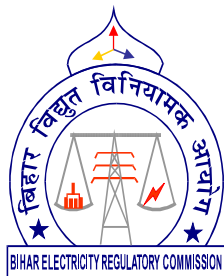


BIHAR ELECTRICITY REGULATORY COMMISSION



Tariff Order

Annual Performance Review (APR) for FY 2013-14,
Revised Annual Revenue Requirement (ARR) and
Determination of Tariff for FY 2014-15

of

**BIHAR STATE POWER GENERATION COMPANY LIMITED
(BSPGCL)**

Case No. 23 of 2013

28th February 2014

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ABBREVIATIONS

A&G	Administration and General Expenses
ACT	Electricity Act. 2003
ARR	Aggregate Revenue Requirement
BERC	Bihar Electricity Regulatory Commission
BSHPS	Bihar State Hydro Power Station
BSEB	Bihar State Electricity Board
BSPHCL	Bihar State Power (Holding) Company Limited
BSPTCL	Bihar State Power Transmission Corporation Limited
BTPS	Barauni Thermal Power Station
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Station
CTU	Central Transmission Utility
CWIP	Capital Work in Progress
DISCOM	Distribution Company
ERLDC	Eastern Region Load Despatch Centre
ERPC	Eastern Region Power Committee
FC	Fixed Charges
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GFA	Gross Fixed Asset
KBUNL	Kanti Bijlee Utpadan Nigam Limited
KVA	Kilo Volt Ampere
KVAH	Kilo Volt Ampere Hour
KWH	Kilo Watt Hour
MoP	Ministry of Power
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NBPDCL	North Bihar Power Distribution Company Limited
NEP	National Electricity Policy
NFA	Net Fixed Asset
NHPC	National Hydro Power Corporation
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor

PTC	Power Trading Corporation
R&M	Repair and Maintenance
RE	Revised Estimates
REA	Regional Energy Accounting
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
SAC	State Advisory Committee
SBPDCL	South Bihar Power Distribution Company Limited
SERC	State Electricity Regulatory Commission
ToD	Time of Day
TPS	Thermal Power Station
UI	Unscheduled Interchange



Bihar Electricity Regulatory Commission

Ground Floor, Vidyut Bhawan – II
Jawahar Lal Nehru Marg, Patna – 800 021

Case No: 23 of 2013

In the matter of:

Annual Performance Review (APR) for Financial Year 2013-14 and Determination of Annual Revenue Requirement (ARR) and generation tariff for the Financial Year 2014-15 of Bihar State Power Generation Company Limited.

And

Bihar State Power Generation Company Limited Petitioner

Present:

U.N. Panjiar	-	Chairman
S.C. Jha	-	Member

ORDER

(Passed on 28th Day of February 2014)

The erstwhile Bihar State Electricity (BSEB) has been restructured on functional basis with affect from 1st November, 2012 into five successor companies under Bihar State Electricity Reforms Transfer Scheme, 2012 vide notification no. 17 dated 30-10-2012 issued by Energy Department, Government of Bihar, namely;

1. Bihar State Power Holding Company Limited (BSPHCL)
2. Bihar State Power Generation Company Limited (BSPGCL)
3. Bihar State Power Transmission Company Limited (BSPTCL)

4. North Bihar Power Distribution Company Limited (NBPDCCL)
5. South Bihar Power Distribution Company Limited (SBPDCL)

BSPHCL had earlier filed the Multi Year Tariff (MYT) petition for control period of three years i.e. for FY 2013-14 to FY 2015-16 on behalf of the successor generation, transmission and two distribution companies on 14th November, 2012 along with the petition for true up of ARR of FY 2011-12 of erstwhile BSEB, Review of ARR for FY 2012-13 for all the companies and determination of ARR for generation and transmission companies separately and for two distribution companies combinedly. The Commission has completed truing-up exercise for FY 2011-12 and reviewed the ARR and revenue for FY 2012-13 of erstwhile BSEB and its successor BSPHCL and also approved the ARR for the years FY 2013-14 to FY 2015-16 separately for BSPGCL, BSPTCL and for the two distribution companies viz. NBPDCCL AND SBPDCL combinedly in the order dated 15th March, 2013.

Barauni Thermal Power Station is the only power station which is owned by BSPGCL. BSPGCL has now filed the petition for Annual Performance Review (APR), Review of ARR of FY 2013-14 and re-determination of ARR and Generation tariff for FY 2014-15 of Barauni Thermal Power Station.

In exercise of the powers vested in Bihar Electricity Regulatory Commission under section 62(1)(d) read with Section 62(3) and Section 64 (3)(a) of the Electricity Act, 2003 and Bihar Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations 2007 (hereinafter referred to as 'Tariff Regulations') and other enabling provisions in this behalf, the Commission issues this order, Reviewing the ARR for FY 2013-14, re-determining the Annual Revenue Requirement (ARR) for FY 2014-15 and Generation Tariff for sale of electricity by Bihar State Power Generation Company Limited (BSPGCL) to NBPDCCL and SBPDCL.

Tariff Regulations specify that the Generation Companies shall file Annual Revenue Requirement (ARR) and the Tariff Petition complete in all respects along-with requisite fee as specified in the Commission's Fees, Fines and charges, Regulation on or before 15th November of the preceding year. Accordingly the BSPGCL filed the petition for 'Review' of

ARR of FY 2013-14 and determination of revised ARR for FY 2014-15 and for Generation tariff for FY 2014 – 15.

Regulation 22 of the Tariff Regulations, 2007 provides that the Commission shall undertake a review along with next Tariff Order, of the expenses and revenue approved by the Commission in the current year's Tariff order.

As per Regulation 6(5) of the Tariff Regulations and for providing adequate opportunities to all stakeholders and general public for making suggestions/objections on the petitions as mandated under section 64(3) of the Electricity Act, 2003, the Commission directed BSPGCL vide letter no. 1570 dated 30.11.2013 to publish the petition in abridged form as public notice in newspapers having wide circulation in the State inviting suggestions/objections on the tariff petition. Accordingly BSPGCL published the tariff petition in the abridged form as public notice in various newspapers. The petition was also placed on the BSPGCL's website. The last date of submission of suggestions/objections was fixed as 3rd January, 2014. However, on request from some stakeholder's, the Commission has extended the last date of submission up to 31st January 2014.

The Commission, in order to ensure transparency in the process of dealing with the above petition and for providing proper opportunity to all stakeholders and general public for making suggestions/objections on the tariff petition, decided to hold the public hearing in its office at Patna and accordingly the Commission held public hearing in the Court Room, BERC office at Patna on 10th January, 2014.

The above petition submitted by BSPGCL was also placed before the State Advisory Committee on 23rd January 2014 and the various aspects were discussed by the Committee. The Commission took the advice of the State Advisory Committee on the petition of BSPGCL during the meeting of the Committee.

The Commission took into consideration the facts presented by the BSPGCL in its petition and subsequent various filings, the suggestion/objections received from stakeholders, consumer organizations, general public and State Advisory Committee and response of the Bihar State Power Generation Company Limited.

The Commission taking into consideration all the facts which came up during the public hearing and meeting of the State Advisory Committee, has reviewed the ARR and revenue for FY 2013-14 and re-determined the ARR and Generation tariff for FY 2014-15.

BSPGCL has only one thermal power station at Barauni namely Barauni Thermal Power Station (BTPS) having seven numbers of generating unit. Out of that only two units, Unit no. 6 and unit no.7 each of 110 MW (de-rated capacity of 105 MW) are under repair and maintenance (R&M) which had not been in operation for full FY 2013-14 but expected to generate for certain period in FY 2014-15.

BSPGCL has not projected any annual revenue requirement (ARR) for FY 2013-14 as no generation is expected during FY 2013-14 since both units 6 & 7 of BTPS are under R&M.

BSPGCL has estimated that after R&M, unit 6 will generate for 91 days and unit 7 will generate for 182 days during FY 2014-15 and accordingly estimated the annual revenue requirement of Rs. 230.05 Crore against which the Commission has approved Rs. 168.79 Crore. Also, the Commission has approved net generation tariff of Rs. 3.79 per kWh against Rs. 5.18 per kWh projected by BSPGCL.

This order shall be effective from 1st April 2014 and shall remain in force till 31st March 2015 or till the next tariff order of the Commission.

This order will be placed on the website of the Commission and a copy will be sent to BSPGCL, BSPTCL, NBPDC, SBPDCL, Department of Energy of Government of Bihar, Central Electricity Regulatory Commission, Central Electricity Authority and all State/Joint Electricity Regulatory Commissions.

Sd/-
(S. C. Jha)
Member

Sd/-
(U. N. Panjari)
Chairman

1. Introduction

1.1 Bihar Electricity Regulatory Commission (BERC)

The Bihar Electricity Regulatory Commission (hereinafter referred to as "Commission" or "BERC") was constituted by the Government of Bihar under Section 17 of the Electricity Regulatory Commission Act, 1998 vide Government of Bihar notification No.1284 dated 15th April 2002. The Electricity Regulatory Commission Act, 1998 along with Indian Electricity Act, 1910 and Electricity (Supply) Act, 1948 was repealed by Section 185 (1) of the Electricity Act, 2003 (hereinafter referred to as the "Act"). The first proviso of Section 82 (1) has ensured continuity of the Bihar Electricity Regulatory Commission by laying down that the State Electricity Regulatory Commission established by the State Government under Section 17 of Electricity Regulatory Commission Act, 1998 and functioning as such, immediately before the appointed date, shall be the State Electricity Regulatory Commission for the purpose of the Act.

1.2 Functions of BERC

1.2.1 As per Section 86 of the Electricity Act 2003, the State Commission is to:

- a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- c) facilitate intra-state transmission and wheeling of electricity;

- d) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
- f) adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration;
- g) levy fee for the purposes of this Act;
- h) specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards;
- i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- j) fix the trading margin in the intra-state trading of electricity, if considered, necessary; and
- k) discharge such other functions as may be assigned to it under this Act.

1.3 Background and Brief History

1.3.1 Bihar State Power Generation Company Limited

The Government of Bihar under the provision of Bihar Electricity Reforms Transfer Scheme 2012 notified vide Notification No. 17 dated 30.10.2012 of the Energy Department, Govt. of Bihar restructured the Bihar State Electricity Board with effect from 1st November, 2012. The Generation, Transmission and Distribution Businesses of the erstwhile Bihar State Electricity Board were transferred to four successor companies with one Holding Company as listed below:

- 1) Bihar State Power Holding Company Limited (BSPHCL)
- 2) Bihar State Power Generation Company Limited (BSPGCL)
- 3) Bihar State Power Transmission Company Limited (BSPTCL)

- 4) North Bihar Power Distribution Company Limited (NBPDC)
- 5) South Bihar Power Distribution Company Limited (SBPDCL)

The Government of Bihar vide notification dated 30th October, 2012, notified the provisional opening assets and liabilities of the transferee companies based on the audited accounts of erstwhile BSEB as on 1st April, 2011. The value of assets and liabilities stand transferred from the erstwhile Bihar State Electricity Board to the transferee companies, including the Bihar State Power Generation Company Limited. Assets and liabilities (gross block, loans and equity), as on the date mentioned in the notification, have been considered by the Commission in line with the Financial Restructuring Plan (FRP) as approved by the Government of Bihar.

1.3.2 Background

BSEB as integrated utility of generation, transmission and distribution had only one thermal power station, namely Barauni Thermal Power Station (BTPS). Earlier, the BSEB had been filing petition for approval of generation cost of BTPS till FY 2011-12. The Commission had approved the expenditure towards generation cost in the same petition. Subsequent to the restructuring the BSPGCL filed petition for approval of ARR and tariff under separate chapter of the Tariff petition for FY 2013-14 filed by BSPGCL. Now the Bihar State Power Generation Company Limited (herein after referred to as BSPGCL or Petitioner) has filed its separate petition for Annual Performance Review for FY 2013-14, Revised Annual Revenue Requirement for FY 2014-15 and re-determination of Generation Tariff for FY 2014-15 under Section 62 of the Electricity Act, 2003, read with Bihar Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2007 (hereinafter referred as 'BERC Tariff Regulations, 2007') for its Barauni Thermal Power Station.

1.4 Commission's Orders issued earlier

The chronology of the filing of tariff petitions and issue of Tariff Orders from FY 2006-07 are listed below:

The BSEB had submitted its first Aggregate Revenue Requirement (hereinafter referred to as "ARR") and tariff petition for the FY 2006-07 on 10th April, 2006. The Commission passed the Tariff Order on that petition on 29th November, 2006.

The BSEB submitted its ARR and tariff petition for FY 2007-08 on 18th December, 2007. As the tariff petition for FY 2007-08 was filed very late, the Commission vide letter no. BERC.Tariff-9/07-03 dated 2nd January 2008 directed the BSEB to file the ARR and tariff petition for FY 2008-09 along with data as specified by the Commission in the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 by 31st January 2008.

The BSEB submitted its ARR and tariff petition for FY 2008-09 on 14th February, 2008. The Tariff Order for FY 2008-09 was passed by the Commission on 26th August, 2008. The Commission also undertook the "Review" of ARR for FY 2006-07 along with Tariff Order for FY 2008-09.

The BSEB filed on 9th October 2009 the petition for determination of ARR and approval of retail tariff for FY 2009-10. However, due to delay in filing of the ARR/ tariff petition for FY 2009-10, the Commission directed the BSEB to file the ARR and tariff petition for the FY 2010-11. In view of the same, there was no approval of the ARR for FY 2009-10.

The BSEB submitted its ARR and tariff petition for FY 2010-11 before the Commission on 3rd February, 2010. The Commission passed the Tariff Order for FY 2010-11 on 6th December, 2010. The Commission also undertook the "Review" of ARR for FY 2008-09 along with the Tariff Order for FY 2010-11.

The BSEB submitted its ARR and tariff petition for FY 2011-12 before the Commission on 17th February, 2011. The Commission passed the Tariff Order for FY 2011-12 on 1st June, 2011, effective from 1st May 2011.

The True-up petition for FY 2006-07, FY 2007-08 and FY 2008-09, based on the audited annual accounts of BSEB, was filed by the BSEB on 01st September 2011. The addendum to this True-up petition was filed by BSEB on 17th October 2011. The Commission passed its first truing up order for FY 2006-07, FY 2007-08 and FY 2008-09 on 4th January 2012.

Subsequently, the BSEB filed the Truing up petition for FY 2009-10 on 13th October, 2011. The truing up order for FY 2009-10 was issued by the Commission on 27th January 2012.

BSEB also submitted a petition on 13th October, 2011 vide letter No. Com/ FPPCA-136/2011-1659 for the review of ARR for FY 2010-11 based on their Audited Annual Accounts. The Commission vide its Order dated 3rd November, 2011 directed BSEB to submit its petition for review of the expenses and revenues for the FY 2010-11 along with tariff petition for FY 2012-13. Commission also directed BSEB that, if the final audited accounts for the FY 2010-11 are made available to the Commission along with the petition or during the hearing of tariff petition for FY 2012-13, a final true up of the expenses and revenues for the FY 2010-11 shall be considered by the Commission.

The Board filed its ARR and tariff petition for FY 2012-13 on 15th November 2011. In this petition the Board also carried out review exercise for FY 2011-12 projecting the revised estimates for FY 2011-12 based on the provisional annual accounts of BSEB for FY 2010-11. A Supplementary petition for determination of ARR & retail tariff petition for FY 2012-13 was subsequently filed by the Board vide letter No. Com/ Tariff-152/ 2011-(Part-I) -017 on 2nd January 2012.

Further, BSEB vide letter No. Com/ Tar-132/ 2011-392 dated 2nd March, 2012 submitted the audited annual accounts for FY 2010-11 along with the audit certificate issued by CAG to the Commission. Subsequently, BSEB vide letter No. Com/ Tar-132/ 2011-451 dated 16th March, 2012 submitted the truing up petition of BSEB for FY 2010-11 based on the audited annual accounts for FY 2010-11.

The BSEB filed petition for trueing up for FY 2010-11, Performance Review for FY 2011-12 and determination of ARR and Tariff for FY 2012-13. The Commission issued the Tariff Order on 30th March, 2012 effective from 1st April, 2012.

The BSPHCL filed the Petition on behalf of Generation, Transmission and Distribution Companies for provisional trueing up of FY 2011-12 along with provisional Annual Accounts for FY 2011-12, Performance Review for FY 2012-13 and MYT Petition for determination of ARR for FY 2013-14 to FY 2015-16 and determination of tariff for FY 2013-14 on 14th November, 2012 vide their letter No. Com/Tariff petition- 160/2012/2857 dated 12.11.2012.

Subsequently the Petitioner filed revised True up Petition for FY 2011-12 along with Audited Accounts on 24.12.2012. The Commission issued the Tariff Order on 15th March, 2013 effective from 1st April, 2013.

1.5 Admission of Current Petition and Public Hearing Process

BSPGCL has filed the Petition for Annual Performance Review for FY 2013-14 and Annual Revenue Requirement and determination of Generation Tariff for FY 2014-15 on 14th November 2013.

On preliminary verification of the Petition, the Commission has admitted the Petition (Case No.23/2013) on 18th November, 2013 and in accordance with section 64 of the Electricity Act, 2003 and sub clause 6(5) of BERC (Terms and Conditions of Determination of Tariff) Regulations, 2007, the Commission directed the BSPGCL to publish the Petition in the abridged form in at least two daily newspapers, one in English and the other in Hindi, having wide circulation in the State inviting objections and suggestions from its stakeholders on the ARR and Tariff Petition filed by it.

BSPGCL was also directed to publish the schedule for Public Hearings along with the public notice inviting objections/suggestions.

The public notices were published in the following newspapers as given below:

Sl. No.	Name of the news paper	Language	Date of first Publication	Date of second Publication
1	Dainik Jagran	Hindi	8.12.2013	12.12.2013
2	Times of India	English	8.12.2013	-
3	Hindustan Times	English	-	12.12.2013

The tariff petition was also placed on the website of BSPGCL for inviting objections and suggestions on the petition and copies of the petition along with Annexure were also made available for sale in the office of the Chief Engineer (Commercial), BSPGCL.

The interested parties / stakeholders were asked to file their objections / suggestions on the Petition on or before 3rd January, 2014. However, on request from some stakeholder's, the Commission extended the last date of submission up to 31st January 2014.

The public hearing was conducted as scheduled in the Court room at BERC Office on 10th January, 2014.

The proposal of BSPGCL was also placed before the State Advisory Committee (SAC) in its meeting held on 23rd January 2014 and various aspects of the petition was discussed by the Committee. The Commission took the advice of the State Advisory Committee on the Petition filed by BSPGCL during the meeting of the Committee. The minutes of the meeting are given in **Annexure-I**.

The Commission has received one (1) objection/ suggestion from M/s Bihar Chamber of Commerce & Industries, Patna.

A note on the main issues raised by Bihar Chamber of Commerce & Industries Limited Patna, in their written submissions and also in the public hearing in respect of the petition, along with the response of BSPGCL and the Commission's observations on the response, are given in **Chapter-3**.

1.6 Approach of this order

The BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 provides for truing up of previous year (FY 2012-13). During FY 2012-13, BSPGCL has functioned separately with effect from 01.11.2012 i.e. for five months. BSPHCL has filed a combined petition with company wise detail for BSEB from 01.04.2012 to 31.10.2012 and of BSPGCL, BSPTCL, NBPDC and SBPDCL from 01.11.2012 to 31.03.2013.

The BSPGCL has now approached the Commission with the present Petition for Annual Performance Review for FY 2013-14 and Revised Annual Revenue Requirement and determination of Generation Tariff for FY 2014-15.

The Commission has examined the Petition and observed that certain additional data / information and clarifications are required for taking up detailed analysis of the Petition. The Commission directed the Petitioner to submit the additional data / information and clarifications vide letter No. 1562 dated 29.11.2013. The Petitioners submitted additional information/data/clarifications vide their letter No. 1303 dated 17.12.2013

The Commission has considered the truing up exercise for FY 2012-13 of the erstwhile BSEB and its successor companies separately vide case No. 21/2013. So the Commission has undertaken the review for FY 2013-14 and revision of ARR for FY 2014-15 in this proceeding.

The Annual Performance Review for the FY 2013-14 and Revised Annual Revenue Requirement for FY 2014-15 have been considered based on the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007.

1.7 Contents of this order

The order is divided into Six (6) chapters as detailed below:

1. The **First Chapter** provides a background of BSPGCL, Commission's Orders reflecting to generation tariff earlier, details of public hearing process,

and the approach adopted for this order.

2. The **Second Chapter** contains a summary of Tariff Petition of BSPGCL.
3. The **Third Chapter** provides a brief Account of the public hearing process, including the objections raised by stakeholders, Petitioner's response and Commission's views on the same.
4. The **Fourth Chapter** deals with the Annual Performance Review of ARR for FY 2013-14 filed by BSPGCL.
5. The **Fifth Chapter** deals with the determination of the revised ARR for FY 2014-15 and Generation Costs for FY 2014-15 of BSPGCL.
6. The **Sixth Chapter** deals with the Compliance of Directives issued in the Tariff Order for FY 2013-14.

2. Summary of Petition filed by BSPGCL for Annual Performance Review for FY 2013-14 and Revised Annual Revenue Requirement for FY 2014-15 and Generation Tariff for FY 2014-15

2.1 Summary of ARR and Generation Cost

The summary of Aggregate Revenue Requirement (ARR) and Generation Costs approved in MYT Order for FY 2013-14 and now claimed by BSPGCL in Review for FY 2013-14 (RE) and revised estimates for FY 2014-15 are as given in the Tables below:

Table 2.1: ARR approved in Tariff Order for FY 2013-14 and now claimed in Review for FY 2013-14 (RE)

Table (A): Annual Fixed Charges for FY 2013-14

(Rs. crore)			
Sl. No.	Particulars	FY 2013-14 (T.O)	FY 2013-14 (RE)
1	O&M Expenses	83.79	33.68
2	Interest & Finance Charges	11.81	-
3	Interest on Working Capital	14.67	-
4	Depreciation	8.49	-
5	Return on Equity	48.16	-
6	Total Fixed Cost	166.92	33.68
7	Less: Non Tariff Income	0.51	
8	Net Fixed Cost	166.41	33.68

Table (B): Generation Cost for FY 2013-14

Sl. No.	Particulars	Units	FY 2013-14 (T.O)	FY 2013-14 (RE)
1	Gross Generation	MUs	726	-
2	Net Generation	MUs	639	-
3	Energy Charges	Rs. Crore	182.56	-
4	Annual Fixed Charges	Rs. Crore	166.41	33.68
5	Previous year Recovery of Annual Fixed Charges	Rs. Crore	-	-
6	Revenue Recoverable	Rs. Crore	378.97	33.68
7	Net Energy Charges	Rs./kWh	2.86	-
8	Net Fixed Charges	Rs./kWh	2.60	-
9	Net Generation Cost	Rs./kWh	5.46	-

Table 2.2: ARR approved for FY 2014-15 in Tariff Order dated 15th March, 2013 and now claimed in revised estimates for FY 2014-15 (RE)

Table (A): Annual Fixed Charges for FY 2014-15

(Rs. crore)			
Sl. No.	Particulars	FY 2014-15 (T.O)	FY 2014-15 (Petition)
1	O&M Expenses	97.03	72.99
2	Interest & Finance Charges	10.71	2.19
3	Interest on Working Capital	22.23	9.66
4	Depreciation	8.49	-
5	Return on Equity	48.16	19.32
6	Total Fixed Cost	186.62	104.16
7	Less: Non Tariff Income	0.61	-
8	Net Fixed Cost	186.01	104.16

Table (B): Generation Cost for FY 2014-15

Sl. No.	Particulars	Units	FY 2014-15 (T.O)	FY 2014-15 (Petition)
1	Gross Generation	MUs	1349	505
2	Net Generation	MUs	1214	444
3	Energy Charges	Rs. Crs	315.15	125.89
4	Annual Fixed Charges	Rs. Crs	186.01	104.16
5	Revenue Recoverable	Rs. Crs	501.16	230.05
6	Net Energy Charges	Rs./kWh	2.60	2.84
7	Net Fixed Charges	Rs./kWh	1.53	2.35
8	Net Generation Cost	Rs./kWh	4.13	5.18

2.2 Request to the Commission

BSPGCL has requested the Commission to:

1. Admit the Petition;
2. Examine the proposal submitted by the Petitioner in the enclosed petition for a favourable dispensation;
3. Allow the Truing-up of Generation function for FY 2012-13 filed separately by BSPHCL to be carried out on a consolidated basis and pass on the revenue gap/ (surplus) in the respective petitions of NBPDC and SBPDCL as per the agreed principles;
4. Pass suitable orders with respect to the APR for FY 2013-14 amounting Rs.33.68 crore for the amount capitalised in respective units.

5. Pass suitable orders with respect to Revised ARR for FY 2014-15 amounting Rs. 230.05 Crore;
6. Approve the expenses as per the proposal as generation units are coming in FY 2014-15 and considering 1st independent year of performance, allow relaxation in MYT norms wherever sought by petitioner;
7. Pass separate tariff order for the Petitioner against the present petition;
8. BSPGCL may also be permitted to propose suitable changes to the respective ARRs, prior to the final approval by the Commission. The Petitioner 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.
9. Condone any inadvertent omissions/errors/shortcomings and permit Petitioner to add/change/modify/alter this filing and make further submissions as may be required at a future date.
10. Pass such Order, as the Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

3. Stakeholder's Objections / Suggestions, Petitioner's Response and Commission's Observations

3.1 Introduction

In response to the public notice inviting objections/suggestions of the stakeholders on the Tariff petition filed by BSPGCL, one (1) written objection has been filed by M/s Bihar Chamber of Commerce & Industries, Patna vide their letter dated 07.02.2014.

The public hearing, as scheduled was held in the Court Room of BERC office, Patna on 10th January, 2014 wherein the representatives of M/s Bihar Chamber of Commerce & Industries, Patna has put forth their comments and suggestions before the Commission in the presence of the Petitioner, BSPGCL.

The Commission has examined the issues and concerns voiced by the representatives of M/s Bihar Chamber of Commerce & Industries, Patna in their written comments as well as those made in the public hearing and also the response of the Petitioner thereon. The comments/ suggestions submitted by the stakeholder in response to the ARR petition, the replies given by the Petitioner and the views of the Commission have been summarized under various sub-heads as given below:

3.2 Stakeholder's Objections/ Suggestions, BSPGCL's Response and Commission's Observations

Issue 1: Assets and Liabilities vested in BSPGCL as on 01.04.2011 through transfer scheme -Revaluation of assets pending final transfer scheme notification by the Govt. of Bihar.

According to clause-5.8 of the Transfer scheme, the transfer value of the assets already vested with the companies has to be re-valued to conform with the financials and opening balance sheet as on the effective date of transfer which is 1st November, 2012. The Tariff Petition reveals that the work relating to updation of transfer value was assigned by the BSPGCL to M/s PFC and the PFC has submitted a

report for giving effect to finalization of the classifications of property, rights, assets, liabilities etc of all the four companies including BSPGCL and submitted to BSPHCL on 09.10.2013. The objector is not aware whether action as per Clause 5.8 of the Transfer Scheme by the Govt. of Bihar has been taken, or the draft proposal of M/s PFC consulting has been approved and is formally notified by the Govt. of Bihar. Unless the Govt. of Bihar notify the final transfer scheme, the land assets will be revalued on the basis of the Govt. values as on transfer scheme effective date, the Petitioner cannot claim to have revalued assets and liabilities on the basis of audited accounts of erstwhile BSEB as on the cut-off date 01.11.2012.

Petitioner's submission:

The revaluation report submitted by PFC has been considered for calculating GFA. However, the same is on provisional basis and is in the process of getting approval by the State Govt. in the final transfer scheme.

Commission's observations:

The revaluation of land as Assets has no bearing on the ARR computations, since the land value will not qualify for depreciation. Further, while arriving at the GFA, the Commission has not considered the revalued value of Land Asset. The asset value to the extent of value of revaluation is adjusted to arrive at the original/historical cost of assets.

Issue 2: High Generator Cost

The Petitioner has claimed 25% increase in the net generation cost i.e., Rs. 5.19/ kWh as against Rs. 4.13 / kWh approved for FY 2014 – 15 in the MYT order dated 15th March 2013.

Petitioner's Submission:

BSPGCL has considered certain assumptions based upon the expected generation from BTPS and the same may be affirmed at the time of truing up.

Commission's Observation:

After prudence check of all the expenses, the Commission shall determine the net generation cost.

Issue 3: Recovery of Fixed Cost of FY 2013-14

There is no generation of electricity in FY 2013-14 and BSPGCL has no means to recover the fixed cost amounted to Rs. 33.68 crore. Due to inefficiency of the Petitioner, there has been no generation from BTPS and to meet its fixed charges they have resorted to borrow at high rate of interest cost i.e. at 13%. The cost of inefficiency has to be borne by the Petitioner itself and the proposal of the Petitioner to pass on the cost of financial debt to consumers should not be allowed.

Petitioner's submission:

The unit-6 and unit-7 of BTPS are undergoing Renovation and Modernization (R&M) from 15th March 2012 and 21st June 2010 respectively under the supervision of M/s. NTPC Limited and R&M is executed by BHEL. The status of Renovation and Modernization works has already been submitted in paragraph 4.1 of the Tariff Petition. The estimated dates of completion of R&M works to be carried out is submitted in paragraph 6.1 of the Tariff Petition. No amount of fixed cost for FY 2013-14 and FY 2014-15 (till the completion of R&M works) has been claimed in Tariff Petition. The amount claimed in the petition is only for that period of FY 2014-15, when generation is available. The cost of financing claimed is for that period of FY 2014-15, when both the units are generating as expected. Therefore, there is no question of inefficiency on part of BSPGCL or burdening with unnecessary cost on the consumer as stated in the objections.

Commission's Observations:

The Commission noted that since the R&M of units 6 & 7 during FY 2013-14 is still under progress, the entire employee cost and A&G expenses have been charged to capex and no amount is considered as expenditure in ARR for FY 2013-14. Further,

no part of the amount is considered as funded through loan and accordingly the Commission will not consider interest on it for FY 2014 – 15.

Issue 4: Cost of Fuel

The fuel cost is proposed at Rs 2.84/kWh as against Rs. 2.60/kWh approved for FY 2014-15 in MYT order. The increase in fuel cost by 24 paisa / unit would cause an avoidable excess burden of Rs. 11.62 crore on the ARR of FY 2014-15. When there has been no escalation in the price of either coal or oil, there is no justification for the Petitioner to claim fuel cost at higher rate.

Petitioner's Response:

Since both units of BTPS are to be re-commissioned after their R&M, hence both the plants will be under stabilization period. The SHR and auxiliary consumption projected are on higher side than approved since during stabilization the plants may not give its optimum performance. BERC Tariff Regulations, 2007 also allow relaxation in SHR during the stabilization of the plant. Accordingly, the same has been proposed in the petition.

Commission's Observations:

In MYT order, the Commission has approved the Station Heat Rate (SHR) and auxiliary consumption considering that the Units would come into operation during FY 2013-14. The Commission has approved auxiliary consumption of 12% for FY 2013-14 and 10% for FY 2014-15 and SHR at 3000 K cal / kWh for FY 2013-14 and of 2800 KCal / kWh for FY 2014-15. As the units are expected to come into operation during FY 2014-15, the year 2014-15 is treated as the first year of operation and the auxiliary consumption at 12% and SHR at 3000 K Cal/ kWh will be approved for FY 2014 – 15.

Issue 5: Employee Cost

Though there is no generation during FY 2013-14 and the revised target of FY 2014-15 is only 36% of the approved target, the Petitioner has not made any adequate cut

in employee cost of these years. Further, the Petitioner has not deducted the amount of support from the State Govt. against terminal benefits of the existing or retired employees from the total employee cost. The support from the Govt. is about 50% of the total employee cost. Accordingly, the objector requested the Commission to consider the support from the Govt. and allow the net employee cost for FY 2013-14 and FY 2014-15.

Petitioner's Response:

The employee expenses have been cut down by 30% pertaining to extension project. Since there is no generation, the employees are being transferred to other subsidiaries of Holding company for the time being and would be rolled back once the generation is resumed. Further, an additional man power cost to the extent of Rs. 12 crore has been considered in FY 2014-15. The amount to be received / funded by the State Govt. for terminal benefits for existing retired employees has been deducted from the employee cost proposed for FY 2013-14 and FY 2014-15. Therefore, the required cut in the employee cost has been considered in petition.

Commission's Observation:

The Petitioner has considered the reduction of State Govt. support towards terminal benefits and accordingly made the projections. However, the Commission will examine the computations of the Petitioner and will affect the required revision wherever necessary, while approving the employee cost for FY 2013 – 14 and FY 2014 – 15.

Issue 6: Repairs & Maintenance Expenses

The Petitioner has claimed Rs 4.68 crore as R&M expenses for FY 2014-15 although it is on record that the actual generation of BTPS may begin only in October 2014 (unit-7) and January 2015 (unit-6). On prorata basis, the R&M expenses works out to Rs. 3.57 crore only. The objector requested the Commission to approve the same.

Petitioner's Response:

The methodology adopted by the Commission to approve the expenses based on past trend and with inflation would deprive BSPGCL of its legitimate claim and would deprive licensee for the R&M expenses on the assets added during the year. Hence, the R&M expenses are provided as a percentage of GFA 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.

Commission's Observations:

The BTPS Units 6 & 7 are newly renovated/ refurbished and the operational performance of the equipment is normally covered by the performance guarantee during the initial period. Accordingly, the Commission shall apply the normative principles and allow the R&M expenditure for FY 2014-15.

Issue 7: Administrative & General Expenses

The Petitioner has claimed A&G expenses for FY 2013-14 & FY 2014-15 despite no generation of BTPS in FY 2013-14 and only 36% target generation during FY 2014-15. Since very small amount of revenue is expected from the sale of the generated electricity during FY 2014-15, the company may not be allowed to incur such huge expenditure under this head. The payment to CISF should be capitalized and should not be passed on to the consumers during FY 2013-14 and FY 2014-15.

Petitioner's Response:

The A&G expenses claimed are on higher side as the amounts are estimated based on the past performance in last 8 – 10 months and considering gradual increase in cost due to expected commissioning in 2014. The security charges payable to CISF are considered at the approved levels of the Commission for FY 2013 -14 and FY 2014 – 15 is Rs. 15.00 crore. Further, since there is no generation in FY 2013 – 14, no cost has been claimed and in FY 2014 – 15 the cost has been claimed proportionately based on the availability of the plans.

Commission's Observation:

The Commission will consider the A&G expenses for FY 2014 – 15 based on the normative principles. The CISF expenses will be considered at Rs 5.00 Crore as approved in the MYT order.

Issue 8: Return on Equity

The opening equity balance approved in MYT Order for FY 2013 – 14 and FY 2014 – 15 is Rs. 344 crore. Petitioner has indicated the opening equity balance as Rs. 551.99 crore for both financial years at Table 17, page 30 of the Tariff petition. However, in another statement (Form-19), BSPGCL has mentioned an opening equity of Rs. 1551.14 crore and based on that, the RoE for FY 2014-15 has been shown to be Rs. 54.29 crore. It is submitted that the objector is not aware whether the Govt. of Bihar has revised the schedules A, B, C & D of Part II of the Transfer Scheme 2. 12, Notified on 30.10.2012 and so no claims could be accepted on the basis of anticipation/ expectations of getting higher equity capital on a future date and the Commission may not accept the amount of RoE claimed by the Petitioner.

Petitioner's Response:

The opening balance of equity in Form-19 is as per the revaluation report submitted by M/s PFC for calculating return on equity and it is a matter of record. However, the same is on provisional basis and subject to approval by the State Govt. in the final Transfer Scheme. The computation of the equity is considered as per the closing equity balance in the true-up petition of FY 2012-13. During the process of restructuring, the equity component has got revalued. The equity capital is excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) (c) of BERG Tariff Regulations 2007. Part XIII REORGANISATION OF BOARD AND SECTION 131 (3) thereof from the Electricity Act, 2003 specifies that *“Notwithstanding anything contained in this section, where-(b) a transaction of any description is effected in pursuance of a transfer scheme, it shall be binding on all persons including third parties and even if such persons or third parties have not consented to it.”* The

revaluation report submitted by PFC has been considered for calculating various expenses such as depreciation, RoE etc; however, the same is on provisional basis and subject to approval by the State Govt. in the final Transfer Scheme.

Commission's Observations:

The Commission has not considered the revalued value of Land Assets as projected by the Petitioner. The Commission will make its own jurisprudence and will consider the equity and RoE for FY 2014-15.

4. Performance Review of FY 2013-14

4.1 Background

The Commission issued the Tariff Order for FY 2013-14 dated 15th March 2013, determining the Multi Year Aggregate Revenue Requirement (ARR) for FY 2013-14 to FY 2015-16 separately for Bihar State Power Generating Company Limited (BSPGCL), Bihar State Power Transmission Company Limited (BSPTCL), combined for North Bihar Power Distribution Company Limited (NBPDC) and South Bihar Power Distribution Company Limited (SBPDCL). The approval was based on the estimates presented by BSPHCL on behalf of BSPGCL for costs to be incurred during the year after prudence check.

The BSPGCL has submitted the present petition separately for first time after unbundling of BSEB for Annual Performance Review (APR) for FY 2013-14 and Aggregate Revenue Requirement (ARR) for FY 2014-15. The Petitioner stated that revising figures for FY 2015-16 have no relevance/impact on tariffs for FY 2014-15 and feels that it is appropriate to revise figures for FY 2015-16 in next year petition as by that time it would have completed around 24 months of complete independent operations.

BSPGCL submitted that it is yet to start its operations after restructuring as Units - 6 & 7 of BTPS are under Renovation and Modernization (R&M) and it has barely completed 12 months of independent functioning after coming into existence. BSPGCL requested the Commission to determine the ARR for the years under consideration in present MYT control period based on adopted accounts. BSPGCL has submitted that though the Commission had approved MYT figures for FY 2013-14 to FY 2015-16, it seeks an opportunity to review/revise the ARR for FY 2013-14 and FY 2014-15 so as to enable sound transition of new companies and also avoiding financial loss to the Petitioner in transition phase.

BSPGCL has submitted that the present petition is based on the figures of FY 2012-13 and estimated expenses in FY 2013-14 and FY 2014-15. The BSPGCL has stated that since plant/units are not in operation, the costs have been estimated on best judgment and no relevance of past expenses/direct linkage has been preferred.

In the review, the performance of FY 2013-14 (Revised Estimate) is compared with the ARR approved for FY 2013-14 in the Tariff Order dated 15th March, 2013 by the Petitioner.

The Commission has carried out the 'Review' exercise for FY 2013-14 based on the revised estimates submitted by the Petitioner and has analyzed the components of expenditure claimed in the review by BSPGCL in this chapter.

4.2 Generating Stations

Power generation capacity in the State of Bihar is predominantly thermal and the contribution of hydropower is about 55 MW. Bihar has only 495 MW of installed capacity of which 440 MW is thermal and remaining 55 MW is Hydel. In addition, there is an installed capacity of 82.5 MW from co-generation plants (Sugar Mills) and 1 MW generation capacity from bio-mass plant.

Separation of Jharkhand from Bihar has left the erstwhile Board with only two Thermal Power Generation Plants, details of which are as follows.

- (a) Barauni Thermal Power Station, Barauni (BTPS)
- (b) Muzaffarpur Thermal Power Station (MTPS) (Now called as "Kanti Bijlee Utpadan Nigam Limited (KBUNL)")

a) Barauni Thermal Power Station, Barauni (BTPS)

The BSPGCL now owns and operates only one thermal generating plant (i.e.) Barauni Thermal Power Station (BTPS) located at Barauni. The details and Status of all the units of BTPS as on 31.03.2013 as shown below:

Unit	Capacity / de-rated capacity	CoD	Present Status
1	15 MW	26.01.1966	Retired on 16/02/1983
2	15 MW	16.01.1963	Retired on 26/11/1985
3	15 MW	20.10.1963	Retired on 05/10/1985

4	50 MW	09.11.1969	Retired on12/03/2012
5	50 MW	01.12.1971	Retired on12/03/2012
6	110/105 MW	01.05.1983	Under R&M
7	110/105 MW	31.03.1985	Under R&M

It is submitted by BSPGCL that presently, only Units 6 and 7 are available for operation but are currently under R&M, from 15th March 2012 and 21st June 2010 respectively under the supervision of M/s NTPC and R & M is being executed by BHEL which are expected to be completed by December, 2014 for Unit -6 and September, 2014 for Unit -7. BSPGCL also submitted the R&M completion schedule for Unit - 6 and Unit -7.

4.3 Status of BTPS Extension Project (2 x 250 MW)

BSPGCL has submitted that the Commission has directed to file separate ARR proposal for Extension Project; however, the broad status of the same is provided hereunder;

In order to cater the growing energy demand of state, the erstwhile BSEB had earlier proposed to augment the generating capacity of Barauni Thermal Power Station by installing 2 x 250 MW units known as BTPS Extension Project (Unit-8 & 9).

The project zero date is considered as 11th March 2011 and this ambitious project is being executed by M/s. BHEL on turnkey basis.

Although the expected project completion dates were 10th March 2014 for Unit – 8 and 10th June 2014 for Unit – 9, now expected project completion dates have been revised to 11th September 2014 for Unit – 8 and 11th October 2014 for Unit - 9. There are impediments which may cause further delay of extension project from scheduled time lines.

The Railway siding works of BTPS extension project may not match with the generating unit Commissioning schedule. As per M/s. RITES, completion schedule is (a) six months for phase-1 (preparation of DPR to approval of final DPR by Railways from the date of issuance of LOI) and (b) twenty four months for phase-II from the 15th day from the date of signing of contract agreement.

For proper Commissioning of extension project of Unit-8 & 9, continuous good quality (free from chemical/physical impurities) water supply is required. At the time of project conceptualization, the river Ganga was considered as reliable water supply source for extension project. In fact, Ganga water project was evolved as an option to supply water to both of the (existing and extension) power project Units. But Ganga water project is itself facing some land related issues with Indian Railway Authorities and with some local residents near the project site. The matter has been discussed by top officials of BSPGCL with Railways and Civil Authorities. Also one case has already filed in Patna Court, regarding this land issue.

Land for Ash Dyke has not been identified for Extension Project.

4.4 Status of BTPS Infrastructure Strengthening & Ganga River Water Scheme

BSPGCL has submitted that the Commission has directed to file separate ARR proposals for BTPS Infrastructure Strengthening & Ganga River Water Scheme along with cost allocation between Unit-6 & Unit-7 and Unit-8 & Unit-9; however the broad status of the same is provided here under:

(i) Status of BTPS Infrastructure Strengthening (as on 17-8-2013)

Tender has been floated for providing Technical Consultancy Services and Project Management Services for enabling works associated with Barauni Thermal Power Station in Begusarai Dist.,

(ii) Status of Ganga River Water Scheme (as on 18-10-2013)

Site work started on 19-07-2013. 7.25 Hectares land was identified belonging to Railways and earmarked for construction facilities. Railway clearance is pending for want of ascertaining title of the said land.

However, the said land is identified belonging to Fisheries Department and has requested for transfer of land to start construction activities.

4.5 Capital Investment

Petitioner's submission:

BSPGCL has submitted that in the MYT petition it had submitted the capital investment for control period FY 2013-14 to FY 2015-16, which was approved by the Commission as detailed in the Table below:

Table 4.1: Capital Investment approved for Control Period in MYT order dated 15.03.2013

Sl. No.	Particulars	Total Projected Cost	Fund released till FY 2011-12	Planned Capex during FY 2012-13 to FY 2015-16				Total Capex (from FY 2012 to FY 2016)
				FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	
1	R&M of BTPS (Unit-6 & 7)	581.20	431.76		149.44			149.44
2	Extension of BTPS (Unit-8 & 9)	3666.00	346.00	750.00	792.41	799.96	830.14	3172.51
3	Strengthening of Infrastructure at BTPS	253.69			87.87	55.36	57.45	200.68
4	Ganga River Water Scheme for BTPS	173.00	54.00		59.92	37.75	21.33	119.00
5	Total investment	4673.89	831.76	750.00	1089.64	893.07	908.91	3641.62

BSPGCL has submitted that the Commission at para 6.5.3 of the tariff order for FY 2013-14 had mentioned that out of total project cost of Rs.581.20 crore, for R&M of BTPS Unit 6 & 7, Rs.229 crore was capitalized during FY 2012-13. Further, existing CWIP of Rs.202.76 crore was also expected to be capitalized during FY 2013-14, balance amount of Rs.149.44 crore shall be capitalized in FY 2013-14 as the Units are expected to be commissioned during FY 2013-14.

BSPGCL has submitted that there is very nominal capitalization in FY 2012-13 towards R&M project.

BSPGCL has further submitted that it has considered the closing CWIP as on 31st March 2013 as per adopted annual accounts of BSPGCL for the computation of CWIP of FY 2013-14 and FY 2014-15. Further, the works-in-progress pertaining to Extension project which is appearing separately in the balance sheet has been excluded for such computation purposes.

The Petitioner has submitted that capital investment of Rs.149.44 crore would be incurred in FY 2013-14. The Petitioner has further submitted that when the audited accounts would be available after COD, the capitalization would be claimed on actual basis.

Considering the completion date of September 2014 for Unit-7 and December 2014 for Unit-6, (expecting that majority of the amount would have been incurred by the end of FY 2013-14), BSPGCL has not proposed any capitalize during the FY 2013-14 as detailed in the table below:

Table 4.2: Capital expenditure proposed by the Petitioner for FY 2013-14

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Opening CWIP	1285.00	1916.20
2	Less: CWIP portion of Extension Project		1293.79
3	Net Opening CWIP	1285.04	622.41
4	Add: New Investment during the year	1089.64	149.44
5	Add: R&M of 6&7 Units		33.68
6	Total Investment	2374.64	805.53
7	Less: Capitalised (7+8)	352.20	0.00
8	CWIP capitalisation	202.76	
9	New Investment capitalisation	149.44	
10	Net Closing CWIP	2022.44	805.53

BSPGCL has stated that opening CWIP and CWIP of extension project has been taken from adopted annual accounts of March 2013 (Closing balance). The O&M expenditure of Rs. 33.68 crore of FY 2013-14 has been capitalised as there is no generation and considered as funded as 100% loan. The capitalisation of CWIP pertaining to Unit-6 & 7 has been restricted to project value of Rs.581.20 crore.

BSPGCL has requested the Commission to approve the capital expenditure and capitalisation as detailed in the Table above.

Commission's analysis:

Regarding the capital investment plan for the control period FY 2013-14 to FY 2015-16, the commission has commented in MYT order dated 15th March 2013 which is reproduced below:

As per the practice followed by CERC, tariff for Thermal Power Plants of NTPC commissioned in different stages are determined stage-wise and not for the station as a whole. Here BSPHC Ltd. has submitted a combined proposal of ARR as well as tariff for stage-I (R&M 2 x 110 MW) and stage-II (addition of 2 x 250 MW plants). This is not a correct approach. Therefore, BSPHC Ltd. and Bihar State Power Generation Company Ltd. are directed to submit separate proposals for R&M of 2 x 110 MW plants and 2 x 250 MW extension plants. Further the costs of strengthening of infrastructure at BTPS and Ganga River Water Scheme for BTPS are to be apportioned as per use of these two projects in stage-I and stage-II. It appears that Units 6 & 7 are scheduled to be commissioned by December, 2013 and May 2013 respectively. On the other hand the investments in strengthening of infrastructure and Ganga River Water Scheme are proposed to be completed in FY 2015-16 and beyond. It is not understandable how these investments will be used for stage-I project. Therefore capex, capitalisation, depreciation, and interest and finance charges for strengthening of infrastructure and Ganga River Water Schemes are not being considered in the ARR and tariff for stage-I R&M project.

BSPHC Ltd. and Bihar State Power Generation Co. Ltd. are directed to submit separate ARR for stage-I and stage-II indicating the apportionment of the costs of the projects of strengthening of infrastructure and Ganga River Water Scheme between two stages, at the time of filing the petition for review for FY 2013-14 and tariff proposal for FY 2014-15.

BSPGCL has not submitted separate ARR for Stage-I and Stage-II i.e. R&M of BTPS (Unit-6 & 7) and Extension of BTPS (Unit-8 & 9) projects. However, the CWIP portion

of extension project has been reduced from the CWIP for computations and accordingly for the purpose of computing the costs, i.e. depreciation, interest, etc.

The Commission has examined the computations of capital expenditure and investment proposed for transfer to assets, etc. furnished by BSPGCL. The Commission considered the computations of the BSPGCL which are as per the directions of the Commission and as per Tariff Order for FY 2013-14.

The Commission has considered the Commissioning dates of the Units-6 (December'14) and Unit-7 (September'14) as proposed by BSPGCL and accordingly considered the capitalisation of investment as detailed in the table below:

Table 4.3 Capital investment considered by the Commission for FY 2013-14 (RE)

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Opening CWIP	1285.00	1916.20	1916.20
2	Less: CWIP portion of Extension Project		1293.79	1293.79
3	Add: New Investment	1089.64	149.44	149.44
4	Add: Expenditure of R&M of 6 & 7 Units		33.68	33.68
5	Total Investment	2374.64	805.53	805.53
6	Less: Capitalised (7+8)	352.20	0.00	0.00
7	CWIP capitalisation	202.76		
8	New Investment capitalisation	149.44		
9	Net Closing CWIP	2022.44	805.53	805.53

4.6 Funding of Capital Expenditure

Petitioner's submission:

BSPGCL has considered the entire funding of the project cost of R&M of Unit-6 & 7 is by way of grants.

Commission's analysis

The Commission has considered the funding of capital expenditure of R&M of Units - 6 & 7 of grants.

BSPGCL has considered the O&M expenditure capitalised during FY 2013-14 as funded through Loan, however, the Commission considered this through internal resources/grant.

4.7 Gross Fixed Assets

Petitioner's submission:

BSPGCL has submitted that it has considered the closing GFA as on 31st March 2013 as per adopted annual accounts of the purpose of computation of GFA base for FY 2013-14. Based on the revised capitalisation schedule of R&M Units-6 & 7, the Petitioner has projected the additions to GFA as furnished in the table below:

Table 4.4 Gross Fixed Assets Projected for FY 2013-14

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Opening Gross Fixed Assets	563.47	397.67
2	Less: Asset Retirements		208.92
3	Opening GFA for Depreciation purpose	563.47	188.75
4	Add: Additions during the year	352.20	
5	Closing GFA for Depreciation purpose	915.67	188.75

The Petitioner has further submitted that though the other generating Units have retired long time ago, the value of the same is appearing in GFA and for the purpose of computation of depreciation; the value of retired Units is reduced from the value of GFA of Plant & Machinery and Lines, Cables etc.

Commission's analysis

The Commission has examined the Gross Fixed Assets proposed by BSPGCL and considered the GFA as detailed in the following Table below:

Table 4.5: Gross Fixed Assets considered for FY 2013-14

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Opening GFA (on 1-4-2013)	563.47	397.67	397.67
2	Less: Assets Revalued		-	130.63
3	Original value of GFA	563.47	397.67	267.04
4	Less: Asset Retirements		208.92	208.92
5	Original value of GFA	563.47	188.75	58.12
6	Additions during the year	352.20		
7	Closing GFA (Depreciable Assets)	915.67	188.75	58.12

The Commission has elaborately discussed the capitalisation of CWIP and assets put to use under “Capital Investment”.

4.8 Depreciation

Petitioner’s submission:

BSPGCL has submitted that for the purpose of computation of depreciation for FY 2013-14, the Petitioner has adopted the methodology approved by the Commission in the MYT order.

BSPGCL has submitted that depreciation rate has been assumed as per MYT order and opening grants were adopted as per annual accounts for FY 2012-13 (closing balance).

BSPGCL has not claimed Depreciation for FY 2013-14 since grants value is higher than GFA.

The computation of depreciation by BSPGCL is as detailed in the table below:

Table 4.6: Depreciation Projected for FY 2013-14

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Opening GFA	563.47	188.75
2	Additions during the year	352.20	0.00
3	Closing GFA (1.+ 2)	915.67	188.75
4	Average GFA $\{(1+3)/2\}$	739.57	188.75
5	Weighted average rate of depreciation	4.99%	4.99%
6	Gross Depreciation (4*5)	36.90	9.42
7	Opening Grants	393.20	345.63
8	Add: Grants during the year	352.20	0.00
9	Closing Grants (7+8)	745.40	345.63
10	Average Grants $\{(7+9)/2\}$	569.30	345.63
11	Weighted average rate of depreciation	4.99%	4.99%
12	Depreciation for GFA on Grants (10*11)	28.41	17.25
13	Depreciation for GFA on loans (6-12)	8.49	-

BSPGCL has also submitted that depreciation shall be claimed in the true up process based on actual GFA and additions to GFA and value of grants for R&M Units.

Commission's analysis:

The Commission considered the submission of the Petitioner to claim depreciation in the true up process based on the actual GFA, actual additions to GFA vis-à-vis the grants for FY 2013-14.

Accordingly, the Commission has considered Depreciation as 'NIL' for FY 2013-14 (RE).

4.9 Interest and Finance Charges

Petitioner's submission:

BSPGCL has submitted that it has considered the opening loan balance for FY 2013-14 as per adopted accounts as on March 2013 (Closing balance) and the entire loan appearing in opening pertains to Extension Project and hence, the value of loan for Units 6 & 7 is Nil.

BSPGCL has stated that at the end of the working of ARR for FY 2013-14 it has capitalized the expenditure (Rs.33.68 crore towards O&M expenditure) as there is no generation and the entire amount is treated as Loan during FY 2014-15.

BSPGCL has proposed interest and finance charges for FY 2013-14 as detailed in the table below:

Table 4.7 : Interest and Finance Charges projected for FY 2013-14

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Opening Loan balance	95.11	492.79
2	Less: Loan assumed in CWIP Ratio for extension project		492.79
3	Net opening loan balance	95.11	0.00
4	Add: Loans during the year	0.00	0.00
5	Less: Repayments	8.49	0.00
6	Net Closing Loan Balance	86.62	0.00
7	Average of Net Loan Balance	90.87	0.00
8	Interest rate	13.00%	13.00%
9	Interest Expenses on Loan	11.81	0.00

Commission's analysis

The Petitioner has not claimed interest expenses for FY 2013-14 (RE).

Accordingly, the Commission has not considered any interest expenses for FY 2013-14 (RE).

4.10 Interest on working capital

Petitioner's submission:

BSPGCL has submitted that it has arrived at the working capital requirement according to applicable norms provided in the BERC (Terms and Conditions of Tariff) Regulations, 2007 which are reproduced in the following Table below:

Table 4.8: Norms for working capital requirement

Sl. No.	Particulars	Norm
1	Cost of coal and secondary fuel	Two months
2	O&M expenses	One month
3	Maintenance spares	@1% of historical cost of GFA escalated @6% per annum

4	Receivables	Two months of fixed and variable cost on target availability
5	Rate of interest on working capital	Short-term PLR of SBI as on 1 st April of the year

The rate of interest applied on the proposed working capital is @14.45% as per the SBI PLR as on 1st April 2013.

BSPGCL has claimed interest on working capital for FY 2013-14 computed on the above norms as detailed in the table below:

Table 4.9 : Interest on working capital Projected for FY 2013-14

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Cost of coal & secondary fuel Oil for 2 months	30.43	0.00
2	O&M exp. (1 month)	6.98	2.81
3	Maintenance spares @1% of opening GFA with 6% escalation	5.97	2.00
4	Receivables - 2 months	58.16	5.61
5	Total working capital	101.54	10.42
6	Rate of interest	14.45%	14.45%
7	Interest on working capital	14.67	-

BSPGCL has submitted that since there is no generation, interest on working capital is not claimed for FY 2013-14

Commission's analysis:

The Commission has allowed Rs.14.67 crore for FY 2013-14 (as per the norms specified in the regulations 2007) towards interest on working capital for Generation function in tariff order for 2013-14. The Commission considered the computation of interest on working capital methodology followed by BSPGCL which is as per the norms specified in the regulations 2007.

The Petitioner has not claimed interest on working capital for FY 2013-14, as there is no generation during FY 2013-14.

Accordingly, the Commission considered Interest on working capital as 'NIL' for FY 2013-14 (RE).

4.11 Return on Equity

Petitioner's submission:

BSPGCL has submitted that equity is computed considering the closing equity as per true-up of FY 2012-13. During the process of restructuring, the equity component has got re-valued and the Petitioner requested the Commission to consider the same figures for ARR purpose. The Petitioner submitted that equity capital is excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) of BERC Tariff Regulations 2007.

BSPGCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction pursuant to transfer scheme shall be binding on all persons. Section 131 of the Electricity Act, 2003 is reproduced hereunder

Notwithstanding anything contained in this section, where; (b) a transaction of any description is effected in pursuance of a transfer scheme, it shall be binding on all persons including third parties and even if such persons or third parties have not consented to it.

BSPGCL has submitted that clause 37 of BERC (Terms and Conditions for Tariff) provides 14% return on equity.

BSPGCL has submitted that since there is no generation in FY 2013-14, no Return on Equity (RoE) is claimed for FY 2013-14 (RE)

Table 4.10: Return on Equity projected for FY 2013-14

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Opening Equity Balance	344.00	551.99
2	Add: Equity During the year		
3	Closing equity balance (1+2)	344.00	551.99
4	Rate of Return per annum %	14.00%	14.00%
6	Return on equity claimed/allowed	48.16	

Commission's analysis:

BSPGCL has not claimed return on equity for FY 2013-14, hence, the Commission has not considered any return on equity for FY 2013-14 (RE).

4.12 Operation and Maintenance (O&M) Expenses**4.12.1 Inflation Indices****Petitioner's Submission**

BSPGCL has submitted that most of the SERCs have adopted a weighted average method of WPI: CPI in the ratio of 45 : 55 and considered last year average inflationary increases for approving O&M expenses.

BSPGCL has further submitted that 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.

BSPGCL has proposed following inflation index for FY 2013-14;

- (i) Employee cost and A&G expenses

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

- (ii) Repairs and Maintenance expenses

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

where – ‘K’ is a constant (expressed in %) governing the relationship between R&M costs and 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 assets of the nth year
- WPI is the wholesale price index increase for immediate preceding year over previous year.

Table 4.11 : O&M Expenses - weightage of indexation/inflation factor

Sl. No.	Particulars	WPI	CPI	Total
1	Weightage %	45.00%	55.00%	100.00%
2	Index points for FY 2011-12	156.13	194.83	
3	Indexation n-1 (index point * weightage)	70.26	107.16	177.42
4	Index points for FY 2012-13	167.58	215.17	
5	Indexation n (index point * weightage)	75.41	118.34	193.75
6	Combined inflation {(5-3) / 3}			9.21%

BSPGCL has submitted that it has not utilized inflation index and has relied on estimates based on limited deployment of manpower and expenses in FY 2013-14. BSPGCL has further submitted that it has deducted 30% employee expenses and A&G expenses pertaining to Extension Project.

4.12.2 Employee Cost

Petitioner’s submission:

BSPGCL has submitted that the employee cost comprises of salaries, dearness allowance, bonus, staff welfare, medical benefits, leave travel and earned leave encashment and the terminal benefits in the form of pension, gratuity, etc.

The Petitioner has projected the employee expenses for FY 2013-14 as detailed in the table below:

Table 4.12: Employee Cost for FY 2013-14 (RE) proposed by the Petitioner

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	Employee cost	121.00	30.00
2	Less: Manpower cost for extension project (30% cost)		9.00
3	Add: New Manpower cost	10.00	
4	sub-total Cost	131.00	21.00
5	Less: Support by State Govt. against terminal benefits	62.88	
6	Total Employee Cost	68.12	21.00

The Petitioner further submitted that the amount for FY 2013-14 are estimates for employees working in BSPGCL. Some of the employees are temporary being transferred to other subsidiary companies of BSPHCL. As the generation projects (Units-6 and Unit-7 as well as extension project) will approach Commissioning, the employees would be rolled back into Petitioner company.

Commission's analysis:

The Commission has examined the employee cost projected by the Petitioner based on 5 months (November'12 to March'13) actual expenditure. The Petitioner has projected the employee cost as per audited annual accounts of BSPGCL for FY 2012-13 and projected for one year for FY 2012-13 rounded off to nearest Rs. crore. The Commission has accordingly approved the employee cost as detailed in the table below:

Table 4.13: Employee Cost for FY 2013-14 (RE) considered by the Commission

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT Order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Employee cost	121.00	30.00	
2	Employee cost arrived at based on previous year 5 months actuals			30.00
3	Less: Manpower cost for extension project (30% cost) (on 4)		9.00	9.00
4	Add: New Manpower cost	10.00		
5	Total employee cost (4-5+6)	131.00	21.00	21.00

The Commission, accordingly, considers the revised employee cost at Rs. 21.00 crore for FY 2013-14 (RE).

4.12.3 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

BSPGCL has submitted that computing Repairs & Maintenance (R&M) expenses based on previous year figures and inflation; would deprive licensee for the R&M expenses on the assets added during the year. Hence, the Petitioner has estimated R&M expenses linked to Gross Fixed Assets (GFA) and thereafter escalating by inflationary indices.

BSPGCL has further submitted that Repairs & Maintenance expenses were not claimed for FY 2013-14, since there is no generating station in operation,

Commission's analysis:

BSPGCL has not claimed any expenditure towards repairs and maintenance for FY 2013-14, hence, the Commission has not considered any expenditure towards the same for FY 2013-14 (RE).

4.12.4 Administration and General (A&G) Expenses

Petitioner's submission

Administration and General expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and traveling expenses etc.

The BSPGCL has estimated the A&G expenses at Rs. 8.50 crore for FY 2013-14 (RE). BSPGCL requested the Commission to approve the A&G expenses for FY 2013-14 (RE) as furnished in Table below:

Table 4.14 : Administration and General Expenses projected for FY 2013-14

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	A&G Expenses	1.88	5.00
2	Less: A&G cost for extension project (30%)		1.50
3	Add: Payment to CISF	5.00	5.00
4	Total A&G expenses	6.88	8.50

Commission's analysis:

The Commission has examined the A&G expenses projected by BSPGCL for FY 2013-14 (RE) and the same are considered as detailed in the table below:

Table 4.15 : Administration & General Expenses approved for FY 2013-14 (RE)

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT Order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	A&G Expenses	1.88	5.00	5.00
2	Less: A&G cost for extension project (30%)		1.50	1.50
3	Add: Payment to CISF	5.00	5.00	5.00
6	Total A&G expenses	6.88	8.50	8.50

The Commission considers Rs.8.50 crore towards Administration and General Expenses for FY 2013-14 (RE).

4.12.5 Allocation of Holding Company Expenses**Petitioner's submission**

BSPGCL has submitted that the Schedule 'D' Holding undertaking Part-III of the Bihar State Electricity Reforms Transfer Scheme, 2012 defines the Functions and Duties of Bihar State Power (Holding) Company Limited. As per Clause (i) of the schedule 'D', the Holding Company shall handle all issues relating to the subsidiary companies in respect of;

Business of purchasing, importing, exporting and trading of power subject to the provision of Electricity Act, 2003 and to supply electric power generated

by other plants to transmission companies, distribution companies, trading companies, other generation companies and other persons, and in this regard execute agreements with Central and State Generating authorities, departments or companies, independent Power Producers and other persons.

BSPGCL further submitted that BSPHCL provides common services to all the segregated entities and as per the Transfer Scheme “operating expenses incurred by the Holding Company like administration and general expenses, legal and consulting fees, etc. would be shared by the BSPGCL, BSPTCL, NBPDC and SBPDCL in the ratio of their respective equity”.

BSPGCL has also stated that as per Schedule ‘F’, the Holding Company shall handle all issues relating to the subsidiary companies in respect of the testing divisions, training department at Headquarter and all the departments of the Corporate head office viz. General Administration, Accounts and Finance, IT, Stores & Purchase, Transmission/Distribution/Generation, Personnel, Publicity, Legal, Vigilance & Security, Commercial, Planning, Civil Engineers, 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 respective companies.

The BSPGCL has estimated the Holding Company expenses at Rs. 31.47 crore for FY 2013-14 (RE) as furnished in Table below:

Table 4.16 : Expenses of Holding Company for FY 2013-14

Particulars	(Rs. Lacs)							
	Apr-13	May-13	Jun-13	Jul-13	Total for 4 months	Monthly Average	Projections for 8 months	Total for 12 months
Employee cost	241.20	186.42	156.34	119.40	703.36	175.84	1406.72	2110.08
A&G Expenses	158.65	123.00	17.93	27.27	326.85	81.7125	653.7	980.55
R&M expenses	15.71	0.36	2.02	0.58	18.67	4.6675	37.34	56.01
Total	415.56	309.78	176.29	147.25	1048.88	262.22	2097.76	3146.64

BSPGCL submitted that the allocation of Holding Company expenses for FY 2013-14 as per provisions of Transfer Scheme 2012 are as tabulated below:

Table 4.17: Allocation of Expenses of Holding company for FY 2013-14

(Rs. Crore)					
Head	Total for FY 2013-14	BSPGCL	BSPTCL	NBPDCL	SBPDCL
Establishment expenses are allocated on the basis of Employee Cost Ratio					
Employee cost for FY 2012-13	203.26	12.32	33.93	62.03	94.98
Employee cost Ratio	100.00%	6.06%	16.69%	30.52%	46.73%
Allocation of establishment expenses - a	21.10	1.28	3.52	6.44	9.86
Administrative and O&M expenses are allocated on the basis of Equity Deployed Ratio					
Opening Equity for FY 2013-14	1974.88	551.98	375.43	384.90	662.57
Equity Deployed Ratio	100.00%	27.95%	19.01%	19.49%	33.55%
Allocation of Administrative expenses - b	9.81	2.74	1.86	1.91	3.29
Allocation of O&M expenses - c	0.56	0.16	0.11	0.11	0.19
Total allocation for FY 2013-14 (a+b+c)	31.47	4.18	5.49	8.46	13.34

BSPGCL has requested the Commission to approve the expenditure as part of overall O&M expenditure for FY 2013-14 (RE).

Commission's analysis:

The Commission has examined the allocation of Holding Company expenses incurred towards Employee cost, Administration and General Expenses and O&M expenses and considered the allocation in terms of Bihar State Electricity Reforms Transfer Scheme, 2012 for FY 2013-14 (RE) as detailed in the table below:

Table 4.18 : Allocation of Expenses of Holding Company approved for FY 2013-14 (RE)

(Rs. Crore)					
Particulars	BSPGCL	BSPTCL	NBPDCL	SBPDCL	Total
Employee cost	1.28	3.52	6.44	9.86	21.10
R&M expenses	0.16	0.11	0.11	0.19	0.57
A&G Expenses	2.74	1.86	1.91	3.29	9.80
Total	4.18	5.49	8.46	13.34	31.47

4.12.6 Summary of Operations and Maintenance (O&M) Expenses for FY 2013-14

The Summary of the O&M Expenses for FY 2013-14(RE) is tabulated below:

Table 4.19 : Revised estimates of O&M cost considered by the Commission for FY 2013-14 (RE)

Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	(Rs. Crore)
			Now approved for FY 2013-14 (RE)
Employee cost	131.00	21.00	21.00
A&G Expenses	6.88	8.50	8.50
R&M expenses	8.79	0.00	0.00
Holding Company Expenses allocated		4.18	4.18
Total O& M cost	146.67	33.68	33.68
Expenses capitalised	62.88	33.38	33.68
Net O&M expenses	83.79	0.00	0.00

The Commission considers the revised O&M costs Gross at Rs.33.68 crore for FY 2013-14 (RE).

4.13 Non Tariff Income

Petitioner's submission:

BSPGCL has submitted that in the absence of any generation, it has not projected any non-tariff income for the year 2013-14 and shall claim based on actuals in FY 2014-15

Commission's analysis:

The Commission in its Tariff order dated 15th March 2013 has approved Non-tariff income of Rs.0.51 crore for the year 2013-14.

The Commission considers the submission of the Petitioner and no non-tariff income is considered for FY 2013-14 (RE) subject to true up based on actuals as per audited annual accounts of BSPGCL for FY 2013-14.

4.14 Annual Fixed charges for FY 2013-14 (RE)

Petitioner's submission

BSPGCL has submitted the total annual fixed charges recoverable from the Distribution licensees for FY 2013-14 as detailed in the table below:

Table 4.20: Annual Fixed Charges projected for FY 2013-14 (RE)

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)
1	O&M expenses (Gross)	83.79	33.68
2	Interest and finance charges	11.81	0.00
3	Interest on working capital	14.67	0.00
4	Depreciation	8.49	0.00
5	Return on Equity	48.16	0.00
6	Total Fixed cost	166.92	33.68
7	Less: Non-tariff income	0.51	
8	Net Fixed cost	166.41	33.68

Commission's analysis:

Based on the detailed analysis, the fixed charges considered by the Commission for FY 2013-14 (RE) are as detailed in the table below:

Table 4.21: Annual Fixed Charges considered by the Commission for FY 2013-14 (RE)

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT order for FY 2013-14	Projected by BSPGCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	O&M expenses (Gross)	83.79	33.68	33.68
2	Interest and finance charges	11.81	0.00	0.00
3	Interest on working capital	14.67	0.00	0.00
4	Depreciation	8.49	0.00	0.00
5	Return on Equity	48.16	0.00	0.00
6	Less: Expenses capitalised		33.68	33.68
7	Total Fixed cost	166.92	0.00	0.00
8	Less: Non-tariff income	0.51	-	-
9	Net Fixed cost	166.41	0.00	0.00

4.15 Aggregate Revenue Requirement for FY 2013-14

Commission's analysis:

The Petitioner has not submitted any ARR for FY 2013-14, accordingly, the Commission has not considered any expenditure for FY 2013-14 for recovery from Distribution licensees.

The Commission has opined that the costs, if any, over and above the approved levels for FY 2013-14 (RE) are subject to true up based on the audited annual accounts for FY 2013-14 and will be considered in ARR for FY 2015-16.

5. Revised Aggregate Revenue Requirement (ARR) and Determination of Generation Cost for FY 2014-15

5.1 Generating Stations

5.1.1 Barauni Thermal Power Station, Barauni (BTPS)

The BSPGCL owns and operates only one thermal generating plant (i.e.) Barauni Thermal Power Station (BTPS) located at Barauni. The details and status of all the Units of BTPS as on 31.03.2013 are given in Table 5.1 below:

Table 5.1: Present Status of Units of BTPS (As on 30.03.2012)

Unit	Capacity / de-rated capacity	CoD	Present Status
1	15 MW	26.01.1966	Retired on 16/02/1983
2	15 MW	16.01.1963	Retired on 26/11/1985
3	15 MW	20.10.1963	Retired on 05/10/1985
4	50 MW	09.11.1969	Retired on 12/03/2012
5	50 MW	01.12.1971	Retired on 12/03/2012
6	110/105 MW	01.05.1983	Under R&M
7	110/105 MW	31.03.1985	Under R&M

It is submitted by BSPGCL that presently, only Units 6 and 7 are available for operation but are currently under R&M, which is expected to be completed by December, 2014 for Unit -6 and September, 2014 for Unit -7. BSPGCL also submitted the R&M completion schedule for Unit - 6 and Unit -7.

5.2 Generation from BTPS Units 6&7

AS BTPS is the only generating station under BSPGCL, the performance and cost parameters of this station are discussed in the following paragraphs.

Petitioner's submission

It is submitted by BSPGCL that, since the R&M activity of both the Units -6 &7 will mostly be running throughout the financial year and the Unit -6 is to be completed by December, 2014 and Unit -7 by September, 2014, the Generation from these Units is projected accordingly.

5.2.1 Approved performance and cost parameters in the MYT Order

In the MYT Order dated 15th March, 2013, the following performance and cost parameters were approved for BTPS Units considering that the Unit-6 could be Commissioned in December, 2013 and Unit-7 by May, 2013.

Table 5.2: Approved Performance and Cost Parameters for the Control Period

FY 2013-14

PLF (%)	Auxiliary Consumption (%)	SHR (Kcal/kWh)	Specific Oil Consumption (MI/kWh)	Transit Loss of Coal (%)	Wt. Av GCV of Coal (Kcal/Kg)	Wt. Av GCV of Oil (Kcal/ L)	Price of Coal (Rs./MT)	Price of Oil (Rs./KL)
37.78	12	3000	3	0.8	3714	10153	2939.3	49000

FY 2014-15

PLF (%)	Auxiliary Consumption (%)	SHR (Kcal/kWh)	Specific Oil Consumption (MI/kWh)	Transit Loss of Coal (%)	Wt. Av GCV of Coal (Kcal/Kg)	Wt. Av GCV of Oil (Kcal/ L)	Price of Coal (Rs./MT)	Price of Oil (Rs./KL)
70	10	2800	2.5	0.8	3714	10153	2939.3	49000

FY 2015-16

PLF (%)	Auxiliary Consumption (%)	SHR (Kcal/kWh)	Specific Oil Consumption (MI/kWh)	Transit Loss of Coal (%)	Wt. Av GCV of Coal (Kcal/Kg)	Wt. Av GCV of Oil (Kcal/ L)	Price of Coal (Rs./MT)	Price of Oil (Rs./KL)
70	10	2800	2.5	0.8	3714	10153	2939.3	49000

But, as detailed earlier, the Commissioning of Unit-6 is expected in December, 2014 and Units -7 in September, 2014.

In view of this, BSPGCL has projected the different parameters for FY 2014-15 as discussed in the following Paragraphs.

5.2.2 Plant Availability

Petitioner's submission

BSPGCL projected the Availability Factor for Units 6&7, as given in the Table below, for FY 2014-15.

Table 5.3: Projected Plant Availability Factor for FY 2014-15

Unit No.	Operational Days	Availability Factor
6	91	70%
7	182	70%

It is submitted that the Commissioning of Unit-6 will be during December, 2014, but the Generation will be from January, 2015. For Unit -7 the Commissioning will be during September 2014 but the Generation will be from October, 2014.

It is also submitted that since the R&M activity would be ongoing throughout the FY 2013-14, the desired PAF/PLF would not be achieved in FY 2014-15.

Commission's Analysis

It is considered that the Unit wise availability projection is reasonable for Unit No. 6 and 7 for the year FY 2014-15, as the Units will be Commissioned after R&M during FY 2014-15.

Hence the Plant Availability Factor (PAF) approved for FY 2014-15 as projected by BSPGCL as given in the Table below:

Table 5.4: Approved Plant Availability Factor for FY 2014-15

Unit	Plant Availability Factor
6	70%
7	70%

5.2.3 Plant Load Factor

Petitioner's submission

BSPGCL projected the Plant Load Factors for Units 6&7, as given in the Table below:

Table 5.5: Projected Plant Load Factor (PLF) for FY 2014-15

Unit	Plant Load Factor
6	17%*
7	35%

** Actually, PLF works out to 17.5% for 91 days working.*

BSPGCL submitted , based on the same reasons considered in the MYT Order for FY 2013-14, the projection of PLF for FY 2014-15, may be approved.

The reasons put forth in the MYT Petition for consideration of PLF for FY 2013-14 were as follows:

- The vintage of the Units.
- The impact of the ongoing R&M activity has been accounted for, while projecting the PLF of each Unit for respective years.
- The performance parameters in terms of Plant Load Factor achieved by the power plants such as Guru Nanak Dev Thermal Plant of PSPCL and Panipat Thermal Power Station of HPGCL even after R&M are around 70%. Accordingly, the PLF has been proposed for Units 6 and 7 of BTPS, Barauni during the ensuing control period.

Commission's Analysis

Unit 6 is expected to be commissioned after R&M by December 2014. That means, it will be in operation during FY 2014-15, for only about 3 months. Generally, the PLF is reckoned taking into consideration the whole of the year. PLF Projected (17.5%) for Unit 6 is reasonable when it is reckoned for the entire year. If the PLF is considered strictly for 3 months period (i.e. December 2014 to March 2015), the PLF works out to about 70%, if the Unit will be in operation for the entire year.

Unit 7 is expected to be commissioned after R&M by September, 2014. That means, it will be in operation during FY 2014-15 for about 6 months. The PLF Projected (35%) for FY 2014-15, is reasonable, as it works out to 70%, if the Unit will be in operation for the entire year.

The Wt. Av PLF for both the Units together, works out to 26.25% based on the above. It accounts for 70%, if both the Units operate for the entire year.

The effective PLF of 70% for Units 6 & 7 is considered reasonable for the FY 2014-15 taking into consideration the coal supply constraints, the performance of similar Units in other states.

Based on the above, the PLF approved for the FY 2014-15 is as given in the

Table below:

Table 5.6: Approved Plant Load Factor for the FY 2014-15

Unit No	FY 2014-15 (PLF)
6	17.5%
7	35%

5.2.4 Auxiliary Consumption

Petitioner’s submission

BSPGCL has projected the Auxiliary consumption for the station for FY 2014-15, as given in the table below.

Table 5.7: Projected Auxiliary consumption for the FY 2014-15

Particulars	FY 2014-15
Auxiliary Consumption (%)	12.00

BSPGCL submitted that it had projected Auxiliary consumption of 18% during stabilization for the first year of operation period in the MYT Petition; however the Commission had approved 12% only (for FY 2013-14). As the Units would come into operation, only during FY 2014-15 (and not in FY 2013-14), the Auxiliary

Consumption is projected at 12% for FY 2014-15 against 10% approved by the Commission.

Commission's Analysis

The Units 6 and 7 will be in operation after R&M during the year FY 2014-15

In the MYT Order the Commission approved the Auxiliary Consumption at 12% for FY 2013-14 and 10% for FY 2014-15 and FY 2015-16, considering that the Units would come into operation during FY 2013-14 and that there will be some Auxiliary consumption as a result of trial run of Units during FY 2013-14.

As the Units are expected to come into operation during FY 2014-15, the Commission approves the Auxiliary Consumption at 12% for FY 2014-15, for the reason stated above.

Thus the Auxiliary Consumption approved for FY 2014-15 is 12% as given in the Table below:

Table 5.8: Auxiliary consumption approved for FY 2014-15

Particulars	FY 2014-15
Auxiliary Consumption (%)	12%

5.2.5 Gross and Net Generation of BTPS

Based on the aforesaid approvals, the Unit wise Gross and Net Generation for FY 2014-15 is summarized in the Table below.

Table 5.9: Gross and Net Generation approved for the FY 2014-15 for BTPS Units

Particulars	Unit No	FY 2014-15		
		Approved in the MYT Order	Projected in the Petition	Now Approved
Gross Generation	6	674.52	168.17	168.63
Gross Generation	7	674.52	336.34	337.26
Total Gross Generation	All Units	1349.04	504.51	505.89
Auxiliary consumption	All Units	134.90	60.55	60.71
Net generation	All Units	1214.14	443.96	445.18

5.2.6 Station Heat Rate (SHR)

Petitioner's submission

BSPGCL projected the Station Heat Rate for the generating stations for the FY 2014-15 as given in the table below:

Table 5.10: Projected Station Heat Rate (SHR) for the FY 2014-15

Particulars	(Kcal/kWh)
	FY 2014-15
Station Heat Rate (SHR)	3000

BSPGCL submitted that the Commission has approved SHR of 3000 Kcal/kWh for the first year of operation after R&M and 2800/kWh for 2nd year (i.e.) FY 2014-15, with the direction that the same will be revised after study of performance of Units 6&7 post R&M. Accordingly BSPGCL projected SHR of 3000 Kcal/kWh for FY 2014-15, as it will be first year of operation of R&M.

Commission's Analysis

The Commission agrees with the reasoning of BSPGCL and accordingly approves SHR for FY 2014-15 and FY 2015-16 as given in the Table below:

Table 5.11: Approved Station Heat Rate for BTPS for the FY 2014-15 and FY 2015-16

Particulars	(Kcal/kWh)	
	FY 2014-15	FY 2015-16
Station Heat Rate	3000	2800

The SHR norm approved above is subject to review by the Commission after a study of the performance of the Units 6 & 7 after R&M.

5.2.7 Specific Oil Consumption

Petitioner's submission

BSPGCL projected the specific oil consumption at 2.5 ml/kWh for the FY 2014-15 as given in the table below:

Table 5.12: Projected Specific Oil Consumption for the Control Period

		(ml/kWh)
Particulars	FY 2014-15	
Specific Oil Consumption	2.5	

It is submitted by BSPGCL that the Commission has considered the specific oil consumption of 3.00 ml/kWh for the first year of operation and 2.5 ml/ kWh for FY 2014-15 and FY 2015-16 in the MYT Order and accordingly 2.5 ml/kWh is projected for FY 2014-15.

Commission's Analysis

The Commission approved the Specific Oil consumption in the MYT Order as 3.00 ml/kWh for the 1st year of operation (FY 2013-14) and 2.5ml/kWh for the year FY 2014-15 and FY 2015-16.

As the Units are coming into operation during FY 2014-15, instead of FY 2013-14, FY 2014-15 would be the first year of operation.

Accordingly the Commission approves 3.00ml/kWh for FY 2014-15 and 2.5ml/kWh for FY 2015-16, as given in the Table below as FY 2014-15 is the first year of operation.

Table 5.13: Approved Specific Oil Consumption for the FY 2014-15 and FY 2015-16

			(ml/kWh)
Particulars	FY 2014-15	FY 2015-16	
Specific Oil Consumption	3.00	2.50	

The specific oil consumption approved is subject to review by the Commission after study of the performance of the Units after R & M.

5.2.8 Transit Loss of Coal

BSPGCL has projected the Transit loss of coal for the FY 2014-15 at 0.80%.It is considered reasonable, as it is as per CERC Regulations and as approved in the MYT Order. Hence, the Commission approves the same for FY 2014-15.

Cost Parameters

5.2.9 Gross Calorific Value (GCV) of Fuels

Petitioner's submission

The BSPGCL has projected the weighted average GCV and price of coal and oil for the FY 2014-15 as approved in the MYT Order.

Table 5.14: Projected Weighted Average GCV and Prices of Fuels for the FY 2014-15 for BTPS

Weighted Average GCV of Coal (Kcal/Kg)	Weighted Average GCV of Oil (Kcal/L)	Price of Coal (Rs./MT)	Price of Secondary Oil (Rs./KL)
3714	10153	2939	49000

Commission's Analysis:

The Commission approves the Weighted Average GCV of Coal and Oil and prices of Coal and Oil as projected by BSPGCL for FY 2014-15 as they are the same as approved in the MYT Order as shown in the Table below:

Table 5.15: Approved cost parameters for BTPS for the Control period FY 2014-15

Weighted Average GCV of Coal (Kcal/Kg)	Weighted Average GCV of Oil (Kcal/L)	Price of Coal (Rs./MT)	Price of Secondary Oil (Rs./KL)
3714	10153	2939	49000

The Commission has considered the fuel cost for FY 2014-15 based on the cost parameters approved above. Any variation in the fuel cost due to variation in the cost parameters approved above is to be passed on to the consumers as per the approved FPPPA formula.

5.2.10 Approved Performance & Cost Parameters

Based on the discussions and decisions of the Commission, in the earlier paras', the performance and cost parameters approved for arriving at the fuel cost for FY 2014-15 for BTPS station, are as given in the Table below:

Table 5.16: Approved Performance and Cost Parameters for the FY 2014-15

PLF (%)	Auxiliary Consumption (%)	SHR (Kcal/Kwh)	Specific Oil Consumption (MI/Kwh)	Transit Loss of Coal (%)	Wt. Av GCV of Coal (Kcal/Kwh)	Wt.Av GCV of Oil (Kcal/L)	Price of Coal (Rs./MT)	Price of Oil (Rs./KL)
70	12	3000	3.00	0.8	3714	10153	2939.3	49000

5.3 Fuel Costs

Based on the parameters approved above, the Fuel costs arrived at for the Gross and Net Generation approved in Para 5.25 are given the Table below:

Table 5.17: Approved Fuel Cost for the FY 2014-15

Sl. No	Item	Derivation	Unit	FY 2014-15
1	Gross Generation	A	MUs	505.89
2	Station Heat Rate	B	KCal/KWH.	3,000
3	Sp. Oil Consumption	C	ml/kWh	3.00
4	Calorific value of Oil	D	kcal/l	10,153
5	Gross Calorific Value of coal	E	kcal/kg	3,714
6	Overall Heat	$F = A * B$	G Cal	1517670
7	Heat from Oil	$G = (A * C * D) / 1000$	G Cal	15409
8	Heat from Coal	$H = (F - G)$	G Cal	1502261
9	Actual Oil Consumption	$I = A * C$	kl	1518
10	Actual Coal Consumption	$J = (H * 1000) / E$	MT	404486
11	Coal Consumption including Transit Loss	$J1 = J / (1 - 0.008)$	MT	407748
12	Cost of Oil per KL	K	Rs/kl	49000
13	Cost of Coal per MT	L	Rs/MT	2939.30
14	Cost of Oil	$M = I * K / 100000$	Rs Lakh	744
15	Cost of Coal	$N = J1 * L / 100000$	Rs Lakh	11985
16	Total Fuel Cost	$O = M + N$	Rs Lakh	12729
17	Other Fuel related cost	P	Rs Lakh	0
18	Total Fuel Cost	$Q = O + P$	Rs Lakh	12729
19	Fuel Cost/Unit Gross	$Q / (A * 10)$	Rs/kWh	2.52
20	Auxiliary Consumption	R	%	12.00%
21	Auxiliary Consumption	$S = (A * R) / 100$	MUs	61
22	Net Generation	$T = A - S$	MUs	445
23	Fuel Cost/Unit Net	$Q / (T * 10)$	Rs/kWh	2.86

5.4 Capital Expenditure

Petitioner's submission:

BSPGCL has submitted that in the MYT petition it had projected the capital investment for control period FY 2013-14 to FY 2015-16, which was approved by the Commission as detailed in the Table below:

Table 5.18 : Capital Investment approved for Control Period in MYT Order dated 15th March, 2013

Sl. No.	Particulars	Total Project Cost	Fund released till FY 2011-12	Planned Capex during FY 2012-13 to FY 2015-16				Total Capex (from FY 2012 to FY 2016)
				FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	
1	R&M of BTPS (Unit-6 & 7)	581.20	431.76	--	149.44	--	--	149.44
2	Extension of BTPS (Unit-8 & 9)	3666.00	346.00	750.00	792.41	799.96	830.14	3172.51
3	Strengthening of Infrastructure at BTPS	253.69	--	--	87.87	55.36	57.45	200.68
4	Ganga River Water Scheme for BTPS	173.00	54.00	--	59.92	37.75	21.33	119.00
5	Total investment	4673.89	831.76	750.00	1089.64	893.07	908.91	3641.62

BSPGCL has submitted that the Commission at para 6.5.3 of the tariff order for FY 2013-14 had mentioned that out of total project cost of Rs.581.20 crore, Rs.229 crore was capitalized during FY 2012-13. Further, the balance CWIP of Rs.352.22 crore is proposed for capitalisation in FY 2013-14.

The Petitioner submitted that closing CWIP of FY 2013-14 is considered as opening CWIP for FY 2014-15 and an additional investment amount of Rs.50.00 crore is assumed as contingency amount for Unit-6 & 7. However the total project cost/addition to GFA has been restricted to Rs.581.20 crore. The Petitioner submitted that when the audited accounts would be available after COD, the capitalization would be claimed on actual basis.

Considering the completion date of September 2014 for Unit-7 and December 2014 for Unit-6, expecting that majority of the amount would have been incurred by the end of FY 2013-14; BSPGCL has proposed to capitalize the total investment on the project in FY 2014-15 as detailed in the Table below:

Table 5.19: Capital expenditure proposed by the Petitioner for FY 2014-15

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Opening CWIP	2022.44	805.53
2	Add: New Investment	893.06	50.00
3	Total	2915.50	855.53
4	Less: Total Capitalisation	0.00	581.20
5	Opening CWIP capitalisation		348.08
6	New Investment capitalisation		233.12
7	Closing CWIP	2915.50	274.33

BSPGCL has submitted that capitalisation of CWIP pertaining to Unit-6 & 7 has been restricted to Rs.581.20 crore and requested the Commission to approve the capital expenditure and capitalisation as detailed in the Table above.

Commission's analysis:

The Commission has examined the computations of capital expenditure and investment proposed for transfer to assets, etc. furnished by BSPGCL.

The Commission has not considered the additional investment of Rs. 50.00 crore proposed by BSPGCL as contingency investment for R&M Units for FY 2014-15, as contingencies until materialize cannot be treated as expenditure and capitalised.

The Commission considered the entire investment of R&M of Units-6 & 7 and also the O&M expenditure capitalised in FY 2013-14. Further, part of O&M expenditure incurred in FY 2014-15 to the extent of 62.5% (being 50% of total O&M expenditure and 25% of balance 50% of the total O&M expenditure considering Commissioning dates of Units 6 & 7) is also considered for capitalisation. The O&M expenses of

Rs. 27.34 crore (employee cost – Rs. 21.83 crore + A&G expenses – Rs. 5.51 crore) capitalized during FY 2014-15 are considered as new investments.

The Commission has considered Commissioning dates of the Units-6 (December'14) and Unit-7 (September'14) as proposed by BSPGCL and accordingly considered the capitalisation of investment as detailed in the table below:

Table 5.20 : Capital investment considered by the Commission for FY 2014-15

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)	Now approved for FY 2014-15
1	Opening CWIP	2022.44	805.53	805.53
2	Add: New Investment	893.06	50.00	-
3	Add: New Investments (O&M expenditure Capitalized)			27.34
4	Total	2915.50	855.53	832.87
5	Less: Total Capitalisation	0.00	581.20	642.22
	CWIP capitalisation		348.08	614.88*
	New Investment capitalisation		233.12	27.34
6	Closing CWIP	2915.50	274.33	190.65

* (Rs.581.20 crore + Rs.33.68 crore O&M expenses capitalised in FY 2013-14)

After the above stated adjustments as shown in the table above, an amount of Rs.190.65 crore is still available under the CWIP. The Commission directs the Petitioner to reconcile and identify the works for which the amount relates to and furnish work-wise details in the review petition for FY 2014-15.

5.5 Funding of Capital Expenditure

Petitioner's submission:

BSPGCL has submitted that it has considered the entire funding of the project cost of R&M of Units - 6 & 7 is by way of Grants.

Commission's analysis

The Commission has considered the funding of capital expenditure of R&M of Units - 6 & 7 through Grants.

5.6 Gross Fixed Assets**Petitioner's submission:**

BSPGCL has submitted that it has considered the closing GFA as on 31st March 2013 as per adopted annual accounts of the purpose of computation of GFA base for FY 2013-14 and FY 2014-15. Based on the revised capitalization schedule of R&M Units- 6 & 7, the Petitioner has projected the additions to GFA as furnished in the table below:

Table 5.21 : Gross Fixed Assets projected for FY 2014-15

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Opening GFA (on 1-4-2013)	563.47	188.75
2	Less: Asset Retirements		
3	Opening GFA for Depreciation purpose	563.47	188.75
4	Additions during the year		581.20
5	Closing GFA for Depreciation purpose	563.47	769.95

Commission's analysis:

The Commission has examined the Gross Fixed Assets proposed by BSPGCL and considered the GFA as detailed in the following table

Table 5.22: Gross Fixed Assets approved for FY 2014-15

(Rs. Crore)				
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)	Now approved for FY 2014-15
1	Opening GFA	915.67	188.75	58.12*
2	Additions during the year	0.00	581.20	642.22
3	Closing GFA (Depreciable Assets)	915.67	769.95	700.34

*Original value of GFA of Rs.58.12 crore is excluding Rs.130.63 crore assets revalued

5.7 Depreciation

Petitioner's submission

BSPGCL has submitted that for the purpose of computation of depreciation for FY 2014-15, it has adopted the methodology approved by the Commission in the MYT order and depreciation rate has been assumed as per MYT order and opening grants were adopted as per annual accounts for FY 2012-13 (closing balance).

The Petitioner has not claimed depreciation for FY 2014-15, stating that the asset addition is in middle of FY 2014-15. The computation of depreciation by BSPGCL is as detailed in the table below:

Table 5.23: Depreciation projected for FY 2014-15

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Opening GFA	915.67	188.75
2	Add: Additions during the year	0.00	581.20
3	Closing GFA (1.+ 2)	915.67	769.95
4	Average GFA $\{(1+3)/2\}$	915.67	479.35
5	Weighted average rate of depreciation	4.99%	4.99%
6	Gross Depreciation (4*5)	45.69	23.92
7	Opening Grants	745.40	345.63
8	Add: Grants during the year	0.00	235.57
9	Closing Grants (7+8)	745.40	581.20
10	Average Grants $\{(7+9)/2\}$	745.40	463.41
11	Weighted average rate of depreciation	4.99%	4.99%
12	Depreciation for GFA on Grants (10*11)	37.20	23.12
13	Depreciation for GFA on loans (6-12)	8.50	--

BSPGCL has also submitted that depreciation shall be claimed in the true up process, based on actual GFA, additions to GFA and value of grants for R&M Units.

Commission's analysis

The BTPS Unit 6 and 7 are scheduled to be commissioned in December, 2014 and September, 2014 and depreciation shall be charged on completion of trial stage synchronization and CoD. Accordingly, the Commission has considered the

submission of the Petitioner to claim depreciation in true up process based on the actual GFA, actual additions to GFA vis-à-vis the grants for FY 2014-15.

Accordingly, the Commission has not considered Depreciation for FY 2014-15 in this order.

5.8 Interest and Finance Charges

Petitioner's submission:

BSPGCL submitted that it has considered opening loan balance for FY 2013-14 as per adopted accounts as on March 2013 (Closing balance) and the entire loan pertains to Extension project and hence, the value of loan for Unit-6 & 7 is Nil.

BSPGCL has stated that at the end of the computation of ARR for FY 2013-14, it has capitalized the expenditure of Rs.33.68 crore as there is no generation and the entire amount is treated as loan during FY 2014-15.

BSPGCL has submitted that it has considered loan repayment equivalent to depreciation as per clause 38 of BEREC (Terms and Conditions for Tariff Determination) and interest rate @ 13% as per prevailing terms of State Government/PFC loan.

BSPGCL has claimed interest and finance charges for FY 2014-15 as detailed in the Table below:

Table 5.24 : Interest and Finance Charges projected for FY 2014-15.

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Opening Loan balance	86.62	0.00
2	Less: Loan assumed in CWIP Ratio for extension project		
3	Net opening loan balance	86.62	0.00
4	Add: Loans during the year	0.00	33.68
5	Less: Repayments	8.49	0.00
6	Net Closing Loan Balance	78.13	33.68
7	Average of Net Loan Balance	82.38	16.84

Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
8	Interest rate	13.00%	13.00%
9	Interest Expenses on Loan	10.71	2.19

BSPGCL has requested the Commission to approve interest expenses for FY 2014-15 as detailed in the table above.

Commission's analysis

The Commission has examined the interest expenses projected by BSPGCL for FY 2014-15. The Petitioner has considered the O&M expenses (Rs.33.68 crore) capitalized in FY 2013-14 as Loan (drawn) addition in FY 2014-15. It can be interpreted that loan drawn in FY 2014-15 is against the expenditure incurred in FY 2013-14, which is incorrect. Further, the total project funding for R&M of Units-6 & 7 is considered through grants. Hence, the Commission has not considered the loan.

Accordingly, the Commission has not considered interest expenses for FY 2014-15.

5.9 Interest on working capital

Petitioner's submission:

BSPGCL submitted that it has arrived at the working capital requirement according to applicable norms provided in the BERC (Terms and Conditions of Tariff) Regulations, 2007 which are detailed in the table given below:

Table 5.25 : Norms for working capital requirement

Sl. No.	Particulars	Norm
1	Cost of coal and secondary fuel	Two months
2	O&M expenses	One month
3	Maintenance spares	@1% of historical cost of GFA escalated @6% per annum
4	Receivables	Two months of fixed and variable cost on target availability
5	Rate of interest on working capital	Short-term PLR of SBI as on 1 st April of the year

The rate of interest applied on the proposed working capital is @14.45% as per the SBI PLR as on 1st April 2013.

BSPGCL has claimed interest on working capital for FY 2014-15 computed on the above norms as detailed in the table below:

Table 5.26 : Interest on working capital projected for FY 2014-15

(Rs. Crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15
1	Cost of coal & secondary fuel Oil for 2 months	52.53	20.98
2	O&M exp. (1 month)	8.09	6.08
3	Maintenance spares @1% of opening GFA with 6% escalation	9.71	1.45
4	Receivables for 2 months	83.53	38.34
5	Total working capital	153.86	66.86
6	Rate of interest	14.45%	14.45%
7	Interest on working capital	22.23	9.66

BSPGCL has also submitted that maintenance spares for FY 2014-15 are taken for 3 months only (GFA x 1% x 3/12).

BSPGCL has requested the Commission to approve the computation of working capital and the interest charges thereon for FY 2014-15.

Commission's analysis:

The Commission has allowed Rs.22.23 crore towards interest on working capital for FY 2014-15 in the MYT order dated 15th March 2013. The Commission considered the methodology followed by BSPGCL for computation of interest on working capital, which is as per the norms specified in the Regulations 2007.

The Commission has adopted the interest rate of 14.45% as per SBI PLR rate and interest on working capital allowed as detailed in the Table below:

**Table 5.27 : Interest on working capital approved by the Commission for
FY 2014-15**

Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now approved for FY 2014-15 (Rs. Crore)
1	Cost of coal & secondary fuel Oil - 2 months	52.53	20.98	21.22
2	O&M exp. (1 month)	8.09	6.08	1.83
3	Maintenance spares @1% of opening GFA with 6% escalation	9.71	1.45	0.62
4	Receivables - 2 months	83.53	38.34	28.19
5	Total working capital	153.86	66.86	51.85
6	Rate of interest	14.45%	14.45%	14.45%
7	Interest on working capital	22.23	9.66	7.49

The Commission approved Rs.7.49 crore towards Interest on working capital for FY 2014-15.

5.10 Return on Equity

Petitioner's submission:

BSPGCL has submitted that Return on Equity (RoE) computed is considered based on the closing equity as per true-up of FY 2012-13. During the process of restructuring, the equity component has got re-valued and requested the Commission to consider the same figures for ARR purpose. The Petitioner submitted that equity capital is excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) of BERC Tariff Regulations 2007.

BSPGCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction pursuant to transfer scheme shall be binding on all persons. Section 131 of the Electricity Act, 2003 is reproduced hereunder

Notwithstanding anything contained in this section, where; (b) a transaction of any description is effected in pursuance of a transfer scheme, it shall be binding on all persons including third parties and even if such persons or third parties have not consented to it.

BSPGCL has submitted that clause 37 of BERC (Terms and Conditions for Tariff) provides 14% return on equity.

BSPGCL has claimed RoE for 3 (three) months for FY 2014-15, as the operations are expected to start after middle of FY 2014-15, as detailed in the table below:

Table 5.28 : Return on Equity projected for FY 2014-15

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Opening Equity Balance	344.00	551.99
2	Add: Equity during the year		
3	Closing Equity Balance (1+2)	344.00	551.99
4	Rate of Return per annum %	14.00%	14.00%
5	Return on Equity	48.16	19.32

BSPGCL claimed Rs.19.32 crore towards RoE for FY 2014-15 and also submitted that it shall claim RoE for FY 2014-15 based on actual Commissioning details and generation in FY 2014-15.

Commission's analysis:

The Commission has examined the computation of RoE claim of BSPGCL. The Petitioner has computed RoE on the enhanced Equity stating that during the process of restructuring the equity component has got re-valued. The Commission has not considered the enhanced equity in view of specific orders from the State Government, Bihar are not available.

Accordingly, the Commission has computed the RoE as per the opening balance adopted for MYT period in the Tariff Order for FY 2013-14 and considered RoE for 3 (three) months as requested by the Petitioner as detailed in the table below:

Table 5.29 : Return on Equity approved by the Commission for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)	Now approved for FY 2014-15
1	Equity	344.00	551.99	344.00
2	Add: Equity During the year			
3	Closing equity balance (1+2)	344.00	551.99	344.00
4	Rate of Return per annum %	14.00%	14.00%	14.00%
5	Return on equity per year	48.16	77.28	48.16
6	Return on equity for 3 months		19.32	12.04

The Commission, therefore, approves Return on Equity at Rs. 12.04 crore for FY 2014-15 as given in the Table above.

5.11 Operation and Maintenance (O&M) Expenses

O&M costs comprise of Employee cost, R&M expenses and Administration and General Expenses. The Commission approved total (Gross) O&M cost at Rs. 49.31 crore (Rs.21.96 crore after capitalisation of Rs. 27.35 crore) for FY 2014-15 as against Rs.97.03 crore approved in the Tariff Order for FY 2013-14.

BSPGCL has submitted 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 approving O&M expenses.

BSPGCL has further submitted that R&M expenses are provided as 1% 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.

BSPGCL has proposed following inflation index for FY 2014-15 based on the average WPI and CPI of FY 2011-12 and FY 2012-13;

- (i) Employee cost and A&G expenses

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

- (ii) Repairs and Maintenance expenses

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

where – ‘K’ is a constant (expressed in %) governing the relationship between R&M costs and 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 assets of the nth year
- WPI_n is the wholesale price index increase for immediate preceding year over previous year.

Table 5.30 : O&M Expenses - weightage of indexation/inflation factor

Sl. No.	Particulars	WPI	CPI	Total
1	Weightage %	45.00%	55.00%	100.00%
2	Average Index points for FY 2011-12	156.13	194.83	
4	Indexation n-1 (index point * weightage)	70.26	107.16	177.42
3	Average Index points for FY 2012-13	167.58	215.17	
5	Indexation n (index point * weightage)	75.41	118.34	193.75
6	Combined inflation {(5-3) / 3}			9.21%

BSPGCL has submitted that it has not utilized inflation index and has relied on estimates based on limited deployment of manpower and expenses in FY 2013-14 and then gradual increase of increase in FY 2014-15. BSPGCL has further submitted that it has deducted 30% employee expenses and A&G expenses pertaining to Extension Project.

5.12 Employee Costs

Petitioner’s submission:

BSPGCL has submitted that the employee cost comprises of salaries, dearness allowance, bonus, staff welfare, medical benefits, leave travel and earned leave encashment and the terminal benefits in the form of pension, gratuity, etc.

The Petitioner has projected the employee expenses for FY 2014-15 as detailed in the table below:

Table 5.31: Employee Cost projected for FY 2014-15

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	Employee cost	131.39	45.00
2	Less: Manpower cost for extension project (30% cost)		13.50
3	Add: New Manpower cost	10.00	12.00
4	sub-total Cost	141.39	43.50
5	Less: Support by State Govt. against terminal benefits	60.91	
6	Total Employee Cost (8 - 9)	80.48	43.50

The Petitioner further submitted that the amount for FY 2014-15 are estimates for employees working in BSPGCL. Some of the employees are transferred temporarily to other subsidiary companies of BSPHCL. As the generation projects (Unit-6 and Unit-7 as well as extension project) will approach Commissioning, the employees would be rolled back into Petitioner Company.

Commission's analysis:

The Commission has considered the employee cost of Rs. 30.00 crore for FY 2013-14 (RE) based on 5 months (November'12 to March'13) actual expenditure as per audited annual accounts of BSPGCL for FY 2012-13 and projected for one year (for FY 2012-13). Based on the Employee cost of FY 2013-14, the Employee cost is projected for FY 2014-15 adopting escalation at 9.21% (inflation index). Further, the new manpower cost of Rs.12.00 crore projected by BSPGCL is considered.

The Commission, considering the Commissioning dates of Units 6 & 7 of BTPS, has capitalised part of the employee cost to the extent of 62.5% for FY 2014-15

The employee cost consider by the Commission for FY 2014-15 is as detailed in the table below.

Table 5.32: Employee Cost approved for FY 2014-15

				(Rs. crore)
Sl. No.	Particulars	Approved in MYT Order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now approved for FY 2014-15
1	Employee cost	131.39	45.00	
2	Employee cost arrived at based on 5 months actuals of FY 2012-13			30.00
3	Add: indexation @ 9.21%			2.76
4	sub-total (1 to 3)	131.39	45.00	32.76
5	Less: Manpower cost for extension project (30% cost) (on 4)	0.00	13.50	9.83
6	Add: New Manpower cost	10.00	12.00	12.00
7	Total employee cost (4-5+6)	141.39	43.50	34.93
8	Less: Employee cost capitalised			21.83
9	Net Employee cost			13.10

The Commission, accordingly, approved net employee cost of Rs.13.10 crore for FY 2014-15.

5.13 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

BSPGCL has submitted that computing Repairs & Maintenance (R&M) expenses based on previous year figures and inflation; would deprive licensee for the R&M expenses on the assets added during the year. Hence, the petitioner has estimated R&M expenses linked to Gross Fixed Assets (GFA) and thereafter escalating by inflationary indices.

BSPGCL has stated that R&M expense for FY 2014-15 is computed for 3 months and water charges assumed as approved in MYT order.

BSPGCL has further stated that it shall claim R&M expenses for FY 2014-15 based on actual Commissioning details, generation and expenditure incurred in FY 2014-15

The Petitioner requested the Commission to approve the R&M expenses for FY 2014-15 as projected in the table below:

Table 5.33: Repairs and Maintenance expenses projected for FY 2014-15

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT Order for FY 2014-15	Projected by BSPGCL for FY 2014-15
1	Opening GFA (considered additions to GFA portion only – Average Balance)		290.60
2	% of GFA		1.00%
3	R&M Cost		0.73
4	Inflationary index		
5	R&M Cost	5.58	0.73
6	Add: Water charges	3.95	3.95
7	Total R&M Cost	9.53	4.68

Commission's analysis:

The Commission has observed that BSPGCL has considered BTPS (Unit-6 and Unit-7 under Renovation and Modernisation) get Commissioned by December'14 and put into service. Accordingly, BSPGCL has claimed Repairs & Maintenance expenses for 3 (three) months and water charges payable for generation were claimed for entire year of FY 2014-15.

The Commission has examined the R&M expenses and has considered Rs.1 crore towards water charges for three (3) months of FY 2014-15, based on the water charges approved by the Commission in Tariff Order for FY 2013-14.

No R&M expenses were considered as these Units are newly renovated / refurbished and the operational performance of the equipments are normally covered by performance guarantee.

The Commission considers Rs. 1.00 crore towards water charges for generation under R&M costs for FY 2014-15.

5.14. Administration and General (A&G) Expenses

Petitioner's submission

Administration and General expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and traveling expenses etc.

The BSPGCL has estimated the A&G expenses at Rs.20.25 crore for FY 2014-15. BSPGCL requested the Commission to approve the A&G expenses for FY 2014-15 as furnished in Table below:

Table 5.34: Administration and General Expenses projected for FY 2014-15

(Rs. crore)			
Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	A&G Expenses	2.02	7.50
2	Less: A&G cost for extension project (30%)		2.25
3	Add: Payment to CISF	5.00	15.00
4	Total A&G expenses	7.02	20.25

Commission's analysis:

The Commission, considering the Commissioning dates of Units 6 & 7 of BTPS, has capitalised part of the A&G expenses to the extent of 62.5% for FY 2014-15

The Commission has considered the A&G expenses based on the A&G expenses of FY 2013-14 (RE) and increased by 9.21% for inflationary escalation for FY 2014-15. The payment to CISF is considered at Rs. 5 crore as per the MYT Order dated 15.03.2013.

The Commission has considered the A&G expenses for FY 2014-15 as detailed in the Table below:

Table 5.35 : Administration & General Expenses approved for FY 2014-15

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT Order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now approved for FY 2014-15
1	A&G Expenses	2.02	7.50	5.46
2	Less: A&G cost for extension project (30%)		2.25	1.64
3	Add: Payment to CISF	5.00	15.00	5.00
4	Total A&G expenses	7.02	20.25	8.82
5	Less: A&G expenses capitalised			5.51
6	Net A&G Expenses			3.31

The Commission, accordingly, approved net A&G expenses of Rs.3.31 crore for FY 2014-15.

5.15 Allocation of Holding Company Expenses

Petitioner's submission

BSPGCL has submitted that the Schedule 'D' Holding undertaking Part-III of the Bihar State Electricity Reforms Transfer Scheme, 2012 defines the Functions and Duties of Bihar State Power (Holding) Company Limited. As per Clause (i) of the schedule 'D', the Holding Company shall handle all issues relating to the subsidiary companies in respect of;

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

BSPGCL further submitted that BSPHCL provides common services to all the segregated entities and as per the Transfer Scheme "operating expenses incurred by

the Holding Company like administration and general expenses, legal and consulting fees, etc. would be shared by the BSPGCL, BSPTCL, NBPDC and SBPDCL in the ratio of their respective equity”.

BSPGCL has also stated that as per Schedule ‘F’, the Holding Company shall handle all issues relating to the subsidiary companies in respect of the testing divisions, training department at Headquarter and all the department s of the Corporate head office viz. General Administration, Accounts and Finance, IT, Stores & Purchase, Transmission/Distribution/Generation, Personnel, Publicity, Legal, Vigilance & Security, Commercial, Planning, Civil Engineers, 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 respective companies.

The BSPGCL has estimated the Holding Company expenses at Rs.34.36 crore for FY 2014-15 as furnished in Table below:

Table 5.36: Allocation of Expenses of Holding Company projected for FY 2014-15

Head	(Rs. Crore)				
	BSPGCL	BSPTCL	NBPDC	SBPDCL	Total
Employee cost	1.40	3.84	7.03	10.77	23.04
R&M expenses	0.17	0.12	0.12	0.20	0.61
A&G Expenses	2.99	2.04	2.09	3.59	10.71
Total	4.56	6.00	9.24	14.56	34.36

BSPGCL has requested the Commission to approve the expenditure as part of overall O&M expenditure for FY 2014-15.

Commission’s analysis:

The Commission has examined the allocation of Holding Company expenses incurred towards Employee cost, Administration and General Expenses and O&M expenses and considered the allocation in terms of Bihar State Electricity Reforms Transfer Scheme, 2012 for FY 2014-15 as detailed in the table below:

Table 5.37 : Allocation of Expenses of Holding Company approved for FY 2014-15

Particulars	(Rs. Crore)				
	BSPGCL	BSPTCL	NBPDCL	SBPDCL	Total
Employee cost	1.40	3.84	7.03	10.77	23.04
R&M expenses	0.17	0.12	0.12	0.20	0.61
A&G Expenses	2.99	2.04	2.09	3.59	10.71
Total	4.56	6.00	9.24	14.56	34.36

5.16 Summary of Operations and Maintenance (O&M) Expenses

Table 5.38: Total O&M cost approved by the Commission for FY 2014-15

Particulars	(Rs. Crore)		
	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now approved for FY 2014-15
Employee cost	141.39	43.50	34.93
A&G Expenses	7.02	20.25	8.82
R&M expenses	9.53	4.68	1.00
Holding Company Expenses allocated		4.56	4.56
Total O& M cost	157.94	72.99	49.31
Expenses capitalised	60.91	0.00	27.34
Net O&M expenses	97.03	72.99	21.97

The Commission approved the net O&M costs at Rs. 21.97 crore for FY 2014-15.

5.17 Non Tariff Income

Petitioner's submission:

BSPGCL has not projected any non-tariff income for FY 2014-15 and submitted that the same will be claimed based on actuals for FY 2014-15 in true up.

Commission's analysis:

The Commission in its Tariff order dated 15th March 2013 has approved Non-tariff income of Rs.0.61 crore for FY 2014-15.

The Commission considers the submission of the Petitioner and no non-tariff income is considered for FY 2014-15.

5.18 Annual Fixed charges for FY 2014-15

Petitioner's submission

BSPGCL has submitted the total annual fixed charges recoverable from the Distribution licensees for FY 2014-15 are as detailed in the Table below:

Table 5.39: Annual Fixed Charges projected for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)
1	O&M expenses (Net)	97.03	72.99
2	Interest and finance charges	10.71	2.19
3	Interest on working capital	22.33	9.66
4	Depreciation	8.49	0.00
5	Return on Equity	48.16	19.32
6	Total Fixed cost	186.62	104.16
7	Less: Non-tariff income	0.61	--
8	Net Fixed cost	186.01	104.16

Commission's analysis:

Based on the detailed analysis, the fixed charges considered by the Commission for FY 2014-15 are as detailed in the Table below:

Table 5.40: Annual Fixed Charges approved by the Commission for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Approved in MYT order for FY 2014-15	Projected by BSPGCL for FY 2014-15 (RE)	Now approved for FY 2014-15
1	O&M expenses (Gross)	157.94	72.99	49.31
2	Interest and finance charges	10.71	2.19	0.00
3	Interest on working capital	22.23	9.66	7.49
4	Depreciation	8.49	0.00	0.00
5	Return on Equity	48.16	19.32	12.04
6	Less: O&M Expenses capitalised	60.91	--	27.34
7	Total Fixed cost	186.62	104.16	41.50
8	Less: Non-tariff income	0.61	--	--
9	Net Fixed cost	186.01	104.16	41.50

5.19 Aggregate Revenue Requirement (ARR)

Based on the detailed analysis, the fixed and energy charges approved by the Commission for FY 2014-15 are summarized in the Table below:

Table 5.41: Approved ARR for FY 2014-15

(Rs. crore)				
Sl. No.	Particulars	Approved in MYT Order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now Approved for FY 2014-15
1	Fuel cost	315.15	125.89	127.29
2	O&M expenses	157.94	72.99	49.31
3	Interest and finance charges	10.71	2.19	0.00
4	Interest on working capital	22.23	9.66	7.49
5	Depreciation	8.49	0.00	0.00
6	Return on Equity	48.16	19.32	12.04
7	Less: O&M Expenses Capitalised	60.91	-	27.34
8	Total Fixed cost	501.77	230.05	168.79
9	Less: Non-tariff income	0.61	--	--
10	Net Fixed cost	501.16	230.05	168.79

5.20 Generation Cost

The Fixed and energy charges projected by BSPGCL and approved by the Commission for FY 2014-15 are detailed in the Table below:

Table 5.42: Fixed and Energy Charges approved for FY 2014-15

(Rs. crore)					
Sl. No.	Particulars	Unit	Approved in MYT Order for FY 2014-15	Projected by BSPGCL for FY 2014-15	Now Approved for FY 2014-15
1	Gross Generation	MU	1349	505	551
2	Net Generation	MU	1214	444	445
3	Energy Charges	Rs. crore	315.15	125.89	127.29
4	Annual Fixed Charges	Rs. crore	186.01	104.16	41.50
5	Revenue Recoverable	Rs. crore	501.16	230.05	168.79
6	Net Energy Charges	Rs / kWh	2.60	2.84	2.86
7	Net Fixed Charges	Rs / kWh	1.53	2.35	0.93
8	Net Generation Cost	Rs / kWh	4.13	5.18	3.79

6. Compliance of Directives

6.1 Background

The Commission in its previous Tariff Order dated 15th March, 2013, had issued some directives to the Bihar State Generation Corporation Limited. This Chapter deals with the compliance status of the directives and Commission's views thereon as well as new directives for compliance and implementation by the BSPGCL.

6.2 Directives issued in Tariff order dated 15th March 2013.

6.2.1 Directive 1:

BSPHC Ltd. and Bihar State Power Generation Company Ltd. are directed to submit separate proposals for R&M of 2 x 110 MW plants and 2 x 250 MW extension plants.

Compliance by BSPGCL

- a) The Petitioner in para 4.3 of petition, has provided the detailed status of Extension Project Unit-8&9.
- b) The extension projects Units are likely to come in the quarter 3 of FY 2014-15 i.e. somewhere in October/ November 2014.
- c) The Petitioner believes it would be too early to file the separate tariff for Extension Project Units as the work is under progress and the required data in terms of actual incurred capital cost on provisional basis would also be a constraint.
- d) Further the Petitioner would like to refer to the CERC Tariff Regulations 2009,

*CHAPTER – 2: PROCEDURE FOR TARIFF DETERMINATION AND COMPUTATION
OF CAPITAL COST AND CAPITAL STRUCTURE*

5. Application for determination of tariff. (1) The generating company or the transmission licensee, as the case may be, may make an application for

determination of tariff in accordance with Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as amended from time to time or any statutory re-enactment thereof, in respect of the Units of the generating station or the transmission lines or sub-stations of the transmission system, completed or projected to be completed within six months from the date of application.

- e) Hence the Petitioner believes that filing of separate tariff petition would be appropriate around May/ June 2014 when the project is nearing completion in October/ November 2014.

Commission's Observation

BSPGCL may file the tariff petition for units 8 & 9 of second stage of BTPS at appropriate time based on the Commissioning schedule of units 8 & 9.

6.2.2 Directive 2:

BSPHCL is directed to finalise a separate ARR for strengthening of infrastructure and Ganga Water Scheme apportioning the cost between R&M of Units 6&7 of BTPS and Units 8&9 of BTPS extension.

Compliance by BSPGCL

- a) The Petitioner in para 4.4 of petition, has provided the detailed status of Infrastructure Strengthening & Ganga River Water Scheme.
- b) The Petitioner believes it would be too early to file the Separate ARR for strengthening of infrastructure and Ganga River Water Scheme for apportioning the cost between R&M of Units 6&7 and Units 8&9 of BTPS extension, as the work is under progress and the required data in terms of actual incurred capital cost on provisional basis would also be a constraint.

- c) Hence the Petitioner believes that filing of separate tariff petition would be done at appropriate time when required details are available and also when project is nearing its completion.

Commission's Observation

The Compliance of BSPGCL is noted.

6.3 New Directives

6.3.1 Details of Closing Capital Works In Progress (CWIP) as on 31-3-2015:

The CWIP pertaining to R&M of units 6 & 7 of BTPS are proposed for capitalisation consequent to commissioning of both the Units in FY 2014-15. After capitalization, an amount of Rs. 190.65 crore (table 5.20) is still remaining in CWIP. The Petitioner is directed to reconcile the closing CWIP as on 31.3.2015 and furnish the work wise/ scheme wise details along with the review petition for FY 2014-15 (RE).

Bihar Electricity Regulatory Commission (BERC)

Proceedings of State Advisory Committee (SAC) meeting held on 23.01.2014 at

11:30 A.M. in BERC Office.

1. At the outset, Sri U.N. Panjiar, Chairman BERC and Chairman SAC welcomed all the participants. The list of participants is annexed.

Chairman, BERC and SAC informed the Committee that Bihar State Power (Holding) Company Limited (BSPHCL) has submitted the petition for True up of FY 2012-13 on behalf of erstwhile Bihar State Electricity Board (BSEB) and unbundled entities Bihar State Power Generation Company Ltd. (BSPGCL), Bihar State Power Transmission Company Ltd. (BSPTCL), North Bihar Power Distribution Company Ltd. (NBPDCCL) and South Bihar Power Distribution Company Ltd. (SBPDCL). Also the four subsidiary companies of BSPHCL i.e. BSPGCL, BSPTCL, NBPDCCL and SBPDCL have filed separate petitions for Annual Performance Review (APR) for FY 2013-14, revised Annual Revenue Requirement (ARR) and Tariff for FY 2014-15. The suggestions/objections on the petitions have been invited from the stakeholders and general public through notices in newspapers and website of the respective companies. Public hearing has also been held so far at Bhagalpur, Munger, Patna, Saharsa, Purnea, Darbhanga and Muzaffarpur. Public hearing is also scheduled at Chapra, Gaya and Patna during the month of February, 2014.

This meeting of State Advisory Committee was called to discuss and seek the advice and suggestions from the members.

2. Sri S.K. Singh, C.E (Comml.) NBPDCCL welcomed the members of SAC and made a power point presentation giving the summary of true up, APR, ARR and Tariff petitions.
3. During the presentation, Chairman made the following observations and representatives of the company gave the following clarifications:-
 - 3.1 **Transmission & Distribution (T&D) Losses-** Actual T&D loss reported by BSPHCL during the FY 12-13 is 45.49% against approved loss of 27.50%. In the previous tariff

orders, a trajectory was given to reduce the T&D losses in a phased manner. Therefore, the high T&D losses in excess of approved levels are not justified.

- 3.2** Shri N. K. Jha, DGM (F), BSPHCL clarified that equity and return on equity figures based on accounts and other are based on the revaluation of the assets by Power Finance Corporation (PFC) submitted to the State Government and not on the actual equity infused and approved by the Government and other figures are based on accounts. He also clarified that the accounts have been audited by the statutory auditors, the Accountant General but are still to be certified by the A.G.
- 3.3** During the presentation of Transmission Company, Chairman asked for the availability factor of the transmission lines. C.E (Comml.) NBPDCCL assured that he will revert back on this issue.
- 3.4** R&M expenses of BSPTCL for FY 2013-14 were projected as Rs. 115.10 crore. The chairman asked the actual expenditure accrued till December, 2013. It was informed that actual expenditure up to December, 2013 was Rs. 20 crore. On this Chairman said that the figure of Rs. 115 crore is not realistic consider the progress made so far and the capacity to spend.
- 4.** Suggestions by other members of the SAC :-
- 4.1** Shri Sanjay Bharatiya, Secretary General Bihar Industries Association raised the following points:
- 4.1.1** BSPHCL has claimed Rs. 745.87 crore as prior period charges. As a matter of fact there should not be any prior period charges as the truing up exercise for FY 2011-12 has already been completed and the account for the year 2011-12 has already been closed. So it was not proper for the petitioner to again claim prior period charge in FY 2012-13.
- 4.1.2** It was the responsibility of BSPHCL to finalize the transfer scheme within one year of issue of the provisional transfer scheme in November, 2012. Since the final transfer scheme has not been notified so far, the provisional scheme has to be treated as final.
- 4.1.3** Additional petitions for capitalization of transmission assets should not be entertained as hearing has already been completed.

- 4.1.4** The BSPHCL has claimed Rs. 220.74 crore as RoE. In this context it was stated that the equity approved by the state government in the successor companies after reorganization of erstwhile BSEB has already been approved by the state government in the provisional transfer scheme which has not yet been revised and therefore, has become final after November, 2013. There was also no additional equity infusion by the state government in the successor companies. For allowing RoE there had to be actual infusion of equity and it cannot be allowed on the basis of expected equity.
- 4.2** Shri A. K. P. Sinha, Bihar Chamber of Commerce & Industries observed that there has been decrease in average cost of power purchase during FY 2012-13. It was suggested to determine the FPPCA for the FY 2012-13 on the basis of data supplied by the petitioner licensees as in the previous year's tariff order, it is mentioned that "variation of FPPCA charges will be allowed only when it is five (5) paise or more per unit".
- 4.3** Shri S. K. Patwari, Vice President, BCCI suggested that the actual annual fixed charge may be ascertained by the Commission and fixed charges for different categories of consumers may be determined on that basis.
- 4.3.1** Demand charge should be in proportion to hours of supply given to consumers.
- 4.4** Shri Umesh Poddar of BIA suggested that T&D loss is very high. All efforts may be made to minimize this loss.
- 4.4.1** He also suggested that MMC may be abolished for all categories of consumers.
- 4.4.2** It was suggested that DT wise regulation of power can be done for the area from where revenue collection is low.
- 4.5** Shri S. K. P. Singh, C.E (Comml.) SBPDCL raised the following issues and sought the direction of the Commission:
- 4.5.1** There is a provision in the supply code that in case a meter becomes defective, the consumer has to be billed on the basis of average consumption of previous three months. However, in the tariff order for FY 2013-14, it is mentioned that consumption will be assed and billed on an average consumption of last 12 months from the date of meter going out of order. Thus there are two contradictory provisions. It was suggested that this is to be taken care of in next tariff order.

4.5.2 Sri. S.K.P. Singh further mentioned that there are two different demand charges for induction furnace in the tariff order 2013-14. One tariff for existing furnaces for which contract demand will be determined on the basis of 600 KVA per metric tone. However for new connection and if furnace is replaced with a new one for the existing connections, the contract demand shall be based on total capacity of the furnace and equipment as per manufacturer technical specifications, and in case of difference of opinion, the provision of Bihar Electricity supply Code (Clause 6.39 & 6.40) shall apply.

4.6 Sri Vikram Singh, Vice President, Indian Energy Exchange raised the following issues:

4.6.1 In the present UI regime when under drawl is also penalised, the role of State Load Despatch Centre (SLDC) has increased manyfold. Hence there should be separate manpower earmarked for the SLDC and it should be strengthened. Also out of total ARR of Transmission Company, certain amount may be earmarked for SLDC as separate ARR.

4.6.2 In Renewable Purchase Obligation (RPO), carry forward should not be allowed.

4.7 Sri. N.K. Jha, Dy. Chief Electrical Engineer, E.C. Railway, Hajipur raised the following issues:-

4.7.1 Billing demand is more than the actual demand. Shri Vikram Singh of IEE informed that in some other states maximum instantaneous demand is considered as contract demand. Shri Jha requested the Chairman to consider sympathetically while fixing the tariff for Railway traction.

The meeting ended with a vote of thanks to all the participants for taking active part in discussions and suggestions.

List of Participants Attended the Meeting of State Advisory Committee
Held on 23rd January, 2014 in BERC office at Patna

Sl.No.	Name	Designation	Organisation
1.	Shri U.N. Panjari	Chairman	BERC
2.	Shri S.C. Jha	Member	BERC
3.	Shri Sanjay Kr. Agrawal	Managing Director	NBPDCL
4.	Shri S.K.P. Singh	Chief Engineer (Com)	SBPDCL
5.	Shri Vijay Kumar	FCI	NBPDCL
6.	Shri N. K. Jha	DGM	BSPHCL
7.	Shri Arvind Kumar	DGM (F)	BSPHCL
8.	Shri Arun Agrawal	President	BIA
9.	Shri Umesh Kr. Poddar	Energy Sub-Committee	BIA
10.	Shri A.K.P. Sinha	Sec. General,	Bihar Chamber of Commerce
11.	Shri S.K. Patwari	Vice-president	BCCI
12.	Shri Sanjay Bhartiya	Secretary General	BIA
13.	Shri Nadeem Ahmad	EEE/Com.	SBPDCL
14.	Shri D.N.Pandey	Director	BREDA
15.	Shri N. K. Jha	Dy. Chief Elec. Eng.	E.C. Rly, Hajipur
16.	Shri Surya Sekhar Panda	Regional Manager	Indian Energy Exchange Ltd.
17.	Shri Bikram Singh	Vice-president	Indian Energy Exchange Ltd.
18.	Shri S. K. Singh	C.E/Com	NBPDCL
19.	Shri R.C. Singh	ESE (Com)	SBPDCL
20.	Shri Jayant Kumar Dubey	EEE (Com)	NBPDCL
21.	Prabhat Kumar	Sr. SB/TRD/DMR	ECR, Hajipur
22.	Shri Parmanand Singh	Secretary	BERC
23.	Shri Ganesh Prasad	Consultant	BERC
24.	Shri R. P. Kanth	Consultant	BERC
25.	Shri P. Ranjan	Consultant	BERC
26.	Shri Lakshman Bhakta	Dy. Director	BERC
27.	Shri Jayesh Chauhan	Tariff consultant	BSPHCL
28.	Shri Souvik Das	Consultant	ASCI, Hyderabad