noted that as per regulation 10.2 of the MERC RPO Regulation 2019, the RPO compliance excludes the power procurement from Hydro power plants. The relevant extract of the Regulation is reproduced below for ready reference

“10.2 The estimated quantum of RE purchase shall be in accordance with Regulation 7.1 corresponding to the approved power purchase quantity excluding Hydro power for each year of the Operating Period.”

5.8.14 Therefore, BEST has estimated the RPO requirement excluding estimated power procurement from TPC-G Hydro.

5.8.15 Based on the total power purchase requirement and RPO targets as above, the estimated renewable purchase obligation of BEST for MYT period of FY 2020-21 to FY 2024-25 is shown in the table below.

Table 97: RPO for FY 2020-21 to FY 2024-25

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Energy Requirement at G<>T Periphery	5,074.80	5,113.23	5,154.96	5,197.87	5,241.72
TPC-G Hydro	742.99	742.99	742.99	742.99	742.99
Energy Requirement at G<>T Periphery exclu. Hydro	4,331.81	4,370.24	4,411.97	4,454.88	4,498.73



Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Solar RPO (%) as per RPO Regulations	4.50%	6%	8%	10.50%	13.50%
Non-Solar RPO (%) as per RPO Regulations	11.50%	11.50%	11.50%	11.50%	11.50%
Total RPO (%) as per RPO Regulations	16.00%	17.50%	19.50%	22.00%	25.00%
Solar RPO					
Solar RPO (MU) as per RPO Regulations	194.93	262.21	352.96	467.76	607.33
Welspun solar purchase	31.50	31.50	31.50	31.50	31.50
Solar Rooftop net metering RPO	3.93	5.90	8.84	13.26	19.90
Solar RPO (MU) to be purchased	159.50	224.82	312.61	423.00	555.93
Non-Solar RPO					
Non-Solar RPO (MU) as per RPO Regulations	498.16	502.58	507.38	512.31	517.35
Non-solar energy purchased	-	-	-	-	-
Non-Solar RPO (MU) as per RPO Regulations	498.16	502.58	507.38	512.31	517.35



- 5.8.16 Considering the high solar RPO targets of 4.5% to 13.5%, BEST submits that the existing PPAs will not be sufficient to meet the solar RPO requirements.
- 5.8.17 Therefore, BEST is planning to initiate bidding process as per the MOP guidelines for procurement of solar power on long term basis. As per the MOP guidelines, the time period required to complete the entire bidding process and to issue Letter of Award is 75 days from the start of e-tender stage and time period required to complete the new project is around 21-22 months approx. from the start of tendering process. Further the issues such as land acquisition, Right of Way (ROW) permission etc. could further delay the commissioning of the projects. It indicates that approx. two years will be required to commission the project from the start of e-tendering process.
- 5.8.18 BEST has existing PPA for purchase of biomass power from Spark Green Energy Ahmednagar Ltd. and Spark Green Energy Satara Ltd. BEST has issued termination notice to the Spark Green as the generator failed and neglected to supply RE power to BEST as per the EPA. Therefore, BEST is envisaging that there will be no procurement of power from Spark Green Energy Ahmednagar Ltd and Spark Green Energy Satara Ltd. during the Fourth MYT control period.
- 5.8.19 Considering the above constraints, BEST has estimated the power purchase cost from RE by assuming to fulfill the shortfall in the Solar RPO targets through procurement of RECs for the initial two years i.e., for FY 2020-21 and FY 2021-22. Thereafter, BEST is planning to procure solar power from long-term sources through bidding.
- 5.8.20 BEST is planning to meet its shortfall in Non-Solar RPO obligation by the purchase of Non-Solar RECs for the entire MYT control period.

Power Purchase from short term sources;

- 5.8.21 BEST has worked out its requirement from short term sources after considering the energy availability from Medium term/ long term sources and RPO to be met from the renewable sources, the balance requirement is estimated to be met through external bilateral/ Energy Exchange sources. However, BEST has estimated the purchase from external/short term sources at a rate of Rs. 4.00/kWh considering the actual average cost of power from April 2019 to September 2019 of Rs. 4.12/kWh.
- 5.8.22 BEST has placed LOI dated 14 January 2016 on M/s. Tata Power Trading Limited 5.4.4.2(TPTCL) for purchase of short-term bilateral power for March 2016, April 2016, July 2016 & December 2016. M/s. Tata Power Trading Limited (TPTCL) & M/s. Jindal India Thermal Power Ltd. (JIPL) have filed a Petition No. 159/MP/2017 before CERC under section 79(1) (b) and 79(1) (f) of the Electricity Act, 2003 for claiming compensation of Rs. 1.82 Crore on account of event pertaining to change in law arising out of increase in clean environment cess on coal. CERC issued Order of 159/MP/2017 which is challenged before the Hon'ble APTEL via Appeal No. 3 of 2019 and is pending before the Hon'ble APTEL at the time of submission of this Petition. Based on the Judgement in the above matter by the Hon'ble APTEL, the impact shall be considered.



Transmission Charges, MSLDC charges and Standby charges

5.8.23 BEST has considered the intra-state transmission charges as per the Public notice issued by MSETCL in Case No. 327 of 2019 and MSLDC charges based on the Public notice issued by MSLDC in Case No. 291 of 2019.

5.8.24 The intra-state transmission charges and MSLDC charges considered by BEST for the 4th MYT control period are summarized in the below table.

Table 98: Transmission and MSLDC charges for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No.	Particulars	Ensuing Years				
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
		Projected	Projected	Projected	Projected	Projected
1	Intra-State Transmission Charges	458.19	274.09	280.85	297.73	314.36
2	MSLDC Charges	1.34	1.32	1.45	1.64	1.74

5.8.25 The summary of power purchase expense for the Fourth MYT control period is as shown in the table below.

Table 99: Summary of power purchase expense for FY 2020-21 to FY 2024-25

Source of Power (Station wise)	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)
Long term / Medium term Sources										
TPC-G (Total)	3,584.33	1,571.50	3,654.53	1,592.63	3,567.89	1,566.55	3,608.21	1,578.69	3,652.67	1,592.07
Walwhan Solar Energy Maharashtra (Erstwhile Welspun)	31.50	26.96	31.50	26.96	31.50	26.96	31.50	26.96	31.50	26.96
Manikaran Power Limited	744.60	325.64	744.60	328.83	744.60	332.03	744.60	335.24	744.60	338.45
Long term Solar (Through bidding for RPO compliance)					312.61	102.85	423.00	139.17	555.93	182.90
Short term Sources										
Bilateral Power Purchase	714.36	285.75	682.61	273.04	498.35	199.34	390.56	156.23	257.02	102.81
REC-Solar	159.50	43.25	224.82	60.96						
REC-Non-solar	498.16	168.56	502.58	170.05	507.38	171.68	512.31	173.35	517.35	175.05
Prior period payments for pool imbalances of FY 2018-19		63.22								



Source of Power (Station wise)	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)
Stand by Charges		102.64		102.64		102.64		102.64		102.64
Total	5,074.80	2,587.51	5,113.23	2,555.12	5,154.96	2,502.05	5,197.87	2,512.27	5,241.72	2,520.89
Intra-State Transmission Charges		458.19		274.09		280.85		297.73		314.36
MSLDC Charges		1.34		1.32		1.45		1.64		1.74
Total	5,074.80	3,047.04	5,113.23	2,830.53	5,154.96	2,784.35	5,197.87	2,811.63	5,241.72	2,836.98

5.8.26 The Hon'ble Commission has notified the Maharashtra Electricity Regulatory Commission (Deviation Settlement Mechanism & related matters) Regulations, 2019 which is effective from 1st April 2020. The implementation of this Regulations may have an impact on the power requirement of the tied-up generation capacities. However, it is not possible to predict these changes in requirement at this stage. In view of this, we have continued with the current methodology of projecting availability of power for the Fourth MYT control period.

5.9 Operation and Maintenance Expenses

5.9.1 For Projecting O&M of ensuing years, the escalation of 3.83% per annum on account of inflation factor corresponding to increase in WPI Index declared by Office of Economic Affairs and CPI index declared by the Ministry of Labor & Employment, Government of India in the ratio of 70% and 30%, reduced by efficiency factor of 1% resulting in a net escalation factor of 2.83% as shown in the calculation below:

Table 100: Normative O&M Escalation rate (%)

Annual CPI	Apr	Ma	Jun	Jul	Au	Sep	Oct	No	De	Jan	Feb	Ma	Avg.	CPI escalati	WPI escalati
FY2013-14	226	228	231	235	237	238	241	243	239	237	238	239	236.00		
FY2014-15	242	244	246	252	253	253	253	253	253	254	253	254	250.83		
FY2015-16	256	258	261	263	264	266	269	270	269	269	267	268	265.00	5.65%	-3.65%
FY2016-17	271	275	277	280	278	277	278	277	275	274	274	275	275.92	4.12%	1.73%
FY2017-18	277	278	280	285	285	285	287	288	286	288	287	287	284.42	3.08%	2.92%
FY2018-19	288	289	291	301	301	301	302	302	301	307	307	309	299.92	5.45%	4.28%
Source for CPI:	http://labourbureaunew.gov.in/LBO_Press_Release.htm												Avg.	4.92%	1.31%
Source for WPI:	https://eaindustry.nic.in/indx_download_1112/monthly_index.xls												Weight	70%	30%
	Escalation Rate													3.83%	
	Escalation after adjusting 1% efficiency factor													2.83%	

5.9.2 The normative O&M expenses worked out by BEST are as shown in table below.

Table 101: Summary of O&M Expenses for FY 2020-21 to FY 2024-25 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M Expenses	565.27	581.29	597.76	614.70	632.12



5.9.3 However, as explained in the earlier sections of provisional truing up of FY 2019-20, BEST has already signed an MoU for wage revision in pay scale. Projected actual O&M expenses for the period FY 2020-21 to FY 2024-25 are as shown in the table below.

Table 102: Projected actual O&M expense for FY 2020-21 to FY 2024-25 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expenses	418.09	457.07	483.15	494.56	505.33
A&G Expenses	144.15	158.56	168.75	177.19	186.05
R&M Expenses	58.56	64.42	70.86	77.95	85.74
Total O&M Expenses	620.80	680.05	722.76	749.70	777.12

5.9.4 It can be observed from the above tables that there is significant difference between the projected O&M expenses and the normative O&M expenses leading to a considerable financial impact on BEST Undertaking. Impact of MoU for wage revision is not captured in YoY O&M escalation. Considering the same, the Hon'ble Commission had approved impact of wage revision separately at time of last MYT Order. It is requested to maintain approach adopted by the Hon'ble Commission at time of MYT Order for the third control period in case of this MYT Petition.

5.9.5 Other state Electricity Regulatory Commissions like Gujarat SERC have treated impact of 7th Pay Commission as uncontrollable O&M expense and passed through entirely in ARR. Impact of wage revision due to MoU is similar in nature and may be passed through in ARR.

5.9.6 Therefore, BEST is humbly requesting the Hon'ble Commission to relax the norms of regulations 75 and 84 and approve the O&M expenses as submitted by BEST in table below.

Table 103: O&M expenses submitted in ARR of FY 2020-21 to FY 2024-25 (Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Total O&M Expenses	620.80	680.05	722.76	749.70	777.12

5.10 Capital Expenditure and Capitalization

5.10.1 BEST's endeavors to develop adequate system capacity that meets the entire requirement and builds adequate reserves in the system in all its CAPEX projects so that the network is able to meet all the demand during any unforeseen outages. BEST strives to sustain efforts to maintain and improve its distribution system / facilities for providing the best service to its consumers by maintaining adequate redundancy in the system, ensuring safety of operations and maintaining low distribution losses in the network.

5.10.2 BEST has estimated capital expenditure and capitalization for MYT Control Period of FY 2020-21 to FY 2024-25 as per DPRs approved and DPRs to be submitted for approval of Hon'ble Commission. The estimated capital expenditure and capitalization for MYT Control Period of FY 2020-21 to FY 2024-25 is as shown in the table below:



Table 104: Capital Expenditure and Capitalization for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Capital Expenditure	160.40	144.71	103.05	104.08	104.45
2	Capitalisation	160.40	144.71	103.05	104.08	104.45
3	IDC	-	-	-	-	-
4	Capitalisation + IDC	160.40	144.71	103.05	104.08	104.45

5.10.3 BEST humbly request the Hon'ble Commission to approve the projected Capital Expenditure and Capitalization as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.11 Funding of Capitalization

5.11.1 The funding of capitalization is through capital connection fee, loan, equity and grant. The following table shows the estimated funding of capitalization for Fourth MYT control period. BEST humbly informs the Hon'ble Commission that it has considered the normative debt: equity ratio of 70:30 after deducting the capital connection fee and Government grants.

Table 105: Funding of Capitalization for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Capital Connection Fee	10.69	10.69	10.69	10.69	10.69
2	Grants	2.55	2.37	2.15	2.25	2.35
3	Loan	103.01	92.16	63.15	63.80	63.99
4	Internal Source	44.15	39.50	27.06	27.34	27.42
	Total of Capitalisation including IDC	160.4	144.71	103.05	104.08	104.45

5.12 Depreciation

5.12.1 The BEST has computed the depreciation by applying the average depreciation rates of FY 2018-19, on Average GFA of each year of MYT Control Period of FY 2020-21 to FY 2024-25. The details are presented in the table below:

Table 106: Depreciation for FY 2020-21 to FY 2024-25

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Average GFA (Rs. Crore)	2,857.92	2,970.97	3,055.34	3,119.39	3,184.15
2	Avg. Depreciation rate (%)	4.07%	4.07%	4.07%	4.07%	4.07%
3	Depreciation (Rs. Crore)	116.45	121.06	124.50	127.11	129.75



5.12.2 BEST humbly request the Hon'ble Commission to approve the projected depreciation as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.13 Interest on Long term loan

5.13.1 BEST has considered long term loans to be taken up in line with the capitalization which is expected to incur during the respective years. BEST has computed interest on loan as specified in Regulation 30 of MYT Regulations, 2019.

5.13.2 BEST has considered opening balance of loans same as that equivalent to closing balance of previous financial year. The loan addition during the year is considered as 70% of the capitalization that is expected to incur during the respective years for the fourth control period. The loan repayment is considered equal to the depreciation charged/ claimed during the year. Based on the above BEST has computed closing balance of loans and average balance of loans for all the Fourth MYT Control period.

5.13.3 BEST has computed the weighted average interest rate for the period FY 2020-21 to FY 2024-25 based on opening loan balance of existing long-term loans. The following table shows the interest on loans that has been computed for the Fourth control period.

Table 107: Normative Interest on loan for FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Opening Balance of Net Normative Loan	-	-	-	-	-
Less: Reduction of Normative Loan due to retirement or replacement of assets	27.66	27.66	27.66	27.66	27.66
Less: Reduction of Normative Loan due to consumer contribution & grant	9.27	9.14	8.99	9.06	9.13
Addition of Normative Loan due to capitalisation during the year	112.28	101.30	72.14	72.86	73.12
Repayment of Normative loan during the year	75.36	64.50	35.49	36.14	36.33
Closing Balance of Net Normative Loan	-	-	-	-	-
Average Balance of Net Normative Loan	-	-	-	-	-
Weighted average Rate of Interest on actual Loans (%)	11.27%	11.27%	11.28%	11.28%	11.29%
Interest Expenses	-	-	-	-	-
Total Interest & Financing Charges	-	-	-	-	-

5.13.4 BEST therefore request the Hon'ble Commission to approve the interest expense as shown in the above table as calculated on normative basis as specified in the MYT Regulations, 2019. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.14 Interest on Working Capital Loans



5.14.1 BEST has calculated interest on working capital based on the norms specified in Regulations 32 of MYT Regulations, 2019.

5.14.2 Working capital has been computed based on

- a) One-month normative O&M expenses which is computed by BEST
- b) Maintenance spares has been taken as 1% of GFA.
- c) One and half month of expected revenue is considered as the Aggregate revenue requirement which is projected for the respective years for BEST
- d) Reduction of Security deposit which is expected to be retained by BEST
- e) Reduction of one month of power purchase cost

5.14.3 The interest rate on the working capital amount is considered as the base rate plus 150 basis points as specified in the Regulations.

5.14.4 The following table shows the interest on Working Capital that has been projected for the entire control period.

Table 108: Normative Interest on working capital for FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
O&M expenses for a month	48.73	53.46	52.57	58.70	50.82
Maintenance Spares at 1% of Opening GFA	27.90	29.11	30.16	30.80	31.44
One and half months equivalent of the expected revenue from charges for use of Distribution Wires	425.18	451.07	472.61	496.09	517.84
Less: Amount held as Security Deposit from Distribution System Users	422.90	435.58	448.65	462.11	475.97
Total Working Capital Requirement	-175.01	-137.82	-125.34	-110.82	-85.95
Computation of Working Capital Interest					
Interest Rate (%) - SBI Base Rate +150 basis points	9.50%	9.50%	9.50%	9.50%	9.50%
Interest on Working Capital	5.32	5.83	5.80	6.46	6.16



5.14.5 The normative interest on working capital for retail supply business is nil, as working capital requirement is funded by consumer security deposit. As per allocation matrix, consumer security deposit considered for Retail Supply business is higher than working capital requirement for retail supply business. However, loWC is not nil for the wires business. Interest on working capital has been worked out accordingly and summarized in the table above. The Hon'ble Commission is requested to consider loWC as summarized in table above.

5.15 Interest on Consumer Security Deposit

5.15.1 The actual Consumer Security Deposit in the FY 2018-19 was Rs 398.62 Crores and it is estimated that the Consumer Security Deposit for the FY 2019-20 will be Rs 410.58 Crores, i.e. 3% escalation over the actual Deposit of FY 2018-19. As such, for future projections of Consumer Deposit, an escalation of 3% is considered. Further, the Interest on Consumer Security Deposit has been calculated at the rate of 9.50% (One-year MCLR by SBI, plus 150 basis points) as per MERC MYT Regulations, 2019. BEST submits the interest on security deposit for MYT Control Period of FY 2020-21 to FY 2024-25 as presented in the table below:

Table 109: Interest on Consumer Security Deposit for FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Amount held as security deposit	416.74	429.24	442.12	455.38	469.04
Interest Rate (%) - SBI MCLR * +150 basis points	9.50%	9.50%	9.50%	9.50%	9.50%
Interest on Security Deposit	39.59	40.78	42.00	43.26	44.56

5.15.2 BEST humbly requests the Hon'ble Commission to approve the projected Interest on Consumer Security Deposit as submitted by BEST. Any variation in above expenses shall be claimed on actual basis at the time of Mid-Term Review.

5.16 Contribution to Contingency Reserves

5.16.1 BEST submits that it has considered the contribution to contingency reserves as 0.25% of the Opening GFA as per MERC MYT Regulations, 2019. The details are as presented in table below:

Table 110: Contribution to Contingency Reserves for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Balance of Contingency Reserves	54.56	61.55	68.85	76.40	84.12
2	Opening Gross Fixed Assets	2,797.48	2,918.37	3,023.57	3,087.11	3,151.68
3	Opening Balance of Contingency Reserves as % of Opening GFA	1.95%	2.11%	2.28%	2.47%	2.67%
4	Contribution to Contingency Reserves during the year	6.99	7.30	7.56	7.72	7.88
5	Utilisation of Contingency Reserves during the year	-	-	-	-	-
6	Closing Balance of Contingency Reserves	61.55	68.85	76.40	84.12	92.00



Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
7	Closing Balance of Contingency Reserves as % of Opening GFA	2.20%	2.36%	2.53%	2.72%	2.92%

5.16.2 BEST humbly request the Hon'ble Commission to approve the projected Contribution to Contingency Reserves as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.17 Other expenses

5.17.1 Power factor incentive considered for FY 2020-21 is half of the same estimated for FY 2019-20. Thereafter, BEST has estimated the other expenses for the Fourth MYT control period by applying 3% YoY escalation rate.

Table 111: Other Expenses for FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Other Expenses	44.70	46.04	47.42	48.85	50.31

5.17.2 The Hon'ble Commission is requested to approve other expenses for the period FY 2020-21 to FY 2024-25 as shown in the table above.

5.18 Provision for Bad and doubtful debts

5.18.1 Provision for Bad and doubtful debts for MYT Control Period of FY 2020-21 to FY 2024-25, has been considered as 1.5% of opening balance of receivables of FY 2018-19 (based on latest figure available based on accounts ledger), in line with Regulation 76 of MERC MYT Regulations 2019. The details are as presented in table below:

Table 112: Provision for Bad and doubtful for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Balance of Provision for bad and doubtful debts	-	-	-	-	-
2	Receivables for the year	449.33	449.33	449.33	449.33	449.33
3	Provision of bad and doubtful debt as % of Receivables	1.50%	1.50%	1.50%	1.50%	1.50%
4	Provision for bad & doubtful debts during the year	6.74	6.74	6.74	6.74	6.74
5	Actual bad and doubtful debts written off					
6	Closing Balance of Provision for bad and doubtful debts	-	-	-	-	-

5.18.2 BEST humbly request the Hon'ble Commission to approve the projected Provision for Bad and doubtful debts as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.



5.19 Income Tax

5.19.1 BEST being Local Authority, the income of BEST is exempted under Section 10 (20) of the Income Tax Act. Hence, BEST is not paying any Income Tax. Hence, BEST has not considered any Income Tax for MYT Control Period of FY 2020-21 to FY 2024-25.

5.20 Return on equity

5.20.1 BEST submits that it has computed the Return on equity (RoE) as per Regulation 29 of MERC MYT Regulations, 2019. For the propose of arriving at the Regulatory Equity at the beginning of the year, BEST has considered the closing equity of previous year. As impact of replacement/retirement of assets, BEST has reduced the Equity to the extent of 30% of the GFA of the assets that have been projected to be retired during the year as per Regulation 27 of MERC MYT Regulations, 2019. The details are as presented in the table below:

Table 113: Return on Equity for FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Regulatory Equity at the beginning of the year	928.39	960.69	988.33	1,003.54	1,019.03
Capitalisation during the year	160.40	144.71	103.05	104.08	104.45
Total grant	13.24	13.06	12.84	12.94	13.04
Equity portion of capitalisation during the year #	44.15	39.50	27.06	27.34	27.42
Reduction in Equity Capital on account of retirement / replacement of assets	11.85	11.85	11.85	11.85	11.85
Regulatory Equity at the end of the year	960.69	988.33	1,003.54	1,019.03	1,034.60
Return on Equity Computation					
Base Rate of Return on Equity	14.15%	14.15%	14.15%	14.15%	14.15%
Pretax Return on Equity after considering effective Tax rate \$\$	14.15%	14.15%	14.15%	14.15%	14.15%
Return on Regulatory Equity at the beginning of the year	131.37	135.94	139.85	142.00	144.19
Return on Regulatory Equity addition during the year	2.28	1.96	1.08	1.10	1.10
Total Return on Equity	133.65	137.89	140.92	143.10	145.29



5.20.2 BEST humbly request the Hon'ble Commission to approve the projected Return on Equity as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.21 Return as Interest on Internal funds

5.21.1 BEST submits the Interest on internal funds as under:

Table 114: Return on Internal Funds for FY 2020-21 to FY 2024-25

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Return on Internal Fund (Rs. Crore)	5.28	5.28	5.28	5.28	5.28

5.21.2 For the computation of Return on Internal Funds for the Fourth Control Period, BEST has considered the rate of interest on internal funds and cumulative grants as approved by the Hon'ble Commission for FY 2019-20.

5.21.3 BEST humbly request the Hon'ble Commission to approve the projected Return as Interest on Internal funds as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.22 Non-Tariff Income

5.22.1 BEST has considered the estimated Non-Tariff Income for FY 2019-20 as base for computing Non-Tariff Income for MYT Control Period of FY 2020-21 to FY 2024-25. YoY increase of 3% is applied on base Non-Tariff Income considered above.

5.22.2 BEST submits the Non-Tariff Income as under:

Table 115: Non-Tariff Income for FY 2020-21 to FY 2024-25

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income (Rs Crore)	41.29	42.53	43.80	45.12	46.47

5.22.3 BEST humbly request the Hon'ble Commission to approve the projected Non-Tariff Income as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.

5.23 Past Recoveries of Revenue Gaps from FY 2016-17 to FY 2019-20

5.23.1 BEST in this Petition has submitted the True-up of FY 2017-18, True-up of FY 2018-19 and Provisional True-up of FY 2019-20. BEST has considered the revenue gap amount in ARR of MYT Control Period of FY 2020-21 to FY 2024-25 along with carrying cost as shown in the table below:



Table 116: Cumulative Revenue Gap/(Surplus) to be recovered in FY 2018-19 (Rs. Crore)

Particulars	Rate	MTR Order	MYT Petition
Revenue Gap/ (Surplus) for FY 2016-17 excluding Carrying/ (Holding) Cost		-212.87	-212.87
Carrying/ (Holding) Cost for FY 2016-17	10.79%	-11.48	-11.48
Carrying/ (Holding) Cost for FY 2017-18	10.18%	-21.71	-21.67
Carrying/ (Holding) Cost for FY 2018-19	9.89%	-10.06	-10.53
Revenue Gap of FY 2016-17 including carrying cost up to FY 2018-19		-256.12	-256.55
Revenue gap for FY 2017-18		78.24	-159.32
Carrying/(Holding) cost for FY 2017-18	10.18%		-8.11
Carrying/(Holding) cost for FY 2018-19	9.89%		-7.88
Revenue Gap of FY 2017-18 including carrying cost up to FY 2018-19		78.24	-175.31
Cumulative Revenue Gap/ (Surplus) to be passed on in FY 2018-19		-177.88	-431.86

Table 117: Cumulative Revenue gap till FY 2019-20 (Rs Crore)

Particulars	Legend	Rate	MYT Petition
Revenue gap for FY 2018-19			-737.02
Holding cost for FY 2018-19		9.89%	-36.45
Holding cost for FY 2019-20		9.50%	-70.02
Revenue Gap of FY 2018-19 including carrying cost up to FY 2019-20	a		-843.48
Revenue gap for FY 2019-20	b		327.13
Cumulative revenue gap till FY 2019-20	c = a + b		-516.35

Table 118: Recovery of revenue gap from FY 2020-21 to FY 2024-25 (Rs Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Revenue gap for FY 2019-20	-516.35	-	-	-	-
Recovery of previous Gap	-516.35	-	-	-	-
Closing balance	-	-	-	-	-
Average balance	-258.17	-	-	-	-
Interest rate (%)	9.50%	9.50%	9.50%	9.50%	9.50%
Carrying/(Holding) cost	-24.53	-	-	-	-
Total recovery	-540.88	-	-	-	-
Cumulative gap	9.85	208.07	257.33	184.62	-10.07
Stand-alone gap	550.73	197.28	29.49	-97.15	-212.22



5.24 Summary of Aggregate Revenue Requirement for FY 2020-21 to FY 2024-25

5.24.1 The segregation of Wires Business and Supply Business has been taken as per Regulation 71 of MERC MYT Regulations, 2019. Following is the ARR summary for Distribution Wire business for FY 2020-21 to FY 2024-25.

Table 119: ARR for Distribution Wire business for FY 2020-21 to FY 2024-25 (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Operation & Maintenance Expenses	403.52	442.03	469.79	487.31	505.13
2	Depreciation	104.81	108.95	112.05	114.40	116.77
3	Interest on Loan Capital	-	-	-	-	-
4	Interest on Working Capital	5.32	5.83	5.80	6.46	6.16
5	Interest on Consumer Security Deposit	3.96	4.08	4.20	4.33	4.46
6	Write-off of Provision for bad and doubtful debts	0.67	0.67	0.67	0.67	0.67
7	Contribution to contingency reserves	6.29	6.57	6.80	6.95	7.09
8	Income Tax					
9	Total Revenue Expenditure	524.57	568.14	599.32	620.10	640.28
10	Add: Return on Equity Capital	119.01	122.79	125.49	127.42	129.38
11	Add: Return on Internal fund	4.75	4.75	4.75	4.75	4.75
12	Aggregate Revenue Requirement	648.33	695.67	729.56	752.28	774.41
13	Less: Non-Tariff Income	4.13	4.25	4.38	4.51	4.65
14	Less: Income from other business	-	-	-	-	-
15	Aggregate Revenue Requirement from Distribution Wires	644.21	691.42	725.18	747.76	769.77

5.24.2 Following is the ARR summary for Retail Supply business for FY 2020-21 to FY 2024-25.

Table 120: ARR for Retail Supply business for FY 2020-21 to FY 2024-25 (Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Expenses (including Inter-State Transmission Charges)	2,587.51	2,555.12	2,502.05	2,512.27	2,520.89
2	Operation & Maintenance Expenses	217.28	238.02	252.97	262.40	271.99
3	Depreciation	11.65	12.11	12.45	12.71	12.97
4	Interest on Loan Capital	-	-	-	-	-
5	Interest on Working Capital	-	-	-	-	-



Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
6	Interest on Consumer Security Deposit	35.63	36.70	37.80	38.93	40.10
7	Write-off of Provision for bad and doubtful debts	6.07	6.07	6.07	6.07	6.07
8	Contribution to contingency reserves	0.70	0.73	0.76	0.77	0.79
9	Intra-State Transmission Charges	458.19	274.09	280.85	297.73	314.36
10	MSLDC Fees & Charges	1.3358	1.3241	1.4483	1.6363	1.7365
11	Income Tax					
12	Other Expenses	44.70	46.04	47.42	48.85	50.31
13	Total Revenue Expenditure	3,363.06	3,170.20	3,141.82	3,181.36	3,219.22
14	Add: Return on Equity Capital	14.64	15.10	15.44	15.67	15.92
15	Add: Return on Internal fund	0.53	0.53	0.53	0.53	0.53
16	Add: Sharing of Gain & Loss on IoWC	-	-	-	-	-
17	Aggregate Revenue Requirement	3,378.23	3,185.83	3,157.78	3,197.56	3,235.66
18	Less: Non-Tariff Income	37.16	38.28	39.42	40.61	41.83
19	Less: Income from other business	-	-	-	-	-
20	Less: Receipts on account of Cross-Subsidy Surcharge	-	-	-	-	-
21	Less: Receipts on account of Additional Surcharge, if any	-	-	-	-	-
22	Aggregate Revenue Requirement from Retail Supply	3,341.07	3,147.55	3,118.36	3,156.95	3,193.84

5.24.3 The proposed Aggregate Revenue Requirement for the MYT Control Period of FY 2020-21 to FY 2024-25 is as presented in table below:

Table 121: Summary of Aggregate Revenue Requirement for FY 2020-21 to FY 2024-25 (Rs Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Expenses (including Inter-State Transmission Charges)	2,587.51	2,555.12	2,502.05	2,512.27	2,520.89
2	Operation & Maintenance Expenses	620.80	680.05	722.76	749.70	777.12
3	Depreciation	116.45	121.06	124.50	127.11	129.75
4	Interest on Loan Capital	-	-	-	-	-
5	Interest on Working Capital	5.32	5.83	5.80	6.46	6.16
6	Interest on Consumer Security Deposit	39.59	40.78	42.00	43.26	44.56
7	Write-off of Provision for bad and doubtful debts	6.74	6.74	6.74	6.74	6.74
8	Contribution to contingency reserves	6.99	7.30	7.56	7.72	7.88
9	Intra-State Transmission Charges	458.19	274.09	280.85	297.73	314.36
10	MSLDC Fees & Charges	1.34	1.32	1.45	1.64	1.74



Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
11	Income Tax	-	-	-	-	-
12	Other Expenses	44.70	46.04	47.42	48.85	50.31
13	Total Revenue Expenditure	3,887.63	3,738.33	3,741.13	3,801.46	3,859.50
14	Add: Return on Equity Capital	133.65	137.89	140.92	143.10	145.29
15	Add: Return on Internal fund	5.28	5.28	5.28	5.28	5.28
16	Add: Sharing of Gain & Loss on loWC	-	-	-	-	-
15	Aggregate Revenue Requirement	4,026.56	3,881.50	3,887.34	3,949.84	4,010.08
16	Less: Non-Tariff Income	41.29	42.53	43.80	45.12	46.47
17	Less: Income from other business	-	-	-	-	-
18	Less: Receipts on account of Cross-Subsidy Surcharge	-	-	-	-	-
19	Less: Receipts on account of Additional Surcharge, if any	-	-	-	-	-
20	Aggregate Revenue Requirement from Retail Supply	3,985.27	3,838.97	3,843.53	3,904.72	3,963.60
20-A	Recovery of gap/(surplus) of previous years till the third control period	-540.88	-	-	-	-
20-B	Recovery of gap/(surplus) of previous years in the fourth control period		10.79	227.83	281.77	202.16
21	Revenue from sale of electricity at proposed Tariff	3,434.54	3,641.70	3,814.04	4,001.87	4,175.83
22	Revenue gap/(surplus) at proposed Tariff	9.85	208.07	257.33	184.62	-10.07
23	Revenue from sale of electricity at existing Tariff	3,275.61	3,302.67	3,332.01	3,362.63	3,394.52
24	Revenue gap/(surplus) at existing Tariff	168.79	547.10	739.36	823.86	771.25

5.24.4 BEST humbly request the Hon'ble Commission to approve the projected ARR for MYT Control Period of FY 2020-21 to FY 2024-25 as submitted by BEST. Any variation in above expenses will be claimed on actual basis at the time of Mid-Term Review.



6 Tariff Philosophy

6.1 Recovery of revenue gap

6.1.1 As explained in Section 4.21 of this Petition, the total revenue gap/(surplus) to be recovered in 4th control period is as show in the Table 84. The carrying cost is computed based on by considering the one-year SBI MCLR as on November 2019 plus 150 basis points as per Regulation 2 (11) of MERC MYT Regulations 2019.

6.1.2 BEST submits that the tariff approved by the Hon'ble Commission for FY 2019-20 has been implemented with effect from April 2019. BEST proposes to continue approved tariff in the MTR Order for FY 2019-20 till 31st March 2020. BEST proposes to increase the tariff in the Fourth MYT Control Period.

6.1.3 Proposed recovery of the revenue requirement during the period FY 2020-21 to FY 2024-25 is as follows:

Table 122: ARR from FY 2020-21 to FY 2024-25

Particulars	Units	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Estimated Sales	MUs	4,680.07	4,720.57	4,764.25	4,809.20	4,855.22
Stand-alone Aggregate Revenue Requirement	Rs. Crore	3,985.27	3,838.97	3,843.53	3,904.72	3,963.60
Recovery of gap/(surplus) of previous years	Rs. Crore	-540.88	10.79	227.83	281.77	202.16
Net ARR	Rs. Crore	3,444.40	3,849.77	4,071.37	4,186.49	4,165.76
Revenue from existing tariff	Rs. Crore	3,275.61	3,302.67	3,332.01	3,362.63	3,394.52
Revenue at proposed Tariff	Rs. Crore	3,434.54	3,641.70	3,814.04	4,001.87	4,175.83
Cumulative Revenue gap/(surplus) at proposed	Rs. Crore	9.85	208.07	257.33	184.62	-10.07
Proposed ABR	Rs. /unit	7.34	7.71	8.01	8.32	8.60
Tariff Hike Proposed w.r.t previous year	%	5.00%	5.12%	3.77%	3.94%	3.36%
ACoS	Rs. /unit	7.36	8.16	8.55	8.71	8.58

6.1.4 BEST humbly request the Hon'ble commission to approve the proposed revenue with the tariff hike as shown in the above table.

6.2 Wheeling charges

6.2.1 BEST has worked out the wheeling charges for the Fourth MYT control period as shown in the Table 123.



Table 123: Wheeling charges (Rs/unit)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	ARR for Wires Business	644.21	691.42	725.18	747.76	769.77
2	GFA attributable to HT Network (%)	39.45%	39.45%	39.45%	39.45%	39.45%
3	GFA attributable to LT Network (%)	60.55%	60.55%	60.55%	60.55%	60.55%
4	Charge recoverable from HT & LT consumers	254.14	272.77	286.08	294.99	303.67
5	Charge recoverable from LT consumers	390.07	418.66	439.09	452.77	466.09
6	HT Sales (MU)	691.74	698.99	707.85	718.66	731.81
7	LT Sales (MU)	3,951.92	3,984.79	4,019.14	4,052.71	4,084.90
8	Total Sales (MU)	4,643.66	4,683.78	4,726.99	4,771.37	4,816.71
9	Charge recoverable from HT consumers	37.86	40.71	42.84	44.43	46.14
10	Charge recoverable from LT consumers	606.35	650.72	682.34	703.33	723.63
11	HT Wheeling Charge (Rs. /unit)	0.55	0.58	0.61	0.62	0.63
12	LT Wheeling Charge (Rs. /unit)	1.53	1.63	1.70	1.74	1.77
13	Total Wheeling Charge (Rs. /unit)	1.39	1.48	1.53	1.57	1.60
14	HT Wheeling charges kVAh billing*	0.52	0.55	0.58	0.59	0.60

* Note- Adjusted for base factor of 0.95 for kVAh billing

6.2.2 BEST humbly request the Hon'ble commission to approve the wheeling charges as shown in the above table.

6.3 Fixed/Demand charges

6.3.1 BEST is proposing the category-wise fixed and demand charges for the period FY 2020-21 to FY 2024-25 as shown in the table below for the purpose of recovery from the consumers:

Table 124: Fixed/Demand charges for FY 2020-21 to FY 2024-25

Category	Fixed charges (Per month per connection)					Demand charges (per kVA)				
	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
HT Category										
HT - I Industry	-	-	-	-	-	320	335	355	375	395
HT - II Commercial	-	-	-	-	-	320	335	355	375	395
HT - III Group Housing	-	-	-	-	-	320	335	355	375	395
HT IV- PWW	-	-	-	-	-	320	335	355	375	395



Category	Fixed charges (Per month per connection)					Demand charges (per kVA)				
	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
HT V- Railways, Metro, Monorail	-	-	-	-	-	320	335	355	375	395
HT VI- (A)Public services (Govt. Hospitals and Educational Institutions)	-	-	-	-	-	320	335	355	375	395
HT VI-(B) Public services (Others)	-	-	-	-	-	320	335	355	375	395
HT-VII Temporary Supply	615	650	685	720	760	-	-	-	-	-
HT VIII - Electric Vehicle (EV) Charging Stations	-	-	-	-	-	75	80	85	90	95
		-	-	-	-					
LT Category										
LT-I (A) Residential (BPL)	10	10	10	10	10	-	-	-	-	-
LT - I(B) Residential	-	-	-	-	-	-	-	-	-	-
LT - I(B) Residential 0 – 100 units	70	75	80	85	90	-	-	-	-	-
LT - I(B) Residential 101 – 300 units	110	115	120	125	130	-	-	-	-	-
LT - I(B) Residential 301 - 500 units	110	115	120	125	130	-	-	-	-	-
LT - I(B) Residential > 501 units	135	140	145	155	165	-	-	-	-	-
LT - II (a) Commercial	385	405	425	450	475	-	-	-	-	-



Category	Fixed charges (Per month per connection)					Demand charges (per kVA)				
	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
LT - II (b) Commercial >20 & <=50 kW	-	-	-	-	-	320	335	355	375	395
LT - II (c) Commercial >50	-	-	-	-	-	320	335	355	375	395
LT - III (A) Industry (upto 20 kW)	385	405	425	450	475	-	-	-	-	-
LT-III (b) Industrial	-	-	-	-	-	320	335	355	375	395
LT-IV PWW	-	-	-	-	-	320	335	355	375	395
LT - V Advertisement & Hoardings	615	650	685	720	760	-	-	-	-	-
LT - VI Street Lights	-	-	-	-	-	320	335	355	375	395
LT - VII (a) Temporary Supply Religious	320	335	355	375	395	-	-	-	-	-
LT - VII (b) Temporary Supply Others	615	650	685	720	760	-	-	-	-	-
LT - VIII Crematorium and Burial Grounds	320	335	355	375	395	-	-	-	-	-
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	385	405	425	450	475	-	-	-	-	-
LT - IX (B) Public Services -others	385	405	425	450	475	-	-	-	-	-
LT-X (A) Agriculture- Pumpsets	40	40	40	40	40	-	-	-	-	-
LT-X (B) Agriculture- Others	-	-	-	-	-	100	105	110	115	120



Category	Fixed charges (Per month per connection)					Demand charges (per kVA)				
	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25
LT XI Vehicle Charging	-	-	-	-	-	75	80	85	90	95

6.4 Energy charges

6.4.1 BEST proposed kVAh billing for HT consumers as required by the Hon'ble Commission in MTR Order. BEST is proposing increase in energy charges. The category-wise energy charges for FY 2020-21 to FY 2024-25 proposed by BEST are as follows:

Table 125: Energy charges for FY 2020-21 to FY 2024-25 (Rs/unit)*

Category	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
HT Category					
HT - I Industry	6.62	7.05	7.52	7.91	8.05
HT - II Commercial	6.78	6.96	7.00	7.07	7.13
HT - III Group Housing	5.69	5.97	6.07	6.19	6.32
HT IV- PWW	5.98	6.34	6.65	6.93	7.22
HT V- Railways, Metro, Monorail	5.74	6.03	6.19	6.39	6.59
HT VI-(A) Public services (Govt. Hospitals and Educational Institutions)	6.36	6.46	6.48	6.57	6.65
HT VI-(B) Public services (Others)	6.82	7.08	7.28	7.51	7.74
HT-VII Temporary Supply	8.35	8.42	8.52	8.64	8.75
HT VIII - Electric Vehicle (EV) Charging Stations	5.48	5.45	5.42	5.41	5.40
LT Category					
LT-I (A) Residential (BPL)	0.99	0.99	0.96	0.97	0.98
LT - I(B) Residential					
LT - I(B) Residential 0 – 100 units	1.55	1.61	1.67	1.80	1.95
LT - I(B) Residential 101 – 300 units	3.91	4.10	4.26	4.58	4.68
LT - I(B) Residential 301 - 500 units	6.65	7.07	7.18	7.32	7.47
LT - I(B) Residential > 501 units	8.13	8.60	9.05	9.54	10.08
LT - II (a) Commercial	5.33	5.67	5.92	6.21	6.53
LT - II (b) Commercial >20 & <=50 kW	5.07	5.05	5.03	5.04	5.05
LT - II (c) Commercial >50	5.77	6.18	6.39	6.59	6.81
LT - III (A) Industry (upto 20 kW)	5.03	5.09	5.59	5.90	6.03
LT-III (b) Industrial	4.86	5.21	5.40	5.56	5.75
LT-IV PWW	4.86	5.12	5.28	5.48	5.59
LT - V Advertisement & Hoardings	7.26	7.60	7.90	8.24	8.61
LT - VI Street Lights	4.47	4.87	5.00	5.16	5.33
LT - VII (a) Temporary Supply Religious	3.64	3.80	3.92	4.07	4.24
LT - VII (b) Temporary Supply Others	7.31	7.44	7.51	7.64	7.68
LT - VIII Crematorium and Burial Grounds	4.41	4.73	5.11	5.54	6.02
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	5.88	6.04	6.09	6.21	6.33
LT - IX (B) Public Services -others	6.19	6.24	6.33	6.45	6.58
LT-X (A) Agriculture- Pumpsets	2.52	2.57	2.57	2.61	2.66
LT-X (B) Agriculture- Others	4.05	4.13	4.17	4.25	4.33
LT XI Vehicle Charging	4.47	4.37	4.30	4.26	4.23



* Charge is per kVAh for HT category and per kWh for LT category

6.5 Cross Subsidy

6.5.1 The category-wise cross-subsidy proposed for FY 2020-21 to FY 2024-25 is as shown in table below:

Table 126: Category wise Cross-Subsidy Percentage for FY 2020-21 to FY 2024-25 (%)

Category	FY 21	FY 22	FY 23	FY 24	FY 25
HT - I Industry	106%	102%	104%	107%	111%
HT - II Commercial	115%	107%	103%	103%	106%
HT - III Group Housing	95%	90%	88%	88%	92%
HT IV- PWW	105%	100%	101%	103%	109%
HT V- Railways, Metro, Monorail	101%	95%	94%	96%	100%
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	102%	94%	91%	91%	94%
HT VI-(B) Public services (Others)	112%	106%	104%	106%	111%
HT-VII Temporary Supply	121%	110%	107%	106%	109%
HT VIII - Electric Vehicle (EV) Charging Stations	0%	0%	0%	0%	0%
LT-I (A) Residential (BPL)	35%	33%	32%	32%	33%
LT - I(B) Residential	84%	84%	84%	85%	85%
LT - I(B) Residential 0 – 100 units	47%	44%	44%	46%	49%
LT - I(B) Residential 101 – 300 units	83%	79%	79%	82%	85%
LT - I(B) Residential 301 - 500 units	115%	111%	108%	108%	112%
LT - I(B) Residential > 501 units	133%	127%	127%	131%	140%
LT - II (a) Commercial	111%	106%	106%	109%	115%
LT - II (b) Commercial >20 & <=50 kW	113%	104%	101%	101%	105%
LT - II (c) Commercial >50	120%	115%	114%	116%	122%
LT - III (A) Industry (upto 20 kW)	99%	92%	95%	98%	102%
LT-III (b) Industrial	106%	102%	101%	102%	108%
LT-IV PWW	108%	103%	102%	104%	108%
LT - V Advertisement & Hoardings	168%	160%	159%	163%	173%
LT - VI Street Lights	114%	114%	113%	115%	121%
LT - VII (a) Temporary Supply Religious	79%	75%	74%	75%	79%
LT - VII (b) Temporary Supply Others	125%	116%	112%	112%	115%
LT - VIII Crematorium and Burial Grounds	82%	79%	81%	85%	92%
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions	101%	95%	92%	92%	95%
LT - IX (B) Public Services -others	107%	99%	96%	97%	100%
LT-X (A) Agriculture- Pumpsets	0%	0%	0%	0%	0%
LT-X (B) Agriculture- Others	0%	0%	0%	0%	0%
LT XI Vehicle Charging	82%	74%	70%	69%	70%

6.5.2 BEST proposes to continue with the prevailing Time of Day Tariff for the Fourth MYT Control period.



6.5.3 Proposed tariff for FY 2020-21 and FY 21-22 is as shown in table below:

Table 127: Proposed Tariff for FY 2020-21 and FY 2021-22

Category	Components of tariff FY 2020-21					Components of tariff FY 2021-22				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
HT Category										
HT - I Industry	-	320.00	6.62	0.52	7.82	-	335.00	7.05	0.55	8.31
HT - II Commercial	-	320.00	6.78	0.52	8.43	-	335.00	6.96	0.55	8.69
HT - III Group Housing	-	320.00	5.69	0.52	6.97	-	335.00	5.97	0.55	7.32
HT IV- PWW	-	320.00	5.98	0.52	7.72	-	335.00	6.34	0.55	8.17
HT V- Railways, Metro, Monorail	-	320.00	5.74	0.52	7.40	-	335.00	6.03	0.55	7.78
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	-	320.00	6.36	0.52	7.54	-	335.00	6.46	0.55	7.70
HT VI-(B) Public services (Others)	-	320.00	6.82	0.52	8.27	-	335.00	7.08	0.55	8.60
HT-VII Temporary Supply	615.00	-	8.35	0.52	8.87	650.00	-	8.42	0.55	8.97
HT-VIII Electrical vehicle	-	75.00	5.48	0.52	-	-	80.00	5.45	0.55	-
Sub-total					8.14					8.48
LT Category										
LT-I (A) Residential (BPL)	10.00	-	0.99	1.53	2.61	10.00	-	0.99	1.63	2.71



Category	Components of tariff FY 2020-21					Components of tariff FY 2021-22				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
<i>LT - I(B) Residential</i>										
0 – 100 units	70.00	-	1.55	1.53	3.44	75.00	-	1.61	1.63	3.63
101 – 300 units	110.00	-	3.91	1.53	6.13	115.00	-	4.10	1.63	6.45
301 - 500 units	110.00	-	6.65	1.53	8.49	115.00	-	7.07	1.63	9.03
> 501 units	135.00	-	8.13	1.53	9.79	140.00	-	8.60	1.63	10.36
LT - II (a) Commercial	385.00	-	5.33	1.53	8.16	405.00	-	5.67	1.63	8.67
LT - II (b) Commercial >20 & <=50 kW	-	320.00	5.07	1.53	8.33	-	335.00	5.05	1.63	8.50
LT - II (c) Commercial >50	-	320.00	5.77	1.53	8.83	-	335.00	6.18	1.63	9.41
LT - III (A) Industry (upto 20 kW)	385.00	-	5.03	1.53	7.31	405.00	-	5.09	1.63	7.52
LT-III (b) Industrial	-	320.00	4.86	1.53	7.77	-	335.00	5.21	1.63	8.28
LT-IV PWW	-	320.00	4.86	1.53	7.95	-	335.00	5.12	1.63	8.38
LT - V Advertisement & Hoardings	615.00	-	7.26	1.53	12.39	650.00	-	7.60	1.63	13.04
LT - VI Street Lights	-	320.00	4.47	1.53	8.37	-	335.00	4.87	1.63	9.31
LT - VII (a) Temporary Supply Religious	320.00	-	3.64	1.53	5.81	335.00	-	3.80	1.63	6.10
LT - VII (b) Temporary Supply Others	615.00	-	7.31	1.53	9.18	650.00	-	7.44	1.63	9.43
LT - VIII Crematorium and Burial Grounds	320.00	-	4.41	1.53	6.01	335.00	-	4.73	1.63	6.44



Category	Components of tariff FY 2020-21					Components of tariff FY 2021-22				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions<=20 Kw)	385.00	-	5.88	1.53	7.46	405.00	-	6.04	1.63	7.72
LT - IX (B) Public Services -others from FY2016-17 onwards (up to FY2015-16 Hospital and Educational Institutions>20 Kw)	385.00	-	6.19	1.53	7.90	405.00	-	6.24	1.63	8.06
LT-X (A) Agriculture- Pumpsets	40.00	-	2.52	1.53	-	40.00	-	2.57	1.63	-
LT-X (B) Agriculture- Others	-	100.00	4.05	1.53	-	-	105.00	4.13	1.63	-
LT XI Vehicle Charging	-	75.00	4.47	1.53	6.00	-	80.00	4.37	1.63	6.00
Sub-total					7.11					7.49
Total					7.27					7.64



6.5.4 Proposed tariff for FY 2022-23 and FY 2023-24 is as shown in table below:

Table 128: Proposed Tariff for FY 2022-23 and FY 2023-24

Category	Components of tariff FY 2022-23					Components of tariff FY 2023-24				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
HT Category										
HT - I Industry	-	355.00	7.52	0.58	8.85	-	375.00	7.91	0.59	9.29
HT - II Commercial	-	355.00	7.00	0.58	8.84	-	375.00	7.07	0.59	8.99
HT - III Group Housing	-	355.00	6.07	0.58	7.50	-	375.00	6.19	0.59	7.68
HT IV- PWW	-	355.00	6.65	0.58	8.59	-	375.00	6.93	0.59	8.96
HT V- Railways, Metro, Monorail	-	355.00	6.19	0.58	8.04	-	375.00	6.39	0.59	8.32
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	-	355.00	6.48	0.58	7.79	-	375.00	6.57	0.59	7.93
HT VI-(B) Public services (Others)	-	355.00	7.28	0.58	8.89	-	375.00	7.51	0.59	9.19
HT-VII Temporary Supply	685.00	-	8.52	0.58	9.10	720.00	-	8.64	0.59	9.23
HT-VIII Electrical vehicle	-	85.00	5.42	0.58	-	-	90.00	5.41	0.59	-
Sub-total					8.76					9.02
LT Category										
LT-I (A) Residential (BPL)	10.00	-	0.96	1.70	2.75	10.00	-	0.97	1.74	2.80
<i>LT - I(B) Residential</i>										



Category	Components of tariff FY 2022-23					Components of tariff FY 2023-24				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
0 – 100 units	80.00	-	1.67	1.70	3.78	85.00	-	1.80	1.74	3.98
101 – 300 units	120.00	-	4.26	1.70	6.71	125.00	-	4.58	1.74	7.10
301 - 500 units	120.00	-	7.18	1.70	9.22	125.00	-	7.32	1.74	9.41
> 501 units	145.00	-	9.05	1.70	10.89	155.00	-	9.54	1.74	11.43
LT - II (a) Commercial	425.00	-	5.92	1.70	9.06	450.00	-	6.21	1.74	9.47
LT - II (b) Commercial >20 & <=50 kW	-	355.00	5.03	1.70	8.66	-	375.00	5.04	1.74	8.82
LT - II (c) Commercial >50	-	355.00	6.39	1.70	9.78	-	375.00	6.59	1.74	10.12
LT - III (A) Industry (upto 20 kW)	425.00	-	5.59	1.70	8.12	450.00	-	5.90	1.74	8.52
LT-III (b) Industrial	-	355.00	5.40	1.70	8.63	-	375.00	5.56	1.74	8.92
LT-IV PWW	-	355.00	5.28	1.70	8.71	-	375.00	5.48	1.74	9.05
LT - V Advertisement & Hoardings	685.00	-	7.90	1.70	13.62	720.00	-	8.24	1.74	14.21
LT - VI Street Lights	-	355.00	5.00	1.70	9.68	-	375.00	5.16	1.74	10.04
LT - VII (a) Temporary Supply Religious	355.00	-	3.92	1.70	6.33	375.00	-	4.07	1.74	6.56
LT - VII (b) Temporary Supply Others	685.00	-	7.51	1.70	9.59	720.00	-	7.64	1.74	9.78
LT - VIII Crematorium and Burial Grounds	355.00	-	5.11	1.70	6.89	375.00	-	5.54	1.74	7.36



Category	Components of tariff FY 2022-23					Components of tariff FY 2023-24				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards	425.00	-	6.09	1.70	7.84	450.00	-	6.21	1.74	8.01
LT - IX (B) Public Services -others from FY2016-17 onwards	425.00	-	6.33	1.70	8.23	450.00	-	6.45	1.74	8.40
LT-X (A) Agriculture- Pumpsets	40.00	-	2.57	1.70	-	40.00	-	2.61	1.74	-
LT-X (B) Agriculture- Others	-	110.00	4.17	1.70	-	-	115.00	4.25	1.74	-
LT XI Vehicle Charging	-	85.00	4.30	1.70	6.00	-	90.00	4.26	1.74	6.00
Sub-total					7.78					8.11
Total					8.01					8.25

6.5.5 Proposed tariff for FY 2024-25 is as shown in table below:

Table 129: Proposed Tariff for FY 2024-25

Category	Components of tariff FY 2024-25				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
HT Category					
HT - I Industry	-	395.00	8.05	0.60	9.49
HT - II Commercial	-	395.00	7.13	0.60	9.13
HT - III Group Housing	-	395.00	6.32	0.60	7.87
HT IV- PWW	-	395.00	7.22	0.60	9.34
HT V- Railways, Metro, Monorail	-	395.00	6.59	0.60	8.61
HT VI-(A)Public services (Govt. Hospitals and Educational Institutions)	-	395.00	6.65	0.60	8.06
HT VI-(B) Public services (Others)	-	395.00	7.74	0.60	9.49
HT-VII Temporary Supply	760.00	-	8.75	0.60	9.35
HT-VIII Electrical vehicle	-	95.00	5.40	0.60	-
Sub-total					9.23
LT Category					
LT-I (A) Residential (BPL)	10.00	-	0.98	1.77	2.84
<i>LT - I(B) Residential</i>					
0 – 100 units	90.00	-	1.95	1.77	4.19
101 – 300 units	130.00	-	4.68	1.77	7.26
301 - 500 units	130.00	-	7.47	1.77	9.61
> 501 units	165.00	-	10.08	1.77	12.01
LT - II (a) Commercial	475.00	-	6.53	1.77	9.91
LT - II (b) Commercial >20 & <=50 kW	-	395.00	5.05	1.77	8.97
LT - II (c) Commercial >50	-	395.00	6.81	1.77	10.47
LT - III (A) Industry (upto 20 kW)	475.00	-	6.03	1.77	8.73
LT-III (b) Industrial	-	395.00	5.75	1.77	9.23
LT-IV PWW	-	395.00	5.59	1.77	9.29
LT - V Advertisement & Hoardings	760.00	-	8.61	1.77	14.85
LT - VI Street Lights	-	395.00	5.33	1.77	10.41
LT - VII (a) Temporary Supply Religious	395.00	-	4.24	1.77	6.80
LT - VII (b) Temporary Supply Others	760.00	-	7.68	1.77	9.87
LT - VIII Crematorium and Burial Grounds	395.00	-	6.02	1.77	7.88



Category	Components of tariff FY 2024-25				
	Fixed Charges	Demand Charges	Energy Charges	Wheeling Charge	Average Billing Rate (Rs/kWh)
LT - IX (A) Public Services -Govt. Hosp. & Edu. Institutions from FY2016-17 onwards	475.00	-	6.33	1.77	8.16
LT - IX (B) Public Services -others from FY2016-17 onwards	475.00	-	6.58	1.77	8.58
LT-X (A) Agriculture- Pump sets	40.00	-	2.66	1.77	-
LT-X (B) Agriculture- Others	-	120.00	4.33	1.77	-
LT XI Vehicle Charging	-	95.00	4.23	1.77	6.00
Sub-total					8.40
Total					8.53



7 Schedule of Charges

- 7.1.1 BEST has not proposed any revision in its existing Schedule of Charges in the present Petition. BEST will file separate Petition/MTR Petition for approval of any revised Schedule of Charges.

8 Voltage wise cost of Supply

- 8.1.1 BEST has carried out an exercise of Voltage-wise cost of supply as per the guidelines given by APTEL in its judgment dated 26th July 2012.
- 8.1.2 The assumption of calculation of voltage-wise average cost of supply underlies in bifurcation of Aggregate Revenue Requirement from financial year 2017-18 to financial year 2024-25 into Voltage-wise ARR by dividing each ARR component in the ratio of asset utilized by LT and HT category respectively or in the ratio equitable to a particular ARR component.

Apportioning of Power Purchase Cost:-

- The power purchase cost for each consumer category has been calculated by escalating sales to the degree of distribution loss. These escalated sales are multiplied to average power purchase cost per unit. This gives power purchase cost for each consumer category without being factored for transmission loss in MU.
- Transmission loss in MU has been calculated by the difference of total power purchase in MU and sales escalated to distribution loss in MU.
- Transmission loss amount has been calculated by multiplying transmission loss in MU by average rate of power purchase in Rs/kwh for the respective financial year.
- The transmission loss in rupees crores is distributed into each tariff category in the order of weighted average of sales of that tariff category.
- The addition of point 1 and point 4 will yield power purchase cost for each tariff category.

BEST has assumed following assumptions while calculating power purchase cost for each category:

- The transmission loss is considered at the rate of 3.31% for FY 2017-18, 3.10% for FY 2018-19, and 3.17% uniformly for FY 2019-20 and for fourth control period FY 2020-21 to FY 2024-25.
 - The distribution loss for LT Category and HT Category has been bifurcated based on the ratio of lines for LT network to HT network. The ratio for LT: HT lines network for FY 2017-18, FY 2018-19 and FY 2019-20 is 77.2:22.8. The same ratio has been considered for distributing losses in LT and HT Category starting from FY 2017-18 to FY 2024-25.
 - The losses are then added in sales to arrive at energy requirement by BEST at different voltage levels. BEST has arrived power purchase cost at different voltage levels based on gross sales and average power purchase cost per unit for respective years.
- 8.1.3 The Voltage-wise power purchase cost so arrived after calculation as per methodology mentioned above, from financial year 2017-18 to financial year 2024-25 are as follows:



Table 130: Voltage-wise Cost of supply for FY 2020-21 to FY 2024-25

Year	Category	No. of consumers	Sales	Power Purchase Expenses	O&M Expenses	Remaining ARR inclu. Previous Revenue gap/(surplus)	Total	VCoS
FY 2020-21								
	HT	193	691.74	434.19	244.91	-88.15	590.95	8.54
	LT	10,56,540	3,951.92	2,609.78	375.89	-135.29	2,850.39	7.21
FY 2021-22								
	HT	196	698.99	425.08	268.28	133.81	827.17	11.83
	LT	10,69,217	3,984.79	2,405.70	411.77	205.37	3,022.84	7.59
FY 2022-23								
	HT	200	707.85	399.49	285.13	222.60	907.21	12.82
	LT	10,82,105	4,019.14	2,382.07	437.63	341.66	3,161.35	7.87
FY 2023-24								
	HT	205	718.66	406.08	295.76	246.63	948.46	13.20
	LT	10,95,153	4,052.71	2,402.73	453.94	378.53	3,235.21	7.98
FY 2024-25								
	HT	211	731.81	413.64	306.57	217.63	937.84	12.82
	LT	11,08,369	4,084.90	2,420.49	470.55	334.03	3,225.07	7.90

8.1.4 Apportioning of ARR Components other than Power Purchase Cost:-

1. For calculation of other components of ARR in order of voltage-wise, the voltage wise assets of BEST has been recalculated in terms of usage of assets by LT and HT categories. The recalculation has been done by bifurcating all assets into two categories LT and HT.
2. ARR components are apportioned voltage level wise on pro-rata basis of tariff category wise sales projected.



- 8.1.5 The above calculations are based on certain assumptions and equitable apportioning of various cost components of ARR and it hence doesn't give the real projections about voltage-wise cost of supply. The practical problem in determining voltage-wise cost of supply involves bifurcation of assets with respect to their use which is a difficult to implement.

9 Financial Prudence

- 9.1.1 The Brihanmumbai Electric Supply & Transport Undertaking (BEST) is an Undertaking of the Brihan Mumbai Mahanagarpalika and is in the business of distributing electricity to consumers in the old City limits and providing Public Road Transport in the entire City limits as well as in some adjoining areas of Mumbai City. BEST is recognized as a 'Local Authority' under the Electricity Act, 2003.
- 9.1.2 BEST has been managing its finances in an optimum and prudent manner and there are internal processes and control mechanism to ensure that financial prudence is followed while incurring expenditure and recovering revenue. The details of process and practices ensuring financial prudence in organization are as followed.

Internal Audit

- 9.1.3 BEST have a separate Internal Audit Department. Internal Audit is a continuous audit throughout the year and is not only responsible for carrying out Book Audit, but also is responsible for
- Review of policies, plans and procedures impacting revenue and expenses
 - Conducting spot check on staff working at various sites and ensures proper utilization of men and material.
- 9.1.4 Internal audit is an independent appraisal activity for review of the accounting financial and other operations and provide a protective and constructive service to the Management.

The financial prudence with respect to revenue

- Category wise sales projections are based on realistic estimates, and long duration past data trends are analyzed to arrive at future category wise sales projections. Further, causal analysis for any anomalous increase in projected sales is done and justification is provided in the petition also.
- Billing and collection efficiency is measured and monitored on monthly basis and the same has helped BEST in maintaining the distribution losses to a level of below 6%.
- Arrears receivables from consumers is also measured and monitored on regular basis and the same has helped BEST in reducing the same over the years.
- BEST maintains 100% metering reducing the errors in billing.
- The bills are raised on the basis of actual consumption and only in case of meter being defective or if meters are not accessible for any month the bills are raised on assessed



basis. BEST makes all its effort for timely replacement of defective meters. Further, for cases where meters are not accessible for any month, the consumption is adjusted based on actual consumption in the subsequent month billing.

- f. BEST is also making effort to replace all Electromechanical(EM) Meters with Electronic meters which will reduce any revenue leakages due to sluggish meters.
- g. BEST makes all its effort to match the revenue collection according to approved value by the Commission

The financial prudence with respect to revenue expenditure

- a. The Undertaking maintains the Books of Accounts which includes record of Revenue Income, Revenue Expenditure and Capital Expenditure.
- b. The each and every payment voucher is being verified by the Internal Audit Department before releasing the payment to Suppliers, Government Authorities, Banks and any other organization, etc.
- c. The Undertaking is maintaining the records of loan availed, the repayment of installment and interest thereon on regular basis. BEST ensures that the repayment of Loan Interest, Payment of Statutory Levies such as Service Tax, Income Tax, Sales Tax, Electricity Duty, Maharashtra Tax, Motor Vehicle Tax etc., is made in stipulated time. BEST is maintaining daily cash flow statement to manage its finance in an optimum and prudent manner. However, in past due to cash crunch situation BEST has not been able to pay the power purchase bills on time and has incurred delay payment charges. The reasons for such delay were not in control of BEST and point wise explanation for the same is provided in this petition.
- d. BEST is also making effort to reduce the power purchase bills for any procurement beyond existing PPAs. Such procurement has been made through transparent process of competitive bidding. Further, Merit Order Despatch is maintained in all power purchase.

The financial prudence with respect to capital expenditure

- a. The BEST monitors the capex projects with respect to physical progress. Any loan drawn is matched with the physical progress requirements.
- b. In case the actual capital expenditure or capitalization exceeds the value that was approved by the Commission, the same is passed only through additional approval which is also submitted to the Commission if the same is under DPR scheme.
- c. Any delay or postponement of schemes is intimated to Commission from time to time.



- 9.1.5 BEST will like to further submit that it has taken all the necessary efforts to maintain Financial Prudence in line with those mentioned Regulation 23 of the MYT Regulations, 2019. However, BEST is still in process of implementing new processes and formats to do better monitoring of financial prudence as per MYT regulations.

10 Compliance of directives

The Hon'ble Commission in various Orders has given certain directives to be implemented by BEST. The status of the various directives is as given below:

10.1.1 Implementation of revised Tariff as per MTR Order.

Directive:

In the MTR Order, the Commission directed BEST to implement the revised tariff with effective from 1st September 2018 with implementation of the following:

- (i) Digital Discount (0.25%) up to Rs. 500/-.
- (ii) Penalty for leading Power Factor.
- (iii) Distribution licensee can issue notice to consumers under section 56 of the Electricity Act, 2003 through digital mode.

BEST's reply:

BEST has implemented the directions of the Hon'ble commission.

10.1.2 Medium Term Power Purchase.

Directive:

The Commission directed BEST to seek approval of PPA from the Commission in compliance with the necessary process as mandated under the Act and the relevant Regulations/Orders should be adopted.

BEST's reply:

Existing PPA between BEST & TPC-G is extended with the quantum of 676.69 MW for 5 years from 1st April 2019 to 31st March 2024. Further, a fresh Agreement for procurement of Power (APP) is signed between Best & Manikaran Power Ltd. (100MW) through M/s Sai Waradha Power Generation Ltd. for 5 years from 01st April 2019 to 31st March 2024.



10.1.3 Corrective action regarding PF related matter in MERC Order dated 2nd January 2019 in Case No. 329 of 2018.

Directive

PF related matter in MTR Order dated 12th September 2018 in respect of Distribution Licensees in the State are modified to the following extent:

- (i) The effective date i.e. 1st September 2018 for inclusion of 'RkVAh lead' in the computation of average PF remains same. However, in order to support efforts of consumers to take corrective actions, differential amount (difference between PF computed without 'RkVAh Lead' and with 'RkVAh lead') for the period of 1 September, 2018 to 31 March, 2019 will be refunded to the consumers in the following manner:
- a. Consumers shall be eligible for refund only if PF (with RkVAh lead) for consumption of April 2019 is equal to or above 0.90 (lead or lag). No refund will be given to other consumers.
 - b. This refund shall be in equal monthly installments. Number of installments shall be equal to numbers of months in which 'RkVAh lead' based PF has been billed to consumer.
 - c. First installment to the 'Eligible Consumer' shall be refunded by way of adjustment in the electricity bill for consumption of April 2019.
 - d. Subsequent installment is refundable only if 'Eligible Consumer' maintains PF equal to or above 0.90 (lead or lag) in the month in which installment is to be refunded. If PF is below 0.90 (lead or lag), installment for that month shall be deemed to be laps.
- (ii) 'total kVAh' for computing PF with lead and lag RkVAh shall be computed as follows:
- $$kVAh_{is} = \sqrt{\sum(KWh)^2 + \sum(RkVAh_{Lag} + RkVAh_{Lead})^2}$$
- (iii) Average PF can be considered as leading or lagging based on the following test:
- If "RkVAh lead" > "RkVAh lag" then "Average P.F." is "Lead P.F."
- If "RkVAh lead" = < "RkVAh lag" then "Average P.F." is "Lag P.F."
- (iv) PF Incentive shall be applicable for PF more than 0.95 (lead or lag). Refund on account of this, if any, shall be given in three equal monthly installments through adjustment in energy bill. Refund under this clause is different from refund under clause 'a' above.
- (v) There is no change in percentage of PF rebate / PF penalty stipulated in the MTR Order dated 12th September 2018.



BEST's reply

BEST has implemented the directions of the Hon'ble Commission.

10.1.4 Replacement of Electro-mechanical Meters with Electronic Meter:

Directive

BEST should expedite the process of replacement of existing Electro-mechanical meters with Electronic meters.

BEST's reply

BEST is expediting the process of replacement of existing Electro-mechanical meters with Electronic meters. The following table shows the progress of the same.

Table 131: Number of Electro-mechanical meters with Electronic meters from FY 2016-17 to FY 2019-20

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Actual Number of meters replaced in the year	22,000	36,500	83,914	1,16,086

10.1.5 Renewable Power Purchase

Directive

- (i) Solar: The Commission has considered the additional requirement of Solar power at the applicable generic tariff as Rs. 3.53/kWh for the FY 2018-19 and Rs. 2.72/kWh for FY 2019-20.
- (ii) Non-Solar: The Commission, has considered the requirement of Non-Solar power at the applicable generic tariff applicable for wind power generators as Rs. 3.40/kWh for FY 2018-19 and Rs. 2.87/kWh for FY 2019-20. Similarly, weighted average rate of power purchase from mini/micro hydro sources at the applicable generic tariff is Rs. 5.71/ kWh for FY 2018-19 and Rs. 5.64/kWh for FY 2019-20.
- (iii) Any variation in the actual cost incurred by BEST would be considered at the time of Truing up, subject to prudence check.

BEST's reply

BEST is in process of expediting the Renewable Power Purchase through competitive bidding in near future till date BEST will meet RPO through RECs.

10.1.6 Installation of Smart Meters



Directive

The objective and efficacy of installing smart meters vis-a-vis its associated cost has to be studied before undertaking installation of smart meters. The Commission will take a view on the same based on the DPRs to be submitted and approve the same, in accordance with the capex approval Guidelines notified by the Commission.

BEST's reply

RFP document is being prepared and DPR will be submitted shortly.

10.1.7 **Switching to KVAH billing** (For Consumer categories having Loads above 20 Kw).

Directive

The Commission intends to implement kVAH billing to all HT consumer and LT consumers having load above 20 kW from 1 April 2020. All Distribution Licensees in State are required to take necessary steps such as meter replacement, if required, preparedness of billing software etc. Also, wherever possible, Distribution Licensee shall start collecting category-wise energy consumption details in kVAH terms and submit it during the next Tariff determination process.

BEST's reply

kVAh tariff proposal for HT consumers is being included in this Petition. The soft copy of category-wise energy consumption details in kVAH terms for LV / HV Consumers having load above 20 KW from Feb-2019 to Oct-2019 for CY-19,21&24 has already been submitted to the Hon'ble Commission.

10.1.8 **Monitoring of Harmonics Levels for Commercial and Industrial Consumers**

Directive

In accordance with Regulation 12.1 of the Supply Code Regulations, it is obligatory for HT and LT consumers (Industrial and Commercial only) to control harmonics in their load at levels prescribed by the IEEE STD 519-1992 and in accordance with the relevant Orders of the Commission. Distribution Licensee needs to analyse existing level of Harmonics in the system, causes and remedial measures for limiting the same. Further, Distribution Licensee needs to create awareness amongst the consumers about the effects of Harmonics on the power equipment.

BEST's reply

Recently BEST has purchased new RSM from MTE, for testing of HV CT/PT operated meters & LVCTO meters. In which measurement of harmonic facility is available. BEST have started taking the harmonics measurement for industrial & Commercial consumers from 24/10/2019. Further BEST will carry out analysis of existing level of Harmonics. It will be intimated to the consumers about the effects of Harmonics on the power equipment.



10.1.9 Single Meter for Single Premises

Directive

The Distribution Licensees are required to ensure strict adherence to the rule of single meter for single premises.

BEST's reply

BEST has 20,407 nos. of installation/premises having more than one meter for same tariff. BEST had already issued notices to these consumers and directed them to combine the load of separate meters to enable removal of idle meter. BEST has removed 2,478 numbers of meters so far after combination of load by the consumers. Despite of continuous follow-up, remaining consumers have not combined their load so far. BEST is taking all efforts to convince the respective consumers to combine the load of such separate meters to one electrical installation. In case, BEST removes meters unilaterally, it will lead to unavailability of supply for the load connected on separate meter which would cause inconvenience and hardship to consumers.



11 Prayers

11.1.1 In the circumstances and for the reason mentioned above, BEST respectfully submits and prays for the following relief:

- a) Admit the MYT Petition for Fourth MYT Control Period from FY 2020-21 to FY 2024-25 in accordance with Regulation 5.1(a) of the MYT Regulations, 2019;
- b) Approve the additional amount of ARR for FY 2017-18 on account of adjustment in GFA for the period of FY 2012-13 to FY 2016-17 due to reversal of IDC.
- c) Approve final true-up for FY 2017-18, FY 2018-19 and provisional true-up of FY 2019-20 and consequential revenue gaps for the claim, as submitted by BEST;
- d) Approve the ARR and Tariff for Fourth MYT Control Period from FY 2020-21 to FY 2024-25 as proposed by BEST;
- e) Condone any inadvertent omission / errors and grant the liberty to BEST to add/ change/ modify /alter this Petition and make further submissions as may be required at a future date;
- f) Pass such further and other Orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case.