

BEFORE THE BIHAR ELECTRICITY REGULATORY COMMISSION, PATNA

IN THE MATTER OF

PETITION NO.

Filling of the Petition for True-up for FY:2016-17, Annual Performance Review (APR) for FY:2017-18 and Revised Annual Revenue Requirement (ARR) for FY:2018-19 alongwith Separate ARR of SLDC under BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 along with the other guidelines and directions issued by the BERC from time to time and under Section 45,46,47, 61, 62, 64 and 86 of The Electricity Act. 2003 read with the relevant guidelines.

And,

Flor /11 [52 mag. 85 58 81 1

In the Matter of

Bihar State Power Transmission Company LimitedPetitioner

AFFIDAVIT

I, Rakesh, aged 59 Years ,S/o Late Kasheshwar Nath, working as Electrical Superintending Engineer (Training & Interstate Cell) in the Bihar State Power Transmission Company Limited having its registered office at 4th Floor, Vidyut Bhawan, Bailey Road, Patna 800021 do solemnly affirm and state as under:

 I am Electrical Superintending Engineer (Training & Interstate Cell), Bihar State Power Transmission Company Limited, and I am authorized to swear the affidavit on behalf of the Petitioner.

The Statement made in all the paragraphs are based on information and I believe them to be true.

the deponent above named do hereby verify that the contents of my above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there

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from.

VERIFICATION

(2)

Verified at Patna on day of November, 2017

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DEPONENT

MORILY UNG 301 2371117



BEFORE

THE BIHAR ELECTRICITY REGULATORY COMMISSION VIDYUT BHAWAN -II, PATNA

Petition

For

True – up for FY 2016-17

Annual Performance Review (APR) for FY 2017-18

And

Determination of Annual Revenue Requirement (ARR) and Transmission Tariff for FY 2018-19

For Bihar State Power Transmission Company Limited (BSPTCL)

Patna



Electrical Superintending Engineer (Training & Interstate Cell) 4th Floor, Vidyut Bhawan-1 Jawaharlal Nehru Marg Patna – 800 021 24 November 2017



BEFORE, THE BIHAR ELECTRICITY REGULATORY COMMISSION,

IN THE MATTER OF

Filing of the Petition for True-up of FY 2016-17, Annual Performance Review (APR) for FY 2017-18 and Determination of Annual Revenue Requirement (ARR) and Tariff for FY 2018-19 under BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 along with the other guidelines and directions issued by the BERC from time to time and under Section 45, 46, 47, 61, 62, 64 and 86 of The Electricity Act 2003 read with the relevant guidelines.

AND

IN THE MATTER OF

BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (hereinafter referred to as "BSPTCL" or "STU" or "Petitioner' 'which shall mean for the purpose of this petition the Licensee), having its registered office at Vidyut Bhawan-1, Jawaharlal Nehru Marg, Patna.

The Petitioner respectfully submits as under:

- 1. Pursuant to the enactment of the Electricity Act, 2003, Bihar State Power Transmission Company Limited (hereinafter referred to as BSPTCL) is filing this petition for truing up of FY 2016-17, "Annual Performance Review" (APR) for FY: 2017-18 and Determination of tariff for FY 2018-19 as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the governing regulations thereof.
- 2. The Multi-Year Tariff (MYT) petition on behalf of all the companies for control period FY 2013-14 to FY 2015-16 was filed on 14.11.2012 by BSPHCL on behalf of all companies and accordingly the Hon'ble Commission had issued common order for all entities (tariff order dated March 15, 2013).
- 3. The Petitioner had then filed petition for Annual Performance Review for FY





2013-14 and Revised ARR for FY 2014-15 on November 14, 2013 and accordingly the Hon'ble Commission had issued tariff order dated February 28, 2014.

- The Petitioner had then filed petition for True-up for FY 2013-14, Annual Performance Review (APR), Revised Annual Revenue Requirement (ARR) for FY 2015-16 and accordingly the Hon'ble Commission had issued tariff order dated March 12, 2015.
- 5. The Petitioner had then filed petition for True-up for FY 2014-15, Annual Performance Review (APR) for FY 2015-16 and approval of the "Annual Revenue Requirement (ARR)" for the period 2016-17 & determination of Multi Year tariff for FY 2016-17, 2017-18 & 2018-19 on December 28, 2015 and the Hon'ble Commission issued the Order on the Petition on March 21, 2016.
- The Petitioner filed the Review Petition on the Hon'ble Commission's Tariff Order dated March 21, 2016 and the Hon'ble Commission issued the Order on Review Petition on July 12, 2016.
- The Petitioner had then filed petition for True-up for FY 2015-16, Annual Performance Review (APR) for FY 2016-17 and Determination of Annual Revenue Requirement (ARR) and Tariff for FY 2017-18 and accordingly the Hon'ble Commission had issued tariff order dated March 9, 2017.
- This instant petition is being filed with the Hon'ble Commission for True-up for FY 2016-17, Annual Performance Review (APR) for FY 2017-18, Annual Revenue Requirement (ARR) for FY 2018-19 considering the approved values of MYT order dated 21.03.2016 and tariff order dated 9.03.2017.
- 9. The present petition is filed on independent basis by the BSPTCL.
- 10. This petition has been prepared in accordance with the provisions of Sections 61, 62 of the Electricity Act, 2003 and taking into consideration of the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 as amended time to time by the Hon ble Commission.
- 11. BSPTCL along with this petition is submitting the regulatory formats with



data & information to the extent applicable and would make available any further information/additional data required by the Hon'ble Commission during the course of proceedings.

Prayers to the Hon'ble Commission:

The Petitioner respectfully prays that the Hon'ble Commission may:

- a) Admit this petition;
- b) Examine the proposal submitted by the Petitioner in the enclosed petition for a favourable dispensation;
- c) Pass suitable orders with respect to the True-up for FY 2016-17 for Rs. 388.66 Crore, APR for FY 2017-18 for Rs. 700.36 Crore and ARR for FY 2017-18 for Rs. 1248.92 Crore.
- d) Approve the transmission charges as per the proposal and allow relaxation in tariff norms wherever sought for;
- e) Pass separate order for the Petitioner against the present petition;
- f) Condone any inadvertent omissions, errors, short comings and permit BSPTCL to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and
- g) Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

(Rakesh)

Dated: 24 November 2017

Electrical Superintending Engineer (Training & Interstate Cell)



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1 Introduction

1.1 Background

Bihar State Electricity Board ("Board" or "BSEB") originally constituted on 1st April 1958 under Section 5 of the Electricity (Supply) Act, 1948 and was engaged in the management of electricity generation, transmission, distribution and related activities in the State of Bihar.

Under the new 'Bihar State Electricity Reforms Transfer Scheme 2012', the BSEB has been unbundled into five companies: Bihar State Power (Holding) Company Limited (BSPHCL), Bihar State Power Transmission Company Limited (BSPTCL), Bihar State Power Generation Company Limited (BSPGCL), South Bihar Power Distribution Company Limited (SBPDCL) and North Bihar Power Distribution Company Limited (NBPDCL) with effect from 1st November' 2012 vide notification dated 30.10.2012.

- a) "Bihar State Power (Holding) Company Limited" or "BSP(H)CL" means the Company that will own shares of newly incorporated reorganized four companies i.e. Bihar State Power Generation Company Limited, Bihar State Power Transmission Company Limited, South Bihar Power Distribution Company Limited, and North Bihar Power Distribution Company Limited.
- b) "Bihar State Power Generation Company Limited" or "BSPGCL" means the Generating Company to which the Generating Undertakings of the Board are to be transferred in accordance with this Scheme
- c) **"Bihar State Power Transmission Company Limited"** or **"BSPTCL"** means the Transmission Company to which the Transmission Undertakings of the Board are to be transferred in accordance with this Scheme
- d) "South Bihar Power Distribution Company Limited" or "SBPDCL" and " North Bihar Power Distribution Company Limited" or "NBPDCL" collectively mean the Distribution Companies, to which the Distribution Undertakings of the Board are to be transferred in accordance with this Scheme.

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1.2 Profile of BSPTCL

Primarily, the transmission of power takes place at 400 kV, 220 kV and 132 kV voltage levels. The total capacity in the transmission system as on 15.11.2017 is as provided in the table below:

Sub-stations	FY 2016-17
220/132kV	6590
132/33kV	10890
132/25kV	109.90

Table 1-1: Power Transformer Capacity (in MVA)

Transmission Lines (in Ckm.)	FY 2016-17
220kV	3080.30
400 kV	
132 kV Double Ckt. Line	9081.59

The details of the substations covering name of sub-station and capacity are provided at details of Grid Sub-Station in the Tariff Forms annexed as Annexure 6.

The power supply position in the State of Bihar is improving and Bihar Utilities are taking all required steps to strengthen and develop the electricity infrastructure in transmission and distribution. Further the approvals have also been received for many projects under the 12th Plan, Backwards Region Grant Fund (BRGF)/Special Plan and State Plan Funds. Hence there is need to invest in the transmission and distribution sector in the State of Bihar.

1.3 Current Petition

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This Petition considers proposal for the Transmission Company for the True-up of FY 2016-17, revised ARR for FY 2017-18 and determination of the ARR and tariff for FY 2018-19 of BSPTCL.

Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Hon'ble Commission for determination of tariff. In addition, as per the regulations issued by the Hon'ble Commission, BSEB or its unbundled companies is required to file petition for all reasonable expenses which it believes would incur over the next financial year and seek the approval of the Hon'ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs.

The current petition is prepared in accordance with the provisions of the following Acts / Policies / Regulations:

- ➢ Electricity Act 2003;
- National Electricity Policy;
- National Tariff Policy;
- BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 as amended time to time
- BERC (Terms and Conditions for Open Access) Regulations, 2005 as amended time to time

BSPTCL has made genuine efforts for compiling all relevant information relating to the APR / ARR petition as required by the Regulations issued by the Hon'ble Commission and has also made every effort to ensure that information provided to the Hon'ble Commission are accurate and free from material errors.

However, there may be certain deficiencies / infirmities in the petitions owing to the different aspects related with the operations of Transmission Company on independent basis. Hence, BSPTCL prays to the Hon'ble Commission that the information provided be accepted for the current filing and deficiencies if any may please be condoned. BSPTCL assures the Hon'ble Commission that appropriate



measures have been taken to improve the management information system for improved data collection.

1.4 Contents of the Petition

The present petition comprises of main sections namely:

- ➤ True-up for FY 2016-17
- > Annual Performance Review (APR) for FY 2017-18
- > Determination of tariff for FY 2018-19.



2 Approach for filing the Petition

The Hon'ble Commission in order dated 21.03.2016 approved the true up of FY 2014-15, APR for FY 2015-16 and ARR for FY 2016-17 to FY 2017-18 and determination of tariff for FY 2016-17.

Thereafter, the Hon'ble Commission in order dated 9.03.2017 approved the true up of FY 2015-16, APR for FY 2016-17 and ARR & determination of tariff for FY 2017-18.

Regulation 22 of Tariff Regulations, 2007 stipulates as follows:

"22 Review and Truing up

(1) The Commission shall undertake a review along with next Tariff Order, of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.

(2) After audited accounts of the year are made available, the Commission shall undertake a similar exercise as in sub-clause (1) above based on the final actual figures as per the audited accounts. This exercise based on the audited accounts shall be called 'Truing up'. The truing up exercise for any year shall not ordinarily be considered after more than one year gap after 'Review'.

(3) The Revenue gap of next year shall be adjusted as a result of Review and Truing up exercises.

(4) While approving adjustments towards revenue / expenses in future years, arising out of Review / Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses / revenues, Carrying costs shall be limited to the interest rate approved for working capital borrowings."

This petition contains the actual data for FY 2016-17 based on the audited accounts for FY 2016-17. Further, estimates for FY 2017-18 have also been revised based on the actual performance of the licensee during the first six months (April 2017 to September 2017) of FY 2017-18.

BSPTCL Tariff Petition for True-up of FY 2016-17, APR of FY 2017-18 and determination of ARR and Tariff for FY 2018-19 Page 15



In line with the above, BSPTCL is filing the present petition for the True-up for FY 2016-17, Annual Performance Review (APR) for FY 2017-18 and Determination of tariff for FY 2018-19.



3 True up for FY 2016-17

3.1 Introduction

The Petitioner is filing the present petition for the true-up of FY 2016-17 based on the audited annual accounts for the year, Annual Performance Review (APR) for FY 2017-18 based on the actual data of previous Six (6) months and determination of Tariff for FY 2018-19.

3.2 Transmission Loss

The transmission loss trajectory approved by the Hon'ble Commission in the MYT order dated 21.3.2016 and Tariff Order dated March 9, 2017 is provided in the table below:

Table 3-1: Transmission Loss approved by the Hon'ble Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Transmission Loss	3.92%	3.92%	3.92%

The Actual transmission loss for FY 2016-17 is 4.74% as per the audited accounts of the petitioner as shown in the Table below:

Particulars	FY 2016-17
Energy Input (in Kwh)	23977916298
Energy Output (in Kwh)	22841024473
Transmission Loss (in Kwh)	1136891825
Transmission Loss (%)	4.74%

Table 3-2: Actual Transmission Loss for FY 2016-17

SBPDCL has prepared the energy accounting for the month of September, 2017 mentioning the State transmission loss as 4.29%.



The Petitioner in this regard has analysed the losses in each GSS as well as losses in transmission lines at 220KV level and 132 KV Level, the same is annexed as Annexure-12.

Out of 119 GSS of BSPTCL it has been observed that 60 GSS has transmission loss less than 2% and 6 GSS have less than 3% and very few GSS have losses more than 3% and negative. Which may due to defective energy meter or error in connection of CT &PT. Steps are being taken to check the CT &PT connection of that Grids & for replacement of defective meters, procurement is being done by BSPTCL for which tender has already been floated.

The average Transmission lines losses at 220KV level is 1.52% and at 132KV level 1.47% some of Transmission line has not been calculated due to defective meter or non-availability of meter reading at PGCIL end.

On perusal of above facts, it reflects that transmission losses of BSPTCL are generally less than 3%.

3.3 Capitalisation

The capitalization for FY 2016-17 as per the audited accounts of the petitioner is Rs 993.08 Crores as against the capitalisation of Rs 1256.03 Crore approved by the Hon'ble Commission in Tariff Order dated March 9, 2017. The comparison of the actual and approved is provided in the table below:

S1.	Particulars	FY 2016-17			
No.		MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
1	Opening CWIP	2164.11	2249.69	2236.14	
2	New Investment	2456.13	1953.49	1871.77	
3	Less: Capitalization	1664.32	1256.03	993.08	
4	Closing CWIP	2955.92	2947.15	3114.83	

Table 3-3: CWIP and Capitalisation for FY 2016-17 (Rs. Crores)



The capitalization has been lower as compared to the approved figures and the remaining schemes are expected to be capitalized in the remaining years of the control period.

The Petitioner requests the Hon'ble Commission to approve the above and capitalization figures shown in the table above.

3.4 Gross Fixed Assets

The Petitioner hereby submits the computation of Gross Fixed Assets considering the opening GFA and closing GFA for FY 2016-17 as reflected in the audited annual accounts for FY 2016-17. The Gross addition in GFA for the year is Rs 993.08 Crore. The computation of Gross Fixed Assets for FY 2016-17 is tabulated below:

			FY 2016-17	
Sl No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up
1	Opening GFA as on 01.04.2016	4883.78	4033.62	4033.63
2	Add: Additions during year (NET)	1664.32	1256.03	993.08
3	Less: Deductions			
4	Add: Interest during Construction (IDC)	12.56	1.88	-
5	Closing GFA	6560.66	5291.53	5026.71

Table 3-4: Gross Fixed Assets for FY 2016-17 (Rs. Crores)

The Petitioner requests the Hon'ble Commission to approve the GFA as per the above table.

3.5 Depreciation

The depreciation for FY 2016-17 as per the audited accounts is Rs 160.71 Crore. Further, land and land rights have not been subject to any depreciation. The Petitioner has excluded land and land rights from the average GFA during FY 2016-17 and then applied the weighted average rate of depreciation of 5.11% for arriving



at the depreciation. Closing depreciable GFA and Grants approved by the Hon'ble Commission for FY 2015-16 in Tariff Order dated March 9, 2017 have been considered as opening depreciable GFA and Grants for FY 2016-17, respectively.

The depreciation for the true-up of FY 2016-17 is as shown under:-

SI		Net an University and	FY 2016-17	
No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up
1	Opening depreciable GFA as on 01.04.2016	3517.66	2650.58	2650.58
2	Additions during year	1664.32	1256.03	993.08
3	Less: Value of Land			9.11
4	Less: Deductions			0.00
5	Interest during Construction	12.56	1.88	-
6	Closing GFA(1+2-3-4+5)	5194.54	3908.48	3634.55
7	Average GFA (1+6)/2	4356.10	3279.53	3142.57
8	Weighted Avg. Rate of Depreciation	3.36%	5.13%	5.11%
9	Depreciation (7*8)	146.36	168.24	160.71
10	Opening Grants	2187.48	1636.04	1636.04
11	Grants during year	696.32		0.00
12	Less: Amortisation during the year	-	_	0.00
13	Total Grants (10+11-12)	2883.8	1636.04	1636.04
14	Average Grants (10+13) / 2	2535.64	1636.04	1636.04
15	Weighted Avg. Rate of Depreciation	3.36%	5.13%	5.11%
16	Depreciation for GFA on Grants (14*15)	85.20	83.93	83.67
17	Net Depreciation for GFA on Loans (9-16)	61.17	84.31	77.04

Table 3-5: Depreciation on GFA for FY 2016-17 (Rs. Crores)

The Petitioner requests the Hon'ble Commission to approve the depreciation for FY 2016-17 as per the above Table.





3.6 Interest & Finance Charges

The Petitioner for the computation of weighted average interest rate for FY 2016-17 has considered the opening and closing loan balances from the audited annual accounts of FY 2016-17.

The computation of weighted average interest rate for FY 2016-17 has been shown in the table below.

Sr. No.	Source of Loan	Opening Balance as on 1.04.16	Addition	Repayment	Closing Balance as on 31.03.17	Interest Accrued during FY 2016-17	Average Loan during FY 2016-17	Average Rate of Interest (%)
1	State Govt. Loan	195.96	144.59	-	340.55	26.06		
2	ADB Loan	136.89	68.10	-	204.98	12.04		
3	PFC Loan	0.00	90.00	90.00	0.00	1.31		
4	Total	332.84	302.69	90.00	545.53	39.41	439.19	8.97%

Table 3-6: Computation of Weighted Average Interest Rate on Loans (Rs. Crores)

The Petitioner, for the purpose of computation of interest, has considered the opening loan for FY 2016-17 based on the closing loan approved in true up for FY 2015-16 in Tariff Order dated March 9, 2017 and loan additions during FY 2016-17 is considered @70% of the capitalisation (net of grants) in terms of Regulation 71 (1)(ii) of the BERC Regulations, 2007.

The Petitioner has considered the repayment of loans equivalent to Depreciation allowed during FY 2016-17 in this true up.

Further, Petitioner claims amount of Rs 0.003 Crores which have been incurred as finance charges in the form of bank charges, interest to group saving schemes, interest on security deposit from staff etc. The same are as per the audited accounts of the Petitioner for FY 2016-17.

The computation for interest on loan for FY 2016-17 is shown in the Table below:-

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		FY 2016-17			
Sl No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
1	Opening Loan	685.77	454.4	454.40	
2	Additions during year	686.39	880.54	695.15	
3	Repayment	61.17	84.31	77.04	
4	Closing Loan (1+2-3)	1310.99	1250.63	1072.51	
5	Average Loan (1+4)/2	998.38	852.51	763.46	
6	Rate of Interest	7.15%	7.20%	8.97%	
7	Interest on Loan	71.38	61.38	68.51	
8	Financing Charges	0.01	0.01	0.003	
9	Total Interest and Financing Charges	71.39	61.39	68.51	

Table 3-7: Interest on Loans for FY 2016-17 (Rs. Crores)

The Petitioner requests the Hon'ble Commission to approve the interest and finance charges for FY 2016-17 as submitted above.

3.7 Operation & Maintenance Expenses

3.7.1 Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

The Petitioner submits employee expenses of Rs 101.90 Crore for FY 2016-17 as per the audited accounts of the Petitioner. The comparison of the employee expenses as per actual and as approved earlier by the Hon'ble Commission is as below.

C		FY 2016-17			
Sr. No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
1	Employee Cost	97.69	98.99	101.90	
2	Indexation	4.65%	2.59%		
3	Add: Inflationary Increase	4.54	2.56	0.00	

Table 3-8: Employee Expenses for FY 2016-17 (Rs. Crore)



Sr.		FY 2016-17			
Sr. No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
4	Employee Cost (sub-total)	102.23	101.55	101.90	
5	Less: Support by State Govt. against terminal benefits				
6	Employee Cost	102.23	101.55	101.90	
7	Less: Employee cost capitalized				
8	Net Employee Cost	102.23	101.55	101.90	

The details of the employee expenses for FY 2016-17 as per the audited accounts of the Petitioner are as below.

Sl. No	Particulars	Employee Expenses
1	Salaries	387,442,715
2	Over Time	44,445,611
3	Dearness Allowance	437,643,947
4	Other Allowance	34,346,956
5	Medical Expenses Re-imbursement	2,958,410
6	Staff Welfare Expenses	1,285,632
7	Terminal Benefits	110,917,486
8	TOTAL	1019040757.00

Table 3-9: Details of Employee Expenses for FY 2016-17 (in Rs.)

The Petitioner requests the Hon'ble Commission to approve the actual employee expenses of Rs 101.90 Crore for FY 2016-17 as the same are as per the audited annual accounts of the Petitioner for FY 2016-17 and almost equal to the employee expenses approved by the Commission for FY 2016-17.

3.7.2 Repairs & Maintenance Expenses

The Petitioner has initiated major drive for maintenance and up-keep of its existing transmission assets and also incurred substantial capital expenditure in the improvement of the existing intra state transmission infrastructure to improve the





transmission system reliability matching with the short term & long term demand of the State. Repairs and Maintenance expenses claimed in the true up is based on the audited accounts of FY 2016-17.

The Petitioner submits that R&M expenses as per the audited accounts of the petitioner company are Rs. 47.24 Crore incurred during FY 2016-17. The comparison of the R&M expenses as per actual and as approved earlier by the Hon'ble Commission is as below.

C		FY 2016-17			
Sr. No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
1	Base R&M Cost	38.21	36.17	47.24	
2	Inflationary Index	4.65%	2.59%		
3	Add: Inflationary Increase	1.77	0.94	-	
4	Total (4=1+3)	39.98	37.11	47.24	

Table 3-10: R&M Expenses for FY 2016-17 (Rs. Crores)

The Petitioner requests the Hon'ble Commission to approve the R&M expenses of Rs 47.24 Crore keeping in view the substantial amount incurred by the petitioner to upkeep & strengthen the existing intra state transmission infrastructure to evacuate large quantum of power matching with demand, which is still in progress.

The details of the R&M expenses for FY 2016-17 as per the audited accounts of the Petitioner are as below;

Sl. No	Particulars	R&M Expenses
1	Plant and Machinery	285729023
2	Building	18498457
3	Civil Works	62598555
4	Hydraulic Works	2733342
5	Line Cable Net Works	100528766
6	Vehicles	49979
- 7	Furniture and Fixture	2039873
8	Office Equipment	189757

Table 3-11: Details of R&M Expenses for FY 2016-17 (in Rs.)



Sl. No	Particulars	R&M Expenses
TC	DTAL	472367752

The Petitioner requests the Hon'ble Commission to approve the R&M expenses as submitted above for FY 2016-17.

3.7.3 Administration & General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances & Holding Company Expenses and other debits.

The Petitioner submits that A&G expenses of Rs 28.04 Crore have been incurred for FY 2016-17 and the same are as per the audited accounts of the Petitioner. The comparison of A&G expenses as per actual and as approved earlier by the Hon'ble Commission is as below;

Table 3-12: A&G Expenses of Transmission Company for FY 2016-17 (Rs. Crores)

CI		FY 2016-17			
Sl. No	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up	
1	Base A&G Expense	8.86	16.14	28.04	
2	Inflationary Increase	4.65%	2.59%		
3	Add: Inflationary Increase	0.42	0.42	0.00	
4	A&G Expense	9.28	16.56	28.04	
5	Less: A&G cost capitalized				
6	Net A&G Expenses	9.28	16.56	28.04	

The details of A&G expenses for FY 2016-17 as per the audited are as below;

Sl. No	Particulars	A&G Expenses
1	Rent, Rates & Taxes	14,183,415
2	Insurance	20,979,733



Sl. No	Particulars	A&G Expenses
3	Telephone charges, Postage, Telegram and Telex Charges.	4,063,794
4	Legal Charges.	383,746
5	Audit Fees	162,630
6	Consultancy Charges	2,357,109
7	Director's Sitting Fees	28,000
8	Interest on Taxes Paid	-
9	Technical Fees	1,322,430
11	Other Professional Charges	127,195
12	Conveyance & Travel	33,217,279
13	Prel Exp W/off	3,621,704
14	Other Expenses.	
	Fees & Subscription	26,682,087
	Books & Periodicals	163,092
	Printing & Stationary	2,276,371
	Advertisement	12,821,449
	Exp. On CSR	3,621,566
	Loss on Fire/Theft of stock	
	Electricity Charges	99,102,119
	Entertainment Charges	1,541,568
	Commission for sale of scrap	4,520,931
	Home Guard/ Security Guard	41,015,159
	Miscellaneous Expenses	8,057,854
15	Freight	16,540
16	Other Purchase related Expenses	155,300
22	Total	28042107

The Petitioner requests the Hon'ble Commission to approve the A&G expenses as submitted above for FY 2016-17.

3.7.4 Allocation of Holding Company Cost

The Petitioner submits that holding company expenses of Rs 4.95 Crore have been reported for FY 2016-17 as per the audited accounts of the Petitioner. The

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comparison of the holding company expenses as per actual and as approved earlier by the Hon'ble Commission is as below.

Sl. No			FY 2016-17		
	Particulars		MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up
1	Holding Expenses	Company	5.00	7.29	4.95

 Table 3-14: Holding Company Expenses for FY 2016-17 (Rs. Crore)

The Petitioner requests the Hon'ble Commission to approve the A&G Expenses of BSPTCL and Holding company expenses as submitted above for FY 2016-17.

3.7.5 Summary of O&M expenses

The summary of the O&M expenses is tabulated below for reference:

	Table 3-15: 04	&M Expenses	for FY 2016-17 (Rs	. Crores)
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Sl. No.		FY 2016-17				
	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up		
1	Employee Expenses 102.2		101.55	101.90		
2	Repair and Maintenance Expenses	39.98	37.11	47.24		
3	Administrative and General Expenses	9.28	16.56	28.04		
4	Holding Company Expenses	5.00	7.29	4.95		
5	Total O&M Expenses	156.49	162.51	182.13		
6	Less: Cost Capitalized	0.00	0.00	0.00		
7	Net O&M Expenses	156.49	162.51	182.13		

The Hon'ble Commission is requested to approve the above O&M expenses for FY 2016-17.



3.8 Return on Equity

The Petitioner, for the purpose of computation of return on equity, has considered the opening equity for FY 2016-17 based on the closing equity approved in true up for FY 2015-16 in Tariff Order dated March 9, 2017 and equity additions during FY 2016-17 is considered @30% of the capitalisation (net of grants) in terms of BERC Regulations, 2007.

The computation of return on equity for FY 2016-17 is tabulated below:

C1			FY 2016-17				
SI. No.	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up			
1	Opening Equity as on 31.3.2015	375.41	375.41	375.41			
2	Rate of Return on Equity	14.00%	14.00%	14.00%			
3	Return on Equity (1*2)	52.56	52.56	52.56			
4	Equity on projects commissioned w.e.f 1.4.2015	112.91	23.30	23.30			
5	Addition in FY 2015-16	294.17	377.37	297.92			
6	Closing Equity Balance (4+5)	407.08	400.67	321.22			
7	Average Equity (4+6/2)	203.54	211.98	172.26			
8	Rate of Return on Equity	15.50%	15.50%	15.50%			
9	Return on Equity	31.55	32.86	26.70			
10	Total	84.10	85.42	79.26			

Table 3-16: Return on Equity for FY 2016-17 (Rs. Crores)

3.9 Interest on Working Capital

The Petitioner has arrived at the working capital requirement according to applicable norms for transmission function provided in the BERC (Terms and Conditions of Tariff) Regulations, 2007 as amended from time to time, which are reproduced in the following table for reference:

Table 3-17: Norms for Working Capital Requirement



Sr. No.	Particulars	Norm
1.	Operation & Maintenance	One month
2.	Maintenance spares	1% of the historical cost escalated at 6% per annum
3.	Receivables	Two months of transmission charges
4.	Rate of Interest on Working Capital	Rate of interest on working capital will be computed at 350 basis point over and above the SBI base rate.

The rate of interest applied on the working capital is SBI base rate plus 350 basis points i.e. is 12.80%. The normative interest on working capital for FY 2016-17 computed as per the above norms is as shown below:

Sl. No.		FY 2016-17				
	Particulars	MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up		
1	O&M Expenses for 1 Month	13.04	13.54	15.18		
2	Maintenance Spares @1% of Opening GFA with 6% escalation	38.46	29.45	29.45		
3	Receivables 2 Months	58.73	63.33	64.78		
4	Total Working Capital	110.23	106.32	109.41		
5	Rate of Interest	13.50%	12.80%	12.80%		
6	Interest on Working Capital	14.88	13.61	14.00		

Table 3-18: Interest on Working Capital for FY 2016-17 (Rs. Crore)

The Petitioner requests the Hon'ble Commission to approve the computation of working capital and the interest charges thereon for FY 2016-17 based on the actual components of the normative working capital.

The Petitioner requests the Hon'ble Commission to approve interest on working capital of for FY 2016-17 as per the above Table.

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3.10 Income Tax

The petitioner has made a payment of Rs 0.46 Crore as income tax for the FY 2016-17, which can be verified from income tax return filed for FY 2016-17, annexed as Annexure 5.

The Petitioner requests the Hon'ble Commission to approve the income tax of Rs. 0.46 Crore for FY 2016-17 as part of True up for FY 2016-17.

3.11 Prior Period expenses

The Petitioner submits prior period expenses for FY 206-17 as Rs 1.26 Crore from the Audited Accounts for FY 2016-17. The details of which are shown in the Table below:

Period/Dates	Particulars	Amount
12/06/2013	Project deposit	7,692,095.00
12/06/2013		204,410.00
17/06/2013		158,564.00
25/06/2013		829,924.00
13/07/2013		146,110.00
17/07/2013	Service Tax on Supervision	116,704.00
21/12/2013	charges	8,696.00
30/12/2013		77,717.00
10/10/2014		301,852.00
11/02/2015		
FY 2015-16	CSR expense	3,056,960.00
Total		12,593,032.00

Table 3-19: Prior Period expenses for FY 2016-17 (in Rs.)

On June 12, 2013, due to mistake project deposit of Rs. 7,692,095.00 ws booked as income under supervision charges. Further, full supervision charge from 12.6.2013 to 11.2.2015 detailed above were booked as income without deducting service tax.

Now in FY 2016-17 all detailed entries are booked as prior period expenses. Challans for the depositing of Service Tax has been annexed as Annexure 7.

It is requested to the Hon'ble Commission to approve the Prior Period expenses of Rs 1.26 Crore as per the Audited Accounts for FY 2016-17.





3.12 Incentive on achieving Targeted Availability

The Hon'ble Commission in its Tariff Order dated March 9, 2017 has approved the Target Availability of 98% for the recovery of 100% ARR in FY 2016-17 as per Regulation 68 and 74 of BERC Tariff Regulation, 2007 as amended from time to time.

The actual availability of BSTPCL for FY 2016-17 is 98.93% and hence BSPTCL is entitled for incentive for actual availability being higher than normative target availability. The supporting document for actual monthly Availability for FY 2016-17 has been annexed as Annexure 10.

Regulation 76 of the BERC Tariff Regulation, 2007 amend from time to time, is reproduced below:

"(1) The transmission licensee shall be entitled to incentive @ 1% of equity for each Percentage point of increase in annual availability beyond the target availability prescribed under Regulation 68 in accordance with the following formula: Incentive = Equity X (Annual availability achieved – target availability)÷ 100

 $Incentive = Equity X (Annual availability achieved - target availability) \div 100$

(2) Incentive shall be shared by the long-term customers in the ratio of their average allotted transmission capacity for the year.

Considering the same methodology prescribed in the aforementioned Regulation, the computation for incentive is shown in the Table below:

S. No.	Month	Percentage Transmission System Availability Factor (%)	Targeted Availability (%)	Diff (%)	Average Equity for FY 2016-17 (Rs Crore)	Incentive (Rs Crore)
		Α	В	C=A-B	D	E=C*D
1	Apr-16	99.36	98	1.36		
2	May-16	99.03	98	1.03		
3	Jun-16	99.13	98	1.13		
4	Jul-16	98.95	98	0.95		
5	Aug-16	98.77	98	0.77		
6	Sep-16	98.74	98	0.74		

Table 3-20: Computation for incentive for FY 2016-17



S. No.	Month	Percentage Transmission System Availability Factor (%)	Targeted Availability (%)	Diff (%)	Average Equity for FY 2016-17 (Rs Crore)	Incentive (Rs Crore)
		Α	В	C=A-B	D	E=C*D
7	Oct-16	98.89	98	0.89		
8	Nov-16	98.13	98	0.13		
9	Dec-16	98.87	98	0.87		······································
10	Jan-17	99.05	98	1.05		<u> </u>
11	Feb-17	99.31	98	1.31		
12	Mar-17	98.94	98	0.94		
	FY 2016-17	98.93	98.00	0.93	547.67	5.1

The Petitioner requests the Hon'ble Commission to approve the incentive for FY 2016-17 as per above Table so that the same can be recovered from the long-term customers in the ratio of their average allotted transmission capacity for the year as per Regulation 76 of the BERC Tariff Regulation, 2007 amended from time to time.

3.13 Non-Tariff Income

The Petitioner submits non-tariff income of Rs. 39.10 Crore for the true-up for FY 2016-17 as per the audited accounts for the year. The comparison of the non-tariff income as per actual and as approved earlier by the Hon'ble Commission is as below.

Table 3-21: Non-Tariff Income	e for FY 2016-17 (Rs. Crore	es)
-------------------------------	-----------------------------	-----

Sl. No.	Particulars	FY 2016-17		
		MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up
1	Non-Tariff Income	35.49	25.36	39.10

The details of non-tariff income for FY 2016-17 as per the audited accounts of the Petitioner are as below.

Table 3-22: Details of Non-Tariff Income for FY 2016-17 (Rs. Crores)

SI.	Pasti aulana	EV 2016 15
No	Farticulars	FI 2010-1/
NO		



Sl. No	Particulars	FY 2016-17
Α	Interest Income	
1	Interest on Staff Loan & Advances	0.000
2	Income from Investment (Fixed Deposit)	0.00
3	Interest from Banks (Other than Fixed Deposit)	16.40
	Sub-total (A)	16.40
В	Other Income	
1	Income from Scrap Sale	13.20
2	Miscellaneous Receipts	0.81
3	Application fee received	0.00
4	Lease Rental Income	0.88
	Sub-total (B)	14.88
С	Other operative income	
1	Supervision charges	6.20
2	Other transmission charges	1.62
	Sub-total (C)	7.82
	Total (A + B+C)	39.10

The Petitioner requests the Hon'ble Commission to approve the Non-Tariff Income for FY 2016-17 as submitted in table above.

3.14 Transmission ARR for True-up for FY 2016-17

The Annual Fixed Charges or Transmission charges have been arrived at by aggregating all the expenses detailed in the previous sections i.e. Depreciation, Interest on Loan, Interest on Working Capital, O&M expenses and ROE. The total expenses less Non-Tariff income are the net Annual Fixed Charges or Transmission charges.

Accordingly, following is the summary of revised projections of Aggregate Revenue Requirement of the Petitioner for the true-up of FY 2016-17 for approval by the Hon'ble Commission.

 Table 3-23: Transmission ARR for True-up of FY 2016-17 (Rs. Crores)



Sr. No.	Particulars	FY 2016-17		
		MYT Order dated 21.3.2016	Tariff Order Dated 9.03.2017	True-up
1	O&M Expenses	156.49	162.51	182.13
а	Employee Expenses	102.23	101.55	101.90
b	R&M Expenses	39.98	37.11	47.24
С	A&G Expenses	9.28	16.56	28.04
d	Holding Company Expenses Allocated	5.00	7.29	4.95
е	Less: O&M exp. capitalised	0.00	0.00	0.00
2	Less: IDC	12.56	1.88	0.00
3	Depreciation	61.17	84.31	77.04
4	Interest and Finance Charges	71.39	61.39	68.51
5	Interest on Working Capital	14.88	13.61	14.00
6	Return on Equity	84.11	85.42	79.26
7	MAT			0.46
8	Prior Period expenses			1.26
9	Incentive			5.10
10	Gross Annual Revenue Requirement	388.04	405.36	427.76
11	Less: Non-Tariff Income	35.49	25.36	39.10
12	Net Revenue Requirement	352.55	380.00	388.66

The Petitioner would like to submit that the Transmission Charges for true-up of FY 2016-17 have been determined based on the applicable rules and regulations of the Hon'ble Commission and based on the audited account of BSPTCL for FY 2016-17. In view of the submitted facts and explanations, the Petitioner humbly prays to the Hon'ble Commission for approval of the true-up of ARR for FY 2016-17 and the resultant revenue gap to be allowed to be recovered as part of the Transmission Charges of the Petitioner for FY 2018-19 to be recovered from the two distribution companies.



3.15 Revenue Gap/(Surplus) for FY 2016-17

The Hon'ble Commission in order dated 21.03.2016 had approved the transmission charges for FY 2016-17 on per unit basis. The Petitioner filed the review petition on the said Tariff Order before the Hon'ble Commission but the Hon'ble Commission rejected the Petition without going in to the merit of the review Petition, as the petition was time barred.

Recovery of transmission charges on per unit based on rate of 10.40 Paisa per Unit approved by the Hon'ble Commission in Tariff Order dated for 21.3.2016 for FY 2016-17 is shown in the Table below:

Table 3-24: Recovery of transmission charges on per unit basis for FY 2016-17 (Rs.
Crore)

)			
Particulars	FY 2016-17		
Energy delivered to Discoms (in Kwh)	22841024473		
Rate (Paisa per unit)	10.4		
Revenue	237.55		

The Petitioner mistakenly billed Rs 277.84 Crore which is also reflected in the Audited Accounts. The Petitioner has revised the bill based on actual energy delivered to Discoms. NBPDCL from April, 2016 to January, 2017 has paid Rs 84.26 Crore and SBPDCL from April, 2016 to July, 2016 has paid Rs 54.64 Crore. Total amount received from Discoms for FY 2016-17 is Rs 138.90 Crore.

As the recovery of transmission charges on per unit basis for FY 2016-17 as per the methodology approved by the Commission works out to Rs 237.55 Crore, the same has been considered for computing the revenue gap for FY 2016-17. The revenue gap for FY 2016-17 as per the true-up is as below:

Table 3-25: Revenue Gap / (Surplus) for FY 2016-17 (Rs. Crores)


「主義王王」の日本			FY 2016-17	
Sl. No.	Particulars	Tariff Order Dated 21.03.2016	Tariff Order Dated 9.03.2017	True-up
1	Aggregate Revenue Requirement for FY 2016-17	352.55	380.00	388.66
2	Less: Earlier Approved Annual Transmission Charges for the year	74.71	74.71	74.71
3	Annual Transmission Charges	277.84	305.29	313.95
4	less: Transmission charges Recovered	277.84	277.84	237.55
5	Revenue Gap (+)/Surplus (-) for FY 2016- 17	0.00	27.46	76.41

The Petitioner prays that revenue gap for FY 2016-17 as per the above Table may be approved and Hon'ble Commission allow recovery of the same in the Transmission ARR for FY 2018-19 from NBPDCL & SBPDCL respectively.





4 Annual Performance Review (APR) for FY 2017-18 and Determination of ARR & Tariff for FY 2018-19

4.1 Introduction

The instant petition is related with Annual Performance Review (APR) for FY 2017-18 and approval of revised Aggregate Revenue Requirement and Tariff for FY 2018-19. The Petitioner has prepared the APR for FY 2017-18 and Revised ARR for FY 2018-19 based on the audited annual accounts for the year FY 2016-17 and actual data of previous six (6) months from April to September in FY 2017-18.

Transmission Charges for FY 2018-19 to be recovered from the two distribution companies namely SBPDCL and NBPDCL have also been laid out in this chapter.

4.2 Performance of Transmission System

4.2.1 Availability of Transmission System

The Petitioner submits that its system availability for each month from April, 2017 to August, 2017 as per the latest available data is shown in the Table below:

S. No.	Month	Percentage Transmission System Availability Factor (%)
1	Apr-17	99.13
2	May-17	99.34
3	Jun-17	99.32
4	Jul-17	98.40
5	Aug-17	98.35

Table 4-1: Approved Transmission Loss Trajectory

4.2.2 Transmission Loss & Revised Trajectory

The transmission loss trajectory approved by the Hon'ble Commission in the MYT order dated March 26, 2016 and Tariff Order dated March 9, 2017 is provided in the table below:



Particulars	FY 2017-18	FY 2018-19
Approved Transmission Loss (%)	3.92%	3.92%

Table 4-2: Approved Transmission Loss Trajectory

As stated in the earlier chapter, the actual transmission loss for the Petitioner is less than 3.00%. The Petitioner requests the Commission to approve the transmission loss trajectory of 3.92% stipulated by the Hon'ble Commission in Tariff Order dated March 9, 2017.

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4.3 Capital Investment Plan

The Petitioner had submitted the Capital investment plan of Rs. 6081.31 Crore from FY 2015-16 to FY 2018-19 in the last year's petition and the same was provisionally approved by the Hon'ble Commission in the Order dated 21 March 2016 in Case No. 50 of 2016. Based on actual expenditure incurred till FY 2016-17 and the progress of works, the revised Capital Investment Plan for FY 2016-17 and FY 2017-18 is given in following Tables.

4.3.1 BRGF

Table 4-3: Capital Expenditure Details under BRGF Fund, Government of Bihar (Rs. Crore)

				So	urce of 1	Source of Funding		Capital I	Capital Expenditure		C	Capitalisation
Sr. No.	Scheme	Name of funding agency	Original Project Cost	Revised Project cost	Loan	Loan Equity	FY 2016- 17	FY 17-18	FY 2018-19	FY 2016- 17	FY 17-18	FY 17-18 FY 2018-19
	BRGF SCHEMES											
	Strengthening of Sub Transmission System Phase -II Extension		472.53	486.23		486.23	35.35	35.35 150.66		206.03	112.53	26.08

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				So	urce of 1	Source of Funding		Capital E	Capital Expenditure		0	Capitalisation
Sr. No.	Scheme	Name of funding agency	Original Project Cost	Revised Project cost	Loan	Equity	FY 2016- 17	FY 17-18 F	FY 2018-19	FY 2016- 17	FY 17-18	FY 2018-19
2	Strengthening of Sub Transmission System Phase -III Part-I		1620.02	1818.06		1818.06	472.89	240.02	40.00	422.31	1,081.54	275.00
ę	Construction of 220/132/33 KV G.S.S. Kishanganj with associated 220KV,132KV & 33 KV Lines for evacuation of power from 400/220 GSS Kishanganj(PGCIL) Phase III Part-II		391.10	434.92		434.92	171.83	38.22		85.84	296.29	52.79
4	Strengthening of Sub Transmission System Under BRGF(Special Plan) (N-1) Scheme		371.98	392.56		392.56	110.79	60.35	8.04	46.23	333.65	12.68
	Grand Total		2855.63	3131.77		3131.77	790.86	489.25	48.04	760.41	1,828.94	366.56

4.3.2 ADB Funded Scheme

ADB has provided loans to BSPTCL under Bihar Power System Improvement Project. The schemes classified as old projects were sanctioned by ADB in FY 2012-13 and rest of the projects are being awarded in FY 2016-17. The Capital Expenditure under ADB Funded Schemes is given in the table below:

BSPTCL Tariff Petition for True-up of FY 2016-17, APR of FY 2017-18 and determination of ARR and Tariff for FY 2018-19



Table 4-4: Capital Expenditure ADB Funded schemes (Rs. Crore)

TUT	and a second with the second second second		-								
		Name		Source of Funding	e of ing	Capi	Capital Expenditure	nditure		Capitalisation	ion
Sr. No	Scheme	of fundin g agency	Origina 1 Project Cost	Revised Project cost	Loan	FY 2016 -17	FY 17- 18	FY 2018- 19	FY 2016 -17	FY 17-18	FY 2018-19
	ADB SCHEMES										-
-	Bihar Power Systems improvement project										
a)	ICB No 33/Package M-1/ BSPTCL/ADB/2016			40.86	40.86		40.86	00.00		40.86	
(q	ICB No 31/Package K-1/ BSPTCL/ADB/2016			44.00	44.00		44.00	00.00		44.00	
c)	ICB No 32/Package L-1/ BSPTCL/ADB/2016			35.46	35.46		35.46	0.00		35.46	
q)	ICB No 30/Package J-1/BSPTCL/ADB/ 2016		570 37	66.80	66.80		66.80	0.00		66.80	
e)	ICBNo 24/Package D-1/ BSPTCL/ADB/ 2016		10.7 10	18.91	18.91		18.91	0.00		18.91	
IJ	ICBNo 27/Package G-1/ BSPTCL/ADB/ 2016			33.02	33.02		33.02	00:00		33.02	
g)	ICBNo 28/Package H-1/ BSPTCL/ADB/ 2016			40.26	40.26		40.26	00.0		40.26	
(H	ICBNo 25/Package E-1/ BSPTCL/ADB/ 2016			28.29	28.29		28.29	00:0		28.29	

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		Name		Source of Funding	e of ing	Cal	oital Exp	Capital Expenditure	「日本の	Capitalisation	tion
Sr. No	Scheme	ot fundin g agency	Origina 1 Project Cost	Revised Project cost	Loan	FY 2016 -17	FY 17- 18	FY 2018- 19	FY 2016 -17	FY 17-18	FY 2018-19
i)	ICBNo 26/Package F-1/ BSPTCL/ADB/ 2016			59.10	59.10		59.10	0.00		59.10	
(i	ICBNo 23/Package C-1/ BSPTCL/ADB/ 2016			48.13	48.13		48.13	0.00		48.13	
k) k	ICBNo 29/Package I-1/ BSPTCL/ADB/ 2016			25.21	25.21		25.21	0.00		25.21	
6	Old Projects		199.65	201.67	201.67	9.60	6.33	50.80	56.04	26.17	88.12
	Total		772.02	641.71	641.71	60.	446.3 7	50.80	56.04	466.21	88.12

4.3.3 State Plan Schemes

The State Plan scheme has been categorized broadly as Old and New schemes. Old schemes were scheduled to be completed by FY 2015-16, however they are now expected to be completed by FY 2017-18. The Capital Expenditure under State Plan Schemes is given in Table below:

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Table 4-5: Capital Expenditure of Old schemes under State Plan Funded schemes (Rs. Crore)

				Source	Source of Funding	Bu	Capit	Capital Expenditure	nditure		Capitalisation	n
Sr. No.	Scheme	Name of funding agency	Original Project cost	Loan	Equity	Consumer Contribution	FY 2016- 17	FY 2017- 18	FY 2018-19	FY 2016- 17	FY 17-18	FY 2018-19
	Old Schemes											
-	Construction of 132/33 Kv grid substation connected to Jandaha transmission line,underdistrict-Vaishali		25.00	10.00	15.00		0.00	0.00			1.84	
7	Construction of 132/33 kV grid subsation connected to transmission line at Tehta (Jehanabad)and Imamganj (Gaya)		51.20	22.53	28.67		0.21	0.05		1.08	0.13	
ĸ	Construction of 132/33 kV grid subsation connected to transmission line at Ekma (Saran)		5.10	1.00	4.10		0.00	0.00			,	
4	Scheme to extend tower height of middle 132 kV transmission line tower at bank of Bagmatiriver,Block- Runnisaidpur,district-Sitamarhi.		6.15	0.00	6.15		0.00	0.00			1	4.08

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ion	FY 2018-19	28.62		0.94
Capitalisation	FY 17-18	·	ı	,
	FY 2016- 17		66.0	
Capital Expenditure	FY 2018-19			
ital Exp	FY 2017- 18	0.00	0.00	0.00
Cap	FY 2016- 17	0.03	0.00	0.00
ß	Consumer Contribution			
Source of Funding	Equity	55.00	25.10	1.72
Source	Loan	22.36	0.00	0.00
	Original Project cost	77.36	25.10	1.72
	Name of funding agency			
	Scheme	Dismantling of 132/33 kV 2X50 MVA Meethapur Grid substation and 33/11 kV Power Substation at R.K.Nagar from it's place and construction of 132/33 kV 4X50 MVA Grid Substation and 33/11 kV 2X10 MVA Power Substation at Karbigahiya.	Scheme to construct 132/33kV Sherghati Grid Substation and 132kV Bodhgaya-Sherghati Transmission Line, under State Plan with scrutinized cost of 25.10 Cr.	Re-construction of Muzaffarpur- Sitamarhi Transmission Line
	Sr. No.	сл	9	М



	8-19	19.29		2.59	113.90	7.92
u	FY 2018-19	1			11	
Capitalisation	FY 17-18	t	i.	ſ	ı	1
が中国語	FY 2016- 17					
nditure	FY 2018-19				34.54	7.92
Capital Expenditure	FY 2017- 18	0.00	0.00	0.00	21.43	0.00
Capi	FY 2016- 17	0.00	0.00	0.00	6.27	00.0
lg Bi	Consumer Contribution	2.28			50.00	
Source of Funding	Equity	26.12	3.00	2.00	45.48	0.00
Source	Loan	0.00	2.00	1.70	40.00	7.92
	Original Project cost	28.40	5.00	3.70	135.48	7.92
	Name of funding agency					
	Scheme	Construction of Transmission facility to evacuate power from KBUNL	Construction of additional 132kV Transformer bay at 132/33kV Substation Sitamarhi,Bihta,Khagaul, Ara and Nawada	Construction of 5 No's of additional 33kV Transformer Baysat 132/33kV Grid Substation,Sitamarhi,Bihta,Khagaul,Ara and Nawada and construction of 05 no's of Line Bays with Sonnagar(02 No's)and each at lainagar,Phulparas,Bihta	Construction of (2X160+2X50) MVA,220/132/33 kV Grid Sub-station at Bihta	Purchase of 03 No's 50 MVA 132/33 kV Transformers for Siwan,Nawada & Jamalpur Grid Substations
	Sr. No.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	6	10	11	12



				Source	Source of Funding	Bu	Capi	Capital Expenditure	diture		Capitalisation	uo
Sr. No.	Scheme	Name of funding agency	Original Project cost	Loan	Equity	Consumer Contribution	FY 2016- 17	FY 2017- F 18	FY 2018-19	FY 2016- 17	FY 17-18	FY 2018-19
13	Purchase of 17No's Transformers to minimize gap between capacity addition of old six no's of grid and transmission & distribution capacity							0.00			ı	25.14
(i)	Bodhgaya-150MVA,Bihar-shariff- 150MVA							0.00			1	
(ii)	Fatuha-100MVA,Begusarai-100MVA,		49.04	20.00	0.00	29.04	0.00	0.00			I	
(iii)	Sabaur-50MVA,Sitamarhi-50MVA, Ara- 50 MVA, Bihta-50 MVA, Gopalganj- 50MVA(02No.), Motihari-50 MVA, Bettia-50MVA,Kishanganj- 50MVA,Saharsa-50MVA,Chapra- 50MVA, Jakkanpur-50 MVA.							0.00				
14	Scheme for R&M of 2 No's of old Grid Substations:-Gaighat&Rajgir		18.04	4.88	9.26	3.90	60.9	2.21			I	17.40



				Source	Source of Funding		Capi	Capital Expenditure	nditure		Capitalisation	uo
Sr. No.	Scheme	Name of funding agency	Original Project cost	Loan	Equity	Consumer Contribution	FY 2016- 17	FY 2017- 18	FY 2018-19	FY 2016- 17	FY 17-18	FY 2018-19
15	Special scheme to purchase specific testing equipments of worth Rs.6.26Cr. For the testing of Grid substation equipments		6.26	6.26			1.06	0.21			I	3.63
16	Construction of Park and beautification of Karbigahia Thermal Power Complex		27.31	27.31			0.00	0.00			I	
17	Construction of Control Room Building, Residential Complex and Building, Boundary wall, Internal Road and Drinking Water Sanitation at Old GSS		76.83	25.00	21.83	30.00	15.01	10.47		18.243	10.00	30.04
18	Replacement of oil & over-hauling of 48 nos. Power Transformer		12.08	5.00		7.08	0.00	0.00			1	3.87
	Total		561.69	195.96	243.43	122.30	28.68	34.38	42.46	20.31	11.97	257.42

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Table 4-6: Capital Expenditure under New schemes under State Plan Funded schemes (Rs. Crore)

tion	FY 2018- 19		- 159.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- 123.67
Capitalisation	FY 2017-18			67.88	
	FY 2016- 17			42.12	
nditure	FY 2018- 19				
Capital Expenditure	FY 2017- 18		134.52	67.91	31.44
Ca	FY 2016- 17		21.21	42.09	92.23
	Total		159.00	110.00	123.67
ding	Gran t				
Source of Funding	Equity		159.00	110.00	123.67
Sour	Loan		0.00	0.00	0.00
	Revise d Project cost		159.00	110.00	123.67
	Original Project Cost		159.00	110.00	123.67
Name	of fundin g agency				
	Scheme	New Schemes	Construction of higher capacity bus bar conductors (20 nos. on 132 kV side) & (56 nos. on 33 kV side) replacing old Bus Bar Conductors for strengthening BSPTCL Transmission line	Replacement of 20 nos. of 20 MVA transformer by 50 MVA transformer at 14 nos. of 132/33 kV GSS of BSPTCL and renovation of related 132/33 kV Transformer Bay	132 km double -circuit towers single string lines and 132/33 kV grid sub- stations
	Sr. No			Ν	ŝ

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1		<u> </u>			Q
u	FY 2018- 19	200.00	399.78	102.62	42.26
Capitalisation	FY 2017-18	343.56	180.00	ſ	ſ
	FY 2016- 17	12.34	88.94	3.47	
nditure	FY 2018- 19	142.55	100.75	27.40	
Capital Expenditure	FY 2017- 18	77.05	105.22	70.29	42.26
Cap	FY 2016- 17	219.69	357.65	2.09	0.00
	Total	555.90	668.72	106.09	42.26
ding	Gran t				
Source of Funding	Equity	555.90	668.72	106.09	42.26
Source	Loan	0.00	0.00	26 0.00	
	Revise d Project cost	555.90	668.72	106.09	42.26
	Original Project Cost	555.90	668.72	106.09	42.06
Name	of fundin g agency				
	Scheme	Construction of 14 nos. of 132/33 kV grid substations in Revenue sub-division	Construction of 17 nos. of 132/33 kV grid substations in Revenue sub-division	Construction of (2X160+2X50) MVA, 220/132/33 KV Khagaria(New) GSS	Construction of 132 KV Gaurichak-Karbigahiya GSS
	Sr. No	4	Ŋ	ę	~



u	FY 2018- 19	108	133.76	371.05	
Capitalisation	FY 2017-18	118.25	I	ſ	2.27
に最近	FY 2016- 17			3.10	
nditure	FY 2018- 19	63.19	29.45	75.56	
Capital Expenditure	FY 2017- 18	133.90	58.17	228.15	2.27
Cap	FY 2016- 17	29.16	46.14	70.44	
	Total	226.25	133.76	374.15	2.27
ding	Gran t				
Source of Funding	Equity	226.25	133.76	374.15	0.45
Source	Loan	0.00	0.00	0.00	1.81
	Revise d Project cost	226.25	133.76	374.15	2.27
	Original Project Cost	226.25	133.76	374.15	
Name	of fundin g agency				
	Scheme	Strengthening of Transmission network around Patna	R&M of 12 nos. old GSS	07 nos. of new GSS 132/33 KV in uncovered area	Construction of 1 No. Of New Double Storee Control Room near 132/33 KV GSS,Kataiya under BSPTCL.
	Sr. No	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	6	10	11



		Name			Sourc	Source of Funding	ing		Cap	Capital Expenditure	iditure		Capitalisation	ų
Sr. No	Scheme	of fundin g agency	Original Project Cost	Revise d Project cost	Loan	Equity	Gran t	Total	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2016- 17	FY 2017-18	FY 2018- 19
12	Construction of Investigation Bunglow(IB) near 132/33 KV GSS/Triveniganj(Chatapur) under BSPTCL.			1.93	1.54	0.39		1.93		1.93			1.93	
13	Construction of 1 No. Of New Double Storee Control Room near 132/33 KV GSS,Siwan under BSPTCL.			2.20	1.76	0.44		2.20		2.20			2.20	
14	Construction of 132/33 KV GSS at Village-Kerpa , Dist-Rohtas having capacity of 3x50 MVA and related Transmission Line & Strengthning of Trans. Line with HTLS Conductor.			82.26	65.81	16.45		82.26		16.45	65.81		ſ	82.26
15	Construction of 132 KV SC Transmission Line for Solar PV Project of M/S Alfa Infraprop Pvt. Ltd., at Bhaguara from 132/33 KV GSS Rafiganj and construction of 01 no. of			10.66	8.53	2.13		10.66		10.66			10.66	



Scheme of fundin gency Original Project Revise hoject Loan Equity ine bay at GSS gency Cost Project Project Equity for connecting gency Cost Revise Ioan Equity ine bay at GSS for connecting Project Project Project Ioan for connecting agency 68.43 54.74 13.69 of Power 3x50 68.43 54.74 13.69 ed Transmission 97.21 97.21 0.00 37.21 ai-Purnea, 183 ai-Purnea, 183 Ard 77.4 134.70 54.74			Name			Sourc	Source of Funding	gui		Cal	Capital Expenditure	nditure		Capitalisation	u
132 KV line bay at GSS132 KV line bay at GSSRafiganj for connecting solar project of M/S Alfa132 KV line bay at GSSInfraproInfraproInfrapro68.43KV GSS of Power 3x5068.43MVA in Raghopur and its associated Transmission68.43Line.0.00Construction of double circuit line 220kv97.21Begusarai-Purnea, 18397.21KM.0.00RM.97.21Begusarai-Purnea, 18397.21RM.97.21RM.97.21RM.97.21Begusarai-Purnea, 18397.21RM.	2.0	Scheme	of fundin g agency	Original Project Cost	Revise d Project cost	Loan	Equity	Gran t	Total	FY 2016- 17	FY 2017- 18	FY 2018- 19	FY 2016- 17	FY 2017-18	FY 2018- 19
Construction of 132/33Construction of 132/33Second 132/33KV GSS of Power 3x50MVA in Raghopur and its68.4354.74MVA in Raghopur and its68.4354.7413.69MVA in Raghopur and its68.4354.7413.69associated Transmission68.4354.7413.69Line.97.2197.2197.210.00Begusarai-Purnea, 18354.7474.7674.70		132 KV line bay at GSS Rafiganj for connecting solar project of M/S Alfa Infrapro													
Construction of double circuit line 220kv Begusarai-Purnea, 18397.2197.21Struct97.2197.2137.21Struct506.8177.64764Struct570.5677.647570.56		Construction of 132/33 KV GSS of Power 3x50 MVA in Raghopur and its associated Transmission Line.			68.43		13.69		68.43		13.69	54.74		ſ	68.43
0506 81 2764 76* 134 20 2570 56		Construction of double circuit line 220kv Begusarai-Purnea, 183 KM.		97.21	97.21	0.00		60.00	97.21	85.21	5.69			ı	86.3
		TOTAL		2596.81	2764.76*	134.20	2570.56	60.00	2764.7 6	965.90	1001.78	559.45	149.97	726.75	1877.13

4.3.4 Capital Expenditure Schemes through Internal Resources Fund

dated 23.3.2016

The Capital Expenditure of schemes being implemented under IRF is provided in the table below:

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Table 4-7: Capital Expenditure under Internal Resource Fund (IRF) (Rs Crores)

ation	FY 2018-19		3.98	0.20	0.62	0.57	2.58
Capitalisation	FY 17- 18		00.00	0.00	0.00	0.00	1.10
0	FY 2016-17			3.68			
Capital Expenditure	FY 2018-19						
oital Expo	FY 17- 18		0.00	0.00	0.00	0.00	0.65
Cap	FY 2016- 17						3.03
ng	Loan Equity		3.98	3.88	0.62	0.57	3.68
if Fundi	Loan						
Source of Funding	Revised Project cost		3.98	3.88	0.62	0.57	3.68
	Original Project Cost		3.98	3.88	0.62	0.57	3.68
omeN	of funding agency						
	Scheme	IRF Schemes	Construction of pile foundation 03 nos in 132 KV Phulparas- Supoul transmission line.	Construction of 01 nos of 132 KV Line bays each at GSS - Sabour& Banka. (Total 02 nos 132 KV Line bavs)	Construction of 01 nos of 33 KV line bays at GSS - Sasaram.	Construction of 01 nos of 33 KV line bays at GSS - Raxaul for maintained PSS	Construction of LILO 220 KV lines on 220 KV Purnea (PG)- Begusarai (D/C) transmission
100 TTC	Sr. No.			5	ю	4	21

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		Name		Source o	Source of Funding		Car	Capital Expenditure	nditure	0	Capitalisation	ion
Sr. No.	Scheme	of funding agency	Original Project Cost	Revised Project cost	Loan E	Equity	FY 2016- 17	FY 17- 18	FY 2018-19	FY 2016-17	FY 17- 18	FY 2018-19
Ŷ	Construction of 02 nos of GIS 220 KV line bays at Muzaffarpur (PG). PGCIL deposit head work.		26.12	26.12		26.12		0.00			0.00	18.01
Γ	Construction of transmission system for power evacuation from 2x250 MW Barauni extension project		2.62	2.62		2.62		0.00		0.10	0.00	2.52
×	ULDC up-gradation work		5.98	5.98		5.98		0.00			0.00	5.98
6	Other Miscellaneous works - Renovation of 4 th Floor BSPTCL Office		7.08	7.08		7.08	0.16	2.34		0.56	2.38	2.95
10	Other Capital works- Buildings & Equipment's		159.29	159.29		159.29	5.47	0.19		2.02	6.96	8.97
								5		<u> </u>	10.44	46.38
12	Total		213.82	213.82		213.82	8.66 8	3.18	0.00	0.30	10.44	40.30

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4.3.5 Capital Expenditure Schemes through PSDF

The Capital Expenditure of schemes being implemented under PSDF under which 90% is as Grant and 10% from internal sources is provided in the table below:

	「日本のない」という	Name	The second s	Source	Source of Funding	ling	and	Cap	ital Exp	Capital Expenditure		Capitalisation	sation
Sr. No.	Scheme	of Al funding 1 agency	Approved Project Cost	Revised Project cost	Loan	Loan Equity Grant	Grant	FY 2016- 17	FY 17- 18	FY 2018-19	FY 2016- 17	FY 17- 18	FY 2018-19
	PSDF Scheme 90% as Grants & 10% from Internal Source			71.35	00.00	7.13	64.22	21.21 50.14	50.14				71.35
	TOTAL		71.35	71.35	0.00	7.13	64.22	21.21	50.14	0.00		0.00	71.35

Table 4-8: Capital Expenditure under PSDF scheme (Rs Crores)

The total Capital Expenditure summary of the all the above projects are mentioned below:

Table 4-9: Total Capital Expenditure Summary (Rs Crore)

BSPTCL Tariff Petition for True-up of FY 2016-17, APR of FY 2017-18 and determination of ARR and Tariff for FY 2018-19

	6	9	2	2	6	00	10	9
ц	FY 2018-19	366.56	88.12	257.42	1877.13	46.38	71.35	2706.96
Capitalisation	FY 17-18	1828.94	466.21	11.97	726.75	10.44	0.00	3044.30
	FY 2016- 17	760.41	56.04	20.31	149.97	6.36	0.00	993.09
nditure	FY 2018-19	48.04	50.80	42.46	559.45	00.0	0.00	700.75
Capital Expenditure	FY 2017- 18	489.25	446.37	34.38	1001.78	3.18	50.14	2025.10
Cal	FY 2016- 17	790.86	<u>9,60</u>	28.68	965.90	8.66	21.21	1824.91
	Grant	0.00	0.00	0.00	60.00	0.00	64.22	124.22
nding	Consumer Contribution	0.00	0.00	122.30	0.00	00.0	00.0	122.30
Source of Funding	Equity	3131.77	00.00	243.43	2570.56	213.82	7.13	6166.71
Sc	Loan	00.00	641.71	195.96	134.20	0.00	0.00	971.87
- A A A A A A A A A A A A A A A A A A A	Revised Project cost	3131.77	641.71	561.69	2764.76	213.82	71.35	7385.09
日本の	Original Project Cost	2855.63	772.02	561.69	2596.81	213.82	71.35	7071.32
	Name of funding agency							
	Scheme	BRGF	ADB	Old scheme (State Plan)	New Scheme (State Plan)	IRF	PSDF	Grand Total
	Sr. No.	H	6	n	4	ы	6	



4.4 Capitalisation

Based on physical progress, scheme-wise capitalisation details submitted above. Capitalisation projected above and CWIP for FY 2017-18 and FY 2018-19 are shown in the Table below:

	<u>-</u>	······································	,
Sr. No.	Scheme	FY 2017-18	FY 2018-19
1	Opening CWIP	3114.83	2095.62
2	New Investment	2025.10	700.75
3	Less Capitalisation	3044.30	2706.96
4	Closing CWIP	2095.62	89.42
		1 1	

 Table 4-10: Proposed Capitalisation (Rs. Crore)

4.5 Gross Fixed Assets

The Projection of Gross Fixed Asset (GFA) as per the methodology discussed above is given in table below:

				ne repoor	()	
	·法定的法律的法律的法律。	ALL STREET	FY 2017-18		FY 201	18-19
SI No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Opening GFA as on 01.04.2016	6560.66	5291.53	5026.71	8844.36	7975.71
2	Add: Additions during the year	2238.54	1632.26	3044.30	1366.34	2706.96
3	Interest During Construction	45.16	1.56	95.30	8.33	82.06
4	Closing GFA	8844.36	6925.35	7975.71	10219.03	10600.62

 Table 4-11: Gross Fixed Assets Proposed (Rs. Crores)

4.6 Depreciation



The Petitioner has computed depreciation in accordance with the Regulations.

Regulation 73 (2) (a) (i) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, amend from time to time specifies that **"the value base for the purpose of depreciation shall be the historical cost of the asset"**.

Regulation 73 (2) (a) (ii) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, amend from time to time specifies that "Land is not a depreciable asset and its cost shall be excluded from the capital cost".

Therefore, the petitioner has excluded the total land value based on the land value reported in the audited annual accounts for FY 2016-17. Further, the Petitioner has projected depreciation on the weighted average rate of 5.114%, as considered in truing up for FY 2016-17. Besides, grant addition in FY 2017-18 and FY 2018-19 has been considered as zero as no grant has been received.

The Petitioner would like to reiterate that the funding towards BRGF schemes has not been considered as grant in line with the directions given by the State Government. The Petitioner had informed the Hon'ble Commission regarding the same in the Tariff Order dated 9 March, 2017. Therefore, it is humbly prayed that the funds pertaining to BRGF should not be treated as grants.

The Proposed depreciation of the Gross Fixed Assets is calculated in the table as below:

			FY 2017-18	FY 2018-19		
Sl No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Opening depreciable GFA as on 01.04.2017 (excluding Land)	5194.54	3908.48	3,634.55	7,478.24	6774.15
2	Additions during year	2238.54	1632.26	3,044.30	1,366.34	2706.96

Table 4-12: Depreciation Proposed (Rs. Crores)



		and folding	FY 2017-18	FY 2018-19		
Sl No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
3	Less: Value of Land					
4	Less: Deductions					
5	IDC	45.16	1.56	95.30	8.33	82.06
6	Closing GFA (1+2-3-4+5)	7478.24	5542.30	6774.15	8852.91	9,563.17
7	Average GFA (1+6) / 2	6336.39	4725.39	5204.35	8165.58	8,168.66
8	Weighted Avg. Rate of Depreciation	3.36%	5.13%	5.11%	3.36%	5.11%
9	Depreciation (7*8)	212.90	242.41	266.14	274.36	417.74
10	Opening Grants(Closing of FY 2016- 17)	2883.80	1636.04	1636.04	2883.80	1,646.04
11	Grants capitalised during year	0.00	0.00	10.00	0.00	94.22
12	Less: Amortisation during the year			0.00		0.00
13	Total Grants	2883.80	1636.04	1646.04	2883.80	1,740.26
14	Average Grants	2883.80	1636.04	1641.04	2883.80	1,693.15
15	Weighted Avg. Rate of Depreciation	3.36%	5.13%	5.11%	3.36%	5.11%
16	Depreciation for GFA on Grants	96.90	83.93	83.92	96.90	86.59
17	Net Depreciation for GFA on Loans	116.01	158.48	182.22	177.47	331.15

4.7 Interest and Finance Charges

The Petitioner has projected interest on loans in accordance with the Regulation 73 of BERC Terms and Conditions for Determination of Tariff Regulations, 2007 amend from time to time. Normative funding pattern of 70:30 Debt:Equity has been considered as per Regulation 71 of BERC Terms and Conditions for Determination of Tariff Regulations, 2007 amend from time to time.

"71 (1) in case of all projects, the debt - equity ratio as on the date of commercial operation shall be 70:30 for determination of Tariff, provided that the Commission may in deserving case consider equity higher than 30% for purpose of determination

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of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that the deployment of equity more than 30% was in the interest of general public.

Provided that;

- *i. in case a project, if the actual equity employed is less than 30%. The actual debt and equity employed shall be taken for determination of tariff.*
- *ii. in case of existing projects the actual debt : equity ratio shall be used for tariff determination. However, any expansion shall be governed by clause (1) above."*

The closing loan of FY 2016-17 has been considered as opening loan for FY 2017-18. Additions during the year have been considered at 70% of the capitalisation proposed in FY 2017-18 and FY 2018-19 respectively.

The Petitioner has considered the weighted average effective rate of interest at 8.97% for FY 2017-18 and FY 2018-19 based on the weighted average effective rate of interest considered in true up for FY 2016-17 as per audited accounts of the Petitioner for FY 2016-17.

The Petitioner, in terms of Regulation 73(1)(f) of BERC Tariff Regulations 2007, has considered the repayment of loan equivalent to depreciation allowed during the year for computation of interest on loan for FY 2017-18 and FY 2018-19.

The Petitioner has considered finance charges as Rs.0.003 Crore for FY 2017-18 and FY 2018-19 on the level of FY 2016-17.

The Projected Computation of the Interest and Finance Charges for the FY 2017-18 and FY 2018-19 are shown in the table below:

Table 4-13: Projected Computation of Interest and Finance Charges (Rs. Crores)S1ParticularsFY 2017-18FY 2018-19





No.		Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Opening Loan	1311	1250.63	1072.51	2793.58	3014.30
2	Additions during year	1598.59	1143.67	2124.01	962.27	1828.92
3	Repayment	116.01	158.48	182.22	177.47	331.15
4	Closing Loan (1+2-3)	2793.58	2235.82	3014.30	3578.38	4512.07
5	Average Loan (1+4)/2	2052.29	1743.225	2043.41	3185.98	3763.18
6	Rate of Interest	7.15%	7.20%	8.97%	7.15%	8.97%
7	Interest on Loan (5*6)	146.74	125.51	183.36	227.80	337.68
8	Financing Charges	0.01	0.01	0.00	0.01	0.00
9	Total Interest and Financing Charges (7+8)	146.75	125.52	183.37	227.81	337.69

4.8 **Operation and Maintenance Expenses**

As per Regulation 73 (3) of BERC (Terms and Conditions for Determination of Tariff Regulations), 2007:

"(3) Operation and Maintenance Expenses

Norms for operation and maintenance expenses per ckt.km and per bay shall be as under:

- (a) The Commission shall, for the purpose of fixing normative rates for operation & maintenance expenses, study the O&M expenses incurred over the last 4 to 5 years and fix appropriate rates per CKt km of transmission line and per bay. The norms so fixed for 2008-09 shall be escalated at 4% per annum.
- (b) The total allowable O&M expenses for a transmission licensee shall be calculated by multiplying the numbers of bays and CKt km of line length with the applicable norms for O&M expenses per bay and per CKt-km respectively."





However, as no norms for O&M has been stipulated by the Hon'ble Commission, The Petitioner, accordingly, has followed the inflation index methodology considered by the Hon'ble Commission in Tariff Order dated March 9, 2017, based on the available full financial year CPI and WPI, for projection of employee expenses, Repairs & Maintenance expenses and Administration & General expenses for FY 2017-18 and FY 2018-19. The computation for indexation based on CPI and WPI is shown in the Table below:

Particulars	WPI	CPI	Total
Weightage	0.45	0.55	1
Index Point for FY 2016-17	183.16	275.92	
Indexation n (Index point*weightage)	82.42	151.75	234.18
Index Point for FY 2015-16	176.51	265.01	
Indexation n-i (Index point*weightage)	79.43	145.76	225.19
Weighted average inflationary indices			3.99%

Table 4-14: Computation for indexation based on CPI and WPI

The Petitioner would like to submit that the adequate expenditure was not incurred on O&M in the previous years due to fund constraints and other reasons. However, the Petitioner has starting focusing on Operation and Maintenance of its transmission system and this has started resulting in improvement in power supply position in the State of Bihar. The increase in actual O&M expenses in FY 2015-16 with respect to FY 2014-15 was around 12% and the increase in actual O&M Expenses in FY 2016-17 with respect to FY 2015-16 was around 15% as shown in Table below:

Table 4-15: Actual/approved O&M expenses (Rs. Crores)

	CP/12-12-C DICLOUD	THE DESTRICTION OF STREET		
Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
	Marine Barris Barris	A CARLEN AND A CARLEN		



Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Actual O&M expenses	111.49	141.52	158.59	182.13
% increase over previous year		27%	12%	15%

Hence, at this stage it would not be appropriate to consider the O&M expenses by applying the escalation rate linked to WPI and CPI. The escalation rate linked to WPI and CPI can be applied once the system is properly maintained for regular O&M expenses. Further, the Petitioner would like to submit that the improvements envisaged through huge Capex schemes, which are supposed to be capitalised in FY 2017-18 and FY 2018-19, will also result in increased O&M expenses.

Therefore, the Hon'ble Commission is requested to consider employee expenses, Repairs & Maintenance expenses and Administration & General expenses for FY 2017-18 and FY 2018-19 on actual basis at the time of Truing-up.

4.8.1 Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

For projecting employee expenses for FY 2017-18 and FY 2018-19, the Petitioner has considered an increase of 3.99% per annum (based on weighted average inflationary indices) over actual employee expenses for FY 2016-17.

As directed by Hon'ble Commission, ARR of SLDC Business for FY 2017-18 onwards is being filed separately. The employee expenses are projected for SLDC Business for FY 2017-18 and FY 2018-19 and the same have been reduced from the employee expenses of Transmission Business for FY 2017-18 and FY 2018-19.



The Employee Expenses for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below:

		(=-	s. erore)			
- Ander			FY 2018-19			
Sr. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Employee Cost	102.23	101.55	101.90	106.99	105.97
3	Indexation	4.65%	2.59%	3.99%	4.65%	3.99%
4	Add: Inflationary Increase	4.75	2.63	4.07	4.97	4.23
5	Total Employee Cost	106.98	104.18	105.97	111.96	110.20
6	less: Employee cost relating to SLDC Business	0	3.77	6.84	0.00	7.11
7	Net Employee Cost	106.99	100.41	99.13	111.96	103.09

Table 4-16: Revised Projected Employee Expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)

4.8.2 Repairs and Maintenance (R&M) Expenses

For projecting R&M expenses for FY 2017-18 and FY 2018-19, the Petitioner has considered an increase of 3.99% per annum (based on weighted average inflationary indices) over actual R&M expenses for FY 2016-17.

As directed by Hon'ble Commission, ARR of SLDC Business for FY 2017-18 onwards is being filed separately. The R&M expenses are projected for SLDC Business for FY 2017-18 and FY 2018-19 and the same have been reduced from the R&M expenses of Transmission Business for FY 2017-18 and FY 2018-19.

The R&M for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below:

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			FY 2017-18	FY 2018-19		
Sr. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Base R&M Cost	39.98	37.11	47.24	41.84	49.12
2	Inflationary Index	4.65%	2.59%	0.04	4.65%	0.04
3	Add: Inflationary Increase	1.86	0.96	1.89	1.95	1.96
4	Total R&M Cost	41.84	38.07	49.12	43.79	51.08
5	Less: SLDC R&M Cost	0	1.05	1.05	0	1.09
6	Net R&M cost	41.84	37.02	48.07	43.79	49.99

Table 4-17: Revised Projected R&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Crore)

However, the Petitioner would like to request the Hon'ble Commission that it should consider the R&M expenses as a % of Gross Fixed Assets as the licensee needs to eventually maintain assets and generally the inflation over previous year expenditure is insufficient as it ignores R&M cost towards additions of new assets.

The Petitioner had also informed the Hon'ble Commission about certain States where the Regulations provide for R&M as a percentage of GFA. Even the Hon'ble Commission in Draft MYT Transmission Tariff has provided for R&M computation as %age of GFA. The relevant extract of the Draft BERC (Multi Year Transmission Tariff) Regulations, 2016:

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

 $R \mathscr{E} Mn = Kb \ X \ GFAn$

Where:

R&Mn : Repairs & Maintenance expense for nth year GFAn : Opening Gross Fixed Assets for nth year Kb : Percentage point as per the norm"



Therefore, the Petitioner re-iterates its request for considering R&M expenses as a % of Gross Fixed Assets.

4.8.3 Administration & General (A&G) Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

For projecting A&G expenses for FY 2017-18 and FY 2018-19, the Petitioner has considered an increase of 3.99% per annum (based on weighted average inflationary indices) over actual expenses for FY 2016-17.

As directed by Hon'ble Commission, ARR of SLDC Business for FY 2017-18 onwards is being filed separately. The A&G expenses are projected for SLDC Business for FY 2017-18 and FY 2018-19 and the same have been reduced from the A&G expenses of Transmission Business for FY 2017-18 and FY 2018-19.

The A&G Expenses for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below:

Table 4-18: Revised Projected A&G Expe	nses for FY 2016-17 and FY 2017-18 (Rs.
Crores)	

		F	Y 2017-18	FY 2018-19		
Sl. No	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Base A&G Expense	9.28	16.56	28.04	9.71	29.16
2	Inflationary Index %	4.65%	2.59%	0.04	4.65%	0.04
3	Add: Inflationary Increase	0.43	0.43	1.12	0.45	1.16



Sec.		F	Y 2017-18	FY 2018-19		
Sl. No	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
4	A&G Expense	9.71	16.99	29.16	10.16	30.33
5	Less: SLDC A&G expenses	0.00	0.43	0.57	0.00	0.59
6	Net A&G expenses	9.71	16.56	28.59	10.16	29.73

4.8.4 Allocation of Holding Company Cost

The SCHEDULE 'D ' HOLDING UNDERTAKING, PART III of the Bihar State Electricity Reforms Transfer Scheme, 2012 defines the Functions and Duties of Bihar State Power (Holding) Company Limited.

As per Clause (i) of the above Schedule 'D', the Holding Company shall handle all issues relating to the subsidiary companies in respect of:

"Business of purchasing, importing, exporting and trading of power subject to the provisions of Electricity Act, 2003 and to supply electric power generated by other plants to transmission companies, distribution companies, trading companies, other generation companies and other Persons, and in this regard execute agreements with Central and State generating authorities, departments or companies, Independent Power Producers and other Persons."

BSPHCL provides common services to all the segregated entities. The Functions and Duties of Bihar State Power (Holding) Company Limited are provided in SCHEDULE 'D' HOLDING UNDERTAKING PART III of the Transfer Scheme 2012. The relevant portion of the Transfer Scheme 2012 is extracted for reference as under:

"(f) Operating expenses incurred by the Holding Company like administration & general expenses legal and consulting fees etc. would be shared by the Bihar State Power Generation Company Limited, Bihar State Power Transmission Company Limited, North Bihar Power Distribution Company Limited and South Bihar



Power Distribution Company Limited, in the ratio of their respective equity." (Emphasis added)

As per Schedule 'F', the Holding Company shall handle all issues relating to the subsidiary companies in respect of: -

SCHEDULE "F" REORGANISATION OF BSEB & TRANSFER OF PERSONNEL Part II COMMON SERVICES

The Testing Divisions, Training Department at Head-Quarter and all the Departments at the Corporate Head Office like –

- General Administration
- Accounts and Finance
- *IT*
- Stores & Purchase
- Transmission/Distribution/Generation
- Personnel
- Publicity
- Legal
- Vigilance and Security
- Commercial
- Planning
- Civil Engineering
- Transmission (O&M)
- Rural Electrification

shall constitute "Common Services", which shall continue to provide services to all successor entities during the interregnum period, until issue of further transfer notifications allocating the employees to the respective companies.

For projecting holding company expenses for FY 2017-18 and FY 2018-19, the Petitioner has considered an increase of 3.99% per annum (based on weighted average inflationary indices) over actual holding company expenses for FY 2016-17.

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The holding company expenses for FY 2017-18 and FY 2018-19 as computed by the Petitioner is shown in the table below:

		FY 2017-18			FY 2018-19		
Sl. No	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected	
1	Holding Company Expenses	5.00	7.29	5.15	5.00	5.35	

Table 4-19: Projection of Holding Company Expenses (Rs. Crores)

4.8.5 Summary of O&M Expenses

The summary of the O&M expenses is tabulated below for reference:

		State State	FY 2017-18		FY 20	18-19
Sl. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Employee Expenses	106.99	100.41	99.13	111.96	103.09
2	Repair and Maintenance Expenses	41.84	37.02	48.07	43.79	49.99
3	Administrative and General Expenses	9.71	16.56	28.59	10.16	29.73
4	Holding Company Expenses	5.00	7.29	5.15	5.00	5.35
5	Total O&M Expenses	163.54	161.28	180.94	170.91	188.17

Table 4-20: Projected O&M Expense (Rs. Crore)

The Petitioner requests the Hon'ble Commission to approve the above O&M expenses for FY 2017-18 and FY 2018-19.

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4.9 Interest on Working Capital

The Petitioner has arrived at the working capital requirement according to applicable norms for transmission function provided in the BERC (Terms and Conditions of Tariff) Regulations, 2007 amended from time to time which are reproduced in the following table for reference:

Sr. No.	Particulars	Norms				
1.	Operation & Maintenance Expenses	es One month				
2.	Maintenance spares	@1% of the opening GFA with 6% escalation per annum				
3.	Receivables	Two months of transmission charges				
4.	Rate of interest on working capital	Base Rate of State Bank of India plus 350 basis points.				

Table 4-21: Norms for Working Capital Requirement

The rate of interest applied on the proposed working capital for FY 2017-18 is as per the SBI Base plus 350 basis points 12.80%(9.3%+3.50%). For FY 2018-19 rate of interest on working capital based on latest SBI bank rate as on 1.10.2017 is 12.45%(8.95%+3.5%).

The proposed interest on working capital for FY 2017-18 and FY 2018-19 is computed based on the above norms is given in the following table.

			FY 2017-18		FY 20	18-19
51. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	O&M Expenses for 1 Month	13.63	13 44	15.08	14.24	15.68

Table 4-22: Projected Interest on Working Capital (Rs. Crores)



		Carling States	FY 2017-18		FY 20	18-19
Sl. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
2	Maintenance Spares @1% of Opening GFA with 6% escalation	56.24	42.79	39.98	80.45	73.26
3	Receivables 2 Months	91.30	98.25	116.73	122.56	192.18
4	Total Working Capital	161.17	154.48	171.79	217.25	281.12
5	Rate of Interest	13.50%	12.80%	12.80%	13.50%	12.45%
6	Interest on Working Capital	21.76	19.77	21.99	29.33	35.00

The Petitioner requests the Hon'ble Commission to approve the interest on working capital for FY 2017-18 and FY 2018-19 as submitted in the above Table.

4.10 Return on Equity (RoE)

As explained above, the Petitioner has considered Debt: Equity ratio of 70:30 in accordance with the Regulation 71 of BERC Terms and Conditions for Determination of Tariff Regulations, 2007.

The closing equity of FY 2016-17 has been considered as opening equity for FY 2017-18. Additions during the year have been considered at 30% of the capitalisation proposed in FY 2017-18 and FY 2018-19 respectively.

The return on equity has been considered at 14% for assets capitalised before 1 April, 2015 and at 15.5% for assets capitalised on or after 1 April, 2015 in accordance with the Regulations.

The computation of return on equity for FY 2016-17 and FY 2017-18 is tabulated below:





			FY 2017-18	Contraction of the second	FY 2018-19		
Sl. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected	
1	Opening Equity	375.41	375.41	375.41	375.41	375.41	
2	Rate of Return on Equity	14.00%	14.00%	14.00%	14.00%	14.00%	
3	Return on Equity (1*2)	52.56	52.56	52.56	52.5574	52.56	
	Equity of projects commissioned w.e.f 1.4.2015						
4	Opening Equity	407.08	4.01	321.22	1,092.19	1231.51	
5	Addition during the year	685.11	4.90	910.29	412.4	783.82	
6	Closing Equity Balance (4+5)	1,092.19	8.91	1231.51	1,504.59	2015.34	
7	Average Equity (4+6/2)	546.10	645.74	776.37	752.30	1623.43	
8	Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	
9	Return on Equity	84.65	100.09	120.34	116.61	251.63	
11	Total RoE	137.20	152.65	172.89	169.16	304.19	

Table 4-23: Computation of Return on Equity (Rs Crore)	Table 4-23: 0	Computation of	Return on	Equity (Rs Crore)
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The Petitioner requests the Hon'ble Commission to approve the computation of return on equity for FY 2017-18 and FY 2018-19 as submitted above.

4.11 Non-Tariff Income

For projecting Non-Tariff Income in APR of FY 2017-18 and revised Non-Tariff Income for FY 2018-19, the Petitioner has escalated the actual Non-Tariff of FY 2016-17 by 5% every year. The projected Non-Tariff Income in APR of FY 2017-18 and revised Non-Tariff Income for FY 2018-19 are shown in the Table below:

Table 4-24: Projected Non-Tariff Income (Rs. Crores)



No.		Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	Non-Tariff Income	37.26	26.63	41.05	39.13	43.11

The Petitioner requests the Hon'ble Commission to approve the Non-Tariff for the Financial Year from FY 2017-18 and FY 2018-19 as submitted in the above Table.

4.12 Revenue Gap after truing up of FY 2016-17

The revenue gap after truing up of FY 2016-17 and to be recovered in the revised ARR for FY 2018-19 along with applicable carrying cost is depicted in the table below:

Table 4-25: Projected Revenue Gap/ (Surplus) along with carrying cost (Rs. Crore)

Particulars	Amount
Revenue Gap approved in True-up for FY 2016-17 to be carry forward	76.41
Interest for FY 2016-17 @12.8% for six months	4.89
Interest for FY 2017-18 @12.8%	9.78
Interest for FY 2018-19 @12.45% for six months	4.76
Total Gap with Interest	95.83

4.13 Transmission APR for FY 2017-18 and ARR for FY 2018-19 or the Annual Fixed Charge

The Annual Fixed Charges or Transmission charges have been arrived at by aggregating all the expenses detailed in the previous sections i.e. Depreciation, Interest on Loan, Interest on Working Capital, O&M expenses and ROE. The total

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expenses less Non- Tariff Income are the net Annual Fixed Charges or Transmission charges.

Accordingly, following is the summary of revised projections of Aggregate Performance Review (APR) and Aggregate Revenue Requirement (ARR) of Bihar State Power Transmission Company Limited (BSPTCL) for FY 2017-18 and FY 2018-19 for approval by the Hon'ble Commission.

			FY 2017-18		FY 2018	8-19
Sr. No.	Particulars	Approved in MYT Order Dated 21 March 2016	Approved in Tariff Order dated 9 March, 2017	RE	Approved in MYT Order Dated 21 March 2016	Projected
1	O&M Expenses	163.54	161.28	180.94	170.91	188.17
a	Employee Expenses	106.99	100.41	99.13	111.96	103.09
b	R&M Expenses	41.84	37.02	48.07	43.79	49.99
с	A&G Expenses	9.71	16.56	28.59	10.16	29.73
d	Holding Company Expenses	5.00	7.29	5.15	5.00	5.35
2	Depreciation	116.01	158.48	182.22	177.47	331.15
3	Interest and Finance Charges	146.75	125.52	183.37	227.81	337.69
4	Interest on Working Capital	21.76	19.77	21.99	29.33	35.00
5	Return on Equity	137.20	152.65	172.89	169.16	304.19
7	Gross Annual Revenue Requirement	585.25	616.15	741.42	774.67	1196.19
8	Less: Non Tariff Income	37.26	26.63	41.05	39.13	43.11
9	Add: Revenue Gap/(Surplus) for FY 2016-17with Carrying cost					95.83
10	Net Revenue Requirement	547.99	589.52	700.36	735.54	1248.92

Table 4-26: Projected Annual Fixed Charges/ ARR (Rs. Crores)

The Petitioner would like to submit that the Transmission Charges for the years under consideration are estimated based on the applicable rules and regulations and the methods adopted by the Hon'ble Commission in its MYT order dated March 21, 2016 and Tariff Order dated March 9, 2017. The various costs have been estimated in accordance with the regulatory norms, assumptions and detailed justifications

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provided in this petition. In view of the submitted facts and explanations, the Petitioner humbly prays to the Hon'ble Commission for approval of the APR for FY 2017-18 and revised ARR for FY 2018-19 and resultant Transmission Charges to be recovered from the two distribution companies.

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5 Compliance of Directives

The Hon'ble Commission in its previous order dated 21.03.2016 had issued some directives to the petitioner. This chapter deals with the compliance status of directives for compliance and implementation by the petitioner.

5.1 Directive 1: Transmission Loss

The Commission expresses its displeasure to note that BSPTCL is not readily having the information regarding availability of meters in their Transmission System.

The Commission directs BSPTCL to submit the status of meters available at various locations as on 1st April, 2017 in the format already communicated.

Compliance:

In compliance of the direction, the proposal of the Apex metering scheme under which SEM meters will be provided at all outgoing and incoming feeder including transformers have been approved by the CEA. The proposal was posed before State Government and the cabinet of Government of Bihar has recently approved the proposal. The tendering process for the same shall be initiated soon.

The tendering process is likely to be completed very soon and installation of the energy meters along with the software and hardware, etc. will be completed within a year of the placement of Order.

The status of meters installed at various GSS has been submitted to the Hon'ble Commission in its desired format annexed as Annexure 13.

5.2 Directive 2: Separate ARR for SLDC

The compliance by BSPTCL is noted.

The Commission directs BSPTCL to take action to make SLDC as an independent organization.



Compliance:

In compliance to the above direction, a separate Petition for determination of Aggregate Revenue Requirement for SLDC is being filed for FY 2017-18 onwards and separate accounts for the revenue of SLDC is also being maintained. Presently, separate Bank Account relating to SLDC bearing no. 8531101011788 is being maintained for Revenue Expenditure relating to it.

However, to make it a totally independent entity, notification from the State Government has to be issued. BSPTCL is in process to make SLDC, a separate entity and soon the matter will be put up before BSP (H) CL Board for approval and to take up the matter with the State Government.

5.3 Directive-3: Energy Auditing of Transmission System

The reply of BSPTCL is noted.

The Hon'ble Commission directs BSPTCL to submit the reports on energy accounting and audit, on monthly basis, from January, 2017onwards by 10th of succeeding month.

Compliance:

The proposal for the Apex metering scheme has been approved by the CEA and the cabinet of Government of Bihar. Under this scheme, Special Energy Meter (SEM) with communication facility will be installed at different voltage level i.e. at 220 KV, 132 KV and up to 33 KV level in the GSSs of BSPTCL. These meters will have facility to communicate/receive data online and on real time basis. This will in turn help in monitoring data on real time basis, energy accounting and audit. The tender process is likely to be completed very soon and installation of the energy meters along with the software and hardware, etc. will be completed within a year of the order.

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To meet the above said objective, BSPTCL has installed the meters at Barauni, Naugachia and Biharshariff. Further, software and hardware are being installed under metering packages through BRBCL which is likely to be completed by January, 2018. The same is proposed to be used for energy accounting.

5.4 Directive-4: Scheme wise details of Capital Expenditure and Capitalization

The compliance by BSPTCL is noted.

Compliance:

In compliance to the above direction, Scheme wise details has been submitted before the Hon'ble Commission in the Tariff Petition for FY 2018-19.

5.5 Directive-5: Capital expenditure and Capitalization

"The Commission has observed from the audited accounts for FY 2015-16 that huge capital expenditure of Rs.2236.14 Crores is pending for capitalisation. The Petitioner has proposed huge capex of Rs.1953.49 Crore for FY 2016-17 and Rs.1250.00 Crore for FY 2017-18 with a projected capitalisation of Rs.1256.03 Crore in FY 2016-17 and Rs.1632.25 Crore in FY 2017-18. The Commission directs BSPTCL to reconcile the CWIP work-wise and scheme-wise till FY 2015-16 and furnish the work-wise and scheme-wise data to the Commission by the end of September 2017. Further, to verify the works which were completed and put to use but not capitalised or accounting adjustments not made in the accounts due to administrative reasons. The data shall be furnished to the Commission by the end of September 2017 separately one for reconciliation and one for works completed but not capitalised."

Compliance:

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In compliance to the above direction, sum of Rs. 993.07 Crore for F.Y. 2016-17 has been capitalized. BSPTCL has increased the capitalisation rate and try to capitalise the physical assets in the planned way by ensuring that physical assets once created and put to use are booked in the accounts as soon as possible. The reconciliation of CWIP up to FY 2015-16 is enclosed in Annexure-16

5.6 Directive-6: Maintenance of asset/ property register

"The Commission directs the BSPTCL to maintain asset/property register showing details of nature of equipment, value of equipment, details of land, extent of land, buildings, etc. and shall submit the details along with tariff petition to be filed every year from FY 2018-19 onwards."

Compliance:

In compliance to the above direction, BSPTCL is submitting the Asset Register annexed as Annexure 11.

5.7 Directive-7: Details of programmed Capital Works

"The Commission directs BSPTCL to submit the details of programmed works during FY 2017-18 and FY 2018-19 and their tentative commissioning dates to the Commission by the end of April-2017.

Compliance:

In compliance to the above direction, Details of the programmed works during FY 2017-18 and FY 2018-19 and their tentative commissioning date is annexed as Annexure 14.

5.8 Directive-8: Programming of transmission works





"The Commission directs BSPTCL that they shall programme in advance, energisation of their transmission lines or equipment, in consultation with BGCL, DISCOMS and concerned generating stations, so that the same can be put into use immediately after energisation without any mismatch. The dates of commissioning of each element of network/ equipment shall be reported to the Commission."

Compliance:

At present, energisation of the transmission lines and equipment are co-ordinated by the field officers in consultation with all the stakeholders. BSPTCL will take all the efforts to report the dates of commissioning of each element of network/ equipment's to the Hon'ble Commission.

5.9 Directive-9: Meters at interface points of BSPTCL/BGCL

"The Commission directs BSPTCL to provide appropriate meters at all the peripheral points of BSPTCL and BGCL from its end also to account for the energy transmitted into its system by BGCL."

Compliance:

Meters have already been installed at all the interface points by the BSPTCL to account for energy transmitted into its system by BGCL. List of the same is annexed as Annexure-15.



6 Prayers

The Petitioner respectfully prays that the Hon'ble Commission may:

- a) Admit this petition;
- b) Examine the proposal submitted by the Petitioner in the enclosed petition for a favourable dispensation;
- c) Pass suitable orders with respect to the True-up for FY 2016-17 for Rs. 388.66 Crore, APR for FY 2017-18 for Rs. 700.36 Crore and ARR for FY 2017-18 for Rs. 1248.92 Crore.
- d) Approve the transmission charges as per the proposal and allow relaxation in tariff norms wherever sought for;
- e) Pass separate order for the Petitioner against the present petition;
- f) Condone any inadvertent omissions, errors, short comings and permit BSPTCL to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and
- g) Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Dated: 24 November 2017