

**BEFORE
THE BIHAR ELECTRICITY REGULATORY COMMISSION**



**Petition
for
True-up of FY 2013-14**

Annual Performance Review (APR) for FY 2014-15

Annual Revenue Requirement (ARR) for FY 2015-16

and

Determination of Transmission Tariff for FY 2015-16

for

**Bihar State Power Transmission Company Limited
(BSPTCL)**

Patna



Chief Engineer (Transmission O&M)

1st Floor, Vidyut Bhawan

Bailey Road

Patna – 800 001

December 3' 2014

BEFORE THE BIHAR ELECTRICITY REGULATORY COMMISSION, PATNA

IN THE MATTER OF: Filing of the Petition for True-up for FY 2013-14, Annual Performance Review (APR) for FY 2014-15, Revised Annual Revenue Requirement (ARR) for FY 2015-16 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, Bailey Road, Patna.

The Petitioner respectfully submits as under: -

1. The Petitioner was formerly integrated part of Bihar State Electricity Board (hereinafter referred to as "BSEB" or "Board" which was engaged in electricity generation, transmission, distribution and related activities in the State of Bihar.
2. The Board is now unbundled into five (5) successor companies – Bihar State Power (Holding) Company Limited, Bihar State Power Generating Company Limited (hereinafter referred to as "Genco"), Bihar State Power Transmission Company Limited (hereinafter referred to as "Transco"), North Bihar Power Distribution Company Limited and South Bihar Power Distribution Company Limited (hereinafter referred to as "Discoms") as per Energy Department, Government of Bihar under *The Bihar State Electricity Reforms Transfer Scheme 2012*.
3. Pursuant to the enactment of the Electricity Act, 2003, every utility is required to submit its Aggregate Revenue Requirement (ARR) for the control period and Tariff Petitions as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the governing regulations thereof.
4. The Multi-year Tariff (MYT) petition for 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).

5. 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 Commission had issued tariff order dated February 28' 2014.
6. The present petition is being filed with the Honble Commission for True-up for FY 2013-14, Annual Performance Review (APR) for FY 2014-15 and Revised Annual Revenue Requirement (ARR) for FY 2015-16 considering the approved values of MYT order dated March 15' 2013 and February 28' 2014.
7. The present petition is filed on independent basis by the BSPTCL.
8. This petition has been prepared in accordance with the provisions of Sections 61, 62 of the Electricity Act, 2003 and has taken into consideration the Chapter 6 – Multi-Year Tariff of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007.
9. 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 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 2013-14 amounting to Rs **325.80** Crores, APR for FY 2014-15 amounting Rs. **511.97** Crores and Revised ARR for FY 2015-16 amounting to Rs. **728.46** Crores;
- d) Approve the transmission charges as per the proposal and allow relaxation in MYT norms wherever sought for;
- e) Pass separate order for the Petitioner against the present petition;
- f) BSPTCL may also be permitted to propose suitable changes to the respective ARR's, prior to the final approval by the Hon'ble Commission. BSPTCL believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.

- g) Condone any inadvertent omissions/errors/shortcomings and permit BSPTCL to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- h) Pass such Order, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Bihar State Power Transmission Company Limited

Petitioner

Patna

Dated: 3rd December 2014

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2	Details of Equity Infusion in the Company during FY 2013-14
3	Capital Investment Scheme related documents
4	Audited Accounts for FY 2013-14

1. Introduction

1.1 Background

- 1.1.1 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.
- 1.1.2 Under the new 'Bihar State Electricity Reforms Transfer Scheme 2012', the BSEB has been unbundled into five companies: Bihar State Power (Holding) Company Limited (Holding company), Bihar State Power Transmission Company, Bihar State Power Generation Company, South Bihar Power Distribution Company and North Bihar Power Distribution Company with effect from 1st November’ 2012 vide notification no. dated 30.10.2012.
- a) **“Bihar State Power (Holding) Company Limited”** 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”** 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”** 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” and “North Bihar Power Distribution Company Limited”** collectively mean the Distribution Companies, to which the Distribution Undertakings of the Board are to be transferred in accordance with this Scheme.

1.2 Profile of BSPTCL

1.2.1 The Transfer Scheme 2012 details out the following for transmission business:

- Schedule-A, Part-I: Description of Assets, Liabilities etc;
- Schedule-A, Part-II: Provisional Balance Sheet as on 1st April 2011;
- Schedule-B, Part-III: Function and Duties of BSPTCL;

1.2.2 Primarily, the transmission of power takes place at 400 kV, 220 kV and 132 kV voltage levels. The capacity additions in the transmission system in FY 2014-15 (till November' 2014) are provided in the table below:

Table 1: Power Transformer Capacity (in MVA)

Sub-stations	FY 14-15 (upto Nov'14)
220 /132 kV	3300
132/ 33 kV	6090
132/25 kV	109

Table 2: Transmission Line Length (in km)

Transmission Lines (in ckm.)	FY 14-15 (upto Nov'14)
220 kV Tx line	1663
400 kV Tx line	75
132 kV Double Ckt. Line	6656

1.2.3 The details of the substations covering name of sub-station and capacity are provided at **Annexure 1: Details of Grid Sub-Station & Transmission Lines**

1.2.4 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) and State Plan Funds. Hence there is need to invest in the transmission and distribution sector in the State of Bihar.

1.2.5 The works to be covered under 12th Plan Transmission Planning have been covered

under three phases namely Phase-III, Phase-IV and Phase-V. Besides the works for removing the existing transmission constraints has also been identified and posed under Phase-II extension work.

- 1.2.6 The works to be covered under Phase-V (Rs. 1600 Crores) are being proposed under Public Private Participation (PPP) Mode.

1.3 Procedural History

- 1.3.1 The procedural history of the filings of petition of erstwhile BSEB and BSPTCL is tabulated below for ready reference:

Table 3 : Procedural History of Filing

Sr.	Scope of Filing in Petition	Filing Date	Order Date	Remarks
1	ARR & Tariff Petition for FY 2006-07	10.04.2006	29.11.2006	---
2	ARR & Tariff Petition for FY 2007-08	18.12.2007	---	Delayed filing & hence directed to file petition for FY 2008-09 by 31.01.2008
3	ARR & Tariff Petition for FY 2008-09	14.02.2008	26.08.2008	Review of FY 2006-07 was also undertaken in this order
4	ARR & Tariff Petition for FY 2009-10	09.10.2009	---	Delayed filing & hence directed to file petition for FY 2010-11.
5	ARR & Tariff Petition for FY 2010-11	03.02.2010	06.12.2010	Review of FY 2008-09 was also undertaken in this order
6	ARR & Tariff Petition for FY 2011-12	17.02.2011	01.06.2011	Order effective from 1.5.2011
7	True-up Petition for FY 2006-07, FY 2007-08 and FY 2008-09 + Addendum to this petition	01.09.2011 17.10.2011	04.01.2012	---
8	True-up Petition for FY 2009-10	13.10.2011	27.01.2012	---

9	Review of ARR for FY 2010-11 based on provisional accounts Submission of Audited Accounts for FY 2010-11 Submission of True-up petition for FY 2010-11 based on Audited Accounts	13.10.2011 02.03.2012 16.03.2012	---	Commission directed to file petition for review along with petition of FY 2012-13
10	ARR & Tariff Petition for FY 2012-13	15.11.2011	30.03.2012	Order included True-up of FY
11	Business Plan for Control Period FY 2013-14 to FY 2015-16 filed by BSPGCL, BSPTCL and 2 DISCOMs Revised Business Plan as per Commissions directive Re-Revised Business Plan for BSPGCL & BSPTCL Re-Revised Business Plan for 2 DISCOMs	20.09.2012 14.11.2012 03.01.2013 04.01.2013	15.03.2013	-Commission directed to submit revise business plan -Commission again directed to submit revised business plan vide letter dt 21.12.2012 -Approved alongwith MYT Order
12	Provisional True-up for FY2011-12, Review petition for FY 2012-13 and MYT Petition for FY 2013-14 to FY 2015-16 for BSPGCL, BSPTCL and 2 DISCOMs Revised petition for True-up of FY 2011-12 based on Audited Accounts	15.11.2012 24.12.2012	15.03.2013	Commission issued MYT order according to petition

13	Petition for Annual Performance Review (APR) of FY 2013-14 and Revised ARR for FY 2014-15 filed by BSPTCL	14.11.2013	28.02.2014	Commission issued order dated 28.02.2014 for the APR for FY 2013-14 and revised ARR for FY 2014-15
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1.4 Current Petition

- 1.4.1 It is submitted that the erstwhile BSEB has been unbundled into five (5) separate entities viz. one Holding company, one Generation Company, one Transmission Company and two Distribution Companies and have come into existence with effect from 1st November 2012. This Petition considers proposal for the Transmission Company for the True-up of FY 2013-14, APR for FY 2014-15 and revised ARR for FY 2015-16 and thereby the transmission tariff/charges for FY 2015-16.
- 1.4.2 Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the 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 it 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.
- 1.4.3 The current petition has been 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
 - BERC (Terms and Conditions for Open Access) Regulations, 2005
- 1.4.4 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 is accurate and free from material errors. However, there may be certain deficiencies owing to the limited 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 at the same time BSPTCL assures that it is taking appropriate measures to improve its management information system for improved data collection.

1.5 Contents of the Petition

1.5.1 This petition comprises of main sections namely:

- ✓ True-up for FY 2013-14
- ✓ Annual Performance Review (APR) for FY 2014-15
- ✓ Revised Annual Revenue Requirement (ARR) for FY 2015-16 and Transmission Charges for FY 2015-16

2. Approach for present filing

2.1 Approach for the current petition

- 2.1.1 The Commission in the order dated March 15'2013 approved the true-up of FY 2011-12 for BSEB as a whole and also undertook the performance review for FY 2012-13 for BSEB as a whole. Further, all the entities had filed separate Business Plan and MYT Petition for the control period FY 2013-14 to FY 2015-16 and accordingly the order had been issued for the separate entities approving parameters for the control period (order dated March 15' 2013).
- 2.1.2 Since the performance of FY 2012-13 had been approved by the Hon'ble Commission on an aggregated basis for BSEB as a whole, the true-up of the same has been dealt in a separate order of the Commission (order dated February 28' 2014 in case no. 21/2013 for BSPHCL) and revenue gap / (surplus) allocated to both discoms on an agreed sharing basis.
- 2.1.3 The Commission in its order dated February 28' 2014 carried out the Annual Performance Review (APR) for FY 2013-14 and determination of revised ARR for FY 2014-15 for BSPTCL. The transmission charges for FY 2014-15 were also laid out in this order.
- 2.1.4 As per **Clause 90** of the Tariff Regulations 2007, the MYT Framework for implementation is provided as below:
*" 90 (1) The Multi-Year frame-work shall feature a five year control period. However, the Commission shall fix the initial control period for transmission and distribution as three years, **due to data uncertainties and other practical considerations. In case of lack of reliable data, the Commission shall lay down assumptions in MYT for the first control period.** As and when more reliable data is available, the Commission shall start a fresh control period.*

Emphasis added

*90 (2) Where operations have been much below the norms for the previous years, **the initial starting point in determining the revenue requirement and the improvement should be recognized at 'relaxed' levels and not the 'desired' levels.** The Commission shall however conduct suitable bench – marking studies to establish the desired performance standards and also to assess, for each utility, the capital expenditure*

required to meet the minimum service standards.

Emphasis added

- 2.1.5 BSPTCL submits to the Hon'ble Commission to determine the revised ARR for the years under consideration in present MYT control period based on actual audited accounts for FY 2013-14 and consider the gap/ (surplus) accordingly. BSPTCL further submits that it would be prudent that the Hon'ble Commission determines norms for the Petitioner for the control period of 3 years starting from FY 2016-17 to FY 2018-19 based on the learning's and its independent operations till year 2015/ 2016. The next control period of 3 years starting from FY 2016-17 to FY 2018-19 would also ensure that it is in line with the CERC Tariff Regulations for the control period FY 2014-15 to FY 2018-19.
- 2.1.6 BSPTCL submits that though the Hon'ble Commission has adopted MYT figures for FY 2013-14, FY 2014-15 and FY 2015-16; however as discussed in subsequent paragraphs, the Petitioner seeks opportunity to review/ revise its ARR for FY 2013-14, FY 2014-15 and FY 2015-16 so as to avoid any financial loss to the Petitioner.
- 2.1.7 This petition contains the actual data for FY 2013-14 and revised estimates for FY 2014-15 based on available half-yearly data available. Further, estimates for FY 2015-16 have also been revised based on actual performance of the licensee.
- 2.1.8 In line with the above, BSPTCL is filing the present petition for the True-up for FY 2013-14, Annual Performance Review (APR) for FY 2014-15 and Revised Annual Revenue Requirement (ARR) for FY 2015-16 for consideration of the Hon'ble Commission. The Petitioner seeks the Commission's approval for transmission charges for FY 2015-16 including the previous year(s) gap/surplus.

3. True-up for FY 2013-14

3.1 Introduction

- 3.1.1 The Commission issued the Tariff Order for FY 2013-14, determining the Multi-Year Aggregate Revenue Requirement (ARR) from FY 2013-14 to FY 2015-16 separately for each of the unbundled entities on March 15' 2013. The approval was based on the estimates presented by the Bihar State Power (Holding) Company Limited (BSPHCL) on behalf of unbundled entities for costs to be incurred and revenue likely to be generated during the year. The Petitioner had then submitted the petition for Annual Performance Review (APR) for FY 2013-14 and determination of revised ARR for FY 2014-15 based on actual available data. Accordingly, the Commission had issued the tariff order dated February 28' 2014.
- 3.1.2 The Petitioner is filing the present petition for the true-up of FY 2013-14 based on the audited annual accounts for the year. Further, Annual Performance Review (APR) for FY 2014-15 and determination of Revised ARR for FY 2015-16 has been carried out based on the actual available data for FY 2013-14 and half-yearly data for FY 2014-15 (as available).
- 3.1.3 It is to be noted that FY 2013-14 is the first complete year of independent operations of the transmission company since the unbundling.

3.2 Transmission Loss

- 3.2.1 The transmission loss trajectory considered by the Commission in the MYT order (order March 15' 2013) is provided in the table below:

Table 4: Transmission Loss approved in the MYT order

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Transmission Loss	4.02%	3.97%	3.92%

- 3.2.2 Further, the Commission had kept the transmission loss trajectory intact in the order dated February 28' 2014. The Commission had not accepted the plea of the Petitioner on the relaxation of the norms, stating that the same would be considered only after the submission of the actual losses for FY 2013-14.
- 3.2.3 The Petitioner submits that the actual transmission losses for FY 2013-14 have been 4.38% and the same are as per the audited accounts of the Petitioner for FY 2013-14. The Petitioner submits that the norm of 4.02% for FY 2013-14 as laid out by the Commission

was a very ambitious target for the Petitioner and inspite of efforts to bring down the losses, the transmission losses for FY 2013-14 were 4.38%. The Petitioner seeks relaxation in the transmission loss norms as laid out by the Commission and requests the Commission to approve the losses for FY 2013-14 as per actual.

3.2.4 The details are as below.

Table 5: Actual Transmission Loss for FY 2013-14

	FY 2013-14
Energy Input	14417948588
Energy Output	13786162000
Transmission Loss	631786588
Transmission Loss (%)	4.38%

3.2.5 Further, the Petitioner would like to submit that it has been making consistent efforts to bring down the losses by way of up-gradation of existing infrastructure and capital investments into new infrastructure. The details of the capital investment programs envisaged are in next chapter – para 4.3.

3.2.6 The Petitioner would like to submit that the independent operations of the transmission company have started only w.e.f 1st November 2012 and FY 2013-14 was the first complete year of independent operation for the Company.

3.2.7 It is observed that the losses in advanced states and which have initiated reforms process much earlier are still having transmission loss more than 4%.

3.2.8 Further, the Petitioner would like to submit that substantial investments pertaining to strengthening transmission network system by way of taking up improvement works like adding new/ link lines, augmentation of existing transformer capacities and establishment of new sub-stations closer to the load centers etc. have been undertaken in FY 2013-14 and are continuing for the future years; however, the benefits out of the capital investments would take time to flow in.

3.2.9 BSPTCL would like to mention that these works would result in:

a) Reduction of transmission losses

- b) Reduction of distribution losses
- c) Improvement of system reliability
- d) Enable creation of robust transmission network

3.2.10 So, the improvement in losses would be reflected only after 1-2 years after the commissioning of these transmission assets.

3.2.11 The Petitioner requests the Hon'ble Commission to approve the transmission losses for FY 2013-14 on actual basis.

3.3 Capital Investment and Capitalization

3.3.1 The capitalization for FY 2013-14 as per the audited accounts of the Petitioner is Rs 70.23 Crores. New Investment for the year as per the accounts is Rs 249.18 Crores. It is observed that the capitalization as per actual for the year is lower as compared to the approved figures of the Commission. The comparison of the actual and approved figures of CWIP and capitalization is provided in the table below.

Table 6: CWIP and Capitalisation for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
	CWIP			
1	Opening CWIP	682.00	378.94	378.94
2	New Investment	319.00	660.39	249.18
3	Less: Capitalization	388.00	311.80	70.23
	<i>(a) Opening CWIP</i>	42.00	113.68	
	<i>(b) New Investment</i>	346.00	198.12	
4	Closing CWIP	613.00	727.53	557.88

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

3.3.3 The Petitioner requests the Commission to approve the above CWIP and capitalization figures shown.

3.4 Gross Fixed Assets

3.4.1 The Petitioner hereby submits the computation of Gross Fixed Assets considering the opening GFA and closing GFA for FY 2013-14 as reflected in the audited annual accounts for FY 2013-14. The addition in GFA for the year is Rs 70.23 Crores and the Petitioner requests the Commission to approve the same.

3.4.2 The computation of Gross Fixed Assets for FY 2013-14 is tabulated below:

Table 7: Gross Fixed Assets for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Opening GFA	1,547.13	3,513.08	3,513.08
2	Less: Assets Revalued		1,255.06	-
3	Original value of GFA	1,547.13	2,258.02	3,513.08
4	Less: Value of Land		47.46	-
5	Opening GFA (depreciable GFA)	1,547.13	2,210.56	3,513.08
6	Add: Additions during year	388.00	311.80	70.23
7	Add: Interest during Construction (IDC)	11.51	8.91	-
8	Closing GFA	1,946.64	2,531.27	3,583.31

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

3.5 Depreciation on GFA

3.5.1 The depreciation for FY 2013-14 as per the audited accounts is Rs 106.61 Crores. The amortization of the assets created out of grants has been excluded in the depreciation computation. Further, land and land rights have not been subject to any depreciation.

3.5.2 In the tariff order dated February 28' 2014, the Commission had excluded land and land rights from the average GFA and then applied the weighted average rate of depreciation of 5.12% for arriving at the depreciation. The Petitioner would like to highlight that the weighted average rate of depreciation includes the averaging effect of zero depreciation on land and therefore, the average GFA to be considered should include the land component as well. Further, depreciation figure as per accounts has not considered any depreciation on land and therefore, the depreciation as per accounts should be allowed in entirety. Also, amortization on the assets created out of grants has been excluded from the depreciation amount charged to the Profit & Loss (P&L) account of the Petitioner.

3.5.3 The depreciation for the true-up of FY 2013-14 is as below.

Table 8: Depreciation for FY 2013-14 (Rs Crores)

Sr.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Opening GFA	1,547.13	2,210.56	3,513.08
2	Additions during year	388.00	311.80	70.23
3	Interest during Construction	11.51	8.91	-
4	Closing GFA (1+2+3)	1,946.64	2,531.27	3,583.31
5	Average GFA (1+4)/2	1,746.88	2,370.92	3,548.19
6	Weighted Avg Rate of Depreciation	5.12%	5.12%	3.27%
7	Depreciation (5*6)	89.44	121.39	115.89
8	Opening Grants	679.31	1,622.44	1,624.25
9	Grants during year	211.00	172.97	9.80
10	Total Grants (8+9)	890.31	1,795.41	1,634.05
11	Average Grants (10+8)/2	784.81	1,708.93	1,629.15
12	Weighted Avg Rate of Depreciation	5.12%	5.12%	0.57%
13	Depreciation for GFA on Grants (11*12)	40.18	87.50	9.28
14	Net Depreciation for GFA on Loans (7-13)	49.26	33.89	106.61

3.5.4 The Petitioner requests the Hon'ble Commission to approve the depreciation of Rs 106.61 Crores for FY 2013-14.

3.6 Interest & Finance Charges

3.6.1 The Petitioner has considered the opening and closing loan balances for FY 2013-14 as per the audited annual accounts of the Petitioner.

3.6.2 The interest on loans amount as per the audited accounts of the Petitioner is Rs 14.20 Crores. The details of the same have been shown in the table below.

Table 9: Details of Interest on Loans for FY 2013-14 (Rs Crores)

S. No.	Source of Loan	Opening Balance as on 1.04.13	Addition	Repayment	Closing Balance as on 31.03.14	Interest Accrued during FY	Average Loan during FY 13-14	Average Rate of Interest (%)
1	State Govt. Loan	66.89	129.07	-	195.96	14.20	131.42	
2	ADB Loan	18.52	11.25	-	29.78	-	24.15	
3	Total	85.41	140.32	-	225.74	14.20	155.58	9.13%

3.6.3 The comparison of the values from the earlier approved figures is as below.

Table 10: Interest on Loans for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Opening Loan	190.23	172.05	85.41
2	Additions during year	177.00	137.15	140.32
3	Repayment	49.26	33.89	-
4	Closing Loan (1+2-3)	317.97	275.31	225.74
5	Average Loan (1+4)/2	254.10	223.68	155.58
6	Rate of Interest	13.00%	13.00%	9.13%
7	Interest on Loan	33.03	29.08	14.20

3.6.4 Further, Petitioner claims amount of Rs 0.01 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 2013-14.

3.6.5 **The Petitioner, therefore, claims amount of Rs 14.21 (14.20 + 0.01) Crores as the interest and finance charges for FY 2013-14.**

3.6.6 The Petitioner requests the Hon'ble Commission to approve the interest and finance charges for FY 2013-14 as submitted above by the Petitioner.

3.7 Operation and Maintenance Expenses

3.7.1 Employee Expenses

3.7.2 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.

3.7.3 The Petitioner submits employee expenses of Rs 77.57 Crores (excluding terminal benefits) for FY 2013-14 as per the audited accounts of the Petitioner. The comparison of the employee expenses as per actual and as approved earlier by the Commission is as below.

Table 11: Employee Expenses for FY 2013-14 (Rs Crores)

Sr.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Previous year expenses		81.43	
2	Inflationary Increase		9.21%	
3	Add: Inflationary Increase	-	7.50	
4	Employee Cost (sub-total)	162.25	88.93	86.68
5	Less: Support by State Govt. against terminal benefits	84.05	-	9.11
6	Employee Cost	78.20	88.93	77.57
7	Less: Employee cost capitalized (@ 1.8% on S. No. 4)	2.92	1.60	-
8	Net Employee Cost (Rs Crores)	75.28	87.33	77.57

3.7.4 The details of the employee expenses for FY 2013-14 as per the audited accounts of the Petitioner are as below.

Table 12: Details of Employee Expenses for FY 2013-14 (Rs Crores)

Sl. No.	Particulars	Employee Expenses
1	2	3
1	Salaries	38.84
2	Over Time	2.35
3	Dearness Allowance	33.31
4	Other Allowance	2.72

5	Medical Expenses Re-imbursement	0.13
6	Staff Welfare Expenses	0.22
7	Terminal Benefits	9.11
8	TOTAL	86.68

3.7.5 The Petitioner requests the Commission to approve the employee expenses of Rs 77.57 Crores for FY 2013-14 and the same are as per the audited annual accounts of the Petitioner for FY 2013-14.

3.7.6 Repairs and Maintenance Expenses

3.7.7 The Petitioner would like to submit that post unbundling it has initiated major drive for maintenance and up-keep of its transmission assets. Further, the Petitioner is also undertaking huge capital expenditure schemes to the tune of Rs 3500 Crores and hence Repairs and Maintenance expenses have increased.

3.7.8 The Petitioner submits that R&M expenses of Rs 59.01 Crores have been incurred for FY 2013-14 and the same are as per the audited accounts of the Petitioner. The comparison of the R&M expenses as per actual and as approved earlier by the Commission is as below.

Table 13: R&M Expenses for FY 2013-14 (Rs Crores)

Sr.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Base R&M Cost		13.68	
2	Inflationary Increase		9.21%	
3	Add: Inflationary Increase		1.26	
4	Total (4=1+3)	9.31	14.94	59.01

3.7.9 The Petitioner requests the Commission to approve the R&M expenses of Rs 59.01 Crores as huge capital expenditure schemes have been undertaken this year and therefore, R&M expenses have increased as compared to the figures approved earlier by the Commission. This being the first independent year of operations of the Company, the Petitioner has incurred huge R&M expenses on the upkeep of the transmission assets and requests the Commission to approve the same.

3.7.10 The details of the R&M expenses for FY 2013-14 as per the audited accounts of the Petitioner are as below.

Table 14: Details of R&M Expenses for FY 2013-14 (Rs Crores)

S. No.	Particulars	R&M Expenses
1	2	3
1	Plant and Machinery	38.75
2	Building	4.48
3	Civil Works	1.73
4	Hydraulic Works	0.06
5	Line Cable Net Works	13.82
6	Vehicles	0.00
7	Furniture and Fixture	0.02
8	Office Equipment	0.15
	TOTAL	59.01

3.7.11 The Petitioner requests the Hon'ble Commission to approve the R&M expenses as submitted above for FY 2013-14.

3.7.12 Administration & General Expenses (A&G)

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

3.7.14 The Petitioner submits that A&G expenses of Rs 6.20 Crores have been incurred for FY 2013-14 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 Commission is as below.

Table 15: A&G Expenses for FY 2013-14 (Rs Crores)

Sr.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Base A&G Expense		9.89	
2	Inflationary Increase		9.21%	
3	Add: Inflationary Increase		0.91	
4	A&G Expense	5.18	10.80	
5	Less: A&G cost capitalized	0.20	0.43	
6	Net A&G Expenses	4.98	10.37	6.20

3.7.15 The Petitioner requests the Commission to approve the A&G expenses of Rs 6.20 Crores as per actual for FY 2013-14.

3.7.16 The details of A&G expenses for FY 2013-14 as per the audited accounts of the Petitioner are as below.

Table 16: Details of A&G Expenses for FY 2013-14 (Rs Crores)

S. No.	Particulars	A&G Expenses
1	2	3
1	Rent, Rates & Taxes	0.00
2	Insurance	1.05
3	Telephone charges, Postage & Telex Charges	0.27
4	Legal Charges.	0.02
5	Audit Fees	0.01
6	Consultancy Charges	0.22
7	Technical Fees	0.00
8	Other Professional Charges	0.14
9	Conveyance & Travel	1.48
10	<u>Other Expenses</u>	
	Fees & Subscription	0.13
	Books & Periodicals	0.01
	Printing & Stationary	0.12
	Advertisement	0.08
	Electricity Charges	1.15
	Entertainment Charges	0.04
	Commission for sale of scrap	0.10
	Home Guard/ Security Guard	1.08
	Miscellaneous Expenses	0.23
11	Freight	0.01
12	Other Purchase related Expenses	0.02
13	Sub-Total	6.19
14	<u>Miscellaneous losses and write-offs</u>	-
	Miscellaneous losses and write-offs	0.01
	Bad Debts	-
15	Sub-Total	0.01
16	Total A&G Expenses	6.20

3.7.17 The Petitioner requests the Hon'ble Commission to approve the A&G expenses as submitted above for FY 2013-14.

3.7.18 Allocation of Holding Company Cost

3.7.19 The Petitioner submits that holding company expenses of Rs 1.11 Crores have been reported for FY 2013-14 as per the audited accounts of the Petitioner. The comparison of the holding company expenses as per actual and as approved earlier by the Commission is as below.

Table 17: Holding Company Expenses for FY 2013-14 (Rs Crores)

Sr.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Holding Company Expenses	-	5.49	1.11

3.7.20 The Petitioner requests the Hon'ble Commission to approve the holding company expenses of Rs 1.11 Crores as submitted above for FY 2013-14.

3.7.21 Summary of O&M Expenses

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

Table 18: O&M Expenses for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Employee Expenses	75.28	87.33	77.57
2	Repair and Maintenance Expenses	9.31	14.94	59.01
3	Administrative and General Expenses	4.98	10.37	6.20
4	Holding Company Expenses	-	5.49	1.11
5	Total O&M Expenses	89.56	118.13	143.88

3.7.23 The Hon'ble Commission is requested to approve the above O&M expenses for FY 2013-14.

3.8 Interest on Working Capital

- 3.8.1 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 which are reproduced in the following table for reference:

Table 19: Norms for Working Capital Requirement

Sr.	Particulars	Norm
1.	Operation & Maintenance Expns	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	Short –term Prime Lending Rate of State Bank of India on 1 st April of the year.

- 3.8.2 The rate of interest applied on the working capital is as per the SBI PLR is 14.45%. The normative interest on working capital for FY 2013-14 computed as per the above norms is as below.

Table 20: Interest on Working Capital for FY 2013-14 (Rs Crores)

S. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	O&M Expenses for 1 Month	7.46	10.01	11.99
2	Maintenance Spares @1% of Opening GFA with 6% escalation	16.40	23.94	37.24
3	Receivables 2 Months	35.65	36.86	55.87
4	Total Working Capital	59.51	70.81	103.53
5	Rate of Interest	14.45%	14.45%	14.45%
6	Interest on Working Capital	8.60	10.23	14.96

- 3.8.3 The Petitioner requests the Commission to approve interest on working capital as shown in above table for the true-up of FY 2013-14.
- 3.8.4 The Petitioner requests the Hon'ble Commission to approve the computation of working capital and the interest charges thereon for FY 2013-14 based on the actual components of the normative working capital.

3.9 Return on Equity

- 3.9.1 The Petitioner hereby submits the computation of equity is considering the opening equity balance as approved in last tariff order dated February 28' 2014. The additions in the equity capital have been considered as per the audited accounts. Further, supporting documents stating that Rs 590.35 Crores is the equity infusion in the Company have also been annexed.
- 3.9.2 It is submitted that the final transfer scheme is yet to be notified by the Government and therefore, opening balance of Rs 235 Crores as approved in tariff order dated February 28' 2014 has been considered.
- 3.9.3 The Petitioner submits that the equity capital is excluding Reserves and Surplus as the same comprises of grants for capital assets and consumer contributions and therefore, have not been considered for return on equity.
- 3.9.4 The computation of return on equity for FY 2013-14 is tabulated below:

Table 21: Return on Equity for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Opening Equity Balance	235.00	235.00	235.00
2	Add: Equity during the year	-	-	590.35
3	Closing Equity Balance	235.00	235.00	825.35
4	Average Equity	235.00	235.00	530.18
5	Rate of Return on Equity	14.00%	14.00%	14.00%
6	Return on Equity	32.90	32.90	74.22

- 3.9.5 The Petitioner requests the Hon'ble Commission to approve the computation of return on equity for FY 2013-14 as submitted above.

3.10 Non-Tariff Income

- 3.10.1 The Petitioner submits non-tariff income of Rs 28.09 Crores for the true-up of FY 2013-14 as per the audited accounts for the year. The comparison of the non-tariff income as per actual and as approved earlier by the Commission is as below.

Table 22: Non-Tariff Income for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Non-Tariff Income	0.51	1.02	28.09

3.10.2 The details of non-tariff income for FY 2013-14 as per the audited accounts of the Petitioner are as below.

Table 23: Details of Non-Tariff Income for FY 2013-14 (Rs Crores)

S. No.	Particulars	Non-Tariff Income
1	2	3
A	<u>Interest Income</u>	
1	Interest on Staff Loan & Advances	0.00
2	Income from Investment (Fixed Deposit)	23.16
3	Interest from Banks (Other than Fixed Deposit)	0.14
	Sub-total	23.30
B	<u>Other Income</u>	
1	Income from Scrap Sale	4.05
2	Miscellaneous Receipts	0.74
3	Interest & Finance charges capitalized	-
4	Rebate and Discount Received	0.00
	Sub-total	4.79
	Total	28.09

3.10.3 The Petitioner requests the Hon'ble Commission to approve the Non-Tariff Income for FY 2013-14 as submitted above.

3.11 Transmission ARR for True-up of FY 2013-14

3.11.1 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.

3.11.2 Accordingly, following is the summary of revised projections of Aggregate Revenue

Requirement of the Petitioner for the true-up of FY 2013-14 for approval by the Hon'ble Commission.

Table 24: Transmission ARR for True-up of FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	O&M Expenses	89.56	118.13	143.88
a	Employee Expenses	75.28	87.33	77.57
b	R&M Expenses	9.31	14.94	59.01
c	A&G Expenses	4.98	10.37	6.20
d	Holding Company Expenses Allocated	-	5.49	1.11
2	Depreciation	49.26	33.89	106.61
3	Interest and Finance Charges	33.03	29.08	14.21
4	Interest on Working Capital	8.60	10.23	14.96
5	Return on Equity	32.90	32.90	74.22
6	Gross Annual Revenue Requirement	213.35	224.23	353.89
7	Less: Non Tariff Income	0.51	1.02	28.09
8	Net Revenue Requirement	212.84	223.21	325.80

3.11.3 The Petitioner would like to submit that the Transmission Charges for true-up of FY 2013-14 have been determined based on the applicable rules and regulations of the Commission. 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 2013-14 and the resultant revenue gap to be adjusted in the Transmission Charges of the Petitioner for FY 2015-16 to be recovered from the two distribution companies.

3.12 Revenue Gap / (Surplus) for FY 2013-14

3.12.1 The revenue gap/(surplus) for FY 2013-14 as per the true-up for the year is as below:

Table 25: Revenue Gap/ (Surplus) for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	FY 2013-14		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up
1	Annual Transmission Charges	212.84	223.21	325.80
2	Less: Earlier Approved Annual Transmission Charges for the year		212.84	223.21
3	Revenue Gap/(Surplus) for the year		10.37	102.59

3.12.2 The Commission in order dated February 28' 2014 had approved revenue gap of Rs 10.37 Crores for the Review of FY 2013-14 and had noted that the deficit/surplus of FY 2013-14 based on actual would be considered in the future years once the audited accounts of the Petitioner are made available. **The revenue gap for FY 2013-14 as per the audited accounts of the Petitioner is Rs 102.59 Crores and Petitioner prays to the Commission to allow recovery of the same. Petitioner requests the Commission to allow the Petitioner to raise supplementary bills to enable recovery of the gap on account of truing-up of FY 2013-14.**

4. Annual Performance Review (APR) for FY 2014-15 and Revised Annual Revenue Requirement (ARR) for FY 2015-16

4.1 Introduction

- 4.1.1 The Commission issued the Tariff Order for FY 2013-14, determining the Multi-Year Aggregate Revenue Requirement (ARR) from FY 2013-14 to FY 2015-16 separately for each of the unbundled entities on March 15' 2013. The approval was based on the estimates presented by the Bihar State Power (Holding) Company Limited (BSPHCL) on behalf of unbundled entities for costs to be incurred and revenue likely to be generated during the year. The Petitioner had then submitted the petition for Annual Performance Review (APR) for FY 2013-14 and determination of revised ARR for FY 2014-15 based on actual available data. Accordingly, the Commission had issued the tariff order dated February 28' 2014.
- 4.1.2 The Petitioner is filing the present petition for the true-up of FY 2013-14 based on the audited annual accounts for the year. Further, Annual Performance Review (APR) for FY 2014-15 and determination of Revised ARR for FY 2015-16 has been carried out based on the actual available data for FY 2013-14 and half-yearly data for FY 2014-15 (as available).
- 4.1.3 Transmission Charges for FY 2015-16 to be recovered from the two distribution companies have also been laid out in this chapter.

4.2 Transmission Loss and Revised Trajectory

- 4.2.1 The transmission loss trajectory considered by the Commission in the MYT order is provided in the table below:

Table 26: Transmission Loss approved in the MYT order

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Transmission Loss	4.02%	3.97%	3.92%

- 4.2.2 Further, the Commission had kept the transmission loss trajectory intact in the order dated February 28' 2014. The Commission had not accepted the plea of the Petitioner on the relaxation of the norms, stating that the same would be considered only after the submission of the actual losses for FY 2013-14.
- 4.2.3 The Petitioner submits that the actual transmission losses for FY 2013-14 have been 4.38% and the same are as per the audited accounts of the Petitioner for FY 2013-14.

The Petitioner submits that the norm of 4.02% for FY 2013-14 as laid out by the Commission was a very ambitious target for the Petitioner and inspite of efforts to bring down the losses, the transmission losses for FY 2013-14 were 4.38%. The Petitioner seeks relaxation in the transmission loss norms as laid out by the Commission and requests the Commission to approve the losses for FY 2013-14 as per actual.

- 4.2.4 The Petitioner has been making consistent efforts to bring down the losses by way of up-gradation of existing infrastructure and capital investments into new infrastructure. The details of the capital investment programs envisaged are in next section – para 4.3.
- 4.2.5 The Petitioner would like to submit that the independent operations of the transmission company have started only w.e.f 1st November 2012 and it has only recently completed 2 years of independent operations.
- 4.2.6 It is observed that the losses in advanced states and which have initiated reforms process much earlier are still having transmission loss more than 4%.
- 4.2.7 Further, the Petitioner would like to submit that substantial investments pertaining to strengthening transmission network system by way of taking up improvement works like adding new/ link lines, augmentation of existing transformer capacities and establishment of new sub-stations closer to the load centers etc. are being undertaken in a phased manner and benefits out of the capital investments would take time to flow in.
- 4.2.8 BSPTCL would like to mention that these works would result in:
 - a) Reduction of transmission losses
 - b) Reduction of distribution losses
 - c) Improvement of system reliability
 - d) Enable creation of robust transmission network
- 4.2.9 So, the improvement in losses would be reflected only after 1-2 years after the commissioning of these transmission assets.
- 4.2.10 Accordingly, BSPTCL provides herewith the revised transmission loss trajectory for consideration and approval by the Hon'ble Commission to be computed based on the above suggestions.

Table 27: Revised Transmission Loss Trajectory

Particulars	FY 2013-14 (Actual)	FY 2014-15	FY 2015-16
Approved % Transmission Loss	4.02%	3.97%	3.92%
Revised Trajectory of Transmission Loss	4.38%	4.38%	4.33%

4.2.11 The Petitioner requests the Commission to approve the transmission loss for FY 2014-15 as per actual for FY 2013-14 and allow reduction of 0.05% for FY 2015-16.

4.2.12 The Petitioner requests the Hon'ble Commission to approve the revised transmission loss trajectory as submitted above for the control period FY 2013-14 to FY 2015-16.

4.3 Capital Investment Plan

4.3.1 The Petitioner had submitted the following capital investment plan from FY 2013-14 to FY 2015-16 in the last year's petition and the same had been approved by the Commission. The Petitioner had submitted capital investment of Rs 3469.10 Crores from FY 2013-14 to FY 2015-16, which had been approved by the Commission in its order dated February 28' 2014.

Table 28: Capital Investment approved by Commission in order dated February 28' 2014

S. No.	Planned Scheme	Total Cost	2012-13	2013-14	2014-15	2015-16	Total
1	12th Plan Transmission & Sub-Transmission System Strengthening in	1,958.50	-	300.00	1,000.00	658.50	1,958.50
2	Strengthening of Sub-Transmission System in Bihar - Extension Scheme of Phase-2 Works (Revised)	472.53	-	125.00	347.53	-	472.53
3	ADB Funded Scheme	296.90	18.52	89.86	128.52	60.00	296.90
4	State Plan Scheme	502.33	109.12	139.64	253.57	-	502.33
5	Installation of 14 No's of GSS through BSPTCL's	350.00	-	-	140.00	210.00	350.00
6	Establishment of BSPTCL's Training Centre (<i>funding through State Plan</i>)	3.00	-	0.30	1.50	1.20	3.00
7	Capital Expenditure Schemes through Internal Resources Fund	13.48	-	5.59	7.89	-	13.48
	Grand Total	3,596.74	127.64	660.39	1,879.02	929.70	3,596.74

- 4.3.2 The Petitioner would like to submit that to meet the growing demand for power by the consumers, its diversity in terms of geography and evacuating the power expected to be available from upcoming intra/ inter-state generating stations, Transmission Company has been undertaking various transmission network capacity addition, augmentation and improvement projects for making reliable power uniformly available across the state.
- 4.3.3 BSPTCL had prepared the report on 'Evolution of Transmission System of Bihar' and submitted to Central Electricity Authority (CEA) for approval. The transmission system requirements of Bihar for the 12th plan had been proposed in three parts as under:
- a) Part-1: Bihar Sub-transmission Phase-2 Extension Scheme;
 - b) Part-2: Transmission System Strengthening Scheme- Phase-1 & Phase-2;
 - c) Part-3: ATS for Case-II projects i.e. Lakhisarai (2x660 MW), Pirpainti (2x660 MW) & Buxar (2x660 MW) and system strengthening for other projects i.e. BTPS Extension (2x250 + 150 MW), MTPS Extension (2x195 MW) etc;
- 4.3.4 The CEA had accordingly examined the proposal and mentioned that projects/ works are technically found to be in order through letter no. 69/1/2012 - SP&PA/1203-05 dated 15.11.2012.
- 4.3.5 The Petitioner would like to submit that the scope of certain schemes has also changed and is being executed in bundled schemes; hence the capital expenditure plan provided in the last year's petition has undergone a change. The Petitioner submits that it has presented the figures of capital expenditure, capitalization and funding etc. of FY 2015-16 for representation purpose only.
- 4.3.6 Further, certain new schemes have been added, which have been detailed in the following paras.
- 4.3.7 The details of the existing and new schemes planned are as below.
- 4.3.8 **12th Plan Transmission & Sub-Transmission System Strengthening in Bihar (PHASE-III)**
- 4.3.9 Under this scheme, the works related to Transmission System for evacuation of power from Dabhangha & Motihari 400 kV sub-stations and Strengthening of Intra- State Transmission system are planned to be undertaken.
- 4.3.10 This scheme had been approved by the Commission in the last year's tariff order dated

February 28' 2014.

4.3.11 Details of works under this scheme are as below.

Table 29: Details of 12th Plan Schemes under Phase – III (Rs Crores)

Sr.	Particulars	Rs. Crores
A	Preliminary survey and soil investigation	3.35
B	Land acquisition for substation and R & R compensation	62.15
C	Cost of compensation for transmission lines	
	<i>Compensation for crop, tree and others</i>	62.46
	<i>Compensation towards forests</i>	3.97
D	Civil works	
	<i>Infrastructure for substations</i>	17.05
	<i>Non-residential buildings</i>	7.75
E	Equipment Cost	
	<i>Transmission Lines</i>	454.95
	<i>Sub-stations</i>	503.77
	<i>Data & voice connectivity</i>	12.78
F	Sub-Total	1,128.23
G	Contingencies (@3% of F)	33.84
	Total Project Cost as per DPR	1,162.07
H	Other Schemes included in the Package	
	<i>Sonenagar 220 kV GSS and associated lines (Phase-III, Part-2, Proj-1)</i>	108.00
	<i>R & M of 20 No's old operating 132/33 kV GSS (Phase-III, Part-2, Proj-2)</i>	99.96
	Grand Total of the Entire Package Scheme	1370.02

4.3.12 Further, the following new schemes have been added in this:

a) Phase – III Part II

Construction of 220/132/33 kV GSS Kishanganj with associated 220 kV, 132 kV lines for evacuation of power from 400/220 kV GSS Kishanganj (PGCIL). The cost of the scheme is **Rs 356.10 Crores**.

b) Phase – III for N-1 Compliance

Strengthening of transmission system for N-1 compliance. The total cost of the scheme is **Rs 291.84 Crores**.

4.3.13 Details of works under the above scheme can also be found at Annexure-II (a) of CEA letter dated 15.11.2012.

4.3.14 Strengthening of Sub-Transmission System in Bihar - Extension Scheme of Phase-2 Works (Revised) – Rs 472.53 Crores

4.3.15 Under this scheme, scope of work includes removal of constraints in Transmission System and augmentation of sub-station works. The total value of the scheme is Rs. 472.53 Crores and same had been approved by the Commission in last year's tariff order dated February 28' 2014. The details of the scheme are presented in the table below:

Table 30: Details of Extension Scheme of Phase-2 (Rs Crores)

S. No.	Particulars	Unit	Amount (Rs. Crores)
1	Augmentation work - 220 / 132 KV GSS - 1050 MVA	7 Nos.	71.63
2	Augmentation work 132 / 33 KV GSS - 420 MVA	12 Nos.	61.54
3	Re-conductoring 220 KV line	240 CKM	33.71
4	Re-conductoring 132 KV line	908 CKM	97.73
5	220 KV Line - New	1 CKM	3.94
6	132 KV Line - New	238 CKM	60.04
7	Ganga River Crossing Line	10 CKM	49.00
8	Capacitor Banks, CTs, LAs, etc.		16.08
9	Contingencies		78.86
10	Total		472.53

4.3.16 Further, details for the above Extension Scheme of Phase-2 can also be found at Annexure-I of CEA letter dated 15.11.2012.

4.3.17 ADB Funded Scheme – Rs 196.90 Crores

4.3.18 Details of works planned to be spent under this ongoing scheme are provided in the table below:

Table 31: Schemes under ADB Funding (Rs Crores)

S. No.	Particulars	Unit	Amount (Rs. Crores)
1	132/33 KV GSS at Gangwara & Dhanha	2 Nos.	49.15
2	132 KV bays at Bettiah, Sasaram, Mohnia, Dinara, Lakhisarai and Shikhpura GSS	6 Nos.	
3	33 KV bays at remote end 33/11 KV SS	4 Nos.	
4	220/132 KV GSS at Pusauli 2x150 MVA	1 Nos.	47.98
5	220 KV bay extension at 220/132 KV Dehri GSS	2 Nos.	
6	132 KV line	202 CKM	48.61

7	33 KV Line	40 CKM	9.63
8	220 KV DC LILO Sasaram (PGCIL) - Ara (PGCIL) at New SS at Pusauli (New)	6 CKM	41.53
9	Pusauli (New) - Dehri (BSEB) 220 KV line	8 CKM	
11	Total		196.90

4.3.19 The above cost of the scheme is Rs 196.90 Crores and Petitioner prays to the Commission to approve it.

4.3.20 State Plan Scheme

4.3.21 There are certain transmission schemes which are to be undertaken through State Government Plan. The details of the schemes pending completion during FY 2014-15 and FY 2015-16 are provided in the table below:

Table 32: Schemes under State Government Plan (Rs Crores)

Sr. No.	Scheme	Approved amount
1	Construction of 132/33 kV grid substation connected to Jandaha transmission line, under district Vaishali	25.00
2	Construction of 132/33 kV grid substation connected to transmission line at Tehta (Jehanabad) and Imamganj (Gaya)	51.20
3	Dismantling of 132/33 kV 2X50 MVA Meethapur Grid substation and 33/11 kV Power Substation at R. K. Nagar from its place and construction of 132/33 kV 4X50 MVA Grid Substation and 33/11 kV 2X10 MVA Power Substation at Kabrigahiya	77.36
4	Construction of Transmission facility to evacuate power from	26.12
5	Construction of additional 132 kV Transformer bay at 132/33 kV Substation Sitamarhi, Bihta, Khagaul, Ara and Nawada	5.00
6	Construction of 5 No's of additional 33 kV Transformer Bays at 132/33 kV 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 Jainagar, Phulparas, Bihta	3.70
7	Construction of 2X100 MVA, 220/132 kV Grid Substation at Bihta	135.00
8	Purchase of 03 No's 50 MVA 132/33 kV Transformers for Siwan, Nawada and Jamalpur Grid Substations	7.92

9	Purchase of 17 No's Transformers to minimize gap between capacity addition of old six no's of grid and transmission & distribution capacity of 08 no's of substations: Bodhgaya - 150 MVA (01 No.), Bihar- shariff - 150 MVA (01 No.), Fatuha - 100 MVA (01 No.), Begusarai - 100 MVA (01 No.), Sabaur - 50 MVA (01 No.), Sitamarhi - 50 MVA (01 No.), Gopalganj Grid - 50 MVA (02 No.), Champaran (W) Grid - 50 MVA (02 No.), Samastipur Grid - 50 MVA (01 No.), Sitamarhi Grid - 50 MVA (01 No.), Saharsa Grid - 50 MVA (02 No.), Chapra Grid - 50 MVA (01 No.),	49.04
10	Scheme to renovate 15 No's of old Grid Substations	8.87
11	Special scheme to purchase specific testing equipments of worth Rs. 6.26 Cr. for the testing of Grid substation equipments	6.26
12	Construction of Control Room Building, Residential Complex and Building, Boundary wall, Internal Road and Drinking Water Sanitation at	76.83
13	Replacement of oil & over-hauling of 48 nos. Power Transformer	12.08
14	Total	484.38

4.3.22 The above schemes were also approved in last year's tariff order dated February 28' 2014. The schemes which have been completed in FY 2012-13 have not been shown in the above table.

4.3.23 The phasing of the above schemes is as below.

Table 33: Phasing of Schemes under State Plan (Rs Crores)

S. No.	Planned Scheme	Total Cost	2012-13	2013-14 (Actual)	2014-15		2015-16	2016-17
					Actual upto 25.11.14	25.11.14 to March'15		
1	220/132 KV GSS, Bihta 2x100 MVA	135.00	5.00	31.76	19.56	50	28.68	
2	132/33 KV GSS at Jandaha,	25.00		19.63	0.21	5.00		
3	132/33 KV GSS at Tehta and Imamganj	51.20		33.00	4.86	3.00		
4	132/33 KV GSS (4x50 MVA) at Kabrigahiya along with 33/11 KV SS (2x10 MVA) at Kabrigahiya	77.36		56.73	1.37	5.00		
5	Construction of transmission facilities to evacuate power	26.12		10.35	7.92	10.00		
6	Construction of 5 Nos additional 132/33 KV bays and 5 Nos. 33 KV bays at Sitamarhi, Bihta, Khagaul, Ara and Nawada	8.70		3.07	3.21	1.00	1.42	
7	Purchase of 3 Nos. 50 MVA 132/33 KV	7.92			2.00	4.00	1.92	

	transformers for Siwan, Nawada and Jamalpur GSS							
8	Renovation of old GSS	8.87			-	1.00	7.87	
9	Purchase of transformers (150/100/50 MVA)	49.04			40.73	4.00		
10	Construction of control room building, residential complex and building, boundary wall, internal road, etc. at old GSS	76.83			0.15	10.00	40.00	26.68
11	Testing equipment for testing of GSS equipments	6.26				2.00	4.00	
12	Replacement of oil & over-hauling of 48 nos. Power Transformer	12.08			4.94	2.00	5.14	
13	TOTAL	484.38	5.00	154.54	84.95	97.00	89.03	26.68

4.3.24 The following new schemes have got added under State Plan funding from FY 2014-15 onwards. Details are as below.

Table 34: New Schemes under State Plan (Rs Crores)

S. No.	Particulars	Amount (Rs Crores)	FY 2014-15 (Estimate)	FY 2015-16 (Estimate)	FY 2016-17 (Estimate)
1	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 Tx line	159.00	10.00	50.00	99.00
2	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	110.00	10.00	80.00	20.00
3	132 km double -circuit towers single string lines and 132/33 kV grid sub-stations	123.67	-	60.00	63.67
4	Construction of 17 nos. of 132/33 kV grid substations in Revenue sub-division	668.72	-	150.00	518.72
5	TOTAL	1061.39	20.00	340.00	701.39

4.3.25 The supporting documents regarding sanction of these schemes are attached as Annexure.

4.3.26 Installation of GSS (under State Plan Scheme)

4.3.27 The Petitioner is also planning for Installation of 14 nos. of Grid Sub-stations in the areas where there is need for augmentation of the transmission capacity and the funding of

the same is through State Government Plan. The value of this scheme as approved in last year's tariff order dated February 28' 2014 was Rs. 350.00 Crores. However, the expenditure under this scheme has got revised to **Rs 555.90 Crores**. The Petitioner requests the Commission to approve additional expenditure under this scheme and approve Rs 555.90 Crores under this scheme for the control period. The supporting document is attached as **Annexure** to this petition.

4.3.28 Establishment of BSPTCL's Training Centre

4.3.29 The Petitioner is also planning for Establishment of Training Center to train its employee's along with employees of other subsidiary companies on paid basis. The Training Centre shall also be available / open for external members/ utilities/ employees and shall act as a 'Profit Center' and not as a Cost Center. The proposed Training Centre shall be well equipped with all the facilities, equipments, testing kits, functional proto types and demos. Further, the Training Center shall also have facility for Faculty member including accommodation. The Training Centre shall have the facilities of laboratories which shall be based on the norms accredited by certified national agencies. The cost of the proposed training centre is **Rs. 3.00 Crores** and same had been approved by the Commission in last year's tariff order dated February 28' 2014.

4.3.30 Capital Expenditure Schemes through Internal Resources Fund

4.3.31 The Petitioner submits that it is also undertaking certain capital expenditure schemes through Internal Resources Fund (IRF).

4.3.32 The Petitioner is executing the up-gradation of ULDC in association with PGCIL. The total capital estimate is of Rs. 80.24 Crores out of which the share of Petitioner is Rs. 5.98 Crores. The up-gradation works would be executed through internal resources of the Petitioner.

4.3.33 Further, additional capex is to be funded through Internal Resources in the coming years also. The total amount of capital investment under this from FY 2013-14 to FY 2015-16 has been projected at **Rs 112.31 Crores**.

4.3.34 New Schemes under ADB Fund

4.3.35 The following new schemes have been proposed under ADB fund.

Table 35: New ADB Funded Investment (Rs Crores)

Sr. No.	Project Work Details	Contract Amount for Project	FY 2014-15	FY 2015-16	FY 2016-17
1	Capacity augmentation of 7 nos. of GSS with 8 nos. of 50 MVA power transformers (DPR II)	54.00			
2	Re-conductoring of all old 132 & 220 kV transmission lines of BSPTCL (DPR II)	155.00			
3	ERP Solution (DPR IV)	30.00			
4	Total	239.00	3.00	200.00	36.00

4.3.36 Revised Capital Investment Program for FY 2014-15 and FY 2015-16

4.3.37 The capital investment for FY 2014-15 and FY 2015-16 based on the existing and new schemes as discussed above is as below.

4.3.38 The actual expenditure done scheme-wise for FY 2013-14 and FY 2014-15 (upto 25.11.14) has been shown and further expenditure for the remaining period of FY 2014-15 and FY 2015-16 has been estimated based on the actual physical and financial progress of the schemes.

Table 36: Revised Capital Investment Program – FY 13-14 to FY 15-16 (Rs Crores)

S. No.	Planned Scheme	Total Cost	2012-13	2013-14 (Actual)	2014-15		2015-16	2016-17
					Actual upto 25.11.14	25.11.14 to March'15		
1	12th Plan Transmission & Sub-Transmission System Strengthening in Bihar - PHASE-III	1370.02		79.94	114.16	220.00	350.00	605.92
2	Phase-III, Part-II Construction of 220/132/33 KV GSS Kishanganj with associated 220 KV, 132 KV lines for evacuation of power from 400/220 KV Kishanganj (PGCIL).	356.10		7.39	2.82	20.00	110.00	215.89
3	Phase-III for (N-1) Compliance	291.84	-	-	-	50.00	110.00	131.84
4	Strengthening of Sub-Transmission System in Bihar - Extension Scheme of Phase-2 Works (Revised)	472.53	-	42.35	107.02	110.00	130.00	83.16
5	ADB Funded Scheme	196.90	18.92	13.87	53.23	50.00	60.88	0
6	State Plan Scheme	484.38	5.00	154.54	84.95	97.00	89.03	53.86

7	New Schemes under State Plan	1061.39	-	-	-	20.00	340.00	701.39
8	Installation of 14 No's of GSS through BSPTCL's (funding through state Plan)	555.90	-	-	-	10.00	200.00	345.90
9	Establishment of BSPTCL's Training Centre (funding through State Plan)	3.00		0.30		2.70	0.00	0
10	Capital Expenditure Schemes through Internal Resources Fund	112.31		20.31	0.57	26.43	65.00	-
11	New ADB Schemes	239.00				3.00	200.00	36.00
12	Grand Total	5143.37	23.92	318.70	362.75	609.13	1654.91	2173.96

4.3.39 As can be seen from the above table and last year's projections, the revision in capital plan is due to certain new schemes getting added in FY 2014-15 and FY 2015-16; further, the year wise phasing has got revised due to delayed approvals and also due to the fact that certain schemes are bundled together including swapping of certain schemes from one planned scheme to another.

4.3.40 The Petitioner requests the Hon'ble Commission to approve the total capital expenditure plan as proposed for the remaining years of the control period i.e. FY 2014-15 and FY 2015-16.

4.4 Capitalization Schedule

4.4.1 The capitalization has been considered from the schemes in Opening Capital WIP, the new schemes under BRGF, ADB and others which are classified as New Schemes and R&M schemes.

4.4.2 The Petitioner has considered the following assumptions for projecting the capitalization schedule for FY 2014-15 and FY 2015-16.

- Capitalization of opening CWIP - Considered in the same ratio as the capitalization of opening CWIP to the total opening CWIP as considered in the tariff order dated February 28' 2014 respectively for FY 2014-15 and FY 2015-16
- Capitalization of the New Investment – Considered in the same ratio as the capitalization of investment to the total investment as considered in the tariff order dated February 28' 2014 respectively for FY 2014-15 and FY 2015-16

Table 37: Capitalisation – FY 2013-14 to FY 2015-16 (Rs Crores)

Sr.	Particulars	FY 2013-14			FY 2014-15			FY 2015-16		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	True-up	MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	TO Dated 28.02.2014	Revised ARR
1	Opening CWIP	682.00	378.94	378.94	613.00	727.53	557.88	718.00	1,731.04	1048.55
2	New Investment	319.00	660.39	249.18	844.00	1879.01	971.88	1,960.00	929.70	1654.91
3	Less: Capitalization	388.00	311.80	70.23	739.00	875.50	481.21	968.00	1,258.35	2061.92
	(a) Opening CWIP	42.00	113.68	-	55.00	113.68	87.17	-	151.58	91.82
	(b) New Investment	346.00	198.12	-	684.00	761.82	394.03	968.00	1,106.77	1970.10
4	Closing CWIP	613.00	727.53	557.88	718.00	1,731.04	1048.55	1,710.00	1,402.39	641.54

4.4.3 The Petitioner requests the Hon'ble Commission to approve the proposed capitalization schedule for FY 2014-15 and FY 2015-16.

4.5 Funding for Capital Expenditure and Capitalization

4.5.1 Based on the capital expenditure plan, the Petitioner has planned to fund the schemes through a combination of Equity, State Government Grants, and Loans from Financial Institutions as well as from State Government. The funding pattern for capitalization of the opening CWIP has been considered on the basis of Grants & Loans in the ratio of 40:60. **The Petitioner submits that the State Government has provided funds for BRGF/Special Plan schemes in the form of 'Equity' infusion into the Company and not 'Grants'. Same has accordingly been considered.**

4.5.2 The scheme-wise funding pattern of the capital expenditure envisaged for the control period is as below.

Table 38: Scheme-wise funding for Capital Expenditure (Rs Crores)

S. No.	Planned Scheme	Total Cost	Nature of scheme	2014-15		2014-15 (total)	2015-16
				Actual upto 25.11.14	25.11.14 to March'15		
1	12th Plan Transmission & Sub-Transmission System Strengthening in Bihar - PHASE-III	1370.02	Equity	114.16	220.00	334.16	350.00
2	Phase-III, Part-II Construction of 220/132/33 KV GSS Kishanganj with	356.10	Equity	2.82	20.00	22.82	110.00

	associated 220 KV, 132 KV lines for evacuation of power from 400/220 KV Kishanganj (PGCIL).						
3	Phase-III for (N-1) Compliance	291.84	Equity	-	50.00	50.00	110.00
4	Strengthening of Sub-Transmission System in Bihar - Extension Scheme of Phase-2 Works (Revised)	472.53	Equity	107.02	110.00	217.02	130.00
5	ADB Funded Scheme	196.90	Loan	53.23	50.00	103.23	60.88
6	a) State Plan Scheme	297.44	Loan	52.16	59.56	111.73	54.67
	b) State Plan Scheme	186.94	Equity	32.78	37.44	70.22	34.36
7	New Schemes under State Plan	1061.39	Equity	-	20.00	20.00	340.00
8	Installation of 14 No's of GSS through BSPTCL's (funding through state Plan)	555.90	Equity	-	10.00	10.00	200.00
9	Establishment of BSPTCL's Training Centre (funding through State Plan)	3.00	Loan	-	2.70	2.70	0.00
10	Capital Expenditure Schemes through Internal Resources Fund	112.31	IRF	0.57	26.43	27.00	65.00
11	New ADB funded schemes	239.00	Loan	-	3.00	3.00	200.00
12	Grand Total	5143.37		362.75	609.13	971.88	1654.91

4.5.3 The scheme-wise funding of the capital expenditure for FY 2014-15 and FY 2015-16 is summarized in the table below.

Table 39: Funding Ratio for Capital Expenditure and Capitalisation of New Investment

Sr. No.	Particulars	2014-15		2015-16	
		Rs Crores	Ratio	Rs Crores	Ratio
1	Equity	724.22	75%	1274.36	77%
2	Grants	-	0%	-	0%
3	Loans	220.66	23%	315.55	19%
4	Internal Resources Fund (IRF)	27.00	3%	65.00	4%
5	TOTAL	971.88	100%	1654.91	100%

4.5.4 Further, the Petition would like to submit that from FY 2014-15 onwards, funding of the State Plan schemes is being received in the form of equity infusion into the Company. The new schemes of Rs 1061.39 Crores, as elaborated in para 4.3.20 of this chapter, are also being funded through equity infusion into the Company. The funding of the Rs 555.90 Crores scheme is also in the form of Equity. Supporting documents are being annexed.

4.5.5 The funding of the capitalization of investment during the control period has been assumed in the same ratio as the funding of the capital expenditure plan for the control period (as per the above table). Further, the funding of the capitalization of the opening CWIP has been considered on the basis of Grants & Loans in the ratio of 40:60.

4.5.6 The table below provides the summary of the Capital WIP, Capital Expenditure, Capitalization and Funding details for FY 2014-15 and FY 2015-16 along with the Commission approved figures.

Table 40: Summary of CWIP, Capex, Capitalisation and Funding as proposed (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16		
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	TO Dated 28.02.2014	Revised ARR
A	CWIP						
1	Opening CWIP	613.00	727.53	557.88	718.00	1,731.04	1,048.55
2	New Investment	844.00	1,879.01	971.88	1,960.00	929.70	1,654.91
3	Less: Capitalization	739.00	875.50	481.21	968.00	1,258.35	2,061.92
	(a) Opening CWIP	55.00	113.68	87.17	-	151.58	91.82
	(b) New Investment	684.00	761.82	394.03	968.00	1,106.77	1,970.10
4	Closing CWIP	718.00	1,731.04	1,048.55	1,710.00	1,402.39	641.54
B	Funding of Capitalization						
1	Opening CWIP Capitalization	55.00	113.68	87.17	-	151.58	91.82
	(a) Equity	-	-	-	-	-	-
	(b) Grants (40% of CWIP)	22.00	45.47	34.87	-	60.63	36.73
	(c) Loans (60% of CWIP)	33.00	68.21	52.30	-	90.95	55.09
	(d) Retained Surplus/Internal Resources	-	-	-	-	-	-
2	New Investment	684.00	761.81	394.03	968.00	1,106.77	1,970.10
	(a) Equity	-	-	293.63	-	-	1,517.07
	(b) Grants	491.00	531.76	-	925.00	771.81	-
	(c) Loans	193.00	226.01	89.46	43.00	330.33	375.65
	(d) Retained Surplus/Internal Resources	-	4.04	10.95	-	4.63	77.38
3	Total Capitalization	739.00	875.49	481.21	968.00	1,258.35	2,061.92
	(a) Equity	-	-	293.63	-	-	1,517.07
	(b) Grants	513.00	577.23	34.87	925.00	832.44	36.73
	(c) Loans	226.00	294.22	141.77	43.00	421.28	430.74
	(d) Retained Surplus/Internal Resources	-	4.04	10.95	-	4.63	77.38
4	Total Capitalization	739.00	875.50	481.21	968.00	1,258.35	2,061.92

4.6 Computation of IDC

- 4.6.1 The Petitioner submits that interest during construction is the amount charged on the actual loan drawal during the year. It is further submitted that for the purpose of IDC estimation, the Petitioner has assumed the amount capitalized during the year due to new investments and CWIP as the loan drawal based on the funding pattern as laid out earlier in para 4.5. The interest rate considered for IDC is the applicable weighted average interest rate for the proposed loans and as per order dated February 28' 2014. The interest during construction is projected in the Table below:

Table 41: Computation of IDC (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Loan Drawn	226.00	294.22	141.77	43.00	430.74
2	Average Loan	113.00	147.11	70.88	21.50	215.37
3	Interest Rate	13.00%	13.00%	13.00%	13.00%	13.00%
4	Interest during Construction	14.69	19.12	9.21	2.80	28.00

- 4.6.2 The Petitioner requests the Hon'ble Commission to kindly approve the IDC computations as proposed above for FY 2014-15 and FY 2015-16.

4.7 Gross Fixed Assets

- 4.7.1 The Petitioner hereby submits the computation of Gross Fixed Assets considering the opening GFA for FY 2014-15 based on the closing GFA as reflected in the audited annual accounts for FY 2013-14. The opening and closing GFA for the respective years are arrived at considering the capitalization schedule as submitted earlier.
- 4.7.2 The computation of Gross Fixed Assets based on the capitalization schedule for FY 2014-15 and FY 2015-16 is tabulated below:

Table 42: Details of Gross Fixed Assets (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Opening GFA	1,946.64	2,531.27	3,583.31	2,700.33	4,073.73
2	Additions during year	739.00	875.50	481.21	968.00	2,061.92

3	Interest during Construction (IDC)	14.69	19.12	9.21	2.80	28.00
4	Closing GFA (1+2+3)	2,700.33	3,425.90	4,073.73	3,671.12	6,163.65

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

4.8 Depreciation on GFA

4.8.1 The depreciation has been computed annually based on straight line method by applying weighted average rate of depreciation on the average GFA. The Petitioner has reduced the depreciation on assets created out of Grants and Consumer Contributions from the gross depreciation to arrive at the net depreciation to be charged. The computation of depreciation on the assets created out of Grants and Consumer Contributions is based on the actual ratio of 'Grants and Consumer Contributions' and GFA.

4.8.2 The computation of depreciation for FY 2014-15 and FY 2015-16 is as below.

Table 43: Depreciation for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Opening GFA	1,946.64	2,531.27	3,583.31	2,700.33	4,073.73
2	Additions during year	739.00	875.50	481.21	968.00	2,061.92
3	Interest during Construction	14.69	19.12	9.21	2.80	28.00
4	Closing GFA (1+2+3)	2,700.33	3,425.90	4,073.73	3,671.12	6,163.65
5	Average GFA (1+4)/2	2,323.48	2,978.59	3,828.52	3,185.72	5,118.69
6	Weighted Avg Rate of Depreciation	5.12%	5.12%	3.27%	5.12%	3.27%
7	Depreciation (5*6)	118.96	152.50	125.05	163.11	167.19
8	Opening Grants	890.31	1,795.41	1,634.05	1,403.31	1,668.92
9	Grants during year	513.00	577.23	34.87	925.00	36.73
10	Total Grants (8+9)	1,403.31	2,372.64	1,668.92	2,328.31	1,705.65
11	Average Grants (10+8)/2	1,146.81	2,084.03	1,651.49	1,865.81	1,687.28
12	Weighted Avg Rate of Depreciation	5.12%	5.12%	0.57%	5.12%	0.57%
13	Depreciation for GFA on Grants (11*12)	58.72	106.70	9.41	95.53	9.61
14	Net Depreciation for GFA on Loans (7-13)	60.25	45.80	115.64	67.58	157.58

4.8.3 The Petitioner requests the Hon'ble Commission to approve the computation of depreciation which is based on the weighted average rate derived as per CERC Tariff Regulations 2009.

4.9 Interest on Loan

4.9.1 The Petitioner has considered the opening loan balance for FY 2014-15 based on the closing loan balance as reflected in the audited annual accounts for FY 2013-14.

4.9.2 Further, the additions to loans are considered as per funding mechanism for capitalization of assets during the year as discussed earlier and the interest is applied on the average loan balances. Repayment of loan has been considered equal to the depreciation for the respective year. The interest rate has been considered as per the MYT tariff order dated March 15' 2013 for the respective years and same is as per the interest rates considered in order dated February 28' 2014.

4.9.3 The Petitioner has considered weighted average rate of interest for existing as well as new loans.

Table 44: Interest on Loans for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Opening Loan	317.97	275.31	225.74	483.73	251.86
2	Additions during year	226.00	294.22	141.77	43.00	430.74
3	Repayment	60.25	45.80	115.64	67.58	157.58
4	Closing Loan (1+2-3)	483.73	523.72	251.86	459.15	525.03
5	Average Loan (1+4)/2	400.85	399.52	238.80	471.44	388.44
6	Rate of Interest	13.00%	13.00%	13.00%	13.00%	13.00%
7	Interest Charges	52.11	51.94	31.04	61.29	50.50

4.9.4 The Petitioner requests the Hon'ble Commission to approve the Interest Rate as well as Interest on Loan amount for FY 2014-15 and FY 2015-16.

4.10 Operation and Maintenance Expenses

4.10.1 Inflation Indices

4.10.2 The Petitioner would like to submit that it has adopted a weighted average method of

WPI: CPI in the ratio of 45:55 and considered last year average inflationary increases for estimating the Employee and A&G expenses. This methodology was also considered by the Commission in the last tariff order dated February 28' 2014.

4.10.3 The Petitioner has considered the following inflation index for Employee and A&G expenses for FY 2014-15 and FY 2015-16.

$$\text{INDXn} = 0.55 * \text{CPI}_n + 0.45 * \text{WPI}_n$$

4.10.4 The Petitioner has considered the following inflation index for R&M Expenses for FY 2014-15 and FY 2015-16.

$$\text{R\&M}_n = K * \text{GFA} * (1 + \text{WPI}_n)$$

Where,

- K is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and will be calculated based on the % of R&M to GFA of the preceding year of the Base Year;
- GFA is the opening value of the gross fixed asset of the nth year;
- WPI_n is the WPI increase for immediate preceding year over previous year

4.10.5 The computation of Inflationary Indices for O&M expenses are as under:

Table 45: Computation of Inflation Index for FY 2014-15 and FY 2015-16

Period	WPI	CPI	Total
Weightage	0.45	0.55	1.00
Indexation for FY 12-13	167.62	215.17	
Indexation n-1 (Index * Wt)	75.43	118.34	193.77
Indexation for FY 13- 14	177.64	236.00	
Indexation n (Index * Wt)	79.94	129.80	209.74
Combined Inflation (Indxn/Indxn-1)	8.24%		

4.10.6 Employee Expenses

4.10.7 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.

4.10.8 The Petitioner has considered Revised Estimates for FY 2014-15 and Budget Estimates of FY 2015-16 for the purpose of projecting revised employees expenses. Based on the

above, the net employee costs for tariff determination are projected in the table below.

Table 46: Employee Expenses for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Previous year expenses	162.25	88.93		176.25	
2	Inflationary Increase	8.63%	9.21%		8.63%	
3	Add: Inflationary Increase	14.00	8.19		15.21	
4	Employee Cost (sub-total)	176.25	97.12	223.69	191.46	238.15
5	Less: Support by State Govt. against terminal benefits	81.42	-	126.67	74.49	135.78
6	Employee Cost	94.83	97.12	97.02	116.97	102.37
7	Less: Employee cost capitalized (@ 1.8% on S. No. 4)	3.17	1.75	1.75	3.45	1.84
8	Net Employee Cost	91.66	95.37	95.28	113.53	100.52

4.10.9 The explanation to the above computation is as under:

- a) The employee cost has been taken from Revised Estimates (RE) for FY 2014-15 and Budget Estimates (BE) for FY 2015-16 as per the estimates of the Petitioner. The details of the same are provided in the table below. **The Petitioner has considered the budget estimates of the employee cost as the same accounts for the increase in employee numbers through additional recruitments and new joiners coming on board.**
- b) While determining the employee cost, the Petitioner has reduced the same by employee cost capitalized to arrive at the net employee cost for the year. For this purpose, the employee cost capitalized for the FY 2014-15 and FY 2015-16 has been considered @1.8% as approved by the Hon'ble Commission in the MYT order.

4.10.10 The details of budget estimates for gross employee expenditure are as under:

Table 47: Budget Estimates of Employee Expenses for FY 2014-15 and FY 2015-16 (Rs Lakhs)

Sl. No.	Particulars	Revised Estimates (2014-15) Rs. Lakhs	Budget Estimates (2015-16) Rs. Lakhs
1	2	3	4
(A)	SALARIES & ALLOWANCE		
1	Pay of Officers	1046.60	1049.98
2	Pay of Workmen	2166.90	2168.86
3	Dearness Allowances (Officers)	1151.26	1238.98
4	Dearness Allowances (Workmen)	2383.59	2559.25
5	Pay of Officers (Contract Basis)	58.68	58.42
6	Pay of Workmen (Contract Basis)	417.62	429.72
7	Compensatory Allowance	5.32	5.92
8	Special Pay	5.37	6.12
9	Medical Allowance	22.58	23.78
10	House Rent Allowance	217.56	233.82
(B)	OTHER ALLOWANCES		
1	Conveyance Allowance	8.12	8.54
2	City Transport Allowance	22.47	23.45
3	Emergency Allowance	4.91	5.93
4	Short Hand Allowance	0.00	0.00
5	Cash Handling Allowance	0.45	0.45
6	Others	10.10	11.66
7	Over Time	483.77	510.26
8	Medical Re-imbursement	33.91	45.73
9	Medicine	30.50	40.50
10	Leave Travel Assistance	3.60	4.40
11	Compensation Act. (Workmen & Outsider accidental case)	43.50	47.05
12	Honorarium	2.34	2.52
13	Contribution to New Pension Scheme	141.49	164.45
14	Contribution to Master Trust	973.87	1070.31
15	New Manpower Cost	364.78	391.49
16	Staff Welfare Expenses		
	(a) Uniform & Liveries	5.70	7.61
	(b) Social Welfare	5.50	7.20
	(c) Free Electricity	91.95	120.24
	Sub-total	9702.44	10236.64
(C)	TERMINAL BENEFITS		
	(a) Pension	8248.79	8746.24
	(b) Gratuity	2514.51	2738.35

	(c) GPF	1903.21	2093.61
	Sub-total	12666.51	13578.20
	TOTAL :	22368.95	23814.84

4.10.11 The Hon'ble Commission is requested to approve the revised projections of employee expenses for FY 2014-15 and FY 2015-16.

4.10.12 Repairs and Maintenance Expenses

4.10.13 The Petitioner would like to submit that post unbundling it has initiated major drive for maintenance and upkeep of its transmission assets. Further, the Petitioner is also undertaking huge capital expenditure schemes to the tune of Rs 5000 Crores and hence Repairs and Maintenance expenses are bound to increase. The methodology adopted by the Hon'ble Commission to approve expenses based on past trend and with inflation would deprive Petitioner of its legitimate claim and would deprive licensee for the R&M expenses on the assets added during the year.

4.10.14 Hence, the R&M expenses are provided 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 would like to provide precedence of some states where R&M expense is allowed as a % of Gross Fixed Assets.

Table 48: R&M Expenses in Other States

Particulars	R&M as a % of GFA
Punjab (PSTCL)	2.75%
Uttar Pradesh (UPPTCL)	2.50%
Delhi (DTL)	2.19%
Uttarakhand (PTCUL)	3.18%
<i>Source: Tariff Orders of resp. states</i>	

4.10.15 Hence considering the same, the Petitioner has projected R&M expenses as 3% of opening GFA and further inflationary increases to take care of material and labor price increases. The R&M expenses are provided in the table below:

Table 49: R&M Expenses for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Opening GFA		-	3,583.31		4,073.73
2	%age of GFA		-	3%		3%
3	Base R&M Cost		14.94	107.50		122.21
4	Inflationary Increase		9.21%	8.24%		8.24%
5	Add: Inflationary Increase		1.38	8.86		10.07
6	Total (6 = 3+5)	10.03	16.32	116.36	10.80	132.28

4.10.16 The Petitioner in its budget estimates for the respective years has also projected the R&M expenses around the same amount. The Petitioner requests the Hon'ble Commission to approve the R&M expenses as projected above for FY 2014-15 and FY 2015-16.

4.10.17 Administration & General Expenses

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

4.10.19 The Petitioner has considered Revised Estimates for FY 2014-15 and Budget Estimates for FY 2015-16 for the purpose of projecting revised A&G expenses. Based on the above, the net A&G expenses for tariff determination are projected in the table below.

Table 50: A&G Expenses for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	A&G Expenses	5.58	11.80	22.20	6.02	25.72
2	Less: A&G Expenses	0.22	0.47	0.89	0.24	1.03
3	Total A&G Expenses	5.36	11.32	21.32	5.78	24.69

4.10.20 The Petitioner has considered A&G capitalization amount same as approved by the Hon'ble Commission in the MYT order for the projection purpose and shall consider it on actual basis at the time of truing purpose. The capitalization of A&G expenses has been

considered at 4% of the gross A&G expenses.

4.10.21 The details of RE & BE projections for gross A&G expenditure is as under.

Table 51: Budget Estimates of A&G Expenses for FY 2014-15 and FY 2015-16 (Rs Lakhs)

Sl. No.	Particulars	Revised Estimates (2013-14) Rs. Lakhs	Budget Estimates (2014-15) Rs. Lakhs
1	2	3	4
1	Rent, Rates & Taxes	1.55	2.00
2	Insurance	150.00	175.00
3	Postage, Telegram & Telex Charge	3.64	5.23
4	Telephone & Trunk Call Charges	59.48	84.44
5	Legal Expenses	8.02	10.34
6	Audit Fees	17.00	19.50
7	Consultancy Charges & Tech. Fees	128.00	136.04
8	Conveyance Expenses	14.20	15.86
9	Travelling Allowance	91.40	115.67
10	Vehicle Expenses (Light)	233.25	253.03
11	Vehicle Expenses (Heavy)	7.50	7.95
12	License-Registration (Vehicle)	2.65	2.76
13	Books & Periodicals	3.58	4.42
14	Printing & Stationary	42.23	61.47
15	Advertisement	111.55	167.28
16	Fees & Subscriptions	244.85	261.15
17	Electric & Water Charges	510.00	582.00
18	Entertainment	7.87	10.69
19	Misc. Expenses	36.68	45.41
20	Security Guard	384.29	421.25
21	Freight & Other expenses	5.70	7.81
22	Training Cost	132.00	153.00
23	MSTC Charges	25.00	30.00
24	Total :	2220.44	2572.30

4.10.22 The Petitioner requests the Hon'ble Commission to approve the A&G expenses as estimated above for FY 2014-15 and FY 2015-16.

4.10.23 **Allocation of Holding Company Cost**

4.10.24 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.

4.10.25 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."

4.10.26 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

4.10.27 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.

4.10.28 Hence, the operating expenses of the holding company have been considered accordingly for FY 2014-15 and FY 2015-16.

4.10.29 The Petitioner has considered holding company expenses of Rs 6.0 Crores for FY 2014-15 and the holding company expenses for FY 2015-16 have been escalated by WPI-CPI index of 8.24% over FY 2014-15 figures.

4.10.30 The holding company expenses for FY 2014-15 have been considered as per the budget estimates of the Petitioner. The holding company expenses have been approved by the Board of Directors (BoD) as per letter no. dated 295 dated 29.03.2014. The same would accordingly be adjusted in the true-up based on actual figures as per audited accounts.

Table 52: Allocation of Holding Company Expenses for FY 2014-15 and FY 2015-16 (Rs Crores)

S.No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Holding Company Expenses	-	6.00	6.00	-	6.49

4.10.31 The Hon'ble Commission is requested to approve the same as part of overall O&M expenditure of BSPTCL for FY 2014-15 and FY 2015-16.

4.10.32 Summary of O&M Expenses

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

Table 53: O&M Expenses for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Employee Expenses	91.66	95.37	95.28	113.53	100.52
2	Repair and Maintenance Expenses	10.03	16.32	116.36	10.80	132.28
3	Administrative and General Expenses	5.36	11.32	21.32	5.78	24.69
4	Holding Company Expenses	-	6.00	6.00	-	6.49
5	Total O&M Expenses	107.05	129.01	238.95	130.11	264.00

4.10.34 The Hon'ble Commission is requested to approve the above O&M expenses for FY 2014-15 and FY 2015-16.

4.11 Interest on Working Capital

4.11.1 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 which are reproduced in the following table for reference:

Table 54: Norms for Working Capital Requirement

Sr.	Particulars	Norm
1.	Operation & Maintenance Expns	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	Short –term Prime Lending Rate of State Bank of India on 1 st April of the year.

4.11.2 The rate of interest applied on the proposed working capital is as per the SBI PLR is 14.75%.

4.11.3 The proposed interest on working capital for FY 2014-15 & FY 2015-16 computed based on the above norms is given in the following table.

Table 55: Interest on Working Capital for FY 2014-15 and FY 2015-16 (Rs Crores)

S. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	O&M Expenses for 1 Month	8.92	10.94	19.91	10.84	22.00
2	Maintenance Spares @1% of Opening GFA with 6% escalation	20.63	26.83	37.98	28.62	43.18
3	Receivables 2 Months	43.98	45.10	85.33	50.65	121.41
4	Total Working Capital	73.53	82.87	143.22	90.11	186.59
5	Rate of Interest	14.45%	14.45%	14.75%	14.45%	14.75%
6	Interest on Working Capital	10.63	11.97	21.13	13.02	27.52

4.11.4 The Petitioner requests the Hon'ble Commission to approve the computation of working capital and the interest charges thereon for FY 2014-15 and FY 2015-16.

4.12 Return on Equity

4.12.1 The Petitioner hereby submits the computation of equity is considering the closing equity balance as per the true-up for FY 2013-14. Further, additions in the equity balance have been considered as per the funding of capitalization envisaged for FY 2014-15 and FY 2015-16 as discussed earlier.

4.12.2 The computation of return on equity for FY 2014-15 & FY 2015-16 is tabulated below:

Table 56: Return on Equity for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Opening equity balance	235.00	235.00	825.35	235.00	1,118.98
2	Add: Equity during the year	-	-	293.63	-	1,517.07
3	Closing equity balance	235.00	235.00	1,118.98	235.00	2,636.05
4	Average Equity	235.00	235.00	972.16	235.00	1,877.51
5	Rate of Return on Equity	14.00%	14.00%	14.00%	14.00%	14.00%
6	Return on Equity	32.90	32.90	136.10	32.90	262.85

4.12.3 The Petitioner requests the Hon'ble Commission to approve the computation of return on

equity for FY 2014-15 and FY 2015-16 as submitted above.

4.13 Non-Tariff Income

- 4.13.1 The Petitioner has submitted non-tariff income of Rs 28.09 Crores for the true-up of FY 2013-14 as per the audited accounts for the year. The Petitioner has considered an escalation of 10% on the actual non-tariff income of FY 2013-14 for projecting the non-tariff income for FY 2014-15. Non-tariff income for FY 2015-16 has been estimated considering a further increase of 10% on the estimated non-tariff income for FY 2014-15.

Table 57: Non-Tariff Income for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	Non-Tariff Income	0.61	1.02	30.90	0.73	33.99

- 4.13.2 The Petitioner requests the Hon'ble Commission to approve the Non-Tariff Income for FY 2014-15 and FY 2015-16 as proposed in the above table.

4.14 Transmission ARR for FY 2014-15 (APR) and FY 2015-16 (Revised ARR)

- 4.14.1 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.
- 4.14.2 Accordingly, following is the summary of revised projections of Aggregate Revenue Requirement of Transmission Company for FY 2014-15 and FY 2015-16 for approval by the Hon'ble Commission.

Table 58: Revised Transmission Charges for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013	Revised ARR
1	O&M Expenses	107.05	129.01	238.95	130.11	264.00
a	Employee Expenses	91.66	95.37	95.28	113.53	100.52
b	R&M Expenses	10.03	16.32	116.36	10.80	132.28
c	A&G Expenses	5.36	11.32	21.32	5.78	24.69
d	Holding Company Expenses Allocated	-	6.00	6.00	-	6.49
2	Depreciation	60.25	45.80	115.64	67.58	157.58
3	Interest and Finance Charges	52.11	51.94	31.04	61.29	50.50
4	Interest on Working Capital	10.63	11.97	21.13	13.02	27.52
5	Return on Equity	32.90	32.90	136.10	32.90	262.85
6	Gross Annual Revenue Requirement	262.93	271.62	542.87	304.89	762.45
7	Less: Non Tariff Income	0.61	1.02	30.90	0.73	33.99
8	Net Revenue Requirement	262.32	270.60	511.97	304.16	728.46

4.14.3 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 15' 2013 and order dated February 28' 2014. The various costs have been estimated in accordance with the regulatory norms, assumptions and detailed justifications 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 revised ARR for FY 2014-15 and FY 2015-16 and resultant Transmission Charges to be recovered from the two distribution companies for FY 2015-16.

4.15 Revenue Gap / (Surplus) for FY 2014-15 and FY 2015-16

4.15.1 The Petitioner submits that it has been recovering transmission charges for FY 2014-15 from the distribution licensees as per the charges approved by the Commission as per order dated February 28' 2014. The revenue gap/(surplus) for FY 2014-15 and FY 2015-16 as per the revised projections is depicted in the table below:

Table 59: Revenue Gap/ (Surplus) for FY 2014-15 and FY 2015-16 (Rs Crores)

Sr. No.	Particulars	FY 2014-15			FY 2015-16	
		MYT Order Dated 15.03.2013	TO Dated 28.02.2014	APR	MYT Order Dated 15.03.2013*	Revised ARR*
1	Annual Transmission Charges	262.32	270.60	511.97	304.16	728.46
2	Less: Approved Annual Transmission Charges for the year			270.60		304.16
3	Revenue Gap/(Surplus) for the year			241.36		424.29

* Without adjustments of past years revenue gap

4.16 Transmission Charges for FY 2015-16

4.16.1 The transmission charges for FY 2015-16 as worked out in the previous sections of the Chapter are as below.

Table 60: Transmission Charges for FY 2015-16 including previous year's gap (Rs Crores)

Sr.	Particulars	Units	Units	Amount
1	Annual Transmission Charges for FY 15 16	A	Rs Cr	728.46
2	Revised Monthly Transmission Charges for FY 2015-16 to meet the gap for the year	B=A/12	Rs Cr	60.70

4.16.2 The Petitioner requests the Hon'ble Commission to approve the transmission charges for FY 2015-16 as submitted above. **Further, the Petitioner requests for the recovery of the revenue gap of the previous year's i.e. Rs 102.59 Crores and Rs 241.36 Crores for FY 2013-14 and FY 2014-15 respectively.**

5. Compliance of Directives

The following is the Petitioner's submission on the compliance of directives, as mentioned in the tariff order for FY 2014-15 dated February 28' 2014.

5.1 Transmission Loss

The directive as given in the tariff order dated February 28' 2014 is as;

Quote

" BSPTCL has not furnished details such as the energy outgo at various interface points of DISCOM to compute the transmission loss. BSPTCL is directed to provide appropriate energy meters at all the interface points of DISCOMs, if not already provided, compute the monthly transmission loss based on the energy input into the BSPTCL grid from various sources and energy outgo measured at interface points of DISCOMs and HT consumers."

Unquote

Compliance/Action taken

Petitioner's Submission

The Petitioner seeks time to comply with the above mentioned directive of the Commission. The Petitioner has only recently completed two years of independent operations and transmission infrastructure up-gradation works are in progress. The Petitioner requests the Commission to grant time-extension for compliance of the above.

5.2 Separate ARR for SLDC

The directive as given in the tariff order dated February 28' 2014 is as:

Quote

" The Commission had directed BSPTCL to file ARR for FY 2014-15 separately for transmission and SLDC businesses vide letter dated 30.01.2014.

BSPTCL submitted that they have filed the ARR petition for FY 2014-15 combined for transmission and SLDC and also submitted that it would be difficult to file separate ARR/Tariff petition for SLDC along with the proposal for scheduling and operating charges for FY 2014-15 due to the following reasons:

- i) The SLDC is not functioning as a separate accounting unit.*
- ii) The final transfer scheme is yet to be notified by the Govt.*
- iii) Assets and O&M expenses of SLDC are not identified.*

- iv) No separate man power is allotted for working of SLDC.*
- v) Other common cost apportionment of BSPTCL to SLDC function is also pending.*

BSPTCL has further submitted that they would maintain separate expenditure for SLDC from FY 2014-15.

The Commission directs BSPTCL to segregate the assets and liabilities and functions of SLDC and maintain separate account of the expenditure towards SLDC which is presently functioning under BSPTCL.

The action taken report along with the amount of monthly expenditure under various heads towards SLDC shall be submitted to the Commission by BSPTCL by 30th June 2014.

”

Unquote

Compliance/Action taken

Petitioner's Submission

The Petitioner submits that it has only recently completed 2 years of independent operations. In view of the constraints as submitted last time, the Petitioner requests for time-extension for compliance of the above directive. The Petitioner requests the Commission to allow time till the start of the next control period FY 2016-17 onwards.

TRANSMISSION TARIFF FILING FORMATS

Form No.	Tariff Filing Formats (Transmission)
FORM- 1	Summary Sheet
FORM-2	Details of Transmission Lines and Substations
FORM-3	Normative Parameters to be considered for tariff calculations
FORM- 4	Details of Foreign loans
FORM-5	Abstract of Admitted Cost for the existing Projects
FORM-5A	Abstract of Project Cost Estimates and Schedule of Commissioning for the new Projects
FORM-5B	Break-up of Project Cost for Transmission System
FORM-5C	Break-up of Construction/Supply/Service packages
FORM-5D	Details of element-wise cost
FORM- 6	Financial Package upto COD
FORM- 7	Details of Project Specific Loans
FORM- 8	Details of Allocation of corporate loans to various transmission elements
FORM-9	Statement of Additional Capitalization after COD
FORM- 10	Financing of Additional Capitalization
FORM- 11	Statement of Depreciation
FORM- 12	Calculation of Depreciation Rate
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans
FORM- 14	Calculation of Advance Against Depreciation (AAD)
FORM- 15	Calculation of Interest on Working Capital
FORM- 16	Draw Down Schedule for Calculation of IDC & Financing Charges
FORM - 17	Details of operation and maintenance expenses

Form 1 – Summary of the Tariff Proposal (Rs Crores)

S.No.	Particulars	FY 2013-14 (True-up)	FY 2014-15 (APR)	FY 2015-16 (Revised ARR)
1	2	3	4	5
1	Depreciation	106.61	115.64	157.58
2	Interest on Loan	14.21	31.04	50.50
3	Interest on Working Capital	14.96	21.13	27.52
4	O&M expenses	143.88	238.95	264.00
5	Return on Equity	74.22	136.10	262.85
6	Less: Non Tariff Income	28.09	30.90	33.99
7	Total	325.80	511.97	728.46

Form 2 – Details of Transmission Lines and Sub-stations**Transmission Lines**

S.NO.	Name of line	Type of line AC/HVDC	S/C or D/C	Voltage level kV	Line length Ckt.-Km.	Date of Commercial operation	Covered in this petition (Yes/No)
1	Listed out in the ANNEXURES to the petition						
2							
3							
4							
-							
-							
-							

Sub-Stations

S.NO.	Name of Sub station	Type of Substation Conventional/ GIS	Voltage level kV	No. of transformers / Reactors/SVC etc (with capacity)	No. of Bays	Date of Commercial operation	Covered in this petition (Yes/No)
1	Listed out in the ANNEXURES to the petition						
2							
3							
4							
-							
-							

Form – 3 – Normative Parameters to be considered for tariff

	Unit	FY 13-14	FY 14-15	FY 15-16
Target Availability	%	N.A.		
Normative O&M per ckt.km	Rs. lakhs			
Normative O&M per bay	Rs. lakhs			
Spares for WC as % of O&M	%	1%	1%	1%
Receivables in Months for WC	months	2	2	2
Rate of Return on Equity (%)	%	14%	14%	14%

Form 4 – Details of Foreign Loans

Financial Year (Starting from COD)	Year 1				Year 2 and so on					
	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs.)	Date	Amount	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs.)
Currency1 ¹	Not Applicable									
At the date of Drawl ²										
Scheduled repayment date of principal										
Scheduled payment date of interest										
At the end of Financial year										
Currency2 ¹										
At the date of Drawl ²										
Scheduled repayment date of principal										
Scheduled payment date of interest										
At the end of Financial year										
Currency3 ¹ & so on										
At the date of Drawl ²										
Scheduled repayment date of principal										
Scheduled payment date of interest										
At the end of Financial year										

Form 5 – Abstract of Admitted Capital Cost for the Existing Project

FORM-5	
Abstract of Admitted Capital Cost for the existing Project	
Name of the Transmission Licensee :	
Name of the Project : Name of Region : _____	
Capital cost admitted as on -----	
(Give reference of the BERC relevant authority Order with application No. & Date)	N.A.
Foreign Component, if any (In Million US \$ or the relevant Currency)	N.A.
Domestic Component (Rs. Cr.)	
Foreign Exchange rate considered for the admitted cost	N.A.
Total Project cost to be admitted (Rs. Cr)	
APPLICANT	

Format 5A – Abstract of Capital Cost Estimates and Schedule of Commissioning for the new projects

FORM-5A		
Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects Name of the Transmission Licensee : Name of the Project :		
Name of Region:		
Capital Cost Estimates for new projects		
Name of Authority approving the Capita cost estimates:		
Date of approval of the Capital cost estimates:		
	Estimated Day Cost	Completed Cost
Price level of approved estimates	As of End of Qtr. Of the year	As on Scheduled COD of the System
Foreign Exchange rate considered for the Capital cost estimates	N.A.	
Capital Cost excluding IDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Capital cost excluding IDC & FC (Rs. Cr) - Total	N.A.	
IDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total IDC & FC (Rs.Cr.)	N.A.	
Rate of taxes & duties to be considered		
Capital cost Including IDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total Capital cost Including IDC & FC (Rs. Cr)		
Schedule of Commissioning		
(Scheduled DOC elementwise)		

Form 5 B- Break-up of Project Cost for Transmission System

		Capital Cost (As per original Estimates, Rs Crores)				
1	2	3	4	5	6	7
A	TRANSMISSION LINE	Details provided in Table 31-37 of the petition and ANNEXURES to the tariff petition				
1.0	Preliminary works					
1.1	Design & Engineering					
1.2	Preliminary investigation, Right of way, forest clearance, PTCC, general civil works etc.					
1.3	Total Preliminary works					
2.0	Transmission Lines material					
2.1	Towers Steel					
2.2	Conductor					
2.3	Earth Wire					
2.4	Insulators					
2.5	Hardware Fittings					
2.6	Conductor & Earthwire accessories					
	Total Transmission Lines material					
2.8	Spares					
2.9	Erection, Stringing & Civil works including foundation					
3.0	Taxes and Duties					
3.1	Custom Duty					
3.2	Other Taxes & Duties					
	Total Taxes & Duties					
	Total -Transmission lines					
B.	SUBSTATIONS					
4.0	Preliminary works & land					
4.1	Design & Engineering					
4.2	Land					
4.3	Site preparation					
	Total Preliminary works & land					
5.0	Civil Works					
5.1	Control Room & Office Building including HVAC					
5.2	Township & Colony					
5.3	Roads and Drainage					
5.4	Foundation for structures					
5.5	Misc. civil works					
	Total Civil Works					
6.0	Substation Equipments					
6.1	Switchgear (CT,PT, Circuit Breaker, Isolator etc)					
6.2	Transformers					
6.3	Compensating Equipment(Reactor, SVCs etc)					
6.4	Control, Relay & Protection Panel					
6.5	PLCC					
6.6	HVDC package					
6.7	Bus Bars/ conductors/Insulators					
6.8	Outdoor lighting					
6.9	Emergency D.G. Set					
6.10	Grounding System					

Form 5 C- Break-up of Construction/Supply/Service packages

S.No.	Name/No. of Construction/supply/service package	Scope of works (in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work etc & No. of bids received	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Award in (Rs. Cr.)	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier
Not Applicable										

Form 5 D- Details of Element-wise Cost**Transmission Lines**

S.NO.	Name of line	Apportioned approved Cost (Rs. Lakhs)	Completed Cost (Rs. Lakhs)
1			
2		N.A.	
3			
4			
-			
-			

Sub-Stations

S.NO.	Name of Substation	Apportioned Capital approved Cost (Rs. Lakhs)	Completed Cost (Rs. Lakhs)
1			
2		N.A.	
3			
4			
-			
-			

Form 6 – Financial package upto COD

(Amount in lakhs)

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
1	2	3	4	5	6	7
Loan-I	N.A.					
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Form – 7 Details of Project Specific Loans (Rs Crores)

Sr. No	Source of Loan	Opening Balance as on 1.04.13	Addition	Repayment	Closing Balance as on 31.03.14	Interest Rate (%)	Interest Accrued during FY	Average Loan during FY	Average Rate of Interest (%)
1	State Govt. Plan Loan	66.89	129.07	-	195.96		14.20	131.42	
2	ADB Loan	18.52	11.25	-	29.78		-	24.15	
3	Total	85.41	140.32	-	225.74		14.20	155.58	9.13%

Form 8 – Details of allocation of corporate loans to various transmission elements

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹	Not Applicable					
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03. /COD 3,4,5,13,15						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹						
If above is yes,specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						

1. Separate statements of Additional Capitalisation for (1) after COD and upto Cut off date; and (2) beyond Cut off date are to be furnished.

2. In case the project has been completed and any tariff notification(s) has / have already been issued in the past by GOI or any other authority, fill column 6 giving the cost as admitted for of the tariff Order)

Note:

1 Fill the form in chronological order year wise along with detailed justification and clearly bring out the necessity and the benefits accruing to the beneficiaries.

2 In case initial spares are purchased alongwith any equipment, then the cost of such spares should be indicated separately.

Form 9– Statement of additional capitalization after COD

Year	Work	Amount Capitalized	Justification	Admitted Cost
Not Applicable				

Form 10– Financing of additional capitalization

	Actual				
Financial Year (Starting from COD)	Year1	Year2	Year3	Year4	Year 5
1	2	3	4	5	6
Amount capitalized in Work/Equipment	N.A.				
Financing Details					
Loan-1					
Loan-2					
Loan-3 and so on					
Total Loan ²					
Equity					
Internal Resources					
Others					
Total					

Form 11– Statement of Depreciation (Rs Crores)

Sr.	Particulars	FY 13-14	FY 14-15	FY 15-16
		True-up	APR	Revised ARR
1	Opening GFA	3,513.08	3,583.31	4,073.73
2	Additions during year	70.23	481.21	2,061.92
3	Interest during Construction	-	9.21	28.00
4	Closing GFA (1+2+3)	3,583.31	4,073.73	6,163.65
5	Average GFA (1+4)/2	3,548.19	3,828.52	5,118.69
6	Weighted Avg Rate of Depreciation	3.27%	3.27%	3.27%
7	Depreciation (5*6)	115.89	125.05	167.19
8	Opening Grants	1,624.25	1,634.05	1,668.92
9	Grants during year	9.80	34.87	36.73
10	Total Grants (8+9)	1,634.05	1,668.92	1,705.65
11	Average Grants (10+8)/2	1,629.15	1,651.49	1,687.28
12	Weighted Avg Rate of Depreciation	0.57%	0.57%	0.57%
13	Depreciation for GFA on Grants (11*12)	9.28	9.41	9.61
14	Net Depreciation for GFA on Loans (7-13)	106.61	115.64	157.58

Form 12 – Calculation of Depreciation Rate

Sr.	Particulars (Rs Crores)	FY 13-14
		True-up
1	Opening GFA	3,513.08
2	Additions during year	70.23
3	Interest during Construction	-
4	Closing GFA (1+2+3)	3,583.31
5	Average GFA (1+4)/2	3,548.19
6	Weighted Avg Rate of Depreciation (7/5)	3.27%
7	Depreciation	115.89
8	Opening Grants	1,624.25
9	Grants during year	9.80
10	Total Grants (8+9)	1,634.05
11	Average Grants (10+8)/2	1,629.15
12	Weighted Avg Rate of Depreciation (13/11)	0.57%
13	Depreciation for GFA on Grants	9.28
14	Net Depreciation for GFA on Loans (7-13)	106.61

Form 13- Calculation of Weighted Average Rate of Interest on Actual Loans (Rs Crores)

Sr. No	Source of Loan	Opening Balance as on 1.04.13	Addition	Repayment	Closing Balance as on 31.03.14	Interest Rate (%)	Interest Accrued during FY	Average Loan during FY	Average Rate of Interest (%)
1	State Govt. Plan Loan	66.89	129.07	-	195.96		14.20	131.42	
2	ADB Loan	18.52	11.25	-	29.78		-	24.15	
3	Total	85.41	140.32	-	225.74		14.20	155.58	9.13%

Form 14- Calculation of Advance against Depreciation (AAD)

Particulars	Year n	Year (n+1)	Year (n+2)
1	2	3	4
1/10th of the Loan(s)	Not Applicable		
Repayment of the Loan(s) as considered for working out Interest on Loan			
Minimum of the Above			
Less: Depreciation during the year (A ¹)			
Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan			
Less: Cumulative Depreciation (B ¹)			
Advance Against Depreciation (Minimum of A & B)			

Form 15- Calculation of Interest on Working Capital (Rs Crores)

S. No.		FY 2013-14	FY 2014-15	FY 2015-16
1	O&M Expenses for 1 Month	11.99	19.91	22.00
2	Maintenance Spares @1% of Opening GFA with 6% escalation	37.24	37.98	43.18
3	Receivables 2 Months	54.30	85.33	121.41
4	Total Working Capital	103.53	143.22	186.59
5	Rate of Interest	14.45%	14.75%	14.75%
6	Interest on Working Capital	14.96	21.13	27.52

Form 16- Draw-Down Schedule for calculation of IDC & Financing Charges

	Particulars	FY 2014-15	FY 2015-16
1	Loans		
1.1	Foreign Loans		
1.1.1	Foreign Loan 1	Not Applicable	
	Draw down Amount		
	IDC		
	Financing charges		
1.2	Indian Loans		
1.2.1	Indian Loan 1		
	Draw down Amount	141.77	430.74
	IDC	9.21	28.00
	Financing charges	-	-
1	Total of Loans drawn	141.77	430.74
	IDC	9.21	28.00
	Financing charges	-	-
2	Equity	Not Applicable	
2.1	Foreign equity drawn		
2.2	Indian equity drawn		
	Total equity deployed		

Form 17- Details of Operation & Maintenance Expenses (Rs Crores)

		FY 2013-14	FY 2014-15	FY 2015-16
1	O&M Expenses	143.88	238.95	264.00
<i>a</i>	<i>Employee Expenses</i>	<i>77.57</i>	<i>95.28</i>	<i>100.52</i>
<i>b</i>	<i>Repair and Maintenance Expenses</i>	<i>59.01</i>	<i>116.36</i>	<i>132.28</i>
<i>c</i>	<i>Administrative and General Expenses</i>	<i>6.20</i>	<i>21.32</i>	<i>24.69</i>
<i>d</i>	<i>Holding Company Expenses Allocated</i>	<i>1.11</i>	<i>6.00</i>	<i>6.49</i>