BIHAR ELECTRICITY REGULATORY COMMISSION

Order on

Performance Review for FY 2013-14 and

Determination of Aggregate Revenue Requirement

And

Tariff for Retail Sale of Electricity

for FY 2014-15

of

SOUTH BIHAR POWER DISTRIBUTION COMPANY LIMITED

(SBPDCL)

Case No. 25 of 2013

28th February 2014

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ABBREVIATONS

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
CKM	Circuit Kilometer
CTU	Central Transmission Utility
CWIP	Capital Work in Progress
D/C	Double Circuit
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
GSS	Grid Sub-Station
KBUNL	Kanti Bijlee Utpadan Nigam Limited
KV	Kilo Volt
KVA	Kilo Volt Ampere
KVAH	Kilo Volt Ampere Hour
KWH	Kilo Watt Hour
LILO	Line In Line Out
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
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
ULDC	Unified Load Despatch Centre

Bihar Electricity Regulatory Commission

Ground Floor, Vidyut Bhawan – II

Jawahar Lal Nehru Marg, Patna – 800 021

Case No. 25/2013

In the matter of:

Determination of Revised Aggregate Revenue Requirement (ARR) and Retail Tariff for sale of electricity by the South Bihar Power Distribution Co. Ltd. to the consumers for the financial year 2014-15 in the State of Bihar.

And

South Bihar Power Distribution Company Ltd ---------------------------- Petitioner

Present:

U.N. Panjiar - Chairman

S.C. Jha - Member

ORDER

(Passed on 28th Day of February, 2014)

The Bihar State Electricity Board (hereinafter referred to as erstwhile BSEB) was constituted under section 5 of Electricity (Supply) Act, 1948 on 1st April, 1958. It was a deemed licensee in terms of Section 14 of the Electricity Act, 2003. Bihar State Electricity Board was engaged in the business of generation, transmission and distribution of electricity in the State of Bihar. In terms of Section 172 of the Act, the Board constituted under the repealed laws is to be deemed as the State

Transmission Utility and a licensee under the provisions of the Act for a period of one year from 10th June, 2003 i.e. the appointed date. Subsequently it has been mutually agreed by the Central Government and the Government of Bihar to authorize the Board to continue to function as a State Transmission Utility and Licensee.

The erstwhile Bihar State Electricity Board (BSEB) has been restructured on functional basis with effect 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 (NBPDCL) and
5) South Bihar Power Distribution Company Limited (SBPDCL)

The Commission in its MYT Order dated 15th March 2013, has trued-up the ARR and revenue for FY 2011-12 of erstwhile BSEB and approved the ARR and tariff for the control period FY 2013-14 to FY 2015-16 for BSPGCL and BSPTCL separately. The Commission also determined the ARR for the control period for FY 2013-14 to FY 2015-16 for NBPDCL & SBPDCL together and determined retail supply tariff for FY 2013-14.

The South Bihar Power Distribution Company Limited filed petition for Annual Performance Review for FY 2013-14, Revised ARR for FY 2014-15 and determination of revised Tariff for FY 2014-15 on 14th November 2013.

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 for Reviewing of ARR and revenues for FY 2013-14 and approval of Revised ARR for the financial year 2014-15 and determination of the Retail Tariff for the Financial Year 2014-15 for supply of electricity by the South Bihar Power Distribution Company to the consumers in the State of Bihar.

Regulation 6(5) of the Tariff Regulations provides for giving adequate opportunities to all stakeholders and general public for making suggestions/objections on the tariff petition as mandated under section 64(3) of the Electricity Act, 2003. Accordingly, the Commission directed SBPDCL vide letter No. 1568 dated 30.11.2013 to publish the ARR and tariff petition for FY 2014-15 in an abridged form as public notice in newspapers having wide circulation in the State inviting suggestions/objections on the tariff petition. Accordingly SBPDCL published the tariff petition in the abridged form as public notice in various newspapers and the tariff petition was also placed on the website of SBPDCL. The last date of submission of suggestions/objections was fixed as 31st January 2014.

The Commission, to ensure transparency in the process of tariff determination and for providing proper opportunity to all stakeholders and general public for making suggestions/ objections on the tariff petition and for convenience of the consumers and general public across the state, decided to hold the public hearing at the divisional headquarters of the State and accordingly the Commission held public hearing at Bhagalpur on 20.12.2013, Munger on 21.12.2013, Gaya on 11.02.2014 and Patna on 12.02.2013 & 13.02.2013.

The proposal of SBPDCL was also placed before the State Advisory Committee in its meeting held on 23.01.2014 and various aspects of the petition were discussed by the Committee. The Commission took the advice of the State Advisory Committee on Revised ARR and tariff petition of SBPDCL for FY 2014 -15 during the meeting of the Committee.

The Commission took into consideration the facts presented by the SBPDCL in its petition and subsequent various filings, the suggestions/objections received from stakeholders, consumer organizations, general public and State Advisory Committee and response of the SBPDCL to those suggestions/objections.

The Commission, taking into consideration all the facts presented by the Petitioner and by objectors and other stakeholders in writing or orally 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 approved the ARR for FY 2014-15 and determined the retail tariff for FY 2014-15.

The erstwhile BSEB and now the DISCOMs have not met the Renewable Purchase Obligation (RPO) in case of solar energy as per BERC (Renewable Purchase Obligation, its compliance and REC framework implementation) Regulations, 2010 as amended from time to time. The combined short fall was 0.20 MU, 0.67 MU and 14.86 MU during FY 2010-11, FY 2011-12 and FY 2012-13 respectively. In its Tariff Order for FY 2013-14, the Commission had decided that the distribution licensees will have to deposit into a separate fund the amount as per Regulation 9.1 of BERC (RPO Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 if the RPO determined by the Commission is not met. As per the RPO Regulation, 2010, considering the forbearance price of Rs. 13.40 per kWh as per CERC order dated 23rd August 2011, an amount of Rs. 13.70 Crore is allocated to be deposited as a separate fund to be utilized for the purpose as directed by the Commission from time to time. This amount has been included in the ARR of SBPDCL for FY 2014-15.

The State Government has been giving resource gap grant to erstwhile BSEB which has been used for reducing the revenue gap of erstwhile BSEB. The State Government in its letter dated 19th September 2011 clarified that the resource gap grant being provided to SBPDCL shall be used first for compensating for the financial loss incurred by them on account of disallowed power purchase due to difference in the actual T&D loss and the T&D loss as approved by the Commission and the balance amount of resource gap grant shall be used towards subsidies to the agricultural and rural consumers.

SBPDCL in this Tariff Petition has proposed Distribution loss projection at 45.00% for FY 2014-15. The Commission has, however, fixed the distribution loss trajectory at 21.40% for FY 2014-15. The financial loss caused to SBPDCL due to difference between the actual T&D loss as proposed by SBPDCL and T&D loss approved by the Commission has been compensated from the resource gap grant provided by the State Government.

The DISCOMs have projected resource gap grant of Rs. 2400 Crore for FY 2014-15 as they are obtaining a grant of Rs. 200 Crore per month. Out of this resource gap grant Rs. 1452.48 Crore is considered to SBPDCL as proposed in its petition. The resource gap grant of Rs. 1452.48 Crore for the FY 2014-15 is first adjusted towards disallowed power purchase cost amounting to Rs. 1283.49 Crore due to difference in the actual T&D loss and the T&D loss approved by the Commission and the balance amount of Rs. 168.69 Crore has been considered to subsidize the BPL, agricultural and rural consumers. The Commission has approved a revenue gap of Rs. 1056.84 Crore at the existing tariffs for FY 2014-15. After adjusting the Government subsidy to Kutir Jyoti, rural and agricultural consumers amounting to Rs. 168.69 Crore, the net gap at existing tariff is Rs. 888.15 Crore. As a result, the revenue gap for FY 2014-15 is reduced to Rs. 888.15 Crore against Rs. 2306.97 Crore projected by SBPDCL.

In the MYT order dated 15th March 2013, the Commission has approved average tariff hike of about 6.9% to avoid the tariff shock and retained an amount of Rs. 354.48 Crore as Regulatory Assets out of the total gap of Rs. 595.66 Crore for FY 2013-14 and also stated that this Regulatory Asset is to be amortized in subsequent three years.

The Commission decided that amortization of this Regulatory Assets can be considered after truing up of FY 2013-14 based on the audited annual accounts for FY 2013-14, since experience has shown that the gaps shown in the earlier tariff orders changed into surpluses in truing up. However, to meet the working capital expenses, the Commission has considered carrying cost for six months on this Regulatory Asset.

The truing up of ARR and revenue for FY 2012-13 resulted into a surplus of Rs. 1273.24 Crore out of which Rs. 827.61 Crore is allocated to SBPDCL. After considering the surplus of Rs. 827.61 Crore and carrying cost of Rs. 16.65 Crore on the Regulatory Asset allocated, the net gap is worked out to be Rs. 77.19 Crore for FY 2014-15.

The Annual Revenue Requirement (ARR) approved for FY 2014-15 for the two power distribution companies together is Rs. 6328.70 Crore and the net revenue gap at existing tariff after adjusting the surplus of Rs. 1273.24 Crore of FY 2012-13 is Rs. 102.60 Crore.

SBPDCL has projected distribution losses at 45.00% for FY 2014-15 and most of the resource gap grant being given by the State Government is getting adjusted to meet the disallowed power purchase cost due to the high distribution losses. Huge investments are being made to replace worn out conductors and to strengthen the network. Meter reading and bill collection are entrusted to franchisees. By some more efforts, SBPDCL can certainly reduce losses as a result of which there will be saving in resource gap grant getting adjusted on this account, which can be utilized to reduce the revenue gap.

The Commission has considered that the gap of Rs. 102.60 Crore could be made up by the Distribution companies by improving their operational performance by reducing the distribution losses, which are very high. As large amounts are being invested to improve the Transmission and Distribution networks with the resources provided by State and Central Governments and distribution companies have taken steps for 100% metering, meter reading, billing and collection through appointment of revenue franchisees in rural areas and input based franchisees in town, it may be possible to reduce the losses to a considerable extent with the improved network and meet the gap.

In view of this, the Commission does not propose any increase in the Tariff for FY 2014-15. The NBPDCL and SBPDCL should make up the gap of Rs. 102.60 Crore by improving the operational performance.

The Commission has approved the same tariff structure for two distribution companies so that there is uniform tariff for same category of consumers in the entire state of Bihar.

The average Power Purchase cost for FY 2014-15 is Rs. 3.90 / kWh.
The average Cost of Supply for FY 2014-15 is Rs. 6.68 / kWh.
The average Revenue Realisation in FY 2014-15 is Rs. 5.03 / kWh.
However the Commission has made certain changes in the Tariff structure as below:

i) The Commission has taken a decision in the Tariff Order to withdraw the minimum charges on DS-II consumers as they are all metered and meter reading are taken on monthly basis.

ii) It is reported that most of the Kutir Jyoti consumers are consuming more than 30 units per month which is being allowed to be consumed by them at a lower rate. In view of this, the Commission has decided to determine the tariff for Kutir Jyoti (metered) consumers as below:

Kutir Jyoti (Rural):
(Metered)

A. First 30 units	160 paisa/ unit
B. Above 30 units	Rate as per DS-I metered. Subject to a minimum of Rs. 40 per month per connection.

Kutir Jyoti (Urban):
(Metered

C. First 30 units	195 paisa/ unit
D. For remaining units	Rate as per DS-II metered. Subject to a minimum of Rs. 50 per month per connection.

iii) The Commission has also taken decision to withdraw Premium Tariff for 24 hours supply as the Government has already announced that all district headquarters will get 24 hours supply.

iv) Facility of demand based tariff is extended to single phase Domestic Consumers also on an optional tariff basis.

The Commission has made an attempt to workout voltage-wise cost of supply for FY 2013-14 in accordance with the methodology indicated by Hon'ble APTEL in its order dated 10th May, 2012. Similar exercise has been carried out for FY 2014-15 also. SBPDCL has not conducted detailed system studies to arrive at voltage-wise technical losses as indicated in the methodology given by APTEL. SBPDCL has furnished voltage-wise technical losses based on limited studies on its 220 KV, 132 KV and its 33 KV, 11 KV and LT system. SBPDCL has proposed Cumulative Technical loss of 30.29% for FY 2014-15. As per Hon’ble APTEL's judgment, T&D loss approved by the Commission has been considered for computing the voltage-wise cost of supply. The Commission has approved Cumulative Technical loss of 14.58% for FY 2013-14 as detailed below:

220 KV and 132 kV	- 4.00%
33 kV	- 5.00%
11 kV	- 6.00%
LT	- 7.00%
Cumulative Loss	- 14.58%

This was considered as target for voltage-wise technical losses within total loss level of 26.00% for FY 2013-14 and accordingly voltage-wise cost of supply for FY 2013-14 was computed in MYT order dated 15th March 2013. The Commission has approved 4.00% transmission losses for BSPTCL and 21.40% distribution losses for DISCOMs for FY 2014-15. Similar exercise for computation of voltage-wise cost of supply for FY 2014-15 is made considering the voltage wise technical losses within total T&D loss level of 24.50%.

To encourage the consumers to avail power under ‘Open Access’ from other sources, the Commission has reduced the cross subsidy surcharge by about 50% (fifty percent) in its Tariff Order for FY 2013-14 which the Commission has retained during FY 2014-15 also. As a result, the consumers have to pay cross subsidy surcharge at the rate of about 50% of the rate computed as per the formula approved in Tariff Policy 2006.

The Commission has brought out Regulations on Fuel and Power Purchase Cost Adjustment (FPPCA) on 31.03.2012 and the formula given in the regulations has to be applied to arrive at FPPCA. The generation and distribution companies have to claim Fuel and Power Purchase Cost Adjustments with prior approval of the Commission on a monthly basis.

The Commission has reviewed the directives issued earlier in the tariff orders for FY 2013-14 and noted that some of the directives issued are complied and some are partially attended. The Commission has dropped the directives complied with and the remaining directives are consolidated as "Fresh Directives" to the South Bihar Power Distribution Co. Ltd.

This Order is in 12 chapters which include Review for FY 2013-14 and detailed analysis of the Revised Annual Revenue Requirement (ARR) for FY 2014-15 for SBPDCL and Tariff for FY 2014-15.

The South Bihar Power Distribution Company Ltd. should ensure implementation of the order from the effective date after issuance of a Public Notice, in such a font size which is clearly visible, in two daily newspaper having wide circulation in the various parts of State within a week and compliance of the same shall be submitted to the Commission by the SBPDCL.

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 SBPDCL, Department of Energy, Government of Bihar, Central Electricity Regulatory Commission and all State/Joint Electricity Regulatory Commissions.

Sd/-	Sd/-
(S. C. Jha)	**(U. N. Panjiar)**
Member	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 shall discharge the following functions, namely

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.

1.2.2 The State Commission shall advise the State Government on all or any of the following matters, namely

a) promotion of competition, efficiency and economy in activities of the electricity industry;

b) promotion of investment in electricity industry;

c) reorganization and restructuring of electricity industry in the State;

d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by State Government.

1.3 Background and Brief History

1.3.1 Background

The South Bihar Power Distribution Company Limited (herein after referred to as

SBPDCL or Petitioner) has filed its Petition for Annual Performance Review for FY 2013-14, Revised Annual Revenue Requirement for FY 2014-15 and Determination of 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').

1.3.2 South Bihar Power Distribution Company Limited

The Government of Bihar unbundled and 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 are transferred to four successor companies. The four successor companies are listed below:

Generation : Bihar State Power Generation Company Limited

Transmission : Bihar State Power Transmission Company Limited

Distribution : (i) North Bihar Power Distribution Company Limited

(ii) South Bihar Power Distribution Company Limited

The Government of Bihar vide notification dated 30th October, 2012, notified the provisional opening Balance Sheet of the transferee companies 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 South Bihar Distribution 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.

1.4 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 truing 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 SBPDCL filed the Petition on behalf of Generation, Transmission and Distribution Companies for provisional truing 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

SBPDCL has filed the Petition on 15th November 2013 for Annual Performance Review for FY 2013-14, Revised Annual Revenue Requirement for FY 2014-15 and Determination of Tariff for Retail Sale of electricity for FY 2014-15.

On preliminary verification of the Petition, the Commission has admitted the Petition Case No. 25/2013 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 SBPDCL 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.

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

Sl. No.	Name of the news paper	Language	Date of Publication
1	Dainik Jagran	Hindi	14.12.2013
2	Times of India, Patna	English	10.12.2013
3	Hindustan	Hindi	10.12.2013
4	Hindustan Times	English	14.12.2013

The tariff petition was also placed on the website of SBPDCL 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), SBPDCL. The interested parties / stakeholders were asked to file their objections / suggestions on the Petition on or before 31st January, 2014.

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

The Commission received 44 written objections / suggestions from consumers / consumer organizations. The Commission directed Petitioners to submit the replies / response to the suggestions/ objections to the Commission vide letter No. as mentioned below:

BERC Letter No.	Date	No. of objection/ suggestion sent to SBPDCL	Date of submission of reply by SBPDCL
1697	23.12.2013	03	572 dated 24.02.2014 (28 No. received) 293 dated 30.01.2014 (06 No. received) 425 dated 10.02.2014 (10 No. received)
1698	23.12.2013	10	
129	29.01.2014	07	
139	31.01.2014	02	
176	14.02.2014	18	
177	14.02.2014	05	

The public hearings were conducted as indicated below:

Sl. No.	Date	Place
1	20.12.2013	BHAGALPUR
2	21.12.2013	MUNGER
3	11.02.2014	GAYA
4	12.02.2014	PATNA
5	13.02.2014	PATNA

The names of consumers / consumer organizations who filed their objections and the list of objectors participated in the public hearing for presenting their objections / suggestions are given in **Annexure-II.**

A note on the main issues raised by the objectors in the written submissions and also in the public hearing in respect of the petitions, along with the response of SBPDCL and the Commission’s views on the response, are given in Chapter-3.

The proposal of SBPDCL was also placed before the State Advisory Committee (SAC) in its meeting held on 23.01.2014 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 SBPDCL during the meeting of the Committee. The minutes of the meeting are given in **Annexure-I.**

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).

The SBPDCL has now approached the Commission with the present Petition for Annual Performance Review for FY 2013-14 and Revised Annual Revenue Requirement for FY 2014-15 and Determination of Tariff for Retail Sales of Electricity 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 Petitioners to submit the additional data / information and clarifications in letter No's as given below:

1) BERC-Tariff-1564 dated 29.11.2013
2) BERC-Tariff-09 dated 02.01.2014
3) BERC-Tariff-97 dated 21.01.2014

The Petitioner submitted additional information/data/clarifications vide their letter No. 1606 dated 19.12.2013 and letter No. 196 dated 02.01.2014.

The Commission has undertaken Annual Performance Review for FY 2013-14 and for Revised Annual Revenue Requirement for FY 2014-15 and Determination of Tariff for Retail Sales of Electricity for FY 2014-15.

The Annual Performance Review for FY 2013-14 and Revised Annual Revenue Requirement for FY 2014-15 and Determination of Tariff for Retail Sale of Electricity for FY 2014-15 has 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 Twelve (12) chapters for SBPDCL as detailed below:

1. The **First Chapter** provides a background of SBPDCL, Commission's Orders in earlier years, the Petition, details of public hearing process, and the approach adopted for this order.
2. The **Second Chapter** contains a summary of Tariff Petition of SBPDCL.
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 "Performance Review" for FY 2013-14 filed by SBPDCL.
5. The **Fifth Chapter** deals with the Revised Annual Revenue Requirement for FY 2014-15.
6. The **Sixth Chapter** deals with the Government grant/subsidy for FY 2014-15.
7. The **Seventh Chapter** deals with the Voltage wise cost of supply.
8. The **Eighth Chapter** deals with the Tariff Principles, Design and Tariff Schedule for FY 2014-15.
9. The **Ninth Chapter** deals with the Fuel and Power Purchase Cost Adjustment.
10. The **Tenth Chapter** deals with the Wheeling and Open Access Charges.
11. The **Eleventh Chapter** deals with the Compliance of Directives.
12. The **Twelfth Chapter** deals with the Renewable Power Purchasing Obligation.

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

2.1 Summary of ARR

The summary of Aggregate Revenue Requirement (ARR) and Revenue Gap approved for FY 2013-14 in MYT Order dated 15th March, 2013 and now claimed by SBPDCL in Review for FY 2013-14 and revised estimate for FY 2014-15 are as given in Tables below:

Table 2.1: ARR approved in Tariff Order dated 15th March, 2013 for FY 2013-14 and now claimed in Review for FY 2013-14

(Rs. crore)

Sl. No.	Item of Expenditure	Total Approved for both DISCOMs in T.O for FY 2013-14	Allocation for SBPDCL out of total approved	Revised Projection by SBPDCL for FY 2013-14
1	Cost or Power Purchase	5381.92	3429.88	3032.61
2	PGCIL & Other Transmission Charges	190.00	121.09	304.79
3	BSPTCL Transmission Charges	213.00	135.74	138.37
4	O&M Expenses	530.15	325.58	332.10
a	*Employee Expenses*	404.24	268.72	253.94
b	*R&M Expenses*	79.87	35.94	43.77
c	*Admin & General Expenses*	46.04	20.92	21.05
d	*Allocation of Holding Company Cost*	-	-	13.34
5	Depreciation	77.60	34.92	155.60
6	Interest & Financial Charges	211.28	94.44	82.70
7	Interest on working Capital	123.16	80.08	94.01
8	Return on Equity	123.10	69.66	299.78
9	Interest on Security Deposits	-	-	15.99
10	**Total Revenue Requirement**	**6850.21**	**4291.38**	**4455.96**
11	Less: Expenditure disallowed due to higher T&D Losses	1588.02	1012.04	863.89
12	Less: Non Tariff income	186.50	121.26	94.89
13	**Net Revenue Requirement**	**5075.69**	**3158.08**	**3497.18**
14	Revenue from Existing Tariff	3723.70	2421.20	2277.00
15	Revenue from sale of power to Nepal	255.20	-	-
16	**Gap/(Surplus)**	**1096.79**	**736.88**	**1220.18**

Table 2.2: ARR approved in MYT Order dated 15th March, 2013 for FY 2014-15 and now claimed in the Revision for FY 2014-15

(Rs. crore)

Sl. No.	Item of Expenditure	Total Approved for both DISCOMs in T.O for FY 2014-15	Allocation for SBPDCL out of total approved	Revised Projection by SBPDCL for FY 2014-15
1	Cost or Power Purchase	6216.52	3961.77	4061.31
2	PGCIL & Other Transmission Charges	190.00	121.09	378.47
3	BSPTCL Transmission Charges	262.00	166.92	170.51
4	O&M Expenses	573.85	352.56	378.95
a	*Employee Expenses*	438.26	291.33	282.32
b	*R&M Expenses*	86.01	38.70	59.08
c	*Admin & General Expenses*	49.58	22.53	22.99
d	*Allocation of Holding Company Cost*	-	-	14.56
5	Depreciation	163.24	73.46	194.14
6	Interest & Financial Charges	395.92	176.96	150.09
7	Interest on working Capital	158.09	102.79	121.74
8	Return on Equity	123.10	69.66	299.78
9	Interest on Security Deposits	-	-	15.99
10	**Total Revenue Requirement**	**8082.72**	**5025.26**	**2770.97**
11	Less: Expenditure Disallowed due to higher T&D Losses	1827.49	1164.65	1132.36
12	Less: Non Tariff income	183.11	119.06	97.75
13	**Net Revenue Requirement**	**6072.12**	**3741.55**	**4540.86**
14	Revenue from Existing Tariff	**-**	**-**	**2653.07**
15	Revenue from sale of power to Nepal	**-**	**-**	
16	**Gap/(Surplus)**			**1887.79**

2.2 Request to the Commission

SBPDCL 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 Distribution function for FY 2012-13 filed separately by BSPHCL to be carried out on a consolidated basis and pass on the revenue gap/ (surplus) as per the agreed principles;

4. Approve the Segregation of ARR / MYT methodology for approved values for FY 2013-14 & FY 2014-15 as proposed in this petition for the purpose of comparison; however the final true up may be done on the basis of total approved values of both the discoms.
5. Pass suitable orders with respect to the APR for FY 2013-14 amounting Rs. **3,497.18** Crs and Revised ARR for FY 2014-15 amounting Rs. **4,540.86** Crs;
6. Approve tariff schedule along with open access and schedule of general and miscellaneous charges as proposed in this petition for different category of consumers to be applicable from 1st April 2014.
7. Allow relaxation in MYT norms wherever sought for; considering first year of independent operation.
8. Pass separate order for the petitioner against the present petition;
9. SBPDCL may also be permitted to propose suitable changes to the respective ARRs, prior to the final approval by the Commission. SBPDCL 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.
10. Condone any inadvertent omissions/errors/shortcomings and permit SBPDCL to add/change/modify/alter this filing and make further submissions as may be required at a future date.
11. 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

The Tariff petition evoked response from several stakeholders in response to the public notice inviting objections / suggestions of the stakeholders on the petition. A number of consumers / consumer organizations filed their submissions in writing. Some of these persons also participated in the public hearings held on the 20th and 21st of December, 2013 and 11th, 12th and 13th of February 2014. Submissions and responses, pertaining to specific aspects of Tariff proposal, have been taken into account in the determination of ARR, formulation of tariff, balancing the interests of various stakeholders, even if they do not find place in the suggestions / objections of the stakeholders.

The public hearings were held at various locations across the State to ensure maximum public participation wherein stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. One hundred and nine (109) members of the public took part in the public hearing process. The list of the participants is attached as Annexure – II to this order. In the course of public hearings, the Commission also allowed persons/representatives of entities who had not submitted prior written representations to express their views on the ARR / tariff Petition for FY 2014-15.

The Commission has examined the issues and concerns voiced by various stakeholders in their written comments as well as in the public hearings and also the response of the Petitioner thereon. The comments/suggestions submitted by various stakeholders in response to the tariff petition, the replies given by the Petitioner and the views of the Commission have been summarised under various sub-heads as below:

3.2 Stakeholders Objections / Suggestions, SBPDCL's Response and Commission's Observations

Issue 1: Transmission and Distribution Losses

The Eastern Bihar Industries Association, Bihar Chamber of Commerce & Industries, Bihar Industries Association and Munger Chamber of Commerce have submitted that the distribution companies have been allowed T&D losses of 26% for FY 2013-14 and 24.5% for FY 2014-15. As against this, the distribution companies have shown actual T&D losses of 50.50% for FY 2013-14 and 49% for FY 2014-15 (including 4% transmission loss). As the T&D losses are continuously increasing instead of decreasing. The Commission shall,

i. Take stringent action and fix individual responsibility of the officers; and
ii. Since the distribution companies are allowed to set off the Government grant against T&D losses, these losses are increasing. These massive losses can arise only due to theft and energy in connivance with local officers and consumers should not be asked to bear this burden and the Commission should not allow the public money to be used to finance this theft.

M/s. Kalyanpur Cements Ltd. have stated that the Commission has been disallowing the amount spent by the licensee in purchase of extra power needed to compensate for higher T&D losses but that is not deterring the licensee to take steps to bring down T&D losses year after year.

Petitioner's Submission

It is submitted that SBPDCL has requested to revise the target of T&D Loss to 50.50% for FY 2013-14 and 49% for FY 2014-15 considering the actual scenario.

Discoms are making all efforts to reduce distribution losses by metering of consumers, undertaking network up-gradation / improvement projects, R-APDRP projects. Various capital projects are being implemented including improvements in metering, billing and collection process etc which led to simultaneous reduction of technical and commercial losses.

SBPDCL submitted that the following steps are undertaken to reduce the overall losses.

- Re-conductoring of dilapidated conductors/replacement of GI wires in 33 KV, 11 KV & LT lines with higher size conductors for reduction in line loss.
- Procurement of star rated distribution transformers for replacement well as new DTs for reduction in transformation loss.
- Improved percent of system metering and consumer metering for proper accounting of energy & reduction in wastage.
- Engagement of distribution franchisee for twin towns of Chpra-Hajipur, Motihari-Bettaiah, Purnes-Katihar, Darbhanga-Samastipur and Siwan-Gopalganj for reduction in AT &C losses in town area.
- Muzaffarpur town Distribution Franchisee has already been taken over since October, 2013.
- Proper meter reading bill distribution and bill generation in fixed cycle to boost revenues.
- Use of Ariel bunched cables in place of LT overhead lines in theft prone areas to prevent theft of electricity.
- Raids against power theft being conducted on regular basis at section/sub-division/division level under supervision of DGM/ESE with its close monitoring at Apex level.

I.T implementation & installation of system metering, Energy Accounting under R-APDRP. Part- A for proper & accurate information/details of the entire activity of the Distribution System.

SBPDCL has also submitted that the cost of excess power purchases made due to difference in actual T&D losses higher than normative approve T&D loss levels is disallowed by the Commission and the disallowed cost of such power purchase is met by distribution companies from the State Government support. No burden of higher T&D loss is passed on to the consumers of the State of Bihar.

Commission's Observation

Substantial amounts are being invested to improve and strengthen the Transmission and Distribution networks in the State with the planned assistance from Central and State Governments under BRGF, R-APDRP, RGGVY and plan schemes of the State Government for 100% metering and replacement of 72,000 kilometre of distribution conductors. These steps should help SBPDCL to reduce its technical losses. In addition, SBPDCL has also taken steps for improving meter reading, billing on actual consumption and revenue collection by appointment of input based franchisees in major towns and revenue based franchisees/agencies in other areas. These steps will help SBPDCL in reducing commercial losses and increase its revenue leading to overall distribution losses.

The Commission had earlier approved trajectory of T&D loss as projected by erstwhile BSEB. Subsequently, the Commission has given modest targets of annual reduction of T&D losses by 1.5%.

In view of the above, the Commission does not consider it appropriate to revise the distribution loss trajectory. The burden of higher T&D loss projected by SBPDCL is not being passed on to the consumers.

Issue2: Increase in Tariff

Ruchi Soya Industries Limited and Nataraj Engineers Private Limited have stated that the hike in tariff proposed in general and in particular HT supply both fixed changes and energy charges are abnormal and it may make power price abnormally high in comparison to all the neighbouring States i.e. West Bengal, Jharkhand etc. So the same should not be allowed.

Petitioner's Submission

In the MYT order dated 15-03-2013, the Commission, while processing ARR for FY 2014-15 has left inherent revenue gap for the both Discom on combined basis and also left a revenue gap of Rs. 354 Cr for FY 2013-14. The petitioner, while filing this petition has revised certain figures related to power purchase based on present scenario and the same has resulted in huge revenue gap. Further the APTEL in its judgement in OP no 1 of 2011 dated 11-11-2011 has mandated SERCs to ensure full recovery.

The tariff increase proposed in the petition is bridge the gap between revenue and expenses after carrying out truing exercise for FY 2012-13. Annual Performance Review for FY 2013-14 and estimated ARR for 2014-15. The rationale for the tariff increase and brief comparison of existing and proposed tariff for each category has been explained chapter 72 tariff design in para 7.4.4 of the petition. The proposed tariff hike is based on full cost recovery model and there is need for progressive reduction of gross subsidy as per National Tariff Policy.

Commission's Observation

The Commission has considered that the distribution companies shall be able to bridge the revenue gap arrived at by the Commission for FY 2014-15 by reducing the distribution loss and improving metering, billing and revenue realisation and hence tariff is not considered for FY 2014-15.

Issue 3: Tariff increase proposed within eight month

The Eastern Bihar Chamber of Commerce M/s Patwari Steels Private Ltd has stated that revision has been done on 15-03-2013 and made effective from 01-04-2013. It is not clear how in a span of 8 months, the SBPDCL is proposing to double the tariff. BERC should thoroughly examine the proposal before allowing any further tariff fixation.

Petitioner's Submission

Sections 61 and 62 of Electricity Act specifies the methodology and the procedure for determination of tariff by the Commission. The utility has to file the tariff petition every year on or before the date specified in the tariff regulations for tariff to be determined for the ensuing year. Section 61 also specifies the basis on which category-wise tariff can be determined by the Commission. The BERC (Terms and Conditions for determination of tariff) Regulations 2007 mandates all distribution licensees to file ARR and tariff petition for each financial year. Accordingly the petitioner filed the petition on 14-11-2013 for ARR for FY 2013-14 and revised ARR for FY 2014-15 along with other guidelines and directives issued by BERC from time to time. Hence filing of tariff petition and conducting tariff process is mandatory for both the licensees and the SERCs.

Commission's Observations

The Commission agrees with the submissions of the Petitioner that the submission of petition for determination of ARR and tariff for retail sale of electricity is a mandatory process and SBPDCL has submitted the petition on 15th November 2013 as per the time schedule specified by the Commission. The Commission has to pass orders determining the ARR and tariff for retail sale of electricity within 4 months of submission of petition. Accordingly, the Commission has issued orders within 4 months of filing of the petition. However, the order will be applicable w.e.f. 01.04.2014 which is exactly one (1) year after 01.04.2013 when the last tariff order was made effective.

Issue 4: Revenue Income

Bihar Industries Association has stated that the average rate for FY 2013-14 is Rs. 5.29 per unit as per table 8.10.1 (Page 273) of tariff order 2013-14. The projected revenue at this average rate at the existing tariff would be Rs. 4014 Cr taking projected sales of 4579 MU. As against this, the projected revenue is Rs. 3683 Cr only, a shortfall of Rs. 331 Cr for FY 2013-14. Similarly for FY 2014-15, the shortfall would be Rs. 454 Cr.

M/s Balmukund Concast Ltd has stated that the number of consumers and the connected load has increased in two / three years. Hence the details provided in Annexures 5 to 6 of the petition do not appear proper and require documentary validation.

Petitioner's Submission

The revenue projected for FY 2013-14 and FY 2014-15 is based on the tariff rates approved by the Commission in last tariff order dated 15-03-2013.

However the sales have been considered as approved by the Commission in MYT order dated 15-03-2013. Whereas the number of consumers and connected load details are considered based on past trends and submission

Commission's Observation

The expected revenue from sale of energy is computed considering the sales and connected load approved for FY 2013-14 (RE) and FY 2014-15 by the Commission and existing tariff rates approved by the Commission in the order dated 15th March, 2013.

Issue 5: Central Transmission Charges

Bihar Industries Association has stated that central transmission charges and increasing sharply from Rs. 190 Cr to Rs. 480.57 Cr, an increase of 153%, while the quantum of power purchase is decreasing. Though no proper details and explanations have been given, a large part of these expenses such to be related to previous years. The commission may therefore allow only actual charges paid and exclude any prior period charges interest and penalty amount. The State transmission charges should also be reworked according to the ARR of BSPTCL allowed by BERC.

Petitioner's Submission

The transmission charges of BSPTCL have been considered as approved by the Commission in last tariff order dated 15-03-2013.

The STU loss has been considered as approved by Commission in last MYT order dated 15-03-2013

The transmission charges payable to PGCIL are computed based on meet transmission pricing mechanism and the figures of computation for FY 2013-14 are taken from Regional Transmission Account (RTA) for the month of September 2013.

Commission's Observation

The PGCIL transmission charges are determined by CERC and have to be implemented by the utilities. The Commission has computed the PGCIL charges based on the actual payable from April 2013 to December 2013 and STU charges as approved in the Tariff Order of BSPTCL for FY 2014-15.

Issue 6: Power Purchase Cost

The Eastern Bihar Industries Association, Patwari Steels Private Limited, Balamukund Concasts Limited and Bihar Steel Manufacturers Association have stated that the Board has shown an increase of 15% in the powr purchase cost per unit at Rs. 4.24 per Kwh FY 2014-15 over the rate of Rs. 3.64 per unit in FY 2013-14. The Commission should allow Rs. 3.64 per unit only.

Bihar Industries Association and Kalyanpur Cements Limited have stated that the Commission has allowed Rs. 3.31 Cr as average purchase cost per unit for FY 2012-13 while the actual average cost is Rs. 3.13/unit. Similarly against average rate of Rs. 3.80/unit for FY 2013-14, the actual rate is Rs. 3.64 per Kwh. The Petitioner is claiming hypothetical escalation of Rs. 15% in energy and fixed charges. The Discoms may be asked to submit details of actual power purchase cost till January 2014 for FY 2013-14.

The Bihar Chamber of Commerce and Industries has stated that there has been a decrease in the average cost of power purchased per unit during FY 2013-14 and petitioner has admitted that the average decrease is per unit cost of power purchased against approved average rate of power purchase had been 35 paise / unit excluding transmission charges payable to PGCIL and BSPTCL. The objector has also stated that the variation in FPPCA rate for FY 2013-14 has been 35 paise / unit and had been duly authenticated by the CE (Com) of NBPDCL and hence the Commission is requested to determine the FPPCA rate for FY 2013-14 on the basis of data supplied by the petitioner.

Petitioner's Submission

The power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC, NHPC & PTC. The Petitioner has considered the actual charges for these power stations based on actual 5 month information and considered fixed charges for Regional Energy Account (REA) statements for September 2013. The purchase cost for Adani, DVC, BSHPC and Sugar Mill are considered as per actual power purchase costs in the last 5 months. The petitioner considered tariff as approved for rest of the power stations /sources for FY 2013-14 and for FY 2014-15. In view of the domestic coal shortages and likely import of coal by coal companies, an escalation of 15% is considered in fixed and energy charges for FY 2014-15.

The average power purchase cost approved by the Commission in last tariff order and average power purchase cost proposed are as under below:

Financial Year	Approved Average Rate	Proposed Average Rates	% Escalation
FY 2013-14	3.80	3.64	-4.21%
FY 2014-15	3.82	4.24	10.99%

It may be seen that the average rate of overall power purchase cost from all sources including PGCIL and ERLDC charges approved by the Commission in tariff order dated 15-03-2013 is Rs. 3.80 per unit in FY 2013-14 and the proposed average power purchase cost of Rs. 3.64 / unit including PGCIL and ERLDC for FY 2013-14 is 4% less. For FY 2014-15 the petitioner escalated the approved rate by almost 11% since it expects the price of domestic coal to rise in the ensuring year. However the actual cost which is going to be incurred in FY 2014-15 will be considered while doing truing-up for that year.

Commission Objections

The Commission has computed the average Power Purchase per unit cost for FY 2013-14 is arrived based on the actual as per bills from April-2013 to December-2013 and projecting power purchase cost for January to March 2014, at the average power purchase cost for November and December 2013. The Power Purchase Cost for FY 2014-15 is considered by increasing by 10% for old NTPC stations, considering the likely increase in fuel (coal) costs, particularly using imported coal. 5% increase is considered for Power Purchase from other sources including NTPC thermal power stations where initial tariff itself is high.

Issue 7: Return on Equity

The Eastern Bihar Industries Association, Bihar Chamber of Commerce & Industries and M/s Kalyanpur Cements Ltd have submitted that the equity capital of both the Discoms has been revalued from Rs. 879 Cr to Rs. 3784 Cr, which is five times the existing equity, and there is no fresh capital input. This has resulted in increased claim of return on equity for 2012-13 from Rs. 85.05 Cr to Rs. 220.74 Cr and for FY 2013-14 and FY 2014-15 increase is from Rs. 123 Cr to 530 Cr.

SBPDCL has stated that M/s. PFC Consultants have proposed Rs. 2141 Cr as equity for SBPDCL under final transfer scheme and based on this, the petitioner has claimed Rs. 300 Cr for each of the years for FY 2013-14 and FY 2014-15 as RoE. The claim of RoE of Rs. 300 Cr for each year may not be allowed.

Balmukund Concast Ltd and Bihar Industries Associate have stated that BSPHCL has claimed Rs. 220.74 Cr as RoE. Since there was no actual equity for BSEB or its successor utilities and for allowing RoE, there should be actual cash flow and it cannot be allowed on notional basis. Hence, the claim may not be allowed.

Petitioner’s Submission

The opening balances for segregated entities are considered as per revised submission made by M/s. PFC and that the total amount of equity as per revised submission for all 4 entities is to the tune of Rs. 6965.66 Cr as against Rs. 1974.88 Cr appearing in adopted accounts for FY 2012-13. The petitioner also submitted that equity capital is excluding revaluation of reserves and subsidies and is claimed as per regulation 72 (2) (C) of BERC Tariff Regulation 2007.

Commission’s Observations

The Commission has not considered the revalued equity as projected in the petition. The Commission has made its own jurisprudence and considered the equity and allowed return on equity.

Issue 8: Equity Capital

The Bihar Industries Association and Central Bihar Chamber of Commerce have stated that the equity capital of Discoms has been revalued from Rs. 889 Cr to Rs. 3784 Cr which is almost 5 times the existing equity. In this connection the following require consideration.

a) As no notification has been issued before expiry of one year and under clause 9.3 of BSER transfer scheme, 2012 (i.e. from 01-11-2013) the transfer has become final.
b) The equity capital has been transferred notional from the loan account and no cash infusion has been made, no return on equity should be allowed on any equity capital being claimed for the DISCOMs.
c) Against fictitious equity capital increase, land belonging to the companies has been revalued
d) As this leads to major impact an depreciation and RoE in ARR, the claims of Discoms have to be disallowed.

Petitioner’s Submission

The opening equity balances for the segregated entities are considered as per revised submission of M/s. PFC and the total equity amount as per the revised submission in all 4 entities (GTD) is Rs. 6965.66 Cr as against Rs. 1974.88 Cr appearing in Adopted accounts for FY 2012-13. Finalisation of audited accounts duly signed by the statutory auditor / approval of State Government to the final transfer scheme is in process.

The equity capital, excluding resources and subsidies is claimed as per regulation 72 (2) (C) of BERC Tariff Regulation 2007,

Commission’s Observation

The Commission has not considered the revalued equity projected by the petitioner. The Commission has made its own jurisprudence and considered the equity and allowed Return on Equity. The Commission has discussed the issue aptly in the concerned paragraph in this order.

Issue 9: Depreciation

The Eastern Bihar Industries Association, Central/South Bihar Chamber of Commerce and Patwani Steels Private Limited have submitted that the licensee has claimed an increase in depreciation from Rs. 34.92 Cr to Rs. 157.20 Cr, even though the licensee has not made any fresh investments. It has made a financial jugglery and revalued the existing fixed assets and thus should be disallowed.

Petitioner's Submission

The depreciation amount claimed for FY 2013-14 FY 2014-15 is based on actual closing GFA for FY 2012-13 and capitalization (addition in GFA) for FY 2013-14 and FY 2014-15 as approved in MYT order dated 15-03-2013. The depreciation rates adopted on various assets and methodology of computation for depreciation is as per relevant provisions of BERC Tariff Regulations / Companies Act. During the process of restructuring, the assets are re-valued and the Petitioner has requested the Commission in its petition to consider the same figures for ARR purpose. The revaluation report of PFC has been submitted in the petition, based on which the GFA has been considered. Transfer scheme finalization is under process and Final Transfer Scheme is yet to be notified by the State Government. Further it is submitted that only land is revalued and no other assets are revalued in Transfer Scheme. The computation of depreciation is done by using weighted average method and the petitioner has assumed 5.22% as approved in MYT order for review and projection purposes.

Commission's Observations

The Commission has examined the objection raised and reply of the Petitioner. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the depreciation as per BERC Tariff Regulations 2007. The Land value to the extent of revaluation as projected in the petition is not considered by the

Commission while determining the Gross Fixed Assets (GFA) for FY 2013 - 14 and FY 2014 - 15. The issue is aptly discussed in the relevant paras.

Issue 10: Repairs and Maintenance Experiences (R&M)

The Bihar Chamber of Commerce, M/s Kalyanpur Cements Limited and M/s. Balmukund Concost Ltd have stated that the petitioner has proposed huge hike in R&M expenses of Rs. 43.77 Cr for FY 2013-14 against Rs. 35.94 Cr approved and Rs. 59.09 Cr for FY 2014-15 against Rs. 38.70 Cr. The petitioner has based his claim based on inflationary index of 9.21% and revalued opening GFA.

Petitioner's Submission

In the MYT order, the Commission has considered inflation of particular month i.e. March 2012, which seems not ideal representative index for providing inflation for next year. Most of other SERC's have adopted a weighted average month of WPI:CPI in the ratio of 45:55. Similar manner the company has proposed inflationary index of 9.21% in the current tariff petition. It is further submitted that the revaluation report submitted by PFC has been considered for calculating GFA on provisional basis and subject to approval by State Government in the final transfer scheme.

Commission's Observation

The Commission has noted the objection and the reply of the Petitioner. The Repairs and Maintenance expenses reported in the audited annual accounts for FY 2012-13 (November'12 to March'13) of SBPDCL (pro-rata projected per year) for FY 2012-13 is considered by the Commission as base value. The base value is increased for inflationary (WPI) increase for FY 2013-14 and 2014-15 and accordingly, the Commission has considered the Repairs and Maintenance expenses. R&M expenses are not linked with GFA.

Issue 11: Employee Cost

M/s. Balmukund Concast Limited has stated that the employee cost worked out on pro-data basis for 12 months. Allowing 9.21% of increase is not proper and justified.

The employees retired during 2012-13, 2013-14 and 2014-15 are also to be considered because that will reduce the total employee cost.

Petitioner's Submission

The employee cost projected in the tariff petitions is based on the actual cost incurred during November'12 to March'13 (5 months) pro-rated to 12 months escalated by 9.21% for inflationary increase year on year.

Commission's Observation

The Commission has considered the employees cost reported in the audited annual accounts for FY 2012-13 (November'12 to March'13) of SBPDCL (pro-rata projected per year) for FY 2012-13 as base value. The base value is increased for inflationary (CPI) increase for FY 2013-14 and 2014-15 and accordingly, the Commission has considered the employee cost.

Issue 12: Interest on Working Capital

Bihar Industries Association has stated that the net revenue projected for both Discoms for 2013-14 is Rs. 3424 Cr in the net receivables for two months is Rs. 571 Cr, instead of Rs. 943.78 Cr claimed. Also, as per table 78, the Discom has security deposits from consumers of Rs. 274.24 Cr which should be deducted from receivables. Thus the net receivables for FY 2013-14 is Rs. 298.76 Cr for calculation of interest on working capital. Similarly the net receivables for FY 2014-15 would be Rs. 392.93 Cr.

M/s. Balmukund Concost Ltd has stated that the amount paid by State Government to NTPC for purchase of power has not been considered. The claim of interest on working capital at Rs. 158.09 crore for FY 2014-15 is objected.

Petitioner's Submission

The interest on working capital is the outcome of proposed O&M expenses projected and the same would be considered as approved by the Commission. The maintenance spares of 1% of GFA considered for calculating working capital is as per the revaluation report submitted by PFC, which is under process in the final transfer scheme. BERC Tariff Regulations, 2007 allows maintenance spares to the extent of 1% of GFA and accordingly has been considered for calculation.

Commission's Observation

Interest on working capital is considered based on the approved components of ARR for FY 2013 – 14 and FY 2014 - 15 on normative principles as per the BERC Tariff Regulation, 2007. The maintenance spare @1% is considered on the original/historical value of the GFA excluding value of land.

The Company has arrived at the working capital requirement according to the applicable norms for distribution function provided in BERC (Terms and Conditions for determination of Tariff) Regulation, 2007 and as worked out by the Commission in previous tariff orders.

Issue 13: Interest on Consumers Security Deposit

Bihar Chamber of Commerce and Industries and M/s. Kalyanpur Cements Limited have stated that the petitioner has sought a provision of Rs. 15.99 Cr in ARR for FY 2013-14 and also for FY 2014-15. The security deposit made by a consumer shall bear interest at the Bank rate. The Licensees retains huge amount of consumers money in the form of security deposit and interest is payable as cost of capital retained by the licensee. The licensee has been taking short term loan / overdraft from the commercial banks at a very high rate of interest, at 18 to 20%, and the security deposit is used to lessen the burden of such loan. Thus the amount collected from consumers is utilities to earn interest @ 18 to 20% but the rate of interest payable to the consumer for the security deposit is only 5 to 6%. There is no rationale or logic to allow any provision under this head.

Petitioner's Submission

Collection of security deposit from the consumer and payment of interest on security deposit has been provided in the BERC Supply Code Regulations, 2007. The interest payable is at bank rate. The prevailing RBI rate is 9% and accordingly, considered in the petition.

Commission's Observation

The Commission in the Tariff Order for FY 2011-12 has opined that the consumer security deposits provided to the distribution licensees by the consumers should either be used for funding working capital requirement or should be kept with the bank and interest earned on the amount should be passed on to the consumers. In such a scenario, there is no additional financial implication on distribution licensees because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. NBPDCL is collecting security deposits from the consumers and using these deposits for meeting its working capital requirement since it is paying consumers at bank rate thereby saving on higher interest cost that may be payable on working capital loans borrowed from market. Hence, the Commission has not considered the interest on security deposit in this order. The Commission has aptly discussed that issue in the relevant Para in this order.

Issue 14: Abolition of Monthly Minimum Charges (MMC)

The Eastern Bihar Industries Association has stated that the BERC has abolished MMC for H.T consumers and also proposed to abolish MMC for all consumers in future. But the Discoms have proposed to increase MMC on existing consumers and they intend to reduce MMC for HT consumers. The Commission shall abolish MMC for all Consumers.

M/s. Balamukund Concast Limited, Central and South Bihar Chamber of Commerce and Patwari Steels Private Limited have stated that the Commission in its previous orders has considered that the provision of Monthly Minimum Charges (MMC) is not justified and proper and has removed the same appreciating the fact that the fixed charges for contracted load is realised in the shape of KVA demand charge. But the SBPDCL again has proposed MMC. The objector requested the Commission not to allow the provision of MMS

Petitioner's Submission

Monthly Minimum charges (MMC) is intended to recover fixed cost component for investment made on infrastructure and that it did not have any correlation with the energy consumption charges.

MMC needs to be increased for following reasons:

a) To encourage consumers to disclose their actual consumption and ensure adequate billing of supplied power.
b) MMC charges have hardly increased since the Tariff Order of FY 2006-07 and the increasing energy supply and network costs are not being effectively recovered.
c) To increase meter reading by bring more consumers in the ambit of metering on the basis of actual consumption rather than MMC.
   The minimum units specified are far lower as the supply hours have increased considerably to these categories.

Commissions Observations

The Commission in its Tariff Order for FY 2013-14 has opined that the monthly minimum charges should be gradually phased out after metering of all the consumers. The Commission has now decided to withdraw and discontinue the provision of MMC for urban domestic category DS-II as they are all metered and their meter reading is taken on a regular basis.

Issue 15: Abolition of KVA charges

The Central Bihar Chamber of Commerce, M/s. Patwari Steels Private Limited, Bihar Chamber of Commerce and Eastern Bihar Industries Association have stated that the distribution companies have proposed to double and in same cases to triple the KVA charges and there is no rationale for any KVA charges. The Commission should abolish KVA charges for HT consumers and sharply reduce the same for LT consumers.

M/s. Bihar Steel Manufacturers Association has requested to rationalize the KVA charges and suggested that while KVA charges may be fixed or double that of other

HT consumers, unit charges may be fixed at half that of other HT consumers, as this will provide some much needed breathing space to HT SS consumers.

The Commission instead of increasing the demand charge, may reduce it from the existing Rs. 220 / KVA / month to Rs. 130/ KVA / month in case of HTS I, HTS II and HTS III and to Rs. 250/KVA/month in case of HTSS category.

Petitioner's Submission

Demand Charges and Energy Charges are components of tariff designed/determined by the Commission to enable recovery of fixed and variable charges of the distribution licensee.

The Suggestion of abolishing fixed charges or merging with energy charges would be against the regulation as well as commercial principles.

Commission's Observation

KVA charges & Demand charges are levied to recover the fixed costs (investments) of the Distribution Company and fixed costs in generator tariff.

Issue 16: Separate Tariff for Bihar School of Yoga

The Bihar School of Yoga has submitted that,

i. The school is a non profit registered Chartable organisation propagating Yoga
ii. The school was charged under NDSV till 2008-09 and thereafter till August 2013 under NDS III
iii. The distribution company shifted the school from NDS III to NDS II category without assigning any reason.
iv. A representation was made to CMD BSPDCL on 04-10-2013 but the same was turned down by BSPDCL through its letter dated 14-11-2013.
v. As per clause 2.3 of tariff (NDS III), it is clearly mentioned that NDS II tariff schedule shall be applicable to the premises when any portion is using electricity for commercial purposes.
vi. There is load restriction of 30 KW in NDS III which is not justified as the school is not using electricity for any commercial purpose

vii. The provision in tariff for places of worship has been made in NDS III but no provision was made for non profit charitable organization but the school was subjected to same category earlier.

The school requested the Commission to decide the tariff considering the above mentioned points.

Petitioner's Submission

The Commission in MYT order dated 15-03-2013 has defined the applicability of non domestic service – III to places of worship like temples, mosques, gurdwaras, churches etc and burial / crematorium grounds and if any portion of the premises is used for commercial purposes a separate connection should be taken for that portion and NDS – III tariff schedule shall be applicable for that service.

Bihar Schools of Yoga is an Educational Institution, registered by Government of Bihar, does not fall among the places of worship like temples, mosques, gurdwaras, churches etc as assigned for NDS – III category tariff. Hence the currently applied NDS – II category to Bihar Schools of Yoga is set aside as per tariff schedule of MYT order

Commission's Observation

The Commission agrees with the response of SBPDCL.

Issue 17: Tariff for Induction Furnace Owners

M/s. Patwari Steels Private Limited has stated that the rate of induction furnace owners of the state is one of the highest in the country and the rates of JSEB, DVC, DPL and Chattisgarh are much less in comparison to those existing in Bihar. The induction furnace owners are unable to compete with at neighbouring state.

The consumers should have option of power purchase under open access for this rate of electricity should be single tier i.e. only unit charges and if demand charges are to remain, remission in demand charges should be provided for proportional level of purchase of power under open access.

Petitioner's Submission

The proposed tariff hike is based on full cost recovery model of the total revenue gap computed from truing-up of FY 2012-13, APR for FY 2013-14 and ARR estimated for FY 2014-15. The petitioner is of the opinion that though it is in transition phase of independent operation, it needs to work on commercial principles to sustain growth and avoid financial losses.

The petitioner also submitted that final decision on tariff to be imposed on particular category is the prerogative of the Commission.

Commission's Observations

The Commission had determined the tariff of all categories of Consumers taking various aspects into consideration.

The demand charges are levied as a part of tariff to recover the fixed costs (investments cost) to be incurred by DISCOMs.

Issue 18: Changes in Tariff Categorization

Bihar Steel Manufactures Association has suggested the following:

a) HTSS consumers should be allowed to take contract demand as per this actual requirement
b) HTSS consumers should be charged only 85% of their contract demand
c) HTSS tariff should be made optional
d) Minimum contract demand charges should be reduced to 75% for all the HT consumers.
e) Minimum power factor should be reduced to 0.85 instead of 0.90
f) Load factor rebate should be reintroduced to promote high value consumers
g) ToD tariff is not beneficial to the consumers, which 120% of unit charges are levied in peak hours, only 15% rebate is given in peak hours. This should be amended.
h) All the three categories in HT to be merged and a voltage rebate may be introduced.

Petitioner's Submission

The above mentioned suggestions come under the purview of the Commission and hence the utility has no comments to offer.

Commission's Observations

The HTSS category comes under high tension specified services meant for induction furnaces and have a special tariff. However, the Petitioner shall evolve a methodology to assess the load of induction furnace on physical measurement of such load to avoid imbalance and overloading. Hence the Commission does not propose to delete including "Ferro Alloy loads" for the applicability clause.

Issues 19: Power availability for running industry and payment of interest charges for delayed payments.

Ruchi Soya Industries Limited has raised the following issues:

a) With daily power availability for 18-20 hours the continuous process industry has to run for 4 to 6 hours on DG set power. Hence the net effective power rate combining both reaches to Rs. 10-12 per kWh and any increase will make running of industry unviable.
b) Interest charges for both delayed payment of bills as well as security deposit should be 13% as allowed by various Central Governments Departments.
c) Rebate of 1% to be allowed for early payment as in West Bengal.

Petitioner's Submission

The response of the petitioner on the above issues is as under

a) The power supply position in the State is improving and is targeted to achieve 24 hours power supply in the near future.
b) The petitioner is following the relevant provisions mentioned in the supply code issued by the Commission.

Commission's Observation

SBPDCL shall insure that 24 hours supply is made available to all industries as the Commission is allowing purchase of adequate power to make 24 hours supply available to consumers.

Issue 20: Meter rent, testing / inspection charges etc

Global Upolokta Bacho Aandolan has represented as under

a) Charging meter rent should be abolished
b) Charges for testing / inspection of consumer's installation is null and void
c) Meter testing charge should be disallowed as meter manufacturing company supplies them duly tested
d) Load in Kw should be informatory only and not to be charged for the purpose of installation of electronic meter
e) Monthly meter rent as per KV is being charged

Petitioner's Submission

The response of the petitioner on the above issues is as under:

a) Meter rent has been charged from the consumers as per supply code provision and tariff order issued by the Commission
b) Meter testing / inspection charges are being recovered from the consumers on consumer installation as per tariff order issued by the Commission dated 15-03-2013.
c) Levy of meter testing charges comes under the purview of the Commission. Hence no comments.
d) Rent is being charged on monthly basis and not as per KV. These charges are levied based on tariff order dated 15-03-2013.

Commission's Observation

The issue raised by the Stakeholders has been examined and a decision has been taken not to increase any miscellaneous or other charges. An option has been given to the consumers to pay to SBPDCL the cost of meter connection in lump sum to avoid payment of monthly meter rent.

Issue 21: Government grant and its adjustment against T&D loss

The Bihar Steel Manufacturers Association has stated that important aspect having major impact on ARR is the method of appropriation of Government Grant and adjustment of T&D losses against Government grant.

Petitioner's Submission

The treatment of grant is solely the decision of the State Government and the Company has to abide by it with the approval of the Commission

Commission's Observation

The resource gap grant/subsidy given by the state Government is being adjusted in the Annual Revenue Requirement of the DISCOM as specified by the state Government.

Issue 22: Voltage-Wise Cost of Supply

Bihar Chamber of Commerce and M/s. Kalyanpur Cements Ltd have stated that the petitioner has not determined the voltage wise cost in accordance with the guidelines contained in the judgement of APTEL reported as 2011 ELL (APTEL) (Tata Steel Case), according to which the distribution losses at any voltage level would also comprise the distribution loss at the relevant voltage and upstream system. Based on the direction of the APTEL, the determination of technical distribution loss at various voltage levels will have to be done in two ways:

i. Computation of technical loss only at the given voltage level; and
ii. Computation of technical loss at the relevant voltage level by including technical loss of the upstream system

Petitioner's Submission

The voltage-wise cost of supply has been computed as per the methodology approved in previous tariff order. However the final voltage-wise cost of supply would be determined by the Commission as per the approved ARR and distribution losses for FY 2014-15.

Commission's Observations

The objection and response of the Company is noted. For want of reliable data for segregation of technical and commercial losses, the Commission has considered it appropriate to assume technical and commercial loss levels for realistic assessment of cost of supply within overall T&D loss level approved by the Commission. Accordingly, cost of supply has been computed keeping in view the APTEL's guide lines on this issue.

Issue 23: Benefit of Reduction in Power Purchase Cost to be provided through FPPCA

Bihar Steel Manufacturers Association has stated that for FY 2012-13, the actual rate of power purchase is Rs. 3.13 per unit against approved rate of Rs. 3.59 per unit i.e. a saving of more than 14% and even in FY 2012-14, the projected average rate is Rs. 3.64 against the approved rate of Rs. 3.80. Instead of refunding this extra amount to consumers by way of FPPCA, the licensee has shown huge fictitious losses and requested for doubling the energy rates, which should not be allowed.

Petitioner's Submission

The petitioner has submitted that the benefit of reduction in power purchase cost to be provided through FPPCA has already been factored in the ARR proposed in the petition.

Commission's Observation

The benefit of reduction in power purchase cost with reference to base cost given in the Tariff order is factored in the FPPCA Formula.

Issue 24: Controlling of Theft

The Eastern Bihar Industries Association has stated that currently the distribution companies are wasting public money to the tune of Rs. 2400 Cr and this should be enquired by a CAG audit.

Sri. Pradeep Kumar has suggested,

i. In the case of tampering with pole / transformer near to the consumer's premises, both the consumer and the official should be punished and the fine should be a minimum of Rs. 5000/- which should be deducted from the salary of the official.

ii. Closed and sealed meters should be provided so that there will be no meddling with meter and that sealed or closed meters should be connected to the pole of the consumers so as to ensure that there is no theft of electricity.

iii. Faulty transformers are not changed by the officials without taking service charges from consumers and these malpractices should be stopped immediately and consumers should not be burdened with such charges.

Petitioner's Submission

The petitioner has undertaken anti – theft drive across the State of Bihar and conducting strict inspection of consumer premises regularly. Also anti-theft posters, slogans etc as well as advertisement publishing in prompt news papers have been the practices to create public awareness against electricity theft. The following initiatives have been taken to reduce commercial losses / control of theft in the State of Bihar.

a) STF team and local field officers of supply areas are conducting vigilance activity to overcome electricity theft.
b) If the theft is detected, the FIR is logged and assessed bill is charged at the rate of twice the regular tariff and compounding charges are levied as per rules.
c) Special theft devices are arranged by STF team to detect theft cases.
d) Energy audit is carried out to find out loss making areas.
e) Meters are properly sealed to avoid theft
f) Electronic meters are being installed
g) Separate sealed metering room is established to control theft at HT level
h) Currently remote metering is done for HT (Private) consumers from headquarters level and it is in process for HT (Government) Consumers.

Commission's Observation

The steps taken by SBPDCL are noted. The SBPDCL shall intensify the efforts for 100% metering and billing to reduce the commercial losses apart from curbing theft/pilferage of energy by intensive checks.

4. Review for FY 2013-14

4.1 Background

The Commission in the Tariff order for FY 2013-14 dated 15th March 2013, determined the Multi Year Aggregate Revenue Requirement (ARR) for FY 2013-14 to FY 2015-16 separately for Bihar State Generating Company Limited (BSPGCL), Bihar State Power Transmission Company Limited (BSPTCL) and combined for North Bihar Power Distribution Company Limited (NBPDCL) and South Bihar Power Distribution Company Limited (SBPDCL). The approval was based on the estimates presented by the Bihar State Power Holding Company Limited (BSPHCL) on behalf of BSPGCL, BSPTCL, NBPDCL and SBPDCL for costs to be incurred and revenue likely to be generated during the year.

SBPDCL has submitted the present petition, independently for first time after unbundling of erstwhile BSEB, for 'Review' of its ARR for FY 2013-14 and Revised Aggregate Revenue Requirement (ARR) for FY 2014-15. SBPDCL submitted that it is yet to complete 12 months of independent operations after coming into existence. The Petitioner submitted that the petition has been based on actual figures for 5 Months i.e., from April 2013 to August 2013 for elements like power purchase, O&M Expenses. The review for FY 2013-14 is based upon the pro-rata projections / escalations over previous year and also considering the Commission approved figures as guiding principles.

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

In this chapter, the Commission has analysed the energy sales and components of expenditure and revenue claimed by SBPDCL for FY 2013-14 (RE).

4.2 Profile of SBPDCL

SBPDCL is a company registered under the provisions of the Companies Act, 1956 and is a fully owned subsidiary company of Bihar State Power Holding Company limited (BSPHCL).

SBPDCL area of supply consists of 4 Zones and 9 Distribution Circles as shown below which include 30 Divisions and 92 Sub-Divisions.

Table 4.1: SBPDCL Areas and Circles

Area	Circle
PESU	1. PESU East
	2. PESU West
Patna Central	1. Patna
	2. Bhojpur (Ara)
	3. Nalanda
Magadh	1. Gaya
	2. Rohtas
Bhagalpur	1. Bhagalpur
	2. Munger

4.3 Segregation of Approved ARR for FY 2013-14 & FY 2014-15

SBPDCL submitted that since the Commission in the order dated 15^{th} March 2013 has approved the MYT petition for the control period FY 2013-14 to FY 2015-16 for both distribution companies i.e. SBPDCL and NBPDCL on combined basis, it becomes imperative for SBPDCL to segregate the approved ARR into NBPDCL & SBPDCL for FY 2013-14 & FY 2014-15 for comparison/ monitoring the performance. For this purpose certain assumptions are considered to separate the components of ARR for both the distribution companies as given in the Table below:

Table 4.2: Segregation Methodology of Approved ARR for FY 2013-14 & FY 2014-15

Sl. No.	Particulars	Details for which ratio is assumed	NBPDCL	SBPDCL
1	Cost of Power Purchase	Average Power Purchase ratio	36.3%	63.7%
2	PGCIL and Other Transmission Charges	Average Power Purchase ratio	36.3%	63.7%

Sl. No.	Particulars	Details for which ratio is assumed	NBPDCL	SBPDCL
3	BSPTCL Transmission Charges	Average Power Purchase ratio	36.3%	63.7%
4	Operation and Maintenance Expenses			
(a)	Employee Expenses	No of Employee Ratio	33.5%	66.5%
(b)	R&M Expenses	Opening GFA Ratio	55.0%	45.0%
(c)	Admin and General Expenses	No of consumers Ratio	54.6%	45.4%
(d)	Allocation of Holding Company Cost	-	-	-
5	Depreciation	Opening GFA Ratio	55.0%	45.0%
6	Interest and Financial Charges	Opening Loan Balances	55.3%	44.7%
7	Interest on working capital	Sales/ Revenue Ratio	35.0%	65.0%
8	Return on Equity	Opening Equity Balances	43.4%	56.6%
9	Interest on Security Deposits	-	-	-
10	Expenditure Disallowed due to higher T&D losses	Average Power Purchase ratio	36.3%	63.7%
11	Non tariff income	Sales/ Revenue Ratio	35.0%	65.0%
12	Revenue from existing tariff	Sales/ Revenue Ratio	35.0%	65.0%
13	Revenue from sale of power to Nepal	NBPDCL	100.0%	--

SBPDCL submitted that in order to undertake Review for FY 2013-14 and Revised Annual Revenue Requirement for FY 2014-15, various approved components in the MYT Tariff order dated 15th March 2013 have been allocated to both the distribution companies based on the above assumptions.

4.4 Category–wise Energy Sales

Petitioner's submission

SBPDCL submitted that it has considered the following approach for estimating the energy sales for FY 2013-14.

- Actual sales for first 5 months of FY 2013-14 for SBPDCL were considered and estimated on a pro-rata basis for entire year of FY 2013-14.
- Another methodology was adopted where in the 5 year CAGR of sales were adopted and applied on the actual sales of FY 2012-13 for estimating sales of FY 2013-14.

- The sales for FY 2013-14 arrived out of the above two methodologies were in line with the sales approved in the tariff order dated 15th March 2013 and therefore the approved sales for FY 2013-14 have been adopted by the Petitioner.

SBPDCL submitted that in order to separate energy sales approved by the Commission combinedly for NBPDCL and SBPDCL, the approved sales have been bifurcated into NBPDCL and SBPDCL in line with ratio of actual sales of five months of FY 2012-13 of both utilities, adopting the allocation ratio as given in the Table below:

Table 4.3: Energy Sales Allocation Ratio for NBPDCL & SBPDCL

Particulars	Nov-Mar 2013 (NBPDCL)	Nov-Mar 2013 (SBPDCL)	Total (MUs)	Percentage allocation to NBPDCL (%)	Percentage allocation to SBPDCL (%)
Domestic	**569**	**559**	**1128**	**50.5%**	**49.5%**
Kutir Jyoti – BPL Consumer	*130*	*67*	*197*	*66.0%*	*34.0%*
Domestic – I	*217*	*118*	*335*	*64.8%*	*35.2%*
Domestic – II	*221*	*374*	*595*	*37.2%*	*62.8%*
Domestic – III	*0*	*0*	*0*	*84.8%*	*15.2%*
Commercial	**112**	**181**	**293**	**38.2%**	**61.8%**
Non-Domestic – I	*6*	*3*	*9*	*70.4%*	*29.6%*
Non-Domestic – II	*106*	*178*	*284*	*37.2%*	*62.8%*
Non-Domestic – III	*0*	*1*	*1*	*23.4%*	*76.6%*
Public Lighting	**5**	**22**	**27**	**20.0%**	**80.0%**
Street Lighting – I	*2*	*2*	*4*	*50.9%*	*49.1%*
Street Lighting – II	*3*	*20*	*23*	*14.6%*	*85.4%*
Irrigation	**39**	**111**	**150**	**26.0%**	**74.0%**
IAS – I	*6*	*84*	*89*	*6.2%*	*93.8%*
IAS – II	*34*	*27*	*61*	*55.4%*	*44.6%*
Public Water Works	**9**	**14**	**23**	**39.0%**	**61.0%**
Industrial LT	**41**	**72**	**113**	**36.4%**	**63.6%**
LTIS – I	*24*	*39*	*64*	*38.1%*	*61.9%*
LTIS – II	*17*	*32*	*49*	*34.1%*	*65.9%*
Industrial HT	**135**	**436**	**571**	**23.7%**	**76.3%**
HTS – I	*76*	*163*	*238*	*31.7%*	*68.3%*
HTS – II	*23*	*62*	*84*	*26.7%*	*73.3%*
HTS – III	*6*	*18*	*24*	*26.6%*	*73.3%*
HTSS	*31*	*194*	*225*	*13.8%*	*86.2%*
Railway	**5**	**203**	**208**	**2.5%**	**97.5%**
Nepal	**276**	**-**	**276**	**100.0%**	**0.0%**
UI	**12**	**23**	**36**	**35.0%**	**65.0%**
Total	**1205**	**1620**	**2825**	**42.6%**	**57.4%**

Note: The sales for Domestic-III and Non Domestic-III categories are depicted as '0' due to rounding off of the actual figures.

Based on the above allocation, the revised projected sales for NBPDCL and SBPDCL for FY 2013-14 are submitted as given in the Table below:

Table 4.4: Sales Allocation Projection for NBPDCL & SBPDCL for FY 2013-14

(MU)

Particulars	Total sales approved for FY 2013-14	Allocation of NBPDCL (%)	NBPDCL Sales for FY 2013-14	Allocation of SBPDCL (%)	SBPDCL Sales for FY 2013-14
Domestic	**2989**		**1427**		**1562**
Kutir Jyoti – BPL Consumer	*432*	*66.0%*	*285*	*34.0%*	*147*
Domestic – I	*689*	*64.8%*	*446*	*35.2%*	*243*
Domestic – II	*1867*	*37.2%*	*695*	*62.8%*	*1172*
Domestic – III	*1*	*84.8%*	*1*	*15.2%*	*0*
Commercial	**892**		**338**		**554**
Non-Domestic – I	*19*	*70.4%*	*13*	*29.6%*	*6*
Non-Domestic – II	*870*	*37.2%*	*324*	*62.8%*	*546*
Non-Domestic – III	*3*	*23.4%*	*1*	*76.6%*	*2*
Public Lighting	**53**		**11**		**42**
Street Lighting – I	*8*	*50.9%*	*4*	*49.1%*	*4*
Street Lighting – II	*45*	*14.6%*	*7*	*85.4%*	*38*
Irrigation	**531**		**129**		**402**
IAS – I	*336*	*6.2%*	*21*	*96.7%*	*315*
IAS – II	*195*	*55.4%*	*108*	*44.6%*	*87*
Public Water Works	**57**	**39.0%**	**22**	**61.0%**	**35**
Industrial LT	**288**		**105**		**183**
LTIS – I	*172*	*38.1%*	*66*	*61.9%*	*106*
LTIS – II	*116*	*34.1%*	*40*	*65.9%*	*76*
Industrial HT	**1682**		**418**		**1264**
HTS – I	*747*	*31.7%*	*237*	*68.3%*	*510*
HTS – II	*219*	*26.7%*	*58*	*73.3%*	*161*
HTS – III	*193*	*26.6%*	*51*	*73.4%*	*142*
HTSS	*523*	*13.8%*	*72*	*86.2%*	*451*
Railway	**551**	**2.5%**	**14**	**97.5%**	**537**
Nepal	**550**	**100.0%**	**550**	**0.0%**	**-**
UI	**-**	**35.0%**	**-**	**65.0%**	**-**
Total	**7593**		**3014**		**4579**

Commission's analysis

The Commission has approved the energy sale of 7593 MU for both the DISCOM's for FY 2013-14 in the MYT order dated 15th March, 2013 based on the historical actual sales in the earlier years from 2006-07 to 2011-12 and considering the trend or CAGR of the earlier years. Since unbundling of erstwhile BSEB was done w.e.f 01-11-2012, there is no data of energy sales for a full financial year exclusively for SBPDCL. Hence, the Commission considered the methodology adopted by SBPDCL for segregation of sales approved for FY 2013-14 among NBPDCL and SBPDCL and accordingly considered the energy sales of 4579 MU for FY 2013-14 (RE) to SBPDCL.

However, SBPDCL is directed to maintain data of actual energy sales category wise/sub-category wise and revenue billed month-wise for FY 2013-14 for producing in the true up for FY 2013-14.

4.5 Category-wise number of Consumers

Petitioner's submission

SBPDCL has submitted that the following approach has been considered for estimating number of consumers for FY 2013-14 (RE).

- Number of Consumers have been estimated as per CAGR (from FY 2008-09 to FY 2012-13) arrived on actual number of consumers of FY 2012-13 for NBPDCL and SBPDCL for all categories except Kutir Jyoti and Irrigation & Agriculture (IAS) Category.
- For Kutir Jyoti and IAS Category, number of consumers are considered same as that approved in MYT tariff order for FY 2013-14.
- The approved number of consumers for these two categories have been allocated in the ratio of actual consumers for FY 2012-13.

The revised number of consumers projected for FY 2013-14 are as under:

Table 4.5: Number of Consumers for FY 2013-14

Particulars	SBPDCL Consumers as on March 2013	CAGR Considered	SBPDCL consumers for FY 2013-14	SBPDCL consumers for FY 2014-15
Domestic	**1,634,534**		**1,932,545**	**2,218,759**
Kutir Jyoti – BPL Consumer	*450,173*		*631,332*	*789,165*
Domestic – I	*242,892*	*9.9%*	*266,857*	*293,186*
Domestic – II	*941,435*	*9.9%*	*1,034,322*	*1,136,373*
Domestic – III	*34*		*34*	*34*
Commercial	**174,471**		**198,364**	**225,532**
Non-Domestic – I	*5,714*	*13.7%*	*6,497*	*7,388*
Non-Domestic – II	*168,589*	*13.7%*	*191,698*	*217,976*
Non-Domestic – III	*168*		*168*	*168*

Particulars	SBPDCL Consumers as on March 2013	CAGR Considered	SBPDCL consumers for FY 2013-14	SBPDCL consumers for FY 2014-15
Public Lighting	**310**		**319**	**328**
Street Lighting – I	*83*	*2.7%*	*85*	*88*
Street Lighting – II	*227*	*3.0%*	*234*	*241*
Irrigation	**53,194**		**53,776**	**56,404**
IAS – I	*51,679*	*3.0%*	*53,215*	*54,798*
IAS – II	*1,515*	*3.0%*	*1,560*	*1,606*
Public Water Works	**628**	**7.6%**	**676**	**728**
Industrial LT	**13,565**		**14,653**	**15,828**
LTIS – I	*12,353*	*8.0%*	*13,343*	*14,413*
LTIS – II	*1,212*	*8.0%*	*1,309*	*1,414*
Industrial HT	**936**		**1,038**	**1,152**
HTS – I	*872*	*10.9%*	*967*	*1,073*
HTS – II	*46*	*10.9%*	*51*	*57*
HTS – III	*2*	*10.9%*	*2*	*2*
HTSS	*16*	*10.9%*	*18*	*20*
Railway	*15*	**3.2%**	**15**	**16**
Nepal				
UI				
Total	**1,877,653**		**2,202,386**	**2,518,746**

Commission's Analysis

The Commission has considered the total number of consumers for SBPDCL for FY 2013-14 (R.E) as projected in the above Table. The Petitioner is directed to maintain correct details of category-wise and sub category-wise number of consumers during FY 2013-14.

4.6 Category-wise connected load

Petitioner's submission

SBPDCL has submitted that the following approach has been considered for estimating connected load for FY 2013-14.

- The actual connected load per consumer is arrived for FY 2012-13 and the same has been applied on estimated number of consumers for FY 2013-14 to arrive at the connected load for FY 2013-14.

The details of connected load projected for FY 2013-14 are as given in the Table below:

Table 4.6: Connected Load for FY 2013-14

Particular	Connected Load (kw)
Domestic	2,245,398
Commercial	471,728
Public Lighting	8,007
Irrigation	226,777
Public Water Works	11,740
Industrial LT	132,894
Industrial HT	425,924
Railway	16,200
Total	**3,538,668**

Commission's analysis

The Commission observed that the connected load furnished for Railway category in the above Table is very low and sought for correct details from SBPDCL. In its letter dated 23.01.2014, SBPDCL furnished the details as given below:

Name of the Company	No. of consumers	Connected Load (kw)
NBPDCL	2	19620
SBPDCL	15	131580

The Commission has considered the category-wise connected load for FY 2013-14 (RE) to SBPDCL as shown in the Table below:

Table 4.7: Connected Load considered for FY 2013-14

Particular	Connected Load (kw)
Domestic	2,245,398
Commercial	471,728
Public Lighting	8,007
Irrigation	226,777
Public Water Works	11,740
Industrial LT	132,894
Industrial HT	425,924
Railway	131,580
Total	**3,654,048**

The Petitioner is directed to maintain correct details of category-wise and sub category-wise connected load of consumers during FY 2013-14.

4.7 Distribution Loss

Petitioner's submission

SBPDCL submitted that the actual distribution loss considering 5 months of operation from April 2013 to August 2013 works out to 48.19%. The distribution loss has been worked out on the methodology adopted by the Commission i.e., excluding UI sales.

Commission's analysis

The Commission has fixed the distribution loss projection for both DISCOM's combinedly for FY 2013-14 to FY 2015-16 in the MYT order dated 15th March 2013, considering all aspects as given below:

Year	Distribution Loss %
FY 2013-14	23.0%
FY 2014-15	21.4%
FY 2015-16	20.0%

The Commission does not see any justification to revise the loss trajectory for FY 2013-14. Hence, the Commission retains the Distribution loss at 23% for FY 2013-14 to SBPDCL. However, SBPDCL is directed to conduct energy audit and arrive at month-wise distribution loss during FY 2013-14.

4.8 State Transmission Loss

Petitioner's submission

SBPDCL has projected the state transmission loss at 4.0% for FY 2013-14 as approved by the Commission in the MYT Order for FY 2013-14 dated 15th March 2013.

Commission's analysis

The Commission has considered the state transmission loss at 4.0% for FY 2013-14 as approved in MYT order dated 15th March, 2013.

4.9 Central Transmission Loss

Petitioner's submission

SBPDCL has projected the weighted average transmission loss of Eastern Region at 2.49%. The weighted average transmission loss of last 52 weeks (from 29th Oct 2012 to 27th October 2013) of Eastern Region, since the same practice is adopted by all State Commissions and is more practical as it captures varying loss of last 52 weeks.

Commission's analysis

The Commission has noted from the ERPC website that the scheduling loss percentage of Eastern Regional Transmission system during FY 2012-13 was 2.75%.

The Commission considered the transmission system loss in the Eastern Region Transmission System at 2.49% for FY 2013-14 as projected by SBPDCL.

4.10 Energy Requirement

Petitioner's submission

Based on the energy sales and distribution losses projected, the SBPDCL has projected the energy requirement at its transmission periphery as given in the Table below:

Table 4.8: Energy requirement projected by SBPDCL FY 2013-14

Sl. No.	Particulars	Unit	Projected for FY 2013-14 (RE)
1	Energy Sales within the State	MU	4579
2	Distribution Losses	%	46.50%
3	Distribution Losses	MU	3980
4	**Energy required at Distribution Periphery**	MU	**8560**
5	STU Losses	%	4.00%
6	State Transmission Losses	MU	357
7	**Energy required at Transmission Periphery**	MU	**8916**

Commission's analysis

The Commission has considered the distribution loss at 23.00% and state transmission loss at 4.00%. Based on the approved sales, distribution loss and transmission loss, the energy requirement into state transmission system is as given in the Table below:

Table 4.9: Energy requirement considered by the Commission for FY 2013-14

Sl. No.	Particulars	unit	Approved for FY 2013-14 (RE)
1	Sales within the State	MU	4579
2	Distribution Losses	%	23.0%
3	Distribution Losses (MU)	MU	1368
4	Energy required at Distribution periphery	MU	5947
5	State Transmission	%	4.0%
6	State Transmission Loss	MU	248
7	**Energy required at state Transmission Periphery**	**MU**	**6195**

4.11 Power Purchase

Petitioner's submission

SBPDCL submitted that the DISCOMs rely on a combination of IPPs, allocation from Central Generating Stations and State Projects for procuring power for sale in the State. This power has been proposed to be allocated between NBPDCL and SBPDCL in the proportion as determined by Bihar State Power Holding Company Limited (BSPHCL) in its order No. 1442 dated 8th May, 2013 which states that,

"*Resolved that the approval be and is here by granted for allocation of power in the ratio of 35% : 65% between NBPDCL and SBPDCL for each PPA executed (except 50 MW power allocated from Talcher Stage – 1 for Nepal, which shall be allocated to NBPDCL exclusively) as per SI. No. A of Annexure – 1 of agenda notes.......*"

"Further resolved that the PPA executed as SI. No. B of Annexure – 1 shall be allocated between NBPDCL and SBPDCL on the basis of the ratio of connected (kW) i.e., 44%:56%".

SBPDCL also stated that the Board resolution also provides the details of power allocation for each of power purchase source which is as detailed in the Table below:

Table 4.10: Power Allocation as per Board Resolution for NTPC and PTC projects

Sl. No.	Particulars	NBPDCL (MW)	SBPDCL (MW)	Total (MW)
1	NTPC	570.24	927.70	1497.94
2	PTC	118.03	222.07	340.10
3	**Total**	**688.27**	**1149.77**	**1838.04**
4	Allocation Ratio	37%	63%	100%

SBPDCL submitted that the total power purchase quantum and the power purchase cost are allocated in the above ratio to arrive at power availability and power purchase cost.

4.12 Power Purchase Sources

(i) NHPC, NTPC and PTC

SBPDCL submitted that the Power Purchase from NTPC, NHPC and PTC has been considered for FY 2013-14 based on the actual 5 months quantum and further pro rata to 12 months with adjustment to capture overall power purchase in a reasonable manner and then segregated to NBPDCL and SBPDCL as per allocation ratio.

(ii) New Sources

SBPDCL submitted that the Power Purchase from the new sources i.e., Barh-Stage 2 is considered whose expected CoD is in December, 2013. It has considered total Power Purchase of 813 MU for FY 2013-14 which is allocated between NBPDCL and SBPDCL in the ratio of 44:56 as per Board Resolution.

(iii) Medium/ Short term

SBPDCL submitted that the power purchase from Adani, DVC and Power Exchange (IEX) are considered as per actual trend of 5 months power purchase and then prorate to 12 months for FY 2013-14.

(iv) Renewable Energy

SBPDCL submitted that it proposes to purchase 12 MU from Solar Power and 81 MU from Non-Solar Power during FY 2013-14.

The power purchase projected for FY 2013-14 (RE) along with total approved quantum for both DISCOM's and allocated power quantum to SBPDCL, is as detailed in the Table below:

Table 4.11: Power Purchase projected for FY 2013-14

(MU)

Sl. No.	Power Purchase Sources	Approved Total for FY 2013-14	Allocation for SBPDCL for FY 2013-14	Projected in review for FY 2013-14 (RE)
	Central Sector Stations			
1	**NTPC Stations**			
	Farakka 1,2&3	2889	1878	2472
	Talchar	2449	1391	1780
	Kahalgoan 1 &2	2670	1736	1867
	Barh – Stg 2U #1	1638	1065	455
	NTPC Total	**9646**	**6070**	**6575**
2	**NHPC Stations**			
	Rangit	78	51	94
	Teesta	404	263	490
	NHPC Total	**482**	**313**	**584**
3	**PTC Stations**			
	Chukka	298	194	474
	Tala	968	629	930
	PTC Total	**1266**	**823**	**1404**
4	DVC			
	DVC	745	484	230
	DVC Total	**745**	**484**	**230**
	Sub Total Central Stations	**12139**	**7690**	**8792**
5	**State Generating Stations**			
	BTPS	639	415	-
	KBUNL Stage 1 U# 1	573	372	-
	KBUNL Stage 1 U# 2	477	310	-
	SGS Total	**1689**	**1098**	**-**
6	**Medium/ Short Term/ Others**			
	Adani	1752	1139	938
	NEA	50	33	33
	IEX	-		108
	Others Total	**1802**	**1171**	**1079**
7	**Renewable Power Purchase**			
	BSHPC	45	29	29
	Sugar Mills	80	52	52
	Solar Power Purchase	19	12	12
	Renewable Total	**144**	**94**	**94**
	Total Power Purchase	**15774**	**10053**	**9965**

Commission's analysis

SBPDCL has proposed to purchase power from Central Generating Stations of NTPC and NHPC, PTC – Chukka & Tala, KBUNL and IPPs from outside the State and others with whom it has agreement/arrangement. The proposed source-wise power purchases are shown in the above Table 4.11.

In the MYT Order dated 15th March 2013, 15774 MU of power purchase was approved for both the DISCOMs out of which 10053 MU was allocated for SBPDCL for FY 2013-14 by the Petitioner as per the methodology considered for segregation.

SBPDCL is not having any agreement for purchase of power from DVC. However, it has purchased power from DVC during April 2013, May 2013, June 2013 and some small quantity for some days during July 2013 and then stopped purchasing power from DVC. The average power purchase cost per unit from DVC is about Rs. 4.88 per unit. Since, there is surplus availability of allocated power during FY 2013-14, there is no need to purchase this costly power. The Commission allows power purchase quantum from DVC limiting to 95.79 MU i.e. the quantum of power so far purchased by the Petitioner for FY 2013-14 (RE).

SBPDCL has not considered any power purchase from KBUNL-I stating that its CoD is April 2014. On verification of power purchase bills, the Commission noted that, SBPDCL has received 32.27 MU in November 2013 and 38.72 MU in December 2013. It is learnt that unit-1 of KBUNL-I (110 MW) has come into commercial operation w.e.f. 1st November 2013. Hence, the Commission has considered the power purchase from KBUNL-I for the period from January 2014 to March 2014 also at 38.72 MU per month i.e. a total of 187 MU is considered from KBUNL-I for FY 2013-14(RE).

Further, SBPDCL has projected to purchase 455 MU from Barh- Stage-2 Unit-1, considering the CoD during December 2013. The CoD of Barh- Stage-2 Unit-1 is expected only during March 2014. Hence, the Commission has considered power purchase from Barh- Stage-2 Unit-1 only for one month at 115 MU.

The power purchase considered by the Commission from various sources for FY 2013-14 (RE) is given in the Table below:

Table 4.12: Power Purchase considered by the Commission for FY 2013-14

(MU)

Sl. No.	Power Purchase Sources	Projected by SBPDCL for FY 2013-14 (RE)	Approved by the Commission for FY 2013-14 (RE)
	Central Sector Stations		
1	**NTPC Stations**		
	Farakka 1,2&3	2472	2472
	Talchar	1780	1780
	Kahalgaon 1 &2	1867	1867
	Barh – Stg 2,U #1	455	115
	NTPC Total	**6575**	**6234**
2	**NHPC Stations**		
	Rangit	94	94
	Teesta	490	490
	NHPC Total	**584**	**584**
3	**PTC Stations**		
	Chukka	474	474
	Tala	930	930
	PTC Total	**1404**	**1404**
4	DVC		
	DVC	230	95.79
	DVC Total	**230**	**95.79**
	Sub Total Central Stations	**8792**	**8318**
5	**State Generating Stations**		
	BTPS	-	-
	KBUNL Stage 1 U# 1	-	187
	KBUNL Stage 1 U# 2	-	-
	SGS Total	**-**	**187**
6	**Medium/ Short Term/ Others**		
	Adani	938	938
	NEA	33	33
	IEX	108	108
	Open Market Purchase		
	Others Total	**1079**	**1079**
7	**Renewable Power Purchase**		
	BSHPC	29	29
	Sugar Mills	52	52
	Solar Power Purchase	12	12
	Renewable Total	**94**	**94**
	Total Power Purchase	**9965**	**9678**

4.13 Energy Balance

Petitioner's submission

SBPDCL submitted the Energy Balance for FY 2013-14 based on the energy sales, loss and power availability as detailed in the Table below:

Table 4.13: Energy Balance projected by SBPDCL for FY 2013-14

(MU)

Sl. No.	Particulars	Total approved for NBPDCL and SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Energy sales within the State	7593	4579
2	Distribution Losses (%)	23.00%	46.50%
3	Distribution Losses	2268	3980
4	**Energy required at Distribution periphery**	**9861**	**8560**
5	STU Losses (%)	4.00%	4.00%
6	State Transmission Losses	411	357
7	**Energy required at Transmission periphery**	**10272**	**8916**
8	**Total Available Power**	**15774**	**9965**
9	CGS Power (NTPC, NHPC, PTC & DVC)	12139	8792
10	SGS and Other power	3635	1173
11	CTU Transmission Losses % on CGS Power	2.73%	2.49%
12	CTU Transmission Losses	331	219
13	**Net Power available after CTU losses**	**15443**	**9746**
14	**Surplus/ (Deficit) Energy**	**5171**	**830**

Commission's analysis

The energy balance is worked out based on energy sales and T&D losses considered by the Commission as detailed in the Table below:

Table 4.14: Energy Balance considered for FY 2013-14

(MU)

Sl. No.	Particulars	Projected by SBPDCL for FY 2013-14	Now approved by the Commission for FY 2013-14 (RE)
1	Energy sales within the State	4579	4579
2	Distribution Losses (%)	46.50%	23.00%

Sl. No.	Particulars	Projected by SBPDCL for FY 2013-14	Now approved by the Commission for FY 2013-14 (RE)
3	Distribution Losses	3980	1368
4	**Energy required at Distribution periphery**	**8560**	**5947**
5	STU Losses (%)	4.00%	4.00%
6	State Transmission Losses	357	248
7	**Energy Required at Transmission periphery**	**8916**	**6195**
8	**Total Available Power**	**9965**	**9678**
9	CGS Power (NTPC, NHPC, PTC & DVC)	8792	8318
10	SGS and Others	1173	1360
11	CTU Transmission Losses % on CGS Power	2.49%	2.49%
12	CTU Transmission Losses	219	207
13	**Net Power available after CTU losses (8-12)**	**9746**	**9471**
14	**Surplus/ (Deficit) Energy at state periphery (13-7)**	**830**	**3276**

The energy requirement at distribution losses projected by SBPDCL and approved by the Commission for the energy sales approved by the Commission, surplus energy available and additional power purchase disallowed due to excess distribution loss for FY 2013-14 (RE) are as given in the Table below:

Table 4.15: Surplus power available and additional power disallowed due to excess distribution loss for FY 2013-14

Sl. No.	Particulars	Unit	FY 2013-14 (RE)	
			As per SBPDCL losses projected	As per BERC approved losses
1	Energy sales within the State	MU	4579	4579
2	Distribution Losses (%)	%	46.50%	23.00%
3	Distribution Losses	MU	3980	1368
4	Energy required at Distribution periphery	MU	8560	5947
5	STU Losses (%)	%	4.00%	4.00%
6	State Transmission Losses	MU	357	248
7	**Energy required at state periphery**	**MU**	**8916**	**6195**
	Energy Available			
8	**Total power purchased/required to be purchased**	**MU**	**9678**	**6330**

Sl. No.	Particulars	Unit	FY 2013-14 (RE)	
			As per SBPDCL losses projected	As per BERC approved losses
9	Losses in Regional transmission system	%	2.49%	2.14%
10	Regional losses	MU	207	135
11	**Net power requirement at state periphery**	**MU**	**9471**	**6195**
12	Surplus power purchase {9678 – (6195 + 135)}	MU	-	3348
13	Additional power at state transmission periphery due to excess distribution losses (8916 - 6195)	MU	-	2721
14	Additional power purchase due to excess distribution loss disallowed {2721/ (1 - 2.14%)}	MU	-	2780
15	Surplus power available for sale outside state	MU		568

The total purchases from long term sources has been worked out considering the impact of average regional transmission losses (2.14% = 207 MU / 9678 MU*100) applicable on the total power purchase. The reason for applying the average regional transmission losses is that the power purchase quantum also includes sources of power on which regional transmission losses are not applicable. Ex: UI power, Nepal, BSHPC, Sugar Mills etc. Accordingly, the gross power purchase required to be done in FY 2013-14 is 6330 MU with a regional transmission loss of 135 MU {6330 = 6195 / (1-2.14%)}

The Commission disallowed the power purchase quantum equivalent to 2780 MU for FY 2013-14 in review exercise, based on the principle that excess power purchase on account of higher distribution losses i.e. over and above the approved losses shall not be permitted.

4.14 Power Purchase Cost

Petitioner's Submission

SBPDCL has submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC, NHPC & PTC. The Petitioner has considered the actual energy charges for these power stations based on actual 5 months (April'13 to August'13) information and considered fixed charges from Regional Energy Account (REA) statement for the month of September 2013. The computation of fixed charges is given in the Table below:

Table 4.16: Fixed Charges Projected for FY 2013-14

Power Station	% Allocation	AFC (Rs. crore)	Capacity charge as per Allocation	NBPDCL share	SBPDCL share
Farakka 1 & 2	32.25%	950.38	306.52	107.28	199.24
Farakka 3	26.39%	479.45	126.55	44.29	82.25
Kahalgoan 1	43.32%	563.88	244.49	85.50	158.79
Kahalgoan 2	5.99%	1270.64	76.08	26.63	49.45
Talcher 1	42.89%	590.41	253.25	109.36	143.89
Rangit	35.00%	79.53	27.84	9.74	18.09
Teesta	21.26%	468.30	99.56	34.85	64.71
Total			**1,134.08**	**417.65**	**716.43**

Source: REA statement for Sep' 2013

The power purchase costs for DVC, Adani, BSHPC and Sugar Mills are considered as per actual power purchase cost in last 5 months.

SBPDCL has considered tariffs as approved for rest of other power stations / sources for FY 2013-14 and requested the Commission to allow actual power purchase costs in true-up process.

SBPDCL has projected the power purchase cost for FY 2013-14 (RE) as detailed in the Table below:

Table 4.17: Power Purchase Cost Projected for FY 2013-14 (RE)

Sl. No.	Power Purchase Sources	Rev. Proj SBPDCL FY 2013-14 (MU)	Fixed Charges FY 2013-14 (Rs. Cr)	Energy charges FY 2013-14 (Rs/kWh)	Energy Charges FY 2013-14 (Rs. Cr)	Total Charges FY 2013-14 (Rs. Cr)	Average Tariff (Rs./kWh)	Approved Average Tariff in MYT Order (Rs./ kWh)
	Central Sector Stations							
1	**NTPC Stations**							

Sl. No.	Power Purchase Sources	Rev. Proj SBPDCL FY 2013-14 (MU)	Fixed Charges FY 2013-14 (Rs. Cr)	Energy charges FY 2013-14 (Rs/kWh)	Energy Charges FY 2013-14 (Rs. Cr)	Total Charges FY 2013-14 (Rs. Cr)	Average Tariff (Rs./kWh)	Approved Average Tariff in MYT Order (Rs./ kWh)
	Farakka 1,2&3	2472	281	2.43	602	883	3.57	4.17
	Talchar	1780	144	1.56	278	422	2.37	2.59
	Kahalgoan 1 &2	1867	208	2.49	464	673	3.60	3.42
	Barh – Stg 2U #1	455	91	3.00	137	228	5.00	
	NTPC Total	**6575**	**725**	**2.20**	**1480**	**2205**	**3.35**	
2	**NHPC Stations**							
	Rangit	94	18	1.45	14	32	3.38	3.69
	Teesta	490	65	1.31	64	129	2.63	2.01
	NHPC Total	**584**	**83**	**1.33**	**78**	**160**	**2.75**	
3	**PTC Stations**							
	Chukka	474	-	1.59	75	75	1.59	2.88
	Tala	930	-	2.02	188	188	2.02	2.88
	PTC Total	**1404**	**-**	**1.87**	**263**	**263**	**1.87**	
4	**DVC**							
	DVC	230	-	4.88	112	112	4.88	3.83
	DVC Total	**230**	**-**	**4.88**	**112**	**112**	**4.88**	
	Sub Total Central Stations	**8792**	**808**	**2.20**	**1933**	**2741**	**3.12**	
5	**State Generating Stations**							
	BTPS	-	-	-	-	-	-	5.46
	KBUNL Stage 1 U# 1	-	-	5.00	-	-	-	4.00
	KBUNL Stage 1 U# 2	-	-	5.00	-	-	-	
	SGS Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**
6	**Medium/ Short Term/ Others**							
	Adani	938	-	5.25	492	492	5.25	4.43
	NEA+ UI	33	-	4.90	16	16	4.90	4.90
	IEX	108	-	3.92	42	42	3.92	
	Others Total	**1079**	**-**	**5.10**	**551**	**551**	**5.10**	
7	**Renewable Power Purchase**							
	BSHPC	29	-	2.49	7	7	2.49	2.57
	Sugar Mills	52	-	4.51	23	23	4.51	4.36
	Solar Power Purchase	12	-	11.00	14	14	11.00	11.00
	Renewable Total	**94**	**-**	**4.73**	**44**	**44**	**4.73**	
	Total Power Purchase	**9965**	**808**	**2.54**	**2528**	**3336**	**3.35**	

Commission's analysis

The Commission has considered the Power Purchase of 9678 MU from various sources with which the BSPHCL/NBPDCL had committed to purchase power.

The Commission has obtained the details of Power Purchase quantum and cost for the period from April, 2013 to December, 2013 from various sources as per bills of NBPDCL which is as given in the Table below:

Table 4.18: Power Purchase Cost from April 2013 to December 2013

Sl. No.	Source	Quantum of Purchase (MU)	Amount (Rs. Cr)	Average Rate (Rs/kWh)
1	Farakka 1,2	1763.95	646.24	3.66
2	Farakka 3	325.39	142.83	4.39
	Farakka 1,2,3	**2089.34**	**789.07**	3.78
3	Kahalgaon -1	1215.02	445.05	3.66
4	Kahalgaon -2	291.34	110.78	3.80
	Kahalagaon-1,2	**1506.36**	**555.83**	3.69
5	Talchar	1196.39	276.11	2.31
6	Rangit	69.81	19.57	2.80
7	Teesta	301.08	69.13	2.30
8	Tala	587.98	118.77	2.02
9	Chukka	331.77	52.68	1.59
10	DVC	95.79	46.79	4.88
11	KBUNL-I	70.99	33.72	4.75
12	Adani	538.22	298.92	5.55
13	NVVNL	0.00	0.00	-
14	IEX	148.81	44.21	2.97
15	BSHPC	24.61	6.13	2.49
16	Sugar Mills	28.64	13.38	4.67
17	Total	**6989.79**	**2324.31**	**3.33**

The Commission has considered the actual power purchase quantum of 6989.79 MU and power purchase cost of Rs. 2324.31 crore for the period from April 2013 to December 2013 (9 Months). For estimating the power purchase cost of balance quantum of power to be purchased during January 2014 to March 2014, the Commission has applied the average power purchase cost per unit of November 2013 and December 2013 months on balance quantum of power to be purchased from various sources during January 2014 to March 2014. For new stations i.e. Barh

Stage 2 Unit 1, the rate of Rs. 5.00 per unit as per projected by the Petitioner is considered. For solar power, the rate of Rs. 11.00 per unit and for Nepal, the rate of Rs. 4.90 per unit as projected by the Petitioner are considered as they are in line as approved in the MYT order.

Table 4.19: Power Purchase considered from January 2014 to March 2014

Sl. No.	Sources	Power Purchase Approved (MU)	Power Purchased from April 2013 to Dec 2013 (MU)	Balance Power to be Purchased from Jan'14 to Mar' 14 (MU)	Average Rate Considered (Rs/kWh)	Power Purchase Cost for the period from Jan 2014 to March 2014 (Rs. Cr)
1	Farakka 1,2,3	2472	2089.34	382.66	3.93	150.28
2	Kahalgaon 1,2	1867	1506.36	360.64	3.92	141.49
3	Talchar	1780	1196.39	583.61	2.09	122.20
4	Barh Stg 2 Unit 1	115	0.00	115	5.00	57.50
5	Rangit	94	69.81	24.19	3.03	7.33
6	Teesta	490	301.08	188.92	4.53	85.52
7	Tala	930	587.98	342.02	2.02	69.09
8	Chukka	474	331.77	142.23	1.59	22.63
9	DVC	96	95.79	0	-	-
10	KBUNL-I	187	70.99	116.01	4.75	55.10
11	Adani	938	538.22	399.78	7.82	312.79
12	NEA	33	0	33	4.90	16.17
13	IEX	108	148.81	-40.81	-	-
14	NVVNL	0	0	0	-	-
15	BSHPC	29	24.61	4.86	2.46	1.20
16	Sugar Mills	52	28.64	23.83	5.13	12.21
17	Solar	12	0	12	11.00	13.20
18	**Total**	**9678**	**6990**	**2688**		**1066.71**

The details of the total power purchase cost considered for FY 2013-14 is as given below:

Table 4.20: Power Purchase cost considered for FY 2013-14 (RE)

Sl. No.	Source	Power Purchase from Apr'13 to Dec'13		Power Purchase from Jan'14 to Mar'14		Total Power Purchase for FY 2013-14 (RE)		Average Rate
		MU	Rs. Cr.	MU	Rs. Cr.	MU	Rs. Cr.	(Rs/ kWh)
1	Farakka 1,2,3	2089.34	789.07	382.66	150.28	2472	939.35	3.80
2	Kahalgaon 1,2	1506.36	555.83	360.64	141.49	1867	697.32	3.73
3	Talchar	1196.39	276.11	583.61	122.20	1780	398.31	2.24
4	Barh Stage 2 U-1	0.00	0.00	115.00	57.50	115	57.50	5.00
5	Rangit	69.81	19.57	24.19	7.33	94	26.90	2.86
6	Teesta	301.08	69.13	188.92	85.52	490	154.65	3.16

Sl. No.	Source	Power Purchase from Apr'13 to Dec'13		Power Purchase from Jan'14 to Mar'14		Total Power Purchase for FY 2013-14 (RE)		Average Rate
7	Tala	587.98	118.77	342.02	69.09	930	187.86	2.02
8	Chukka	331.77	52.68	142.23	22.63	474	75.31	1.59
9	DVC	95.79	46.79	0.00	0.00	96	46.79	4.88
10	KBUNL-1	70.99	33.72	116.01	55.10	187	88.82	4.75
11	Adani	538.22	298.92	399.78	312.79	938	611.71	6.52
12	NEA	0.00	0.00	33.00	16.17	33	16.17	4.90
13	IEX	148.81	44.21	-40.81	0.00	108	44.21	4.09
14	NVVNL	0.00	0.00	0.00	0.00	0	0.00	-
15	BSHPC	24.61	6.13	4.86	1.20	29	7.33	2.49
16	Sugar Mills	28.64	13.38	23.83	12.21	52	25.59	4.88
17	Solar	0.00	0.00	12.00	13.20	12	13.20	11.00
18	**Total**	**6989.79**	**2324.31**	**2687.94**	**1066.71**	**9678**	**3391.02**	**3.50**

The Commission considers the Power Purchase of 9678 MU from different sources at a cost of Rs. 3391.02 crore for FY 2013-14 (RE).

PGCIL Charges

Petitioner's Submission

SBPDCL has submitted that they have to pay transmission charges to PGCIL for use of transmission facilities enabling power drawal from Eastern Region and these transmission charges are computed for FY 2013-14 based on the new transmission pricing mechanism and the figures are taken from Regional Transmission Account (RTA) for the month of September, 2013. The Transmission Charges so computed are as given in the Tables below:

Table 4.21: Transmission Charges for Injection of Power

Stations	Rates (Rs./Mw/ Month)	Capacity for Bihar (MW)	NBPDCL (MW)	SBPDCL (MW)	NBPDCL (Rs. Cr)	SBPDCL (Rs. Cr)
Farakka 1 & 2	79,544	491.40	171.99	319.41	1.37	2.54
Farakka 3	79,544	109.54	38.34	71.20	0.30	0.57
Talchar	79,544	408.06	176.21	231.85	1.40	1.84
Kahalgaon Stage 1	1,09,500	336.89	117.91	218.98	1.29	2.40
Kahalgaon Stage 2	1,09,500	91.35	31.97	59.38	0.35	0.65
Rangit	79,544	20.79	7.28	13.51	0.06	0.11
Teesta	1,09,500	107.12	37.49	69.63	0.41	0.76
Chukka	1,09,500	80.00	28.00	52.00	0.31	0.57
Tala	1,09,500	257.50	90.13	167.38	0.99	1.83
Total Monthly Charges		**1902.65**	**699.32**	**1203.33**	**6.48**	**11.27**
Total Annual Charges for FY 2013-14					**77.75**	**135.29**

* Source: Regional Transmission Account for September, 2013.

Table 4.22: Transmission Charges for Drawal of Power

Particulars	Rates (Rs./Mw/ Month)	Monthly Quantum (MW)	Monthly Charges (Rs. Cr)	Total Annual Charges (Rs. Cr)
Allocation to SBPDCL	109,554	1203.33	13.18	158.20
Allocation to NBPDCL	109,554	699.32	7.66	91.94

* Source: Regional Transmission Account for September, 2013.

POSOCO and ERLDC Charges

SBPDCL submitted that it has to pay POSOCO Charges and Open Access charges which are projected for FY 2013-14 as given in the Table below:

Table 4.23: POSOCO and ERLDC Charges

Particulars	* Charges per month (Rs. Crore)	Total Charges for Bihar (Rs. Crore)	Allocation to SBPDCL (35%) (Rs. Crore)
POSOCO Charges	0.45	5.40	3.51
ERLDC Open Access Charges	1.00	12.00	7.80
Total		**17.40**	**11.31**

*** Average monthly charges**

SBPDCL has submitted the summary of the PGCIL, ERLDC and POSOCO charges for FY 2013-14 as given in the Table below:

Table 4.24: PGCIL, POSOCO and ERLDC Charges projected for FY 2013-14 (RE)

SI. No.	Particulars	Total Charges for Bihar (Rs. Crore)	Charges for SBPDCL (Rs. Crore)
1	PGCIL Charges		
	(i) Injection	213.07	135.29
	(ii) With drawal	250.13	158.20
2	POSOCO Charges	5.40	3.51
3	ERLDC Open Access Charges	12.00	7.80
4	**Total Charges for FY 2013-14**	**480.57**	**304.79**

Commission's analysis

The Commission has obtained the actual PGCIL and POSOCO charges payable by SBPDCL as per the Bills received from April 2013 to December 2013 (9 months) which are as given in the Table below:

Table 4.25: PGCIL charges from April 2013 to December 2013

Sl. No.	Month	Total Bill Amount (Rs. Crore)	SBPDCL Amount (Rs. Crore)	NBPDCL Amount (Rs. Crore)
1	Apr-13	35.83	23.28	12.55
2	May-13	34.70	22.55	12.15
3	Jun-13	33.98	22.08	11.90
4	Jul-13	35.49	23.07	12.42
5	Aug-13	33.90	22.02	11.88
6	Sep-13	34.27	22.27	12.00
7	Oct-13	30.98	20.13	10.85
8	Nov-13	32.44	21.07	11.37
9	Dec-13	31.83	20.68	11.15
10	Transmission Deviation Charges (Apr-Sep 2013)	14.51	9.43	5.08
11	**Total**	317.93	206.58	111.35

The Commission has considered the average of November 2013 and December 2013 PGCIL charges i.e. Rs. 20.88 Crore per month for estimating the PGCIL charges for the remaining period from January 2014 to March 2014. Thus, the total PGCIL charges considered by the Commission for FY 2013-14 are as given in the table below:

Table 4.26: PGCIL charges considered for FY 2013-14 (RE)

(Rs. Crore)

PGCIL charges from Apr'2013 to Dec'2013	PGCIL charges from Jan'2014 to Mar'2014	Total PGCIL charges for FY 2013-14 (RE)
206.58	62.63	269.21

The Commission has considered the PGCIL charges (including POSOCO, ERLDC) of Rs. 269.21 crore for FY 2013-14 (RE) against Rs. 304.79 crore projected by SBPDCL in its petition.

4.15 State Transmission Charges

SBPDCL has projected the transmission charges payable to BSPTCL for FY 2013-14 as given below:

Table 4.27: Transmission Charges projected for FY 2013-14

Sl. No.	Particulars	Approved total Charges for	Payable by SBPDCL for FY 2013-14

		FY 2013-14 (Rs. Crore)	(Rs. Crore)
1	Approved for FY 2013-14 in MYT Order dated 15th March 2013	212.88	138.37

Commission's analysis

The Commission has approved the Transmission charges to BSPTCL for FY 2013-14 (RE) in review at Rs. 223.21 crore. Accordingly, the transmission charges payable by SBPDCL to BSPTCL for FY 2013-14 are considered as given below:

Table 4.28: Transmission charges considered for FY 2013-14 (RE)

Sl. No.	Particulars	Approved total Charges for FY 2013-14 (Rs. Crore)	Payable by SBPDCL for FY 2013-14 (Rs. Crore)
1	Approved in review for FY 2013-14 (RE)	223.21	145.09

4.16 Total Power Purchase Cost

Summarising the above, the total power purchase cost for FY 2013-14 including PGCIL and State Transmission Charges, is as given in the Table below:

Table 4.29: Total power purchase cost considered for FY 2013-14

Sl. No.	Particulars	Approved for FY 2013-14 (RE)
1	Power Purchase Cost from various sources	3391.02
2	PGCIL Charges	269.21
3	State Transmission Charges	145.09
4	**Total Power purchase cost**	**3805.32**
5	Energy purchased (MU)	9678
6	Average power purchase cost excluding state transmission charges (Rs/kWh)	3.78

4.17 Net power purchase cost

The surplus power purchased by SBPDCL, after deducting the disallowed power due to SBPDCL not maintaining the distribution loss level approved by the Commission has to be sold outside the state at a rate not less than the average power purchase cost arrived in the Table 4.26 above. The net power purchase cost is arrived as detailed in the Table below:

Table 4.30: Net power purchase cost considered for FY 2013-14 (RE)

Sl. No.	Particulars	Unit	Approved for FY 2013-14 (RE)
1	Total power purchase cost	Rs. Crore	3805.32
2	Surplus Power Purchase	MU	3348
3	Disallowed power due to excess distribution loss	MU	2780
4	Surplus power to be sold outside (2-3)	MU	568
5	Average power purchase	Rs/kWh	3.78
6	Cost of surplus power (4*5)	Rs. Crore	214.70
7	Net power purchase cost (1-6)	Rs. Crore	3590.62

4.18 Segregation of approved ARR for FY 2013-14

Petitioner's submission

SBPDCL has submitted that the Commission in the tariff order dated 15th March, 2013 approved combined ARR for MYT period (3 years) for FY 2013-14 to FY 2015-16 for both the Distribution Companies. As such, it is imperative to segregate the approved ARR to NBPDCL & SBPDCL for FY 2013-14 and FY 2014-15 for comparison/monitoring the performance. Accordingly, the Petitioner has made certain assumptions for segregation of approved ARR for FY 2013-14 as furnished in the Table 4.2:

SBPDCL has submitted that based on the above methodology, the segregation of approved ARR for FY 2013-14 for NBPDCL and SBPDCL is given below:

Table 4.31: Segregation of approved ARR to NBPDCL & SBPDCL proposed by SBPDCL for FY 2013-14

(Rs Crore)

Particulars	Total Approved ARR for FY 2013-14	Allocation for NBPDCL	Allocation for SBPDCL
Cost of Purchase of power	5381.92	1952.04	3429.88
PGCIL & Other Transmission Charges	190.00	68.91	121.09
BSPTCL Transmission charges	213.00	77.26	135.74

Particulars	Total Approved ARR for FY 2013-14	Allocation for NBPDCL	Allocation for SBPDCL
O & M	**530.15**	**204.57**	**325.58**
R & M Expenses	79.87	43.93	35.94
Employee cost	404.24	135.52	268.72
Administration & General Expenses	46.04	25.12	20.92
Depreciation	77.60	42.68	34.92
Interest & Finance charges	211.28	116.84	94.44
Interest on working capital	123.16	43.08	80.08
Return on Equity	123.10	53.44	69.66
Total Requirement	**6850.21**	**2558.83**	**4291.38**
Less: Non-tariff income	186.50	65.24	121.26
Less: Expenditure disallowed due to higher T&D losses	1588.02	575.98	1012.04
Net Revenue Requirement	**5075.69**	**1917.61**	**3158.08**
Less: Revenue from existing tariff	3723.70	1302.50	2421.20
Less: Revenue from sales to Nepal	255.20	255.20	0.00
Gap / (Surplus)	**1096.79**	**359.91**	**736.88**

Commission's analysis

The Commission has examined the segregation methodology and segregation of values of approved ARR between NBPDCL and SBPDCL for FY 2013-14. The Commission considers the methodology and segregation of values of approved ARR except Return on Equity (RoE), Depreciation, Interest charges and interest on working capital as ***they are representative values used only for the purpose of comparison and review and has no bearing on the APR for FY 2013-14 (RE) which is subject to true up based on audited annual accounts for FY 2013-14 as and when made available by the Petitioner***.

The Petitioner has stated that the Return on Equity (RoE) is allocated based on the opening Equity. As per the audited annual accounts of NBPDCL and SBPDCL for FY 2012-13, the equity capital is at Rs.662.48 crore in NBPDCL and Rs.385.00 crore in SBPDCL, which contribute to 63.25 % and 36.75% respectively. However, the petitioner has allocated the RoE @ 43.4% to NBPDCL and @56.6% to SBPDCL. The Petitioner has considered revalued equity of Rs.1643 crore in NBPDCL and Rs.2141 crore in SBPDCL as per the final transfer scheme proposals submitted to Government which is in the process of finalization. Based on revalued equity the approved RoE is allocated to NBPDCL – Rs.53.44 crore and SBPDCL Rs.69.66 crore.

The approved RoE of Rs.123.10 (Rs.123.06) crore is on Rs.879 crore for Distribution Business (DISCOMs). Allocating the RoE based on revalued equity, which is not yet finalized by Government, is not correct.

The Commission has considered the equity capital of Rs.879 crore based on the transfer scheme and allowed RoE in the MYT order dated 15th March 2013. The clause 9 of the Bihar State Electricity Reforms Transfer Scheme, 2012 specifies that "***the classification and transfer of property rights, assets, liabilities and proceedings to be provisional in the first instance for a period of one year from the effective date***". Clause 9.3 specifies that "***on the expiry of the period of one year from the effective date and subject to any directions given by the State Government, the transfer of undertakings, properties, interest, rights, assets, liabilities, personnel and proceedings made in accordance with the transfer scheme shall become final"***.

In view of the above, the approved RoE is allocated to NBPDCL & SBPDCL in the ratio of equity i.e. Rs.385 crore in NBPDCL and Rs.494 crore in SBPDCL and the allocated approved RoE is Rs.53.92 crore and Rs.69.18 crore respectively.

The Petitioner has segregated and allocated the approved depreciation in the ratio of opening GFA. The depreciation considered is based on the normative principles GFA and Grants used for GFA. Allocation of depreciation based on GFA do not reflect the correct values, hence, the depreciation is allocated based on the normative principles as depicted in the relevant paras.

The Petitioner has allocated interest and finance charges based on the opening loan balances. However, the interest charges approved in the MYT order is based on the normative principles, which is based on the capitalisation. Hence, the interest charges were allocated among the DISCOMs based on the normative principles as depicted in the relevant paras.

The allocation of approved ARR values of FY 2013-14 in the MYT order dated 15th March 2013 are for reference/comparison purpose only and have no bearing on the Review for FY 2013-14 (RE) and ARR for FY 2014-15.

The Commission has noted that the Petitioner has not considered the surplus of Rs.170.33 approved in True up of 2011-12 and balance grant available while arriving at the gap approved for DISCOMs for FY 2013-14. The net gap approved for FY 2013-14 was Rs 354.48 crore after considering revision of tariff.

The Petitioner has not furnished the details of segregated figures for the values of Capital investment, GFA, Grants, etc approved in the MYT order dt. 15th March 2013, which are required for computation of other cost elements for FY 2013-14. The Commission has segregated these items (based on the Audited Annual Accounts for FY 2012-13) as detailed in the Table below for FY 2013-14:

Table 4.32: Segregation of approved GFA, Capex, Investment, Opening Grants for FY 2013-14

(Rs Crore)

Particulars	Ratio / Basis	Approved in MYT order for FY 2013-14 for both DISCOMs	Discom-wise Allocation	
			NBPDCL	SBPDCL
New Capital investment	Opening CWIP as per accounts	5585.00	3828.58	1756.42
Opening GFA	Opening GFA as per accts	4827.36	2220.59	2606.77
Additions during the year	Opening GFA	3044.00	2086.70	957.30
IDC	Opening GFA	70.53	48.35	22.18
Closing GFA		**7941.89**	**4355.64**	**3586.25**
Opening Grants	Opening GFA as per accts	3918.50	1819.42	2099.08
Grants during the year	additions to GFA in CY	1959.00	1077.45	881.55
Total Grants		**5877.50**	**2896.87**	**2980.63**
Opening CWIP	opening CWIP - Accounts	3192.00	1468.32	1723.68
New Investment	opening CWIP	5585.00	3828.58	1756.42
Less: Capitalisation		**3044.00**	**2086.70**	**957.30**
Opening CWIP	opening CWIP	889.00	609.42	279.58
New Investment	in proportion to new	2155.00	1477.28	677.72

Particulars	Ratio / Basis	Approved in MYT order for FY 2013-14 for both DISCOMs	Discom-wise Allocation	
			NBPDCL	SBPDCL
	investment			
Closing CWIP		**4262.08**	**2921.70**	**1340.38**
Funding				
CWIP Capitalisation		**889.00**	**609.42**	**279.58**
Grant	opening CWIP capitalised	699.00	479.17	219.83
Loan	New investment Capitalised	190.00	130.25	59.75
New Investment		**2155.00**	**1477.28**	**677.72**
Grant		1260.00	863.74	396.26
Loan		895.00	613.53	281.47
Total Capitalisation		**3044.00**	**2086.70**	**957.30**
Total Grant		**1959.00**	**1342.92**	**616.08**
Total Loan		**1085.00**	**743.78**	**341.22**

The segregated figures furnished (in the Table above) are for representative purpose only and the Commission has not used these figures in the computations otherwise required and specified therein.

4.19 Capital Expenditure

Petitioner's submission:

SBPDCL has submitted that it is still in transition phase post unbundling and unless one full financial year audited results are available, it is difficult to capture/provide all information on standalone basis. SBPDCL has proposed the capital expenditure, capitalisation and funding as per the figures approved by the Commission in MYT order dt.15th March 2013.

SBPDCL has submitted that opening CWIP, GFA, Grants, etc., are taken from the audited annual accounts of March 2013.

SBPDCL has submitted the details of opening CWIP, investment during the year, capitalisation and funding of capex for FY 2013-14 as detailed in the Table below:

Table 4.33: CWIP, Capex, Capitalisation and Funding of capitalisation projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	Total Approved	Revised projections	NBPDCL allocation	SBPDCL allocation	Basis for allocation
1	Opening CWIP	3192	1721	1180	541	CWIP adopted from accounts March 2013

2	Add: New Investment	5585	5585	3828	1757	Opening CWIP Ratio
3	**Total (1+2)**	**8777**	**7306**	**5008**	**2298**	
4	**Less: Capitalisation**	**3044**	**3044**	**1674**	**1370**	
a	CWIP capitalisation	889	889	489	400	Opening GFA Ratio
b	New Investment capitalisation	2155	2155	1185	970	Opening GFA Ratio
5	**Closing CWIP (3-4)**	**5733**	**4262**	**3334**	**928**	
6	**Funding of Capitalisation**					
a	**CWIP capitalisation**	**889**	**889**	**489**	**400**	
i	Grant	699	699	384	315	CWIP Ratio of Grant & Loan
ii	Loans	190	190	105	85	CWIP Ratio of Grant & Loan
b	**New Investment capitalisation**	**2155**	**1055**	**1185**	**970**	
i	Grant	1260	160	693	567	New investment ratio of Grant & Loan
ii	Loans	895	895	492	403	New investment ratio of Grant & Loan
7	**Total Grants**	**1959**	**859**	**1077**	**882**	
8	**Total Loans**	**1085**	**1085**	**597**	**488**	

SBPDCL has requested the Commission to approve the capital expenditure, capitalisation and funding of capitalisation for FY 2013-14 as per above Table.

Commission's analysis:

The Commission has approved, for Distribution system as a whole, a total capital investment of Rs.5585 crore with a capitalisation of Rs.3044 crore in the MYT order dated 15th March 2013 for FY 2013-14.

The Petitioner has projected the capital investment and capitalisation at the approved level for FY 2013-14 as per the MYT order dt.15th March 2013.

The Commission considers the same for FY 2013-14 as the SBPDCL came in to existence and started independent functions with effect from 1st November 2012 subject to truing up for FY 2013-14 based on the Audited Annual Accounts for FY 2013-14.

The Petitioner has considered capitalisation of opening CWIP and new investment in proportion to opening GFA. The new investment is allocated based on opening CWIP, however, the capitalisation of new investment is considered in proportion to opening GFA. Further, the Petitioner has not provided the details of progress of capex schemes vis-à-vis source-wise funds drawn/utilised during FY 2013-14. In the absence of capex details, the Commission has no option other than to consider the capex and capitalisation allowed for FY 2013-14 in MYT order dt.15th March 2013.

The Commission considered the capitalisation of capex as per the schedule approved in the MYT order dt.15th March 2013 for FY 2013-14 as given in the Table below:

Table 4.34: Capitalisation schedule for FY 2013-14

Particulars	Year 1	Year 2	Year 3
For all new capex	30%	30%	40%
For opening CWIP	30%	30%	40%

The Commission has considered funding of the capex capitalised @ 65% through Grants and balance 35% of capitalisation as through Loans.

Accordingly, the Commission considers the capitalisation of opening CWIP, new investment and funding as detailed in the Table below:

Table 4.35: Capitalisation and funding Considered for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14	Now approved for FY 2013-14 (RE)
1	Opening CWIP	3192.00	1723.68	**541.00**	**541.26**
2	New Investment	5585.00	1756.42	1756.42	1756.42
3	**Less: Capitalisation**	**3044.00**	**957.30**	**1370.00**	**689.30**
	(i) Opening CWIP	889.00	279.58	400.00	162.38
	(ii) New Investment	2155.00	677.72	970.00	526.93
4	**Closing CWIP**	**5733.00**	**2522.80**	**927.42**	**1608.38**
	Funding				
5	**CWIP Capitalisation**	**889.00**	**279.58**	**400.00**	**162.38**
	(i) Grant	699.00	219.83	315.00	105.55
	(ii) Loan	190.00	59.75	85.00	56.83

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14	Now approved for FY 2013-14 (RE)
6	**New Investment**	**2155.00**	**677.72**	**970.00**	**526.93**
	(i) Grant	1260.00	396.26	567.00	342.50
	(ii) Loan	895.00	281.47	403.00	184.42
7	**Total Capitalisation**	**3044.00**	**957.30**	**1370.00**	**689.30**
8	**Total Grant**	**1959.00**	**616.08**	**882.00**	**448.05**
9	**Total Loan**	**1085.00**	**341.22**	**488.00**	**241.26**

4.20 Interest During Construction (IDC)

Petitioner's submission

The Petitioner has submitted that for the purpose of IDC, the amount capitalised during the year is assumed as loan drawn and weighted average interest rate is considered for charging the IDC for FY 2013-14. The IDC projected by the Petitioner is as detailed in the Table below:

Table 4.36: Interest during Construction (IDC) projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Loan drawal	1085.00	488.00
2	Average Loan ½	542.50	244.00
3	Interest Rate	13.00%	13.00%
4	IDC (on average loan) (2*3)	70.53	31.72

The Petitioner has requested the Commission to approve the IDC for FY 2013-14 as detailed in the Table above.

Commission's analysis:

The Commission has examined the computation of the Petitioner and the rate of interest adopted for FY 2013-14.

The Petitioner has charged IDC on normative loan drawl based on the capex capitalised during FY 2013-14. The Commission considers the interest rate @ 13% for FY 2013-14. Accordingly, the Commission considers the IDC for FY 2013-14 as detailed in the Table below:

Table 4.37: Interest during construction (IDC) considered for FY 2013-14

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14	Now approved for FY 2013-14 (RE)
1	Loan drawal	1085.00	341.22	488.00	241.26
2	Average Loan ½	542.50	170.61	244.00	120.63
3	Interest Rate	13%	13%	13%	13%
4	IDC (on average loan) (2*3)	70.53	22.18	31.72	15.68

The Commission, accordingly, considers the Interest during Construction (IDC) at Rs.15.68 Crore as detailed in the Table above for FY 2013-14 (RE).

4.21 Gross Fixed Assets

Petitioner's submission

The Petitioner has submitted that Opening GFA is considered as per the audited annual accounts as on 31st March 2013. The Petitioner has also submitted that during the process of restructuring the assets are revalued and requested the Commission to consider the same figures for ARR purpose.

BPDCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction in pursuance 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.

SBPDCL has submitted the computation of GFA based on the capitalisation schedule for FY 2013-14 as detailed in the Table below:

Table 4.38: Gross Fixed Assets projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Opening GFA	4827.36	4008.00
2	Additions during the year	3044.00	1370.00
3	Add : IDC	70.53	32.00
4	**Closing GFA (1 to 3)**	**7941.89**	**5410.00**

SBPDCL has requested the Commission to approve the GFA as per above Table for FY 2013-14 considering the provision of the section 131 of the Electricity Act, 2003 and the transfer scheme 2012.

Commission's analysis:

In the MYT Order dated 15th March 2013, the opening GFA for FY 2013-14 is considered at Rs.4827.36 crore for Distribution function. The Distribution function was segregated and assigned to New Companies i.e. NBPDCL and SBPDCL which started functioning with effect from 1st November 2012. As per the audited annual accounts of NBPDCL and SBPDCL the closing GFA as on 31st March 2013 is at Rs,3474 crore and Rs.4007.99 crore which constitute to 46% and 54% to the respective companies. Accordingly, the Opening GFA as per the MYT order dt.15th March 2013 of Rs.4827.36 crore is segregated in the Ratio of 46% to NBPDCL (Rs.2220.59 crore) and 54 % to SBPDCL (Rs.2606.77 crore) as shown in the computations for comparison/representation purpose only and has no bearing on the ARR for FY 2013-14 (RE).

The opening GFA based on the Audited Annual Accounts for FY 2012-13 is adopted by SBPDCL. The opening GFA includes Rs.1478.84 crore being the value of assets (Land) revalued.

The Commission, as discussed in para 4.19, has considered the capitalisation of capital expenditure as per the MYT order dated 15th March 2013 in the tariff order for FY 2013-14.

The opening GFA, value of assets revalued, additions to assets during the year and closing GFA for FY 2013-14, arrived at by the Commission is as detailed in the Table below:

Table 4.39: Gross Fixed Assets considered for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Opening GFA	4827.36	2606.77	4008.00	4007.99
2	**Less:** Assets Revalued				1478.84
3	**Original value of GFA (1-2)**	**4827.36**	**2606.77**	**4008.00**	**2529.15**
4	Additions during the year	3044.00	957.30	1370.00	689.30
5	Add : IDC	70.53	22.18	32.00	15.68
6	**Closing GFA (3+4+5)**	**7941.89**	**3586.26**	**5410.00**	**3234.13**

4.22 Depreciation

Petitioner's submission:

SBPDCL has submitted that depreciation is computed annually on straight line method by applying weighted average rate of depreciation on the average GFA adopting the approach considered by the Commission in MYT order dt.15th March 2013 in Tariff Order for FY 2013-14. SBPDCL has further submitted that the depreciation on assets created out of grants and consumer contribution is reduced from the gross depreciation to arrive at the depreciation to be charged.

The Petitioner has projected the depreciation for FY 2013-14 as detailed in the Table below:

Table 4.40: Depreciation projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	**Original value of GFA**	**4827.36**	**4007.99**
2	Additions during the year	3044.00	1370.00
3	IDC	70.53	32.00
4	**Closing GFA (1+2+3)**	**7941.89**	**5409.99**
5	**Average GFA {(1+4)/2}**	**6384.63**	**4708.99**
6	Weighted average rate of depreciation	5.22%	5.22%
7	Depreciation (5*6)	333.28	**245.81**
8	Opening Grants	3918.50	1287.00
9	Grants during the year	1959.00	882.00
10	**Total Grants (8+9)**	**5877.50**	**2169.00**
11	Average Grants {(8+10)/2}	4898.00	**1728.00**
12	Weighted average rate of depreciation	5.22%	5.22%
13	Depreciation. on assets created out of grants (11*12)	255.68	**90.20**
14	**Net Depreciation claimed in ARR (7 - 13)**	**77.60**	**155.60**

SBPDCL has requested the Commission to approve the computation of depreciation for FY 2013-14

Commission's analysis:

The Petitioner has segregated and allocated the approved depreciation in the ratio of opening GFA. The depreciation considered is based on the normative principles of GFA and Grants used for GFA. Allocation of depreciation based on GFA do not reflect the correct values, hence, the depreciation approved for FY 2013-14 in MYT order dated 15th March 2013 is allocated based on the normative principles as depicted in the Table below. The values shown in the column of segregated ARR figures for SBPDCL for FY 2013-14 are for reference purpose only and have no bearing on the review for FY 2013-14 (RE) and the ARR for FY 2014-15.

The Commission has examined the computation of depreciation for FY 2013-14. The Commission has considered the opening GFA, additions to assets and closing GFA as detailed in paragraph 4.21 above. The Petitioner has computed the depreciation adopting the CERC rates of depreciation. The weighted average rate of depreciation is arrived at 5.22%.

The Commission has considered the depreciation rate adopted by the Petitioner as the same is as per the MYT order dt.15th March 2013 in Tariff Order for FY 2013-14.

The Petitioner has computed the depreciation on GFA which is inclusive of assets (Land) revalued by Rs.1478.84 crore. Further, as per Audited Annual Accounts for FY 2012-13 of the Petitioner, the GFA includes an amount of Rs.35.68 crore towards cost of land.

Regulation 73 (2) (a) (i) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specifies that "***the value base for the purpose of depreciation shall be the historical cost of the asset***". The Regulation 73 (2) (a) (ii) specifies that "***Land is not a depreciable asset and its cost shall be excluded from the capital cost".***

The Commission, accordingly, has not considered the value of assets revalued by Rs.1478.84 crore and also the value of land Rs.35.68 crore as per the audited annual accounts for FY 2012-13 of the Petitioner.

The opening GFA, additions to GFA, closing GFA, rate of depreciation and depreciation on assets created out of grants and depreciation considered by the Commission for computation of depreciation for FY 2013-14 is as detailed in the Table below:

Table 4.41: Depreciation considered for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
	Opening GFA (as per MYT order)	4827.36	2606.77		
1	Opening GFA (as per audited annual accounts as on 1-4-13)			4007.99	4007.99
2	**Less:** Assets Revalued				1478.84
	Less: Value of land (as per annual accounts)				35.68
3	**Original value of GFA (1-2)**	**4827.36**	**2606.77**	**4007.99**	**2493.47**

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
4	Additions during the year	3044.00	957.30	1370.00	689.30
5	IDC	70.53	22.18	32.00	15.68
6	Closing GFA (3+4+5)	7941.89	**3586.26**	**5409.99**	**3198.46**
7	**Average GFA {(3+6)/2}**	**6384.63**	**3096.52**	**4708.99**	**2845.96**
8	Weighted average rate of depreciation	5.22%	5.22%	5.22%	5.22%
9	**Depreciation (7*8)**	**333.28**	**161.64**	**245.81**	**148.56**
10	Opening Grants	3918.50	1991.49	1287.00	1287.14
11	Grants during the year	1959.00	881.55	882.00	448.05
12	**Total Grants (10+11)**	**5877.50**	**2873.04**	**2169.00**	**1735.19**
13	Average Grants {(10+12)/2}	4898.00	**2432.27**	**1728.00**	**1511.16**
14	Weighted average rate of depreciation	5.22%	5.22%	5.22%	5.22%
15	**Depreciation. on assets created out of grants (13*14)**	**255.68**	**126.96**	**90.20**	**78.88**
16	**Net Depreciation claimed in ARR (9-15)**	**77.60**	**34.67**	**155.60**	**69.68**

The Commission, accordingly, considers the depreciation of Rs. 69.68 crore for FY 2013-14 (RE)

4.23 Interest on Loans

Petitioner's submission:

SBPDCL has submitted that the opening loan balance as on 1st April 2013 is considered as per audited annual accounts for the period from November'12 to March 2013 of the Petitioner.

SBPDCL has submitted that the average rate of interest for existing as well as new loans is considered @ 13% as per the agreements executed with the lenders. SBPDCL has projected the interest charges for FY 2013-14 as detailed in the Table below:

Table 4.42: Interest on loans projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)

1	**Opening loan balance**	**1121.73**	**470.00**
2	Additions during the year	1085.00	488.00
3	Normative Repayment	77.60	155.60
4	**Closing Loans (1+2-3)**	**2129.13**	**802.40**
5	**Average Loans {(1+4)/2}**	**1625.25**	**636.20**
6	Interest rate	13.00%	13.00%
7	**Interest & Finance Charges (5 * 6)**	**211.28**	**82.70**

SBPDCL has requested the Commission to approve the interest on loans for FY 2013-14 as per above Table.

Commission's analysis:

The Commission has examined the projected interest on loans computation of the Petitioner. The Petitioner has considered opening loan balance as on 1st April 2013 at Rs.470 crore, whereas as per the audited annual accounts as at 31st March 2013, the closing balance of loans is at Rs.620.06 crore (Institutional (REC, PFC & ADB) loans – Rs.342.32 crore and State Government Loans – Rs.277.74 crore). The Petitioner has considered the closing loan (Rs.342.32 crore) balances of Financial Institutions (REC, PFC and ADB) and the loan (Rs.127.53 crore) drawn from the State Government during FY 2012-13 (excluding Opening balance) for computation of interest on loans.

The Commission has opined (paragraph 8.11.5) in the MYT order dated 15th March 2013 that over 60% of the capital investment comes from grants under various schemes and balance as loan. Further, the Commission has considered the loans received from REC, PFC and ADB for true up for FY 2012-13. Accordingly, the Commission, has considered the REC, PFC and ADB closing loan balances (Rs. 342.32 crore) as per the audited annual accounts for FY 2012-13 as opening loan balance as on 1st April 2013 for computation of interest on loan for FY 2013-14. Further, as per the transfer scheme, the State Government has taken over all the State Government loans appearing in the books of BSEB and accordingly, the state government loans were not considered.

As per the CERC (Terms and conditions for determination of Tariff) Regulations 2009, repayment of loan shall be equal to the depreciation allowed for the year.

Accordingly, the Commission has considered repayment of loan equal to the depreciation allowed for the year. The Commission has considered the rate of interest @ 13% and loan addition based on the capitalisation and repayment equal to depreciation for FY 2013-14.

Considering the above, the Commission has computed interest on loans for FY 2013-14 as detailed in the Table below:

Table 4.43: Interest on loan considered for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	**Opening loan balance**	**1121.73**	**573.48**	**470.00**	**342.32**
2	Additions during the year	1085.00	341.22	488.00	241.26
3	Normative Repayment	77.60	34.67	155.60	69.68
4	**Closing Loans (1+2-3)**	2129.13	**880.03**	**802.40**	**513.90**
5	**Average Loans {(1+4)/2}**	**1625.43**	**726.76**	**636.20**	**428.11**
6	Interest rate	13.00%	13.00%	13.00%	13.00%
7	**Interest & Finance Charges (5 * 6)**	**211.31**	**94.44**	**82.70**	**55.65**

The Commission, accordingly, considered Rs. 55.65 crore towards interest on loans for FY 2013-14 (RE)

4.24 Operation and Maintenance (O&M) Expenses

Petitioner's submission

SBPDCL 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 Employee and A&G expenses.

SBPDCL has further submitted that R&M expenses are provided as a % of Gross Fixed Assets.

SBPDCL has proposed following inflation index for FY 2013-14:

(i) Employee cost and A&G expenses

INDXn = 0.55*CPIn + 0.45*WPIn

(ii) Repairs and Maintenance expenses

R&Mn = K*GFA*(1+WPIn),

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
- WPIn is the wholesale price index increase for immediate preceding year over previous year.

Table 4.44: O&M Expenses - weightage of indexation/inflation factor

Sl. No.	Particulars	WPI	CPI	Total
1	Weightage	0.45	0.55	1.00
2	**Index points for FY 2011-12**	**156.13**	**194.83**	
4	Indexation n-1 (index point * weightage)	70.26	107.16	177.42
3	**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%**

The Commission has considered the above indexation/inflation factor for FY 2013-14 (RE).

4.25 Employee Costs

Petitioner's submission:

SBPDCL has submitted that the employee expenses 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 inflation index of 9.21% is considered for FY 2013-14 over FY 2012-13 to arrive at the employee cost for FY 2013-14.

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

Table 4.45: Employee Cost for FY 2013-14 (RE) proposed by the Petitioner

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Previous year cost (pro-rata cost) of employee expenses		227.95
2	Add: Inflationary index @ 9.21%		20.99
3	**Employee Cost**	**394.24**	**248.94**
4	Add: New Manpower cost	10.00	5.00
5	**Total Employee Cost**	**404.24**	**253.94**

The Petitioner has requested the Commission to approve the employee expenses for FY 2013-14 as per the Table above.

Commission's analysis:

The Petitioner has considered the total employee cost as per the audited annual accounts for FY 2012-13 (November'12 to March'13), which include the Company contribution towards terminal benefits and leave encashment for existing employees.

As per the transfer scheme, the Government support is expected towards payment of Pension to the retired employees of the erstwhile BSEB up to date of transfer scheme i.e. 31st October 2012. Post unbundling the segregated entities shall contribute to the Bihar State Electricity Employees Master Trust (BSEE Master Trust) at the rates approved by the Board of Trustees of the BSEE Master Trust. The Board of Trustees of BSEE Master Trust in their 3rd Meeting held on 21-06-2013 has approved the rate of contribution to be made for existing employees towards Gratuity, Pension and Leave encashment from 1st November 2012 as detailed hereunder:

Sl. No.	Particulars	Rate of Contribution as on 31.3.2012
1	Gratuity	@ 2.50% of Basic + GP + DA
2	Pension (Existing employees)	@ 2.50% of Basic + GP + DA
3.	Leave Salary (per Month)	SBPDCL – Rs.1,01,68,750/- NBPDCL – Rs. 62,70,850/- BSPTCL- Rs. 33,10,400/- BSPGCL – Rs. 10,83,333/-

The segregated entities shall make remittance of contributions for existing employees towards Gratuity, Pension and Leave Salary to BSEE Master Trust by 7th of every month and delay in remittance attract interest @18% as per the provisions of the Trust Deed. The LIC of India is appointed as Fund Manager of BSEE Master Trust for Pension, Gratuity and Leave salary.

Further, it was approved by the Board of Trustees of the BSEE Master Trust in the meeting dt.21-06-2013 that the contribution rate for FY 2012-13 be made applicable provisionally for FY 2013-14 subject to adjustment as per the final rate received from the Actuary i.e. M/s.PFC Consulting Ltd. The Employee cost projected by the Petitioner includes companys' contribution towards Gratuity, Pension and Leave Salary for existing employees for FY 2013-14.

The Commission has examined the employee cost computations of the Petitioner. The employee cost includes the Company's contribution for existing employees' to meet future liability of employee terminal benefits. It was informed by the Petitioner that Actuary Report of valuation of terminal benefits of employees as at 31st March 2014 is yet to be finalised by the Actuary i.e. M/s.PFC Consulting Ltd.

The Employee cost projected by the Petitioner is based on 5 months (November'12 to March'13) actual expenditure as per audited annual accounts for FY 2012-13 (projected for one year for FY 2012-13) with escalation at 9.21% (inflation index). Hence, the Commission has considered the employee cost as detailed in the Table below:

Table 4.46: Employee Cost considered for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Previous year cost (pro-rata cost projected per year based on 5 months actuals as per audited annual accounts) of employee expenses			227.95	227.95
2	Add: Inflationary index @ 9.21% (**on 1)**			20.99	20.99
3	**Employee Cost (1+2)**	**394.24**	**263.72**	**248.94**	**248.94**
4	Add: New Manpower cost	10.00	5.00	5.00	5.00
5	**Total Employee Cost (3+4)**	**404.24**	**268.72**	**253.94**	**253.94**

The Commission, accordingly, considered the employee cost at Rs. 253.94 crore for FY 2013-14 (RE) as detailed in the above Table.

4.26 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

SBPDCL has submitted that computing 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 and projected as 1% of opening GFA and further inflationary increase for FY 2013-14.

SBPDCL has projected R&M expenses @ 1% of Opening GFA and further inflationary increase @ 9.21% for FY 2013-14. The R&M expenses projected by the Petitioner is as given in the Table below:

Table 4.47: Repairs and Maintenance expenses projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Opening GFA		4008.00
2	% of GFA		1.00%
3	**R & M Cost**	**79.87**	**40.08**
4	Add: Inflationary index @ 9.21%		3.69
5	**Total R & M Cost**	**79.87**	**43.77**

SBPDCL has requested the Commission to approve the R&M expenses for FY 2013-14 as projected in the Table above.

Commission's analysis

The Commission has examined the R&M expenses projected by SBPDCL. The Petitioner has projected R&M expenses @1% of the opening GFA and escalated to inflationary effect. The opening GFA includes the assets revalued and as per the BERC Regulations, 2007, the GFA should be at historical cost only for computing all the parameters for ARR purpose. Regulation 92 (a) specifies that ***the O&M cost for the base year is to be determined on the basis of latest audited accounts, with indexation for projecting the O&M costs over the relevant control period***. Accordingly, the Commission does not consider the Petitioner's request of 1% of the GFA. However, the Commission considered the R&M expenses based on the previous year actual R&M expenses projected to per year with escalation for FY 2013-14.

As per the annual accounts of SBPDCL for FY 2012-13 (November'12 to March'13), Rs.15.43 crore R&M expenses were incurred for 5 months, projected to Rs.37.03 crore per year (FY 2012-13).

The Commission has considered the R&M expenditure based on 5 months actual expenses of FY 2012-13 amplified to per year with inflationary escalation of 9.21% for FY 2013-14 as detailed in the Table below:

Table 4.48: R&M expenses considered for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Previous year R&M expenses (Nov'12 to March'13 (5 months) actuals as per accounts) projected per year				37.03
2	Opening GFA			4008.00	
3	% of GFA			1.00%	
4	**R & M Cost**	**79.87**	**35.94**	**40.08**	**37.03**
5	Add: Inflationary index @ 9.21%			3.69	3.41
6	**Total R & M Cost**	**79.87**	**35.94**	**43.77**	**40.44**

The Commission, accordingly, considers R&M expenses at Rs. 40.44 crore for FY 2013-14 (RE) as detailed in the above Table.

4.27 Administration and General (A&G) Expenses

Petitioner's submission

SBPDCL has submitted that Administration and General expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling expenses etc. The Petitioner has submitted that inflation index of 9.21% has been considered over FY 2012-13 to arrive at the A&G cost for FY 2013-14.

The SBPDCL has estimated the A&G expenses at Rs.33.94 crore for FY 2013-14 (RE) as furnished in Table below:

Table 4.49: Administration and General Expenses projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Previous year cost (pro-rata cost) of A&G Expenses		19.28
2	Add: Inflationary index @ 9.21%		1.78
3	**Total A & G Cost**	**46.04**	**21.06**

SBPDCL has requested the Commission to approve the A&G expenses for FY 2013-14 as detailed in the Table above.

Commission analysis:

The Commission has examined the A&G expenses projected by SBPDCL. As per the annual accounts of SBPDCL for FY 2012-13 (November'12 to March'13), Rs.4.12 crore R&M expenses were incurred for 5 months which on pro-rata works out to Rs.9.89 crore per year (FY 2012-13).

The Commission has considered the pro-rata actual expenditure of FY 2012-13 with inflationary escalation of 9.21% and considered the A&G expenses for FY 2013-14 as detailed in the Table below:

Table 4.50: Administration & General Expenses considered for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Previous year cost (5 months actuals as per accounts) projected per year			19.28	19.28
2	Inflationary index @ 9.21%			1.78	1.78
3	**Total A & G Cost**	**46.04**	**20.92**	**21.06**	**21.06**

Accordingly, the Commission considered Rs.21.06 crore for FY 2013-14 (RE) towards net Administration and General Expenses.

4.28 Allocation of Holding Company Expenses

Petitioner's submission

SBPDCL 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.

SBPDCL has 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, NBPDCL and SBPDCL in the ratio of their respective equity".

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

Table 4.51: Expenses of Holding Company projected for FY 2013-14

(Rs. Lacks)

Particulars	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**

Table 4.52: Allocation of Expenses of Holding company to the utilities for FY 2013-14

(Rs. Crore)

Particulars	Total for FY 2013-14	BSPGCL	BSPTCL	NBPDCL	SBPDCL
Establishment expenses is 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**

SBPDCL 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 4.53: Allocation of Expenses of Holding Company considered 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**

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

The summary of the revised O & M expenses considered in review for FY 2013-14 (RE) are as tabulated below:

Table 4.54: Total O&M cost considered by the Commission for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Employee cost	404.24	268.72	253.94	253.94
2	R&M expenses	79.87	35.94	43.77	40.44
3	A&G Expenses	46.04	20.92	21.06	21.06
4	Holding company expenses allocated			13.34	13.34
5	**Total O& M cost**	**530.15**	**325.58**	**332.11**	**328.78**

The Commission considered total O&M costs at Rs.328.78 crore for FY 2013-14 (RE).

4.30 Interest on working capital

Petitioner's submission:

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

Table 4.55: Norms for working capital requirement

Sl. No.	Particulars	Norm
1	O&M expenses	One month
2	Maintenance spares	@1% of historical cost of GFA escalated @6% per annum
3	Receivables	Two months of charges for sale of energy
4	Rate of interest on working capital	Short-term PLR of SBI as on 1st 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.

SBPDCL has claimed interest on working for FY 2013-14 computed on the above norms as detailed in the Table below:

Table 4.56: Interest on working capital projected for FY 2013-14 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	O&M exp. (1 month)	44.18	27.67
2	Maintenance spares @1% of opening GFA with 6% escalation	51.17	40.08
3	Receivables - 2 months	1116.97	582.86
4	**Total working capital**	**1212.32**	**650.62**
5	**Less**: Govt. assistance for power purchase	360.00	
6	**Net working capital requirement**	**852.32**	**650.62**
7	Rate of interest	14.45%	14.45%
8	**Interest on working capital**	**123.16**	**94.01**

The Petitioner has requested the Commission to approve the computation of interest on working capital and the interest charges for FY 2013-14 as detailed in the Table above.

Commission analysis

The Commission has examined the computation of interest on working capital submitted by the Petitioner. The Petitioner has considered maintenance spares

@1% of the opening GFA. The opening GFA includes the assets (Land) revalued by Rs.1478.84 crore. Further, the Petitioner has not considered the escalation of 6% on the 1% amount of opening GFA.

The Commission has adjusted the GFA to its original value and considered maintenance spares @1% of GFA (adjusted) with escalation at 6% in its computations.

The Petitioner has considered the working capital as per Regulations and the rate of interest as per SBI PLR as on 1st April 2013. The Petitioner has computed the interest on working capital as per the norms prescribed in Regulation 85 (ii) (8) of the BERC Regulations, 2007. The rate of interest applied on the proposed working capital is @14.45% as per the SBI PLR as on 1st April 2013.

The State Government is extending financial support in the form of tariff subsidy and cost of power disallowed due to excess distribution loss over and above the loss trajectory allowed by the Commission. The petitioner has projected a total support of Rs.1404.06 crore for the petitioner for FY 2013-14 out of the total Government support of Rs.2320 crore for FY 2013-14 to the DISCOMs. The Government is releasing the funds on monthly basis. The Commission has considered the State Government funding/financial support to the DISCOMs on monthly basis, for which no working capital is required. Accordingly, the amount equivalent to two months of financial support from the State Government to the DISCOMs is reduced from the working capital requirement of the DISCOMs. The two months support to SBPDCL works out to Rs.234.01 crore and the same is reduced from the working capital requirement of SBPDCL.

The Commission has considered the rate of interest as per the SBI PLR @14% as on 1st April 2013 and based on the expenses/costs approved for FY 2013-14, has computed the working capital and interest on working capital for FY 2013-14 as detailed in the Table below:

Table 4.57: Interest on working capital considered for FY 2013-14 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	O&M exp. (1 month)	44.18	27.13	27.67	27.40
2	Maintenance spares @1% of opening GFA with 6% escalation	51.17	27.63	40.08	26.43
3	Receivables - 2 months	1117.00	694.73	582.86	679.24
4	**Total working capital**	**1212.35**	**749.49**	**650.62**	**733.07**
5	Less: Govt. assistance for power purchase	360.00	180.00		234.01
6	**Net working capital requirement**	**852.35**	**569.49**	**650.62**	**499.06**
7	Rate of interest	14.45%	14.45%	14.45%	14.45%
8	**Interest on working capital**	**123.16**	**82.29**	**94.01**	**72.11**

The Commission, accordingly, considered interest on working capital at Rs.72.11 crore for FY 2013-14 (RE).

4.31 Return on Equity

Petitioner's submission:

SBPDCL has submitted that computation of Return on Equity is considering the equity provided in the revised transfer scheme submitted to Government of Bihar. It is further submitted that during the process of restructuring, the equity component has got re-valued and the Petitioner request Hon'ble 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.

SBPDCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction pursuance 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.

SBPDCL has computed the return on equity for FY 2013-14 as detailed in the Table below:

Table 4.58: Return on Equity projected for FY 2013-14

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Equity	879	2141
2	Rate of Return per annum %	14.00%	14.00%
3	**Return on Equity - Opening Equity**	**123**	**300**

SBPDCL has requested the Commission to consider the Return on Equity (RoE) as per the computations furnished in the Table above for FY 2013-14 (RE)

Commission's analysis

The Commission has examined the computation of RoE claim of SBPDCL. The Petitioner has computed RoE on the enhanced Equity. It was stated that during the process of restructuring the equity component has got re-valued and RoE is claimed as per Regulation 73(2)(c) of the BERC Tariff Regulations 2007.

Regulation 73 (2) (c) of the BERC (Terms and Conditions for Determination of Tariff) Regulations. 2007, specifies that "***Return on Equity shall be computed on the equity base determined in accordance with Regulation 71 and shall be @ 14% per annum***".

Regulation 71 (1) specifies that;

(a) in case of all projects, the Debt : Equity ratio as on the date of commercial operation shall be 70 : 30 for determination of tariffs.

(b) However, the Commission may consider equity higher than 30% if satisfied that the higher equity deployed is in the interest of the general public.

(c) ***Further, if the equity employed is less than 30%, the actual Debt and Equity shall be considered for determination of tariff.***

(d) ***It is also specified that in case of existing projects the actual Debt : Equity ratio shall be used for tariff determination.***

(e) ***The Debt and Equity amount arrived as above, shall be used for calculation of Interest on Loan, Return on Equity, etc.***

Regulation 84 (Distribution) of the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 specifies that "***the Distribution licensee shall ordinarily earn a return of 14% on equity invested in the Capital Expenditure (apportioned to the quantum for the purpose of performing the electricity business in the present debt – equity structure)".***

However, in view of the data constraints with respect to capex vis-à-vis source of funding, etc., the Commission has considered the methodology adopted in MYT order dt.15th March 2013 Tariff Order for FY 2013-14 for computation of Interest on Loan and Return on Equity for FY 2013-14 (RE).

Further, it was reported by the Petitioner that finalization/approval of State Government to the final transfer scheme is in process. Hence, the Commission has not considered the enhanced equity in the absence of specific orders from the State Government and also in terms of Regulations specified above. However, as per the tariff Regulations, the entity is entitled to Return on Equity, hence, following principle of consistency and prudency the Commission has considered the equity as per the MYT order dated 15th March 2013 in Tariff Order for FY 2013-14.

The Commission has considered equity capital of Rs.879 crore in Distribution business for MYT period in the Tariff Order for FY 2013-14. The Distribution business was split into NBPDCL and SBPDCL (two Distribution companies) with effect from 1st Nov'12. As per the transfer scheme Schedule "C" Part-II, the equity capital of SBPDCL is Rs.494 crore and NBPDCL is Rs.385 crore (total Rs.879 crore pertaining to Distribution Business). Accordingly the Commission has considered the equity capital of NBPDCL and SBPDCL for allowing RoE. The rate of return on equity has been considered @14% as per the BERC Tariff Regulations. The return on equity considered by the Commission is as detailed in the Table below:

Table 4.59: Return on Equity considered for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Equity capital	879.00	494.00	2141.00	494.00
2	Rate of Return on equity	14.00%	14.00%	14.00%	14.00%
3	**Return on equity**	**123.06**	**69.18**	**299.78**	**69.16**

The Commission, accordingly, approved Return on Equity at Rs.69.16 crore for FY 2013-14 (RE) as detailed in the Table above.

4.32 Interest on Security Deposit

Petitioner's submission:

SBPDCL has submitted that interest on Security Deposit amount has been claimed as per the provisions of BERC Supply Code. The interest for security deposit has been considered as per prevailing RBI Bank Rate of 9%. The Petitioner has projected interest on security deposit for FY 2013-14 as detailed in the Table below:

Table 4.60: Interest on security deposit projected for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	Projected by SBPDCL for FY 2013-14 (RE)
1	Opening Security Deposit	177.65
2	RBI Bank Rate (as on 7.10.2013)	9.00%
3	Interest on Security Deposit	15.99

The Petitioner has requested the Commission to approve the computation of interest on security deposit for FY 2013-14 as detailed in the Table above.

Commission's analysis:

The Commission in the Tariff Order for FY 2011-12 has opined that the consumer security deposits provided to the distribution licensees by the consumers should be either be used for funding working capital requirement or should be kept with the bank and interest earned on the amount should be passed on to the consumers. In such a scenario, there is no additional financial implication on distribution licensees because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. The BSEB and segregated entities collecting security deposits from the consumers and using these deposits for meeting its working capital requirement since it is paying consumers at bank rate thereby saving on higher interest cost that may be payable on working capital loans borrowed from market.

In view of the above, the Commission has not considered interest on consumer's security deposit for FY 2013-14 (RE).

4.33 Non-Tariff Income

Petitioner's submission:

SBPDCL has submitted that in the absence of actual data for entire financial year, has estimated non-tariff income based on the audited annual accounts of FY 2012-13 (Nov'12 to March'13) at Rs.88 crore for FY 2013-14. The Petitioner has submitted that Non-tariff income is projected after deducting funding cost of delayed payment surcharge and requested the Commission to approve the Non-tariff income as detailed in the Table below:

Table 4.61: Projected Non-tariff Income for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Net Non-tariff income for FY 2012-13	187	88
2	Increase in income @		8%
3	**Net non-tariff income**	**187**	**95**

Commission analysis:

The Non-Tariff income as per the audited annual accounts of SBPDCL for FY 2012-13 (Nov'12 to March'13 – 5 months) pro-rata projected per year at Rs.87.86 crore after adjusting to the financing cost of receivables duly increased @8% is considered for FY 2013-14. Accordingly, the Commission computed the non-tariff income for FY 2013-14 (RE) as detailed in the Table below:

Table 4.62: Non-tariff Income considered for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Net Non-tariff income	186.50	121.26	88.00	87.86
2	Increase in income @			8.00%	8.00%
3	**Total non-tariff income**	**186.50**	**121.26**	**95.04**	**94.89**

The Commission, accordingly, considered non-tariff income at Rs.94.89 crore for FY 2013-14 (RE) as detailed in the Table above.

4.34 Revenue from sale of power at existing tariff

Petitioner submission

SBPDCL has submitted the category wise revenue based on the existing tariff for FY 2013-14 as detailed in the Table below:

Table 4.63: Projected Revenue from sale of power at existing tariff projected for FY 2013-14 (RE)

Sl. No.	Category	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kwh)
1	Kutir Jyoti (Rural)	145	40	2.77
2	Kutir Jyoti (Urban)	2	0	1.95
3	DS-I (Rural)	243	51	2.11
	DS-II			
4	Single phase	1095	411	3.75
5	Three phase	77	28	3.60
6	DS-III	0	0	6.34
7	NDS-I (Rural)	6	2	2.99
	NDS-II (Urban)			
8	Single phase	341	240	7.02
9	Three phase	205	148	7.22

Sl. No.	Category	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kwh)
10	NDS-III	2	1	4.22
11	LTIS-I	106	65	6.15
12	LTIS-II	76	46	5.97
13	Public Water Works	35	27	7.62
14	IAS-I (Private)	315	35	1.12
15	IAS-I (Government)	87	50	5.73
16	SS-I (Metered)	4	3	7.00
17	SS-II (Unmeterd)	38	23	6.05
18	HTS-I	510	369	7.22
19	HTS-II	161	116	7.25
20	HTS-III	142	88	6.20
21	HTSS	451	234	5.19
22	RTS-I	537	301	5.60
	Total	**4579**	**2277**	**4.97**

Commission's analysis

The Commission has computed the expected revenue during FY 2013-14 at existing tariff based on the energy sales, connected load, number of consumers considered in the review for FY 2013-14 (RE) and arrived at Rs 2329.86 crore as detailed in the Table below:

Table 4.64: Revenue from sale of power at existing tariff considered for FY 2013-14 (RE)

Sl. No.	Category	Consumers (Nos)	Sales (MU)	Revenue (Rs. crore)	Average billing rate (Rs./kwh)
1	Kutir Jyoti (Rural)	568199	145.00	40.21	2.77
2	Kutir Jyoti (Urban)	63133	2.00	0.39	1.95
3	DS-I (Rural)	266857	242.00	51.10	2.11
	DS-II				
4	Single phase	1020671	1095.00	417.10	3.81
5	Three phase	13654	78.00	29.34	3.76
6	DS-III	34	0.07	0.03	4.20
7	NDS-I (Rural)	6497	6.00	1.77	2.95
	NDS-II (Urban)				
8	Single phase	173831	341.00	239.44	7.02
9	Three phase	17866	205.00	147.94	7.22
10	NDS-III	169	2.00	0.82	4.10
11	LTIS-I	13343	106.00	68.11	6.43
12	LTIS-II	1309	76.00	46.11	6.07
13	Public Water Works	676	35.00	27.39	7.83

Sl. No.	Category	Consumers (Nos)	Sales (MU)	Revenue (Rs. crore)	Average billing rate (Rs./kwh)
14	IAS-I (Private)	53216	316.00	36.32	1.15
15	IAS-I (Government)	1560	86.00	50.72	5.90
16	SS-I (Metered) STL	85	4.00	2.80	7.00
17	SS-II (Unmeterd) STL	234	38.00	23.25	6.12
18	HTS-I	967	510.00	368.36	7.22
19	HTS-II	51	161.00	116.65	7.25
20	HTS-III	2	142.00	87.96	6.19
21	HTSS	18	451.00	233.90	5.19
22	RTS-I	15	537.00	340.15	6.33
	Total	**2202387**	**4578.00**	**2329.86**	**5.09**

4.35 Disincentive for non-achievement of T&D loss reduction targets

Petitioner's submission

The Petitioner has submitted that as per the methodology approved by the Commission in previous tariff orders, the power purchase due to excess distribution loss is disallowed. The Petitioner has submitted that the support for the disallowance cost would be provided by the State Government. The Petitioner has computed the disallowed power purchase cost for FY 2013-14 as detailed in the Table below:

Table 4.65: Disallowed power purchase projected for FY 2013-14 (RE)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Additional power purchase by DISCOMs due to excess Distribution loss (MU)	4179.00	2365.49
2	Average power purchase rate (Rs./kwh)	3.80	3.65
3	Cost of additional power disallowed (Rs. Crore)	1588.02	863.89

Commission's analysis

The Commission has examined the projections of the Petitioner and has computed the cost of additional power purchase disallowed for FY 2013-14 as given in the Table below:

Table 4.66: Disallowed power purchase projected for FY 2013-14 (RE)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Segregated ARR figures for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Additional power purchase by DISCOMs due to excess Distribution loss (MU)	4179.00	2662.02	2365.49	2780.00
2	Average power purchase rate Rs./kwh)	3.80	3.80	3.65	3.78
3	Cost of additional power disallowed (Rs. Crore)	1588.02	1012.04	863.89	1050.84

4.36 Resource gap funding from State Government for FY 2013-14

Petitioner's submission

The Petitioner has submitted that the total subsidy to be received for FY 2013-14 is Rs.2320 crore (@ Rs 180 Crore pm from April 2013 & July 2013 and @ Rs 200 Crore pm from August 2013 to March 2014) and the share of SBPDCL is arrived at Rs.1404.06 crore for FY 2013-14 The Petitioner has furnished utilization of subsidy amount and balance amount to be adjusted against revenue gap as detailed in the Table below:

Table 4.67: Resource Gap utilization projected for FY 2013-14

Sl. No.	Particulars	Projected for both DISCOMs in MYT order for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Proposed resource gap grant from State Govt.	2320.00	1404.06
2	Less: Disallowed power purchase funded through State Govt. grant/subsidy	1348.99	863.89
3	Available Revenue Subsidy	971.01	540.17

Commission's analysis:

The Commission has considered the resource gap assistance for FY 2013-14 at Rs. 2160.00 Crore for both DISCOMs as per Bihar State Govt. letter dated 4-3-2013.

The Commission has considered the increased resource gap assistance as projected by the Petitioner and adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of SBPDCL and distribution loss approved by the Commission from resource gap funding by the State Govt. as detailed in the Table below:

Table 4.68: Resource Gap utilization considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Proposed resource gap assistance from State Govt.	2160.00	1307.23	1404.06	1404.06
2	Less: Disallowed power purchase funded through State Govt. grant	1588.02	1012.04	863.89	1050.84
3	Available balance resource gap assistance	571.98	295.19	540.17	353.22

4.37 Annual Revenue Requirement and Revenue Gap at existing tariff projected for FY 2013-14

Petitioner's submission:

The Petitioner has submitted that the gross ARR consists of the power purchase costs, interest and finance cost, O&M cost, depreciation and interest on working capital duly adjusted for non-tariff income and other income. The Petitioner has computed the total revenue requirement for FY 2013-14 against allocation from total approved revenue requirement by the Commission for FY 2013-14, as detailed in the Table below:

Table 4.69: ARR and Revenue Gap/(Surplus) projected for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
1	Purchase of power	5381.92	3429.88	3032.61
2	PGCIL & Other transmission	190.00	121.09	304.79

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)
	charges			
3	BSPTCL transmission charges	213.00	135.74	138.37
4	**O & M Expenses**	**530.15**	**325.58**	**332.10**
(i)	Employee expenses	404.24	268.72	253.94
(ii)	R&M expenses	79.87	35.94	43.77
(iii)	A&G expenses	46.04	20.92	21.05
(iv)	Holding company expenses allocated			13.34
5	Depreciation	77.60	34.92	155.60
6	Interest & Finance charges	211.28	94.44	82.70
7	Return on equity	123.06	69.66	229.78
8	Interest on SD			15.99
9	Interest on working capital	123.16	80.08	94.01
10	**Total Revenue requirement**	**6850.21**	**4291.38**	**4455.96**
11	Less: Non-tariff income	186.50	121.26	94.89
12	**Less**: Expenditure disallowed due to excess T&D losses	1588.02	1012.04	863.89
13	**Net Revenue requirement**	**5075.69**	**3158.08**	**3497.18**
14	Revenue from Existing tariff	3723.70	2421.20	2277.00
15	Revenue from sale of power-Nepal	255.20		
16	**Gross Gap / (Surplus)**	**1096.79**	**736.88**	**1220.18**

Commission's analysis:

The Commission noted that in the above table, the Petitioner has not considered the balance grant available wile arriving at the gap.

The Commission has computed the net annual revenue requirement based on the costs approved in the preceding paragraphs in the review as detailed in the Table below:

Table 4.70: ARR and Revenue Gap/(Surplus) considered by Commission for FY 2013-14 (RE)

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
1	Purchase of power	5381.92	3429.88	3032.61	3176.32
2	PGCIL & Other transmission charges	190.00	121.09	304.79	269.21
3	BSPTCL transmission charges	213.00	135.74	138.37	145.09
4	**O & M Expenses**	**530.15**	**325.58**	**332.10**	**328.78**

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Allocated ARR for SBPDCL for FY 2013-14	Projected by SBPDCL for FY 2013-14 (RE)	Now approved for FY 2013-14 (RE)
(i)	Employee expenses	404.24	268.72	253.94	253.94
(ii)	R&M expenses	79.87	35.94	43.77	40.44
(iii)	A&G expenses	46.04	20.92	21.05	21.06
(iv)	Holding company expenses allocated			13.34	13.34
5	Depreciation	77.60	34.67	155.60	69.68
6	Interest & Finance charges	211.28	94.44	82.70	55.65
7	Return on equity	123.06	69.18	299.78	69.16
8	Interest on SD			15.99	
9	Interest on working capital	123.16	82.37	94.01	72.11
10	**Less**: IDC				15.68
10	**Total Revenue requirement**	**6850.17**	**4292.94**	**4455.96**	**4170.32**
11	Less:: Non-tariff income	186.50	121.26	94.89	94.89
12	Less: Expenditure disallowed due to excess T&D losses	1588.02	1012.04	863.89	1050.84
13	**Net Revenue requirement**	**5075.65**	**3159.64**	**3497.18**	**3024.59**
14	Less: Revenue from Existing tariff	3723.70	2421.21	2277.00	2329.86
15	Less: Revenue from sale of power-Nepal	255.20			
16	**Gross Gap / (Surplus)**	**1096.75**	**738.44**	**1220.18**	**694.73**
17	Add: Recovery of (Surplus) / Revenue Gap of FY 2011-12	-170.33	-110.71	-110.71	
18	Add: Recovery of (Surplus) / Revenue Gap of FY 2012-13			170.00	
19	**Gap / (Surplus) before subsidy**	**926.42**	**627.73**	**1279.47**	**694.73**
20	Grant from State Government	2160.00	1307.23	1404.06	1404.06
21	Grant used for disallowed power	1588.02	1012.04	863.89	1050.84
22	Balance grant available	571.98	295.19	540.17	353.22
23	**Net Gap / (Surplus) after subsidy**	**354.44**	**332.54**	**739.30**	**341.51**

The Commission approves the net Revenue Gap of Rs. 341.51 crore for FY 2013-14 (RE), subject to final truing up as and when the audited annual accounts for FY 2013-14 are submitted by the Petitioner. The net revenue gap approved by the Commission for FY 2013-14 (RE) Rs. 341.51 crore against the Regulatory Asset of Rs.354.58 crore created for FY 2013-14 for Distribution business in MYT order dated 15th March 2013.

The revenue gap estimated by the Commission is based on the revised estimates submitted by SBPDCL as modified by the Commission and may vary with actual costs/expenditure based on the audited annual accounts for FY 2013-14.

Therefore, the Commission does not consider this gap of Rs.341.51 crore to be carried forward in ARR of SBPDCL for FY 2014-15. However, considering the estimated gap for FY 2013-14, the Commission also decides that the Regulatory Asset of Rs.354.58 crore approved in the tariff order for FY 2013-14 shall not be carried forward and adjusted in the ARR for FY 2014-15.

5. Revised Aggregate Revenue Requirement (ARR) for FY 2014-15

5.1 Background

The Commission has determined the Multi-Year Aggregate Revenue Requirement (ARR) for FY 2014-15 to FY 2015-16 combinedly for both the DISCOMs i.e. NBPDCL and SBPDCL and approved common retail supply tariff for both the DISCOMs for FY 2013-14 in the MYT Order dated 15th March 2013,

SBPDCL has submitted the petition independently seeking for determination of revised ARR and retail supply tariff for FY 2014-15. SBPDCL submitted that though the Commission has approved MYT figures for FY 2013-14, FY 2014-15and FY 2015-16. The Petitioner would like to seek to revise the ARR for FY 2014-15 so as to enable sound transmission of new company and also avoiding financial loss, if any to the Petitioner in transition phase. SBPDCL further submitted that the revised ARR for FY 2015-16 would be filed in next year along with review for FY 2014-15, as the capital expenditure planning and operational performance would have settled by that time.

In this chapter the Commission has analyzed the revised energy sales and components of expenditure and revenue projected, by SBPDCL for FY 2014-15.

5.2 Category –Wise Energy Sales

Petitioner's submission

SBPDCL submitted that it has considered the following approach for estimating the energy sales for FY 2014-15.

- Actual sales for first 5 months of FY 2013-14 for SBPDCL were considered and estimated on a prorata basis for entire year of FY 2013-14 and FY 2014-15.
- Another methodology was adopted where in the 5 year CAGR of sales were adopted and applied on the actual sales of FY 2012-13 for estimating sales of FY 2014-15.

- The sales for FY 2014-15 arrived out of the above two methodologies were in line with the sales approved in the tariff order dated 15th March 2013 and therefore the approved sales for FY 2014-15 have been adopted by the Petitioner.

SBPDCL has submitted that in order to separate energy sales approved by the Commission combinedly for NBPDCL and SBPDCL, the approved sales have been bifurcated into NBPDCL and SBPDCL in line with the ratio of actual sales of five months of FY 2012-13 of both utilities, adopting the allocation ratio as given in the Table below:

Table 5.1: Energy Sales Allocation Ratio for NBPDCL & SBPDCL

Particulars	Nov-Mar 2013 NBPDCL	Nov-Mar 2013 SBPDCL	Total (MUs)	Percentage allocation NBPDCL (%)	Percentage allocation SBPDCL (%)
Domestic	**569**	**559**	**1128**	**50.5%**	**49.5%**
Kutir Jyoti – BPL Consumer	*130*	*67*	*197*	*66.0%*	*34.0%*
Domestic – I	*217*	*118*	*335*	*64.8%*	*35.2%*
Domestic – II	*221*	*374*	*595*	*37.2%*	*62.8%*
Domestic – III	*0*	*0*	*0*	*84.8%*	*15.2%*
Commercial	**112**	**181**	**293**	**38.2%**	**61.8%**
Non-Domestic – I	*6*	*3*	*9*	*70.4%*	*29.6%*
Non-Domestic – II	*106*	*178*	*284*	*37.2%*	*62.8%*
Non-Domestic – III	*0*	*1*	*1*	*23.4%*	*76.6%*
Public Lighting	**5**	**22**	**27**	**20.0%**	**80.0%**
Street Lighting – I	*2*	*2*	*4*	*50.9%*	*49.1%*
Street Lighting – II	*3*	*20*	*23*	*14.6%*	*85.4%*
Irrigation	**39**	**111**	**150**	**26.0%**	**74.0%**
IAS – I	*6*	*84*	*89*	*6.2%*	*93.8%*
IAS – II	*34*	*27*	*61*	*55.4%*	*44.6%*
Public Water Works	**9**	**14**	**23**	**39.0%**	**61.0%**
Industrial LT	**41**	**72**	**113**	**36.4%**	**63.6%**
LTIS – I	*24*	*39*	*64*	*38.1%*	*61.9%*
LTIS – II	*17*	*32*	*49*	*34.1%*	*65.9%*
Industrial HT	**135**	**436**	**571**	**23.7%**	**76.3%**
HTS – I	*76*	*163*	*238*	*31.7%*	*68.3%*
HTS – II	*23*	*62*	*84*	*26.7%*	*73.3%*
HTS – III	*6*	*18*	*24*	*26.6%*	*73.3%*
HTSS	*31*	*194*	*225*	*13.8%*	*86.2%*
Railway	**5**	**203**	**208**	**2.5%**	**97.5%**
Nepal	**276**	**-**	**276**	**100.0%**	**0.0%**
UI	**12**	**23**	**36**	**35.0%**	**65.0%**
Total	**1205**	**1620**	**2825**	**42.6%**	**57.4%**

Note: The sales for Domestic-III and Non Domestic-III categories are depicted as '0' due to rounding off of the actual figures.

Based on the above allocation, the revised projected sales for SBPDCL and NBPDCL for FY 2014-15 are submitted as given in the Table below:

Table 5.2: Sales Allocation Projection for NBPDCL and SBPDCL for FY 2014-15

(MU)

Particulars	Total Approved for FY 2014-15	Allocation of NBPDCL (%)	NBPDCL Sales for FY 2014-15	Allocation of SBPDCL (%)	SBPDCL Sales for FY 2014-15
Domestic	**3643**		**1749**		**1894**
Kutir Jyoti – BPL Consumer	*540*	*66.0%*	*356*	*34.0%*	*184*
Domestic – I	*861*	*64.8%*	*558*	*35.2%*	*303*
Domestic – II	*2241*	*37.2%*	*834*	*62.8%*	*1407*
Domestic – III	*1*	*84.8%*	*1*	*15.2%*	*0*
Commercial	**1072**		**406**		**666**
Non-Domestic – I	*24*	*70.4%*	*17*	*29.6%*	*7*
Non-Domestic – II	*1044*	*37.2%*	*389*	*62.8%*	*655*
Non-Domestic – III	*4*	*23.4%*	*1*	*76.6%*	*3*
Public Lighting	**56**		**11**		**45**
Street Lighting – I	*9*	*50.9%*	*5*	*49.1%*	*4*
Street Lighting – II	*47*	*14.6%*	*7*	*85.4%*	*40*
Irrigation	**558**		**135**		**423**
IAS – I	*353*	*6.2%*	*22*	*96.7%*	*331*
IAS – II	*205*	*55.4%*	*114*	*44.6%*	*91*
Public Water Works	**60**	**39.0%**	**23**	**61.0%**	**37**
Industrial LT	**346**		**126**		**220**
LTIS – I	*206*	*38.1%*	*78*	*61.9%*	*128*
LTIS – II	*140*	*34.1%*	*48*	*65.9%*	*92*
Industrial HT	**2002**		**498**		**1504**
HTS – I	*889*	*31.7%*	*282*	*68.3%*	*607*
HTS – II	*261*	*26.7%*	*70*	*73.3%*	*191*
HTS – III	*230*	*26.6%*	*61*	*73.4%*	*169*
HTSS	*622*	*13.8%*	*86*	*86.2%*	*536*
Railway	**606**	**2.5%**	**15**	**97.5%**	**591**
Nepal	**550**	**100.0%**	**550**	**0.0%**	**-**
UI	**-**	**35.0%**	**-**	**65.0%**	**-**
Total	**8893**		**3515**		**5378**

Commission's analysis

The Commission has approved the energy sales for FY 2014-15 in the MYT order dated 15th March, 2013 based on the actual sales in the earlier 5 years and considering the trend or CAGR in the earlier years. Since the unbundling of erstwhile BSEB was done w.e.f 1-11-2012, there is no data of energy sales for a full financial year exclusively to SBPDCL.

The Commission considered the methodology adopted by SBPDCL for segregation of sales approved for FY 2014-15 among NBPDCL and SBPDCL and accordingly considered the energy sales of 5378 MU for FY 2014-15 to SBPDCL.

However, SBPDCL is directed to maintain the data of actual energy sales category-wise/sub-category-wise and revenue billed, month-wise during FY 2014-15 for producing in the petition for review of FY 2014-15.

5.3 Category wise number of Consumers

Petitioner's Submission

SBPDCL has submitted that the following approach has been considered for estimating number of consumers for FY 2014-15.

- Number of Consumers have been estimated as per CAGR (from FY 2008-09 to FY 2012-13) arrived on actual number of consumers of FY 2012-13 for NBPDCL and SBPDCL for all categories except Kutir Jyoti and Irrigation & Agriculture (IAS) Category.
- For Kutir Jyoti and IAS Category, number of consumers for FY 2014-15 are considered same as that approved in MYT tariff order dated 15th March 2013.
- The approved number of consumers for these two categories has been allocated in the ratio of actual consumers for FY 2012-13.

The revised number of consumers projected for FY 2014-15 are as under:

Table 5.3: Number of Consumers for FY 2014-15

Particulars	NBPDCL Consumers as on March 2013	CAGR Considered	SBPDCL	
			consumers for FY 2013-14	consumers for FY 2014-15
Domestic	**1,634,534**		**1,932,545**	**2,218,759**
Kutir Jyoti – BPL Consumer	*450,173*		*631,332*	*789,165*
Domestic – I	*242,892*	*9.9%*	*266,857*	*293,186*
Domestic – II	*941,435*	*9.9%*	*1,034,322*	*1,136,373*
Domestic – III	*34*		*34*	*34*
Commercial	**174,471**		**198,364**	**225,532**
Non-Domestic – I	*5,714*	*13.7%*	*6,497*	*7,388*
Non-Domestic – II	*168,589*	*13.7%*	*191,698*	*217,976*

Particulars	NBPDCL Consumers as on March 2013	CAGR Considered	SBPDCL	
			consumers for FY 2013-14	consumers for FY 2014-15
Non-Domestic – III	*168*		*168*	*168*
Public Lighting	**310**		**319**	**328**
Street Lighting – I	*83*	*2.7%*	*85*	*88*
Street Lighting – II	*227*	*3.0%*	*234*	*241*
Irrigation	**53,194**		**54,776**	**56,404**
IAS – I	*51,679*	*3.0%*	*53,215*	*54,798*
IAS – II	*1,515*	*3.0%*	*1,560*	*1,606*
Public Water Works	**628**	**7.6%**	**676**	**728**
Industrial LT	**13,565**		**14,653**	**15,828**
LTIS – I	*12,353*	*8.0%*	*13,343*	*14,413*
LTIS – II	*1,212*	*8.0%*	*1,309*	*1,414*
Industrial HT	**936**		**1,038**	**1,152**
HTS – I	*872*	*10.9%*	*967*	*1,073*
HTS – II	*46*	*10.9%*	*51*	*57*
HTS – III	*2*	*10.9%*	*2*	*2*
HTSS	*16*	*10.9%*	*18*	*20*
Railway	*15*	**3.2%**	**15**	**16**
Nepal	**-**		**-**	**-**
UI	**-**		**-**	**-**
Total	**1,877,653**		**2,202,386**	**2,518,746**

Commission's analysis

The Commission has considered the total number of consumers for SBPDCL for FY 2014-15 as projected in the above Table. SBPDCL is directed to maintain correct details of category-wise / sub category-wise number of consumers, month-wise during FY 2014-15.

5.4 Category-wise connected load

Petitioner's submission

SBPDCL has submitted that following approach has been considered for estimating connected load for FY 2014-15.

- The actual connected load per consumer is arrived for FY 2012-13 actual for SBPDCL and the same has been applied on estimated number of consumers for FY 2014-15 to arrive at the connected load for FY 2014-15.

The details of connected load projected for FY 2014-15 are as given in the Table below:

Table 5.4: Connected Load for FY 2014-15

(KW)

Particular	Connected Load
Domestic	2,421,504
Commercial	536,336
Public Lighting	8,007
Irrigation	238,118
Public Water Works	11,740
Industrial LT	143,550
Industrial HT	472,442
Railway	16,200
Total	**3,847,897**

Commission's analysis

The Commission observed that the connected load furnished for Railway category in the above Table is very low and sought for correct details from SBPDCL. In its letter dated 23-01-2014, SBPDCL furnished the details as given below:

Name of the Company	No. of consumers	Connected Load (kw)
NBPDCL	2	19620
SBPDCL	15	131580

The Commission has considered the category-wise connected load for FY 2014-15 to SBPDCL as shown in the Table below:

Table 5.5: Connected Load considered for FY 2014-15

Particular	Connected Load (kw)
Domestic	2,421,504
Commercial	536,336
Public Lighting	8,007
Irrigation	238,118
Public Water Works	11,740
Industrial LT	143,550
Industrial HT	472,442
Railway	131,580
Total	**3,963,277**

The Petitioner is directed to maintain correct details of category-wise and sub category-wise connected load of consumers during FY 2014-15.

5.5 Distribution Loss

Petitioner's submission

SBPDCL submitted that the actual distribution loss considering 5 months of operation from April 2013 to August 2013 works out to 48.19%. The distribution loss has been worked out on the methodology adopted by the Commission i.e., excluding UI sales. SBPDCL stated that the distribution losses are much higher than approved in MYT order dated 15th March 2013.

The revised distribution loss trajectory projected by the Petitioner is given below:

Year	Distribution Loss %
FY 2013-14	46.50%
FY 2014-15	45.00%

Commission's analysis

The Commission has fixed the distribution loss projection combinedly for both DISCOMs for FY 2014-15 to FY 2015-16 in the MYT order dated 15th March 2013, considering all aspects, as given below:

Year	Distribution Loss %
FY 2013-14	23%
FY 2014-15	21.4%
FY 2015-16	20%

The Commission does not see any justification to revise the loss trajectory for FY 2014-15. Hence, the Commission retains the Distribution loss at 21.4% for FY 2014-15 to SBPDCL. However, SBPDCL is directed to conduct month-wise energy audit and arrive at month-wise distribution losses during FY 2014-15.

5.6 State Transmission Loss

Petitioner's submission

SBPDCL has projected the state transmission loss at 4.0% for FY 2014-15 as approved by the Commission in the MYT Order for FY 2014-15.

Commission's analysis

The Commission considered the state transmission loss at 4.0% for FY 2014-15 as approved in MYT order dated 15th March, 2013.

5.7 Central Transmission Loss

Petitioner's submission

NBPDCL has projected the weighted average transmission loss of Eastern Region at 2.49%. The weighted average transmission loss of last 52 weeks (from 29th Oct 2012 to 27th October 2013) of Eastern Region, since the same practice is adopted by all State Commissions and is more practical as it captures varying loss of cost 52 weeks.

Commission's Analysis

The Commission considered the transmission system loss in the Eastern Regional Transmission System at 2.49% for FY 2014-15 as projected by SBPDCL.

5.8 Energy Requirement

Petitioner's submission

Based on the energy sales and distribution losses projected the SBPDCL has projected the energy requirement at its transmission periphery as given in the Table below:

Table 5.6: Energy Requirement projected by NBPDCL for FY 2014-15

Particulars	Unit	Projected for FY 2014-15
Energy Sales including Sales to Nepal	MU	5378
Distribution Losses	%	45.00%
Distribution Losses	MU	4400
Energy required at Distribution Periphery	MU	**9779**
STU Losses	%	4.00%
State Transmission Losses	MU	407
Energy required at Transmission Periphery	MU	**10186**

Commission's analysis

The Commission has considered the distribution loss at 21.4% and state transmission loss at 4.0%. Based on the approved sales, distribution loss and transmission loss the energy requirement into state transmission system is as given in the Table below:

Table 5.7: Energy requirement approved by the Commission for FY 2014-15

Particulars	Unit	Approved for FY 2014-15
Sales including sales to Nepal	MU	5378
Distribution Losses	%	21.40%
Distribution Losses (MU)	MU	1464
Energy required at Distribution periphery	MU	6842
State Transmission	%	4.00%
State Transmission Loss	MU	285
Energy required at state Transmission Periphery	MU	7127

5.9 Power Purchase

Petitioner's submission

SBPDCL submitted that the DISCOMs rely on a combination of IPPs, allocation from Central Generating Stations and State Projects for procuring power for sale in the State. This power has been proposed to be allocated between NBPDCL and SBPDCL in the proportion as determined by Bihar State Power Holding Company Limited (BSPHCL) in its order no. 1442 dated 8th May, 2013 which states that,

"*Resolved that the approval be and is here by granted for allocation of power in the ratio of 35% : 65% between NBPDCL and SBPDCL for each PPA executed (except 50 MW power allocated from Talcher Stage – 1 for Nepal, which shall be allocated to NBPDCL exclusively) as per SI. No. A of Annexure – 1 of agenda notes.......*"

"Further resolved that the PPA executed as SI. No. B of Annexure – 1 shall be allocated between NBPDCL and SBPDCL on the basis of the ratio of connected (kW) i.e., 44%:56%".

NBPDCL has also stated that the Board resolution also provides the details of power allocation for each of power purchase source which is as detailed in the Table below:

Table 5.8: Power Allocation as per Board resolution for NTPC and PTC projects

Particulars	NBPDCL (MW)	SBPDCL (MW)	Total (MW)
NTPC	570.24	927.70	1497.94
PTC	118.03	222.07	340.10
Total	**688.27**	**1149.77**	**1838.04**
Allocation Ratio	37%	63%	100%

NBPDCL has submitted that total power purchase quantum and power purchase cost are allocated in the above ratio to arrive at power availability and power purchase cost.

5.10 Power Purchase Sources

(i) NHPC, NTPC and PTC

SBPDCL has submitted that the Power Purchase from NTPC, NHPC and PTC has been considered for FY 2014-15 based on the actual 5 months quantum and further prorata to 12 months with adjustment to capture overall power purchase in a reasonable manner and then segregated into NBPDCL and SBPDCL as per allocation ratio.

(ii) New Sources

SBPDCL has submitted that the Power Purchase from the new sources has been considered based on the Commissioning of the Station. The power from the new projects is allocated between NBPDCL and SBPDCL in the ratio of 44:56 as per Board Resolution. The details are as given in the Table below:

Table 5.9: New Sources Assumption

Stations	Expected COD	Power purchase for days in FY 2014-15	Net capacity after PLF & Aux (MW)	Net power purchase (MU)	Share of NBPDCL (44%) (MU)	Share of SBPDCL (56%) (MU)	Average power purchase rate (Rs/Kwh)
Kantee Bijlee	April-14	365	160	1402	617	785	5.00
BTPS – U#1	June -14	304	80	584	257	327	5.00
BTPS – U#2	Dec -14	122	80	234	103	131	5.00
Barh-Stage II (for FY 2013-14)	Dec -13	121	280	813	358	455	5.00
Barh-Stage II (for FY 2014-15)	-	365	280	2453	1079	1374	5.00
Essar power	July – 14	184	450	1987	874	1113	3.20
Nabinagar	May - 14	335	21	169	74	95	5.00

(iii) Medium/ Short term

SBPDCL submitted that the power purchase from Adani, DVC and Power Exchange (IEX) are considered as per actual trend of 5 months power purchase and then prorate to 12 months for FY 2014-15.

(iv) NEA/ UI

The Power Purchase for NEA (Nepal) and UI is assumed at same level as approved in MYT order for FY 2014-15.

(v) Renewable Energy

SBPDCL submitted that it proposes to purchase 17 MU Solar Power and 44 MU Non-Solar Power during FY 2014-15.

The power purchase projected for FY 2014-15 along with total approved quantum and allocated power quantum to SBPDCL, is as detailed in the Table below:

Table 5.10: Power Purchase projected for FY 2014-15

(MU)

Sl. No.	Power Purchase Sources	Total Approved for both DISCOMs for FY 2014-15	Allocation for SBPDCL for FY 2014-15	Now Projected for SBPDCL for FY 2014-15
	Central Sector Stations			
1	**NTPC Stations**			
	Farakka 1,2&3	2889	1878	2472
	Talchar	2449	1391	1780
	Kahalgoan 1 &2	2670	1736	1867
	Barh – Stg 2U #1	2457	1597	1374
	Barh – Stg 2U #1	2048	1331	-
	Barh – Stg 1U #1	977	635	-
	Nabinagar- NTPC	-		95
	NTPC Total	**13490**	**8568**	**7587**
2	**NHPC Stations**	**-**		
	Rangit	78	51	94
	Teesta	404	263	490
	NHPC Total	**482**	**313**	**584**
3	**PTC Stations**			
	Chukka	298	194	474
	Tala	968	629	930
	PTC Total	**1266**	**823**	**1404**
4	DVC			
	DVC	745	484	230
	DVC Total	**745**	**484**	**230**
	Sub Total Central Stations	**15983**	**10189**	**9805**
5	**State Generating Stations**	**-**		
	BTPS	1214	789	458
	KBUNL Stage 1 U# 1	607	395	392
	KBUNL Stage 1 U# 2	607	395	392
	SGS Total	**2428**	**1578**	**1243**
6	**Medium/ Short Term/ Others**			
	Adani	1752	1139	938
	NEA	50	33	33

Sl. No.	Power Purchase Sources	Total Approved for both DISCOMs for FY 2014-15	Allocation for SBPDCL for FY 2014-15	Now Projected for SBPDCL for FY 2014-15
	Essar	2957	1922	1113
	IEX	-		108
	Open Market Purchase	-		
	Others Total	**4759**	**3093**	**2192**
7	**Renewable Power Purchase**			
	BSHPC	45	29	29
	Sugar Mills	80	52	52
	Solar Power Purchase	49	32	32
	Renewable Total	**174**	**113**	**113**
	Total Power Purchase	**23344**	**14973**	**13353**

Commission's analysis

SBPDCL has proposed to purchase power from Central Generating Stations of NTPC and NHPC, Chukka and Tala of Power Trading Corporation (PTC), KBUNL, IPPs from outside the State, BTPS of BSPGCL and others with whom it has an agreement/arrangement.

In MYT Order dated 15th March 2013, 23344 MU of power purchase was approved for both the DISCOMs for FY 2014-15, out of which 14973 MU was allocated for SBPDCL for FY 2014-15 by the Petitioner as per the methodology considered for segregation.

The Petitioner has stopped purchasing power from DVC since July 2013 and also there is no agreement to purchase power from DVC. The average power purchase cost per unit from DVC is about Rs. 4.88. Hence, the Commission has not considered the purchase of costly power from DVC as there is surplus power availability during FY 2014-15.

For BTPS, the Commission has approved net generation of 445 MU for FY 2014-15 in the Tariff Order of BSPGCL for FY 2014-15. Out of this 445 MU, 249 MU is allocated to SBPDCL (at 56%) and 196 MU is allocated to NBPDCL (at 44%).

The details of power purchase from various sources approved to SBPDCL for FY 2014-15 as detailed in the Table below:

Table 5.11: Power Purchase approved for FY 2014-15

(MU)

Sl. No.	Power Purchase Sources	Projected by SBPDCL for FY 2014-15	Now approved to SBPDCL for FY 2014-15
	Central Sector Stations		
1	NTPC Stations		
	Farakka 1,2&3	2472	2472
	Talchar	1780	1780
	Kahalgoan 1 &2	1867	1867
	Barh – Stg 2U #1	1374	1374
	Nabinagar- NTPC	95	95
	NTPC Total	**7588**	**7588**
2	NHPC Stations	-	-
	Rangit	94	94
	Teesta	490	490
	NHPC Total	**584**	**584**
3	PTC Stations		
	Chukka	474	474
	Tala	930	930
	PTC Total	**1404**	**1404**
4	DVC	230	0
	DVC Total	**230**	**0**
	Sub Total Central Stations	**9806**	**9576**
5	State Generating Stations		
	BTPS	458	249
	KBUNL Stage 1 U# 1	392	392
	KBUNL Stage 1 U# 2	392	392
	SGS Total	**1242**	**1033**
6	Medium/ Short Term/ Others		
	Adani	938	938
	NEA	33	33
	Essar	1113	1113
	IEX	108	108
	Others Total	**2192**	**2192**
7	Renewable Power Purchase		
	BSHPC	29	29
	Sugar Mills	52	52
	Solar Power Purchase	32	32
	Renewable Total	**113**	**113**
	Total Power Purchase	**13353**	**12914**

The Commission approves power purchase of 12914 MU for FY 2014-15 to SBPDCL as shown in the above Table.

5.11 Energy Balance

Petitioner's submission

SBPDCL submitted the Energy Balance for FY 2014-15 based on the energy sales, loss and power availability as detailed in the Table below:

Table 5.12: Energy Balance Projected by SBPDCL for FY 2014-15

(MU)

Sl. No.	Particulars	Total approved for NBPDCL and SBPDCL for FY 2014-15	Projected for SBPDCL for FY 2014-15
1	Energy sales including sales to Nepal	8893	5378
2	Distribution Losses (%)	21.40%	45.00%
3	Distribution Losses	2421	4400
4	**Energy required at Distribution periphery**	**11314**	**9779**
5	STU Losses (%)	4.00%	4.00%
6	State Transmission Losses	471	407
7	**Energy required at Transmission periphery**	**11786**	**10186**
8	**Total Available Power**	23344	13353
9	CGS Power (NTPC, NHPC, PTC & DVC)	15983	9805
10	SGS and Other power	7381	3548
11	CTU Transmission Losses % on CGS Power	2.73%	2.49%
12	CTU Transmission Losses	436	244
13	**Net Power available after CTU losses**	**22908**	**13109**
14	**Surplus/ (Deficit) Energy**	**11122**	**2923**

Commission's analysis

The energy balance is worked out based on energy sales and T&D losses considered by the Commission as detailed in the Table below:

Table 5.13: Energy Balance approved for FY 2014-15

(MU)

Sl. No.	Particulars	Projected for SBPDCL for FY 2014-15	Approved by the Commission for FY 2014-15
1	Energy sales including sales to Nepal	5378	5378
2	Distribution Losses (%)	45.00%	21.40%
3	Distribution Losses	4400	1464
4	**Energy required at Distribution periphery**	**9779**	**6842**
5	State Transmission Loss (%)	4.00%	4.00%
6	State Transmission Loss	407	285

Sl. No.	Particulars	Projected for SBPDCL for FY 2014-15	Approved by the Commission for FY 2014-15
7	**Energy Required at Transmission periphery**	**10186**	**7127**
8	**Total Available Power**	**13353**	**12914**
9	CGS Power (NTPC, NHPC, PTC & DVC)	9805	9576
10	SGS and Other power	3548	3338
11	CTU Transmission Losses % on CGS Power	2.49%	2.49%
12	CTU Transmission Losses	244	238
13	**Net Power available after CTU losses (8-12)**	**13109**	**12676**
14	**Surplus/ (Deficit) Energy at state periphery (13-7)**	**2923**	**5549**

The energy requirement at distribution losses projected by SBPDCL and at distribution losses approved by the Commission, surplus energy available and additional power purchase disallowed due to excess distribution loss for FY 2014-15 are as given in the Table below:

Table 5.14: Surplus power available and additional power disallowed due to excess distribution loss for FY 2014-15

Sl. No.	Particulars	Unit	FY 2014-15	
			As per SBPDCL losses projected	As per BERC approved losses
1	Energy sales including sales to Nepal	MU	5378	5378
2	Distribution Losses (%)	%	45.00%	21.40%
3	Distribution Losses	MU	4400	1464
4	Energy required at distribution periphery	MU	9779	6842
5	STU Losses (%)	%	4.00%	4.00%
6	State Transmission Losses	MU	407	285
7	**Energy required at state periphery**	**MU**	**10186**	**7127**
	Energy Available			
8	**Total power purchase / required to purchase**	**MU**	**12914**	**7261**
9	Losses in Regional transmission system	%	2.49%	1.84%
10	Regional losses	MU	238	134
11	Net power requirement at state periphery	MU	12676	7127
12	Surplus power {12914 – (7261)}	MU	-	5653

Sl. No.	Particulars	Unit	FY 2014-15	
			As per SBPDCL losses projected	As per BERC approved losses
13	Additional power at state transmission periphery due to excess distribution losses (10186 – 7127)	MU	-	3059
14	Additional power purchase due to excess distribution loss disallowed {3059/(1 - 1.84%)}	MU	-	3116
15	Surplus Power to be sold outside the state			2537

The total purchases from long term sources has been worked out considering the impact of average regional transmission losses (1.84% = 238 MU /12819 MU*100) applicable on the total power purchase. The reason for applying the average regional transmission losses is that the power purchase quantum also includes sources of power on which regional transmission losses are not applicable. ex: UI power, Nepal, BSHPC, sugar mills etc. accordingly, the gross power purchase required to be done in FY 2014-15 is 7261 MU with a regional transmission loss of 134 MU {7261 = 7127 / (1-1.84%)}.

The Commission disallowed the power purchase quantum equivalent of 3116 MU for FY 2014-15, based on the principle that excess power purchase on account of higher distribution losses i.e. over and above the approved losses shall not be permitted.

5.12 Power Purchase Cost

Petitioner's Submission

SBPDCL has submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC, NHPC & PTC in the case of petitioner. The petitioner has considered the actual energy charges for these power stations based on actual 5 months information and considered fixed charges from Regional Energy Account (REA) statement for the month of September 2013. The computation of fixed charges is given in the Table below:

Table 5.15: Fixed Charges Projected for FY 2014-15

Power Station	% Allocation	AFC (Rs. crores)	Capacity charge as per Allocation (Rs. crores)	NBPDCL share (Rs. crores)	SBPDCL share (Rs. crores)
Farakka 1 & 2	32.25%	950.38	306.52	107.28	199.24
Farakka 3	26.39%	479.45	126.55	44.29	82.25
Kahalgoan 1	43.32%	563.88	244.49	85.50	158.79
Kahalgoan 2	5.99%	1270.64	76.08	26.63	49.45
Talcher 1	42.89%	590.41	253.25	109.36	143.89
Rangit	35.00%	79.53	27.84	9.74	18.09
Teesta	21.26%	468.30	99.56	34.85	64.71
Total			**1,134.08**	**417.65**	**716.43**

Source: REA statement for Sep 2013

The power purchase costs for DVC, Adani, BSHPC and sugar mills are considered as per actual power purchase cost in last 5 months

The Petitioner has considered tariffs as approved for rest of other power stations / sources for FY 2014-15 and requested the Commission to allow actual power purchase costs in true-up process.

SBPDCL submitted that following is the long term power purchase price escalation based on previous submission made by BSPHCL and SBPDCL annual accounts of FY 2012-13.

Table 5.16: Power Purchase Cost Escalation

Station	2008-19	2009-10	2010-11	2011-12	2012-13 (provisional)	CAGR
NTPC	2.20	2.63	3.16	3.65	3.27	10.37%
NHPC	1.90	1.93	1.94	1.79	2.44	6.44%
PTC	1.94	1.93	1.93	1.79	2.39	5.31%

SBPDCL further submitted that the CERC vide notification dated 1st April 2013 has provided escalation rate for domestic coal as 6.62%. Further in lieu of domestic coal shortages and likely import of coal by coal companies, an escalation of 15.0% is considered in energy charges for FY 2014-15. Also an increase of 15.0% is considered in fixed charges for FY 2014-15 as CERC orders for the next control period are unavailable at this moment plus the regulations for next control period are also awaited. The Commission is requested to kindly allow the increase as proposed for FY 2014-15.

SBPDCL has projected the power purchase cost for FY 2014-15 as detailed in the Table below:

Table 5.17: Power Purchase Cost Projected for FY 2014-15

Sl. No.	Power Purchase Sources	Rev. Prj NBPDCL FY 2014-15 (MUs)	Fixed Charges FY 2014-15 (Rs. cr)	Energy charges FY 2014-15 (Rs/ kWh)	Energy Charges FY 2014-15 (Rs. cr)	Total Charges FY 2014-15 (Rs. cr)	Average Tariff (Rs./kWh)	Approved Average Tariff (Rs./ kWh)
	Central Sector Stations							
1	**NTPC Stations**							
	Farakka 1,2&3	2472	324	2.80	692	1016	4.11	4.38
	Talchar	1780	165	1.79	319	485	2.72	2.72
	Kahalgoan 1 &2	1867	239	2.86	534	773	4.14	3.59
	Barh – Stg 2U #1	1374	275	3.00	415	687	5.00	4.00
	Nabinagar - NTPC	95	-	5.00	47	47	5.00	
	NTPC Total	**7587**	**1003**	**2.64**	**2004**	**3008**	**3.96**	
2	**NHPC Stations**							
	Rangit	94	21	1.67	16	36	3.88	3.69
	Teesta	490	74	1.50	74	147	3.02	2.01
	NHPC Total	**584**	**95**	**1.53**	**89**	**184**	**3.16**	
3	**PTC Stations**							
	Chukka	474	-	1.83	87	87	1.83	3.04
	Tala	930	-	2.32	216	216	2.32	3.04
	PTC Total	**1404**	**-**	**2.15**	**303**	**303**	**2.15**	
4	**DVC**							
	DVC	230	-	5.62	129	129	5.62	4.28
	DVC Total	230	-	5.62	129	129	5.62	
	Sub Total Central Stations	**9805**	**1099**	**2.58**	**2525**	**3624**	**3.70**	
5	**State Generating Stations**							
	BTPS	458	92	3.00	137	229	5.00	4.13
	KBUNL Stage 1 U# 1	392	-	5.00	196	196	5.00	4.00
	KBUNL Stage 1 U# 2	392	-	5.00	196	196	5.00	4.00
	SGS Total	**1243**	**92**	**4.26**	**530**	**621**	**5.00**	

Sl. No.	Power Purchase Sources	Rev. Prj NBPDCL FY 2014-15 (MUs)	Fixed Charges FY 2014-15 (Rs. cr)	Energy charges FY 2014-15 (Rs/ kWh)	Energy Charges FY 2014-15 (Rs. cr)	Total Charges FY 2014-15 (Rs. cr)	Average Tariff (Rs./kWh)	Approved Average Tariff (Rs./ kWh)
6	**Medium/ Short Term/ Others**							
	Adani	938	-	6.04	566	566	6.04	4.54
	NEA+ UI	33	-	5.64	18	18	5.64	4.90
	Essar	1113	-	3.20	356	356	3.20	3.09
	IEX	108	-	4.50	49	49	4.50	
	Others Total	**2192**	**-**	**4.51**	**990**	**990**	**4.51**	
7	**Renewable Power Purchase**		-					
	BSHPC	29	-	2.86	8	8	2.86	2.57
	Sugar Mills	52	-	5.18	27	27	5.18	4.36
	Solar Power Purchase	32	-	11.00	35	35	11.00	11.00
	Renewable Total	**113**	**-**	**6.22**	**70**	**70**	**6.22**	
	Total Power Purchase	**13353**	**1190**	**3.08**	**4115**	**5305**	**3.97**	

Commission's analysis

SBPDCL has considered the Power Purchase Cost by escalating the fixed costs and energy charges at 15% on the rates projected for purchase of power from various generating companies for FY 2013-14 (RE).

The Commission considers 10% increase for the purchase of power from NTPC and KBUNL thermal stations on the average actual rates considered in FY 2013-14 (RE) to cover likely increase in the cost of coal, transportation and other charges for computing the Power Purchase cost for FY 2014-15. For purchase of power from NHPC hydel stations and other sources, the Commission has considered 5% increase on the average actual rates considered in FY 2013-14 (RE). For Solar, the cost as proposed by the Petitioner is considered. For BTPS, the cost approved in the Tariff Order of BSPGCL for FY 2014-15 is considered.

The Commission has approved the quantum of Power Purchase from all the Central Generating Stations and others as they have long/medium term contract and it is obligatory to Purchase Power offered by these sources. The Commission would however, limit the Power Purchase to the energy requirement approved in paragraph 5.11 and Tables 5.13 and 5.14. The surplus power after meeting the demand of the consumers fully, without any restrictions on power supply, shall be sold outside at not less than the average purchase cost to neutralize the impact of purchase of additional power.

The source-wise Power Purchase Cost for FY 2014-15 approved by the Commission is given in the Table below:

Table 5.18: Power Purchase Cost approved for FY 2014-15

Sl. No.	Power Purchase Sources	Energy Purchased (MU)	Average cost (Rs./kWh)	Power Purchase cost (Rs. crore)
	Central Sector Stations			
1	NTPC Stations			
	Farakka 1,2&3	2472	4.20	1038.24
	Talchar	1780	2.46	437.88
	Kahalgoan 1 &2	1867	4.10	765.47
	Barh – Stg 2U #1	1374	5.00	687.00
	Nabinagar- NTPC Railway	95	5.00	47.50
	NTPC Total	**7588**	**3.92**	**2976.09**
2	NHPC Stations			
	Rangit	94	2.99	28.11
	Teesta	490	3.39	166.11
	NHPC Total	**584**	**3.33**	**194.22**
3	PTC Stations			
	Chukka	474	1.67	79.16
	Tala	930	2.12	197.16
	PTC Total	**1404**	**1.97**	**276.32**
4	DVC			
	DVC	0	0.00	0.00
	DVC Total	**0**	**0.00**	**0.00**
	Sub Total Central Stations	**9576**	**3.60**	**3446.62**
5	State Generating Stations	-	-	
	BTPS	249	3.79	94.37
	KBUNL Stage 1 U# 1	392	5.00	196.00
	KBUNL Stage 1 U# 2	392	5.00	196.00
	SGS Total	**1033**	**4.71**	**486.37**
6	Medium/ Short Term/ Others			
	Adani	938	6.61	620.02
	NEA	33	5.15	17.00

Sl. No.	Power Purchase Sources	Energy Purchased (MU)	Average cost (Rs./kWh)	Power Purchase cost (Rs. crore)
	Essar	1113	3.20	356.16
	IEX	108	4.31	46.55
	Others Total	**2192**	**4.74**	**1039.72**
7	Renewable Power Purchase			
	BSHPC	29	2.59	7.51
	Sugar Mills	52	5.12	26.62
	Solar Power Purchase	32	11.00	35.20
	Renewable Total	**113**	**6.14**	**69.34**
	Total Power Purchase	**12914**	**3.90**	**5042.05**

The Commission approves the Power Purchase of 12914 MU from various sources at a cost of Rs. 5042.05 Crore for FY 2014-15.

PGCIL Charges

Petitioner's Submission

SBPDCL has submitted that they have to pay transmission charges to PGCIL for use of transmission facilities enabling power drawal from Eastern Region and these transmission charges are computed for FY 2014-15 based on the new transmission pricing mechanism and the figures are taken from Regional Transmission Account (RTA) for the month of September, 2013. The Transmission Charges so computed are as given in the Tables below:

Table 5.19: Transmission Charges for Injection of Power for FY 2014-15

Stations	Rates (Rs./MW/ Month)	Capacity for Bihar (MW)	NBPDCL (MW)	SBPDCL (MW)	NBPDCL (Rs. Cr)	SBPDCL (Rs. Cr)
Farakka 1 & 2	79,544	491.40	171.99	319.41	1.37	2.54
Farakka 3	79,544	109.54	38.34	71.20	0.30	0.57
Talchar	79,544	408.06	176.21	231.85	1.40	1.84
Kahalgaon Stage 1	1,09,500	336.89	117.91	218.98	1.29	2.40
Kahalgaon Stage 2	1,09,500	91.35	31.97	59.38	0.35	0.65
Rangit	79,544	20.79	7.28	13.51	0.06	0.11
Teesta	1,09,500	107.12	37.49	69.63	0.41	0.76
Chukka	1,09,500	80.00	28.00	52.00	0.31	0.57
Tala	1,09,500	257.50	90.13	167.38	0.99	1.83

Stations	Rates (Rs./MW/ Month)	Capacity for Bihar (MW)	NBPDCL (MW)	SBPDCL (MW)	NBPDCL (Rs. Cr)	SBPDCL (Rs. Cr)
Total Monthly Charges		**1902.65**	**699.32**	**1203.33**	**6.48**	**11.27**
Total Annual Charges for FY 2014-15					**77.75**	**135.29**
Increase in Transmission charges for FY 2014-15 @ 15%					11.66	20.29
Sub-Total Annual charges for FY 2014-15					**89.41**	**155.58**
Add: Barh-Stg2 U#1	79544	174.37	61.03	113.34	5.83	10.82
Total Annual Charges for FY 2014-15					**95.24**	**166.40**

*** Source: Regional Transmission Account for September, 2013.**

Table 5.20: Transmission Charges for Drawal of Power for FY 2014-15

Particulars	Rates (Rs./Mw/ Month)*	Monthly Quantum (MW)	Monthly Charges (Rs. Cr)	Total Annual Charges (Rs. Cr)
Allocation to NBPDCL	125987	760.35	9.58	114.95
Allocation to SBPDCL	125987	1316.68	16.59	199.06

***Rates are escalated by 15% for FY 2014-15.**

POSOCO and ERLDC Charges

SBPDCL submitted that it has to pay POSOCO Charges and Open Access charges which are projected for FY 2014-15 as given in the Table below:

Table 5.21: POSOCO and ERLDC Charges for FY 2014-15

Particulars	Charges per month (Rs. Crore)	Total Charges for Bihar	Allocation to SBPDCL (35%) (Rs. Crore)
POSOCO Charges	0.45	5.40	3.59
ERLDC Open Access Charges	1.00	12.00	7.80
Total for FY 2013-14		**17.40**	**11.31**
Increase in energy for FY 2014-15		2.61	1.70
Total charges for FY 2014-15		**20.01**	**13.01**

*** Average monthly charges**

SBPDCL has submitted the summary of the PGCIL, ERLDC and POSOCO charges for FY 2014-15 as given in the Table below:

Table 5.22: PGCIL, POSOCO and ERLDC Charges approved for FY 2014-15

Sl. No.	Particulars	Total Charges for Bihar (Rs. Crore)	Charges for NBPDCL (Rs. Crore)

Sl. No.	Particulars	Total Charges for Bihar (Rs. Crore)	Charges for NBPDCL (Rs. Crore)
1	PGCIL Charges		
	(i) Injection	261.64	166.40
	(ii) With drawal	314.01	199.06
2	POSOCO Charges and ERLDC Open Access Charges	20.01	13.01
3	**Total Charges for FY 2014-15**	**595.66**	**378.47**

Commission's analysis

Based on the actual PGCIL charges payable from April 2013 to October 2013, the Commission has approved Rs. 269.21 crore for full year of FY 2013-14 (RE) to SBPDCL. The Commission considers an increase of 5% and approves Rs. 282.67 crore towards PGCIL charges for FY 2014-15.

5.13 State Transmission Charges

SBPDCL has projected the transmission charges payable to BSPTCL for FY 2014-15 as given below:

Table 5.23: Transmission Charges projected for FY 2014-15

Sl. No.	Particulars	Total Charges (Rs. Crore)	Payable by SBPDCL (Rs. Crore)
1	Approved for FY 2014-15 in MYT Order dated 15th March 2013	262.32	170.51

Commission's analysis

The Commission has approved the Transmission charges to BSPTCL in revision for FY 2014-15 at Rs. 212.13 crore. Accordingly, the transmission charges payable by SBPDCL to BSPTCL for FY 2014-15 are considered as given below:

Table 5.24: Transmission charges approved for FY 2014-15

Sl. No.	Particulars	Total Charges (Rs. Crore)	Payable by SBPDCL (Rs. Crore)
1	Approved in revision for FY 2014-15	270.60	175.89

5.14 Total Power Purchase Cost

Summarising the above, the total power purchase cost, including PGCIL and State Transmission Charges, is as given in the Table below:

Table 5.25: Total power purchase cost approved for FY 2014-15

Sl. No.	Particulars	Approved for FY 2014-15 (Rs. Crore)
1	Power Purchase Cost from various sources	5042.05
2	PGCIL Charges	282.67
3	State Transmission Charges	175.89
4	Total Power purchase cost	5500.61
5	Energy purchased (MU)	12914
6	Average power purchase cost excluding state transmission charges (Rs/kWh)	4.12

5.15 Net power purchase cost

The surplus power purchased by NBPDCL, after deducting the disallowed power due to NBPDCL not maintaining the distribution loss level approved by the Commission has to be sold outside the state at a rate not less than the average power purchase cost arrived in the Table 5.21 above. The net power purchase cost is arrived as detailed in the Table below:

Table 5.26: Net power purchase cost approved for FY 2014-15

Sl. No.	Particulars	Unit	FY 2014-15
1	Total power purchase cost	Rs. Crore	5500.61
2	Surplus Power	MU	5653
3	Disallowed power due to excess distribution loss	MU	3116
4	Surplus power to be sold outside	MU	2537
5	Average power purchase	Rs/kWh	4.12
6	Cost of surplus power (4*5)	Rs. Crore	1045.24
7	Net power purchase cost (1-6)	Rs. Crore	4455.37

5.16 Segregation of approved ARR for FY 2014-15

Petitioner's submission

NBPDCL has submitted that the commission in the tariff order dt.15th March 2013 approved combined ARR for MYT period (3 years) for FY 2014-15 to FY 2015-16 for both the Distribution Companies. As such, it is imperative to segregate the approved ARR in to NBPDCL & SBPDCL for FY 2014-15 and FY 2014-15 for comparison/monitoring the performance. Accordingly, the petitioner has made certain assumptions for segregation of approved ARR for FY 2014-15 as furnished in the Table below:

Table 5.27: Segregation methodology of approved ARR adopted by the petitioner for FY 2014-15

Particulars	Particulars	NBPDCL	SBPDCL
Cost of Purchase of power	Average power purchase	36.30%	63.70%
PGCIL & Other Transmission Charges	Average power purchase	36.30%	63.70%
BSPTCL Transmission charges	Average power purchase	36.30%	63.70%
O & M			
R & M	Opening GFA	55.00%	45.00%
Employee cost	No of employee ratio	33.50%	66.50%
Administration & Genl. Expenses	No of consumers	54.60%	45.40%
Depreciation	Opening GFA	55.00%	45.00%
Interest & Finance charges	Opening loan balances	55.30%	44.70%
Interest on working capital	Sales / Revenue	35.00%	65.00%
Return on Equity	Opening Equity	43.40%	56.60%
Interest on Security Deposits			
Total Requirement			
Less: Expenditure disallowed due to higher T&D losses	Average power purchase	36.30%	63.70%
Less: Non-tariff income	Sales / Revenue	35.00%	65.00%
Net Revenue Requirement			
Revenue from existing tariff	Sales / Revenue	35.00%	65.00%
Revenue from sale of power to Nepal	NBPDCL	100.00%	

NBPDCL has submitted that based on the above methodology, the approved ARR for FY 2014-15 for both DISCOMs and allocation to NBPDCL and SBPDCL is given below:

Table 5.28: Segregation of approved ARR projected by the Petitioner for FY 2014-15 (Rs. Crore)

Particulars	Total ARR approved for both DISCOMs in MYT order for FY 2014-15	Allocation for NBPDCL	Allocation for SBPDCL

Particulars	Total ARR approved for both DISCOMs in MYT order for FY 2014-15	Allocation for NBPDCL	Allocation for SBPDCL
Purchase of power	6216.20	2254.75	3961.77
PGCIL & Other Transmission Charges	190.00	68.91	121.09
BSPTCL Transmission charges	262.32	95.03	166.97
O & M	**573.85**	**221.29**	**352.56**
R & M	86.01	47.31	38.70
Employee cost	438.26	146.93	291.33
Administration & General Expenses	49.58	27.05	22.53
Depreciation	163.24	89.78	73.46
Interest & Fin charges	395.92	218.96	176.96
Interest on working capital	158.09	55.30	102.79
Return on Equity	123.10	53.44	69.66
Total Requirement	**8082.72**	**3057.46**	**5025.26**
Less: Non-tariff income	183.11	64.05	119.06
Less: Disallowed PP	1827.49	662.84	1164.65
Net Revenue Requirement	**6072.12**	**2330.57**	**3741.55**

Commission's analysis:

The Commission has examined the segregation methodology and segregation of approved ARR values between NBPDCL and SBPDCL for FY 2014-15. The Commission considers the methodology and segregation of values of approved ARR except Return on Equity, Depreciation, Interest charges and interest on working capital. ***These values are representative values only used for the purpose of comparison and review and has no bearing on the ARR for FY 2014-15***. The opening balances wherever required for computation of costs were considered as per FY 2013-14 (RE).

The Petitioner has stated that the Return on Equity (RoE) is allocated based on the opening Equity. As per the audited annual accounts of NBPDCL and SBPDCL for FY 2012-13, the equity capital is at Rs.662.48 crore in NBPDCL and Rs.385.00 crore in SBPDCL, which contribute to 63.25 % and 36.75% respectively. However, the petitioner has allocated the RoE @ 43.4% to NBPDCL and @56.6% to SBPDCL. The Petitioner has considered revalued equity of Rs.1643 crore in NBPDCL and Rs.2141 crore in SBPDCL as per the final transfer scheme proposals submitted to Government

which is in the process of finalization. Based on revalued equity the approved RoE is allocated to NBPDCL – Rs.53.44 crore and SBPDCL Rs.69.66 crore.
The approved RoE of Rs.123.10 (Rs.123.06) crore is on Rs.879 crore for Distribution Business (both DISCOMs). Allocating the RoE based on revalued equity, which is not yet finalized by Government, is not correct.

The Commission has considered the equity capital of Rs.879 crore based on the transfer scheme and allowed RoE in the MYT order dated 15th March 2013. Clause 9 of the Bihar State Electricity Reforms Transfer Scheme, 2012 specifies that "***classification and transfer of property rights, assets, liabilities and proceedings to be provisional in the first instance for a period of one year from the effective date***". Clause 9.3 specifies that "***on the expiry of the period of one year from the effective date and subject to any directions given by the State Government, the transfer of undertakings, properties, interest, rights, assets, liabilities, personnel and proceedings made in accordance with the transfer scheme shall become final"***.

In view of the above, the approved RoE is allocated to NBPDCL and SBPDCL in the ratio of equity of Rs.385 crore in NBPDCL and Rs.494 crore in SBPDCL and the allocated approved RoE is Rs.53.92 crore and Rs.69.18 crore respectively.

The Petitioner has segregated and allocated the approved depreciation in the ratio of opening GFA. The depreciation considered for FY 2014-15 in the MYT order dated 15th March 2013 is based on the normative principles GFA and Grants used for GFA. Allocation of depreciation based on GFA do not reflect the correct values, hence, the depreciation is allocated based on the normative principles as depicted in the relevant paras.

The Petitioner has allocated interest and finance charges based on the opening loan balances. However, the interest charges approved in the MYT order is based on the normative principles, which is based on the capitalisation. Hence, the interest charges were allocated among the DISCOMs based on the normative principles as depicted in the relevant paras.

The allocation of approved ARR values of FY 2013-14 in the MYT order dated 15th March 2013 are for reference/comparison purpose only and have no bearing on the ARR for FY 2014-15.

The Commission has discussed the issue appropriately in the relevant paragraphs i.e. Return on Equity, Depreciation, interest charges and interest on working capital.

5.17 Capital Expenditure

Petitioner's submission:

SBPDCL has submitted that it is still in transition phase post unbundling and unless one full financial year audited results are available, it is difficult to capture/provide all information on standalone basis. SBPDCL has proposed the capital expenditure, capitalisation and funding as per the figures approved by the Commission in MYT order dt.15th March 2013.

SBPDCL has submitted that opening CWIP, GFA, Grants, etc., are taken from the audited annual accounts of March 2013 and further projected based on the estimated/projected capex and capitalisation proposed/considered for FY 2014-15.

SBPDCL has submitted the details of opening CWIP, investment during the year, capitalisation and funding of capex for FY 2014-15 as detailed in the Table below:

Table 5.29: CWIP, Capex, Capitalisation and Funding of capitalisation projected for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Total Approved	Revised projections	NBPDCL allocation	SBPDCL allocation	Basis for allocation
1	Opening CWIP	5733	4262	3334	928	CWIP adopted accounts March 2013
2	Add: New Investment	7597	7597	5208	2389	Opening CWIP Ratio
3	**Total (1+2)**	**13330**	**11859**	**8542**	**3317**	

Sl. No.	Particulars	Total Approved	Revised projections	NBPDCL allocation	SBPDCL allocation	Basis for allocation
4	**Less: Capitalisation**	**5779**	**5779**	**3178**	**2601**	
a	CWIP capitalisation	1184	1184	651	533	Opening GFA Ratio
b	New Investment capitalisation	4595	4595	2527	2068	Opening GFA Ratio
5	**Closing CWIP (3-4)**	**7551**	**6080**	**5364**	**716**	
6	**Funding of Capitalisation**					
a	**CWIP capitalisation**	**1184**	**1184**	**651**	**533**	
i	Grant	931	931	512	419	CWIP Ratio of Grant & Loan
ii	Loans	253	253	139	114	CWIP Ratio of Grant & Loan
b	**New Investment capitalisation**	**4595**	**4595**	**2527**	**2068**	
i	Grant	2852	2852	1569	1283	New investment ratio of Grant & Loan
ii	Loans	1743	1743	959	784	New investment ratio of Grant & Loan
7	**Total Grants**	**3783**	**3783**	**2081**	**1702**	
8	**Total Loans**	**1996**	**1996**	**1098**	**898**	

SBPDCL has requested the Commission to approve the capital expenditure, capitalisation and funding of capitalisation for FY 2014-15 as per above Table.

Commission's analysis:

The Commission has approved, for Distribution system as a whole, a total capital investment of Rs.7597 crore with a capitalisation of Rs.5779 crore in the MYT order dated 15th March 2013 for FY 2014-15.

The Petitioner has projected the capital investment and capitalisation at the approved level for FY 2014-15 as per the MYT order dated 15th March 2013.

The Commission considered the same for FY 2014-15, as the SBPDCL came in to existence and started independent functions with effect from 1st November 2012 and is in transition phase, subject to truing up for FY 2014-15 based on the audited annual accounts for FY 2014-15.

The petitioner has considered capitalisation of opening CWIP and new investment in proportion to opening GFA. The new investment is allocated based on opening CWIP, however, capitalisation of new investment is considered in proportion to opening GFA.

The commission has considered the capitalisation of capex as per the schedule approved in the MYT order dt.15th March 2013 in Tariff Order for FY 2014-15 as given in the Table below:

Capitalisation schedule for FY 2014-15	Year 1	Year 2	Year 3
For all new capex	30%	30%	40%
For opening CWIP	30%	30%	40%

Table 5.30: Capitalisation approved for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Total	Capitalised in FY 2013-14	Capitalised in FY 2014-15	Balance Capex
1	Opening CWIP as on 1-4-2013	541.26	162.38	162.38	216.50
2	New Investment in FY 2013-14	1756.42	526.93	526.93	702.57
3	New Investment in FY 2014-15	2389.17		716.75	1672.42
4	**Total**		**689.30**	**1406.06**	**2591.49**

The Commission has considered funding of the capex capitalised @ 65% through Grants and balance 35% of capitalisation as through Loans.

Accordingly, the Commission considers the capitalisation of opening CWIP, new investment and funding as detailed in the Table below:

Table 5.31: Approved Capitalisation and funding for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Opening CWIP	5733.00	1340.38	927.42	1608.38
2	New Investment	7597.00	2389.17	2389.17	2389.17
3	**Less: Capitalisation**	**5779.00**	**1817.43**	**2601.00**	**1406.06**
Aa	Opening CWIP	1184.00	372.35	533.00	689.31
Ab	New Investment	4595.00	1445.08	2068.00	716.75
4	**Closing CWIP**	**7551.00**	**1912.12**	**715.59**	**2591.49**
5	**Funding**				
6	**CWIP Capitalisation**	**1184.00**	**372.35**	**533.00**	**689.31**
Ba	Grant	931.00	292.79	419.00	448.05
Bb	Loan	253.00	79.57	114.00	241.26
7	**New Investment**	**4595.00**	**1669.68**	**2067.00**	**716.75**
Ca	Grant	2852.00	1060.92	1283.00	465.89
Cb	Loan	1743.00	608.75	784.00	250.86
8	**Total Capitalisation**	**5779.00**	**2042.03**	**2600.00**	**1406.06**
9	**Total Grant**	**3783.00**	**1353.71**	**1702.00**	**913.94**
10	**Total Loan**	**1996.00**	**688.32**	**898.00**	**492.12**

5.18 Interest During Construction (IDC)

Petitioner's submission

The Petitioner has submitted that for the purpose of IDC, the amount capitalised during the year is assumed as loan drawn and weighted average interest rate is considered for charging the IDC for FY 2014-15. The IDC projected by the petitioner is as detailed in the Table below:

Table 5.32: Interest During Construction (IDC) projected for FY 2014-15

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Loan drawal	1996.00	898.00
2	Average Loan	998.00	449.00
3	Interest Rate	13%	13%
4	IDC (on average loan)	129.74	58.38

The Petitioner has requested the Commission to approve the IDC for FY 2014-15 as detailed in the Table above.

Commission's analysis

The Commission has examined the computation of the petitioner and the rate of interest @13% adopted for FY 2014-15. The petitioner has charged IDC on normative loan drawl based on the capex capitalised during FY 2014-15.

The Commission considered the normative loans based on the capitalisation of capex vis-à-vis Grants and loans and interest rate @ 13% for FY 2014-15. Accordingly, the Commission considered IDC for FY 2014-15 as detailed in the Table below:

Table 5.33: Approved Interest during Construction (IDC) for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Loan drawal	1996.00	688.32	898	492.12
2	Average Loan	998.00	344.16	449.05	246.06
3	Interest Rate	13%	13%	13%	13%
4	**IDC (on average loan)**	**129.74**	**44.74**	**58.38**	**31.99**

The Commission, accordingly, approved Interest during Construction (IDC) at Rs.31.99 crore as detailed in the Table above for FY 2014-15.

5.19 Gross Fixed Assets

Petitioner's submission

The petitioner has submitted that Opening GFA is considered as per the audited annual accounts as on 31st March 2013. The petitioner has also submitted that during the process of restructuring the assets are revalued and requested the Commission to consider the same figures for ARR purpose.

SBPDCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction in pursuance 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.

SBPDCL has submitted the computation of GFA based on the capitalisation schedule for FY 2014-15 as detailed in the Table below:

Table 5.34: Gross Fixed Assets projected by the petitioner for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Opening GFA	7941.89	5410.00
2	Additions during the year	5779.00	2601.00
3	Add : IDC	129.74	58.00
4	**Closing GFA (1 to 3)**	**13850.63**	**8068.00**

SBPDCL has requested the Commission to approve the GFA as per above Table for FY 2014-15.

Commission's analysis:

The Petitioner has adopted opening GFA (as on 1st April 2013) as per the audited annual accounts for FY 2012-13 (closing value of GFA as at 31st March 2013). The opening GFA includes the value of assets (Land) revalued by Rs.1478.84 crore. As per the audited annual accounts for FY 2012-13, the GFA includes value of land of Rs.35.68 crore.

The commission has reduced the value of assets revalued from the opening GFA in FY 2014-15. Accordingly, the closing GFA of FY 2013-14 (adopted in APR for FY 2013-14) is adopted as opening GFA for FY 2014-15.

The Commission has considered the capitalisation of capital expenditure as per the MYT order dt.15th March 2013 in the tariff order for FY 2014-15.

The opening GFA, additions to assets during the year and closing GFA for FY 2014-15, computed by the Commission is as detailed in the Table below:

Table 5.35: Gross Fixed Assets approved for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Opening GFA	7941.89	3586.26	5409.99	3234.14
2	Additions during the year	5779.00	2600.55	2601.00	1406.06
3	IDC	129.74	44.74	58.38	31.99
4	**Closing GFA**	**13850.63**	**6231.55**	**8069.37**	**4672.19**

5.20 Depreciation

Petitioner's submission:

SBPDCL has submitted that depreciation is computed annually on straight line method by applying weighted average rate of depreciation on the average GFA adopting the approach considered by the Commission in MYT order dt.15th March 2013 in Tariff Order for FY 2014-15. SBPDCL has further submitted that the depreciation on assets created out of grants and consumer contribution is reduced from the gross depreciation to arrive at the depreciation to be charged.

The petitioner has projected the depreciation for FY 2014-15 as detailed in the Table below:

Table 5.36: Depreciation projected for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Opening GFA	7941.89	5187.00
2	Additions during the year	5779.00	3178.00
3	IDC	129.74	71.36
4	**Closing GFA (1+2+3)**	**13850.63**	**8436.36**
5	**Average GFA (1+4)/2**	**10896.26**	**6811.68**
6	Weighted average rate of depreciation	5.22%	5.22%

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
7	**Depreciation (5*6)**	**568.78**	**355.57**
8	Opening Grants	5877.50	2759.46
9	Grants during the year	3783.00	2080.65
10	**Total Grants (8+9)**	**9660.50**	**4840.46**
11	**Average Grants (8+10)/2**	**7769.00**	**3799.96**
12	Weighted average rate of depreciation	5.22%	5.22%
13	**Depreciation for GFA on Grants (11*12)**	**405.54**	**198.36**
14	**Depreciation for GFA on Loans (7-13)**	**163.24**	**157.20**

SBPDCL has requested the Commission to approve the computation of depreciation cost for FY 2014-15

Commission's analysis:

The Commission has examined the computation of depreciation for FY 2014-15. The Commission has considered the opening GFA, additions to assets and closing GFA as detailed in paragraph 5.19 above. The opening GFA of Rs.3234.14 crore includes the value of land Rs.35.68 crore. The Regulation 73(2)(a)(ii) specifies that "***Land is not a depreciable asset and its cost shall be excluded from the Capital cost***". Accordingly, the land value is excluded from the GFA and Rs.3198.46 crore (Rs.3234.14 crore – Rs.35.68 crore) is considered as opening GFA for computation of Depreciation. The Commission has considered the depreciation rate adopted by the petitioner, which is same, as per the MYT order dt.15th March 2013 in Tariff Order for FY 2014-15.

The Commission, accordingly, has considered the opening GFA, additions to GFA, closing GFA, rate of depreciation, depreciation on assets created out of grants and depreciation to be charged for FY 2014-15 is as detailed in the Table below:

Table 5.37: Depreciation approved for FY 2014-15

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Opening GFA	7941.89	3586.26	5409.99	3198.46

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
2	Additions during the year	5779.00	2600.55	2601.00	1406.06
3	IDC	129.74	44.74	58.38	31.99
4	**Closing GFA (1+2+3)**	**13850.63**	**6231.55**	**8069.37**	**4636.51**
5	**Average GFA (1+4)/2**	**10896.26**	**4908.90**	**6739.68**	**3917.48**
6	Weighted average rate of depreciation	5.22%	5.22%	5.22%	5.22%
7	**Depreciation (5*6)**	**568.78**	**256.24**	**351.81**	**204.49**
8	Opening Grants	5877.50	2873.04	2169.00	1735.19
9	Grants during the year	3783.00	1353.71	1702.00	913.94
10	**Total Grants (8+9)**	**9660.50**	**4226.75**	**3871.00**	**2649.13**
11	**Average Grants (8+10)/2**	**7769.00**	**3549.90**	**3020.00**	**2192.16**
12	Weighted average rate of depreciation	5.22%	5.22%	5.22%	5.22%
13	**Depreciation for GFA on Grants (11*12)**	**405.54**	**185.30**	**157.64**	**114.43**
14	**Depreciation for GFA on Loans (7-13)**	**163.24**	**70.94**	**194.14**	**90.06**

Note:- The opening GFA does not include land revalued by Rs.1478.84 crore and land value of Rs.35.68 crore.

The Commission, accordingly, approved depreciation of Rs.90.06 crore for FY 2014-15

5.21 Interest on Loans

Petitioner's submission:

SBPDCL has submitted that the opening loan balance as on 1st April 2013 is considered as per audited annual accounts for the period from November'12 to March 2013 of the petitioner.

SBPDCL has submitted that the average rate of interest for existing as well as new loans is considered @ 13% as per the agreements executed with the lenders. SBPDCL has projected the interest charges for FY 2014-15 as detailed in the Table below:

Table 5.38: Projected interest on loans for FY 2014-15

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Opening loans	2129.13	802.40
2	Additions	1996.00	898.00
3	Repayment	163.24	194.14
4	**Closing Loan**	**3961.89**	**1506.27**
5	**Average Loan**	**3045.51**	**1154.33**
6	Rate of Interest	13.00%	13.00%
7	**Interest and Finance charges**	**395.92**	**150.09**

SBPDCL has requested the commission to approve the interest on loans for FY 2014-15 as per above Table.

Commission's analysis:

The Commission has examined the projected interest on loans computation of the petitioner. The Commission has considered the opening loans as per revised estimates for FY 2014-15 (RE) and based on the capitalisation considered as detailed in preceding paragraph 5.17.

The Commission has considered the rate of interest @ 13% and loan addition based on the capitalisation and repayment equal to depreciation for FY 2014-15.

Considering the above, the Commission has computed the interest on loans for FY 2014-15 as detailed in the Table below:

Table 5.39: Interest on loan approved for FY 2014-15

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Opening loans	2129.13	890.03	802.40	513.90
2	Additions	1996.00	688.32	898.00	492.12
3	Repayment	163.24	70.94	194.14	90.06
4	**Closing Loan**	**3961.89**	**1497.41**	**1506.27**	**915.96**
5	**Average Loan**	**3045.51**	**1188.72**	**1154.33**	**714.93**
6	Rate of Interest	13.00%	13.00%	13.00%	13.00%
7	**Interest and Finance charges**	**395.92**	**154.53**	**150.09**	**92.94**

The Commission, accordingly, approved Rs.92.94 crore towards interest on loans for FY 2014-15.

5.22 Operation and Maintenance (O&M) Expenses

Petitioner's submission

SBPDCL 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 Employee and A&G expenses.

SBPDCL has further submitted that R&M expenses are provided as a % of Gross Fixed Assets.

SBPDCL has proposed following inflation index for FY 2014-15;

(i) Employee cost and A&G expenses
INDXn = 0.55*CPIn + 0.45*WPIn

(ii) Repairs and Maintenance expenses
R&Mn = K*GFA*(1+WPIn),

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
- WPIn is the wholesale price index increase for immediate preceding year over previous year.

Table 5.40: O&M Expenses - weightage of indexation/inflation factor

Sl. No.	Particulars	WPI	CPI	Total
1	Weightage	0.45	0.55	1.00
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%**

The Commission has considered the above indexation/inflation factor for FY 2014-15.

5.23 Employee Costs

Petitioner's submission:

SBPDCL has submitted that the employee expenses 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 inflation index of 9.21% is considered over FY 2013-14 (RE) to arrive at the employee cost for FY 2014-15.

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

Table 5.41: Employee Cost for FY 2014-15 proposed by the petitioner

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Previous year FY 2014-15 (RE) employee cost		253.94
2	Add: Inflationary index @ 9.21%		23.38
3	**Employee Cost**	**428.26**	**277.32**
4	Add: New Manpower cost	10.00	5.00
5	**Total Employee Cost.**	**438.26**	**282.32**

The petitioner has requested the Commission to approve the employee expenses for FY 2014-15 as per the Table above.

Commission's analysis:

Post unbundling the segregated entities shall contribute to the Bihar State Electricity Employees Master Trust (BSEE Master Trust) at the rates approved by the Board of Trustees of the BSEE Master Trust. The Board of Trustees of BSEE Master Trust in their 3rd Meeting held on 21-06-2013 has approved the rate of contribution to be made for existing employees towards Gratuity, Pension and Leave encashment with effect from 1st November 2012 as detailed hereunder:

Sl. No.	Particulars	Rate of Contribution as on 31.3.2012
1	Gratuity	@ 2.50% of Basic + GP + DA
2	Pension (Existing employees)	@ 2.50% of Basic + GP + DA
3.	Leave Salary (per Month)	SBPDCL – Rs.1,01,68,750/- NBPDCL – Rs. 62,70,850/- BSPTCL - Rs. 33,10,400/- BSPGCL – Rs. 10,83,333/-

The segregated entities shall make remittance of contributions for existing employees towards Gratuity, Pension and Leave Salary to BSEE Master Trust by 7th of every month and delay in remittance attract interest @18% as per the provisions of the Trust Deed. The LIC of India is appointed as Fund Manager of BSEE Master Trust for Pension, Gratuity and Leave salary.

Further, it was approved by the Board of Trustees of the BSEE Master Trust in the meeting dt.21-06-2013 that the contribution rate for FY 2012-13 be made applicable provisionally for FY 2013-14 subject to adjustment as per the final rate received from the Actuary i.e. M/s.PFC Consulting Ltd. The Employee cost projected by the Petitioner includes the Company's contribution towards Gratuity, Pension and Leave Salary for existing employees for FY 2014-15.

It was informed by the Petitioner that Actuary Report of valuation of terminal benefits of employees as at 31st March 2014 is yet to be finalised by the Actuary i.e. M/s.PFC Consulting Ltd. However, the contribution of the company shall be factored and cost to be considered for arriving at the ARR for FY 2014-15. As such, the Commission has considered the Company's contribution provisionally at the same level of FY 2013-14 for FY 2014-15 for the existing employees' terminal benefits.

The Commission has considered the employee cost as per the revised estimates considered by the Commission for FY 2013-14 (RE) as base value and escalated to inflationary increase @ 9.21% to arrive at the total employee cost for FY 2014-15 as detailed in the Table below:

Table 5.42: Approved Employee Cost for FY 2014-15 (RE)

(Rs. crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Employee cost considered for FY 2013-14 (RE)			253.94	253.94
2	Add: Inflationary increase @ 9.21%			23.39	23.39
3	**Employee Cost**	**428.26**	**286.33**	**277.33**	**277.33**
4	Add: New Manpower cost	10.00	5.00	5.00	5.00
5	**Total Employee Cost.**	**438.26**	**291.33**	**282.33**	**282.33**

The Commission, accordingly, approved employee cost at Rs.282.33 crore for FY 2014-15 as detailed in the above Table.

5.24 Repairs and Maintenance (R&M) Expenses

Petitioner’s submission:

SBPDCL has submitted that computing 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 and projected as 1% of opening GFA for FY 2014-15.

SBPDCL has projected R&M expenses @ 1% of Opening GFA and further inflationary increase @ 9.21% for FY 2014-15. The R&M expenses projected by the petitioner is as given in the Table below:

Table 5.43: Projected Repairs and Maintenance expenses for FY 2014-15

(Rs. crore)

Sl . No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Opening GFA		5410.00

2	% of GFA		1.00%
3	**R & M Cost**	**86.01**	**54.10**
4	Inflationary increase @ 9.21%		4.98
5	**Total R & M Cost**	**86.01**	**59.08**

SBPDCL has requested the Commission to approve the R&M expenses for FY 2014-15 as projected in the Table above.

Commission's analysis

The Commission has examined the R&M expenses projected by SBPDCL. The petitioner has projected R&M expenses @1% of the opening GFA and escalated to inflationary effect. The opening GFA includes the assets revalued and as per the BERC Regulations, 2007, the GFA should be at historical cost only for computing all the parameters for ARR purpose. Regulation 92 (a) specifies that ***the O&M cost for the base year is to be determined on the basis of latest audited accounts, with indexation for projecting the O&M costs over the relevant control period***. Accordingly, the Commission does not consider the petitioner's request of 1% of the GFA.

As per the annual accounts of SBPDCL for FY 2012-13 (November'12 to March'13), Rs.15.43 crore R&M expenses were incurred for 5 months, projected to Rs.37.03 crore per year (FY 2012-13).

The Commission has considered the R&M expenditure based on 5 months actual expenses of FY 2012-13 amplified to per year as base R&M expenses and increased for inflationary escalation of 9.21% year on year and computed the R&M expenses for FY 2014-15 as detailed in the Table below:

Table 5.44: Approved R&M expenses for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15

1	R&M expenses considered for FY 2013-14 (RE)				40.44
2	Opening GFA			5409.99	
3	% of GFA			1.00%	
4	**R & M Cost**	**86.01**	**38.70**	**54.10**	**40.44**
5	Inflationary increase @ 9.21%			4.98	3.72
6	**Total R & M Cost**	**86.01**	**38.70**	**59.08**	**44.16**

The Commission, accordingly, considered R&M expenses at Rs.44.16 crore for FY 2014-15 as detailed in the above Table:

5.25 Administration and General (A&G) Expenses

Petitioner's submission

SBPDCL has submitted that Administration and General expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and traveling expenses etc. The petitioner has submitted that inflation index of 9.21% has been considered over FY 2013-14 (RE) to arrive at the A&G cost for FY 2014-15.

The SBPDCL has projected the A&G expenses as furnished in Table below:

Table 5.45: Proposed Administration and General Expenses for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Previous year A&G cost		21.05
2	Add: Indexation @ 9.21%		1.94
3	**A & G Expenses**	**49.58**	**22.99**

SBPDCL has requested the Commission to approve the A&G expenses for FY 2014-15 as detailed in the Table above.

Commission's analysis:

The Commission has examined the A&G expenses projected by SBPDCL. As per the annual accounts of SBPDCL for FY 2012-13 (November'12 to March'13), Rs.8.03 crore was incurred towards A&G expenses for 5 months which on pro-rata works out to Rs.19.27 crore per year (FY 2012-13).

The Commission has considered the pro-rata actual expenditure of FY 2012-13 as base expenditure and increased year on year for inflationary escalation at 9.21% and considered the A&G expenses for FY 2014-15 as detailed in the Table below:

Table 5.46: Approved Administration & General Expenses for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	A&G expenses considered for FY 2013-14 (RE)			21.05	21.06
2	Add: Inflationary increase @ 9.21%			1.94	1.94
3	**A & G expenses**	**49.58**	**22.53**	**22.99**	**23.00**

The Commission, accordingly, considered Rs.23.00 crore for FY 2014-15 towards Administration and General Expenses as detailed in the Table above.

5.26 Allocation of Holding Company Expenses

Petitioner's submission

SBPDCL 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.

SBPDCL has 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, NBPDCL and SBPDCL in the ratio of their respective equity".

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

Table 5.47: Allocation of Expenses of Holding company for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	BSPGCL	BSPTCL	NBPDCL	SBPDCL	Total
1	Employee cost	1.40	3.84	7.03	10.77	23.04
2	R&M expenses	0.17	0.12	0.12	0.20	0.61
3	A&G Expenses	2.99	2.04	2.09	3.59	10.71
4	**Total**	**4.56**	**6.00**	**9.24**	**14.56**	**34.36**

SBPDCL 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 5.48: Allocation of Expenses of Holding Company approved for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	BSPGCL	BSPTCL	NBPDCL	SBPDCL	Total
1	Employee cost	1.40	3.84	7.03	10.77	23.04
2	R&M expenses	0.17	0.12	0.12	0.20	0.61
3	A&G Expenses	2.99	2.04	2.09	3.59	10.71
4	**Total**	**4.56**	**6.00**	**9.24**	**14.56**	**34.36**

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

Table 5.49: Total O&M cost considered by the Commission for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Employee cost	438.26	291.33	282.32	282.33
2	R&M expenses	86.01	38.70	59.08	44.16
3	A&G Expenses	49.58	22.53	22.99	23.00
4	Holding company expenses allocated			14.56	14.56
5	**Total O& M cost**	**573.85**	**352.57**	**378.96**	**364.05**

The Commission considered total O&M costs at Rs.364.05 crore for FY 2014-15

5.28 Interest on working capital

Petitioner's submission:

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

Table 5.50: Norms for working capital requirement

Sl. No.	Particulars	Norm
1	O&M expenses	One month
2	Maintenance spares	@1% of historical cost of GFA escalated @6% per annum
3	Receivables	Two months of charges for sale of energy
4	Rate of interest on working capital	Short-term PLR of SBI as on 1st 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.

SBPDCL has claimed interest on working for FY 2014-15 computed on the above norms as detailed in the Table below:

Table 5.51: Projected Interest on working capital for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	O&M exp. (1 month)	47.82	31.58
2	Maintenance spares @1% of opening GFA with 6% escalation	84.18	54.10
3	Receivables - 2 months	1322.08	756.81
4	**Total working capital**	**1454.09**	**842.49**
5	Less: Govt. assistance for power purchase	360.00	
6	**Net working capital requirement**	**1094.09**	**842.49**
7	Rate of interest	14.45%	14.45%
8	**Interest on working capital**	**158.09**	**121.74**

The petitioner has requested the commission to approve the computation of interest on working capital and the interest charges for FY 2014-15 as detailed in the Table above.

Commission's analysis

The Commission has examined the computation of interest on working capital submitted by the Petitioner. The Petitioner has considered maintenance spares @1% of the opening GFA. The opening GFA includes the assets (Land) revalued by Rs.1478.84 crore. Further, the Petitioner has not considered the escalation of 6% on the 1% amount of opening GFA.

The Commission has adjusted the opening GFA to its original value and considered maintenance spares @1% of opening GFA with escalation at 6% in its computations.

The Petitioner has considered the working capital as per Regulations and the rate of interest as per SBI PLR as on 1st April 2013. The Petitioner has computed the interest on working capital as per the norms prescribed in Regulation 85 (ii) (8) of the BERC Regulations, 2007. The rate of interest applied on the proposed working capital is @14.45% as per the SBI PLR as on 1st April 2013.

The State Government is extending financial support in the form of tariff subsidy and cost of power disallowed due to excess distribution loss over and above the loss trajectory allowed by the Commission. The petitioner has projected a total support of Rs.1452.48 crore for the petitioner for FY 2014-15 out of the total Government support of Rs.2400 crore for FY 2014-15 to the DISCOMs. The Government is releasing the funds on monthly basis. The Commission has considered the State Government funding/financial support to the DISCOMs on monthly basis, for which no working capital is required. Accordingly, the amount equivalent to two months of financial support from the State Government to DISCOMs is reduced from the working capital requirement of the DISCOMs. The two months support to SBPDCL works out to Rs.242.08 crore and the same is reduced from the working capital requirement of SBPDCL.

The Commission has considered the rate of interest @14.45% as per SBI PLR as on 1st April 2013 and based on the expenses/costs approved for FY 2014-15, has computed the working capital and interest on working capital for FY 2014-15 as detailed in the Table below:

Table 5.52: Approved Interest on working capital for FY 2014-15

(Rs. Crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	O&M exp. (1 month)	47.82	29.38	31.58	30.34
2	Maintenance spares @1% of opening GFA with 6% escalation	84.18	38.01	54.10	33.90
3	Receivables - 2 months	1322.08	823.27	756.81	841.11
4	**Total working capital**	**1454.09**	**890.67**	**842.49**	**905.35**
5	**Less**: Govt. assistance for power purchase	360.00	180.00		242.08
6	**Net working capital requirement**	**1094.09**	**710.67**	**842.49**	**663.27**
7	Rate of interest	14.45%	14.45%	14.45%	14.45%
8	**Interest on working capital**	**158.09**	**102.83**	**121.74**	**95.84**

The Commission, accordingly, considered interest on working capital at Rs.95.84 crore for FY 2014-15 as detailed in the Table above.

5.29 Return on Equity

Petitioner's submission:

SBPDCL has submitted that computation of Return on Equity is considering the equity provided in the revised transfer scheme submitted to Government of Bihar. It is further submitted that during the process of restructuring, the equity component has got re-valued and the petitioner request Hon'ble 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.

SBPDCL has submitted that Section 131 of the Electricity Act, 2003 provides that any transaction pursuance 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.***

SBPDCL has computed the return on equity for FY 2014-15 as detailed in the Table below:

Table 5.53: Projected Return on Equity for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Equity	879	2141
2	Rate of Return per annum %	14.00%	14.00%
3	**Return on Equity - Opening Equity**	**123**	**300**

SBPDCL has requested the Commission to consider the Return on Equity (RoE) as per the computations furnished in the Table above for FY 2014-15.

Commission's analysis

The Commission has examined the computation of RoE claim of SBPDCL. The Petitioner has computed RoE on the enhanced Equity. It was stated that during the process of restructuring the equity component has got re-valued and RoE is claimed as per Regulation 73(2)(c) of the BERC Tariff Regulations 2007.

Regulation 73 (2) (c) of the BERC (Terms and Conditions for Determination of Tariff) Regulations. 2007, specifies that "***Return on Equity shall be computed on the equity base determined in accordance with Regulation 71 and shall be @ 14% per annum"***.

Regulation 71 (1) specifies that;

(a) in case of all projects, the Debt : Equity ratio as on the date of commercial operation shall be 70 : 30 for determination of tariffs.

(b) However, the Commission may consider equity higher than 30% if satisfied that the higher equity deployed is in the interest of the general public.

(c) Further, if the equity employed is less than 30%, the actual Debt and Equity shall be considered for determination of tariff.

(d) It is also specified that in case of existing projects the actual Debt : Equity ratio shall be used for tariff determination.

(e) The Debt and Equity amount arrived as above, shall be used for calculation of Interest on Loan, Return on Equity, etc.

The Regulation 84 (Distribution) of the BERC (Terms and Conditions for Determination of Tariff) Regulations. 2007, specifies that "***the Distribution licensee shall ordinarily earn a return of 14% on equity invested in the Capital Expenditure (apportioned to the quantum for the purpose of performing the electricity business in the present debt – equity structure)".***

However, in view of the data constraints with respect to capex vis-à-vis source of funding, etc., the Commission has considered the methodology adopted in MYT order dt.15th March 2013 Tariff Order for FY 2013-14 for computation of Interest on Loan and Return on Equity for FY 2013-14 (RE).

Further, it was reported by the Petitioner that finalization/approval of State Government to the final transfer scheme is in process. Hence, the Commission has not considered the enhanced equity in the absence of specific orders from the State Government and also in terms of Regulations specified above. However, as per the tariff Regulations, the entity is entitled to Return on equity and following principle of consistency and prudency the Commission has considered the equity as per the MYT order dt.15th March 2013 in Tariff Order for FY 2013-14.

The Commission has considered equity capital of Rs.879 crore in Distribution business for MYT period in the Tariff Order for FY 2013-14. The Distribution business was split into NBPDCL and SBPDCL (two Distribution companies) with effect from 1st Nov'12. As per the transfer scheme Schedule "C" Part-II, the equity capital of SBPDCL is Rs.494 crore and NBPDCL is Rs.385 crore (total Rs.879 crore pertaining to DISCOMs). Accordingly, the Commission has considered the equity capital of SBPDCL and NBPDCL for allowing RoE. The rate of return on equity has been considered @ 14% as per the BERC Tariff Regulations, 2007. The Return on Equity considered by the Commission is as detailed in the Table below:

Table 5.54: Approved Return on Equity for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Equity capital	879.00	494.00	2141.00	494.00
2	Rate of Return on equity	14.00%	14.00%	14.00%	14.00%
3	**Return on equity**	**123.10**	**69.18**	**299.78**	**69.16**

The Commission, accordingly, approved Return on Equity at Rs.69.16 crore for FY 2014-15 as detailed in the table above.

5.30 Interest on Security Deposit

Petitioner's submission:

SBPDCL has submitted that interest on Security Deposit amount has been claimed as per the provisions of BERC Supply Code. The interest for security deposit has been considered as per prevailing RBI Bank Rate of 9%. The petitioner has projected interest on security deposit for FY 2014-15 as detailed in the Table below:

Table 5.55: Projected Interest on security deposit for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	Projected by SBPDCL for FY 2014-15
1	Security Deposit from consumers	177.65
2	RBI Bank Rate (as on 7.10.2013)	9.00%
3	Interest on Security Deposit	15.99

The Petitioner has requested the commission to approve the computation of interest on security deposit for FY 2014-15 as detailed in the table above.

Commission's analysis:

The Commission in the Tariff Order for FY 2011-12 has opined that the consumer security deposits provided to the distribution licensees by the consumers should be either be used for funding working capital requirement or should be kept with the bank and interest earned on the amount should be passed on to the consumers. In such a scenario, there is no additional financial implication on distribution licensees because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. The BSEB and segregated entities collecting security deposits from the consumers and using these deposits for meeting its working capital requirement since it is paying consumers at bank rate thereby saving on higher interest cost that may be payable on working capital loans borrowed from market.

In view of the above, the Commission does not consider proper to allow interest on consumer's security deposit for FY 2014-15.

5.31 Non-Tariff Income

Petitioner's submission:

The Petitioner has projected the non-tariff income at Rs.98 crore for FY 2014-15 based on the Non-Tariff Income considered for FY 2013-14 (RE) with an annual increase of 3% over FY 2013-14 (RE). The Petitioner has submitted that Non-tariff income is projected after deducting funding cost of delayed payment surcharge and requested the Commission to approve the Non-tariff income as detailed in the Table below:

Table 5.56: Projected Non-tariff Income for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Net Non-tariff income	183.11	95
2	Increase in income @		3.00%
3	**Total non-tariff income**	**183.11**	**98**

The petitioner has requested the commission to approve the non-tariff income for FY 2014-15 as detailed in the Table above.

Commission's analysis:

The Commission has examined the computation of non-tariff income projected by SBPDCL for FY 2014-15. It is observed that the Petitioner has considered the increase in non tariff income @ 8% for FY 2013-14 (RE) over the Non Tariff Income for FY 2012-13, whereas for FY 2014-15, the annual increase in non tariff income is assumed @ 3%. Reasons / justification for projecting increase @ 3% for FY 2014-15 are not reported / furnished. Hence, the Commission has considered the increase in non tariff income @ 8% over the Non Tariff Income considered for FY 2013-14 (RE) and accordingly, the Commission has computed the non-tariff income for FY 2014-15 as detailed in the Table below:

Table 5.57: Non-tariff Income approved for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Net Non-tariff income	183.11	64.09	95.00	94.89
2	Increase in income @			3.00%	8.00%
3	**Total non-tariff income**	**183.11**	**64.09**	**97.85**	**102.48**

The Commission, accordingly, considered non-tariff income at Rs.102.48 crore for FY 2014-15 as detailed in the table above.

5.32 Revenue from sale of power at existing tariff

Petitioner's submission

SBPDCL has submitted the category wise revenue based on the existing tariff for FY 2014-15 as detailed in the Table below:

Table 5.58: Projected Revenue from sale of power at existing tariff for FY 2014-15

Sl. No.	Category	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kWh)
1	Kutir Jyoti (Rural)	182	50	2.77
2	Kutir Jyoti (Urban)	2	0	1.95
3	DS-I (Rural)	303	57	1.88
	DS-II			
4	Single phase	1314	486	3.70
5	Three phase	93	33	3.56
6	DS-III	0	0	6.51
7	NDS-I (Rural)	7	2	2.71

Sl. No.	Category	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kWh)
	NDS-II (Urban)			
8	Single phase	410	284	6.93
9	Three phase	246	175	7.11
10	NDS-III	3	1	4.14
11	LTIS-I	128	77	6.07
12	LTIS-II	93	55	5.94
13	Public Water Works	37	28	7.59
14	IAS-I (Private)	331	52	1.56
15	IAS-I (Government)	91	52	5.72
16	SS-I (Metered)	4	3	7.00
17	SS-II (Unmeterd)	40	23	5.79
18	HTS-I	607	432	7.12
19	HTS-II	191	136	7.13
20	HTS-III	169	104	6.14
21	HTSS	536	271	5.05
22	RTS-I	591	331	5.59
	Total	**5378**	**2653**	**4.93**

Commission's analysis

The Commission has computed the expected revenue from sale of energy during FY 2014-15 at existing tariff based on energy sales, connected load, number of consumers approved for FY 2014-15 and arrived at Rs.2706.02 crore as detailed in the Table below:

Table 5.59: Revenue from sale of power at existing tariff considered for FY 2014-15

Sl. No.	Category	Consumers (Nos)	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kWh)
1	Kutir Jyoti (Rural)	710249	182	50.22	2.76
2	Kutir Jyoti (Urban)	78917	2	0.39	1.95
3	DS-I (Rural)	293187	303	57.15	1.88
	DS-II				
4	Single phase	1121374	1314	492.88	3.75
5	Three phase	15000	93	34.87	3.71
6	DS-III	34	0.095	0.04	4.20
7	NDS-I (Rural)	7388	7	1.99	2.84
	NDS-II (Urban)				
8	Single phase	197660	410	283.44	6.93
9	Three phase	20315	246	174.95	7.11
10	NDS-III	169	3	1.31	4.37

Sl. No.	Category	Consumers (Nos)	Sales (MU)	Revenue (Rs. Crore)	Average billing rate (Rs./kWh)
11	LTIS-I	14413	128	80.79	6.31
12	LTIS-II	1414	93	55.45	6.03
13	Public Water Works	728	37	28.79	7.78
14	IAS-I (Private)	54738	331	51.72	1.56
15	IAS-I (Government)	1606	91	52.52	5.71
16	SS-I (Metered) STL	85	4	3.50	7.00
17	SS-II (Unmeterd) STL	241	40	23.25	5.81
18	HTS-I	1073	607	432.13	7.12
19	HTS-II	57	191	136.22	7.13
20	HTS-III	2	169	103.77	6.14
21	HTSS	20	536	270.52	5.05
22	RTS-I	15	591	370.12	6.26
	Total	**2518685**	**5378**	**2706.02**	**5.03**

5.33 Disincentive for non-achievement of T&D loss reduction targets

Petitioner's submission

The Petitioner has submitted that as per the methodology approved by the Commission in previous tariff orders, the power purchase due to excess distribution loss is disallowed. The Petitioner has submitted that the support for the disallowance cost would be provided by the State Government. The Petitioner has computed the disallowed power purchase cost for FY 2014-15 as detailed in the Table below:

Table 5.60: Projected Disallowed power purchase for FY 2014-15

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Additional power purchase by DISCOMs due to excess Distribution loss (MU)	4784.00	2660.00
2	Average power purchase rate (Rs./kwh)	3.82	4.26
3	Cost of additional power disallowed (Rs. Crore)	1827.49	1132.00

Commission's analysis

The Commission has examined the projections of the Petitioner and has computed the cost of additional power purchase disallowed for FY 2014-15 as given in the Table below:

Table 5.61: Approved Disallowed power purchase for FY 2014-15

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Segregated ARR figures for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Additional power purchase by DISCOMs due to excess Distribution loss (MU)	4784.00	3048.82	2660.30	3116.00
2	Average power purchase rate (Rs./kWh)	3.82	3.82	4.26	4.12
3	Cost of additional power disallowed (Rs. Crore)	1827.49	1164.65	1132.36	1283.79

5.34 Resource gap funding from State Government for FY 2014-15

Petitioner's submission

The Petitioner has submitted that the total subsidy to be received for FY 2014-15 is Rs.2400 crore (@ Rs 200 crore per month) and the share of SBPDCL is arrived at Rs.1452.48 crore for FY 2014-15. The Petitioner has furnished utilization of subsidy amount and balance amount to be adjusted against revenue gap as detailed in the Table below:

Table 5.62: Projected Resource Gap utilization for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Projected by SBPDCL for FY 2014-15
1	Proposed subsidy from State Govt.	1452.48
2	**Less**: Disallowed power purchase funded through State Govt. grant/subsidy	1132.36
3	Available Revenue Subsidy	320.12

Commission's analysis:

The Commission has considered the revenue gap assistance for FY 2014-15 at Rs 2400 crore for both DISCOMs as projected by Petitioner, out of which Rs 1452.48 crore is allocated to SBPDCL and adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of SBPDCL and distribution loss approved by the Commission from resource gap funding by state government as detailed in the Table below:

Table 5.63: Approved Resource Gap utilization for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Projected by SBPDCL for FY 2014-15	Now approved for FY 2014-15
1	Proposed resource gap assistance	1452.48	1452.48
2	**Less**: Disallowed power purchase funded through State Govt. grant/subsidy	1132.36	1283.79
3	Available balance resource gap assistance	320.12	168.69

5.35 Deposits towards Renewable Purchase Obligation

Petitioner's submission:

The Petitioner has submitted that they have signed few PPAs with Sugar Mills and power purchase from co-generation will increase in near future and efforts are made to tie up solar power through competitive bid process. It is submitted that shortfall may be allowed to carry forward to next year so as to meet the total RPO on cumulative basis.

Commission's analysis:

The Commission has notified BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 on 16th November 2010. The Clause 4(1) of the regulation specifies that, *"e**very obligated entity shall purchase not less than 1.5%, 2.5%, 4%, 4.5% and 5% of its total energy consumption (total energy input minus T&D losses) during 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 respectively from renewable energy sources under the Renewable Purchase Obligation or until reviewed by the Commission. Provided that 0.25% out***

***of the renewable purchase obligation so specified in the year 2010-11 shall be procured from generation based on solar as renewable energy source and shall be increased at a rate of 0.25% every year thereafter till 2014-15 or until reviewed by the Commission.**” Further, it is specified that if the licensees are not able to meet the purchase obligation (including the RE capacity available in the State) from sources located within the State, they shall have the option of purchase the shortfall energy from outside the State. The Clause 5.1 facilitates the licensees purchase of certificates issued under the CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations 2010 as valid instrument for the discharge of the mandatory RE purchase obligation.*

The BERC through notification dated 7th September 2012 has notified that “***out of the renewable purchase obligation, 0.25% of the consumption in the year 2012-13 shall be procured from generation based on solar energy sources and shall be increased by 0.25% every year thereafter till 2019-20 and by 0.50% in 2020-21 as well as in 2021-22***”.

Based on the above regulations it is made obligatory for erstwhile BSEB and now BSPHCL/DISCOMs to purchase certain percentage of energy of their total energy consumption from Renewable Energy sources, from FY 2010-11 to FY 2014-15 is as shown in the Table below:

Table 5.64: Percentage of Renewable Purchase Obligation (RPO)

From Renewable Sources	2010-11	2011-12	2012-13	2013-14	2014-15
Renewable Power Purchase obligation (RPO)	1.50%	2.50%	4.00%	4.50%	5.00%
% share of solar power RPO of total RPO	0.25%	0.50%			
% share of solar power in RPO of total energy consumption			0.25%	0.50%	0.75%
% share of non-solar power in RPO	1.25%	2.00%	3.75%	4.00%	4.25%

The purchase of power from BSHPC and Co-generation plants by the BSEB/BSPHCL/DISCOMs from FY 2010-11 to FY 2012-13 (as per actuals) and the shortfall in RPO obligation and requirement of the RE certificates purchases are given in the Table below:

Table 5.65: Power purchase from FY 2010-11 to FY 2012-13 and Renewable power purchase obligation

(MU)

Sl. No.	Particulars	As per actuals		
		FY 2010-11	FY 2011-12	FY 2012-13
1	RE purchases – Solar			
2	Co-generation purchases (Sugar Mills)	28.35	77.68	128.81
3	Small Hydro (BSHPC)	27.37	35.68	46.83
4	Total power purchase from Renewable sources (non solar)	55.72	113.36	175.64
5	Total = Solar + non solar	55.72	113.36	175.64
6	Total energy input/requirement	8890.09	8947.49	9741.00
7	T&D losses	2750.95	2402.00	2724.08
8	Energy consumption (Energy input - T&D losses)	6139.14	6545.49	7016.92
9	Sale of surplus power + sales to Nepal	848.00	1164.00	1073.43
10	Energy input - T&D losses - sales to outside state	5291.14	5381.49	5943.49
11	Total RPO requirement	79.37	134.54	237.74
12	Solar RPO requirement	0.20	0.67	14.86
13	Non-solar RPO requirement	79.17	133.86	222.88
14	Shortfall in Solar RPO	0.20	0.67	14.86
15	Shortfall in non Solar RPO	23.45	20.50	47.24
16	Forbearance price for solar REC (Rs./kWh)	13.40	13.40	13.40
17	Forbearance price for non-solar REC (Rs./kWh)	1.50	1.50	1.50
18	Cost of certificates Solar (Rs. crore)	0.27	0.90	19.91
19	Cost of certificates non-Solar (Rs. crore)	3.52	3.08	7.09
20	**Total cost of certificates (Rs. crore)**	**3.78**	**3.98**	**27.00**

The Commission in its order dated 28th September 2012 in case No.19/2012 directed to fulfill shortfall in Solar RPO in FY 2010-11 and FY 2011-12 in five equal installments starting from FY 2013-14. The short fall in Solar RPO during the said period is 0.87 MU and the cost of RE certificates for fulfilling the obligation is Rs.1.17 crore. The Commission has decided to factor the entire amount in FY 2014-15.

Solar RPO

The above table indicates that the erstwhile BSEB and segregated entities have not met the Solar R.P. Obligation from FY 2010-11 to 2012-13 as per the truing up based on the audited annual accounts of the relevant financial years. The total short fall in solar obligation from FY 2010-11 to FY 2012-13 is 15.73 MU. As per the regulations, the RE certificates/deposit shall be made at the forbearance price of Rs.13.40/kWh and the solar RE certificates to be purchased to fulfill the RPO in respect of solar is Rs.21.08 crore. Accordingly, the Commission has factored Rs.21.08 crore in the ARR for FY 2014-15 and directs the DISCOMs to deposit the same in to a separate fund with a bank. The amount of Rs.21.08 crore is allocated among the DISCOMs in their power purchase sharing ratio i.e. 35% to NBPDCL and 65% to SBPDCL and allowed to the DISCOMs as under:

NBPDCL	Rs. 7.38 crore
SBPDCL	Rs. 13.70 crore

<u>**Non-Solar RPO**</u>

As could be seen from the above table, the erstwhile BSEB and segregated entities have not met the non-solar R.P. Obligations in FY 2010-11 and 2012-13 as per the truing up based on the audited annual accounts of the relevant financial years.

The non-solar RP obligation is worked out based on the power purchased by the BSEB/BSPHCL/DISCOMs during FY 2010-11 to FY 2012-13. However, considering the generation capacity available in the State of Bihar and the captive consumption of Sugar Mills, there may not be any shortfall in the non-solar RPO. The Commission has decided that the non-solar RPO is complied with and no RE certificates need to be purchased or amount deposited for FY 2010-11 to FY 2012-13.

5.36 ARR and Revenue Gap/(Surplus) projected for FY 2014-15

Petitioner's submission

The Petitioner has submitted that the gross ARR consists of the power purchase costs, interest and finance cost, O&M cost, depreciation and interest on working capital duly adjusted for non-tariff income and other income. The Petitioner has computed the total revenue requirement for FY 2014-15 against allocation from total approved revenue requirement by the Commission for FY 2014-15, as detailed in the Table below:

Table 5.66: Projected Net ARR and Revenue Gap for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	ARR approved for both DISCOMs in MYT order for FY 2014-15	Allocation for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15
1	Purchase of power	6216.20	3961.77	4061.31
2	PGCIL & Other transmission charges	190.00	121.09	378.47
3	BSPTCL transmission charges	262.32	166.97	170.51
4	**O & M Expenses**	**573.85**	**352.56**	**378.95**
(i)	Employee expenses	438.26	291.33	282.32
(ii)	R&M expenses	86.01	38.70	59.08
(iii)	A&G expenses	49.58	22.53	22.99
(iiv)	Holding company expenses allocated		-	14.56
5	Depreciation	163.24	73.46	194.14
6	Interest & Finance charges	395.92	176.96	150.09
7	Return on equity	123.10	69.66	299.78
8	Interest on SD		-	15.99
9	Interest on working capital	158.09	102.79	121.74
10	**Total Revenue requirement**	**8082.72**	**5025.26**	**5770.97**
11	Less: Expenditure disallowed due to excess T&D losses	1827.49	1164.65	1132.36
12	Less:: Non-tariff income	183.11	119.06	97.75
13	**Net Revenue requirement**	**6072.12**	**3741.55**	**4540.86**
14	Revenue from Existing tariff	-		2653.07
15	**Gross Gap / (Surplus)**	**-**		**1887.79**
16	**Add**: Revenue Gap for past period (FY 2013-14)			740.00
17	**Less**: State Government support for revenue gap			320.12
18	**Total Gap**			**2307.67**

Commission's analysis:

The Commission has computed the net annual revenue requirement based on the costs approved in the preceding paragraphs as detailed in the Table below:

Table 5.67: ARR Revenue Gap / (surplus) approved by the Commission for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	ARR approved for both DISCOMs in MYT order for FY 2014-15	Allocated ARR for SBPDCL for FY 2014-15	Projected by SBPDCL for FY 2014-15	Now approved to SBPDCL for FY 2014-15
1	Purchase of power	6216.20	3961.77	4061.31	3996.81
2	PGCIL & Other transmission charges	190.00	121.09	378.47	282.67
3	BSPTCL transmission charges	262.32	166.97	170.51	175.89
4	**O & M Expenses**	**573.85**	**352.56**	**378.96**	**364.05**
(i)	Employee expenses	438.26	291.33	282.32	282.33
(ii)	R&M expenses	86.01	38.70	59.08	44.16
(iii)	A&G expenses	49.58	22.53	22.99	23.00
(iv)	Holding company expenses allocated	-		14.56	14.56
5	Depreciation	163.24	70.94	194.14	90.06
6	Interest & Finance charges	395.92	154.53	150.09	92.94
7	Return on equity	123.10	69.18	229.78	69.16
8	Interest on SD			15.99	
9	**Less:** IDC				31.99
10	Deposits for RPO obligation				13.70
11	Interest on working capital	158.09	102.83	121.74	95.84
12	**Total Revenue requirement**	**8082.72**	**4999.87**	**5770.98**	**5149.14**
13	Less: Non-tariff income	183.11	119.06	97.75	102.48
14	Less: Expenditure disallowed due to excess T&D losses	1827.49	1164.65	1132.36	1283.79
15	**Net Revenue requirement**	**6072.12**	**3716.16**	**4540.87**	**3762.86**
16	Revenue from Existing tariff		2596.05	2653.07	2706.02
17	**Gross Gap / (Surplus)**		**1120.11**	**1887.80**	**1056.84**
18	Add: Revenue gap/(surplus) for past period (FY 2013-14)	-	-	739.30	-
19	**Gap/(surplus) before subsidy**	**-**	**-**	**2627.10**	**1056.84**
20	Grant from State Government			1452.48	1452.48
21	Grant used for disallowed power			1132.36	1283.79
22	Grant available for revenue gap			320.12	168.69
23	**Net Gap / (Surplus) after subsidy**			**2306.98**	**888.16**

The Commission approves the net revenue Gap of Rs. 888.16 crore for FY 2014-15 in SBPDCL subject to final truing up as and when the audited annual accounts for FY 2014-15 are submitted by the Petitioner.

5.37 Approved Revenue Gap/(Surplus) with existing tariff for FY 2014-15

The trued up revenue surplus approved by the Commission for FY 2006-07 to FY 2012-13 amounts to Rs.1273.24 crore (including carrying cost). The Commission has considered this trued up surplus and adjusted against the ARR of the DISCOMs for FY 2014-15. The trued up surplus is allocated among the DISCOMs in the power sharing ratio of 35% to NBPDCL (Rs. 445.63 crore) and 65% to SBPDCL (Rs. 827.61 crore).

Regulatory Asset of FY 2013-14

The Commission in the Tariff Order for FY 2013-14 has recognized the revenue Gap of Rs.354.48 crore arrived at for FY 2013-14 as Regulatory Asset to be amortised in three years from FY 2014-15 to FY 2016-17 along with carrying cost. It was ordered therein that BSPHCL had to mobilize financial resources to maintain its cash flow and the Commission will allow carrying cost of the same. The Commission accordingly, has considered carrying cost @14.45% (SBI PLR rate) on Rs.354.48 crore for six months of FY 2014-15, which works out to Rs. 25.61 crore and allocated to NBPDCL Rs.8.96 crore (35%) and SBPDCL Rs.16.65 crore (65%) in their power purchase sharing ratio.

Based on the Annual Revenue Requirement of DISCOMs (NBPDCL and SBPDCL) approved for FY 2014-15 and estimated revenue from sale of power with existing tariff the consolidated (both DISCOMs) revenue gap for FY 2014-15 is given in the table below:

Table 5.68: Approved Revenue Gap for FY 2014-15

(Rs. crore)

Sl. No.	Particulars	NBPDCL	SBPDCL	Total
1	Net Aggregate Revenue Requirement	2565.84	3762.86	6328.70
2	Add: Recovery of revenue Gap / (Surplus) of past period (Truing up from FY 2006-07 to FY 2012-13)	(445.63)	(827.61)	(1273.24)
3	Add: Carrying cost (SBI PLR @14.45%) on the Regulatory Asset of FY 2013-14 as per the Tariff Order for FY 2013-14	8.96	16.65	25.61
4	**Net Revenue Requirement [(1+3) - 2]**	**2129.17**	**2951.90**	**5081.07**
5	Less: Revenue from existing Tariff	1356.30	2706.02	4062.32
6	Less: Revenue from sales to Nepal	258.63	0.00	258.63
7	**Gap / (Surplus) [4 - (5+6)]**	**514.24**	**245.88**	**760.12**
8	Total Grant from State Government	947.52	1452.48	2400.00
9	Grant used for compensating disallowed power	458.69	1283.79	1742.48
10	Balance resource assistance from State Government (8-9)	488.83	168.69	657.52

Sl. No.	Particulars	NBPDCL	SBPDCL	Total
11	**Net Gap / (Surplus) (7 - 10)**	**25.41**	**77.19**	**102.60**

From the above table it can be seen that after considering the State Government support for cost of additional power purchase requirement on account of difference in actual distribution loss of DISCOMs and loss approved by the Commission, the net revenue gap approved by the Commission for FY 2014-15 is at Rs.102.60 crore.

The revenue gap of Rs.102.60 Crore arrived at is based on the projected figures of FY 2014-15. The experience shows that while truing up based on the audited annual accounts for the earlier Tariff Orders, the estimated revenue gap in the earlier Tariff Orders resulted in to surplus in truing up. The Commission is of the view that the cost components and revenue based on the audited annual accounts may vary in truing up for FY 2014-15. The Commission is also of the view that the Petitioners shall make efforts to make up the gap by improving the operational performance particularly reduction of high distribution losses which in turn will reduce the resource gap grant given by the Government to meet the disallowed power cost due to not achieving the distribution loss target specified by the Commission and this saving in resource gap grant can be utilized to reduce the ARR. Hence, the Commission does not propose any increase in the tariff for FY 2014-15.

The revenue gap arrived at for FY 2013-14 (RE) for DISCOMs (NBPDCL and SBPDCL) is not considered in the ARR for FY 2014-15 as it is only indicative and worked out on the revised estimates projected by the DISCOMs and not based on the approved/audited annual accounts. However, this gap of FY 2013-14 (RE) will be considered in the ARR for FY 2015-16 after truing up when the audited annual accounts are made available by the Petitioner.

5.38 Average Tariff as a percentage of Average Cost in Tariff Order for FY 2013-14 and FY 2014-15

The Commission has approved tariff for various consumer categories considering gradual reduction in cross-subsidy in line with the requirement of Tariff Policy. As seen from the table below, tariff as a percentage of average cost is moving towards the band of +/- 20% of average cost of supply as suggested in Tariff Policy. The average Tariff as a percentage of average cost of supply approved in Tariff Order for FY 2013-14 and that approved in the Tariff Order for FY 2014-15 is as shown in the Table below:

Table 5.69: Cross-Subsidy in FY 2013-14 and FY 2014-15

Sl. No.	Category	FY 2013-14 (approved in Tariff Order for FY 2013-14)			FY 2014-15 (approved by Commission)		
		Average Realisation (Rs./kWh)	Cost of Service (Rs./kWh)	% of cost of service realized	Average Realisation (Rs./kWh)	Cost of Service (Rs./kWh)	% of cost of service realized
1	Kutir Jyoti	6.46	6.46	100%	6.68	6.68	100%
2	Domestic - I	6.46	6.46	100%	6.68	6.68	100%
3	Domestic - II	5.06	6.46	78%	3.75	6.68	56%
4	Domestic - III	4.70	6.46	73%	4.20	6.68	63%
5	Non-Domestic-I	6.46	6.46	100%	6.68	6.68	100%
6	Non-Domestic-II	6.88	6.46	107%	7.00	6.68	105%
7	Non-Domestic-III	4.23	6.46	65%	4.37	6.68	65%
8	Irrigation IAS-I	6.46	6.46	100%	6.68	6.68	100%
9	Irrigation IAS-II	5.24	6.46	81%	5.71	6.68	86%
10	LT IS-I	5.99	6.46	93%	6.31	6.68	94%
11	LT IS-II	6.28	6.46	97%	6.03	6.68	90%
12	Public Water Works	7.85	6.46	122%	7.78	6.68	116%
13	Street Light-I (Metered)	6.44	6.46	100%	7.00	6.68	105%
14	Street Light-II (Un-metered)	7.21	6.46	112%	5.81	6.68	87%
15	HTS-I	6.86	6.46	106%	7.12	6.68	107%
16	HTS-II	6.93	6.46	107%	7.13	6.68	107%
17	HTS-III	6.05	6.46	94%	6.14	6.68	92%
18	HTSS	5.49	6.46	85%	5.05	6.68	76%
19	RTS-I	6.37	6.46	99%	6.26	6.68	94%

Note: The average realization for Kutir Jyoti, DS-I, NDS-I and IAS-I is including revenue subsidy.

5.39 Average Tariff as a percentage of voltage-wise Cost of Supply for FY 2013-14 and FY 2014-15

The Commission has determined the voltage-wise cost based on the limited data/information made available as detailed in Chapter-7. The average tariff as a percentage of cost of supply approved in Tariff Order for FY 2013-14 and the average tariff as a percentage of voltage-wise cost determined in Chapter-7 for FY 2014-15 is as shown in Table below:

Table 5.70: Average realisation as a percentage of Cost of Supply in FY 2013-14 and FY 2014-15

Sl. No.	Category	FY 2013-14 (approved in Tariff Order for FY 2013-14)			FY 2014-15 (approved by Commission)		
		Average Realisation (Rs./kWh)	Cost of Supply (Rs./kWh)	% of cost of supply	Average Realisation (Rs./kWh)	Cost of Supply (Rs./kWh)	% of cost of supply
1	Kutir Jyoti	3.03	6.46	47%	6.68	7.22	93%
2	Domestic - I	3.34	6.46	52%	6.68	7.22	93%
3	Domestic - II	5.06	7.15	71%	3.75	7.22	52%
4	Domestic - III	4.70	6.46	73%	4.20	7.22	58%
5	Non-Domestic-I	4.45	7.15	62%	6.68	7.22	93%
6	Non-Domestic-II	6.88	7.15	96%	7.00	7.22	97%
7	Non-Domestic-III	4.23	7.15	59%	4.37	7.22	61%
8	Irrigation IAS-I	1.15	6.46	18%	6.68	7.22	93%
9	Irrigation IAS-II	5.24	7.15	73%	5.71	7.22	79%
10	LT IS-I	5.99	7.15	84%	6.31	7.22	87%
11	LT IS-II	6.28	7.15	88%	6.03	7.22	84%
12	Public Water Works	7.85	7.15	110%	7.78	7.22	108%
13	Street Light-I (Metered)	6.44	7.15	90%	7.00	7.22	97%
14	Street Light-II (Un-metered)	7.21	7.15	101%	5.81	7.22	80%
15	HTS-I	6.86	6.77	101%	7.12	6.84	104%
16	HTS-II	6.93	6.46	107%	7.13	6.54	109%
17	HTS-III	6.05	6.22	97%	6.14	6.30	97%
18	HTSS	5.49	6.46	85%	5.05	6.54	77%
19	RTS-I	6.37	6.22	102%	6.26	6.30	99%

6. Government Grant/Revenue Subsidy

6.1 Background

The Government of Bihar has been giving resource gap grant to the erstwhile BSEB and now to the DISCOMs mainly to facilitate timely payment of power purchase bills and to meet the power purchase cost partly. Energy Department, Govt. of Bihar in its letter dated 19th September 2011 communicated to the Commission regarding its decision on the priority of the use of resource gap funding provided by the Government. The letter outlined that the State Government grants shall be used to compensate the financial losses caused on account of additional power purchase due to the difference in the actual T&D loss and the T&D loss determined/approved by the Commission and the remaining portion of grants will be used as subsidy to agriculture and rural consumers. The State Government again clarified during the meeting with the erstwhile BSEB and the Commission held on 19th March 2012 that the subsidy would be only for agriculture and rural consumers subject to maximum of Rs.1080 crore.

6.2 Resource Gap Grants for FY 2014-15

The DISCOMs have projected the Government support @ Rs. 200 crore per month working to Rs. 2400 crore for FY 2014-15 which they are receiving from the Government towards power purchase bills. The allocation to SBDPCL out of this resource gap grant will be about Rs. 1452 Crore. Out of which Rs. 1284 Crore is adjusted towards power purchase cost disallowed due to higher T&D loss leaving Rs. 169 Crore towards revenue subsidy.

6.3 Consumer categories eligible for subsidy

The consumer categories which are considered by the Commission for subsidy support are as indicated below:

Table 6.1: Subsidized categories

Sl. No.	Name of Subsidized Category	Applicability
1	Kutir Jyoti (KJ)	This will be applicable to (i) all huts (Kutir) and dwelling houses of rural and urban families below the poverty line (BPL) (ii) houses built under schemes like Indira Awas Yojana and similar such schemes for BPL families.
2	Domestic – I: Rural (DS –I)	This is applicable to domestic premises in rural areas for a load up to 2 kW not covered by areas indicated under DS-II and not being fed from urban / town feeders.
3	Non- Domestic– I: Rural (NDS- I)	Applicable to loads up to 2 kW in rural areas not covered by areas indicated under NDS – II and not being fed from urban / town feeders.
4	Irrigation and Agricultural Pump sets – I (IAS – I)	Applicable for supply of electrical energy for bonafide use for agricultural purposes including processing of Agricultural Produce, confined to chaff - cutter, thrasher, cane crusher and rice Huller when operated by the agriculturist in the field or farm and does not include rice mills, flour mills, oil mills, dal mills or expellers. This is also applicable to hatcheries, poultries (with more than 1000 birds) and fisheries (fish ponds) also including private tube wells.

6.4 Subsidy receivable for FY 2014-15

The Commission has worked out the subsidy support on the above listed consumer categories to compensate the SBPDCL to the extent of the difference between the average Cost of Supply and the average tariff for the respective categories.

The subsidy support for agriculture/rural consumers on the approved sales/ARR for FY 2014-15 as worked out by the Commission is as provided in the table below:

Table 6.2: Subsidy receivable from State Government for FY 2014-15

Sl. No.	Name of the Subsidised Category	Average Tariff (Rs./kWh)	Average Cost of Supply (Rs./kWh)	Units Sold (MU)	Subsidy Amount (Rs. crore)
1	Kutir Jyoti (KJ)-Rural	2.76	6.68	182.00	71.34
2	Kutir Jyoti (KJ)-Urban	1.95	6.68	2.00	0.95
3	Domestic – I: Rural (DS –I)	1.88	6.68	304.00	145.92

Sl. No.	Name of the Subsidised Category	Average Tariff (Rs./kWh)	Average Cost of Supply (Rs./kWh)	Units Sold (MU)	Subsidy Amount (Rs. crore)
4	Non- Domestic – I: Rural (NDS- I)	2.84	6.68	7.00	2.69
5	Irrigation and Agricultural Services-I:	1.56	6.68	331.00	169.47
6	**Total subsidy receivable from State Govt.**				**390.37**

Based on the approved ARR and tariff for FY 2014-15, SBPDCL will be receiving Rs. 390 Crore from the State Government as subsidy support on sales of power to Agriculture/ Rural consumers.

Further to the above, any FPPCA charges applicable during any month of FY 2014-15 should be added on to the Cost of Supply approved for the year in this Tariff Order for determination of subsidy support to the Agriculture/ Rural categories.

7. Voltage-wise Cost of Supply

7.1 Background

The Appellate Tribunal for Electricity (APTEL) in its Order dated 10th May, 2012 has indicated the guidelines on the alignment of tariff to voltage wise cost of supply. The Commission in the MYT order dated 15th March, 2013 computed the cost of supply at different voltages.

7.2 Pre- requisite for arriving at the voltage wise Cost of Supply (CoS):

As per the APTEL judgment, assessment of the technical loss in the distribution system network by carrying out system studies based on the available load data for 33 kV and above and field studies for representative feeders for 11 kV and 0.4 kV of the various consumer mix prevailing in the distribution system is a pre-requisite for arriving at the voltage-wise cost of supply as per methodology ordered by the APTEL.

7.3 Fixation of T&D loss:

The DISCOMs in their Tariff petition for FY 2014-15 computed the voltage-wise Cost of Supply considering the T&D losses as projected in their petitions as given below:

Voltage wise technical losses projected by SBPDCL

Voltage level	% technical loss
220 kV	4.16%
132 kV	4.50%
33 kV	3.96%
11 kV	9.31%
LT	11.30%

Voltage wise technical losses projected by NBPDCL

Voltage level	% technical loss
220 kV	2.64%
132 kV	2.59%
33 kV	5.64%
11 kV	11.49%
LT	12.00%

The technical losses indicated by the DISCOMs are based on the limited field study. The APTEL in its guidelines indicated that the T&D loss as approved by the

Commission in its Tariff Order has to be considered while computing the voltage-wise cost of supply. Due to lack of data for segregation of technical and commercial losses, the Commission could not fix the technical and commercial loss level within the total distribution loss of 21.40% approved for FY 2014-15. In view of high loss level of 45.00% by SBPDCL and 36.50% by NBPDCL, it is considered appropriate to assume technical and commercial loss levels for realistic assessment of Cost of Supply within overall T&D loss level of 24.54% allowed by the Commission. The Commission has approved the transmission losses at 4% for FY 2014-15. Hence, keeping the transmission losses at 4%, the remaining is adjusted among others.

The Commission has considered the following voltage-wise technical loss level for FY 2014-15 within overall loss level of 24.54%.

S. No.	Voltage Level	Loss (%)
1	220/132 kV	4.00%
2	33 kV	5.00%
3	11 kV	6.00%
4	L.T	7.00%
5	Technical Losses in the system - (A)	16.67%
6	Total Losses (distribution loss + transmission loss) (MU)	2892
	Total Losses (distribution loss + transmission loss) - (B)	24.54%
7	Commercial & Non- Technical loss-(B-A)	7.87

Based on the above assumptions, the Commission has computed the voltage-wise Cost of Supply. The Commission has computed the voltage-wise cost of supply for both the distribution companies combinedly for FY 2014-15 in view of the common retail supply tariff and distribution loss percentage approved for FY 2014-15.

7.4 Energy Sales:

Approved voltage-wise energy sales for FY 2014-15 are as given below:

Sl. No.	Voltage and Category	NBPDCL (MU)	SBPDCL (MU)	Total (MU)
A	**220/132 KV**			
	HT Industry (HTS-III)	61	169	230
	Railway Traction	15	591	606
	Sub – Total	**76**	**760**	**836**

SI. No.	Voltage and Category	NBPDCL (MU)	SBPDCL (MU)	Total (MU)
B	**33 KV**			
	HTS-II	70	191	261
	HTSS	86	536	622
	Nepal	550		550
	Sub - Total	**706**	**727**	**1433**
C	**11 KV**			
	HTS-I	282	607	889
D	**LT**			
	Domestic, Non-Domestic, Agriculture and Others	2451	3284	5735
	Total (A+B+C+D)	**3515**	**5378**	**8893**

7.5 Voltage –wise Technical and Commercial Losses:

As stated in para 33 of APTEL order dated 10.05.2012, the voltage-wise commercial losses are to be arrived at by segregating the total commercial losses in proportion to grossed up sales (Actual consumption + technical loss) voltage-wise.

In para 34 of APTEL order it is reiterated that the power purchase cost is to be segregated for different voltage levels taking into account the transmission and distribution losses, both commercial and technical, for relevant voltage level and upstream system. Thus the losses (technical) at 33 KV shall be the losses at that voltage and also at upstream 132 KV voltages.

7.6 Computation of Technical Losses and Commercial Losses:

The technical and commercial losses are arrived at based on the above method as below:

The technical losses are computed as given in the table below:

Voltage Level	Sales (MU)	Volt. Wise Tech. Loss (%)	Energy Input (MU)	Tech. Losses (MU)
1	2	3	4	5
132/220kV	A	**w**	=A/(1-w%)	=(4)-(2)
33kV	B	**x**	=B/(1-x%)(1-w%)	=(4)-(2)
11kV	C	**y**	=C/(1-y%)(1-x%)(1-w%)	=(4)-(2)
LT	D	**z**	=D/(1-z%)/(1-y%)(1-x%)(1-w%)	=(4)-(2)
Total	(A+B+C+D)			

Technical Losses:

Sl. No.	Voltage Level (KV)	Voltage-wise Technical Losses (%)	Cumulative Loss (%)	Energy Sale (MU)	Energy input (MU)	Technical Loss (MU)
1	**2**	**3**	**4**	**5**	**6**	**7=(6-5)**
1	220/132	4.00%	4.00%	836	871	35
2	33	5.00%	8.80%	1433	1571	138
3	11	6.00%	14.27%	889	1037	148
4	0.4	7.00%	20.27%	5735	7193	1458
Total				**8893**	**10672**	**1779**

Commercial Losses:

Sl. No.	Voltage Level	Energy Sale (MU)	Technical Loss (MU)	Sales + Tech Loss (MU)	Commercial Loss (MU)	Energy Sales + Tech. Loss + Commercial Loss (energy input at state periphery) (MU)
1	**2**	**3**	**4**	**5=(3+4)**	**6**	**7=(5+6)**
1	220/132 kV	836	35	871	91	962
2	33 kV	1433	138	1571	164	1735
3	11 kV	889	148	1037	108	1145
4	LT	5735	1458	7193	750	7943
Total		**8893**	**1779**	**10672**	**1113**	**11785**

Note: The commercial losses are obtained by reducing the sales + technical losses from the energy input at state periphery (11785-10672=1113). The commercial losses so arrived allocated in proportion to the sales and the technical losses to each voltage level.

7.7 Allocation of Power Purchase Cost for FY 2013-14

The power purchase cost has been allocated for different voltage levels taking into account the T&D losses, both commercial and technical, for the relevant voltage level and upstream as per methodology indicated by APTEL.

Average unit cost of purchase approved by the Commission is Rs. 3.90 /unit. After deducting the regional transmission losses of 218 MU from the total power purchase of 21154 MU, the average power purchase cost per unit works out to Rs. 3.94 per unit [(8242.92÷(21154-218)*10].

Allocation of power purchase cost

Sl. No.	Voltage Level	Energy Sale (MU)	Energy Sales + Technical loss + Comml. loss (MU)	Unit cost of power purchase approved by the Commission (Rs./unit)	Power Purchase Cost (Rs. Crore)	Cost of Power per unit sale of Energy (Rs./unit)
1	**2**	**3**	**4**	**5**	**6 = (4*5)**	**7= (6÷3)**
1	220/132 kV	836	962	3.94	379	4.53
2	33 kV	1433	1735	3.94	683	4.77
3	11 kV	889	1145	3.94	451	5.07
4	LT	5735	7943	3.94	3127	5.45
Total		**8893**	**11785**		**4640**	**5.22**

7.8 Network Cost

Hon'ble APTEL in its order has indicted the method for allocation of network costs at different voltage levels as under:

> " ………… all other cost such as Return on Equity , interest on loan , interest on working capital and O&M costs can be pooled and apportioned equitably, on pro-rata basis to all the voltage level to determine the cost of supply".

The network costs have to be calculated on pro-rata basis and its appointment shall be fare and just.

The network cost approved by the Commission for FY 2014-15 are as given below:

Sl. No.	Particulars	Amount (Rs. Cr)
1	Employee Cost	470.35
2	R&M costs	87.56
3	A&G expenses	60.07
4	Holding Company	23.80
5	Depreciation	191.42
6	Interest & Finance Charges	273.51
7	Interest on Working Capital	155.36
8	RPO fund	20.25
9	Return on Equity	123.06
10	Less: IDC	-101.70
11	**Total (1 to 7)**	**1303.68**
12	Transmission cost	270.60
13	**Total cost**	**1574.28**
14	Energy Sales (MU)	8893.00
15	**Network Cost per unit sale of energy (Distribution + Transmission) (Rs./kWh)**	**1.77**

Allocation of network costs at different voltages

Sl.No.	Voltage Level	Energy Sale (MU)	Network Cost (Rs./Unit)	Total Network Cost (Rs. Cr)
1	220/132 kV	836	1.77	148
2	33 kV	1433	1.77	254
3	11 kV	889	1.77	157
4	LT	5735	1.77	1015
Total		**8893**		**1574.28**

7.9 Cost of supply at different voltage levels

Based on the power purchase cost and network cost as above, the cost of supply at different voltage levels is arrived at as below:

Sl. No.	Supply voltage	Cost of Power Purchase (Rs./unit)	Network cost (Rs./unit)	Cost of supply (Rs. /unit)
1	220/132 kV	4.53	1.77	6.30
2	33 kV	4.77	1.77	6.54
3	11 kV	5.07	1.77	6.84
4	LT	5.45	1.77	7.22

8. Tariff Principles, Design and Tariff Schedule

8.1 Background

The Commission in determining the revised Annual Revenue Requirement (ARR) for FY 2014-15 and the retail tariff for FY 2014-15 has been guided by the provisions of the Electricity Act, 2003 the National Electricity Policy 2005 (NEP), the Tariff Policy 2006 (TP), Regulations on Terms and Conditions for Determination of Tariff issued by the Central Electricity Regulatory Commission (CERC) and BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff. As per these principles the tariff should progressively reflect cost of supply and also reduce cross subsidies within the period to be specified by the Commission. The Act also lays special emphasis on safeguarding consumer interests and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by the factors, which encourage competition, efficiency, economical use of resources, good performance and optimum investment.

The National Electricity Policy (NEP) aims at increased access to electricity, supply of reliable and quality power at reasonable rates, minimum life line consumption, financial turnaround and commercial viability of electricity sector and protection of consumer's interest. The Commission has considered factors as far as possible which aim at achieving the objectives of NEP while determining the revenue requirement of the two distribution companies and designing the retail tariff for consumers.

The Tariff Policy (TP) notified by Government of India in January 2006 provides comprehensive guidelines for determination of tariff and revenue requirement of power utilities. The Commission has endeavored to follow these guidelines as far as possible.

The Tariff Policy mandates that tariff should be within ±20% of the average cost of supply by FY 2010-11 and requires Commissions to lay down a road map for reduction of cross subsidy. The Commission has not revised the retail tariffs for FY 2014-15 and retained the tariffs as approved in the Tariff Order for FY 2013-14. The Commission has computed the average cost of supply on the basis of the revenue requirement allowed and the sale approved by the Commission for FY 2014-15 for arriving at the cross subsidy level during FY 2014-15.

The Commission has also determined the voltage-wise cost of supply as per the direction and guidelines provided by APTEL, for assessing whether the tariff rates are within ±20% of the voltage-wise cost of supply.

8.2 Revenue gap for FY 2014-15

SBPDCL, in its tariff petition for FY 2014-15 has proposed revision of retail tariffs of various consumer categories to earn additional revenue of Rs. 2307.22 Crore to meet the projected gap of Rs. 2307.22 Crore leaving no revenue gap carried forward.

However, on detailed scrutiny and application of prudency check on the annual revenue requirement filed by SBPDCL, the Commission has arrived at a more realistic and annual revenue requirement of Rs. 3762.86 Crore for FY 2014-15. After considering the surplus in truing up from FY 2006-07 to FY 2012-13, the net revenue requirement is Rs. 2951.90 Crore and the net revenue gap arrived at the existing tariff is Rs. 77.19 Crore. This revenue gap arrived is only based on the figures projected during FY 2014-15. The experience shows that truing up exercise based on the audited annual accounts of previous years has resulted into surplus. Therefore, the Commission does not approve any tariff increase for FY 2014-15. The Petitioner shall make up the gap by improving the operational performance, particularly reduction in high distribution losses which in turn will reduce the resource gap grant being given by the Government to meet the disallowed power cost due to not achieving the distribution loss target specified by the Commission and this saving in resource gap grant can be utilized to reduce the ARR.

The review of ARR and Revenue for FY 2013-14(RE) also indicates a gap of Rs. 369.00 Crore for both NBPDCL and SBPDCL as against the Regulatory Asset of Rs. 354.48 Crore approved for both the DISCOMs together in the Tariff Order for FY 2013-14. This revenue gap of Rs. 369.00 Crore for FY 2013-14 is not being carried forward in the ARR for FY 2014-15, and the final decision on this will be taken at the time of truing-up for FY 2013-14. However, the Commission has allowed carrying cost on the Regulatory Asset amounting to Rs. 25.61 Crore in the ARR for FY 2014-15 of both the DISCOMs.

8.3 Changes in Tariff proposed by SBPDCL:

The Petitioner has proposed certain changes in fixed charges, energy charges and monthly minimum charges criteria. The tariffs are designed to recover partial revenue gap and also aligned based on voltage- wise cost of supply study by the Petitioner. The changes proposed by SBPDCL are discussed below:

MONTHLY MINIMUM CHARGES (MMC):

The Petitioner has submitted that the monthly minimum charges are intended to recover fixed cost component for the investment made on the infrastructure. They are required especially in case where there are no meter readings or faulty meters leading to lack of assessment of energy consumption.

The Petitioner has further submitted that there is an urgent need for the Commission to increase the MMC for the categories in LT consumers namely Kutir Jyoti, Domestic and Non Domestic.

Commission’s View:

The Commission is of the view that fixed charges are levied as a part tariff to recover the fixed costs of the DISCOM. The Commission recognizes that the fixed charges levied, do cover the fixed costs of the DISCOM but may not cover the capacity charge paid to the generator. The Commission has been allowing recovery of capacity charge of the generators partly through demand charges and partly through energy charges in the tariff. The levy of minimum monthly charges (MMC) goes against the objective of energy conservation, since the consumer has a tendency to consume more energy whether it is required or not.

The Commission in its Tariff Order for FY 2013-14 has decided as below:

"The Commission has taken decision to discontinue levy of minimum charges for HT consumers in addition to demand charges in the Tariff Order of FY 2012-13. The Commission is of the view that monthly minimum charges should gradually be phased out for other categories of consumers also after metering of all consumers."

In pursuance of the above decision, the Commission decides to withdraw and discontinue the provision of MMC for urban domestic consumer category, DS-II as they are all metered and their meter reading is taken on a regular basis.

The Commission is also examining to consider to withdraw the MMC for other consumer categories after estimating the impact on the revenue of the DISCOM due to this and exploring possible methods to neutralize the impact on possible loss of revenue.

The distribution companies should make arrangement for cent percent metering and meter reading in rural areas to enable abolition of MMC for rural consumers as well.

RECOVERY OF FIXED COST EXPENSES:

The Petitioner has proposed to increase the minimum monthly charges/combination of Fixed and Demand charges to recover the fixed cost of DISCOM fully.

Commission's View:

As mentioned above, the fixed costs of the Petitioners are recovered under fixed charges and the capacity charges of generating companies are recovered partly through demand charges and partly through energy charges from the consumers and not under Fixed/Demand charges alone.

OTHER PROPOSED CHANGES:

The Petitioner has proposed:

a) <u>Changes in applicability of HTSS (33/11 KV):</u>

The Petitioner has submitted that the provision of inclusion of Ferro Alloys loads in this category without proper load assessment methodology, is burdening the Petitioner. The load of induction furnace is declared properly as per rating of induction furnace but the load of Arc furnace is not furnished/ disclosed correctly. The Petitioner faces like load imbalance and over loading of the system.

Hence, the Petitioner requests "Ferro Alloy Loads" to be excluded from applicability clause.

Commission's View

The Petitioner shall evolve a methodology to assess the load of Arc furnace on physical measurement of such load to avoid imbalance and overloading. Hence, the Commission does not propose to delete "including Ferro Alloy loads" for the applicability clause.

b) <u>Use of Transformer Capacity and its Compensation Assessment:</u>

The Petitioner has proposed that where a HT consumer is found to be using higher capacity than admissible for his contract demand/ load, the compensation payable by the consumer to Board shall be assessed as under, without prejudice to the right of the Board to disconnect the supply.

2/3rd of the capacity of the transformer will be treated as contract demand of the consumer for the entire period of malpractice and contract demand so arrived less already billed demand (kVA) shall be charged at twice the applicable tariff rate.

Commission's View:

The Commission in Tariff Order dated 30th March 2012 for FY 2012-13 had taken decision under "Terms and Conditions" of HT tariff as below:

"<u>7. Transformer Capacity</u>"

The transformer capacity of HT consumers shall not be more than 150% of the contract demand. Consumers found to be utilizing transformer of higher capacity than admissible for his contract load will fall under malpractice.

If standard capacity is not available of exact requirement then relaxation in transformer capacity up to 10% extra can be allowed in individual cases on request. All HT/EHT consumers having contract demand of 200 kVA and above may be allowed to have a standby transformer, where capacity shall not be more than the main transformer."

The Commission does not propose to revise the decision taken as above in the Tariff Order dated 30th March 2012. The Petitioner is directed to implement the above decision.

TARIFFS PROPOSED:

Full Cost Recovery: The Petitioner has submitted that the proposed tariff hike is based on full cost recovery model of the total revenue gap computed for FY 2014-15.

Commission's View:

The Commission after detailed analysis and prudence check of the ARR proposed for FY 2014-15 has arrived at a gap of Rs. 77.19 Crore for FY 2014-15 after taking into consideration the surplus up to FY 2012-13 for SBPDCL.

The Commission does not propose any tariff increase for FY 2014-15. The DISCOM can make up the gap by improving the operational performances, particularly by reduction of distribution losses which are very high. As large amount is being invested to improve the transmission and distribution network in the state with the assistance of State and Central Government including replacement of old dilapidated conductors and 100% metering, it should be possible to reduce the losses. The DISCOM has also taken steps to improve metering, meter reading, billing and revenue realization mechanism which is expected to reduce the distribution losses and improve revenue.

Changes in Slabs: The Petitioner has also proposed for having single slabs in the category of Domestic and Non- Domestic.

Commission's View:

The existing slab system provides lower rate up to 100 units for low income consumers and small commercial consumers and the rates are increased as consumption level goes up, to control consumption as a measure of energy conservation. Replacement of tariff slabs for different levels of consumption goes against the objective of energy saving and will also cause undue hardship to small consumers whose consumption is low. Hence, it is considered that the slab may be continued.

The tariff as determined in Tariff Order of 15th March 2013 will be continued except the following changes:

1. Tariff for Kutir Jyoti consumers:

As per the study conducted by the DISCOMs, the Kutir Jyoti consumers are consuming more than 30 units per month for which they are eligible for lower tariffs. It is proposed to charge higher tariff for consumption of more than 30 units per month as given below:

Kutir Jyoti (Rural):

(Metered)

a)	First 30 Units	160 paisa/unit
b)	For remaining units	Rate as per DS-I Metered. Subject to a minimum of Rs. 40 per connection per month.

Kutir Jyoti (Urban):

(Metered)

a)	First 30 Units	195 paisa/unit
b)	For remaining units	Rate as per DS-II metered. Subject to a minimum of Rs. 50 per connection per month.

2. Demand based Tariff:

The 3 phase consumers with a connected load of 5 kW and above are allowed to opt demand based tariff as an optional tariff. There is a demand from single phase consumers also whose connected load is up to 7 kW for similar demand based tariff as an optional tariff in line with 3 phase consumers. The Commission has hence decided to extend demand based tariff (optional) to single phase domestic consumers also at the tariff as indicated in the Tariff Schedule. If the single phase meters of the consumer does not have the facility to record maximum demand, he/she may get their meter changed to avail demand based tariff.

3. <u>Meter Rent:</u>

There is demand from some of the consumers that they are prepared to pay the metering cost in one lump sum, so that they need not to pay meter rent on monthly basis. The Commission has considered this issue and those consumers who are prepared to pay the entire cost of the metering arrangement are allowed to pay the cost estimated by the DISCOM and no meter rent shall be collected from such consumers.

4. <u>Premium Tariff:</u>

The BSEB in its tariff petition for FY 2011-12 had proposed separate tariffs for low tension consumers for Patna area and rest of Bihar on account for maintaining close to 24 hours of supply to Patna area. In its tariff order for FY 2011-12, the Commission observed *"The Commission feels that the Distribution Licensee cannot differentiate in making electric supply available to different areas. As per provisions of the Act, there should be equitable distribution of available energy in different areas. So the Commission directs the Board for distribution of energy in different areas of the state as far as possible. However, if the Board supplies or intends to supply power continuously to some areas including Patna this should not be done at the cost of supply to other areas. BSEB can charge premium over the normal tariff from consumers of such areas getting nearly 24 hours of supply from 33 kV or 11 kV feeders to all LT categories and 11 kV categories except Kutir Jyoti and Agricultural consumers. The continuous supply shall mean the normal supply excluding the grid failure, any force majeure condition, scheduled shut down and emergent breakdown.*

The Commission has accordingly allowed 10% premium on fixed and energy charge and in MMC in tariff rate of all LT consumers and 11 kV consumers except Kutir Jyoti and Agricultural consumers. The Board has to notify such areas."

The Commission allowed the provision of premium tariff in the Tariff Order for FY 2012-13 and FY 2013-14 also with certain conditions for improvement in the distribution infrastructure and keeping technical teams ready round the clock for rectifying the defects.

The DISCOM has not yet been able to fulfill the conditions and has not notified any area for premium tariff. The power availability has now increased in the system. The Government has also announced 24 hours supply in district towns. Therefore, the Commission does not consider it appropriate to continue and allow premium tariff rate for areas having 24 hours supply.

8.4 Tariff Schedule

The approve Tariff Schedule which shall be effective from 1st April 2014 is given in Appendix-I.

Part A- Tariff Schedule for Low Tension

Part B- Tariff Schedule for High Tension

Part C- Miscellaneous and General Charges

Appendix- 1

TARIFF SCHEDULE FOR RETAIL TARIFF RATES AND TERMS AND CONDITIONS OF SUPPLY FOR FY 2014-15

(Effective from 1st April, 2014)
PART - A: LOW TENSION SUPPLY

System of supply: Low Tension – Alternating Current, 50 cycles

Single Phase supply at 230 Volts

Three Phase supply at 400 Volts

The tariffs are applicable for supply of electricity to L.T consumers with a connected load up to 70 kW for domestic and non-domestic category, up to 99 HP for industrial (LTIS) and for public water works (PWW) category and up to 100 HP for irrigation category.

- Single Phase supply up to 7.0 kW
- Three Phase supply 5.0 kW and above

Category of Service and TARIFF RATES

1.0 DOMESTIC SERVICE

Applicability

This tariff is applicable for supply of electricity to domestic purposes such as lights, fans, radios, televisions, heaters, air-conditioners, washing machines, air-coolers, geysers, refrigerators, ovens, mixers and other domestic appliances including motor pumps for lifting water for domestic purposes. This is also applicable to the common facilities in the multistoried, purely residential apartments, buildings.

1.1 Kutir Jyoti Connections (KJ) – Rural / Urban

This will be applicable to (i) all huts (Kutir) and dwelling houses of rural and urban families below the poverty line (BPL) (ii) houses built under schemes like Indira Awas Yojana and similar such schemes for BPL families.

i. Hut (Kutir) means a living place with mud wall and thatched roof or house built under Indira Awas Yojana and other similar schemes for BPL families which shall not exceed 200 Sq ft area.

ii. The total connected load of Kutir Jyoti connection in a rural area should not exceed 60 Watts and for an urban connection it should not exceed 100 watts and maximum consumption 30 units per month shall be allowed.

iii. Use of CFL both in rural areas and urban areas should be encouraged.

iv. In case it is detected that the norms prescribed in para (i) and (ii) above are violated, the Kutir Jyoti Tariff shall immediately become inoperative and rates applicable to DS – I and DS- II category as the case may be, with appropriate charge shall apply in such cases.

1.2 Domestic Service – I (DS – I)

This is applicable to domestic premises in rural areas for a load up to 2 kW not covered by areas indicated under DS-II and not being fed from urban / town feeders.

1.3 Domestic Service – II (DS – II)

This is applicable for domestic premises in urban areas covered by Notified area committee / Municipality / Municipal Corporation / Development Authority / All District and Sub divisional towns / Block Head Quarters / Industrial areas /Contiguous Sub urban areas and also areas getting power from Urban / Town feeders for single phase supply for load up to 7 kW and three phase supply for load of 5 kW and above. Rural consumers having sanctioned load above 2 kW will also come under this category. Consumer has the option to take single -phase or three-phase supply connection for a load between 5 kW and 7 kW.

1.4 Domestic Service – III (DS – III)

This is applicable for registered societies, for their residential colonies, having not less than 15 houses/flats in the colony. Residential colonies/multistoried residential complexes taking load in bulk at a single point with a minimum load of 2 kW per flat/house and maximum total load up to 70 kW.

TARIFF RATES

1.0 Domestic Service

Sl.	Category of consumer	Fixed charge (Rs.)	Energy charge (Paisa/ Unit.)
1.1	**Kutir Jyoti - BPL Consumers**		
(i)	K.J. (Rural) - (Consumption up to 30 units per month)		
	Unmetered	Rs.55 / connection / per month	X
	Metered	X	a) First 30 units at 160 Ps/ unit b) Remaining units, rate as per DS-I metered. Subject to Monthly Minimum Charge of Rs.40 per month per connection.
(ii)	K.J. (Urban) (consumption up to 30 units per month)		
	Metered only	X	a) First 30 units at 195 Ps/ unit b) Remaining units, rate as per DS-II metered. Subject to Monthly Minimum Charge of Rs.50 per connection per month.

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra however the same shall be provided by the State Government support to consumers and will not be recovered from consumer.

Sl.	Category of consumer	Fixed Charge (Rs.)	Energy Charges	
			Consumption in a month (Units)	Rate P/unit
1.2	**DS – I :** Connected load: up to 2 kW only			
	Unmetered	Rs.160/connection / per month	X	X
	Metered	X	First 50 units	200
			51-100 units	230
			Above 100 units	270
		X	Subject to Monthly Minimum Charge (MMC) of 1st kW – 40 units per month 2nd kW – 20 units per month	

Fuel and Power Purchase cost Adjustment (FPPCA) charges as applicable will be charged extra.

Sl.	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
1.3	**DS – II (Metered)**			
	Single phase Up to 7 kW	First kW Rs.55/month or part thereof/connection. Additional kW- Rs.15 per kW per month or part thereof.	1-100 units	285
	Three Phase 5 kW and above	5 kW-Rs.250/ connection /month or part thereof. Additional kW-Rs.15 per kW per month or part thereof.	101-200 units 201-300 units Above 300 units	350 420 530

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

OPTIONAL

Domestic - DS-II (D) – Demand Based

All consumers under DS-II category opting for demand based tariff shall be required to pay at the rates indicated below:

Sl.	Category of consumer	Demand charge (Rs./kW/month)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
1.3.1	**DS-II (D)-(OPTIONAL) Demand Based Tariff**			
	Single Phase contract demand up to 7 kW	First kW- Rs. 60/ kW per month or part thereof. Additional kW- Rs. 20 per kW per month or part thereof on recorded demand or contract demand whichever is higher.	1-100 units 101-200 units 201-300 units	285 350 420
	Three Phase contract demand of 5 kW to 70 kW	Rs. 60/kW per month or part thereof on recorded demand or contract demand whichever is higher.	Above 300 units	530
Subject to (i) If in any month the recorded maximum demand exceeds 110% of the contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal rate.				

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

Sl.	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate (Ps/unit)

1.4	DS – III (Metered)			
		Rs. 55 per kW per month or part thereof	All units	420
			Subject to monthly minimum charge For 1st kW – 40 units / flat per month Additional kW or part there of– 20 units/flat per month	

FPPCA as applicable will be charged extra.

2.0 NON-DOMESTIC SERVICE (NDS)

Applicability

This is applicable for supply of electrical energy for non-domestic consumers having sanctioned load up to 70 kW, using electrical energy for light, fan and power loads for non – domestic purposes like shops, hospitals, nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, centrally air-conditioning units, offices, commercial establishments, cinemas, X-ray plants, non–government schools, colleges, libraries and research institutes, boarding/lodging houses, libraries, railway stations, fuel/oil stations, service stations, All India Radio/T.V. installations, printing presses, commercial trusts, societies, banks, theatres, circus, coaching institutes, common facilities in multistoried commercial office/buildings Government and semi–government offices, public museums and other installations not covered under any other tariff schedule. Government educational institutions, their hostels and libraries, Government hospitals and government research institutions and non–profitable government aided educational institutions their hostels and libraries, non-profitable recognized charitable cum public institutions, places of worship like temples, mosques, gurudwaras, churches etc. and burial/crematorium grounds.

2.1 Non – Domestic Service (NDS-I)

Applicable to loads up to 2 kW in rural areas not covered by areas indicated under NDS – II and not being fed from urban/town feeders.

TARIFF RATES – NDS - I

Sl.	Category of consumer	Fixed charge (Rs.)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
2.1	**NDS- I**			
	Unmetered	Rs.220/connection/ per month	X	X
	Metered	x	1-100 units	230
		x	101-200 units	270
		x	Above 200 units	310
		x	Subject to monthly minimum charge of 50 units per kW	

FPPCA charges as applicable will be charged extra.

2.2 Non – Domestic Service – NDS – II (Metered)

Applicable to loads up to 70 kW in urban areas covered by Notified Area Committees / Municipalities/Municipal Corporations/Regional Development Authorities/District and Sub–divisional towns/Block headquarters/Industrial areas/contiguous sub urban areas getting power from urban/town feeders, except those covered under NDS-III.

Rural consumers having sanctioned load above 2 kW will also come under this category.

TARIFF RATES – NDS – II

Sl.	Fixed charge (Rs.) Per month	Energy charges	
		Consumption in a month (Units)	Rate Ps/unit
2.2	**NDS – II**		
	Single phase Rs.180 /kW or part thereof up to 7 kW	1-100 units	500
		101-200 units	530
		Above 200 units	570
	Three Phase Rs.200/kW or part thereof for loads of 5 kW and above		
		Subject to a monthly minimum charge of 50 units/kW or part thereof	

FPPCA charges as applicable will be charged extra.

OPTIONAL

2.2.1 Non-Domestic Service - NDS – II (D) – Demand Based

All those consumers under NDS-II with 3 phase supply and contract demand between 5 kW and 70 kW opting for demand based tariff shall be required to pay at the rates indicated below:

<table>
<tr><th rowspan="2">Sl.</th><th rowspan="2">Category of consumer</th><th rowspan="2">Demand charge (Rs./kW/month)</th><th colspan="2">Energy charges</th></tr>
<tr><th>Consumption in a month (Units)</th><th>Rate Ps/unit</th></tr>
<tr><td>2.2.1</td><td colspan="4">NDS-II (D) – (OPTIONAL) Demand Based Tariff</td></tr>
<tr><td></td><td>Contract demand of 5 kW to 70 kW</td><td>Rs. 250/kW per month or part thereof on recorded demand or contract demand whichever is higher.</td><td>1-100 units
101-200 units
Above 200 units</td><td>500
530
570</td></tr>
<tr><td colspan="5">Subject to
(i) Monthly minimum charge of 70 units per month/kW on recorded demand or contract demand, whichever is higher.
(ii) If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal rate.</td></tr>
</table>

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

2.3 Non-Domestic Service - NDS – III (Metered)

This is applicable for places of worship like temples, mosques, gurudwaras, churches etc. and burial / crematorium grounds. If any portion of the premises is used for commercial purposes, a separate connection shall be taken for that portion and NDS- II tariff schedule shall be applicable for that service.

TARIFF RATES – NDS - III

Sl.	Fixed charge (Rs.)	Energy charges	
		Consumption in a month	Rate

		(Units)	Ps/unit
2.3	**NDS - III**		
	Rs.80 /kW with minimum of Rs.165 per connection / month For load up to 30 KW.	1-100 units	300
		101-200 units	380
		Above 200 units	470
		Subject to monthly minimum charge of 50 units/kW or part thereof.	

FPFCA charges as applicable will be charged extra.

OPTIONAL

2.3.1 Non-Domestic Service - NDS – III (D) – Demand Based

All those consumers under NDS-III category with 3 phase supply and with contract demand between 5 kW and 30 kW opting for demand based tariff shall be required to pay at the rates indicated below:

Sl.	Category of consumer	Demand charge (Rs./kW)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
2.3.1	**NDS-III (D) – (OPTIONAL) Demand Based Tariff**			
	Contract demand of 5 kW to 30 kW	Rs. 80/kW per month or part thereof on recorded demand or contract demand whichever is higher.	1-100 units 101-200 units Above 200 units	300 380 470
Subject to (i) Monthly minimum charge of 70 units per month/kW on recorded demand or contract demand, whichever is higher. (ii) If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal rate.				

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

3.0 IRRIGATION and AGRICULTURE SERVICE (IAS) Applicability

This is applicable for supply of electrical energy for bonafide use for agricultural purposes including processing of Agricultural Produce, confined to chaff - cutter, thrasher, cane crusher and rice Huller when operated by the agriculturist in the field or farm and does not include rice mills, flour mills, oil mills, dal mills or expellers. This is also applicable to hatcheries, poultries (with more than 1000 birds) and fisheries (fish ponds).

3.1 IAS - I

This is applicable for all purposes indicated above including private tube wells.

Tariff Rates

Unmetered Supply

Rural feeder - Rs.120 / HP per month

Urban feeder - Rs.160 /HP per month

Note: Hatcheries, poultries and fisheries are not covered under unmetered supply they have to be metered only.

Metered supply

Rural feeder

Energy Charges– 110 Ps/unit

Urban feeder

Energy Charges– 170 Ps/unit

Subject to monthly minimum energy charges of

Rural feeder - Rs. 85/HP per month

Urban feeder - Rs.130/HP per month

Fuel and Power Purchase cost Adjustment (FPPCA) charges as applicable will be charged extra however the same shall be provided by the State Government support to consumers and will not be recovered from consumer.

3.2 IAS – II

This is applicable to state tube wells / state lift irrigation pumps / state irrigation pumps up to 100 HP.

Unmetered Supply

Rural feeders - Rs.900 /HP per month

Urban feeders - Rs.1000/HP per month

Metered supply

Rural feeder

Energy Charges– 600 Ps/unit

Urban feeder

Energy Charges– 700 Ps/unit

Subject to a monthly minimum energy charge of 225 units /HP per month.

FPPCA charges as applicable will be charged extra.

4.0 LOW TENSION INDUSTRIAL SERVICE (LTIS) Applicability

This is applicable for supply of electricity to low tension industrial consumers with a connected load up to 99 HP and below including incidental lighting for industrial processing or agro – industries purposes, arc welding sets, flour mills, oil mills, rice mills, dal mills, atta chakki, Huller, expellers etc.

4.1 LTIS-I (Connected load upto 25 HP)

TARIFF RATES for LTIS - I

Sl.	Fixed charge (Rs.)	Energy charges	
		Consumption in a month (Units)	Rate (Ps/unit)
4.1	**LTIS-I (Connected load up to 25 HP)**		
	Rs.85/HP or part thereof / per month	All units	535
	Subject to monthly minimum charge of 70 units/HP or part thereof.		

FPPCA charges as applicable will be charged extra.

OPTIONAL

4.1.1 LTIS-I (D) Contracted demand 5 kW to 15 kW - Demand Based Tariff

All those consumers under LTIS-I category with 3 phase supply and with contract demand 5 kW to 15 kW opting for demand based tariff shall be required to pay at the rates indicated below:

Sl.	Category of consumer	Demand charge (Rs./kW)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
4.1.1	**LTIS-I (D) (Demand Based Tariff) (OPTIONAL)**			
	Contract demand 5 kW to 15 kW	Rs. 170/kW per month or part thereof on recorded demand or contract demand whichever is higher.	All units	535
Subject to (i) Monthly minimum charge of 125 units per month/kW on recorded demand or contract demand, whichever is higher. (ii) If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal rate.				

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

4.2 LTIS-II (Connected load above 25 HP and upto 99 HP)

Sl.	Fixed charge (Rs.)	Energy charges	
		Consumption in a month (Units)	Rate (Ps/unit)
4.2	**LTIS-II (Connected load above 25 HP and upto 99 HP)**		
	Rs.110/HP or part thereof per month	All units	570
		Subject to monthly minimum charge of 100 units/HP or part thereof.	

FPPCA charges as applicable will be charged extra.

Consumers with a connected load above 79 HP and upto 99 HP have option to avail power under LTIS / HTS category.

OPTIONAL

4.2.1 LTIS-II (D) (Contract demand above 15 kW and up to 70 kW – Demand Based Tariff

All those consumers under LTS-II category with 3 phase supply and with contract demand above 15 kW and up to 70 kW opting for demand based tariff shall be required to pay at the rates indicated below:

Sl.	Category of consumer	Demand charge (Rs./kW)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
4.2.1	**LTIS-II (D) (Demand Based Tariff) (OPTIONAL)**			
	Contract demand above 15 kW and up to 70 kW	Rs. 195/kW per month or part thereof on recorded demand or contract demand whichever is higher.	All units	570
Subject to (i) Monthly minimum charge of 180 units per month/kW on recorded demand or contract demand, whichever is higher. (ii) If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal rate.				

Fuel and Power Purchase Cost Adjustment (FPPCA) charges as applicable will be charged extra.

5.0 PUBLIC WATERWORKS (PWW) (Connected load upto 99 HP)

Applicability

This is applicable to public water works, sewerage treatment plant and sewerage pumping stations functioning under state government and state government under takings and local bodies.

Sl.	Fixed charge (Rs.)	Energy charges	
		Consumption in a month (Units)	Rate (Ps/unit)
5.0	**PUBLIC WATERWORKS (PWW)** (Connected load upto 99 HP)		
	Rs. 205/HP or part thereof per month	All units	700
Subject to monthly minimum charge of 165 units / HP or part thereof.			

FPPCA charges as applicable will be charged extra.

Consumers with a connected load above 79 HP and up to 99 HP have the option to avail power under PWW / HTS category.

6.0 STREET LIGHT SERVICES (SS) Applicability

This is applicable for supply of electricity for street light system including signal system in corporation, municipality, notified area, committees, panchayats etc. and also in areas not covered by municipality and notified area committee provided the number of lamps from a point of supply is not less than five. Also applicable for Traffic Lights, Mast lights / Blinkers etc.

Tariff Rates

6.1 SS-I Metered Supply

All units – 700 Ps. /unit

Subject to monthly minimum charge of:-

i) Gram Panchayats – 160 units / kW or part thereof

ii) For Nagar Palika / NAC / Municipality – 220 units / kW or part thereof

iii) For Municipal Corporations – 250 units / kW or part thereof

FPPCA charges as applicable will be charged extra.

6.2 SS-II Unmetered Supply

Fixed Charges

i) Gram Panchayats – Rs. 270 per 100 W/month or part thereof

ii) For Nagar Palika / NAC / Municipality – Rs. 360 per 100 W/month or part thereof

iii) For Municipal Corporations – Rs. 440 per 100 W/month or part thereof

FPPCA charges as applicable will be charged extra.

TERMS AND CONDITIONS OF LOW TENSION TARIFF

The foregoing tariffs are subject to the following conditions:

1. Rebate for prompt payment

The due date for making payment of energy bills or other charges shall be 15 days from the date of issue of the bill. Rebate will be allowed for making payment of energy bills on or before due date specified in the bill as given below:

i.	Kutir Jyoti (Unmetered)	Rs.2/- per connection per month.
ii.	DS-I and NDS-I (Unmetered)	Rs.3/- per connection per month.
iii.	Agricultural and Irrigation pump sets (Unmetered)	Rs.5/- per HP/month
iv.	Street Lights (Unmetered)	Rs.3/- per connection/month
v.	All metered categories	10 paise per unit, on units billed

In case a consumer makes full payment after due date but within 10 days after the due date, no DPS shall be leviable for this period but rebate for prompt payment will not be admissible.

2. Accounting of Partial payment

All payment made by consumers in full or part shall be adjusted in the following order of priority:

Statutory taxes and duties on current consumption

Arrear of Statutory taxes and duties

Delayed payment surcharge

Balance of arrears

Balance of current bill

3. Delayed Payment Surcharge (DPS)

In case a consumer does not pay energy bills in full within 10 days grace period after due date specified in the bill, a delayed payment surcharge of one and half (1.5) percent per month or part thereof on the outstanding principal amount of bill will be levied from the due date for payment until the payment is made in full without prejudice to right of the licensee to disconnect the supply in accordance with Section 56 of the Electricity Act, 2003. The licensee shall clearly indicate in the bill itself the total amount, including DPS, payable for different dates after the due date after allowing for the grace period of 10 days. No DPS shall be charged on DPS arrear. The bill shall indicate the energy charges for the month, arrears of energy charges and DPS separately.

4. Duties and Taxes

Other statutory levies like electricity duty or any other taxes, duties etc., imposed by the State Government / Central Government or any other competent authority, shall be extra and shall not be part of the tariff as determined under this order.

5. Defective / Damaged / Burnt meters supply

In case of meter being defective / damaged / burnt the licensee or the consumer as the case may be, shall replace it within the specified period prescribed in “Standards of Performance for Distribution Licensee”, Regulations issued by the Commission.

Till defective / damaged / burnt meter is replaced, the consumption will be assessed and billed on an average consumption of last 12 months from the date of meter being out of order. Such consumption shall be treated as actual consumption for all practical purposes including calculation of electricity duty until the meter is replaced/ rectified.

In cases of newly installed meter of a consumer becoming defective/ damaged/ burnt after installation of the meter prior to completion of 12 months since its installation, the billing for the period for such defective/ damaged/ burnt meter, till it is not replaced, shall be done on the basis of average monthly consumption of the consumer or the MMC whichever is higher.

6. Shunt Capacitor Installation

(a) Every LT consumer including irrigation pump set consumers whose connected load includes induction motor (s) of capacity 3 HP and above and other low power factor consuming appliances shall arrange to install low tension shunt capacitors of appropriate capacity at his cost across terminals of his motor (s). The consumer shall ensure that the capacitors installed by him are properly matched with the actual rating of the motor so as to ensure power factor of 90%.

(b) All LT consumers having welding transformers will be required to install suitable shunt capacitor(s) of adequate capacity so as to ensure power factor of not less than 90%.

(c) The capacitor shall be of standard manufacture and meet the Bureau of Indian Standards specification.

(d) Consumers not complying to above shall be liable to pay a surcharge of 5% (five percent) of the billed amount excluding DPS till the capacitors are installed.

(e) Any LT consumer in whose case, the meter installed has power factor recording feature and who fails to maintain power factor of 90% in any month shall pay a surcharge of 5% (five percent) of the billed amount excluding DPS till the defective capacitors are replaced and power factor of 90% is maintained.

(f) No new supply to LT installations having low power factor consuming equipment such as induction motor of 3 HP and above or welding transformers etc., will be released unless shunt capacitors are installed to the satisfaction of the licensee.

(g) The ratings of shunt capacitor to be installed on the motors of different ratings are provided in the “Electric Supply Code” notified by the Commission.

7. Charges to Tatkal Connections (Optional)

If any consumer (other than High Tension and Railway) opts for availing connection under Tatkal scheme, the licensee shall release the Tatkal connection to such consumer with the following conditions:

- The Tatkal connections shall be released by licensee in half the time limit prescribed in the Supply code for that consumer category.
- Two (2) times of the following charges approved under head miscellaneous and general charges will be taken from the consumers willing to avail Tatkal connection.
- Application fees for new connection, and;
- Supervision, labor and establishment charge for service connection
- In case licensee fails to release connection within this time limit, licensee will refund the additional amount claimed to the consumer in the first energy bill.

8. Contract Demand for billing under Domestic Tariff:

i) For computation of the connected load of a domestic consumer either load of coolers/ fans or room heaters whichever is higher shall be considered. For the premises having Air conditioner (without heater) and that of geysers, the computation of connected load shall be as per the provision of Bihar Electricity Supply Code, 2007.

ii) The contract demand of those consumers for the monthly billing purpose in the premises who have opted for demand based tariff, the recorded demand or the contract demand, whichever is higher, shall be considered.

iii) Subject to the minimum load of 1 kW, the fraction of the load below 500 W shall be rounded to its nearest lower level of whole number and 500 W and above shall be rounded to its nearest higher level of whole number, as specified in the Bihar Electricity Supply Code, 2007.

iv) In case of demand based tariff, verification of connected load is not required.

PART - B: HIGH TENSION SUPPLY

7.1 HTS – I (11 kV/6.6 kV)

Applicable for supply of electricity for use in installations with a minimum contract demand of 75 kVA and maximum contract demand of 1500 kVA.

Character of service: AC, 50 cycles, 3 phase at 11 kV or 6.6 kV.

TARIFF RATES

Demand charge Rs./ kVA / Month of billing demand	Energy charges Paise / kWh
270	All units – 570

The billing demand shall be the maximum demand recorded during the month or 85% of the contract demand whichever is higher.

Surcharge of 7.5% will be levied on the demand and energy charges for supply at 6.6 kV.

If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal charges.

FPPCA charges as applicable shall be charged extra.

7.2 HTS – II (33 kV)

This is applicable for use in installations with a minimum contract demand of 1000 kVA and maximum contract demand of 15,000 kVA.

Character of service: AC, 50 cycles, 3 phase at 33 kV.

TARIFF RATES

Demand charge Rs. / kVA / Month of billing demand	Energy charges (Paise / unit)
270	All units - 550

The billing demand shall be the maximum demand recorded during the month or 85% of the contract demand whichever is higher.

If in any month the recorded maximum demand exceeds 110% of contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal charges.

FPPCA charges as applicable shall be charged extra.

7.3 HTS – III (132 kV)

This is applicable for installations with a minimum contract demand of 7.5MVA. Character of service: AC, 50 cycles, 3 phase at 132 kV

TARIFF RATES

Demand charge Rs. / kVA / Month of billing demand	Energy charges (Paise / unit)
270	All units – 540

The billing demand shall be the maximum demand recorded during the month or 85% of the contract demand whichever is higher.

If in any month the recorded maximum demand of the consumer exceeds 110% of the contract demand, that portion of the demand in excess of the contract demand will be billed at twice the normal charges.

FPPCA charges as applicable shall be charged extra.

7.4 HTSS (33 kV/11 kV)

This is applicable for supply of electricity to all consumers who have contract demand of 300 kVA and more for induction furnace including Ferro Alloy loads. This tariff will not apply to casting units having induction furnace of melting capacity of 500 Kg and below.

The capacity of induction furnace shall be 600 kVA per metric ton as existing for determining the contract demand of induction furnace in the existing HTSS service connections. However, for new connection and if the 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 provisions of clause Nos. 6.39 and 6.40 of the Bihar Electricity Supply Code shall apply.

Those consumers who are having rolling/re-rolling mill in the same premises will take additional contract demand for the rolling/re-rolling mill over and above the contract demand required for induction furnace. The consumer will have the option to segregate the rolling/re-rolling mill and take separate new connection following all prescribed formalities with a separate transformer. This new connection, if taken by the consumer will be allowed to be billed in appropriate tariff schedule. Such rolling/re-rolling mill will be allowed to avail power at 33 kV.

Character of service: **AC, 50 cycles, 3 phase at 33 kV or 11kV.**

TARIFF RATES

Demand charge Rs. / kVA / Month of billing demand	Energy charges (Paise / unit)
700	All units 310

The billing demand shall be the maximum demand recorded during the month or the contract demand whichever is higher.

If in any month the recorded maximum demand of the consumer exceeds 110% of contract demand that portion of the demand in excess of the contract demand will be charged at twice the normal charges.

If the power is availed at 11 kV a surcharge of five (5) % will be charged extra on demand and energy charges.

FPPCA charges as applicable shall be charged extra.

8.0 Railway Traction Service (RTS)

Applicable to Railway Traction loads only.

Tariff rates at 132 kV

Demand charge Rs. / kVA / Month of billing demand	Energy charges (Paise / unit)
240	All units 555

i. 15 Ps/unit of rebate will be provided for availing supply at voltages higher than

132 kV

ii. 15 Ps/unit of surcharge will be billed for availing supply at lower voltages than 132 kV.

iii. The billing demand shall be the maximum demand recorded during the month or 85% of the contract demand whichever is higher.

FPPCA charges as applicable shall be charged extra.

Time of Day tariff (ToD)

All HT consumers other than Railway traction have the option to take TOD tariff instead of the normal tariff given in the schedule.

Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter. The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer.

Time of use	Demand Charges	Energy Charges
(i) Normal period (5:00 a.m. to 5:00 p.m)	Normal Rate	Normal rate of energy charges
(ii) Evening peak load period (5:00 p.m to 11.00 p.m)	Normal Rate	120% of normal rate of energy charges
(iii) Off-peak load period (11:00 p.m to 5:00 a.m)	Normal Rate	85% of normal rate of energy charges

Applicability and Terms and Conditions of TOD tariff:

i. TOD tariff will be optional for all HT consumers having contract demand below 200 kVA. TOD tariff will be mandatory for all HT consumers having contracted demand of 200 kVA and above.

ii. The facility of aforesaid TOD tariff shall not be available to HT consumers having captive power plants and/or availing supply from other sources through wheeling of power.

iii. The HT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff.

iv. After electing TOD tariff, if any industrial HT consumer on account of some reasons wants to go back to the earlier tariff according to the agreement, this facility shall be available to him only once in two years.

v. If the actual monthly consumption of such HT consumer, whose monthly minimum charges are based on units, is less than minimum consumption, then the difference (deficit) of units between the minimum consumption and actual consumption shall be billed at normal rate of energy charge prescribed for “Normal Period”.

vi. In the event of applicability of TOD tariff to a consumer, the terms and conditions of the applicable tariff (such as monthly tariff minimum charge, etc.) shall continue to apply.

vii. In case, the consumer exceeds 110% of the contract demand, the demand in excess of contract demand shall be billed at twice the normal tariff applicable for the day time i.e. 5:00 a.m. to 5.00 p.m. irrespective of the time of use.

TERMS AND CONDITIONS OF HT TARIFF

The foregoing tariffs are subject to the following conditions:

1 Rebate for Prompt Payment

The due date for making payment of energy bills or other charges shall be 15 days from the date of issue of the bill.

The tariff rates are subject to prompt payment rebate of 1 (one) paise per unit on units billed provided the bill is paid by due date specified therein. If the consumer makes full payment after due date but within 10 days after due date, no DPS shall be leviable for this period but rebate for prompt payment will not be admissible.

2 Delayed Payment Surcharge (DPS)

In case of consumer does not pay energy bills in full within 10 days grace period after due date specified in the bill, a delayed payment surcharge of one and half (1.5) % per month or part thereof on the outstanding principal amount of bill will be levied form the original due date for payment until the payment is made in full without prejudice to right of the licensee to disconnect the supply in accordance with Section 56 of the Electricity Act, 2003. The licensee shall clearly indicate in the bill itself the total amount, including DPS, payable for different dates after the due date after allowing for the grace period of 10 days. No DPS shall be charged on DPS arrear.

3 Duties and Taxes

Other statutory levies like electricity duty or any other taxes, duties etc., imposed by the State Government / Central Government or any other competitive authority, shall be extra and shall not form part of the tariff as determined under this order.

4 Power Factor Surcharge

The average power factor (monthly) of the supply shall be maintained by the consumer not less than 0.90.

If the monthly average power factor falls below 90% (0.9) he shall pay a surcharge in addition to his normal tariff at the following rates:

(i) For each fall of 0.01 in power factor Up to 0.80	One percent on demand and energy charge
(ii) For each fall of 0.01 in power factor below 0.80	1.5 (one and half) percent on demand and energy charge (Actual Recorded)

If the average power factor falls below 0.70 consecutively for 3 months, the Licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

5 Power Factor Rebate

In case the average power factor (monthly) of the consumer is more than 90% (0.90) a power factor rebate at the following rates shall be allowed.

For each increase of 0.01 in power factor above 0.90 up to 0.95	0.5 (half) percent on demand and energy charge (Actual Recorded)
For each increase of 0.01 in power factor above 0.95	1.0 (one) percent on demand and energy charges. (Actual Recorded)

6 Accounting of Partial payment

All payment made by consumers in full or part shall be adjusted in the following order of priority:

a) Statutory taxes and duties on current consumption

b) Arrear of Statutory taxes and duties

c) Delayed payment surcharge

d) Balance of arrears

e) Balance of current bill

7 Transformer Capacity

The transformer capacity of HT consumer shall not be more than 150% of the contract demand, consumer found to be utilizing transformer of higher capacity than admissible for his contracted load, will fall under malpractice.

If standard capacity is not available for exact requirement then relaxation in transformer capacity up to 10% extra can be allowed in individual cases on request.

All HT/EHT consumers having contract demand of 200 kVA and above may be allowed to have a stand by transformer, whose capacity shall not be more than the main transformer. The technical/physical arrangement shall be approved by the Licensee's officer before it is installed. If any consumer violates the condition, then line will be disconnected and standby facility shall be withdrawn.

Considering the special need of the Railway, the RTS consumer may be allowed to have 100% extra i.e. 200% of the contract demand. Stand by transformer may also be allowed, which should not be more than the capacity of the main transformer.

8 Defective / Damaged / Burnt meter replacement

In case of meter being defective / damaged / burnt the Licensee or the consumer as the case may be shall replace the same within the period specified in "Standards of Performance for Distribution Licensee" Regulations issued by the Commission. Till defective meter is replaced the consumption will be assessed and billed on an average consumption of last 12 months from the date of meter being out of order. Such consumption shall be treated as actual consumption for all practical purposes including calculation of electricity duty until the meter is replaced/ rectified.

In cases of newly installed meter of a consumer becoming defective/ damaged/ burnt after installation of the meter prior to completion of 12 months since its installation, the billing for the period for such defective/ damaged/ burnt meter, till it is not replaced, shall be done on the basis of average monthly consumption of the consumer or the MMC whichever is higher.

9 If the actual recorded demand of a consumer exceeds 110% consecutively for three months Licensee may issue a notice and inform the consumer to get additional contract demand sanctioned or to limit their drawal as per their contract. Otherwise Licensee will take action as per provisions of the Act/Rules/Regulations.

10 The prevailing practice will continue for determining the contract demand of induction furnaces in the existing services connections. However, for new connections and where the furnaces are replaced in existing connections, contract demand shall be based on the total capacity of the furnace and equipment as per manufacturer technical specifications and in case of difference of opinion, the provisions of clause No.6.39 and 6.40 of Bihar Electricity Supply Code shall apply.

9.0 Temporary Supply (LT and HT)

9.1 Applicability

This tariff is for connection of temporary in nature for period of less than one year. The applicability shall be as given in the respective category tariff rate schedule. Temporary supply cannot be claimed by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made giving due notice subject to technical feasibility and in accordance with electricity supply code issued by the Commission.

9.2 Tariff

Fixed charge and energy charge shall be chargeable at one and half times the normal tariff as applicable to the corresponding appropriate tariff category.

9.3 Terms of Supply

a) Temporary supply under any category of service may be given for a period not exceeding 30 days in the first instance, the duration of which, however may be extended on month-to-month basis subject to maximum of one year.

b) In addition to the charges mentioned above, the consumer shall have to deposit the following charges before commencement of the temporary supply:

i. Estimated cost of erection of temporary service line and dismantling.

ii. Cost of irretrievable materials which cannot be taken back to service.

iii. Meter rent for the full period of temporary connection as per appropriate Tariff Schedule and miscellaneous charges.

iv. Rental on the cost of materials as per estimate framed but not payable by the consumer shall be payable at the rate of Rs. 15/- per month on every Rs. 100/- or part thereof.

v. Ten per cent on the total cost of the estimate for the temporary service connection to cover as security for loss of materials and contingencies. In case such loss is not noticed, the amount will be refunded.

(c) The applicants for temporary supply shall be required to make a deposit in advance of the cost as detailed above including the energy consumption charges estimated for full period on the basis of connected load. This will however, be adjusted against the final bill that will be rendered on disconnection of supply month to month basis.

(d) If the consumer intends to extend the temporary supply beyond the period originally applied for, he will have to deposit in advance all charges as detailed above including the estimated electricity consumption charges, for the period to be extended and final bill for the previous period, as well.

(e) The temporary supply shall continue as such and be governed by the terms and conditions specified above until the supply is terminated or converted into permanent supply at the written request of the consumer. The supply will be governed by the terms and conditions of permanent supply only after the consumer has duly completed all the formalities like execution of agreement, deposit of security money, cost of service connection and full settlement of the account in respect of the temporary supply etc.

10.0 Seasonal Supply (LT and HT)

(1) Seasonal supply shall be given to any consumer on written request to the Licensee subject to the following conditions.

Period of Supply	**Tariff Rate**
Upto 3 consecutive months in a year	Appropriate tariff plus 30 percent
More than 3 consecutive months and upto 6 consecutive months in a year	Appropriate tariff plus 20 percent
More than 6 consecutive months and upto 9 consecutive months in a year	Appropriate tariff plus 15 percent
More than 9 consecutive months but less than one year	Appropriate tariff plus 5 percent.

(2) The meter rent and other charges as provided in the appropriate tariff are applicable to seasonal loads and would be charged extra for the entire period of

supply.

(3) The supply would be disconnected after the end of the period unless the consumer wants the supply to be continued. Any reconnection charges have to be borne by the consumer.

(4) Consumer proposing to avail seasonal supply shall sign an agreement with the Licensee to avail power supply for a minimum period of 3 years in the case of HT, and 2 years in the case of LT category of supply.

(5) The consumers must avail supply in terms of whole calendar month continuously.

(6) The consumer is required to apply for seasonal supply and pay initial cost and security deposit as an applicant for normal electricity supply.

(7) The consumer shall ensure payment of monthly energy bills within 7 days of its receipt. The supply will be disconnected if payment is not made on due date.

PART - C: MISCELLANEOUS AND GENERAL CHARGES

11.0 The Miscellaneous and General charges approved by the Commission are as below:

11.1 Meter Rent

Particulars	Applicable Charges
Kutir Jyoti	Rs. 10/month
a) Single Phase LT except Kutir Jyoti	Rs. 20/month
b) Three Phase LT up to 100 Amps	Rs. 50/month
c) LT meter with CT	Rs. 500 / month
d) 6.6 kV and 11 kV HTS-I (i) Metering at low voltage (ii) Metering at 6.6/11 kV	 Rs. 500 / month Rs. 700 / month
e) 33 kV HT metering equipment for HTS-II and HTSS	Rs. 3000 / month
f) 132 kV EHT metering equipment for HTS-III	Rs. 15000 / month
g) 25 kV RTS	Rs.3000/month
h) 132 kV RTS	Rs.15000/month

Note: For those consumers who are prepared to pay the entire cost of metering arrangement are allowed to pay the cost estimated by the DISCOM and no meter rent shall be collected from such consumers.

11.2 Application fee for new connection / reduction of load / enhancement of load /request for permanent disconnection/ request for tatkal connection:

No.	Category / class	Rate
(i)	Kutir Jyoti	Rs.20.00
(ii)	LT Single phase except Kutir Jyoti	Rs. 75.00
(iii)	LT Three phase	Rs. 200.00
(iv)	LT Industrial	Rs. 300.00
(v)	HT Connection	Rs. 750.00
(vi)	For tatkal connection	Two (2) times the normal rate

11.3 Testing / Inspection of consumer's installation:

No.	Category / class	Rate
(i)	Initial Test / Inspection	Free of cost
(ii)	Subsequent test and inspection necessitated by fault in installation or by not complying with terms and conditions of supply	Rs. 100.00 for single phase connection Rs. 200.00 for three phase LT connection Rs.800 for HT connection.

11.4 Meter Testing Fee:

The meter testing fee at the following rates will be charged from the consumers opting to provide their own meters

No.	Category / class	Rate
(i)	Single Phase meter (L.T.)	Rs. 100.00
(ii)	Three Phase meter (L.T.)	Rs. 200.00
(iii)	Three Phase meter with CT	Rs. 300.00
(iv)	Tri-vector and special type meter	Rs. 1800.00
(v)	33 kV or 11 kV metering equipment	Rs. 5000.00
(vi)	132 kV/220 kV metering equipment	Rs. 8000.00

Note:

1) No meter testing fee shall be charged from the consumers if the meter has been provided by the licensee.
2) If the meter is tested at third party testing laboratory at the request of the consumer then the fees charged by the testing laboratory will be payable by the consumer.

11.5 Removing / Re-fixing / Changing of Meter / Meter Licensee at consumer's request:

No.	Category / class	Rate	
(i)	Single Phase meter	Rs. 200.00	Cost of material, as required, will be borne by the consumer
(ii)	Three Phase meter	Rs. 400.00	
(iii)	Three Phase meter with CT	Rs. 500.00	
(iv)	Trivector and special type meter	Rs. 600.00	
(v)	High tension metering equipment	Rs. 1200.00	

11.6. Reconnection charge:

Sl.No .	Category/class	Rate
(i)	Single Phase supply, LT	Rs. 100.00
(ii)	Three Phase supply other than LT industrial	Rs. 200.00
(iii)	Three Phase LT industrial supply	Rs. 900.00
(iv)	HT supply	Rs. 3000.00

11.7 Supervision, Labour and Establishment charge for service connection:

Sl.No.	Category/class	Rate
(i)	Single Phase LT	Rs. 400.00
(ii)	Three Phase LT other than industrial	Rs. 900.00
(iii)	Three Phase industrial	Rs. 1500.00
(iv)	HT	As per approved estimate
(v)	For tatkal connection	Two (2) times the normal rate

11.8 Security Deposit:

a) The consumer (except Kutir Jyoti rural and Kutir Jyoti urban) shall pay initial security deposit equivalent to the estimated energy charges including fixed / demand charges for a period of two months or as per the provisions of Bihar Electricity Supply Code notified by the Commission.

b) All Central Government and State Government departments are exempted from payment of security deposit. However all public sector undertakings and local bodies shall pay security deposit, as applicable.

c) The amount of security deposit obtained from the consumer is liable to be enhanced every year, in April-May of next year on the basis of consumption during previous years or as specified in clause 7.15 of Bihar Electricity Supply Code. In default of payment of additional security deposit, wherever payable after review, the service line may be disconnected on serving thirty days notice and connection thereafter can be restored only if the deposit is made in full along with the prescribed reconnection charges and surcharge @1.5% per month or part thereof on the amount of outstanding.

11.9 Interest on Security Deposit

Security deposit made by a consumer shall bear interest as specified in Bihar Electricity Supply Code, payable at Bank rate notified by RBI from time to time. The interest will be calculated for full calendar months only and fraction of a month in which the deposit is received or refunded, shall be ignored. The interest for the period ending 31st March shall be adjusted and allowed to the consumer in the energy bill for May issued in June and in subsequent month(s), if not adjusted completely against the bill for the month of May.

12.0 The other terms and conditions of supply of electricity not specially provided in this tariff order will continue to be regulated by the provisions specified in the Bihar Electricity Supply Code notified by the Commission.

9. Fuel and Power Purchase Cost Adjustment

9.0 Background

9.1 Section 62 sub-section 4 of the Electricity Act, 2003 provides that no tariff or part of any tariff may ordinarily be amended, more frequently than once in every financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified. This provision of the Act requires the Commission to specify the formula for fuel surcharge.

9.2 Accordingly, the Commission has been specifying the formula for working out the Fuel and Power Purchase Cost Adjustment (FPPCA) charges and other terms and conditions of FPPCA in each of its tariff orders starting from FY 2006-07 to FY 2012-13. Accordingly, the Commission had allowed erstwhile BSEB/distribution licensees to recover the FPPCA charges from the consumers in terms of the formula specified in the respective tariff orders of the Commission from time to time.

9.3 Now, the Commission has issued the BERC (Terms and Conditions for determination of Tariff) (First Amendment) Regulations, 2012 dated 31.08.2012.

As per these Regulations, the amount of Fuel and Power Purchase Cost Adjustment (FPPCA) charges shall be computed as under:

$$\text{FPPCA (Paise / kWh)} = \frac{Qc(Rc_2 - Rc_1) + Qo(Ro_2 - Ro_1) + Qpp(Rpp_2 - Rpp_1) + Vz + A}{(Qpg_1 + Qpp_1 + Qpp_2) \times \left(1 - \frac{L}{100}\right)} \times 100$$

Where,

Qc = Quantity of coal consumed during the adjustment period in Metric Tons (MT)

= (SHR x QPg) (1+TSL)x1000 / GCV, or actual whichever is less

Rc_1 = Weighted average base rate of coal supplied ex-power station coal yard as approved by the Commission for the adjustment period in

Rs. / MT

Rc_2	=	Weighted average actual rate of the coal supplied ex-power station coal yard for the adjustment period in Rs. / MT
Qo	=	Actual Quantity of oil (in KL) consumed during the adjustment period or normative oil consumption as per Tariff order whichever is less.
Ro_1	=	Weighted average base rate of oil ex-power station (Rs./KL) approved by the Commission for the adjustment period.
Ro_2	=	Weighted average actual rate of oil ex-power station supplied (Rs. / KL) during the adjustment period.
Qpp	=	Total power purchased from different sources (kWh) = Qpp_2+Qpp_3
Qpp_1	=	$Qpp_3\left(1-\frac{TL}{100}\right)$ in kWh
TL	=	Transmission loss (CTU) (in percentage terms).
Qpp_2	=	Power purchase from sources with delivery point within the state transmission or distribution system (in kWh)
Qpp_3	=	Power purchase from sources on which CTU transmission loss is applicable (in kWh)
Rpp_1	=	Average rate of power purchase as approved by the Commission (Rs. / kWh)
Rpp_2	=	Average rate of power purchased during the adjustment period (Rs. / kWh)
Qpg	=	Own power generation (kWh)
Qpg_1	=	Own power generation (kWh) at generator terminal – approved auxiliary consumption
L	=	Percentage T&D loss as approved by the Commission or actual, whichever is lower.
SHR	=	Station Heat Rate as approved by the Commission (Kcal / kWh)
TSL	=	Percentage Transit and Stacking Loss as approved by the Commission.
GCV	=	Weighted average gross calorific value of coal as fired basis during the adjustment period (Kcal / Kg).
VZ	=	Amount of variable charges on account of change of cost of

unknown factors like water charges, taxes or any other unpredictable and unknown factors not envisaged at the time of tariff fixation subject to prior approval of the Commission (Rs.)

A = Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel or power purchase cost in the past adjustment period, subject to the approval of the Commission (Rs.)

If there are more than one power stations owned by the Licensee Qc, Rc_1, Rc_2, Qo, Ro_1, Ro_2, Qpg and Qpg_1 will be computed separately for each power station and sum of the increase/decrease of cost of all power stations shall be taken into consideration.

9.4 In case of the two distribution companies, there is no generation of their own. Therefore, Qc, Qo and Qpg_1 will be zero in this case.

Accordingly, the the two distribution licensees namely, North Bihar Power Distribution Company and South Bihar Power Distribution Company and the Generating Company can levy FPPCA charges with the prior approval of the Commission. Levy of FPPCA charges shall be subject to the following terms and conditions specified in the BERC (Terms and Conditions for determination of Tariff) (First Amendment) Regulations, 2012 dated 31.08.2012.

Terms and conditions for application of the FPPCA formula

1) The basic nature of FPPCA is ‘adjustment’ i.e. passing on the increase or decrease in the fuel costs and power purchase cost, as the case may be, compared to the approved fuel costs and power purchase costs in this Tariff Order.
2) The operational parameters / norms fixed by the Commission in the Tariff Regulations / Tariff Order shall be the basis of calculating FPPCA charges.
3) The FPPCA will be recovered every month in the form of an incremental energy charge (Rs/kWh) in proportion to the energy consumption and shall not exceed 10% of the approved avg. cost of supply in the Tariff order and

balance amount, if any, in the FPPCA over and above this ceiling shall be carried forward to be billed in subsequent month.

4) Incremental cost of power purchase due to deviation in respect of generation mix or power purchase at higher rate shall be allowed only if it is justified to the satisfaction of the Commission.

5) Any cost increase by the licensee by way of penalty, interest due to delayed payments, etc. and due to operational inefficiencies shall not be allowed.

6) FPPCA charges shall be levied on all categories of consumers.

7) Distribution licensee shall file detailed computation of actual fuel cost in Rs./kWh for each month for each of power stations of the state generators as well as cost of power purchase (Fixed and Variable) from each source/station and a separate set of calculations with reference to permitted level of these costs.

8) The data in support of the FPPCA claims shall be duly authenticated by an officer of the licensee, not below the rank of Chief Engineer on an affidavit supported with the certified copy of energy bills of power purchase, transmission and RLDC charges, bill for coal purchase and its transportation cost, oil purchase bill and the quantity of coal and oil consumed during the month.

9) Levy of FPPCA charge will be allowed only when it is ten (10) paise or more per unit. If it is less than 10 (ten) paise/unit, the same may be carried forward for adjustment in the next month.

10) The incremental cost per kWh due to this FPPCA arrived for a month shall be recovered in the energy bill of the month subsequent to the order of the Commission approving FPPCA with full details of rate and unit(s) on which FPPCA charges have been billed. The Generating Company and the Distribution Companies shall provide along with the proposal of FPPCA (as applicable to them) for a month, a compliance report of the previous order of the commission in respect of FPPCA.

10. Wheeling Charges and Open Access Charges

10.1 Background

The Commission has computed the wheeling charges for both the DISCOMs combinedly in the MYT order dated 15th March, 2013. Further, the Wheeling and Open Access charges are common/uniform to all the consumers across State of Bihar. Accordingly, the Commission has determined the Wheeling and Open Access charges for FY 2014-15.

10.2 Wheeling Charges

The net distribution ARR for both the distribution licensees as approved in chapter 5 is Rs. 6327.86 crore. The distribution ARR approved is segregated into wires business and retail supply business in the percentages given below:

Table 10.1: Allocation matrix for segregation of expenses between Distribution Wire Business and Retail Supply Business

Sl. No.	Particulars	Wire Business (%)	Retail Supply Business (%)
1	Power purchase expenses	--	100%
2	Employee expenses	60%	40%
3	Administration and General expenses	50%	50%
4	Repair and Maintenance expenses	90%	10%
5	Depreciation	90%	10%
6	Interest and finance charges	90%	10%
7	Interest on working capital	10%	90%
8	Contribution to RPO fund	-	100%
9	Return on equity	90%	10%
10	Non-tariff income	10%	90%
11	Interest during construction	90%	10%

The total fixed costs (net ARR excluding power purchase cost is segregated into wire business and retail supply business as per the above matrix.

Table 10.2: Segregation of Wires and Retail supply costs

(Rs. crore)

Sl. No.	Particulars	Total Fixed Cost	Wire Cost	Retail Supply
1	Employee cost	470.35	282.21	188.14
2	A&G expenses	60.07	30.04	30.04
3	R&M Cost	87.56	78.80	8.76
4	Holding Company expenses	23.80	11.90	11.90
5	Depreciation	191.42	172.28	19.14
6	Interest and finance charges	273.51	246.16	27.35
7	Interest on working capital	155.36	15.54	139.82
8	RPO fund	20.25	0.00	20.25
9	Return on equity	123.06	110.75	12.31
10	Less: Non-tariff income	(171.68)	(17.17)	(154.51)
11	Less: IDC	(101.70)	(91.53)	(10.17)
12	**Total**	**1132.00**	**838.98**	**293.02**

The wheeling charges have been computed on the basis of approved costs of the DISCOMs for its distribution wire business and the total energy expected to be wheeled through their distribution networks. In the absence of segregated data on costs of operation of 33 kV and 11 kV networks, it has been assumed that the two costs are equal. The Commission would revisit this assumption when reliable and concrete data on operating costs (voltage wise) becomes available to it during review/true up. The wheeling charges worked out for 33 kV voltage level are given in the table below:

Table 10.3: Wheeling charges at 33 kV Voltage Level

Sl.	Details	Units	Approved wheeling Charges
1	Energy input into 33 kV system	MU	11314
2	Total distribution cost	Rs. Cr.	838.98
3	Distribution cost for 33 kV voltage levels (assuming 50% of item 2)	Rs. Cr.	419.49
4	**Wheeling charges for 33 kV voltage level (item 3÷1)**	**Ps./kWh**	**37.00**

The wheeling charges determined for 11 kV voltage level are as given in table below:

Table 10.4: Wheeling charges for 11 kV Voltage Level

Sl. No.	Details	Units	Approved wheeling Charges
1	Energy input into 33 KV system	MU	11314
2	Energy sales in 33 kV system as approved by the Commission	MU	883
3	Losses in 33 KV	MU	566
4	Energy input into 11 kV system [1-(2+3)]	MU	9865
5	Total distribution cost	Rs. Cr.	410.49
6	Distribution cost for 11 kV voltage levels (assuming 50% of item 5)	Rs. Cr.	419.44
7	**Wheeling charges for 11 kV voltage level (item 6÷4)**	**Ps./kWh**	**42.00**

The Commission approves wheeling charges at 37 paise/kWh for 33 kV voltage level and at 42 paise/kWh for 11 kV voltage level for the FY 2014-15.

10.3 Open Access Charges

The Commission feels that the HT consumers should be provided a facilitative open access framework for procurement of power from sources other than that available within the State. For Open access to become a feasible option for HT consumers open access charges should be rational so that the cost of delivered power (from sources other than within the State) is comparable to retail tariff.

Pursuant to Section 39, 40 and 42 and all other enabling provisions of the Electricity Act, 2003, the Commission notified the “Terms and Conditions for open access” Regulations on 20th May 2006. The Commission through these regulations has introduced open access in phases in Bihar as given below, having regard to operational constraints, and other relevant factors.

Table 10.5: Phase Category of Consumers Open Access to be allowed from

Sl.	Phase	Category of Consumers	Open Access to be allowed from
1.	Phase-I	Consumers with demand of 15 MW and above	1-Jun-06
2.	Phase-II	Consumers with demand of 10 MW and above	1-Dec-06
3.	Phase-III	Consumers with demand of 5 MW and above	1-Dec-07
4.	Phase-IV	Consumers with demand of 1 MW and above	1-Dec-08

The consumer who seeks open access in accordance with these regulations will have to pay transmission charges, wheeling charges, cross subsidy surcharge, additional surcharge and charges to SLDC. The applicability of these charges to any open access consumer shall be as provided in the regulations for open access. In the following section all the charges to be paid by consumer seeking open access are being determined.

10.4 Transmission Charge

The Commission has computed the transmission tariff as provided in clause 75 of the BERC (Terms and conditions for determination of Tariff) Regulations, 2007. The Petitioner has considered the allocated capacity (MW) to all long term customers at the same capacity of 2736 MW considered for FY 2013-14 in the MYT order. The DISCOMs in its petition have mentioned that they will be getting power from the following new sources during FY 2014-15.

Station	Expected CoD	New capacity after PLF (MW)
KBUNL	Apr 14	160
BTPS-I	Jun 14	80
BTPS-II	Dec 14	80
Barh Stage 2 U #1	Dec 13	280
Essar	Jul 14	450
Nabinagar	May 14	21
Total		**1071**

The sum of allocated capacity (in MW) to all long term transmission customers of the state transmission system is considered for FY 2014-15 at 3807 MW (2736 + 1071).

Based on the transmission cost worked out earlier the approved transmission charge for open access consumers for the FY 2014-15 is as given in table below:

Table 10.6: Transmission Charge

Particulars	
Transmission ARR	270.60 (Rs. Crore)
Average transmission capacity (MW) – Total capacity (MW) allocated to long term customers of the State	3807 MW
Transmission charges for long term open access customers (Rs./MW/Month)	Transmission ARR ÷ (Average transmission capacity X 12) = Rs. 59,233
Transmission charges for short term open access customers (Rs./MW/Day)	Transmission ARR x 0.25) ÷ (Average transmission capacity X 365) = Rs.487

The Commission decides that the transmission charges in cash will be Rs. 59,233/ MW/ month or part thereof for long term open access consumers and Rs. 487/ MW/ day or part thereof for short term consumers. In addition transmission losses of 4% will be reduced in kind from the energy input (i.e. energy injected at the point of injection) at the point of delivery.

10.5 Wheeling Charges

For the energy input at 33 kV the wheeling charge shall be at 37 paise/kWh. In addition 5% of energy in kind will be deducted from the energy input, towards assumed losses in 33 kV network.

For energy input at 11 kV the wheeling charges shall be 42 paise /kWh. In addition, 6% of energy in kind will be deducted from the energy input towards assumed losses in 11 kV network.

10.6 Open Access Charges

The Open access charges shall be paid as per the table given below if the injection and drawl points of the open access customer are at different voltage levels.

Table 10.7: Open Access Charges

Drawl / Injection	Transmission	33 KV	11 KV
Transmission	Transmission Charges plus transmission losses	Transmission charges plus wheeling charges of 33 kV. Losses of both transmission and 33 kV network shall be payable	Transmission Charges plus wheeling charges of 33 and 11 kV network shall be payable. The losses of transmission, 33 and 11 kV network shall be payable
33 KV	Transmission Charges plus transmission losses	Wheeling charges of 33 kV plus losses of 33 kV network	Wheeling Charges of 33 and 11 kV network. Losses for 33 and 11 kV shall also be payable
11 KV	Transmission Charges plus transmission losses	Transmission charges and Wheeling Charges of 33 kV. The losses of transmission and 33 kV network will have to be borne	Wheeling Charges of 11 kV plus losses of 11 kV network

10.7 SLDC Charges

Open access consumer shall pay all charges payable to the State Load Dispatch Centre (SLDC), as determined by the Commission under section 32 of the Act and as per the Regulation 19 (1) of "Terms and Conditions for Open Access" Regulations, 2006 of BERC.

The Annual SLDC and Operating charges for the present have not been determined separately as till date SLDC is not an independent entity but continues to be a part of Transmission Company with no separate accounts. The Commission believes that expenses incurred by the SLDC are a part of the transmission expenses of Transmission Company. The Commission has determined the revenue requirement for transmission function of company and consequently the revenue requirement of SLDC are a part of the revenue requirement of the transmission function. Charges payable to SLDC are a part of the transmission charges determined by the

Commission. Till the time separate accounts are established by Transmission Company for SLDC these charges shall continue to be determined as a part of the Transmission Charges of Transmission Company.

10.8 Cross Subsidy Surcharge

The open access consumers are liable to pay cross subsidy surcharge to compensate the distribution utility for any loss of revenue due to shifting of its consumer to the open access system.

In the MYT order dated 15th March 2013, the Commission has computed the cross subsidy surcharge for open access consumers as per the formula recommended in the Tariff Policy. In view of the prevailing power shortages in the state at that time, to encourage the HT consumers to seek power purchase options from the sources outside the states and to make the cost of delivered power comparable with the retail tariff approved, the cross subsidy surcharge was approved at 50% of the charge computed for FY 2013-14.

The Commission has noted that the HT consumers have not availed this facility and are not coming forward to purchase the power under open access. The Commission decided to further continue the concessional cross subsidy surcharge approved for FY 2013-14 during FY 2014-15 as given below:

For 132 kV consumers	= 22 Ps/kWh.
For 33 kV consumers (other than HTSS)	= 53 Ps/kWh.
For 11 kV consumers (other than HTSS)	= 44 Ps/kWh
For HTSS consumers (33 kV & 11 kV)	= Nil

10.9 Additional Surcharge

The Commission is not in favour of levy of any additional surcharge, in the absence of the necessary data. The same shall be leviable only if it is conclusively demonstrated by BSPHCL that open access will lead to stranding of its fixed cost. BSPHCL should indicate the quantum of such stranded cost and the period over which it would be stranded for determination of additional surcharge.

10.10 Reactive Energy charges

The open access consumers should pay a reactive energy charge to Transmission and Distribution companies as the case may be for drawal / injection of reactive energy. The Commission in its last tariff order had directed erstwhile BSEB to conduct a study to determine the reactive energy charge and submit a proposal in the next tariff application. However the Petitioner has not submitted any such proposal and till the time the Petitioner submits a proposal in this regard, the reactive drawal shall continue to be charged at 4 paise/kVAR as determined by the Commission in its tariff order for FY2012-13.

10.11 Information to be put on the web site

The Commission directs the Petitioner to put all information related to open access facilities/charges on its web site. The information should include open access regulations, procedure for obtaining open access and details of all charges payable by an open access consumer.

11. Compliance of Directives

11.1 Background

The Commission has examined the compliance of directives issued to SBPDCL in the MYT Tariff Order dated 15th March 2013 for FY 2013-14.

11.2 Directives and their Compliance:

The directives issued in the Tariff Order dated 15th March, 2013 and their compliance by SBPDCL are dealt below:

Directive 1: Cent Percent Metering

The Commission directed SBPDCL to ensure provision of electronic static meters to all unmetered consumers and replace all the defective/ damaged/ burnt meters of consumers by 31st March 2013 with static electronic meters and submit compliance report to the Commission by 30th June 2013 with details of total number of category-wise/sub category - wise consumers and status of functioning of the meters.

Compliance Status of SBPDCL

The status of consumer metering of SBPDCL till 31st August, 2013 is as follows:

Particulars	Metering Status
No. of effective consumers	19,06,675
No. of metered consumers at the end of reporting month	17,90,178
Total no. of meters to be installed/ changed/ repaired	1,39,740

The status of consumer metering of SBPDCL till 31st Aug 2013 is as follows:

As can be observed, about **94%** of the consumers are metered as on 30th Sep. 2013.

Following is the status of meter installation during past 3 Months:

Particulars	June 2013	July 2013	Aug 2013	Total in Past 3 Months
Meter Installed (No.'s)	38,983	32,706	33,581	1,05,270

SBPDCL is undertaking all possible endeavours to improve metering for consumers and intends to achieve 100% metering within next few months.

Commission's Comments

Action taken by SBPDCL is noted. Providing meters to all consumers was to be completed by December, 2013. One of the reasons for high distribution losses is non-metering of consumers. SBPDCL is directed to submit compliance of 100% metering by 30th June 2014 as the Government has provided funds for 100% metering.

Directive 2: Efficient meter reading, billing and collection

In order to improve cash flow, the Commission has provided following specific directives to be implemented:

- The full details of FPPCA charges or any other charge must appear in the energy bill served to the consumer
- In urban areas hundred percent meter reading, issue of bills in each moth shall be ensured and monitored
- In rural areas hundred percent meter reading, issue of bills to all consumers be ensured and monitored at least bimonthly
- The DISCOM shall at least collect 90% of current bill amount and a minimum of 10% of arrear amount in each month.

Compliance Status of SBPDCL

Month wise collection efficiency status of SBPDCL is given below:

Month	Collection Efficiency
May'13	76.09%
June'13	83.96%
July'13	100%

Improvement in cash flow through efficient meter reading, billing and collection is one of the foremost priorities of SBPDCL. In order to implement multiple steps have been taken both at strategic and operational level.

Operational level improvement measures:

- Considering lack of manpower and investment constraints, task of meter reading, billing and collection has been outsourced to private sector. Outsourcing has been undertaken with adequate empowerment upto the section level so that efficiency can be improved through quick decision making. Following are the key features:

- Concerned AE of supply subdivision/JE of supply section has been empowered to select the agency at his own discretion on the specified commercial terms and conditions.
- Compensation for such services has been kept quite remunerative to attract private sector.
- Incentive scheme for meeting the target over and above certain level has been introduced so as to improve the productivity.
- Multiple agencies could be engaged upto feeder level with emphasis on hiring of local personnel.

Implementation of Rural Revenue Franchisee Scheme for engaging collection based franchisee in village/group of villages/11 KV feeder having around 1000 nos. of consumers. With above measures, SBPDCL expects to improve its billing to 80% by November 2013.

Strategy level improvement measures:

In order to improve the efficiency for meter reading, billing and collection, input based Distribution Franchise in urban areas has been introduced in the licensee area. Following is the progress for award of Distribution Franchise for identified areas:

Area	Status
Patna	NIT Floated
Gaya	LOI Issued and LOA accepted by Bidder
Bhagalpur	Agreement Executed
Ara-Buxar	NIT to be Floated Shortly
Lakhisarai-Munger	
Biharshariff-Rajgir	
Sasaram-Dehri-on-Sone	

- Input based distribution franchise requires bidder to reduce AT&C losses through reduction of technical losses by system improvement, reduction in commercial losses through efficient meter reading, billing and collection. Private sector participation at strategic level is expected to improve the above parameters in long term.
- Further, village Rural Revenue franchisee scheme 2013 has been introduced to improve meter reading, billing and collection in rural areas at village/ group of villages / 11kV feeder level. The scheme shall be implemented by engaging local and capable individuals or persons working in Village Level Enterprises or Village Vasudha Kendra or running a cyber café in and around the franchisee village.

With reference to inadequate information about FPPCA charges to the consumers, SBPDCL would like to state that all the essential details have been published in the monthly electricity bills and further details are also available on website of SBPDCL for consumer assistance. SBPDCL is also providing sample bill copies for the same.

Commission's Comments

Action taken by SBPDCL is noted. Collection efficiency of 100% reported in July is doubtful as during the public hearings large number of consumers complained about non-receipt of bills or inflated bills which they were not able to pay. SBPDCL may review its database and explain the inconsistency by 30.06.2014. The collection efficiency shall be maintained at near 100% level (90% of current bill and 10% of arrears). Wherever meter reading and billing is outsourced, the performance shall be closely monitored by proper checks to ensure it is being done properly. It is stated that certain areas are being entrusted to certain agencies as input based franchisees and rural areas to revenue based franchisees. The present status of entrusting the remaining areas to input based franchisees shall be reported by July, 2014.

SBPDCL is directed that the progress of appointment of revenue franchisees in urban and rural areas and input based franchisees in major towns shall be reported by 30th June 2014 furnishing the level of improvement in meter reading, billing and revenue collection.

Directive 3: Timely delivery of bills and Revenue Collection Counters

The Commission in its Tariff Order for FY 2006-07 has directed erstwhile BSEB for timely meter reading, billing and delivery of bills. Further, it has been brought to notice of the Commission that collection counters at the field offices for collection of bills are not adequate and is limited in such number that a depositor has to wait in a long queue for payment of energy bills. Considering the difficulties of the consumers and also the need to increase the cash flow of DISCOMs, the Commission directed SBPDCL that,

- In city areas at least one collection counter at division should remain open since 8AM in morning. So that the office goers may deposit energy bills.
- Adequate numbers of collection centres/ counters considering the number of consumers shall be established to facilitate depositors and to ensure that consumer do not have to wait in long queues.
- Minimum facilities of shade, drinking water and toilets should be provided at the bill centres. Special facilities should be provided for comfort of ladies and senior citizens
- Number of collection counters operating in each Electricity Supply Division, indicating the timing, facility provided to the consumers shall be submitted by BSPHCL by 30th Sep 2013.
- Facility for online payment of bills, using bank account/credit card/debit card may also be introduced.

The delivery of energy bills to consumer be ensured as per clause 9.20 of the Bihar Electricity Supply Code 2007 viz 14 days before the due date and in case of delay in delivery of bills at least 14 days time from the date of delivery of the bill should be provided for making payment

Compliance Status of SBPDCL

SBPDCL has submitted that it would like to bring to the attention of Commission the following steps taken to improve ease of payment by consumer:

- Facility for online payment has been made available in association with State Bank of India, Canara Bank and Bill Desk (associated with more than 43 banks);
- More than 1200 branches of Grameen Bank has been authorized as collection centres;
- Any Time Payment (ATP) machines (timing 8AM to 8PM) in association with Canara Bank have been installed for reducing payment hassles in various areas of PESU which is likely to be extended to other towns;
- Payment through mobile has been initiated in association with Airtel Money/Oxygen and Sahaj Vasudha Kendra
- All bill collection counters in urban areas remain open on Sundays to facilitate bill payment on holidays.
- Mobile collection vans have been introduced in PESU Area for facilitating bill payment in local areas.
- Total **182 No. of regular and 170 No. of temporary Collection Counters** are operating to serve the hassle free payment facility to consumers. SBPDCL is also planning to operate some more collection counters.
- Collection counters of towns are being facilitated with green shed, aqua guard for drinking water, chairs, T.V. etc.

SBPDCL have made all attempts to reduce the consumer hassles for payment.

Commission's Comments

The position regarding delivering of bills in rural areas is very unsatisfactory. In course of public hearings large number of complaints were, regarding non-meter reading and non- delivery of bills.
It is directed that collection centres and other facilities provided for collections of bills shall be maintained to ease payment of bills by consumers.

Status report of functioning of the facilities shall be reported periodically (Every Six Months). Arrangement should also be made for 100% meter reading and bill delivery atleast once in two months or once in three months if monthly delivery is not feasible.

Directive 4: Regulation of Power Supply to Rural Areas

The Commission directed both power distribution companies to chalk out plan so that the small towns and rural areas of the state get at least 1- 3 hours of supply between 6 PM to 9 PM and submit the progress of the work during FY2012-13 for strengthening/ maintenance of distribution network by 30th June 2013.

Compliance Status of SBPDCL

SBPDCL would like to emphasise that all attempts are taken to increase the power supply to rural areas. On average 700-800 MW power is made available to rural areas with **average 10-12 hours** of supply in a day.

With additional power expected from Barh Stage-I (330MW) and KBUNL (220MW) in the remaining part of the year, power supply situation in rural areas is expected to improve further.

Commission's Comments

Action taken by SBPDCL in providing better supply to rural areas is noted. SBPDCL has not reported whether 1 to 3 hours supply is being made available between 6.00 Pm and 9.00 PM .SBPDCL shall improve the infrastructure in rural areas by providing more 33/11 KV substations and improving 11 KV and LT network to ensure the quality of supply in rural areas. With likely improved power supply position in the State, SBPDCL shall increase the supply hours to rural areas and provide continuous power supply. It shall be ensured that power supply is made available to all villages atleast for 1-2 hours to ensure the children to study and the consumers to complete cooking and other house hold works between 6.00 Pm and 9.00 PM. The status at power supply month-wise during FY 2013-14 shall be reported by 30th June, 2014.

Directive 5: Prompt release of supply to New Consumers

The Commission directed the two distribution companies to provide supply to new consumers within 30 days of application. DISCOM should monitor the progress of disposal of applications for release of new connections by getting application registers inspected by their Electrical Superintending Engineer of Supply Circle.

Compliance Status of SBPDCL

Following is the Status of new connections given by SBPDCL **(As on July, 2013)** and pending new connection applications:

Month	11 KV HT	LTCT	Three Phase	Single Phase	Total
March, 2013	2	44	568	13323	13937
April, 2013	4	12	243	6653	6912
May, 2013	15	12	489	16246	16762
June, 2013	10	3	380	13127	13520
July, 2013	__	9	403	24452	24864

Circle	Consumer Category wise pending Connection Nos. (As on 09.09.2013)			
	DS	NDS	LT	HT
PESU(E)	704	246	21	4
PESU(W)	1771	548	21	19
Patna	5435	300	49	12
Ara	346	11	2	2
Nalanda	1425	52	7	1
Bhagalpur	1474	67	30	4

Circle	Consumer Category wise pending Connection Nos. (As on 09.09.2013)			
	DS	NDS	LT	HT
Munger	1323	57	1	2
Gaya	4686	340	35	15
Sasaram	20130	611	34	28
Total	36948	2221	198	85

SBPDCL would like to assure Commission that all new connections are being released as per stipulated regulations.

Commission's Comments

SBPDCL has provided the pending applications as on 9th September, 2013. SBPDCL has not submitted reports for pending connections to such huge numbers. The claim of the Petitioner is not supported by the response of consumers in public hearings. In every public hearings large number of consumers complained of inordinate delay in releasing new connections. It has not been reported whether the new connections are being released within 30 days of application. The SBPDCL shall report whether the supply is being released within 30 days of applications and whether it is being monitored by Senior Officers. SBPDCL is directed to submit monthly report from April, 2013 to March 2014 indicating the number of category wise applications pending as on first of the month, applications received during the month and supply released during the month. The report shall be submitted by 30th June, 2014.

Directive 6: Strengthening of Consumer Redressal Mechanism

The Commission directed SBPDCL to specify at least one or two days in a week for officers to remain available in the office for redressal of grievances of consumers, particularly the grievances about delay in release of new connections, correction of defective bills and submit monthly list of grievances received and redressed to the concerned ESE of the supply circle.

Compliance Status of SBPDCL

It is submitted by SBPDCL that improvement in quality of service to consumers is one of the prime objectives for SBPDCL. For prompt redressal of consumer grievances SBPDCL have taken multiple measures to improve the Grievance Redressal Mechanism. Some of these measures are:

- Establishment of Consumer Grievance Redressal Forum at Patna
- Jan Shikayat Protsahan Samiti has been formulated at headquarter level

- Helpline no. has been established at the SCADA office
- Officers across all levels have been sensitized to promptly address the consumer grievances
- Janta Darbar is being organised across all levels(JE to CMD)
- Facilitation centre has been established for redressing the problems of billing and new connections for Patna Town

Following statement shows the Consumer Complaints addressed by SBPDCL on monthly basis:

Month	No. of Complaints Received	No. of Complaints Redressed
March’13	310	298
Apr’13	192	192
May’13	176	171
June’13	222	200
July’13	440	371
Aug’13	241	203
Sept’13	114	71
Total	1,695	1,506

Commission’s Comments

The compliance of SBPDCL is noted. SBPDCL is directed to appoint some third party to study to what extent the consumer satisfaction has improved by various measures taken by the DISCOM to improve the service to consumers. The study report of 3rd party with comments of SBPDCL shall be submitted by 30th September 2014. SBPDCL is directed to allow CGRF to hold camp hearings in districts atleast once in a month to facilitate consumers to get their grievances redressed

Directive 7: Interest on Security Deposit

The Commission directed SBPDCL to:

- Indicate the amount of security money deposited by the consumers on their monthly energy bills
- Indicate the amount of interest on security deposit and adjust the same in energy bills as specified by Bihar Electricity Supply Code 2007.

- The compliance of the directives along with specimen copy of energy bill for the month in which the security deposit has been adjusted shall be submitted by July, 2013.

Compliance Status of SBPDCL

Interest on security deposit is promptly being paid to all the HT consumers. SBPDCL is in the process of collating and updated information regarding security deposit paid by LT consumers under I.T. implementation of R-APDRP Part-A. M/s Reliance Infra Ltd has undertaken initial survey under R-APDRP Part A and is expected to provide it's report shortly.

After full information is collected and configured under I.T. implementation, necessary action for adjustment of interest on security deposit will be made.

Commission's Comments

The Commission is not satisfied with the compliance of the SBPDCL. The L.T consumers are deprived of their genuine claim of interest on security deposit. As per Regulations of BERC (Standard of Performance of Distribution Licensee) Regulations 2006, the licensee is required to maintain Security Deposit Register. It is also understood that the revenue ledger of each consumer should contain the amount of security deposit of the consumer held by SBPDCL. The compliance indicates that the SBPDCL consumer accounts do not have the amount of security deposit of each consumer. This is serious lapse on the part of the licensee. Since Reliance Infra is appointed to provide facilities to collect the information required on security deposits, SBPDCL is directed to submit a report on the security deposit of consumers by 30th June, 2014.

Directive 8: Voltage-wise Cost of Supply and Cross Subsidy

The Commission directed BSPHCL and the two DISCOMs to carry out a study to ascertain voltage wise and consumer category wise cost of supply to find out nature and extent of cross subsidy. A report in the record shall be submitted by 15th July, 2013.

Compliance Status of SBPDCL

SBPDCL has initiated comprehensive data collection exercise across all the voltage levels so as to determine actual technical losses and cost of supply at each voltage level.

Following is the average loss figures at individual voltage level, monitored during last five month:

Voltage Level	% Technical Loss
220 kV	4.16%
132 kV	4.50%
33 kV	3.96%
11 kV	9.31%
LT	11.30%

SBPDCL would like to assure the Commission that the process of collecting data is still under the process and every possible effort has been made to monitor more number of feeders as may be possible.

Commission's Comments

Action taken by SBPDCL and technical loss levels indicated are not satisfactory. About two years have elapsed but the Petitioner has not come up with the actual data. SBPDCL is directed to get the study conducted on more number of feeders to assess the technical and commercial losses in the system. The action taken shall be reported to the Commission by 30th June, 2014.

Directive 9: Reduction in Transmission & Distribution Losses

The Commission directed DISCOMs to chalk out an action plan for reduction of T&D losses and fix circle wise T&D losses reduction target to the level of target fixed by the Commission and submit the action plan and circle wise loss reduction achieved to the Commission by 30th June 2013

Compliance Status of SBPDCL

SBPDCL has submitted that a circle wise loss reduction program is under preparation and below is the status of District wise monthly % AT&C Loss figures :

District	% AT&C Loss		
	May'13	June'13	July'13
PESU (E)	53.42%	42.11%	37.49%
PESU (W)	46.19%	33.34%	28.32%
Patna	39.51%	69.99%	51.58%
Nalanda	78.61%	74.02%	70.29%
Ara	63.09%	70.29%	56.77%
Gaya	68.29%	67.69%	69.38%
Sasaram	60.20%	63.95%	62.39%
Bhagalpur	65.90%	76.21%	67.92%
Munger	63.40%	72.12%	69.14%

SBPDCL has taken multiple measures to reduce the overall AT&C losses. Some of these measures are as follows:

- Re-conductoring of dilapidated conductors/ replacement of GI wires in 33 KV, 11 KV & LT lines with higher size conductors for reduction in line loss.
- Procurement of star rated distribution transformers for replacement as well as new D/S/S for reduction in transformation loss.
- Cent percent system metering and consumer metering by 31-10-2013 for proper accounting of energy & reduction in wastage.
- Engagement of distribution franchisee for PESU Area, Bhagalpur Town & adjoining areas, Gaya Town and adjoining areas, Twin towns of Ara-Buxar, Biharshariff- Rajgir, Munger-Lakhisarai and Rohtas-Dehri-On-Sone for reduction in AT & C losses in town area.
- Proper meter reading, bill distribution and bill generation in fixed cycle to boost revenues.
- Use of Ariel bunched cables in place of L.T. overhead lines in theft prone areas to prevent theft of electricity.
- Raid against power theft being conducted on regular basis at section/sub-division/ division level under supervision of DGM/ESE with its close monitoring at Apex Level.

- I.T. implementation & installation of system metering, Energy Accounting under R-APDRP, Part-A for proper & accurate information/details of the entire activity of the Distribution System.

Strengthening of distribution infrastructure under R-APDRP Part-B, ADB, BRGF, RGGVY Schemes for reduction of technical & commercial losses.

Commission's Comments

The action taken is not satisfactory. Main reason for high T&D losses apart from theft are non-metering, non-meter readings and non delivery of bills. No significant progress has been made in this regard in rural areas. Even revenue based rural franchisees are not taking meter readings on a regular basis. This has to be monitored intensively to get results. It is observed that the action taken by SBPDCL has not reduced T&D losses, rather the losses have increased. According to its own projection, the T&D loss for FY 2014-15 should be 34% as per tariff petition for FY 2013-14 but SBPDCL is projecting it at 45%. It is not reported as to what extent various steps taken have helped in reducing the losses. Basically the energy audit has to be conducted at feeder level and distribution transformer level to arrive at losses under each and remedial measures taken to reduce the technical and commercial losses in feeders and DT's with high losses.

SBPDCL is directed to furnish the steps taken to reduce the technical losses to maintain the trajectory of reduction of losses every year by 30th September, 2014.

Directive 10: Energy Accounting/Audit

The Commission has directed SBPDCL,

- To provide meters at all feeders and report compliance by 30th September
- To carry out energy accounting/audit in each month on the basis of meter reading of the meters installed in the feeders and in case the meter is not installed or is defective a particular feeder, the energy consumption should be assessed on the basis of hours of supply and the average load in the feeder

- To carry out the energy accounting of DTs on quarterly basis in which meter has been provided
- To operationalize circles as cost centres

Circle wise energy accounting/audit for FY 2012-13 along with energy accounting of these DTs in which meter is installed shall be submitted to the Commission by 30th September 2013

Compliance Status of SBPDCL

SBPDCL has initiated energy accounting/audit on monthly basis for all the meter installed feeders at 33kV level. Circle wise feeder metering status for 33kV and 11kV feeders is as given below:

Circle	11 KV Feeder Metering Status (August, 2013) (No's)			
	Total Feeders	Feeder with Running Meters	Feeder with Defective Meters	Un-metered Feeder
PESU(E)	61	55	6	0
PESU(W)	95	77	18	0
Patna	108	90	9	9
Ara	83	29	13	41
Nalanda	105	46	0	59
Bhagalpur	108	54	36	4
Munger	109	77	10	22
Gaya	264	86	36	142
Sassaram	140	27	15	100
Total	1073	541	143	377

Circle	33 KV Feeder Metering Status (August, 2013) (No's)			
	Total Feeders	Feeder with Running Meters	Feeder with Defective Meters	Un-metered Feeder
PESU(E)	20	14	6	0
PESU(W)	71	54	16	1
Patna	41	30	7	4
Ara	24	9	1	14
Nalanda	31	6	7	18
Bhagalpur	37	21	10	6
Munger	41	23	10	8
Gaya	87	14	11	62
Sassaram	49	17	7	25
Total	401	188	75	138

It is submitted that SBPDCL is making every possible effort to attain feeder metering as per the directive.

Commission's Comments

Energy accounting should have been conducted on all the feeders where meters have been provided. The results of the energy accounting shall be reported to the Commission every quarter. The report sought by the Commission on the energy accounting/audit for FY 2012-13 is not submitted. This should be expedited. It shall be ensured that all the meters provided for Energy accounting are operative to give proper data and inferences. The energy audit/accounting for FY 2012-13 and FY 2013-14 should be submitted to the Commission by 30th June, 2014.

Directive 11: Energy Conservation and Demand Side Management

The Commission issued specific directives for energy conservation and demand side management consisting of following:

- To enforce of CFLs under Kutir Jyoti/RGGVY
- To create awareness cell at headquarter level for energy conservation and DSM and arrange programmes in each supply circle periodically

Compliance Status of SBPDCL

The following steps have been taken to improve the energy conservation and demand side management:

- Time of day tariff is made mandatory for all HT consumers having contract demand 200kVA and above;
- Use of CFL is mandatory for Kutir Jyoti Connection;
- Each Kutir Jyoti connection is provided 2 CFLs under RGGVY scheme;
- Induction of slab wise tariff;
- Launching of DEEP (Distribution Energy Efficiency Programme) by ESSL.
- Procurement of star rated transformers.

Commission's Comments

The measures taken by SBPDCL are noted. To what extent the measures taken have created awareness among consumers on energy conservation and what extent the demand is reduced shall be monitored and action taken reported to the Commission by 30th June, 2014. SBPDCL is also directed to submit quarterly report on the implementation of various measures taken for energy conservation and demand side management. First, such report should reach the Commission by 15th July 2014 for the quarter ending of 30th June, 2014.

Directive 12: Asset Register

The Commission directed BSPHCL and its four subsidiary companies to prepare Asset Registers for each Company and report by 30th September 2013 the action taken in this regard.

Compliance Status of SBPDCL

Recognizing the importance of Fixed Asset Register, BSPHCL has appointed Power Finance Corporation (PFC) for all the successor companies. As per the strategy, methodology and road map prepared by PFC, a Task Force for each company at head quarter level is formed as given below:

Company	Relevant Officials
BSPHCL	Sr. Manager of Finance Executive Engineer (IT) Asst Engineer (Civil)
BSPGCL	DGM (Finance) Electrical Executive Engineer AE (Civil)
BSPTCL	DGM (Finance) Electrical Executive Engineer EE (Civil)
NBPDCL	DGM (Finance) Electrical Executive Engineer AE (Civil)
SBPDCL	DGM (Finance) Electrical Superintendent Engineer AE (Civil)

Following is the roles and responsibility of Task Force

- Approval of data collection formats designed by PFC
- Definition of custodian and source of data for filling the data collection formats
- Work along with PFC to evolve appropriate costing methodologies for each category of asset items
- Sorting and compiling secondary data pertaining to fixed assets and making it available to respective custodian during physical verification
- Scheduling and coordinating the training session to custodian of assets who should do the data collection
- Undertake model physical verification with the support of PFC
- Acting as help desk to custodian during physical verification and data collection
- Monitoring and follow up of the data collection activity
- Compiling secondary data available in various centralised offices for costing and reconciliation purposes
- Costing, reconciliation and preparation of Fixed Assets Register with the assistance of PFC
- Present the Fixed Asset Register to the audit

The work progress of various tasks assigned to Task Force is on track and SBPDCL is making its best efforts in same direction.

Commission's Comments

Action taken by SBPDCL is noted. It is not the concern of the Commission to examine the strategy, methodology and appointment of consultant for preparation of Asset Register. The Commission notes that inspite of the directives given since long, the asset register has not been prepared. SBPDCL is directed to submit a report on the present status of preparing Fixed Assets Registers and a road map for completion of the Fixed Assets Register. The report shall be submitted by 30th September, 2014.

Directive 13: Installation of pre-paid meters

The Commission directed BSPHCL and its two subsidiary distribution companies to obtain a copy of specification approved by CEA for prepaid meters where it is finalized and to start implementation of pre paid meters on pilot basis for Government office's in Patna town. Installation of prepaid meters for consumers in the Government may also be discussed with state government officials and implemented for some government offices.

Compliance Status of SBPDCL

SBPDCL is in process of floating NIT shortly for installation of pre- paid meters for Government connections in Patna town.

Commission's Comments

The Action taken by SBPDCL is noted. SBDPCL is directed to submit a report by September, 2014 when the prepaid meters are likely to be installed on pilot basis in the Government offices.

Directive 14: Issues related to HT & High Value LT Consumers

The Commission directed the SBPDCL to,

- Ensure that all the HT & high value LT consumers have correct meters and in case of a meter becoming defective/damaged/burnt, it should be replaced within the time limit specified in the BERC (Standard of Performance of Distribution Licensee) Regulation 2007.
- Ensure the correct meter reading, billing and delivery of bill to all HT and high value LT consumers every month within the time specified in Supply Code 2007.
- Monitor the redressal of grievances related to quality of power supply and billing at Headquarter level.
- Arrange periodical test of energy meters of the feeders and consumers and to put in place third party accredited laboratory for meter testing at least at commissionaire levels in the state.

- Ensure periodical test of the meters of the HT & high value LT consumers in their premises without removing the meters from the premises by installing a standard/sub standard comparison/check meters to ascertain the accuracy of the meters installed in the consumer premises.

Compliance Status of SBPDCL

SBPDCL has submitted that all the HT & high value LT consumers have proper meters in place. Further, every month meters at these consumer premises are being read.

Particular protocols are followed for meter reading of these consumers, as below:

Consumer voltage level	Protocol being followed
HT (33kV)	Team comprising of EE an AE
HT (11kV)	Team of AE
High Value LT Consumers	Junior Engineer

Grievances of above consumers are being addressed on priority for speedy redressal.

H.T. Cell of SBPDCL is functioning at headquarter to redress the complaints of HT Consumers. The details of consumer category wise premises inspected by STF Cell of SBPDCL supply area:

Month	Category wise Premises inspected report					
	LTIS-I	LTIS-II	NDS-II	DS-II	HT	Total
Jul-13	17	13	10	07	05	52
Aug-13	20	18	15	08	02	63

Month	Category wise Premises inspected report					
	LTIS-I	LTIS-II	NDS-II	DS-II	HT	Total
Sep-13	18	5	7	8	Nil	38

Commission's Comments

The compliance of SBPDCL is noted. This matter is dropped.

Directive 15: Renewable Energy Purchase

The Commission directed BSPHCL to submit the details of the transmission lines which are now proposed for evacuation of power from RE projects which are being constructed and supervised by the BSPHCL in line with the “Bihar Policy for promotion of new and renewable energy sources 2011” of the government of Bihar on quarterly basis.

Further the Commission also directed BSPHCL to submit compliance in respect of Renewable Purchase Obligation (RPO) as provided in BERC (REC Framework Implementation) Regulation 2010 to the BREDA with a copy to Commission.

Compliance Status of SBPDCL

Evacuation Arrangement for new Renewable Energy Projects:

We would like to invite the attention of the Commission on the following executed power purchase agreements with Bihar State Power Holding Company Ltd:

Particulars	Location	Technology	Capacity
Glatt Solutions Ltd	Naroda	Solar PV	3MW
Response Renewable Energy Ltd	Naroda	Solar PV	10MW
Alex Green Ltd	Banka	Solar PV	10MW
Moser Baer Clean Energy Pvt Ltd	Ramnagar	Solar PV	10MW
Avantika Contractors (I) Ltd	Gawnaha	Solar PV	5MW

The application process for evacuation approval for above project is under process and is expected to be cleared shortly.

Non Solar RPO Compliance:

The Commission vide order dated 15th March 2013, approved total energy purchase of 15674MUs (excluding renewable energy purchase) for FY 2013-14 which is applicable for RPO compliance.

Further Commission vide order dated 16th Nov 2010, approved total RPO of 4.5% in the state out of which 1% has to be met by Solar. In order to meet Non Solar RPO, following PPA from Bagasse based project has been executed.

Sl. No.	Details of Non-Solar (Bio-Gas, Bagasse)	Capacity (MW)	Supply-Season	Supply Off Season	PLF (As approved by regulatory commission)
1	New Swadeshi Sugar Mills, Narkatiaganj	10	5	8	53%
2	Bharat Sugar Mill, Sidhwalia	18	10	13	53%
3	Hari Nagar Sugar Mill	14.5	11	11	53%
4	BPCL Bio-Fuel Ltd, Sugauli	20	13	16	53%
5	BPCL Bio-Fuel Ltd, Lauriya	20	13	16	53%
6	Vishnu Vishal Paper Mill P Ltd	3	1	1	53%

The above PPAs are expected to supply ~400MUs against Non Solar RPO requirement of ~550 MUs. The remaining shortfall shall be met by REC purchase.

Compliance of Solar RPO

Total Solar RPO requirement is ~90MW for the year FY 2013-14. BSPHCL is undertaking bid process for solar power procurement of 100MW (Phase I) and 150MW (Phase II). Price bid for Phase I is opened on 4th September, evaluation of Financial bid has been done and selection of successful bidder is under process.

Commission's Comments

The compliance is noted. RPO obligation is not met in some cases, though co-generation based power from sugar mills is available. PPA has not been signed inspite of directive from the Commission. BSPHCL/SBPDCL is directed to sign PPAs with all sugar mills who offer to generate power and supply. SBPDCL shall make all the efforts to meet the Renewable Purchase Obligation (RPO) by purchase of renewable energy. SBPDCL shall submit the plan for compliance of fulfillment of RPO by 30th September, 2014 along with their proposal if any for purchase of REC or to deposit the amount determined on the basis of shortfall in units of RPO in a separate fund in accordance with BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 in case of default.

Directive 16: Database and Management Information System

The Commission directed BSPHCL to arrange data base management information system (MIS) for each of the companies and submit the status of compliance of MIS system and implementation of SCADA system with full details by 30th Sep 2013.

Compliance Status of SBPDCL

SBPDCL has appointed following agencies to provide division wise monthly billing data of all categories of consumers in the areas as :

Area	Agency
Central	M/s Crystal Computers
Magadh	M/s Infosoft

These agencies are maintaining and providing division wise monthly billing data for all categories of consumers. SBPDCL is also in the process of implementing SCADA Project under RAPDRP Scheme.

There are some other plans which are under discussion in order to manage data base & implement efficient MIS.

Commission's Comments

The action taken is noted. SBPDCL is directed to report the present Status of developing the MIS in the company and road map for developing full pledged MIS by 30th June, 2014.

Directive 17: Energy Consumption of Kutir Jyoti and Agriculture Consumers

The Commission directed two subsidiary distribution companies to,

- Conduct extensive survey for ascertaining the total number of Agriculture consumers (private/state tube well) and Kutir Jyoti consumers and no. of consumers being billed in the respective category.
- Find out the number of Kutir Jyoti consumers who are violating the load/consumption limit for such consumers and to bill such consumers under DSI category
- Ensure 100% metering of Kutir Jyoti and Agricultural consumers Circle wise quarterly compliance report should be submitted by 15th July 2013.

Compliance Status of SBPDCL

SBPDCL has submitted the following details about Agriculture and Kutir Jyoti consumers in compliance to the directive:

Particular	KJ consumers	Agri. consumers
Effective Consumers	4,79,989	47,916
Metered consumers	4,02,954	5,842
Metered consumers (%)	83.95%	12.19%

SBPDCL is undertaking all efforts to ensure better metering for KJ and Agricultural category consumers and many steps have been taken in same direction. SBPDCL is also sensitized to its supply area persons to have a watch on load consumption pattern on KJ consumers and any violation should not be allowed. Necessary steps also taken for metering of Agricultural unmetered connections.

Commission's Comments

The compliance is noted. A large number of Agricultural consumers are yet to be metered. 100% metering of all Kutir Jyoti consumers shall be completed and reported to the Commission by 30th June, 2014. The billing on consumption basis should be done from 1st July 2014 and compliance shall be submitted by 30th September, 2014.

Directive 18: Pilferage of Electricity

The Commission directed BSPHCL/SBPDCL to submit circle wise details of raids conducted, FIR lodged, amount assessed and amount realized for FY2011-12 and FY2012-13 and thereafter to submit quarterly compliance report.

Compliance Status of SBPDCL

It is submitted that under anti-theft drive, SBPDCL is conducting strict inspection of consumer premises regularly. Also anti-theft posters, slogans as well as advertisement publishing in prompt news papers have been the practices to create public awareness against electricity theft.

The month wise details of FIR lodged, fine imposed and fine recovery is given below:

Month	Total FIR Lodged (Nos)	Fine Imposed (Rs. Lakhs)	Fine Recovered (Rs. Lakhs)
Apr-13	1,280	603.03	259.57
May-13	1,398	664.23	422.69
Jun-13	2,029	730.01	453.02
Jul-13	2,686	974.65	362.53
Aug-13	2,331	828.22	496.96
Total	**9,724**	**3,800**	**1,994.77**

Commission's Comments

The compliance of SBPDCL is noted. The Commission has directed SBPDCL to submit circle wise details of raid conducted, FIR lodged, amount assessed and amount realized during FY 2011-12, FY 2012-13 and thereafter to submit quarterly compliance report. SBPDCL in the Format-20 of their Tariff petition has not shown any amount during FY 2013-14 against theft/pilferage. The compliance report as directed shall be submitted by 30th June, 2014.

12. Renewable Purchase Obligation

12.1 Background

Renewable energy is an important solution to reduce power shortage especially in Bihar where fossil fuel is not available. Developing renewable energy will increase power availability in the State and help balanced regional development. Besides, it will reduce adverse impacts on the local environment and carbon density. Bihar is primarily an agriculture based State and majority of the people live in the rural areas. Better power availability in rural areas will not only boost agriculture production, but standard of living of vast majority in rural areas will improve. There is potential of 2000 MW based on Agro-residues such as rice husk, paddy straw, maize cob, bagasse etc. There is also good potential of solar Photovoltaic (SPV) power which may even touch 8500 MW. Off grid SPV too has potential of over 7000 MW.

12.2 Renewable Purchase Obligation (RPO)

Provision of Renewable Purchase Obligations (RPOs) has been made to ensure that the obligated entities procure a certain minimum percentage of their total power requirement from renewable energy sources at preferential tariff.

12.3 Renewable energy Policy

The Government of Bihar (GoB) had issued policy guidelines for increasing private sector participation for developing renewable energy sources in 2003 which was applicable for five years. Keeping in the view that the potential for the renewables is yet to be harnessed, the Govt. of Bihar has issued revised policy for the promotion of power generation from renewable energy sources in June 2011 vide Letter No. Pra 02/Breda Apra Niti-11/08/2845 dated 24/6/2011. The revised policy is applicable for the development of all forms of renewable energy resources. The responsibility for the development of renewable energy projects lies with the Bihar Renewable Energy Development Agency (BREDA), the State nodal agency for the renewable energy generation programmes. For the development of micro/mini/small Hydel plants (up to 25 MW), the responsibility lies with the Bihar State Hydroelectric Power Corporation. The revised policy 2011 has issued guidelines on the key issues stated as follows:

1. Project Approval process & role of institutional authorities
2. Regarding the sale of power to the BSEB, wheeling of power for third party sale or captive use;
3. Project monitoring and activity milestones;
4. Incentives /applicability e.g. applicability of policies notified by the state and Central Government from time to time, incentives under prevalent industrial incentive policy of the GoB and also such similar applicable policies, exemption from electricity duty and entry tax;
5. Special concession for the sustainability of the biomass based projects that no two biomass based projects are taken up in an area of radial distance of 25 km to ensure the availability of biomass;
6. Regarding the Renewable Energy Purchase Obligation, the policy has emphasized that the BSEB or the distribution licensee should purchase more power from renewable resources than the minimum prescribed by the BERC with the approval from the Government at tariff approved by the BERC.

12.4 BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010

The Commission has notified BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010 on 16th November 2010. The Clause 4(1) of the regulation specifies that,

*"**Every obligated entity shall purchase not less than 1.5%, 2.5%, 4%, 4.5% and 5% of its total energy consumption (total energy input minus T&D losses) during 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 respectively from renewable energy sources under the Renewable Purchase Obligation or until reviewed by the Commission. Provided that 0.25% out of the renewable purchase obligation so***

specified in the year 2010-11 shall be procured from generation based on solar as renewable energy source and shall be increased at a rate of 0.25% every year thereafter till 2014-15 or until reviewed by the Commission. *" Further, it is specified that if the licensees are not able to meet the purchase obligation (including the RE capacity available in the State) from sources located within the State, they shall have the option of purchase the shortfall energy from outside the State. The Clause 5.1 facilitates the licensees purchase of certificates issued under the CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations 2010 as valid instrument for the discharge of the mandatory RE purchase obligation.*

The BERC through its 1st amendment in BERC (Terms and Conditions for Tariff Determination from Solar Energy Sources) Regulations 2012 notification dated 7th September 2012 has notified that "***out of the renewable purchase obligation, 0.25% of the consumption in the year 2012-13 shall be procured from generation based on solar energy sources and shall be increased by 0.25% every year thereafter till 2019-20 and by 0.50% in 2020-21 as well as in 2021-22***".

Based on the above regulations it is made obligatory for erstwhile BSEB and now BSPHCL/DISCOMs to purchase certain percentage of energy of their total energy consumption from Renewable Energy sources, from FY 2010-11 to FY 2014-15 is as shown in the Table below:

Table 12.1: Percentage of Renewable Purchase Obligation (RPO)

From Renewable Sources	2010-11	2011-12	2012-13	2013-14	2014-15
Renewable Power Purchase obligation (RPO)	1.50%	2.50%	4.00%	4.50%	5.00%
% share of solar power RPO of total RPO	0.25%	0.50%			
% share of solar power in RPO of total energy consumption			0.25%	0.50%	0.75%
% share of non-solar power in RPO	1.50% - Solar RPO	2.50% - Solar RPO	3.75%	4.00%	4.25%

12.5 Power purchases from FY 2010-11 to FY 2014-15 and the Renewable Purchase Obligations (RPO)

The purchase of power from BSHPC and Co-generation plants by the BSEB/BSPHCL/DISCOMs from FY 2010-11 to FY 2012-13 (as per actuals) and for FY 2013-14 (RE) and FY 2014-15 (ARR) and shortfall in RPO obligation and requirement of RE certificates purchases are given in the Table below:

Table 12.2: Power purchase from FY 2010-11 to FY 2014-15 and Renewable power purchase obligation

(MU)

Sl. No.	Particulars	As per actuals			Projections	
		FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
1	RE purchases - Solar				19.00	49.00
2	Co-generation	28.35	77.68	128.81	80.00	80.00
3	Small Hydro (BSHPC)	27.37	35.68	46.83	45.00	45.00
4	Total power purchase from Renewable sources (non solar)	55.72	113.36	175.64	125.00	125.00
5	Total = Solar + non solar	55.72	113.36	175.64	144.00	174.00
6	Total energy input	8890.09	8947.49	9741.00	15311.00	20985.00
7	T&D losses	2750.95	2402.00	2724.08	2904.00	3110.00
8	Energy consumption (Energy input - T&D losses)	6139.14	6545.49	7016.92	12407.00	17875.00
9	Sales of surplus power + Disallowed Power	848.00	1164.00	1073.43	4814.00	8982.00
10	Energy input - T&D losses - sales to outside state	5291.14	5381.49	5943.49	7593.00	8893.00
11	Total RPO requirement	79.37	134.54	237.74	341.69	444.65
12	Solar RPO on total RPO requirement	0.20	0.67	14.86	1.71	3.33
13	Non-solar RPO requirement	79.17	133.86	222.88	339.98	441.32
14	Shortfall in Solar RPO	0.20	0.67	14.86	(17.29)	(45.67)
15	Shortfall in non Solar RPO	23.45	20.50	47.24	214.98	316.32
16	Floor price for solar REC/kwh	13.40	13.40	13.40	13.40	13.40
17	Floor price for non-solar REC/kwh	1.50	1.50	1.50	1.50	1.50
18	Cost of certificates Solar	0.27	0.90	19.91	-23.17	-61.19
19	Cost of certificates non-Solar	3.52	3.08	7.09	32.25	47.45
20	**Total cost of certificates**	**3.78**	**3.98**	**27.00**	**9.08**	**-13.74**

Solar RPO: The above table indicates that the erstwhile BSEB and segregated entities have not met the Solar R.P. Obligation from FY 2010-11 to 2012-13 as per the truing up based on the audited annual accounts of the relevant financial years. The total short fall in solar obligation from FY 2010-11 to FY 2012-13 is 15.73 MU. As per the regulations, the RE certificates/deposit shall be made at the forbearance price which is at Rs.13.40/kWh as per CERC order dated 23rd August 2011 in Petition No.142/2011 and the solar RE certificates to be purchased to fulfill the RPO in respect of solar is Rs.21.08 crore. Accordingly, the Commission has factored Rs.21.08 crore in the ARR for FY 2014-15 and directs the DISCOMs to deposit the same in to a separate fund with a bank. The amount of Rs.21.08 crore is allocated among the DISCOMs in their power purchase sharing ratio i.e. 35% to NBPDCL and 65% to SBPDCL and allowed to the DISCOMs as under:

NBPDCL	Rs. 7.38 crore
SBPDCL	Rs. 13.70 crore

The RPO obligation for FY 2013-14 and FY 2014-15 will be considered in truing up based on the audited annual accounts of the DISCOMs as and when made available by the Petitioners and shortfall if any and consequential purchase of RE certificates/deposits in to separate fund, will be considered in the truing up process of relevant years.

Non-Solar RPO : As could be seen from the above table, the erstwhile BSEB and segregated entities have not met the non-solar R.P. Obligations in FY 2010-11, FY 2011-12 and FY 2012-13 as per the truing up based on the audited annual accounts of the relevant financial years. The non-solar RP obligation is worked out based on the power purchased by the BSEB/BSPHCL/DISCOMs during FY 2010-11 to FY 2012-13. However, considering the captive co-generation capacity of Sugar Mills available in the State of Bihar and captive consumption of Sugar Mills, there may not be any shortfall in the non-solar RPO. The Commission has decided that the non-solar RPO is complied with and no RE certificates need to be purchased or amount deposited for FY 2010-11 to FY 2012-13. The Petitioners, NBPDCL and SBPDCL may obtain the figures of captive consumption of Sugar Mills from the power generated from co-generation.

The non-solar RPO obligation for FY 2013-14 and FY 2014-15 will be considered in truing up based on the audited annual accounts of the DISCOMs as and when made available by the Petitioner and shortfall if any and consequential purchase of RE certificates/deposits in to separate fund, will be considered in the truing up process of relevant years.

12.6 Co-generation and Biomass Based Plants

Bihar does not have any specific policy for Co-generation at present. However, BERC issued order for determination of tariff for purchase of electricity by the BSEB from biomass based power plant and bagasse based cogeneration plant in the State of Bihar in suo motu proceeding No. 2008 vide order dated 21st May 2009. The Commission vide order dated 30.11.2012 in suo-motu proceedings no. 31/2012 determined tariff for Biomass based plants and bagasse based cogeneration plants to be commissioned on or after 30.11.12 in FY 2012-13. Some bagasse based cogeneration plants are generating power in the State. Biomass based power plants have not come up in the State. Details of running bagasse based cogeneration plants with whom erstwhile BSEB now BSPHCL has signed PPAs are as follows:

Table 12.3: Co-generation Plants in Bihar

Sl. No.	Name of the Sugar Mill (Co-generation plants)	Agreement of Power supply (in MW)	
		Season	Off season
1	New Swadeshi Sugar Mill	5	8
2	Bharat Sugar Mill	10	13
3	JHV Distillaries & Sugar Mills	14.54	18.05
4	Hashan Sugar Mills	5	8
5	BPCL, Sugauli		20
6	BPCL, Lauria		14

BSPHCL expects 3 MW from new cogeneration plant and 7 MW from biomass based plants in 2014-15. Additional 25 MW from cogeneration and 12 MW from biomass is expected in 2015-16.

12.7 Small Hydro Power

Total installed capacity of small hydro projects is 55 MW. Bihar State Hydroelectric Power Corporation has indentified 40 projects of 275 MW aggregate capacity.

12.8 Solar Power

There is no solar power plant in the State. BSPHCL has signed PPA for an aggregate capacity of 38 MW of solar power with 5 developers so far. Under phase-I competitive bid process for 100 MW of solar power is in process and another 150 MW from solar PV with Pisciculture in phase-II is to be procured. Rebidding process for the above has been initiated.

12.9 Rural Electrification through Non-Conventional Energy Sources

One scheme has been sanctioned for electrification of 48 remote villages in Gopalganj and Kaimur districts through non-conventional energy sources under Rajiv Gandhi Gramin Vidyutikaran Yojna. It is being implemented.

ANNEXURE - I

Bihar Electricity Regulatory Commission (BERC)
Vidyut Bhawan-II, Bailey Road, Patna

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. (NBPDCL) and South Bihar Power Distribution Company Ltd. (SBPDCL). Also the four subsidiary companies of BSPHCL i.e. BSPGCL, BSPTCL, NBPDCL 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.) NBPDCL 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.) NBPDCL 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 Enginer, 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 sympathically 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. Panjiar	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. S	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

ANNEXURE -2

Public Hearing at Bhagalpur on 20.12.2013

LIST OF THE PARTICIPANTS AS UNDER:

Appearance on behalf of SBPDCL

1	Shri Ramachandra Singh	E.S.E (Com), SBPDCL, Patna
2	Shri Narendra Kumar	DGM cum ESE, Bhagalpur
3	Shri Gopal Kumar	APO, SBPDCL, ESC, Bhagalpur
4	Shri Suresh Pd. Singh	EEE,Elec. Supply Div., Bhagalpur
Appearance on behalf of stakeholder/Public		
1	Shri Mukutdhari Agarwal	President, Eastern Bihar Industries Association, Bhagalpur
2	Shri Ashok Jiwarjka	Bijli Upbhokta Sangharsh Samiti, Bhagalpur
3	Shri Ranjit Rajan	Damankhandha, Nalanda
4	Shri Ashok Sharma	Social Worker, Barari Bhagalpur
5	Shri Sanjay Kumar	Joint Secretary, Gandhi Peace Foundation Center, Kajwalichak, Naya Bajar Bhagalpur.
6	Shri Gautam Suman	Central President, Ang Utthanandolan Samiti, Bhagalpur.
7	Shri Lakhan Lal Prasad	Customer Manik Sarkaar Chauk, Bhagalpur.
8	Md. Minhaz Alam	Sr. Exe. BEDCPL Bhagalpur.
9	Shri Rohit Jhunjhun wala	Mandroha, Kotwali Bhagalpur.
10	Shri Shailendra Kr. Sarraf	President, Eastern Bihar Chamber of Commerece & Industries, Bhagalpur.
11	Shri Mahesh Kumar Sharma	Astt. Prof. (Mech.) Bose Park, M.G. Road, Bhagalpur.
12	Shri Amarnath Goenka	Secretary, Eastern Bihar Chamber of Commerece & Industry Sujaganj, Bhagalpur.
13	Shri Surbind Bhatta	Advocate, Urdubarai, Bhagalpur
14	Shri Banwari Lal Khetan	Vice President, Eastern Bihar Industry Asso. Bhagalpur
15	Md. Asfaque Ansari	General Secretary, Bunkar Saugharsha Samiti. Nathnagar Bhagalpur
16	Md. Nejahat Ansari	President, Bunkar Saugharsha Samiti. Nathnagar Bhagalpur
17	Shri Amar Kishore Sah	Consumer, Maroofchak, Mirjanhatt Bhagalpur.
18	Md. Ajaj Ali	Secretary, Bunkar Sanharsha Samiti Nathnagar, Bhagalpur
19	Shri Ashok Kr. Roy	Ex. M.P. Nathnagar, Bhagalpur

20	Shri Santhosh Kr.	Consumer Sahebganj, Champanagarm, Bhagalpur
21	Shri Jawahar Pd. Mandal	Kishan Sangharsha Samiti, Kiridhar, Bhagalpur
22	Shri Debasish Banerjee	Prabakta, Sangharsha Samiti Nathnagar, Bhagalpur
23	Shri Gautham Banerjee	State General Secretary (Youth R.J.D) Lalbagh, Tilakamanjhi Bhagalpur
24	Shri Tarun Kumar	Reporter Hindusthan Press
25	Shri Rajneet Singh	Retd. SBI Staff, Priyadarshani Nagar, Bhagalp[ur
26	Shri Pradeeep Kumar	President Kishan Morcha (BJP) Sadar Bhagalpur
27	Shri Shashi Sankar Roy	Depty Secretary BJP Bhagalpur
28	Shri Subir Kr. Das	CEO, BEDCPL, Bhagalpur
29	Shri Ranjeev Kr.	PRO, BEDCPL, Bhagalpur
30	Shri Rani Choubey	CSC/PR HEAD BEDCPL Bhagalpur.
31	Md. Minhaz Alam	Sr. Exe BEDCPL Bhagalpur

Public Hearing at Munger on 21.12.2013

LIST OF THE PARTICIPANTS AS UNDER:

Appearance on behalf of SBPDCL

1	Shri Ramachandra Singh	E.S.E (Com), SBPDCL, Patna
2	Shri Suresh Pd. Singh	ESE, Munger
3	Shri Manoj Kumar	EEE (Com & Revenue), Munger
4	Shri Ram Naresh Pd.	EEE, Elec. Supply Div., Munger
5	Shri Sanjeev Kumar	AEE, Munger
Appearance on behalf of Stakeholder/Public		
1	Shri Ravi Shankar Oraon	SDC, Munger
2	Md. Liyakat	Pani Tanki, Munger
3	Shri Prabha Shankar Sharma	Retd. Teacher, At+PO-Kiul, Lakhisarai
4	Shri Ramlakhan Mahato	Retd., Chhoti Lagma, Sheokund, Dharhara, Munger
5	Shri Bhudeo Pd. Singh	Farmer, Chhoti Lagma, Sheokund, Dharhara, Munger
6	Shri Ashok Kumar	Topkhana Bazar, Munger
7	Shri R.K. Himanshu	ITC Ltd., I/c, Basudeopur, Munger
8	Shri Mahadeo Prasad	Retd. District Agriculture Officer, Bekapur, Kotwali, Munger
9	Shri Prabhat Kumar	Secretary, Munger Chamber of Commerce, Bara Bazar, Munger
10	Shri Santhosh Agarwal	Vice President, Munger Chamber of Commerce, Chowk Munger
11	Shri Raj Kumar Saraoaj	Member, District Lok Adalat Munger
12	Shri Nirmal Kr. Jalan	Spokeperson, Munger Chamber of Commerce, Jalan House, Town Hall Road, Munger
13	Shri Amar Sinha	President, Bar Association, Munger
14	Shri Shyam Nand Jha	Municipal Commissioner, Munger
15	Smt Kumkum Devi	Mayer, Municipal corporation, Munger
16	Shri Raj Kumar Khemka	Bekapur, Parwati Centre, Munger

Public Hearing at Gaya on 11.02.2014

LIST OF THE PARTICIPANTS AS UNDER:

Appearance on behalf of SBPDCL

1	Shri Ranjeet Kumar	E.S.E., (Gaya)
2	Shri Binod Prajapati	E.E.E/S/(Gaya)
3	Shri Neeraj Kumar Verma	Consultant
4	Shri Ram Chandra Singh	E.S.E., (Gaya)
Appearance on behalf of Stakeholder/Public		
1	Shri Arvind Kumar & Alok Nandan	President, South Bihar Industries Association, Gaya
2	Shri Devendra Kumar Jain	President, Central Bihar Chamber of Commerce, Gaya
3	Shri Brijnanadan Pathak	Secretary, Vidyut Upbhokta Sangharshan Samitee, Gaya, Laxaman Sahay Lane, Gurudwara Road, Kotwali, Gaya
4	Shri Ananda Shankar Bannerji	Dy. Mananger, India, Power, Gaya
5	Shri Shatrunjay Kumar Mishra	Executive Officer, Nagar Parishad, Aurangabad
6	Shri Samrendra Kumar Singh	Sr. Assistant, India Power Ltd
7	Shri Gopal Prasad Patwa	Social Activist (weavers), Patwatoli, Dakgharlane, Manpur, PO+PS-Buniadganj, Gaya
8	Shri Surendra Prasad	Sarbahada, PO-Sarbahada, PS-Khijarsarai, Gaya
9	Shri Shyam Kumar Mehta	Baradih, Baragandhar, Muffasil, Gaya
10	Shri Prakash Ram	Consumer, Manpur Shivcharan Lane, Buniyadganj, Gaya
11	Shri Ravi Kiran Mehta	Sikhar, Bargandhar, Muffasil, Gaya
12	Shri Ramakrishna Prasad	Manpur, Patwatoli, Buniyadganj, Gaya

Public Hearing at Patna on 12.02.2014 & 13.02.2014

LIST OF THE PARTICIPANTS AS UNDER:

Appearance on behalf of SBPDCL/NBPDCL

1	Shri Shachindra Kishore Prasad Singh	Chief Engineer, (Com) SBPDCL
2	Shri Kangresh Choudhary	C.E. Generation
3	Md. Razaur Rahman Ansari	Chief Engineer(O&M) BSPTCL
4	Shri Ram Chandra Singh	ESE(Com) SBPDCL
5	Shri Ranjit Kumar Gopal	EEE/IS & Trans, O&M
6	Shri Om Shankar Prasad	EEE Generation
7	Shri Jayant Kumar Dubey	EEE(Com) NBPDCL
8	Shri Manish Shakya	AEE (Com) NBPDCL
9	Md. Nadeem Ahmad	EEE (Com) SBPDCL
10	Shri Jayesh Chuhan	Lead Consultant, SBPDCL
11	Shri Neeraj Verma	Consultant, NBPDCL & SBPDCL
Appearance on behalf of Stakeholder/Public		
1	Prof. Pramod Kumar Sharma	Member, ESCRP and Chairman Vaishali Vidyut Upbhokta Sangh, Daliawarpar (west), P.O-Bidupur Bazar, Vaishali
2	Shri Doman Singh	Consumer, B-44 , Road No-02, Anand Vihar, Veterinary College Rupaspur Patna-14
3	Shri Shatrudhan Ram	Indrapuri Colony, Venery College, Shastri Nagar Patna
4	Shri Ajay Kumar	Mahangi Biijali Virodhi Sangharash Samiti
5	Shri Arjun Lal	Advocate Rajendra Path, GPO, Patna
6	Shri Ratan Singh	AGM, P&M Mall Patna
7	Shri Vijay Nath Mishra	C.G.M 5th Floor P&M Mall, Patliputra Kurji Road Patna
8	Mrs. Sarika Kumari	Volunteer, Aam Adami Party, Police Colony Anishabad Patna
9	Shri Dhananjay Kumar Sinha	Volunteer, Aam Adami Party, 303, Nagina Apartment, Shivpuri, Srikrishnapuri, Patna
10	Shri Roshan Jha	Volunteer, Aam Adami Party
11	Shri Krishna Murari	Volunteer, Aam Adami Party, Vidhya Pati Coloney, 16 Back of Museum, Kotwali, Patna
12	Shri Raman Kumar	Volunteer, Aam Adami Party, Kamalpur, Mohapore,

		Bhadurpur, Dharbhanga.
13	Shri Alok Kumar Deshbhakta	Vice Chairman (A.B.D.M), Kanhawali azrakwe, Shakti Nagar, Ramna, Mitharpura, Muzaffarpur
14	Shri Subodh Kumar Sharma	Consumer, Kazipur Patna
15	Shri Vijay Kumar Choudhary	Mahaghi Bijli Birodhi Sangarsh Morch, MCPI (U) Office, Machhua Toli Patna
16	Shri Ashok Kumar Verma	Advocate, Loktantrik Samajbadi Morcha Bihar, Mithapur, New Jakanpur, Patna
17	Shri Sanjeev Kanodia	Manager, Kalyan Complex, Patna
18	Shri Sanjay Kumar Bhatiya	Director, Dina Iron & Steel Ltd, Abdul Rahmanpur Road, Dedarganj, Patna-09
19	Shri Jadu Nandan Saha	Consumer, L.D. Market, Sadar Bazar, Danapur Cantt. Patna
20	Md. Faizan	Consumer, L.D. Market, Sadar Bazar, Danapur Cantt. Patna
21	Md. Tanwar Mumtaj Khan	Consumer, L.D. Market, Sadar Bazar, Danapur Cantt. Patna
22	Shri Ram Babu Gupta	Consumer, L.D. Market, Sadar Bazar, Danapur Cantt. Patna
23	Shri Birendra Kumar Singh	General Secretary, Loktantrik Samajbadi Morcha Bihar, Buddha Colony Patna
24	Shri Lalan Prasad Singh	Loktantrik Samajbadi Morcha Bihar, Kajpur Nandan Home Appatment, Khajpura, Patna
25	Shri Badri Narayan Singh	Loktantrik Samajbadi Morcha Bihar, Convener, Moh-Jogiatola, Gardanibagh, Patna
26	Shri Anmesh Kumar Jha	BH-3, BIT Patna Compus, Bihar Veterinary College Patna
27	Shri Bijay Kumar Singh	Secretyary Vikas Avam Jah Kalyah Samiti, Gola Road, Danapur, Patna
28	Shri Awesh Jain	Senior General Manager Ruchi Soya Industries Ltd. Ruchi House Royal Palm, Aary Colony Gorgan East Mumbai.
29	Shri Rakesh Kumar Srivastava	Manager, Ruchi Soya Industries Ltd
30	Md. Reyaz Ahmad Aatish	Retd. Director WRD Bihar, Rastriya Jan Jagarn Morcha

		Bihar, A/401, Ali Enclave, Ashiana Road, ABV. College, Shastrinagar Patna
31	Shri Arun Kumar Agarwal	President, Bihar Industries Association, Patna
32	Shri Umesh Kumar Poddar	Bihar Industries Association, BIA Energy Committee Chairman, Patna
33	Shri Sanjay Kumar Bhartye	Member, Bihar Industries Association, 307, Ashiyana Tower Exhibition Road Patna
34	Shri S.K. Patwari	Vice President, Bihar Chamber of Commerce, Kreem Chand Choudary Marg Gandhi Miadan Patna
35	Shri Sanjeev Karodia	Manager Balmukund concert Ltd Lalyani Complex Patna
36	Shri Ram Nandan Prasad	Harnichak, Anishabad Beur Patna
37	Shri Sanjeev Kumar	Manager (Project Coordination) Kalyanpur Cement Ltd. Manoj Centre, GPO South Gandhi Maidan Patna
38	Shri P.K.Choudhary	President (F) & C, Secretary Kalyanpur Cement Ltd. Manoj Centre, 1 Frazer Road Patna
39	Md. Wasim Kuraysi	Consumer Gopaki Chouk, Ara, Aratawan, Bhojpur
40	Shri Ajit Prasad Mohan	Vice President, Jwan Kishan Morcha, Ara Nawada, Bhojpur
41	Shri Ram Sharn Singh	Vonvener, Navchetna Morcha, Mokame Patna
42	Shri Raj Kishor Sharma	President Sahri and Gramin Vikash Morcha, Ara Town Bhojpur
43	Shri Raj Kumar Choudhary	Consumer Nala Road Patna Kadamkuan Patna
44	Shri Upendra Kumar Sharma	Mahaghi Bijili Birodhtri Sangarsh Morcha Kakriye Kalpa Jehanabad
45	Shri Nand Kishore Singh	Convener M.B.V. Sangharsha Nala Road Bankipur Kadamkuan Patna
46	Shri B.R. Singh	Rer. Eng. Incheif Plot-177/ S.K. Nagar Patna
47	Shri Anil Kumar Srivastava	President, Bihar Electrical Equipment, Nasriganj Digha, Patna

48	Shri Rajeshwar Singh	Flat No C, Room No-35, BMP-5, Vetenary College Air Port, Patna
49	Shri Nawal Kishor Singh	Consumer, Palanga Sunitha, Parsa Bazar, Patna
50	Shri Subash Patwari	Director Patwari Steel Pvt. Ltd. Industrial Area, Fatwan, Patna