BIHAR ELECTRICITY REGULATORY COMMISSION

Case No. 48 of 2014

Tariff Order

Truing-up for FY 2013-14,

Annual Performance Review (APR) for FY 2014-15, Revised Annual Revenue Requirement (ARR) and Determination of Tariff for FY 2015-16

of

NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED

(NBPDCL)

Issued on 16th March, 2015
(With Effect from 1st April, 2015)

Contents

LIST OF TABLES

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 Kilometre
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. 48 of 2014

In the matter of:

Determination of Revised Aggregate Revenue Requirement (ARR) and Retail Tariff for sale of electricity by the North Bihar Power Distribution Co. Ltd. to the consumers for the FY 2015-16 in the State of Bihar.

And

North Bihar Power Distribution Company Ltd ---------------------------- Petitioner

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

ORDER

(Passed on 16th Day of March, 2015)

The Bihar State Electricity Board (hereinafter referred to as erstwhile BSEB) was constituted on 1st April 1958 under section 5 of the Electricity (Supply) Act, 1948. 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 Electricity Act 2003 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. Further, the Commission carried out the true up exercise of erstwhile BSEB and its successor companies for FY 2012-13 and re-determined the ARR and Tariff for FY 2014-15 for BSPGCL, BSPTCL, NBPDCL and SBPDCL in its separate Tariff Orders for each company passed on 28th February 2014.

North Bihar Power Distribution Company Limited (NBPDCL) has filed the petition for True up of ARR for FY 2013-14 on the basis of audited annual accounts of FY 2013-14, Annual Performance Review for FY 2014-15 and for re-determination of ARR and revised Tariff for FY 2015-16 on 15th November 2014.

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 Truing up of FY 2013-14, Reviewing of ARR and revenues for FY 2014-15 and approval of Revised ARR for the financial year 2015-16 and determination of the Retail Tariff for the FY 2015-16 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 to publish the ARR and tariff petition for FY 2015-16 in an abridged form as public notice in newspapers having wide circulation in the State of Bihar inviting suggestions/objections on the tariff petition. 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 up to 04.02.2015.

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 public hearing at the divisional headquarters of the State and accordingly the Commission held public hearing at Muzaffarpur on 19.12.2014, Chhapra on 12.01.2015, Darbhanga on 19.01.2015, Saharsa on 20.01.2015, Purnea on 21.01.2015 and Patna on 3.02.2015 & 4.02.2015.

The proposal of NBPDCL was also placed before the State Advisory Committee in its meeting held on 13.01.2015 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 NBPDCL for FY 2015 -16 during the meeting of the Committee.

The Commission took into consideration the facts presented by the NBPDCL 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 NBPDCL to those suggestions/objections.

The Commission, taking into consideration all the facts presented by the Petitioner, by the objectors and other stakeholders in writing or orally which came up during the public hearings and suggestions of the State Advisory Committee, has trued up the ARR for FY 2013-14, reviewed the ARR for FY 2014-15 and approved the ARR for FY 2015-16 and determined the tariff for retail sale of electricity by NBPDCL in its jurisdiction for FY 2015-16.

NBPDCL has not met the Renewable Purchase Obligation (RPO) as per BERC (Renewable Purchase Obligation, its compliance and REC framework implementation) Regulations, 2010 (hereinafter to be referred as RPO Regulations 2010) as amended from time to time. The combined short fall for solar and non-solar sources was 71.25 MU (Solar 17.72 MU and Non-solar 53.53 MU) during FY 2013-14. 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. 5.80/kWh for Solar and Rs.3.30 per kWh for non-solar as per CERC order dated 23rd August 2011, an amount of Rs. 27.94 Crore (Solar Rs.10.28 Crore and Non-solar Rs.17.66 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 NBPDCL for FY 2015-16.

In order to provide incentive for promotion of grid interactive renewable energy based power generation in the State, the Commission decides that for such projects which are not covered for reimbursement of cost of evacuation and transmission line upto point of interconnection with the grid under clause 4.2.3 of the Govt. of Bihar Policy for promotion of New and Renewable Energy Sources, 2011, the capital cost of the transmission system for evacuation of power to the nearest grid/substation shall be met from this fund created under the provisions of BERC (RPO, its compliance and REC Framework Implementation) Regulations, 2010, with approval of the Commission.

The State Government has been giving resource gap grant to erstwhile BSEB and now to DISCOMs which has been used for reducing the revenue gap of erstwhile BSEB and now of DISCOMs. The State Government in its letter dated 19th September 2011 clarified that the resource gap grant being provided shall be used first for compensating for the financial loss incurred by DISCOM 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.

NBPDCL in this Tariff Petition has proposed Distribution loss projection at 28.48% for FY 2015-16. The Commission has, however, fixed the distribution loss trajectory at 20.00% for FY 2015-16. The financial loss caused to NBPDCL due to difference between the actual T&D loss as proposed by NBPDCL and T&D loss approved by the Commission has been compensated from the resource gap grant provided by the State Government.

The DISCOMs, NBPDCL and SBPDCL, have projected resource gap grant of Rs. 4200 Crore for FY 2015-16 (Rs.2400 Crore @Rs.200 Crore per month primarily to meet disallowed power purchase cost and additional grant of Rs.1800 Crore to bridge the cumulative revenue gap of BSEB period). Out of this resource gap grant, Rs.2579.44 Crore is proposed for SBPDCL and Rs. 1620.55 Crore for NBPDCL in their petition. The share of resource gap grant of Rs.1620.55 Crore for SBPDCL for FY 2015-16 has been proposed to be first adjusted towards disallowed power purchase cost amounting to Rs.369.60 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.1250.95 Crore has been proposed to subsidize the BPL, agricultural and rural consumers.

However, the Finance Dept. Government of Bihar vide their letter No.16/Misc-74/2014 dated 16.12.2014 confirmed the amount of total resource gap grant at Rs.1762.20 Crore. Accordingly, the Commission considered Rs.1762.20 Crore as resource gap grant for FY 2015-16 for both DISCOMs, NBPDCL and SBPDCL, which has been first adjusted towards disallowed power purchase cost amounting to

Rs.1281.80 Crore for both DISCOMs (SBPDCL Rs.1065.70 Crore and NBPDCL Rs.216.10 Crore) on account of financial loss caused due to difference in the actual T&D loss and the T&D loss approved by the Commission and balance amount of Rs.480.40 Crore has been considered to subsidize the BPL, agriculture and rural consumers of NBPDCL and SBPDCL.

The Annual Revenue Requirement (ARR) approved for FY 2015-16 for the two power distribution companies together is Rs. 6957.77 Crore and the approved consolidated revenue gap with the revenue at the existing tariff is at Rs.1879.51 Crore. After adjustment of trued up surplus of FY 2013-14 with carrying cost and State Government subsidy to Kutir Jyoti, rural and agricultural consumers amounting to Rs.480.40 Crore, the net consolidated revenue gap at existing tariff is Rs.290.65 Crore for FY 2015-16.

The Commission in order to bridge the revenue gap has marginally increased the tariff by 10-15 paisa/kWh in energy charges for all the categories (except IAS-I, Public lighting (STL) and Public Water Works (PWW)), realizing additional revenue of about Rs. 113 Crore during FY 2015-16. Fixed charges are increased for unmetered category of consumers only i.e. Rs. 5/month for Kutir Jyoti (Unmetered), Rs. 10/month for DS-I (Unmetered) and Rs. 10/month for NDS-I (Unmetered). The overall increase in the existing Tariff is about 2.5%. The DISCOMs (SBPDCL and NBPDCL) should make up the balance revenue gap of about Rs.177 Crore by improving their operational performance. The Distribution companies need to improve their operational performance and reduce 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 DISCOMs 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 distribution losses to a considerable extent with the improved network.

NBPDCL has projected distribution losses at 28.48% for FY 2015-16 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 and to private agencies in some areas. Directives are given to the DISCOMs regarding this aspect which if implemented in true spirit will definitely bring down the losses. By some more efforts, NBPDCL 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 observes that major portion of Revenue Grant from State Government is being utilized to meet the additional power purchase to meet the higher T&D losses over and above the T&D losses approved by the Commission. By reducing the T&D losses, the benefit of T&D loss reduction can be passed onto the consumers. The DISCOMs shall make all efforts to reduce the T&D losses and achieve a minimum of 5% loss reduction over the previous year starting from FY 2015-16.

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 including PGCIL charges for FY 2015-16 is Rs. 4.15/kWh.
The average Cost of Supply for FY 2015-16 is Rs. 6.07/kWh.
The Average Revenue Realization with revised Tariff in FY 2015-16 is Rs. 4.32/kWh.

The Commission has made some changes in the Tariff structure and Terms and conditions of Tariff as mentioned below:

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

ii. The terms and conditions of HT Tariff, limiting the transformer capacity of HT consumers to 150% of the contract demand has been withdrawn as the HT services are provided with electronic Trivector meter which continuously records the maximum demand utilized by the consumers and the meter functioning are monitored remotely through MRIs etc.

iii. The provision of flat rate of 5% power factor surcharge for fall of power factor below ninety percent for L.T consumers has been rationalized on prorate basis like HT consumers.

iv. The domestic consumers have been exempted from levy of power factor surcharge.

v. Time of Day (ToD) tariff which was mandatory for HT consumers having contract demand of 200 kVA and above has now been made mandatory to all HT consumers.

vi. Consumers with contract demand of 50 KVA and above are also permitted to avail supply at HTS-I category (11 KV) as this will enable in reducing line losses to significant extent and to have more reliable supply.

The Commission has worked out 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 2015-16 also. SBPDCL has not conducted detailed system studies to arrive at voltage-wise technical losses as indicated in the methodology given by APTEL. NBPDCL 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. NBPDCL has proposed Cumulative Technical loss of 28.48% for FY 2015-16. 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 the transmission loss at 3.92% and distribution loss at 20.00% for FY 2015-16. The losses considered at various voltages are as detailed below:

220 KV and 132 kV - 3.92%
33 kV - 5.00%

11 kV	- 6.00%
LT	- 7.00%

This was considered as target for voltage-wise technical losses for FY 2015-16 and accordingly voltage-wise cost of supply for FY 2015-16 was computed.

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 2015-16 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 determined the wheeling charges for FY 2015-16 as given below:

1. Wheeling charges at 33 kV voltage level- 24 paisa/kWh
2. Wheeling charges at 11 kV voltage level- 28 paisa/kWh

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 dated 15.3.2013 and 28.2.2014 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 reiterated to be complied by NBPDCL.

This Order is in 13 chapters which include True up of FY 2013-14, Review for FY 2014-15 and detailed analysis of the Revised Annual Revenue Requirement (ARR) for FY 2015-16 for NBPDCL and Tariff for FY 2015-16.

The North 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 NBPDCL.

This order shall be effective from 1st April 2015 and shall remain in force till 31st March, 2016 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 BSPHCL, SBPDCL, Department of Energy, Government of Bihar, Central Electricity Regulatory Commission, Central Electricity Authority 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

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.

1.3 North Bihar Power Distribution Company Limited (NBPDCL)

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

1) Bihar State Power Holding Company Limited (BSPHCL)
2) Bihar State Power Generation Company Limited (BSPGCL)
3) Bihar State Power Transmission Company Limited (BSPTCL)
4) North Bihar Power Distribution Company Limited (NBPDCL)
5) South Bihar Power Distribution Company Limited (SBPDCL)

The Government of Bihar vide notification dated 30th October 2012, notified the provisional opening assets and liabilities of the transferee companies based on the audited account of erstwhile BSEB as on 1st April, 2011. The value of assets and liabilities stand transferred from the erstwhile Bihar State Electricity Board to the transferee companies, including the North Bihar Power 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 to NBPDCL

BSPHCL has filed the Multi Year Tariff (MYT) petition on behalf of SBPDCL & NBPDCL, BSPGCL and BSPTCL for provisional truing-up for FY 2011-12, performance review for FY 2012-13 and MYT petition for Annual Revenue Requirement (ARR) for the control period of three years of FY 2013-14 to FY 2015-16 and retail supply tariff for FY 2013-14. Subsequently, the Petitioner filed the revised true-up for FY 2011-12 along with audited accounts for FY 2011-12. The Commission issued the Tariff Order on 15th March, 2013 approving Annual Revenue Requirement for the control period FY 2013-14 to FY 2015-16 for SBPDCL and NBPDCL together and also determined retail supply tariff for FY 2013-14 effective from 1st April 2013.

NBPDCL had filed the petition for Annual Performance Review (APR) for FY 2013-14 and revised Annual Revenue Requirement for FY 2014-15 and determination of Tariff for FY 2014-15 on 15th November 2013. The Commission issued the Order on 28th February 2014 for approval of APR for FY 2013-14, determination of revised ARR for FY 2014-15 and Retail Supply Tariff for FY 2014-15.

1.5 Admission of Current Petition and Public Hearing Process

NBPDCL has filed the present petition on 15th November 2014 for Truing-up for FY 2013-14, Annual Performance Review (APR) for FY 2014-15, revised Annual Revenue Requirement (ARR) for FY 2015-16 and determination of Tariff for Retail sale of Electricity for FY 2015-16 under Section 62 of Electricity Act 2003 read with Bihar Electricity Commission (Terms and Conditions for Determination of Tariff) Regulations, 2007.

On preliminary verification of the petition, the Commission has admitted the petition Case No.48 of 2014. 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 NBPDCL 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.

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

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

Sl. No	Name of the News Paper	Language	Date of First Publication	Date of Second Publication
1	Times of India	English	06.12.2014	09.12.2014
2	Hindustan	Hindi	05.12.2014	
3	Prabhat Khabar	Hindi		09.12.2014

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

The Commission has received 29 written objections/suggestions from consumers/ consumer organizations. The Commission directed the Petitioner to submit the replies/response to the suggestions/ objections to the Commission vide Letter Nos. as mentioned below:

BERC Letter No	Date	No. of objection/ suggestion sent to NBPDCL	Date of submission of reply by NBPDCL
1207	22.12.2014	7	17.02.2015
84	14.01.2015	5	
124	24.01.2015	4	24.02.2015
151	02.02.2015	1	
171	06.02.2015	12	03.03.2015

The proposal of NBPDCL was also placed before the State Advisory Committee (SAC) in its meeting held on 13.01.2015 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 NBPDCL during the meeting of the Committee. The minutes of the meeting are given in **Annexure-I**.

The public hearings were conducted as scheduled as indicated below:

Sl. No.	Date	Place
1	19.12.2014	MUZAFFARPUR
2	12.01.2015	CHHAPRA
3	19.01.2015	DARBHANGA
4	20.01.2015	SAHARSA
5	21.01.2015	PURNEA
6	03.02.2015	PATNA
7	04.02.2015	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 NBPDCL and the Commission's views on the response, are given in Chapter-3.

1.6 Approach of this order

The BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 provides for truing up of previous year (FY 2013-14), Review of current year (FY 2014-15) and determination of ARR and tariff for retail sale of supply of electricity for ensuing year (FY 2015-16).

The NBPDCL has now approached the Commission with the present petition for Truing-up for FY 2013-14, for Performance Review for FY 2014-15, revised Annual Revenue Requirement for FY 2015-16 and determination of Tariff for Retail Sales of Electricity for FY 2015-16.

The Commission has examined the petition and observed that certain additional data/information and clarifications are required for taking up detailed analysis of the Petition. The Commission directed the petitioner to submit the additional data/ information and clarifications in the following letter No's:

1. 1118 dated 01.12.2014
2. 1123 dated 01.12.2014
3. 1213 dated 23.12.2014
4. 1241 dated 31.12.2014
5. 91 dated 15.01.2015
6. 147 dated 02.02.2015
7. 180 dated 06.02.2015

The Petitioner has submitted additional information/data/clarifications in the following Letter No's:

1. 1840 dated 29.11.2014
2. 15 dated 12.01.2015
3. 50 dated 12.01.2015
4. 49 dated 11.03.2015

The Commission has undertaken Truing-up for FY 2013-14, Annual Performance Review (APR) for FY 2014-15 and determination of Annual Revenue Requirement (ARR) and Tariff for Retail Sale of Electricity for FY 2015-16 based on the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007.

1.7 Contents of this order

The order is divided into Thirteen (13) chapters for NBPDCL as detailed below:

1. The **First Chapter** provides a background of NBPDCL, 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 NBPDCL.
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 Truing-up for FY 2013-14 filed by NBPDCL.
5. The **Fifth Chapter** deals with the "Annual Performance Review" for FY 2014-15 filed by NBPDCL.
6. The **Sixth Chapter** deals with the revised Annual Revenue Requirement for FY 2015-16.
7. The **Seventh Chapter** deals with the Government grant/subsidy for FY 2015-16.
8. The **Eighth Chapter** deals with the Voltage wise cost of supply.
9. The **Ninth Chapter** deals with the Tariff Principles, Design and Tariff Schedule for FY 2015-16.
10. The **Tenth Chapter** deals with the Fuel and Power Purchase Cost Adjustment.
11. The **Eleventh Chapter** deals with the Wheeling and Open Access Charges.
12. The **Twelfth Chapter** deals with the Compliance of Directives.
13. The **Thirteenth Chapter** deals with the Renewable Power Purchasing Obligation.

2. Summary of Petition filed by NBPDCL for Truing-up for FY 2013-14, Annual Performance Review for FY 2014-15 and Revised Annual Revenue Requirement for FY 2015-16

2.1 Summary of the petition for Aggregate Revenue Requirement (ARR) and Revenue Gap for FY 2015-16.

The summary of Aggregate Revenue Requirement (ARR) and Revenue Gap approved in MYT Order dated 15th March, 2013 and Tariff Order dated 28th February 2014 for FY 2013-14 and now claimed by NBPDCL in Truing-up for FY 2013-14, projected in Review for FY 2014-15 (RE) and revised ARR for FY 2015-16 are as given in Tables below:

Table 2.1: ARR and Revenue Gap claimed in Truing-up for FY 2013-14

(Rs. Crore)

Sl. No.	Item of Expenditure	Approved in MYT Order dated 15.03.2013*	Approved in Tariff Order Dated 28.02.2014#	Claimed in True Up for FY 2013-14
1	Power Purchase Expenses	5,806.00	1,918.83	2,017.28
2	PGCIL and Other Transmission Charges	190.00	145.15	168.86
3	BSPTCL - State Transmission Charges	213.00	78.12	85.83
4	Less: Surplus Energy sold outside the state	424.08	167.63	10.80
5	Net Power Purchase Cost	5,784.92	1,974.47	2,261.17
6	O&M Expenses	530.15	249.72	200.48
a	*Employee Expenses*	404.24	167.59	138.21
b	*Repair and Maintenance Expenses*	79.87	39.73	22.22
c	*Administrative and General Expenses*	46.04	33.94	31.58
d	*Holding Company Expenses Allocated*	-	8.46	8.46
7	Depreciation	77.60	57.32	73.12
8	Total Interest and Finance Charges	211.31	86.93	87.79
a	*Interest and Finance Charges*	211.31	86.93	48.07
b	*Other Interest and Finance Charges*	-	-	39.72
9	Interest on Working Capital	123.16	41.73	47.53
10	Interest on Security Deposit	-	-	10.49
11	Return on Equity	123.06	53.90	75.36
12	Net Prior Period Credit/(Charges)	-	-	100.45
13	Deposit for RPO Obligation	-	-	-
14	Less: Interest During Construction	-	34.18	-

Sl. No.	Item of Expenditure	Approved in MYT Order dated 15.03.2013*	Approved in Tariff Order Dated 28.02.2014#	Claimed in True Up for FY 2013-14
A	**Gross Annual Revenue Requirement**	**6,850.20**	**2,429.89**	**2,856.38**
15	Less: Non-Tariff Income	186.50	64.07	195.38
16	Less: Expenditure disallowed due to excess T&D losses	1,587.95	368.87	315.95
B	**Net Revenue Requirement**	**5,075.75**	**1,996.96**	**2,345.05**
17	Revenue at Existing Tariff	3,737.72	1,422.03	1,492.86
g	*Sale of Power*	3,482.52	1,163.40	1,121.76
h	*Revenue from sale of power to Nepal*	255.20	258.63	371.10
C	**Revenue Gap/(Surplus) at Existing Tariff**	**1,338.03**	**574.93**	**852.19**
D	**Opening FY Revenue Gap/(Surplus)**	**–170.33**	**-**	**-**
E	**(Expected) Revenue Subsidy Available to bridge Revenue Gap**	**572.05**	**547.07**	**708.70**
F	**Current FY Revenue Gap/(Surplus)**	**1,338.03**	**574.93**	**852.19**
G	**Revenue Gap/(Surplus) including past FY**	**595.65**	**27.85**	**143.49**
H	**Carrying Cost %**	**0.00%**	**0.00%**	**14.45%**
I	**Carrying Cost**	**-**	**-**	**10.37**
J	**Closing Revenue Gap/(Surplus)**	**595.65**	**27.85**	**153.85**

*** Combined for NBPDCL & SBPDCL**

 # Segregated for NBPDCL

Table 2.2: ARR and Revenue Gap projected in Review for FY 2014-15(RE)

(Rs. Crore)

Sl. No.	Item of Expenditure	Approved in MYT Order dated 15.03.2013*	Approved Tariff Order Dated 28.02.2014#	APR for FY 2014-15 (RE)
1	Power Purchase Expenses	8,719.00	3,200.87	2,654.66
2	PGCIL and Other Transmission Charges	190.00	152.41	195.51
3	BSPTCL - State Transmission Charges	262.00	94.71	113.65
4	Less: Surplus Energy sold outside the state	2,502.48	965.00	11.66
5	Net Power Purchase Cost	6,668.52	2,482.99	2,952.17
6	O&M Expenses	573.85	277.72	222.85
a	*Employee Expenses*	438.26	188.03	154.61
b	*Repair and Maintenance Expenses*	86.01	43.39	24.05
c	*Administrative and General Expenses*	49.58	37.07	34.19
d	*Holding Company Expenses Allocated*	-	9.24	10.00
7	Depreciation	163.24	101.75	88.27
8	Total Interest and Finance Charges	395.92	180.50	70.92
a	*Interest and Finance Charges*	395.92	180.50	70.92
b	*Other Interest and Finance Charges*	-	-	-
9	Interest on Working Capital	158.09	59.53	68.39
10	Interest on Security Deposit	-	-	14.57
11	Return on Equity	123.06	53.90	75.36
12	Net Prior Period Credit/(Charges)	-	-	16.39
13	Deposit for RPO Obligation	-	7.38	-
14	Less: Interest During Construction	-	69.73	3.96
A	**Gross Annual Revenue Requirement**	**8,082.68**	**3,094.04**	**3,504.96**
15	Less: Non Tariff Income	183.11	69.20	214.92
16	Less: Expenditure disallowed due to excess T&D losses	1,827.36	458.74	379.71
B	**Net Revenue Requirement**	**6,072.21**	**2,566.10**	**2,910.34**
17	Revenue at Existing Tariff	4,374.95	1,614.93	1,845.63
g	*Sale of Power*	4,119.75	1,356.30	1,424.93
h	*Revenue from sale of power to Nepal*	255.20	258.63	420.69
C	**Revenue Gap/(Surplus) at Existing Tariff**	**1,697.26**	**951.17**	**1,064.71**
D	**Opening FY Revenue Gap/(Surplus)**	**-**	**-**	**153.85**
E	**(Expected) Revenue Subsidy Available to bridge Revenue Gap**	**332.64**	**489.26**	**524.94**
F	**Current FY Revenue Gap/(Surplus)**	**1,697.26**	**951.17**	**1,064.71**
G	**Revenue Gap/(Surplus) including past FY**	**1,364.62**	**461.91**	**693.63**
H	**Carrying Cost %**	**-**	**-**	**0.15**
I	**Carrying Cost**	**-**	**-**	**62.50**
J	**Closing Revenue Gap/(Surplus)**	**1,364.62**	**461.91**	**756.13**

*** Combined for NBPDCL & SBPDCL**

 # Segregated for NBPDCL

Table 2.3: Revised ARR and Revenue Gap projected for FY 2015-16

(Rs. Crore)

Sl. No.	Item of Expenditure	Approved in MYT Order dated 15.03.2013*	Revised ARR for FY 2015-16
1	Power Purchase Expenses	11,085.00	3,111.22
2	PGCIL and Other Transmission Charges	190.00	249.75
3	BSPTCL - State Transmission Charges	304.00	125.02
4	Less: Surplus Energy sold outside the state	3,846.04	-
5	Net Power Purchase Cost	7,732.96	3,485.99
6	O&M Expenses	621.24	246.21
a	*Employee Expenses*	475.22	172.35
b	*Repair and Maintenance Expenses*	92.63	26.03
c	*Administrative and General Expenses*	53.39	37.01
d	*Holding Company Expenses Allocated*	-	10.83
7	Depreciation	282.60	118.07
8	Total Interest and Finance Charges	646.05	69.35
a	*Interest and Finance Charges*	646.05	69.35
b	*Other Interest and Finance Charges*	-	-
9	Interest on Working Capital	204.37	66.85
10	Interest on Security Deposit	-	19.08
11	Return on Equity	123.06	75.36
12	Net Prior Period Credit/(Charges)	-	-
13	Deposit for RPO Obligation	-	-
14	Less: Interest During Construction	-	7.88
A	**Gross Annual Revenue Requirement**	**9,610.27**	**4,073.04**
15	Less: Non Tariff Income	179.27	236.41
16	Less: Expenditure disallowed due to excess T&D losses	2,038.72	369.60
B	**Net Revenue Requirement**	**7,392.28**	**3,467.02**
17	Revenue at Existing Tariff	5,134.35	2,160.89
g	*Sale of Power*	4,879.15	1,706.69
h	*Revenue from sale of power to Nepal*	255.20	454.20
C	**Revenue Gap/(Surplus) at Existing Tariff**	**2,257.93**	**1,306.14**
18	Revenue at Existing Tariff	5,134.35	2,160.89
I	*Sale of Power*	4,879.15	1,706.69
J	*Revenue from sale of power to Nepal*	255.20	454.20
D	**Revenue Gap/(Surplus) at Existing Tariff**	**2,257.93**	**1,306.14**
E	**Opening FY Revenue Gap/(Surplus)**	**-**	**756.13**
F	**(Expected) Revenue Subsidy Available to bridge Revenue Gap**	**121.28**	**1,250.95**
G	**Current FY Revenue Gap/(Surplus)**	**2,257.93**	**1,306.14**
H	**Revenue Gap/(Surplus) including past FY**	**2,136.65**	**811.31**
I	**Carrying Cost %**	**-**	**-**
J	**Carrying Cost**	**Not applicable**	
K	**Closing Revenue Gap/(Surplus)**	**2,136.65**	**811.31**

*** Combined for NBPDCL & SBPDCL**

Table 2.4: Additional Revenue from Proposed Tariff

(Rs. Crore)

Sl. No.	Particulars	FY 2015-16
1	Revenue from Projected Tariff	2,538.08
2	Revenue from Existing Tariff	2,160.89
3	Additional Revenue from Projected Tariff	377.19

Table 2.5: Combined Revenue Gap of DISCOMs Carried forward

(Rs. Crore)

Sl. No.	Particulars	NBPDCL	SBPDCL	Total
1	Net Revenue Gap till FY 2015-16	811.31	1729.26	2540.57
2	Gap Proposed to be Amortized	509.85	1230.15	1740.00
3	Carrying Cost of the Amortized Gap	75.20	181.45	256.65
4	**Total Gap to be bridged from Tariff hike**	**376.66**	**680.56**	**1057.22**
5	Additional Revenue from Projected Tariff	377.19	681.83	1059.02
6	Revenue Gap to be forwarded	(0.53)	(1.27)	(1.80)

2.2 Request to the Commission

NBPDCL has requested the Commission to:

a) Admit the Petition;

b) Examine the proposal submitted by the Petitioner in the petition for a favourable dispensation;

c) Approve the Segregation of ARR/MYT methodology for approved values for FY 2013-14, FY 2014-15 and FY 2015-16 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.

d) Pass suitable orders with respect to the True-up for FY 2013-14 amounting Rs. 2,345.05 Crore, ARR for FY 2014-15 amounting Rs. 2,910.34 Crore and Revised ARR for FY 2015-16 amounting Rs. 3,467.02 Crore;

e) 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 2015.

f) Allow relaxation in MYT norms wherever sought for considering second year of independent operation.

g) Pass separate order for the petitioner against the present petition.

h) Permit to propose suitable changes to the respective ARRs, prior to the final approval by the Commission NBPDCL believes that such an approach would go a long way towards providing a fair treatment tot all the stakeholders and may eliminate the need for a review or clarification.

i) Condone any inadvertent omissions/errors/shortcomings and permit NBPDCL to add/change/modify/alter this filing and make further submissions as may be required at a future date.

j) Pass such Order, as the Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

3. Stakeholders' 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 in all the divisional headquarters and in Patna on 19th December, 2014 and 12th, 19th, 20th, 21st of January 2015 and 3rd & 4th of February 2015. 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 2015-16.

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 summarized briefly under various sub-heads as below:

3.2 Stakeholder’s Objections/ Suggestions, NBPDCL’s Response and Commission’s Observations

3.2.1 Issue 1: Increase of Tariff Rates

M/s. Natraj Engineers Pvt. Ltd, Patna, Bihar Industries Association, Patna, Shri Doman Singh, Patna and Prof. Pramod Kumar Sharma submitted that the prices of crude oil, coal and other fuel inputs have come down substantially in international market which should result in reduction of power purchase cost. Prices of manufactured goods have also come down and Industry has to compete against reduced prices of manufactured goods, hence, the tariff should not be increased.

Central Bihar Chamber of Commerce, South Bihar Industries Association and Eastern Bihar Industries Association have requested the Commission to examine the need for revising tariff within a period of eight months before allowing the further tariff fixation.

North Bihar Chamber of Commerce and Industries have objected the proposed tariff increase by the petitioner instead of improving performance.

Central Bihar Chamber of Commerce, South Bihar Industries Association and Eastern Bihar Industries Association have stated that the DISCOMs have proposed sharp increase in KVA charges and in some categories, like HT consumers, the increase is as high as 35%. Since the DISCOMs are mere power traders and purchase power which they can sell, there is no rationale for any KVA charges. Therefore, KVA charges for HT consumers shall be abolished and consider to reduce them sharply for LT consumers.

Shri Shailendra Kumar Sarat, Eastern Bihar Chamber of Commerce has stated that increase in Tariff will hamper growth of industries and the motive of Government in giving subsidy is to reduce the rate of electricity so as to improve growth of industries in the state and to facilitate general consumers.

Shri Gautam Suman, Ang Uthanandolan Samiti, Bihar, has stated that if the distribution losses are controlled there will be no need to increase tariff and if tariff is hiked, theft of electricity will take place. In Kerala, Punjab and Tamil Nadu the farmers get free electricity and the same status be given to the farmers in Bihar. Upto 3 HP electricity is free in states like Madhya Pradesh, Chhattisgarh and Gujarat. In Gujarat upto 5 HP bills are distributed at Rs. 1 per unit and the same should be followed in Bihar as well.

Shri Prabhat Kumar, Gandhi Peace Foundation, Muzaffarpur Socialist Unity Centre of India (SUCI) and Shri Anil Kumar Singh, District Congress Committee have stated that the proposed high increase in tariff is not appropriate and instead of increasing the tariffs, the petitioner should encourage the domestic and non domestic consumers to consume less energy. The objector has suggested that there should be (a) no increase in tariff upto 300 units for domestic and non-domestic consumers (b) No increase for IAS consumers as it will hamper growth in agriculture, being main occupation for people in Bihar (c) increase 25% to 30% in tariff for industrial consumers will affect the growth of industries in Bihar.

Shri Anil Kumar Singh, District Congress Committee, has stated in the proposed increase of 15% in IAS category and the concept of higher rate for farmers using urban feeders than rural feeders is totally wrong and suggested that just like other states where farmers get free electricity, Bihar also should follow the same.

Shri Acharya C.P Parashar, Vice President Bharatiya Janata Party Kala Samithi has suggested that tariff rates should be kept as it is.

Shri. Rajesh Kumar "Pintu", Muzaffarpur Zilla Commercial Manch has suggested that the electricity rates should be reduced by 25% to 35% in public interest in view of;

i. The prices of commodities have almost reached the lowest level;
ii. The prices of petroleum products, which is one of the important commodity in production of electricity, have not been increased in the last 6 months.

Sri. Sanjay Keshri, Janadhikar Morch, Munger has stated that any increase in rates will result in unbearable burden on consumers and the loss can be reduced by replacing old wires, damaged transformers, which are main reason for loss in transmission.

Eastern Bihar Industrial Association and North Western Bihar Chamber of Commerce and Industries have stated that tariff hike was from 01-04-2014 and increase in tariff within short duration (8 months) will cause hardship to industrial consumers as well as general consumers. It is requested to get the accounts audited by CAG and after getting report of CAG the proposal should be considered.

North Western Bihar Chamber of Commerce and Industries has stated that as per audit report, the revenue from all sources for FY 2013-14 is Rs. 3743.63 Crore i.e. Rs. 312 Crore per month. By reducing subsidy of Rs. 350 Crore from the requirement for Rs. 580 Crore only Rs. 230 Cr will be left. Hence it can be seen that 25% tariff can be reduced; [(312-230=72); (72/312 *100 = 25%)]. BERC should thoroughly examine the tariff proposal before allowing increase in tariff.

Purnea Chamber of Commerce, Purnea submitted that proposed tariff increase is opposed by business segment, Commission, farmer, labour etc and before increasing tariff the Commission should focus on cost effectiveness.

Mr. Madhavendra Tiwari, Chhapra suggested that electricity tariff should be determined in a manner so that utilities after expenses should incur profit and to achieve the system of providing electricity on cheaper tariff should be stopped.

Bharatiya Janata Party objected for increase in tariff when inflation rate is decreasing and price of petroleum products and freight etc are reducing.

Petitioner's response:

The Petitioner would like to submit that Power purchase cost is the major constituent of ARR, contributing around 80%-85% of total cost and Bihar is not different.

Presently, Bihar as a state doesn't have its own generation except for the 220 MW Kanti Bijlee Utpadan Nigam Ltd (jointly owned by NTPC and Bihar Govt. and small RE generation from small hydro station and sugar mills. Infact, it totally depends on NTPC, NHPC, Open Market and Others to make the power available for its consumers. It is worth mentioning that the tariff of these sources is either determined by CERC (for NTPC/NHPC Stations) or competitive bidding (Case 1/Case-2) or is market determined (from IEX/PXIL).

It is worth mentioning that the primary fuel for thermal power stations is Coal and not oil. Thus even substantial variations in oil prices not necessarily impact the overall generation tariff in same way. As a matter of fact, apart from bills of current generation at prevailing tariffs, there is a considerable share of arrears also which arise on account of supplementary orders of CERC/APTEL which are to be paid to the generators and thus increase the overall purchase cost of power even when there is no hike in per unit tariff of current generation.

A review of trend of power purchase cost reveals that the last 5 FYs tariff has shown a considerable increase due to variation in coal price increase along with other inflationary costs. The average power purchase cost has increased to Rs 4.08/kWh in FY 2014-15 from Rs 3.62/kWh in FY 2011-12 i.e. 13% increase has been on account of power purchase cost only. Historically, the tariff for the CGS – NTPC/NHPC/NPCIL and others hasn't come down in the last five years.

However, keeping in view of the concerns of consumers and recent downward trend of fuel prices, the Petitioner has not projected any hike whatsoever in the variable charges of power purchase from various stations. In fact, the latest billed per unit charges have been retained and considered for projections as in these charges, the recent downward variation in fuel costs have already been incorporated. However, there is consideration of nominal escalation of 5% in fixed costs, which is in line with CERC regulations which also have similar provisions of escalations in O&M Charges and capital related costs.

It is further submitted that any further reduction in variable charges due to variations in fuel prices will be passed on to the consumers by the FPPCA (Fuel and Power Purchase Cost Adjustment) mechanism already approved and notified by the Commission.

Apart from the power purchase costs, there are fixed costs also for the Petitioner, such as O&M Expenses, Depreciation, Interest and Finance Charges, Interest on Working Capital, which are based on actual audited accounts duly certified by CAG and on norms specified in Tariff Regulations, 2007 and amendments issued by BERC from time to time. These cost are also increasing owing to increase in network, increase in employee costs, inflation in material costs over the years which too have to be passed on and recovered from consumers.

Finally, there are prior period revenue gaps also which have to be recovered from the ensuing year's tariff. Infact, even after above mentioned considerations, while a cumulative revenue gap of Rs 2,540.28 Crore was to be recovered through tariff (an anticipated hike of approx. 50%), the Petitioner has proposed to amortize the revenue gap of Rs 1740 Crore to be recovered in next 3 years so as to restrict the tariff proposal to 20.66% approx.

While preparing the tariff proposal, the Petitioner has tried to maintain the average tariff in ±20% of average cost of supply. It has proposed increase in tariff in all category consumers to mitigate revenue gap as proposed. Also National Tariff Policy states that ABR should be ±20% of average cost of supply. The Petitioner has proposed the tariff hike keeping in mind the provisions of the EA, 2003 and BERC Regulations as amended from time to time.

Commission's observations:

The Commission has noted the objections/suggestions and the reply of the Petitioner. The Commission based on the Tariff petition filed by the Petitioner and on detailed analysis of the cost components of ARR as discussed in the relevant paragraphs and after prudence check has determined the Annual revenue

Requirement for FY 2013-14 and FY 2015-16 and accordingly arrived at the revenue gap for FY 2015-16 and Tariffs for retails sale has been determined to bridge the revenue gap so determined.

3.2.2 Issue 2: Transmission & Distribution Losses

M/s. Natraj Engineers Pvt. Ltd, Patna, Bihar Industries Association, Patna, Bihar Rajya Kisan Sabha, Patna, North Western Bihar Chamber of Commerce & Industries, Shri Doman Singh, Patna, submitted that the T&D losses are at 46% to 48% and half of the electricity purchased by DISCOMs are being given away for free in spite of T&D targets set by BERC. The targets for transmission and distribution losses have been fixed at 21.40% for 2014-15 and 20% for FY 2015-16 and as against this the distribution companies have shown actual losses as 44.65% for FY 2014-15 and 41.65% for FY 2015-16 (excluding 4% State Transmission Loss). This data is not authentic as 100% metering and energy audit is nowhere near completion. Instead of decreasing T&D losses the Companies are increasing them making the whole process of tariff fixation a futile exercise. It seems this has happened because BERC allowed higher T&D losses to set off against the Government Grant. Rewarding the licensees for their inefficiency instead of penalizing them would defeat the whole purpose of tariff fixation. The issue needs serious rethinking so that public and consumer interest is protected.

Prof. Pramod Kumar Sharma, Vaishali, expressed that the transmission and distribution losses have been shown on higher side to utilize the subsidy to adjust T&D losses and requested to examine the claims and restrict T&D losses level so that consumers should get benefit of subsidy.

Public Rights Front, Bihar suggested to repair electricity works and transformers which will help in reducing wastage of electricity and increase in tariff will not be required.

Petitioner's response

The Petitioner would like to submit that it also appropriate that offset of power purchase cost for T&D losses more than BERC approved losses with Government grant is not a sustainable proposition in the long run and thus they are already working on the ways of reduction of T&D and AT&C losses which is evident from the fact that the AT&C losses have decreased by over 1% in FY 2013-14 as compared to FY 2012-13. The Petitioner would also like to submit that it is working towards improving operations and maintenance system and simultaneously also working to reduce its losses. However, the higher T&D losses for is on account of large network addition in course of rural electrification under RGGVY, BRGF and R-APDRP in urban areas. Further, these losses are on decreasing trend on actual basis. The Petitioner has taken following initiatives for decreasing T&D Losses:

A circle wise loss reduction program is under preparation and will be implemented shortly. It 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 urban distribution franchisee and rural franchisee scheme for reduction in AT & C losses in town and rural areas.
- ✓ 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.

The Petitioner would also like to clarify that the additional power purchase owing to the difference in T&D losses approved by the Commission and actually incurred by the DISCOMs is in fact disallowed by the Commission and is not considered for the purpose of tariff determination. This disallowed power purchase is being funded through State Government grant.

Commission’s observations

The concerns of the objectors and response of the petitioners are noted by the Commission. Several directives are issued to erstwhile BSEB and now the DISCOMs regarding reducing T&D losses which if implemented in true spirit will definitely reduce the T&D losses.

Substantial amounts are being invested to improve and strengthen the Transmission and distribution network in the state with the plan assistance from Central and State Governments under BRGF, R-APDRP, RGGVY and plan schemes of the State Government for replacement of aged conductors. These steps should help the distribution licensee to reduce its technical loss.

The action taken by the distribution licensee to improve meter reading, billing actual consumption etc should also help the distribution licensee to reduce its commercial loss. But the Commission noted that the distribution loss reduction target set by the Commission is not met during FY 2013-14 in truing up. The distribution licensee shall intensify its efforts for 100% metering and billing apart from curbing theft/pilferage of energy by intensive checks to reduce commercial losses. In view of this the Commission considers that the distribution loss approved by the Commission in earlier tariff orders will only be allowed to the Petitioner and burden of higher distribution loss will not be passed on to the consumers.

3.2.3 Issue 3: Audited Accounts for FY 2013-14

Bihar Industries Association, Patna, submitted that the Audited Annual Accounts for the DISCOMs for FY 2013-14 were not made available along with the true up petitions.

Petitioner's submission:

The Petitioner would like to submit that it has duly submitted the balance sheet to the Commission vide letter no. SBC/222/2014-42 dated 13th January, 2015. The copy of this balance sheet is also available on the company's website.

Commission's Observation:

The Commission has noted the objection and response of the Petitioner and directs the Petitioner to make available the audited annual accounts on its website.

3.2.4 Issue 4: Trued up surplus of Rs.1273.24 Crore up to FY 2012-13

Bihar Industries Association, Patna, submitted that the Trued up surplus of Rs.1273.24 Crore passed in the Order dated 28.02.2014 should have been carried forward which has not been done by the Petitioner.

Petitioner's response:

It is submitted that as per the notified transfer scheme no surplus was transferred to the DISCOMs and accordingly, not considered. However, the projected Government subsidy of Rs.4200 Crore includes Rs.1273.24 Crore of past surplus also.

Commission's observation:

The objection and response of the petitioner are noted. The Commission has aptly addressed the issue in the true up for FY 2013-14 of the Petitioner. The trued-up surplus upto FY 2012-13 has been considered in the truing-up of ARR for FY 2013-14 and in the computation of net gap/surplus for FY 2015-16. If the Petitioner has not been transferred the surplus of FY 2012-13 by the State Government, then they may seek this amount from the Government.

3.2.5 Issue 5: Cross Subsidy

M/s. Natraj Engineers Pvt. Ltd, Patna submitted that Industrial units, small and large shall not be asked to cross subsidize other sectors like Domestic, Kutir Jyoti or failure of DISCOMs. In fact, where line losses are less like for HT consumers, tariff should be reduced. Tariff of commercial and LTIS should be normal tariff and should not be made to subsidize other consumers.

Petitioner's submission:

It is the prerogative of the Commission to determine tariffs of various categories of consumers. Section 62 (3) of the Electricity Act, 2003 specify "*the appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differential according to the consumers load factor, power factor voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required*". Further the provisions of the National Tariff Policy also mention the targeted range of cross subsidy as ±20% of average cost of supply.

The Petitioner has submitted the current tariff proposal to mitigate revenue gap as arrived in FY 2013-14, FY 2014-15 and FY 2015-16 in terms of Tariff Regulations, 2007, various provisions of Electricity Act, 2003 and National Tariff Policy.

Commission's observations:

The Commission has noted the objections/suggestions and the reply of the Petitioner. Further, the Commission considers to allow reasonable tariff to meet the ARR of the petitioner. Cross subsidy is allowed in determination of tariff for different categories of consumers of the licensee, keeping in view the paying capacity of the consumers allowing lower tariff to low income consumers. Gradual reduction of cross subsidy has also been considered to the extent feasible. KJY, DS-I, NDS-I and IAS-I are subsidized by the state government.

3.2.6 Issue 6: Demand Charges & MMC Charges

M/s. Natraj Engineers Pvt. Ltd, Patna submitted that the industries and service units are set up in rural areas due to high land cost in urban areas and power supply is given from rural feeders where power supply is only for 8 to 9 hours/day. Due to demand charges, cost per unit is going up to Rs.15/kWh and many units have to pay MMC also. It is suggested that demand charges and MMC charges should be abolished and same should be added to energy charges. Otherwise the DISCOMs should be asked to supply electricity 24 hours a day and seven days a week without interruption.

Petitioner's submission:

The process of replacement of defective meters/electrical meters and installation of meters in un-metered connections in all categories are still under progress. As a result actual consumed units cannot be billed and accounted. Hence, MMC in various categories should not be abolished till such meters are replaced/installed. The Fixed charges per KVA/HP/KW are as per BERC's prevailing Tariff Order only. The petitioner is not mere trader of power but have to operate and maintain (O&M) vast distribution network. The O&M expenses are fixed expenses and have to be borne by the petitioner irrespective of power handled by it. The petitioner has to pay the fixed charges (capacity charges) as approved by SERC/CERC to the generators with whom it has long term PPA irrespective of generation by the generators.

The fixed/KVA charges are considered by the Commission so as to ensure certain amount of continuous recovery of fixed cost incurred by the petitioner. This set up of two part tariff (fixed cost + energy charges) has been progressively adopted by most of the State utilities.

The petitioner has requested the Commission to retain the fixed charges for the applicable categories.

Commission's observations:

The Commission has noted the objections/suggestions and the reply of the Petitioner. Monthly minimum charges, fixed charges and Demand charges are collected to recover the fixed costs (investments) of the petitioner and capacity charges embedded in generation tariff. However, the Commission considers it desirable to encourage billing on the basis of actual consumption and to gradually do away with MMC in a phased manner from rest of the categories.

3.2.7 Issue 7: Resource gap grant

Bihar Industries Association, Patna, submitted that even though the resource gap grant has increased by Rs.1800 Crore (from Rs.2400 Crore in FY 2013-14) to Rs.4200 Crore in FY 2015-16, still a deficit of Rs.2540.57 Crore is projected in the Petition.

The gap between ARR and revenues of DISCOMs has been a matter of concern. The primary reason for this is abnormally high AT&C loss. The Commission may tentatively determine the amount of grant required by the licensee to be paid by the State Government, so that reasonable increase in tariff rates could be passed on to the consumers.

Petitioner's submission:

It is submitted that the total projected revenue gap for both the DISCOMs is Rs.2540.28 Crore (NBPDCL Rs.811.31 Crore and SBPDCL Rs.1729.26 Crore) for FY 2015-16 after adjusting resource gap grant of Rs.4200 Crore from GoB. To bridge the gap, the DISCOMs have proposed to create a regulatory asset of Rs.1740 Crore to be amortized in three years starting from FY 2016-17 and balance gap of Rs. 800.57 Crore (Rs.2540.57 Crore – Rs.1740 Crore) along with carrying cost of Rs.256.65 Crore is proposed to be recovered through the tariff hike of 20.66%.

Commissions' observation:

The Commission has noted the objections/suggestions and the reply of the Petitioner. The Commission based on detailed analysis of ARR & Tariff Petition filed by the petitioner has arrived at a revenue gap for FY 2015-16 which has been aptly discussed in the relevant chapter of ARR for FY 2015-16.

3.2.8 Issue 8: Terms and conditions of tariff schedule

Bihar Industries Association, Patna, submitted that the DISCOMs have proposed to continue with the existing terms and conditions of existing Tariff schedule, except some amendments proposed by way of additional submissions. It is more prudent to put such submissions in the public domain and such changes shall be provided in the Bihar Electricity Supply Code to maintain uniformity and prevent confusion. No terms and conditions should be specified in the Tariff Order and all the terms and conditions should be as per the Bihar Electricity Supply Code.

Petitioner's submission:

It is submitted that the proposed amendments in tariff schedule are available in public domain along with the tariff petitions which were presented and discussed during the public hearings.

The terms and conditions have to be mentioned in the Tariff Order also which is in line with the provision 2.2 of Bihar Electricity Supply Code. 2007. The provision 2.2. specifies that "*in case of any inconsistency between the Code and Tariff Order in force, the provisions and meanings contained in Tariff Order in force at that time shall prevail*".

Commissions' observation:

The Commission has noted the objections/suggestions and the reply of the Petitioner. Wherever necessary, the Terms and Conditions of LT and HT tariff are suitably revised.

3.2.9 Issue 9: Ferro Alloy and Re-rolling Mills

Bihar Industries Association, Patna, submitted that the Ferro alloy and re-rolling mills are presently allowed to be included in HTSS tariff applicable primarily to induction furnaces and this clause should be amended to "including all loads in the same premises". This will lead to lot of rationalization and prevent unnecessary confusion and litigations.

Petitioner's submission:

It is submitted that Ferro Alloy units and re-rolling mills are co-related as the output of the Ferro alloy units is the input of the re-rolling mills but industries other than re-rolling mill is not related to Ferro alloy units. The present petition is filed in line with the provisions of prevailing tariff order.

Commissions' observation:

The Commission has examined the objections/suggestions and the reply of the Petitioner. The HTSS category comes under high tension specified services meant for induction furnaces and have special tariff. Hence, the Commission has decided not to consider proposed amendment.

3.2.10 Issue 10: Transformer Capacity

Bihar Industries Association, Patna, submitted that the transformer capacity is restricted to 150% of contract demand for all HT consumers. Now with introduction of high tech and remote reading meters, this clause has become entirely redundant. It is requested to delete this clause and allow HT consumers to keep transformers without any limit.

North Bihar Chamber of Commerce and Industries stated permission should be granted for up to 10 kW load to single phase consumers.

Petitioner's submission:

This is the prerogative of the Commission. Further any new provision shall be effective from a prospective date.

Commissions' observation:

The Commission has examined the objection and observed that high tech electronic meter and remote metering has now been provided in almost all HT consumers which enables to record the maximum demand correctly and also the most of the states do not have any restriction on the transformer capacity limited to contract demand, therefore, the Commission decided to remove this clause in Terms and conditions of HT supply.

3.2.11 Issue 11: Power Factor

Bihar Industries Association submitted that the minimum power factor shall be reduced to 0.85 instead of 0.90.

Petitioner's submission:

It is submitted that higher the power factor the better will be the utilisation of network. If the power factor ceiling is lowered the cost of the network will be increased to cater the same amount of power resulting into increase in tariff. Hence, the ceiling of power factor is kept such that the consumers will attempt to keep continuous efforts for maintaining better power factor, thus ensuring network stability.

Commissions' observation:

The Commission has noted the objections/suggestions and Petitioner's reply. Maintaining power factor near unity by installing adequate and appropriate capacitors (one time) is advantageous for the consumer and also for stability of the grid. All industrial consumers particularly HT consumers should ensure to maintain power factor between 0.95 to 1.00 for their benefit.

3.2.12 Issue 12: Load factor rebate

Bihar Industries Association, Patna, submitted that the Load factor rebate shall be reintroduced to promote high voltage consumers.

Petitioner's submission:

It is submitted that the prevailing two part tariff has in built load factor rebate as the average per unit rate of the consumer decrease with increase in his load factor and hence no further load factor rebate is required.

Commissions' observation:

The Commission has noted the objections/suggestions and Petitioner's reply and agrees with the Petitioner's response.

3.2.13 Issue 13: Time of Day (ToD) Tariff

Bihar Industries Association submitted that under ToD, 120% of unit charges are levied in peak hours and only 15% rebate is given in off-peak hours. The same may be amended.

Petitioner's submission:

It is submitted that charges during peak and off peak have been kept keeping in view the consumption pattern and variations in cost of available power purchase during peak and off peak hours, thus these charges do not require any modification at present.

Commissions' observation:

The Commission has noted the objection and Petitioner's reply. To meet the demand during peak hours, the Petitioner has to purchase power from other sources on short term basis, which may be more expensive. Therefore, the existing provision of ToD tariff is considered appropriate.

3.2.14 Issue 14: Single category of HT

Bihar Industries Association, Patna submitted that all categories in HT may be merged and a voltage rebate may be introduced.

Petitioner's submission:

It is submitted that the voltage wise tariff structure requires accurate level of voltage wise O&M cost, capital cost of assets, T&D losses, etc. The DISCOMs are still in the reforming process and various reforming projects are continuing, hence, voltage wise tariff may not be possible.

Commissions' observation:

The three categories of HT consumers are served at different voltages – HT-I at 11/6.6 KV, HT-II at 33 KV and HT-III at 132 KV.

Normally the tariff for consumers availing supply at higher voltage shall be marginally lower. The Tariff for HT-I, HT-II and HT-III are structured accordingly.

3.2.15 Issue 15: Distribution Franchisee

Bihar Rajya Kisan Sabha submitted that the petitioner has provided power to distribution franchisee on 40% lesser than actual cost and apart from that authorization has been provided at no extra charges for using existing infrastructure which is causing financial loss to the petitioner. Rural feeders are franchised on 50% lesser than actual cost.

Petitioner's submission:

It is submitted that pursuant to Section 14 of the Electricity Act, 2003, the Distribution Franchisees were selected on competitive bidding, on input based model for distribution of electricity, to improve operational efficiencies and quality of services provided to its consumers in the area of operation. The Distribution Franchisees have been entrusted with the following responsibilities:-

- Undertake & discharge the responsibilities on behalf of BSEB in the franchisee area.
- Honor & undertake any activity as notified by BERC to BSEB in the Franchisee area
- Upgrade, renovate & maintain existing distribution network/assets
- Undertake distribution of power to existing & new consumers, installation/ calibration of meters, reading of meters, generation and distribution of bills and collection from consumers in franchisee area
- Establish consumers service centre
- Redressal of commercial and billing complaints

The agreements have been done strictly as per the provisions of the Electricity Act, 2003 and have been approved by the Hon'ble Commission also.

The Rural feeders are franchised to improve operational efficiencies and quality of services of the rural consumers accordingly to the provisions laid down in the Electricity Act, 2003.

Commissions' observation:

The Commission has noted the objection and Petitioner's reply. The Commission has not approved any input based tariff separately to the Distribution Franchisee nor has consented to the agreement between the distribution licensee and franchisee.

The Commission observes that the distribution licensee may appoint distribution franchisee on such terms and conditions as it deems fit and the Commission does not approve or disapprove either the process of selection or the franchisee selected by the distribution licensee. Though the distribution franchisee is not directly regulated by the Commission, it is accountable to the distribution licensee and the regulatory mechanism is enforced through the licensee. Thus the distribution franchisee is bound to operate and perform in consonance with various regulations, orders, directives and performance standards approved by the Commission. The arrangement between the distribution licensee and the distribution franchise does not absolve the licensee of its obligation to the consumers under the provisions of the act, various regulations notified by the Commission, conditions of the license and directives issued to the distribution licensee from time to time in the franchisee area.

3.2.16 Issue 16: Tariff should not be increased to IAS - I, Kutir Jyoti and DS-I

Bihar Rajya Kisan Sabha and Prof. Pramod Kumar Sharma submitted that the tariff should not be increased to IAS category, Kutir Jyoti (Metered and Un-metered) and DS-I (Rural and Urban) category consumers.

Petitioner's submission:

It is submitted that while preparing the tariff proposal, the petitioner has tried to maintain the average tariff in ±20% of average cost of supply in line with Tariff Policy.

It has proposed increase in tariff in all category consumers to mitigate revenue gap as proposed.

Commissions' observation:

The Commission endeavors to allow reasonable tariff to meet the ARR of the Company keeping in view the paying capacity of the consumers of different categories allowing lower tariff to low income consumers. The Commission has decided not to increase the Tariff of private agricultural consumers (IAS-I).

3.2.17 Issue 17: Shunt Capacitor Surcharge for Domestic Service – II

Shri Doman Singh, Patna submitted that Shunt Capacitor Surcharge shall be abolished. The provision of 5% surcharge for drop from 0.90 power factor is atrocious and there is no such flat component for HT consumers. The Commission in case no. MISC-6/2014 has ruled the matter to be heard with regular tariff petition for FY 2015-16.

Petitioner's submission:

It is submitted that as mentioned in the terms and conditions of tariff for LT;

(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 that 90%.

(c) The capacitor shall be of standard manufacture and meet the BIS specification.

(d) Consumers not complying to above shall be liable to pay a surcharge of 5% 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% 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 installation 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.

It is clear from the above provisions that installation of shunt capacitors is compulsory for only those consumers who have inductive load of 3 HP and above or have welding transformers so that power factor is maintained at 90% which is in line with the provisions of the Supply Code.

Commissions’ observation:

The Commission has noted the objections/suggestions and the reply of the Petitioner. The Commission has suitably amended this condition in the Terms and Conditions of LT supply in this order.

Domestic category consumers are exempted from levy of power factor surcharge. The flat rate of 5% power factor surcharge to LT consumers has been rationalized and it shall be chargeable on pro-rata basis like HT consumers.

3.2.18 Issue 18: Interest on Security Deposit

North Western Bihar Chamber of Commerce and Industries stated interest on security deposit should be allowed as per Rules.

Petitioner’s submission:

It is submitted that collection of SD and payment of interest on SD has been provided in the 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 has not considered the Interest on SD in the tariff order. The Commission has aptly discussed the issue in the relevant para.

3.2.19 Issue 19: Electricity Bill on Units consumed/MMC should be abolished.

Shri. Doman Singh submitted that the fixed charges, energy charge, minimum charge should be abolished and only single account of charging on units consumed shall be introduced.

Bihar Industries Association, Natraj Engineer Pvt. Ltd submitted that MMC charges enable the DISCOMs to realize revenue without supply of any power. The DISCOMs have proposed to sharply increase the KVA charges. As the DISCOMs are now power traders and they buy only energy which they can sell, there is no rational for any KVA charges and they requested to abolish MMC as well as KVA charges for all metered consumers.

Central Bihar Chamber of Commerce, South Bihar Industries Association and Shri Pawan Kumar Agarwal G.S / NEEBCC have stated that the BERC has abolished MMC for HT and domestic consumers as MMC charges enable the DISCOM to realize the revenue without supplying power, the Commission should abolish MMC for all consumers in the present tariff order.

North Western Bihar Chamber of Commerce and Industries have stated to abolish MMC for all category of consumers.

Shri. Mukutdhari Agarwal, Eastern Bihar Industrial Association has stated that the hours of supply at present are about 14-16 hours or less and hence MMC collected from the consumers holds no meaning. The MMC may therefore be abolished from all categories of consumers.

Shri. Durga Prasad Chowdhary, Kranti Consumer Welfare Society suggested that the fixed charges and monthly minimum charges shall be abolished.

Petitioner’s submission

Justification of retaining of Monthly Minimum Charges

The petitioner would like to submit that the process of replacement of significant nos. of defective meters/electrical meters and installation of meters in unmetered connections in all categories are still under progress. As a result actual consumed units cannot be accounted and billed accordingly for substantial no. of connections. Thus, it is prayed that the MMC in various categories as applicable should not be abolished till such meters are replaced/installed. It is also worth mentioning that without considering the aforesaid fact, removal of MMC will create additional burden on tariff of metered consumers.

Justification of retaining of Fixed Charges

The petitioner would like to submit that the fixed charges per KVA/HP/KW is as per BERC's prevailing tariff order only. The proposed increase in tariff is based on revenue gap as arrived in FY 2013-14, FY 2014-15 and FY 2015-16 and methodology defined in Tariff Regulation, 2007 and amendments issued therein and the same would be validated by the Hon'ble Commission. However, it may be noted that the petitioner is not the mere traders of power. They have to not only ensure procurement of power in cost effective manner but simultaneously operate and maintain the vast distribution network. It is worth mentioning that the expenses of operation and maintenance of distribution network have to be borne irrespective of the quantum of power handled by the network and is thus fixed in nature. Further, certain fixed charges (capacity charges) as approved by SERC/CERC have to be paid to the generators with whom the petitioner has the long term PPA irrespective of the quantum of generation by these generators.

Thus, in order to meet these fixed costs, the KVA/ fixed charges are considered by the Commission so as to ensure certain amount of continuous recovery by the petitioner to meet the fixed costs incurred by them.

Also, the levying of fixed charges motivate the consumers to effectively plan their load, which in turn results in better network planning by the petitioner.

Further, this set-up of two part tariff (Fixed Charges + Energy Charges) has been progressively adopted by most of the state utilities.

The petitioner thus would like to pray to the Commission to kindly retain the fixed charges for the applicable categories.

Commission's observation

Monthly minimum charges have to be gradually phased out after metering of all consumers. In the earlier Tariff Orders, the Commission has withdrawn MMC from HT category and urban domestic category DS-II. The Commission considers it desirable to bill the consumers on actual consumption and to gradually do away with MMC for different categories of consumers. Accordingly, the Commission has decided to do away with MMC for NDS-I consumers.

3.2.20 Issue 20: Contract Demand of HTSS Consumers

Bihar Industries Association, Patna submitted that;

a. As per clause 2 of para 8.8.4 (Pg 119), contract demand based on panel rating is allowed for new furnaces. However, old furnaces have to compulsorily take a contract demand of 600 KVA per MT irrespective of their actual consumption. This is highly discriminatory and without any basis. As this clause has outlived it's utility, the Commission should delete the same. HTSS consumers should also be allowed to take contract demand as per their actual requirements and transformer capacity as is the case with other HT consumers.
b. HTSS consumers should also be charged only 85% of their contract demand.
c. Presently the KVA charges for HTSS are 160% higher than HT consumers (Rs. 700 for HTSS against Rs.270 for HT) while unit charges are 80% lower. In the present highly competitive environment, this creates an extremely uneven field for steel units because of high fixed charges. We request you to rationalise the same and suggest that KVA charges should be drastically reduced even if it leads to proportionate increase in unit charges. This will provide some much needed breathing space to HTSS consumers.
d. Currently, industrial units in Bihar is facing national and international competition. Thus, it is very necessary to keep electricity charges at a level comparable to other states. The regulator may consider making HTSS tariff optional for all HT consumers and not compulsory for any consumer. This will enable all industrial

units having continuous load to opt for the same, thus decreasing their overall cost.

e. Minimum contract demand charges should be reduced to 75% for all HT consumers.

Petitioner's submission

The petitioner would like to submit that the current submissions of the petition is in line with the provisions of prevailing tariff order only. It also to submit that as the consumer is himself declaring his contract demand, which is further verified by the petitioner before releasing the connection, added with the fact that these industries are highly power intensive and continuous industries, it is not appropriate to charge less than the contract demand.

The Petitioner would also like to submit that since these industries are power intensive and continuous industries, firm tie-up of power has to be ensured even in the present power deficit scenario resulting into higher fixed charges of the generating stations and hence higher capacity charges have been considered for this category of consumers.

Further, the Petitioner would also like to submit that as the consumer is himself declaring his contract demand, which is further verified by the petitioner before releasing the connection, thus a buffer variation of 15% is adequate for the purpose of billing.

Commission's observation:

The HTSS category comes under high tension specified services meant for induction furnaces and so should have a special tariff. Average revenue realization from HTSS is already low compared to other HT consumers. Hence, there is no need to change contract demand for HTSS.

3.2.21 Issue 21: Government Resource Grant

Bihar Industries Association, Patna submitted that;

a. Another important aspect having major impact on ARR is the method of appropriating govt. grant in spite of our serious objections and its own misgivings, the commission allowed a change in method of using govt. grant from its last tariff order. Because of some important subsequent developments, we believe that this issue needs to be revisited. In this regard, we beg to submit as below:
b. This change in method of use of Govt. grant was done on the basis of a letter dated 19 Sep 2011 issued by the energy Dept., Govt. of Bihar. As the earlier decision of use of govt. grant against payment of NTPC dues was taken by the state cabinet and placed before the state legislature, any executive order cannot override the same.
c. In the SAC meeting held on 14th Dec 2012, the addl. Secretary, energy dept. said that both the issues (related to use of govt. grant) have been placed before the govt. for consideration and the same will be communicated. Till date, for all practical purpose, the letter of energy dept has been kept in abeyance. Thus, the old method of using the govt. grant (i.e. deducting the same from the entire ARR) should be followed for all previous and current years till at least 2014-15.
d. Even if the govt. advises the Commission to change the method of using govt. grant for subsequent years, we would request the commission to prudently verify if this decision has been taken by the state cabinet and has been placed before the state legislature. Also, as it is obvious that since allowing the licensees to set off extra T&D losses against govt. grant, there is a natural tendency on part of the licensees to show more and more T&D losses. This is likely to have a very far reaching effect and the whole purpose of tariff fixation may be defeated. Lastly, if the Commission decided to allow the change, it should only be prospective and not retrospective. Rather, we are of the opinion that if the petitions of the DISCOMs are examined prudently and the ARR is determined strictly on the basis of Electricity Act, tariff regulations and past directives and guidelines of BERC, there will be a minimum reduction of 20% in electricity rates. This will ultimately benefit the licensees also as low electricity rates will lead to higher consumption and higher revenue.

Petitioner's submission

The Petitioner would like to submit that they have considered the utilization of projected grant as per the provisions of prevailing tariff order only. Further, the petitioner also understand the fact that offset of power purchase cost for T&D losses more than BERC approved losses with Government subsidy is not a sustainable proposition in longer run and thus they are already working on the ways of reductions of T&D and AT&C losses which is evident from the fact that the AT&C losses have decreased by over 1% for NBPDCL in FY 2013-14 as compared to FY 2012-13. The steps taken by the petitioner is detailed in preceding replies.

Commission's observation

Resource grant is extended by Government of Bihar to the DISCOMs and has to be utilized as per the Governments decision and guidance only.

3.2.22 Issue 22: DS – II (B) Category

Shri Doman Singh submitted that in case of DS II (b) category the fixed charge should be on par with the single phase consumer up to 7 kW to avoid multiple connections in the same premises. Single phase consumer of 5 kW has fixed cost (existing) at Rs.115/- whereas the 5kW load three phase consumer presently pays Rs.250/- i.e. Rs.85/-. As such, fixed charge for three phase consumers of DS II category, be kept at Rs.115/- or abolished.

Petitioner's submission

The petitioner would like to submit that as per the Section 62 (3) (Determination of tariff) of Electricity Act 2003 which states that

The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

Further, it is stated that as compared to single phase, three phase supply ensure quality power as it has better voltage as it has better voltage profile, voltage fluctuation and power reliability and its fixed charges are kept high and more over from 5 KW to 7 KW it is optional to have single phase or three phase.

Commission's observation

Minimum contracted load for availing three phase domestic supply is 5.0 KW. Fixed charges for single phase and three phase connections cannot be at equal level.

3.2.23 Issue 23: Demand Charges for DS– II (B) Category

Shri. Doman Singh submitted that there is proposal for charging at twice the normal rate in case of DS II (optional) on demand supply if the demand exceeds 110% of the contract demand. The cut-off point should be 150%. Also the enhanced rate should be applicable on the additional component and not the first unit kW load.

Petitioner's submission.

The petitioner would like to submit that the current submissions of the petition are in line with the provisions of prevailing tariff order only. The petitioner would also like to submit that as the consumer is himself declaring his contract demand, which is further verified by the petitioner before releasing the connection, thus a buffer variation of 10% is adequate for the purpose of billing. The Petitioner would like to submit that it is already mentioned in clause itself that 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.

Commission's observation

The objection and reply of the Petitioner are noted and the Commission opines that there is no need for any revision.

3.2.24 Issue 24: Rural Supply Tariff

Shri Doman Singh submitted that in NDS category, the disparity in the existing and also in proposed unit rate for rural and urban area be abolished and be made at par.

Petitioner's submission

The inclusion/removal of differential tariff across various categories of consumers in different regions is in purview of the Commission and the Commission may take independent view on same.

Commission's observation

Till such time the electricity supply in rural areas improves in respect of quality and quantity on par with urban areas, differential tariff rates have to be continued.

3.2.25 Issue 25: Improvement of Efficiency of DISCOMs

Central Bihar Chamber of Commerce and, South Bihar Industries Association have stated that there is an urgent need to improve the functioning of the DISCOMs as it is providing an essential service.

Petitioner's submission

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 till section level with adequate empowerment so that efficiency can be improved through qui ck 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 up to 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 expect to be improved 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	Handover on 1st June 2014
Bhagalpur	Handover on 1st January 2014

  ✓ Input based distribution franchise require 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 I in and around the franchisee.

Commission's observations

Action taken by the petitioner is noted. The petitioner shall expedite the metering of all domestic including Kutir Jyoti and non domestic consumers on priority. All the defective/non functioning meters shall be replaced. Intensive inspection shall be conducted to curb the theft/pilferage of electricity. The Petitioner shall also endeavour to install IR based meters or AMR system to minimize the human error in meter reading.

3.2.26 Issue 26: Wrong bills and delay in serving bills

M/s. Mithilanchal Industrial Chamber of Commerce, Darbhanga complained that by evaluating the operations of utility for last one year, the utility is completely careless in resolving consumer's issues regarding timely issue of bills issuing wrong bills and correction and other consumer complaints.

Shri Anil Kumar Singh, General Secretary District Congress Committee has stated that consumers are provided with mostly wrong bills and are made to visit their offices several times without any positive outcome and are subjected to disconnection of line.

Shri Sanjay Keshri, Janadhikar Morch, Munger, has stated that consumers get wrong bills and their petition for correction is not attended even after continuous persuasion. The units mentioned in the bills are less than what actually the meter shown.

North Bihar Chamber of Commerce and Industry stated that many consumers are not getting bills till last date of payment of bill.

Shri Yogendra Srivastava stated irregular meter reading resulting in accumulation of CC dues and issuance of MMC bills.

Shri Shankar Sharan Srivastava stated incorrect bill and meter reading should be resolved at the earliest.

Petitioner's submission

NBPDCL submitted that the allowing initiatives for proper meter reading, billing and collection are taken:

1. Task of meter reading, billing and collection has been outsourced to private agencies. Outsourcing has been undertaken upto section level with adequate empowerment so that efficiency can be improved through quick decision making.
2. In order to improve efficiency of meter reading, billing and collection, input based distribution franchisee has been introduced in the state. Distribution franchisee has been awarded in Muzaffarpur area to M/s. Essel from November, 2013 onwards.
3. Further, Rural Energy Revenue Franchisee scheme 2013 has been introduced and function for appointing agent to improve meter reading, billing and collection in

rural areas at village and/or 11 KV feeder level. The scheme shall be implemented by engaging local and capable individually or previous working in village level enterprises or Village Vasudha Kendra or running a cyber café in and around the franchisee village.

Commission's observation

Action taken by NBPDCL is noted. NBPDCL is directed to furnish the performance of distribution franchisee in Muzaffarpur area regarding billing efficiency collection efficiently reduction of issuing wrong bills, timely serving of bills and reduction of distribution losses etc by 30th September, 2015.

In course of public hearing, large of consumers in the supply area of Petitioner complained of delay in delivery of bills, issue of erroneous bills and delay in correction of bills. The consumers complained that the time given between delivery of bills and due date of payment is less than what is specified in the supply code. Correction of erroneous bills takes a very long time, as a result of which they are unable to pay the bills in time leading to levy of DPS by the Petitioner.

The Commission also directs the Petitioner to ensure that the bills are delivered giving sufficient time for payment as specified by the Commission and erroneous bills are also corrected within the specified time. Period of delay in correction of erroneous bills should not be counted for computation of DPS.

3.2.27 Issue 27: Electricity Bills based on energy consumed

M/s. Mithilanchal Industries Chamber of Commerce, Darbhanga demanded that the electricity bills should only be issued on consumed electricity including all charges. Most consumers are illiterate and cannot understand complex electricity bills which contain many other items. It is also requested that the bills issued should be duly signed by the official so that in case of wrong bills the public should know whom to contact.

Petitioner's submission

The petitioner would like submit that the fixed charges are as per BERCs prevailing tariff order only. The expenses of operation and maintenance of distribution network have to be borne irrespective of the quantum of energy handled by the network and thus fixed in nature. Further, certain fixed charges (capacity charge) as approved by SERC/CERC have to be paid to generators with whom the petitioner has long term Power Purchase Agreement irrespective of the quantum of generation by the generators. In order to meet fixed costs, these fixed charges are considered by the Commission so as to ensure certain amount of continuous recovery by the petitioner to meet the fixed costs incurred by them.

Commission's observation

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.

3.2.28 Issue 28: Spot Billing

Bihar Vikas Morcha, Purnea stated that even after all consolations, system for spot billing and correction in wrong bills is not yet happening. Consumers are very much disturbed due to faulty bills.

Petitioner's submission

The Petitioner would like to submit that spot billing is being implemented in phased manner. Revenue officers are being deputed across the distribution area to look into billing disputes and to resolve the disputes appropriately.

Commission's observation

The Petitioner should take more efforts to introduce spot billing in as many areas as possible, first in all urban areas and then in all rural areas in a phased manner, as spot billing avoids complaints regarding wrong meter readings and not serving of bills in time.

3.2.29 Issue 29: Increasing Revenue

1. Purnea Chamber of Commerce, Purnea Suggested that revenue can be increase without increasing tariff by other ways like;
   a. Stopping unmetered connections
   b. Stopping more utilization than approved load
   c. Stopping tampering of meters
   d. Proper billing and timely collection
   e. Improving loses in Transmission and Distribution

2. Mr. Pramod Kumar Sharma, Vaishali submitted that even after enough energy availability, revenue income has shown very less which should be examined.
3. M/s. Sona Industrial Works, Saharsa expressed that there is no need to increase electricity tariff in case the utility is properly managed.

Petitioner’s submission

The Petitioner would like to submit that it is conducting strict inspection of consumer premises on regular basis. Also posters, slogans as well as advertisement in prominent newspapers have been a regular practice to create public awareness against electricity theft. Moreover, a senior official is deputed during the raids so as to ensure impartiality. The Petitioner also likes to submit that it appreciates the concern of objectors and advices them to come forward and inform the Petitioner if any case of theft of electricity comes to their notice.

In order to improve the efficiency for meter reading, billing and collection, input based Distribution Franchise has been introduced in the State. The Petitioner submits that award of distribution franchisee for identified area is in progress. Muzaffarpur has been chosen for award of input based distribution franchisee for NBPDCL licensee area.

Further, Rural Energy Revenue Franchisee Scheme 2013 has been introduced for appointing agent to improve meter reading, billing and collection in rural areas at village and/or 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 cafe in and around the franchisee village.

The petitioner would like to submit that while the actual supply and consumption has increased over past few years, the revenue realization has not increased proportionately owing to the fact that the supply has primarily increased for LT consumers whose average billion of rate is very low at present.

Commission's observation:

The objections/suggestions and the responses of the Petitioner are noted. The petitioner shall put forth more efforts to complete 100% metering of all consumers on priority and to ensure periodical checking of reading of meters, raising bills, serving bills and to collect the billed revenue.

3.2.30 Issue 30: Exceeding Contract Demand

Mr. Pramod Kumar Sharma, Vaishali submitted that as per provision of demand based tariff, if a consumer uses above 110% load on its contracted load, then fixed charge will be charged at double rate per KW. Due to this provision, consumers hesitate to opt for this tariff and so requested to charge only 10% fixed charge on increased load.

Petitioner's submission

The Petitioner would like to submit that the key rationale for opting of demand based tariff is to encourage the consumer to accurately assess his own demand and declare accordingly. Further, the Petitioner has to do network planning and tie-up adequate to serve the declared demand. In case the consumes uses demand more than the declared demand, the network and power purchase planning may go haywire and which may also result in network breakdown or additional purchase of power at marginally higher cost. Thus, to discourage this situation, the penal/ considerably higher tariff is charged in case the consumer exceeds its demand more than 110% the contracted demand.

Commission's observation

The Commission has noted the objection/suggestion and the reply of the Petitioner. It is the responsibility of the consumer to limit the maximum demand recorded in any month within the contracted demand or to get the contracted maximum demand sanctioned as per their maximum demand requirement.

3.2.31 Issue 31: Increase of load to Single Phase Consumers up to 10 KW

Sri Arun Kumar Dhanuka, President North Bihar chamber of Commerce and Industry has requested for allowing the single phase consumers to have load up to 10 KW and also to install higher capacity transformer in areas where the usage is high.

Petitioner's submission

The supply load is governed and come under BERC purview and its supply code.

Commission's observation

The Commission has noted the objection and the reply of the Petitioner. The Commission considers at present 7 kW is adequate and it is also as per supply code.

3.2.32 Issue 32: Power Purchase Cost

Mr. Pramod Kumar Sharma, Vaishali expressed that the power purchase cost should be properly examined as cost of power purchase has been projected higher for FY 2015-16 with respect to actual costs in FY 2013-14.

Petitioner's submission

The petitioner would submit that it has considered the latest per unit energy charges while projecting power purchase cost for FY 2015-16 and it has considered NIL escalation in per unit energy charges keeping in view the recent trend in power purchase costs from various stations.

Commission's observation

The Commission based the on prudent check has considered the power purchase cost and the same is aptly discussed in the relevant chapters.

3.2.33 Issue 33: Compliance of Directives

M/s. Mithilanchal Industries Chamber of commerce, Darbhanga expressed that it is not clear whether all the directives issued by the Commission which are in the consumer benefits which were to be completed by 31.07.2014 are completed or not

Petitioner's submission

NBPDCL would like to submit that it is complying with the directive issued by the Commission from time to time. The present status of compliance of directives has been submitted to the Commission along with its tariff petition vide letter no. 1118 date 01.12.2014. Further periodic submission of compliance is also done as directed by the Commission.

Commission's Observation

The Commission observed that for many of the directives the compliance already given by NBPDCL for the directives given in the Tariff Order dated 15.03.2013 are reproduced with some minor changes. The follow up directives given by the Commission in the Tariff Order dated 28.02.2014 are not taken into cognizance. Hence many of the directives are reiterated in this Order. NBPDCL is directed to submit the latest status report on implementation to the directives issued in their order by 30th September, 2015.

3.2.34 Issue 34: Burnt meters/defective meters

North Bihar Chamber of Commerce and Industries, North Western Bihar Chamber of Commerce and Industry has stated that instructions should be given to the petitioner for replacement of burnt meters and defective meters and meters should be 100% verified before installation.

Shri Shankar Sharan Srivastava stated to replace the burnt meters and defective meters.

Petitioner's submission

The petitioner would like to state that under R-APDRP, proper metering and other remedial measures would be taken for proper metering, energy audit to reduce the T&D losses.

Commission's observation

The objection/suggestion and the reply of the petitioner are noted. The Commission opines that the petitioner shall replace the burnt/defective meters within the period as specified in BERC Standard of Performance of Distribution Licensee, Regulations 2007.

3.2.35 Issue 35: Theft of Energy

Shri Arun Kumar Dhamika, President North Bihar Chamber of Commerce and Industry has stated that the DISCOM has failed to stop individuals who are indulging in power theft and this procedure should be stopped so that the genuine consumers do not get the burden.

Mithilanchal Industrial Chamber of Commerce stated that theft of power is still happening and during raids a senior official for impartiality should be made compulsory.

Petitioner's submission

The petition would submit that under anti-theft drive, the petitioner is conducting strict inspection of consumer premises regularly. Anti-theft posters, slogans as well as advertisements in prominent news papers have been the practices implemented to create public awareness against electricity theft.

Commission's observation

The objection and the reply of the petitioner are noted. The petitioner shall put in special efforts to control the theft.

3.2.36 Issue 36: FPPCA

The North Bihar Chamber of Commerce and Industries objected the proposed FPPCA in electricity bills to general consumers.

Petitioner's submission:

The petitioner would like to submit that the FPPCA is calculated based on formula as defined in Tariff Regulations, 2007 and amendments issued therein. The FPPCA is passed on to consumer after due deliberations, if there is an increase in cost of power purchase and as approved by the Commission.

Commission's Observation:

The Commission has noted the objection and the reply of the Petitioner. The Commission do not propose any change in levy and collection of FPPCA charges in this tariff order.

3.2.37 Issue 37: Compliance of Directives

The Mithilanchal Industrial Chamber of Commerce stated that petition should be accepted post compliance of directives.

Petitioner's submission:

The petitioner would like to submit that compliance and present status of the directives has been furnished in the tariff petition. Further periodic compliance report on the directives is also submitted to the Commission.

Commission's Observation:

The Commission has noted the objection and the reply of the Petitioner. The Commission has reviewed the compliance of directives and aptly discussed in the tariff order under Directives.

4. Truing-up for FY 2013-14

4.1 Background

The Commission issued the Tariff Order for FY 2013-14 dated 15th March, 2013 determining the Multi Year Aggregate Revenue Requirement (ARR) for three years control period of FY 2013-14 to FY 2015-16 separately for Bihar State Power Generation Company Limited (BSPGCL), Bihar State Power Transmission Company Limited (BSPTCL) and together 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 Bihar State Power Holding Company Limited (BSPHCL) on behalf of SBPDCL & NBPDCL for costs to be incurred during the control period FY 2013-14 to FY 2015-16.

NBPDCL has submitted the petition, independently for first time after unbundling of erstwhile BSEB, for Annual Performance Review (APR) for FY 2013-14 and Revised Aggregate Revenue Requirement (ARR) for FY 2014-15 on 14th November, 2013. The Commission carried out the "Review" exercise for FY 2013-14 in the Tariff Order dated 28th February, 2014.

NBPDCL has now submitted the present petition on 15th November, 2014 which includes truing-up for FY 2013-14 along with audited annual accounts for FY 2013-14.

NBPDCL has requested to determine the ARR and Revenue for 2013-14 in true-up, based on the audited annual accounts of FY 2013-14 and consider the revenue gap / surplus accordingly.

Truing-up for FY 2013-14 is to be done according to the Regulation 22 (1) & 2 of the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 which is reproduced below:

"The Commission shall undertake a review along with next Tariff Order of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income and expenditure for

the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called Review".

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

Accordingly, the "Truing-up" exercise for FY 2013-14 has been undertaken by the Commission on the basis of audited annual accounts for FY 2013-14 and BERC (Terms and Conditions for determination of Tariff) Regulations 2007. However, wherever deemed necessary, the Commission has considered expenses based on prudence check.

4.2 Truing-up of ARR for FY 2013-14

NPBDCL, in its petition for truing-up for FY 2013-14, has furnished the actual energy sales, revenue, expenditure for FY 2013-14 based on the audited annual accounts for FY 2013-14. Accordingly, the revised ARR, revenue and consequent revenue gap for FY 2013-14 have been claimed. The Commission has analyzed the components of actual energy sales, revenue, expenses and gap projected by Petitioner under truing-up for FY 2013-14 in the subsequent paragraphs.

4.3 Number of Consumers, Connected Load and Energy Sales

4.3.1 Number of Consumers

Petitioner's submission

NBPDCL has submitted the category-wise actual number of consumers for FY 2013-14 as given in the Table below:

Table 4.1: Number of Consumers for FY 2013-14

Sl. No	Category	TO Dated 28.02.2014	No of Consumers		
			NBPDCL Excluding DF	Muzaffarpur DF	Total NBPDCL (Actual)
1	KJY	12,44,397	9,78,468	25,886	10,04,354
2	DSI	7,06,090	7,26,732	25,880	7,52,612
3	DSII	6,68,543	6,32,713	76,278	7,08,991
4	DS III	38	35	4	39
5	NDS I Commercial	19,934	19,445	1,645	21,090
6	NDS II Commercial	99,869	87,429	17,317	1,04,746
7	NDS III Commercial	47	99	8	107
8	SS I	37	40	4	44
9	SS II	55	72	-	72
10	Irrigation and Agriculture I	2,570	2,101	29	2,130
11	Irrigation and Agriculture II	2,212	2,228	62	2,290
12	PWW	506	530	34	564
13	LTIS I	5,285	4,483	866	5,349
14	LTIS II	387	344	123	467
15	HT IS I	397	344	92	436
16	HT IS II	17	15	3	18
17	HT IS III	1	1	1	2
18	HT IS IV	8	6	-	6
19	RT	2	2	-	2
20	Sal e to Nepal	1	1	-	1
21	UI	-	1	-	1
22	DF	-	-	-	-
23	**Total**	**27,50,396**	**24,55,089**	**1,48,232**	**26,03,321**

NBPDCL has submitted that the Distribution Franchisee (DF) in Muzaffarpur area is operational from 1st November 2013 onwards and so the number of consumers of NBPDCL present in DF area are shown separately.

NBPDCL requested to approve number of consumers as per actuals i.e. 26,03,321.

Commission's analysis

The Commission has noted that NBPDCL has considered sales under UI as consumers. The Commission has also noted that NBPDCL has shown sub-categories under HT as HTIS-I, HTIS-II, HTIS-III and HTIS-IV instead of HTS-I, HTS-II, HTS-III and HTSS.

The Commission approves the number of consumers for NBPDCL at 26,03,320 (excluding UI which is shown as a consumer) for FY 2013-14 as detailed in the table below:

Table 4.1a: Number of consumers approved for FY 2013-14

Sl. No	Category	Approved in TO Dated 28.02.2014	No of Consumers approved in truing up		
			NBPDCL Excluding DF	Muzaffarpur DF	Total NBPDCL (Actual)
1	KJY	12,44,397	9,78,468	25,886	10,04,354
2	DSI	7,06,090	7,26,732	25,880	7,52,612
3	DSII	6,68,543	6,32,713	76,278	7,08,991
4	DS III	38	35	4	39
5	NDS I Commercial	19,934	19,445	1,645	21,090
6	NDS II Commercial	99,869	87,429	17,317	1,04,746
7	NDS III Commercial	47	99	8	107
8	SS I	37	40	4	44
9	SS II	55	72	-	72
10	Irrigation and Agriculture I	2,570	2,101	29	2,130
11	Irrigation and Agriculture II	2,212	2,228	62	2,290
12	PWW	506	530	34	564
13	LTIS I	5,285	4,483	866	5,349
14	LTIS II	387	344	123	467
15	HTS-I	397	344	92	436
16	HTS-II	17	15	3	18
17	HTS-III	1	1	1	2
18	HTSS	8	6	-	6
19	RT	2	2	-	2
20	Sal e to Nepal	1	1	-	1
21	UI	-	1	-	0
22	**Total**	**27,50,396**	**24,55,089**	**1,48,232**	**26,03,320**

4.3.2 Connected Load

Petitioner's submission

NBPDCL has submitted the category-wise actual connected load for FY 2013-14 as given in the Table below:

Table 4.2: Connected Load (kW) for 2013-14

Sl. No	Category	NBPDCL Excluding DF	Muzaffapur DF	Total NBPDCL (Actual)
1	KJY	8,39,282	25,893	8,65,175
2	DS I	6,34,266	25,950	6,60,216
3	DSI I	7,23,949	1,12,985	8,36,934
4	DS III	412	16	428
5	NDS I Commercial	13,736	1,756	15,492
6	NDS II Commercial	2,25,963	39,003	2,64,966
7	NDS III Commercial	790	43	833
8	SS I	1,593	38	1,631

Sl. No	Category	NBPDCL Excluding DF	Muzaffapur DF	Total NBPDCL (Actual)
9	SS II	1,759	-	1,759
10	Irrigation and Agriculture I	7,528	235	7,763
11	Irrigation and Agriculture II	28,458	1,438	29,896
12	PWW	8,217	840	9,057
13	LTI S I	36,588	11,559	48,147
14	LTIS II	13,600	8,399	22,000
15	HTIS I	68,722	22,222	90,944
16	HTIS II	26,360	13,033	39,393
17	HTIS III	24,003	3,556	27,559
18	HTIS IV	13,353	-	13,353
19	RT	19,440	-	19,440
20	Sale to Nepal	-	-	-
21	UI	-	-	-
22	DF	-	-	-
23	**Total**	**26,88,020**	**2,66,967**	**29,54,987**

NBPDCL has requested to approve the connected load for FY 2013-14 as 29,54,987 kW.

Commission's analysis

The Commission has noted that NBPDCL has shown the sub-categories under HT as HTIS-I, HTIS-II, HTIS-III and HTIS-IV instead of HTS-I, HTS-II, HTS-III and HTSS. The Commission approves the connected load as 29,54,987 kW as projected by the Petitioner for FY 2013-14 as detailed in the table below:

Table 4.2a: Connected Load (kW) approved for FY 2013-14

Sl. No	Category	NBPDCL Excluding DF	Muzaffapur DF	Total NBPDCL (Actual)
1	KJY	8,39,282	25,893	8,65,175
2	DS I	6,34,266	25,950	6,60,216
3	DSI I	7,23,949	1,12,985	8,36,934
4	DS III	412	16	428
5	NDS I Commercial	13,736	1,756	15,492
6	NDS II Commercial	2,25,963	39,003	2,64,966
7	NDS III Commercial	790	43	833
8	SS I	1,593	38	1,631
9	SS II	1,759	-	1,759
10	Irrigation and Agriculture I	7,528	235	7,763
11	Irrigation and Agriculture II	28,458	1,438	29,896
12	PWW	8,217	840	9,057
13	LTI S I	36,588	11,559	48,147
14	LTIS II	13,600	8,399	22,000
15	HTS-I	68,722	22,222	90,944

Sl. No	Category	NBPDCL Excluding DF	Muzaffapur DF	Total NBPDCL (Actual)
16	HTS-II	26,360	13,033	39,393
17	HTS-III	24,003	3,556	27,559
18	HTSS	13,353	-	13,353
19	RT	19,440	-	19,440
20	**Total**	**26,88,020**	**2,66,967**	**29,54,987**

4.3.3 Energy Sales

Petitioner's submission

NBPDCL has submitted the actual energy sale for FY 2013-14 as given in the Table below:

Table 4.3: Energy Sales (MU) for FY 2013-14

Sl. No	Category	TO Dated 28.02.2014	NBPDCL (Actual)
1	KJY	285	366.02
2	DS I	446	491.92
3	DSI I	695	749.19
4	DS III	1	0.76
5	NDS I Commercial	13	17.6
6	NDS II Commercial	324	279.82
7	NDS III Commercial	1	0.98
8	SS I	4	10.79
9	SS II	7	15.27
10	Irrigation and Agriculture I	21	12.19
11	Irrigation and Agriculture II	108	92.64
12	PWW	22	24.26
13	LTIS I	66	56.22
14	LTIS II	40	34.14
15	HTIS I	237	193.96
16	HTIS II	58	74.17
17	HTIS III	51	25.67
18	HTIS IV	72	57.65
19	RT	14	12.05
20	Sale to Nepal	550	751.18
21	UI	-	76.58
22	DF	-	261.75
23	**Total**	**3014.00**	**3,604.82**

NBPDCL has further submitted that energy sales to consumers in Distribution Franchisee (DF) area is not shown consumer category wise separately as the revenue from DF area is being realized at the annualized input rate on the input energy to the DF area.

NBPDCL has requested to approve energy sales as per actuals at 3604.82 MU for FY 2013-14.

Commission's analysis

The Commission, in the Tariff Order dated 28th February, 2014 had considered energy sales at 3014 MU for FY 2013-14 for NBPDCL in the "Review" as against 7593 MU approved for SBPDCL & NBPDCL together in the MYT Order dated 15th March, 2013. The Petitioner has now submitted that the actual energy sale during FY 2013-14 is 3604.82 MU.

NBPDCL has shown the actual total sales for Kutir Jyoti for FY 2013-14 as 366.02 MU, which on an average works out to 31.17 units / month / connection.

In the MYT Order dated 15th March, 2013 the Commission has considered a norm of 18 Units/month for Kutir Jyoti Rural consumer and 30 Units / month for Kutir Jyoti Urban consumer while approving sales for SBPDCL and NBPDCL for the control period FY 2013-14 to FY 2015-16 based on the stipulated connected load and availability of power and as most of the connections in this category were unmetered.

In the petition filed for Annual Performance Review for FY 2013-14, during November 2013, the Petitioner has not proposed any change in sales but simply segregated the approved sales for FY 2013-14 for SBPDCL & NBPDCL combinedly in the MYT Order among SBPDCL & NBPDCL based on certain assumed ratio.

On the instructions of the Commission, the consultant appointed for assisting the Commission, extensively inspected Kutir Jyoti connections and 33/11 KV substations in Rural areas during February, 2014 and noted that availability of power in rural areas has been improved, and also many of the Kutir Jyoti consumers are having connected load more than the stipulated 60 watt/connection. On review of the readings where meters provided are functioning, it was noted that on an average the Kutir Jyoti consumer is consuming more than 30 units/month. In view of this and as the DISCOMs are not revising the category of Kutir Jyoti into DS-I category when either the stipulated connected load is exceeded or the stipulated consumption per month is exceeded, the Commission has revised the Tariff of Metered Kutir Jyoti Rural consumer at 160 Ps/Unit for first 30 units/month and remaining units at the tariff rate of DS-I (Domestic Rural Consumers) for FY 2014-15 in the Tariff Order dated 28th February, 2014.

Hence, the Commission considers energy sales for Kutir Jyoti category at 352.25 MU for FY 2013-14 at 30 units/month/consumer considering the number of consumers at 9,78,468 (excluding DF area) for NBPDCL. The remaining units of 13.77 MU (366.02 MU – 352.25 MU) are also considered under Kutir Jyoti sales but are billed at DS-I category tariff for the purpose of computing the revenue from the sale of energy under Kutir Jyoti category.

NBPDCL has shown the actual sales for IAS–I category (unmetered category) for FY 2013-14 at 146.31 MU which works out to 1570 Units/kW, against the approved norm of 1485 Units/kW. The Commission has considered sales of IAS–I category at 11.18 MU as per approved norm.

For DS-I and NDS-I category (some are with meters and some are without meters), NBPDCL has shown the actual consumption at 491.92 MU and 17.60 MU respectively which works out to 54.47 Units / Month to DS – I and 69.54 Units/Month for NDS – I categories, which are found to be reasonable and so accepted.

For other categories, the actual energy sales furnished are as per audited annual accounts, which are considered as reasonable and accepted.

The Petitioner has considered the input energy supplied to DF area as energy sale to Distribution Franchisee.

The Category wise Energy Sales approved for FY 2013-14 are as shown in the Table below:

Table 4.4: Energy Sales (MU) approved for FY 2013-14

Sl. No	Category	Approved in TO Dated 28.2.2014	Projected for FY 2013-14	Now Approved for FY 2013-14
1	KJY	285	366.02	352.25
a	Additional sale exceeding norm (366.02-352.25) which is to be billed at DS-I Tariff			13.77
2	DS I	446	491.92	491.92
3	DS II	695	749.19	749.19
4	DS III	1	0.76	0.76
5	NDS I Commercial	13	17.6	17.6
6	NDS II Commercial	324	279.82	279.82
7	NDS III Commercial	1	0.98	0.98
8	SS I	4	10.79	10.79
9	SS II	7	15.27	15.27
10	Irrigation and Agriculture I	21	12.19	11.18
11	Irrigation and Agriculture II	108	92.64	92.64
12	PWW	22	24.26	24.26
13	LTIS I	66	56.22	56.22
14	LTIS II	40	34.14	34.14
15	HTS-I	237	193.96	193.96
16	HTS-II	58	74.17	74.17
17	HTS-III	51	25.67	25.67
18	HTSS	72	57.65	57.65
19	RT	14	12.05	12.05
20	Sale to Nepal	550	751.18	751.18
21	UI	-	76.58	76.58
22	DF	-	261.75	261.75
23	**Total**	**3014**	**3604.8**	**3603.80**

The Commission approves the category wise energy sales for FY 2013-14 at 3603.80 MU in truing-up. The same would be used for approving the power procurement cost.

4.4 Distribution Loss

Petitioner's submission

NBPDCL has submitted that in the MYT Order dated 15th March, 2013 the Commission has approved the distribution loss at 23% for FY 2013-14 for both the DISCOMs together and at 23% for NBPDCL in Tariff Order dated 28th February, 2014 for FY 2013-14. NBPDCL has submitted that the actual distribution loss for FY 2013-14 works out to 33.48%. NBPDCL has stated that the distribution loss has been worked out on the methodology adopted by the Commission.

NBPDCL further submitted that the multiple measures taken to control the losses are provided in compliance status submitted on the Directive 9.

NBPDCL submitted that the actual distribution losses vs approved for FY 2013-14 are as given in the Table below:

Table 4.5: Distribution Loss projected for FY 2013-14

Sl. No	Particulars	Approved in MYT Order dated 15-03-2013	Approved in Tariff Order dated 28-02-2014	Projected in True-up
1	Distribution loss	23.00%	23.00%	33.48%

NBPDCL has requested to approve the distribution loss for FY 2013-14 i.e. at 33.48%.

Commission's analysis

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

Table 4.6: Distribution Loss approved for FY 2013-14 to FY 2015-16

Year	Distribution Loss (%)
2013-14	23.00
2014-15	21.40
2015-16	20.00

The Commission in the 'review' in the Tariff Order dated 28th February 2014 has retained the distribution losses at 23.00% for NBPDCL for FY 2013-14 and also directed NBPDCL to conduct month wise energy audit and arrive at month-wise distribution losses during FY 2013-14.

NBPDCL has not furnished the details of energy audit and details of distribution losses arrived at as per energy auditing during FY 2013-14.

NBPDCL has submitted as compliance to the directives given by the Commission that the following multiple measures were taken to control the loss:

- Monitoring of performance of meter reading and bill distribution agencies
- Implementation of SCADA system (spot billing through Hand held machine, computerized billing, consumer indexing etc.) for PESU Area and for other R-APDRP towns (70 Towns) under process.
- Uploading of consumer energy bills, so that consumers who have not received the bills can down load their updated bills and can make payment online through net banking, SBI and Canara Bank Debit card.
- Circle wise monthly target for AT&C Loss and proper monitoring of revenue collection against current assessment and arrears.
- Close monitoring for realization of private dues exceeding Rs.1,00,000/-.
- Expediting the process of filing of the theft cases.
- Inspection of premises of disconnected consumers.
- Field office sensitized for leakage areas.
- Outsourcing for meter reading.
- Outsourcing for computerized billing except PESU Area.
- Outsourcing for distribution of Energy bills.
- Agency engaged for metering i.e. installation of meter to unmetered consumers, replacement of defective / damaged / stopped / burnt meters in circles.
- Ledgerisation of BPL connections energized under RGGVY.
- Issuance of monthly energy bills to different Govt. Depts.
- Several high level meetings organized under chairmanship of Secretary (Bihar) & Finance Commissioner (Bihar) for budgetary provisions and timely payment of

energy dues against different Government Department.

- Introduction of input based feeder franchisees.
- Close monitoring of meter reading and billing of 3-phase LT Consumers.

The Commission has noted that the above measures taken by NBPDCL have not reduced the distribution losses to the required level. The Commission has also noted that Central Government sponsored schemes such as APDRP, R-APDRP and strengthening of transmission and distribution network of the DISCOM should have reduced the overall distribution loss of the DISCOMs. In addition, the State Govt. has also provided funds for 100% metering and replacement of old conductors. All these schemes should have helped the DISCOMs to reduce the distribution losses. Considering all these aspects, the Commission has fixed the distribution loss reduction trajectory for FY 2013-14 to FY 2015-16 in the MYT Order dated 15th March 2013.

The Commission is of the view that the distribution loss is a controllable parameter and it is the responsibility of the Distribution Licensee to take appropriate steps to bring down the distribution loss level. In this connection, the Commission has given a number of directives to improve the performance of distribution licensees, which if implemented in true spirit, should have brought down the T&D loss level considerably.

The Commission cannot allow the burden of higher T&D loss due to the non-achievement of T&D loss reduction trajectory as approved by the Commission to be passed on to the consumers.

Accordingly, the Commission confirms the distribution loss at 23.00% for truing up purpose for FY 2013-14. The same has been considered for computation of the power purchase for FY 2013-14 in truing up.

The distribution loss level target set by the Commission, the distribution loss level projected by NBPDCL and the loss level approved by the Commission in truing up for FY 2013-14 is summarised in the table below:

Table 4.6a: Approved Distribution Loss (%) for FY 2013-14

Particulars	Approved in T.O dated 15.3.2013	Considered in Review for FY 2013-14 in the T.O. dated 28.2.2014	Projected by NBPDCL for FY 2013-14	Now approved for FY 2013-14
Distribution loss for FY 2013-14	23.00%	23.00%	33.48%	23.00%

4.5 State Transmission Loss

Petitioner's submission

NBPDCL has submitted that the Petitioner has taken transmission loss as per actual for BSPTCL i.e. at 4.38% taken from the BSPTCL audited accounts for FY 2013-14.

Commission's analysis

The Commission has considered the state transmission loss at 4.02% as approved in truing-up for FY 2013-14 in Tariff Order for BSPTCL for FY 2015-16.

4.6 Central Transmission Loss

Petitioner's submission

NBPDCL has submitted that the Petitioner has considered weighted average transmission loss of actual 52 weeks (From 01-04-2013 to 30-03-2014) in FY 2013-14 of Eastern Region at 2.30%. The data of transmission loss is taken from ERLDC website.

Commission's analysis

The Commission considered the transmission system loss in Eastern Region Transmission System at 2.30% for FY 2013-14 as submitted by NBPDCL.

4.7 Energy Requirement

Petitioner's submission

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

Table 4.7: Energy requirement projected for FY 2013-14

(MU)

Sl. No	Particulars	Considered in Tariff Order dated 28.02.2014	Projected for FY 2013-14
1	Energy sales within the state	3014.00	3604.82
2	Distribution Losses (%)	23.00%	33.48%
3	Distribution Losses (MU)	900.29	1814.49
4	Energy required at Distribution Periphery	3914.29	5419.31
5	Transmission Loss (%)	4.00%	4.38%
6	Transmission Loss (MU)	163.10	245.06
7	Energy required at Transmission Periphery	4077.38	5664.37

Commission's analysis

The Commission has approved distribution loss at 23.00% for NBPDCL and state transmission loss for BSPTCL at 4.02% for FY 2013-14. Based on the approved sales, distribution loss and state transmission loss, the energy requirement at state transmission periphery is as given in the Table below:

Table 4.8: Energy requirement approved for FY 2013-14

(MU)

Sl. No	Particulars	Approved in review in T.O dated 28.02.2014 for FY 2013-14	Projected in true-up for FY 2013-14	Approved in truing-up for FY 2013-14
A	**Energy Requirement**			
1	Total Energy sales	3014	3604.82	3603.8
2	Less: Energy supplied to DF area			261.75
3	Less: Sales under UI			76.58
4	Less: Sales to Nepal			751.18
5	Net energy sales	3014	3604.82	2514.29
6	Distribution Losses (%)	23.00%	33.48%	23.00%
7	Distribution Losses (MU)	900.29	1814.49	751.02
8	Energy required (5+7)	3914.29	5419.31	3265.31
9	Add: Energy supplied to DF			261.75
10	Add: 33 kV Distribution Losses @6% on Energy Input to DF			16.71
11	Total energy required at Distribution periphery (8+9+10)	3914.29	5419.31	3543.77
12	Add: Sales to Nepal			751.18
13	Total energy required			4294.95
14	Transmission Loss (%)	4.00%	4.38%	4.02%
15	Transmission Loss (MU)	163.1	245.06	179.89

Sl. No	Particulars	Approved in review in T.O dated 28.02.2014 for FY 2013-14	Projected in true-up for FY 2013-14	Approved in truing-up for FY 2013-14
16	Energy Requirement at State Periphery (13+15)	4077.38	5664.37	4474.84
17	Add: UI sales			76.58
18	**Total Energy Requirement (16+17)**	**4077.38**	**5664.37**	**4551.42**

4.8 Power Purchase

NBPDCL has submitted that the DISCOMs rely on allocation from Central Generating Stations, State Generating Projects, Independent Power Producers etc. for procuring power for sale in the State. The power procured has been proposed to be allocated between SBPDCL and NBPDCL in the proportion as determined by the Board Resolution. SBPDCL submitted that the power purchase has been allocated in the ratio 42:58 between NBPDCL and SBPDCL as per the decision of the Board of Directors.

i. **NHPC, NTPC and PTC**

NBPDCL submitted that the power purchase from NTPC, NHPC and PTC has been considered for FY 2013-14 based on the actual quantum with adjustments to capture overall power purchase in a reasonable manner.

ii. **Medium / Short Term**

NBPDCL submitted that the power purchase from these sources namely Adani, IEX, NEA, UI etc. are also considered as per actual power purchase.

iii. **Renewable Power Purchase**

NBPDCL submitted that it has purchased 69.46 MU of Renewable Power (Non – Solar) during FY 2013-14.

NBPDCL has submitted the power purchased from various sources for FY 2013-14, which are as per actuals from the audited annual accounts are as given in the Table below:

Table 4.9: Power Purchase projected for FY 2013-14

Sl. No	Source	Units Purchased (MU)
A	**Central Sector Stations**	**4,946.73**
I	**NTPC Stations**	**4,121.37**
a	*Farakka 1,2&3*	1,755.29
b	*Talchar*	1,132.38
c	*Kahalgoan 1 &2*	1,233.70
II	**NHPC Stations**	**225.64**
a	*Rangit*	45.77
b	*Teesta*	179.87
III	**PTC Stations**	**545.96**
a	*Chukka*	201.39
b	*Tala*	344.57
IV	**DVC**	**53.76**
B	**State Generating Stations**	**116.90**
I	KBUNL Stage 1 U# 1	116.90
C	**Medium/ Short Term/ Others**	**645.05**
I	Adani	441.15
II	NEA	0.01
III	IEX/PXIL	137.94
IV	Open Market Purchase	-
V	UI	65.44
VI	PVVNL	0.26
VII	NVVNL	0.25
D	**Renewable Power Purchase**	**69.46**
I	BSHPC	16.39
II	Sugar Mills	53.07
E	**Total**	**5778.14**

Commission’s analysis

The Commission recognizes the source of power purchase as outlined by NBPDCL based on audited annual accounts for FY 2013-14. However, the quantum of power purchase and the cost associated with the same would be approved after taking into cognizance the approved energy sales and the transmission and distribution loss trajectories approved by the Commission

The summary of the approved power purchase quantum from various sources for FY 2013-14 is given in the Table below:

Table 4.10: Source wise Power Purchase quantum approved for FY 2013-14

Sl. No	Source	Approved in Tariff Order Dated 28.02.2014	Projected for FY 2013-14	Now approved for FY 2013-14
A	**Central Sector Stations**		**4,946.73**	**4,946.73**
I	**NTPC Stations**		**4,121.37**	**4,121.37**
a	*Farakka 1,2&3*	1331	1,755.29	1,755.29
b	*Talchar*	1353	1,132.38	1,132.38
c	*Kahalgoan 1 &2*	1005	1,233.70	1,233.70
D	*Barh – Stg 2U #1*	90	0	0
II	**NHPC Stations**		**225.64**	**225.64**
a	*Rangit*	90	45.77	45.77
b	*Teesta*	150	179.87	179.87
III	**PTC Stations**		**545.96**	**545.96**
a	*Chukka*	255	201.39	201.39
b	*Tala*	501	344.57	344.57
IV	**DVC**		**53.76**	**53.76**
B	**State Generating Stations**		**116.90**	**116.90**
I	KBUNL Stage 1 U# 1	101	116.90	116.90
C	**Medium/ Short Term/ Others**		**645.05**	**645.05**
I	Adani	505	441.15	441.15
II	NEA	18	0.01	0.01
III	IEX/PXIL	58	137.94	137.94
IV	Open Market Purchase	0	-	-
V	UI	0	65.44	65.44
VI	PVVNL	0	0.26	0.26
VII	NVVNL	0	0.25	0.25
D	**Renewable Power Purchase**		**69.46**	**69.46**
I	BSHPC	16	16.39	16.39
II	Sugar Mills	28	53.07	53.07
III	Solar	7	-	-
E	**Total**	**5663**	**5778.14**	**5778.14**

The Commission approves the total quantum of power purchase of 5778.14 MU for the purpose of working out the energy balance and computation of the power purchase cost as part of the truing-up exercise for FY 2013-14.

4.9 Energy Balance

Petitioner's submission

NBPDCL has submitted the energy balance for FY 2013-14 based on the actual energy sales and transmission and distribution losses as given in the Table below:

Table 4.11: Energy Balance projected for FY 2013-14

(MU)

Sl. No	Particulars	MYT Order Dated 15.03.2013*	TO Dated 28.02.201	Projected in FY 2013-14
A	Energy sales including sales to Nepal, UI and DF	7,593.00	3,014.00	3,604.82
B	Distribution Losses (%)	23.00%	23.00%	33.48%
C	Distribution Losses	2,268.04	900.29	1,814.49
D	Energy required at Distribution periphery	9,861.04	3,914.29	5,419.31
E	State Transmission Loss (%)	4.00%	4.00%	4.38%
F	State Transmission Loss	410.88	163.1	245.06
G	Energy Required at Transmission periphery	10,271.92	4,077.38	5,664.37
H	Total Available Power	15,774.00	5,633.00	5,778.14
i	*Central Generating Station*		4,901.00	4,946.73
ii	*State Generating Stations*	15,774.00		116.9
iii	*Others*		732	714.51
I	CTU Transmission Losses on CGS Power %	2.73%	2.49%	2.30%
J	CTU Transmission Losses	331	122.03	113.77
K	Net Power available after CTU Losses	15,443.00	5,510.97	5,664.37
L	Surplus / (Deficit) Energy at state periphery	5171.08	1433.58	0.00

* For both DISCOMs together

Commission's analysis

In the energy balance projected by the Petitioner in the above Table, the Commission has noted that the distribution losses are considered on sales to Nepal, UI sale and input energy supplied to Muzaffarpur Distribution Franchisee (DF). Sales to Nepal is now predominantly on 132 kV voltage level. The Muzaffarpur DF is based on input energy mainly supplied at 11 kV voltage and so the distribution losses in LT and 11 kV network in DF area would be to the account of DF. The Commission has considered the distribution loss at 33 kV level at 6% on the energy input to the DF.

It is also noted that CTU loss on power procured from Adani is not considered. The Commission has estimated the CTU loss at 123.92 MU considering CTU loss at 2.30% on power purchased from Central Stations and from Adani.

For estimating the additional power purchase to be disallowed due to excess distribution loss, the total purchases from various sources has been worked out considering the impact of average regional transmission loss [2.14% = (123.92 / 5778.14) X 100] applicable on the total power purchase. The reason for applying the average regional transmission loss is that the power purchase quantum also includes sources of power on which the regional transmission losses are not applicable i.e. Nepal, BSHPC, Sugar Mills, etc. Accordingly, the gross power purchase required to be done in FY 2013-14 is 4650.95 MU with regional transmission loss of 99.53 MU.

The energy balance for FY 2013-14 has been computed based on the approved sales in truing-up during the year, considering the approved level of distribution, state transmission and central transmission losses and the power purchase to meet the demand from the consumers.

The details of energy requirement and energy availability during FY 2013-14 are as given in the Table below:

Table 4.12: Energy Balance approved for FY 2013-14

(MU)

Sl. No	Particulars	Approved in review in T O dated 28.02.2014 for FY 2013-14	Projected in true-up for FY 2013-14	Approved in truing-up for FY 2013-14
A	**Energy Requirement**			
1	Total Energy sales	3014	3604.82	3603.8
2	Less: Energy supplied to DF area			261.75
3	Less: Sales under UI			76.58
4	Less: Sales to Nepal			751.18
5	Net energy sales	3014	3604.82	2514.29
6	Distribution Losses (%)	23.00%	33.48%	23.00%
7	Distribution Losses (MU)	900.29	1814.49	751.02
8	Energy required (4+6)	3914.29	5419.31	3265.31
9	Add: Energy supplied to DF			261.75
10	Add: 33 kV Distribution Losses @6% on Energy Input to DF			16.71
11	Total energy required at Distribution periphery (8+9+10)	3914.29	5419.31	3543.77
12	Add: Sales to Nepal			751.18
13	Total energy required (11+12)			4294.95
14	Transmission Loss (%)	4.00%	4.38%	4.02%
15	Transmission Loss (MU)	163.1	245.06	179.89
16	Energy Requirement (13+15)	4077.38	5664.37	4474.84
17	Add: UI Sales			76.58

Sl. No	Particulars	Approved in review in T O dated 28.02.2014 for FY 2013-14	Projected in true-up for FY 2013-14	Approved in truing-up for FY 2013-14
18	Total Energy Requirement at Transmission periphery (16+17)	4077.38	5664.37	4551.42
19	Regional transmission loss (%)	2.49%	2.30%	2.14%
20	Regional transmission loss (MU)	122.03	113.77	99.53
21	**Total Energy Requirement**	**4199.42**	**5778.14**	**4650.95**
B	**Energy Availability**			
22	Own generation	-	-	0
23	Power Purchased	5633	5778.14	5,778.14
24	**Total energy available from all sources**	**5633**	**5778.14**	**5,778.14**
25	**Surplus energy (24-21)**	**1433.58**	**0.00**	**1,127.19**

4.10 Power Purchase Cost

Petitioner's submission

NBPDCL has submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC and NHPC and single part tariff for DVC, PTC, Adani, BSHPC and Sugar Mills and projected Rs. 3208.76 Crore towards the power purchase cost from all sources.

NBPDCL has projected Rs. 168.86 Crore towards PGCIL charges (including POSOCO & ERLDC charges) for use of transmission facilities enabling power drawal from Eastern Region. SBPDCL also projected Rs. 85.83 Crore towards transmission charges payable to the BSPTCL.

NBPDCL has submitted that the above projections are actuals, based on audited annual accounts for FY 2013-14.

NBPDCL has projected power purchase cost at Rs. 2271.97 Crore including intra-state and PGCIL transmission charges for FY 2013 -14 as given in the Table below:

Table 4.13: Power Purchase Cost claimed for FY 2013-14

Sl. No	Source	Units Purchased (MUs)	Total Cost (Rs. Crore)	Average Cost (Rs / kWh)
A	**Central Sector Stations**	**4,946.73**	**1,664.12**	**3.36**
I	**NTPC Stations**	**4,121.37**	**1,477.04**	**3.58**
a	Farakka 1,2&3	1,755.29	725.96	4.14
b	Talchar	1,132.38	272.78	2.41
c	Kahalgoan 1 &2	1,233.70	478.29	3.88
d	Barh – Stg 2U #1	-	-	-
e	Nabinagar	-	-	-
II	NHPC Stations	225.64	61.2	2.71
a	Rangit	45.77	13.82	3.02
b	Teesta	179.87	47.37	2.63
III	PTC Stations	545.96	101.78	1.86
a	Chukka	201.39	32.17	1.6
b	Tala	344.57	69.6	2.02
IV	DVC	53.76	24.1	4.48
B	**State Generating Stations**	**116.9**	**42.67**	**3.65**
I	BTPS	-	-	-
II	KBUNL Stage 1 U# 1	116.9	42.67	3.65
III	KBUNL Stage 1 U# 2	-	-	
C	**Medium/ Short Term/ Others**	**645.05**	**282.25**	**4.38**
I	Adani	441.15	226.76	5.14
II	NEA	0.01	0	3.02
III	IEX/PXIL	137.94	43.09	3.12
IV	Open Market Purchase	-	-	-
V	UI	65.44	12.16	1.86
VI	PVVNL	0.26	0.15	5.7
VII	NVVNL	0.25	0.09	3.67
D	**Renewable Power Purchase**	**69.46**	**28.25**	**4.07**
I	BSHPC	16.39	4.08	2.49
II	Sugar Mills	53.07	24.17	4.55
III	Solar Power Purchase	-	-	-
E	**PGCIL Charges**		**166.85**	
F	**BSPTCL Charges**		**85.83**	
G	**SLDC Charges**		**-**	
H	**Posoco Charges**		**2.01**	
I	**Total**	**5,778.14**	**2,271.97**	**3.93**

Commission analysis

The Commission has approved the gross power purchase cost of Rs. 2142.10 Crore for purchase of 5633 MU for FY 2013-14 in the Tariff Order dated 28th February, 2014 in the “Review” as per the estimate submitted by the Petitioner.

The Commission noted that according to audited annual accounts for FY 2013-14, NBPDCL has incurred total power purchase cost of Rs. 2271.97 Crore which include intra-state transmission charges of Rs. 85.83 Crore and PGCIL charges of Rs. 168.86 Crore for purchase of 5778.14 MU which is in line with that claimed in true-up for FY 2013-14.

The source-wise power purchase cost from different sources, intra-state transmission charges and PGCIL transmission charges approved for FY 2013-14 based on the actual power purchase cost as per audited annual accounts is given in the Table below:

Table 4.14: Approved Power Purchase cost for FY 2013-14

Sl. No	Source	Units Purchased (MUs)	Projected for FY 2013-14 (Rs. Crore)	Approved for FY 2013-14 in Truing-up (Rs. Crore)
A	**Central Sector Stations**	**4,946.73**	**1,664.12**	**1,664.12**
I	**NTPC Stations**	**4,121.37**	**1,477.04**	**1,477.04**
a	Farakka 1,2&3	1,755.29	725.96	725.96
b	Talchar	1,132.38	272.78	272.78
c	Kahalgoan 1 &2	1,233.70	478.29	478.29
d	Barh – Stg 2U #1	-	-	-
e	Nabinagar	-	-	-
II	**NHPC Stations**	**225.64**	**61.2**	**61.2**
a	Rangit	45.77	13.82	13.82
b	Teesta	179.87	47.37	47.37
III	**PTC Stations**	**545.96**	**101.78**	**101.78**
a	Chukka	201.39	32.17	32.17
b	Tala	344.57	69.6	69.6
IV	**DVC**	**53.76**	**24.1**	**24.1**
B	**State Generating Stations**	**116.9**	**42.67**	**42.67**
I	BTPS	-	-	-
II	KBUNL Stage 1 U# 1	116.9	42.67	42.67
III	KBUNL Stage 1 U# 2	-	-	-
C	**Medium/ Short Term/ Others**	**645.05**	**282.25**	**282.25**
I	Adani	441.15	226.76	226.76
II	NEA	0.01	0	0
III	IEX/PXIL	137.94	43.09	43.09
IV	Open Market Purchase	-	-	-
V	UI	65.44	12.16	12.16
VI	PVVNL	0.26	0.15	0.15
VII	NVVNL	0.25	0.09	0.09
D	**Renewable Power Purchase**	**69.46**	**28.25**	**28.25**
I	BSHPC	16.39	4.08	4.08

Sl. No	Source	Units Purchased (MUs)	Projected for FY 2013-14 (Rs. Crore)	Approved for FY 2013-14 in Truing-up (Rs. Crore)
II	Sugar Mills	53.07	24.17	24.17
III	Solar Power Purchase	-	-	-
	Sub Total	**5778.14**	**2017.29**	**2017.29**
E	**PGCIL Charges**		**166.85**	**166.85**
F	**BSPTCL Charges**		**85.83**	**85.83**
G	**SLDC Charges**		**-**	**-**
H	**POSOCO Charges**		**2.01**	**2.01**
I	**Total**	**5,778.14**	**2,271.97**	**2,271.97**

The Commission approves the power purchase cost of Rs. 2271.97 Crore including transmission charges for purchase of 5778.14 MU for FY 2013-14 in truing-up.

4.11 Disallowance of Power Purchase cost due to excess Distribution Loss

Petitioner's submission

NBPDCL submitted that as per methodology approved by the Commission in previous tariff orders, the power purchase cost due to excess distribution loss is computed as given in the Table below:

Table 4.15: Projected disallowance of Power Purchase cost due to excess distribution loss for FY 2013-14

Sl. No	Particulars	MYT Order Dated 15.03.2013	Tariff Order Dated 28.02.2014	True-up
1	Additional Power purchase by DISCOM due to excess Distribution loss (MUs)	4,178.81	1,007.83	803.54
2	Average power purchase rate (Rs. / kWh)	3.8	3.66	3.93
3	Total Disallowed Power Purchase Cost (1*2)	**1,587.95**	**368.87**	**315.95**

NBPDCL stated that the support for the disallowance cost has been provided by the State Government.

Commission's analysis

The difference in the actual power purchase and the power purchase requirement approved by the Commission for FY 2013-14 is disallowed at the average power purchase rate and is treated as "Disincentive for non-achievement of Distribution Loss Target".

As per the approved trajectory, the maximum permissible distribution loss level for FY 2013-14 was set at 23.00%, which the Petitioner was not able to achieve.

The Commission, while computing the Energy Balance has noticed that 1127.19 MU of energy (gross) was additionally purchased due to not achieving the distribution loss trajectory of 23.00%, approved for FY 2013-14. Accordingly, the Commission has computed the disincentive for non-achievement of distribution loss reduction target at Rs.426.47 Crore, for FY 2013-14, considering average power purchase rate including PGCIL and POSOCO charges at Rs. 3.78 per kWh as shown in the Table below:

Table 4.16 Disincentive for Non-achievement of Distribution loss reduction target for FY 2013-14

Sl. No	Particulars	Unit	Projected in the Petition for FY 2013-14	Approved in Truing-up for FY 2013-14
1	Gross Power Purchase disallowed	MU	803.54	1127.19
2	Average Power Purchase cost	Rs/kWh	3.93	3.78*
3	Cost of Power Purchase disallowed (1*2)	Rs. Crore	315.95	426.47

Power Purchase Cost	= Rs. 2017.29 Crore
PGCIL Charges (incl. POSOCO)	= Rs. 168.86 Crore
Power Purchase Cost incl. PGCIL charges	= Rs. 2186.15 Crore
Power Purchased	= 5778.14 MU
Avg. Power Purchase Cost (incl. PGCIL+POSOCO Charges)	= (2186.15/5778.14*10)=Rs.3.78/kWh *

4.12 Renewable Power Purchase Obligation (RPO)

As per the BERC (Renewable Purchase Obligation, its compliance and REC Framework implementation) Regulations 2010, it is made obligatory for NBPDCL to purchase the following percentage of average of their total energy consumption from Renewable Energy sources during FY 2013-14 as shown in the Table below:

Table 4.17: Percentage of RPO for FY 2013-14

Sl. No	Particulars	Percentage
1	Renewable Power Purchase Obligation (RPO)	4.50%
2	% Share of Solar Power in RPO	0.50%
3	% Share of non-solar power in RPO	4.00%

The Commission noted that NBPDCL has not met the RPO during FY 2013-14. The purchase of Renewable Energy from BSHPC and Co-generation plants by NBPDCL during FY 2013-14 and shortfall in RPO and requirement of RE certificate are given in the Table below:

Table 4.18: RE Certificate Cost for FY 2013-14

Sl. No	Particulars	Quantity Purchased (MU)
1	Solar purchase	0.00
2	Non-solar purchase	
	a.co-generation	53.07
	b. Small Hydro (BSHPC)	16.39
3	Total purchase from non solar (a+b)	69.46
4	Total purchase (Solar +Non-solar)	69.46
5	Total energy purchase	5,778.14
6	Losses	1030.44
7	Disallowed power + sale of surplus power (UI)	1,203.77
8	Energy consumption (5-6-7)	3,543.93
9	Total RPO requirement (4.50%)	159.48
10	Solar RPO requirement (0.50%)	17.72
11	Non-solar RPO requirement (4.00%)	141.76
12	Captive consumption of RE generators (Non-solar)	18.77
13	Shortfall in solar RPO (10-1)	17.72
14	Shortfall in non-solar RPO (11-3-12)	53.53
15	Forbearance price of solar REC (Rs./kWh)	5.80
16	Forbearance price of non solar REC (Rs./kWh)	3.30
17	Cost of solar REC (Rs. Crore)	10.28
18	Cost of non-solar REC (Rs. Crore)	17.66
19	Total cost of certificate (Rs. Crore)	27.94

4.13 Solar RPO

The above table indicates that NBPDCL has not met the RPO during FY 2013-14 as per truing-up based on audited annual accounts of FY 2013-14. As per the Regulation, the RE certificates purchase or deposit of an equivalent amount shall be made at the forbearance price which is at Rs. 5.80/kWh as per CERC Order dated 30th December 2014 and so the solar RE Certificates to be purchased to fulfill the RPO in respect of solar energy shortfall of 17.72 MU comes to Rs. 10.28 Crore. The Commission directs NBPDCL to deposit an amount of Rs. 10.28 Crore into a separate fund with a bank as per BERC RPO Regulations during FY 2015-16 and submit the details of such deposit made to the Commission. These expenses are factored in the ARR for FY 2015-16.

4.14 Non-solar RPO

Further, the above table indicates that NBPDCL has not met the non-solar RPO during FY 2013-14 as per truing-up based on audited annual accounts for FY 2013-14. The non-solar RPO compliance is worked out based on the power purchased from BHPC, Sugar Mills and Biomass based power plants. Additionally, the captive consumption by the Sugar Mills furnished by the BREDA has also been taken into account. Still there is a shortfall of 53.53 MU in FY 2013-14. The Commission directs NBPDCL to deposit an amount of Rs.17.66 Crore in a separate fund created with a bank as per provisions of RPO Regulations during FY 2015-16 and submit proof of such deposit to the Commission.

Bihar Policy for promotion of New and Renewable Energy Sources, 2011 in its clause 4.2.3 provides that capital cost of transmission system for evacuation of power to the nearest grid/substation including all metering and protective instruments shall be borne by BSEB, which shall be reimbursed to BSEB by the State Government, provided that the project developer offer to supply BSEB/Distribution Licensee at least 50%, subject to a minimum of 2 MW of power generated from New and Renewable Energy Projects. Else, the entire project cost of transmission system for evacuation of power to the nearest grid/substation including all metering and protective instruments shall be borne by the project developer.

The above provision provides incentive for reimbursement of capital cost of transmission line for evacuating power only to those developers who offer at least 50% or a minimum of 2 MW generated capacity to the licensee. In order to provide further incentive for promotion of grid interactive renewable energy based power generation in the State, the Commission decides that even for such projects which are not covered for reimbursement of cost of evacuation and transmission line upto point of interconnection with the grid under clause 4.2.3 of the policy, the capital cost of the transmission system for evacuation of power to the nearest grid/substation shall be met from this fund created under the provisions of BERC (RPO, its compliance and REC Framework Implementation) Regulations, 2010, with approval of the Commission.

In the Tariff Order for FY 2014-15 dated 28.02.2014, the Commission has observed that the erstwhile BSEB and segregated entities have not met the Solar RPO from FY 2010-11 to FY 2012-13 as per the truing up based on the audited annual accounts. The total shortfall in solar purchase obligation from FY 2010-11 to FY 2012-13 is 15.73 MU by both DISCOMs.

Accordingly, the Commission has factored Rs.21.08 Crore in the ARR for FY 2014-15 and directed the DISCOMs to deposit the same in to a separate fund with a bank. The amount of Rs.21.08 Crore has been allocated among the DISCOMs in their power purchase sharing ratio amounting to Rs.7.38 Crore for NBPDCL and Rs.13.70 Crore for SBPDCL. This amount shall also be used with the approval of the Commission for meeting the cost of evacuation and transmission to the nearest interconnection point of the grid of power generated from renewable energy projects which are not covered under clause 4.2.3 of Bihar Policy for Promotion of New and Renewable Energy Sources, 2011.

4.15 Capital Expenditure

Petitioner's submission:

NBPDCL has submitted that for the purpose of capital expenditure, capitalisation and funding, it has considered the actual expenditure as per audited accounts for FY 2013-14. The opening CWIP, GFA, Grants, etc., are taken from the audited annual accounts ending March 2014.

NBPDCL 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 4.19: CWIP, Capex, Capitalisation and Funding of capitalisation projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 15.03.2013	Approved in Tariff Order dated 28.02.2014 for FY 2013-14 (RE)	Claimed by NBPDCL in truing up
1	Opening CWIP	3192.00	1179.82	1175.71
2	Add: New Investment	5585.00	3828.58	421.05
3	**Total (1+2)**	**3044.00**	**1502.52**	**529.60**
4	**Less: Capitalisation**	889.00	353.95	389.95
a	CWIP capitalisation	2155.00	1148.57	139.65
b	New Investment capitalisation	**5733.00**	**3505.88**	**1067.16**
5	**Closing CWIP (3-4)**			
6	**Funding of Capitalisation**	**889.00**	**353.86**	**389.94**
a	**CWIP capitalisation**	699.00	230.06	350.95
i	Grant	190.00	123.80	38.99
ii	Loans	**2155.00**	**1148.58**	**139.66**
b	**New Investment capitalisation**	1260.00	746.57	125.69
i	Grant	895.00	402.01	13.97
ii	Loans	**3044.00**	**1502.44**	**529.60**
7	**Total Grants**	**1959.00**	**976.63**	**476.64**
8	**Total Loans**	**1085.00**	**525.81**	**52.96**

NBPDCL 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 (for both DISCOMs) as a whole, a total capital investment of Rs.5585 Crore with a capitalisation of Rs.3044 Crore for FY 2013-14 in the MYT order dated 15th March 2013.

The Distribution business was unbundled and the DISCOMs viz. NBPDCL and SBPDCL have been formed and started independent functions with effect from 1st November 2012. The Commission in the Tariff order dated 28th February 2014 has considered the true up for FY 2012-13 for the entire power sector of Bihar i.e. Generation, Transmission and Distribution functions. However, the Commission based on the independent tariff petitions filed by the NBPDCL and SBPDCL has reviewed the performance of the companies for FY 2013-14 and accordingly, the performance review has been approved in the Tariff Order dated 28.02.2014 along with Tariffs for FY 2014-15.

The Commission has approved a total capital expenditure of Rs.3828.58 Crore with capitalisation of Rs.1502.52 Crore for FY 2013-14 (RE) for NBPDCL.

The Petitioner has projected the capital investment and capitalisation for FY 2013-14 as per the audited annual accounts of FY 2013-14.

The Petitioner has considered the opening CWIP as on 1st April 2013 at Rs.1175.71 Crore as reflected in the audited annual accounts of the Petitioner for FY 2013-14. However, as per the audited annual accounts of the Petitioner for FY 2012-13, the closing CWIP is at Rs.1179.82 Crore. There is a difference of Rs.4.11 Crore (Rs.1179.82 Crore – Rs.1175.71 Crore) in the closing CWIP as on 31.3.2013 and Opening CWIP as on 1-4-2013 for which no details were furnished by the Petitioner.

The Commission has addressed the Petitioner vide letter dated 31.12.2014 to look into the discrepancy and furnish the details for the difference and how the difference is adjusted in the accounts, etc. The Petitioner has not furnished any reply in this regard.

The Commission observed that the annual accounts of FY 2013-14 were audited by the Statutory Auditors and issued their report on the accounts. They have certified the accounts and made no comment on the difference in opening balances adopted for FY 2013-14 vis-à-vis the closing balances as per the audited accounts of FY 2012-13.

The Commission further opines that the closing balances of FY 2013-14 as appearing in the audited accounts of FY 2013-14 shall be carried forward for FY 2014-15 while preparing the accounts for FY 2014-15 onwards. Hence, the Commission has considered the opening CWIP at Rs.1175.71 Crore as appearing in audited accounts for FY 2013-14.

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, capitalisation and funding of capitalisation as per the audited annual accounts of FY 2013-14. As per the audited accounts the capitalisation is at Rs.529.60 Crore and grants at Rs.1665.07 Crore (Consumer contribution – Rs.24.51 Crore + Capital Reserve Rs.1640.56 Crore). The Commission has considered entire capitalisation through grants as the grants are higher than the capitalisation based on audited accounts in FY 2013-14.

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

Table 4.20: Capitalisation and funding Considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14	Now approved in true up for FY 2013-14
1	Opening CWIP	3192.00	1179.82	1175.71	1175.71
2	New Investment	5585.00	3828.58	421.05	421.05
3	**Less: Capitalisation**	**3044.00**	**1502.52**	**529.60**	**529.60**
	(i) Opening CWIP	889.00	353.95	389.95	389.95
	(ii) New Investment	2155.00	1148.57	139.65	139.65
4	**Closing CWIP**	**5733.00**	**3505.88**	**1067.16**	**1067.16**
	Funding				
5	**CWIP Capitalisation**	**889.00**	**353.95**	**389.94**	**389.94**
	(i) Grant	699.00	230.06	350.95	389.95
	(ii) Loan	190.00	123.88	38.99	--
6	**New Investment**	**2155.00**	**1148.57**	**139.66**	**139.66**
	(i) Grant	1260.00	746.57	125.69	139.66
	(ii) Loan	895.00	402.00	13.97	--
7	**Total Capitalisation**	**3044.00**	**1502.52**	**529.60**	**529.60**
8	**Total Grant**	**1959.00**	**976.64**	**476.64**	**529.60**
9	**Total Loan**	**1085.00**	**525.88**	**52.96**	**--**

4.16 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.

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

Table 4.21: Gross Fixed Assets projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Opening GFA	4827.36	3474.00	3473.95
2	Less: Assets revalued		965.91	
3	Original value of GFA (1-2)	4827.36	2508.09	3473.95
4	Additions during the year	3044.00	1502.52	529.60
5	Add : IDC	70.53	34.18	--
6	**Closing GFA (3 to 5)**	**7941.89**	**4044.79**	**4003.55**

NBPDCL has requested the Commission to approve the GFA as per above Table for FY 2013-14.

Commission's analysis:

The Commission in True up for FY 2012-13 in the Tariff Order dated 28th February 2014 has considered closing GFA of Rs.3474.00 Crore based on the audited annual accounts of the Petitioner for FY 2012-13.

As per the audited annual accounts of NBPDCL the closing GFA as on 31st March 2013 is at Rs,3474.00 Crore, however, the Petitioner has adopted opening GFA of Rs.3473.95 Crore as on 1st April 2013 with a difference of Rs.0.05 Crore. The Petitioner neither disclosed the fact nor furnished any reasons/details for the difference in GFA in the petition and also in the audited annual accounts for FY 2013-14.

The Commission observed that the annual accounts of FY 2013-14 were audited by the Statutory Auditors and issued their report on the accounts. They have certified the accounts and made no comment on the difference in opening balances adopted for FY 2013-14 vis-à-vis the closing balances as per the audited accounts of FY 2012-13.

The Commission further opines that the closing balances of FY 2013-14 as appearing in the audited accounts of FY 2013-14 shall be carried forward for FY 2014-15 while preparing the accounts for FY 2014-15 onwards. Hence, the Commission has considered the opening CWIP at Rs.3473.95 Crore as appearing in audited accounts for FY 2013-14. Further, the Commission has considered the capitalisation based on the audited annual accounts for FY 2013-14.

The opening GFA, 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 4.22: Gross Fixed Assets considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in tariff order dated 28.02.2014	Projected by NBPDCL in truing up for FY 2013-14	Now approved for FY 2013-14 in true up
1	Opening GFA	4827.36	3474.00	**3473.95**	**3473.95**
2	Additions during the year	3044.00	1502.52	529.60	529.60
3	Add : IDC	70.53	34.18	0.00	0.00
4	**Closing GFA (1+2+3)**	**7941.89**	**5010.70**	**4003.55**	**4003.55**

4.17 Depreciation

Petitioner's submission:

NBPDCL 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 dated 15th March 2013 in Tariff Order for FY 2013-14. NBPDCL 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 in truing up for FY 2013-14.

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

Table 4.23: Depreciation projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Opening GFA (on 1.4.13)	4827.36	3474.00	**3473.95**
2	**Less:** Assets Re-valued / Value of Land		981.12	
3	**Original value of GFA (1-2)**	**4827.36**	**2492.88**	**3473.95**
4	Additions during the year	3044.00	1502.52	529.60
5	IDC	70.53	34.18	
6	Closing GFA (3+4+5)	7941.89	**4029.58**	**4003.55**
7	**Average GFA {(3+6)/2}**	**6384.63**	**3261.23**	**3738.75**
8	Weighted average rate of depreciation	5.22%	5.22%	4.09%
9	Depreciation (7*8)	333.28	**170.24**	**153.05**
10	Opening Grants	3918.50	1682.46	1349.78
11	Grants during the year	1959.00	976.64	1585.13
12	**Total Grants (10+11)**	**5877.50**	**2659.10**	**2934.91**
13	Average Grants {(10+12)/2}	4898.00	**2170.78**	**2142.35**
14	Weighted average rate of depreciation	5.22%	5.22%	3.73%
15	Depreciation. on assets created out of grants (13*14)	255.68	**113.31**	**79.93**
16	**Net Depreciation claimed in ARR (9-15)**	**77.60**	**56.93**	**73.12**

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

Commission's analysis:

The Commission has examined the computation of depreciation for FY 2013-14. The Petitioner has computed the depreciation adopting the CERC rates of depreciation. The Commission has computed the weighted average rate of depreciation based on the audited annual accounts for FY 2013-14 as detailed hereunder:

Sl. No.	Particulars	Amount (Rs. Crore)
1	Opening GFA	3473.95
2	Less: Opening land value	981.12
3	Opening GFA (Opening depreciable assets) (1-2)	2492.83
4	Additions during the year	529.60
5	Less: Value of land added during the year	5.96
6	Closing GFA (Closing depreciable assets) (3+4-5)	3016.47
7	Average GFA (3+6)/2	2754.65
8	Depreciation as per accounts	160.12
9	**Weighted average rate of Depreciation (8/7)*100**	**5.81%**

The Commission has considered the opening GFA, additions to assets and closing GFA as detailed in table 4.22. The Commission has considered the weighted average rate of depreciation as worked out above for computing depreciation in the true up for FY 2013-14.

The Petitioner has computed the depreciation on the GFA which includes value of Land amounting to Rs.987.08 Crore (Rs.981.12 Crore + Rs.5.96 Crore), as per audited annual accounts for FY 2013-14.

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 land amounting to Rs.987.08 Crore (Rs.981.12 Crore opening land value + Rs.5.96 Crore addition during the year) as per the audited annual accounts for FY 2013-14 of the Petitioner.

As per the audited annual accounts of NBPDCL for FY 2012-13, the closing Grants as at 31st March 2013 is at Rs.1708.77 Crore (Consumer contribution – Rs.21.63 Crore, Grants towards capital assets Rs.1676.67 Crore and Grant in aid for Kutir Jyoti Rs.10.47 Crore). The Commission has considered the same in the True up order for FY 2012-13, However, the Petitioner has adopted opening Grants at Rs.1376.73 Crore (consumers contribution Rs.21.63 Crore and Capital Reserve Rs.1355.10 Crore) as on 1st April 2013. The Commission observed there is difference of Rs.332.04 Crore. The Petitioner neither disclosed the fact nor furnished any reasons/details for the difference in Grants in the petition and also in the audited annual accounts for FY 2013-14.

The Commission observed that the annual accounts of FY 2013-14 were audited by the Statutory Auditors and issued their report on the accounts for FY 2013-14. They have certified the accounts and made no comment on the difference in opening balances adopted for FY 2013-14 vis-à-vis the closing balances as per the audited accounts of FY 2012-13.

The Commission opines that these grants received are for capital expenditure/capital assets. Hence, the Commission has considered the opening grants in line closing grants considered in the true up order for FY 2012-13 for computation of normative depreciation in truing up for FY 2013-14. The additions to grants during the FY 2013-14 is considered based on the audited accounts of the Petitioner for FY 2013-14 at Rs.1665.06 Crore (Consumers contributions Rs.24.51 Crore and Capital Reserve Rs.1640.56 Crore).

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 4.24: Depreciation considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved in true up for FY 2013-14
1	Opening GFA (on 1-4-13)	4827.36	3474.00	**3473.95**	**3473.95**
2	**Less:** Value of Land		981.12		981.12
3	**Value of Depreciable GFA (1-2)**	**4827.36**	**2492.88**	**3473.95**	**2492.83**
4	Additions during the year	3044.00	1502.52	529.60	529.60
5	Less: Value of land added				5.96

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved in true up for FY 2013-14
	during the year				
6	IDC	70.53	34.18		
7	Closing GFA (3+4-5+6)	7941.89	**4029.58**	**4003.55**	**3016.47**
8	**Average GFA {(3+7)/2}**	**6384.63**	**3261.23**	**3738.75**	**2754.65**
9	Weighted average rate of depreciation	5.22%	5.22%	4.09%	5.81%
10	Depreciation (8*9)	333.28	**170.24**	**153.05**	**160.05**
11	Opening Grants	3918.50	1682.46	1349.78	1708.77
12	Grants during the year	1959.00	976.64	1585.13	1665.07
13	**Total Grants (11+12)**	**5877.50**	**2659.10**	**2934.91**	**3373.84**
14	Average Grants {(11+13)/2}	4898.00	**2170.78**	**2142.35**	**2541.31**
15	Weighted average rate of depreciation	5.22%	5.22%	3.73%	5.81%
16	Depreciation. on assets created out of grants (14*15)	255.68	**113.31**	**79.93**	**147.65**
17	**Net Depreciation (10-16)**	**77.60**	**56.93**	**73.12**	**12.40**

The Commission, accordingly, considers the depreciation of Rs.12.40 Crore in true up for FY 2013-14

4.18 A. Interest on Loans

Petitioner's submission:

NBPDCL has submitted that the opening loan balance as on 1st April 2013 is considered as per audited annual accounts for FY 2013-14.

NBPDCL has submitted that the actual weighted average rate of interest for existing as well as new loans as per the agreements executed between the Petitioner and lender is considered. NBPDCL has projected the interest charges for FY 2013-14 as detailed in the Table below:

Table 4.25: Interest on loans projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved in Tariff Order dated 28.02.2014 for FY 2013-14 (RE)	Projected by NBPDCL for FY 2013-14 in truing up
1	**Opening loan balance**	1121.73	434.38	579.40
2	Additions during the year	1085.00	525.88	52.96
3	Normative Repayment	77.60	56.93	73.12
4	Closing Loans (1+2-3)	**2129.13**	**903.33**	**559.24**
5	**Average Loans {(1+4)/2}**	**1625.43**	**668.86**	**569.32**
6	Interest rate	13.00%	13.00%	8.44%
7	**Interest & Finance Charges (5 * 6)**	**211.28**	**86.95**	**48.07**

NBPDCL 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 computation of projected interest on loans for FY 2013-14 in truing up. The Petitioner has considered opening loan balance as on 1st April 2013 at Rs.579.40 Crore, whereas as per the audited annual accounts as at 31st March 2013, the closing balance of loans as on 31-03-2013 is at Rs.687.80 Crore (Institutional (REC, PFC & ADB) loans – Rs.434.38 Crore and State Government Loans – Rs.253.42 Crore). 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.

The Commission has addressed the Petitioner to furnish the details of Opening balance of project loans, project loans drawn during the year 2013-14, Rate of Interest, Interest charges for the year and Repayment of loans during the year 2013-14. The Petitioner has not furnished any information sought for by the Commission.

The Commission, in the absence of scheme-wise capex, capitalisation and funding details, has considered the opening loans at Rs.434.38 Crore based on closing loan considered in true up for FY 2012-13 for computation of interest on loan for FY 2013-14. The loans are further updated based on the capitalisation during FY 2013-14.

Since grants received are higher than the capitalisation no addition to loan is considered for FY 2013-14.

As per 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 Petitioner has considered rate of interest on loans for computing interest on loans @8.44% in true up for FY 2013-14. The Commission in Tariff order dated 28th February 2014 has considered rate of interest on loans at 13% in review for FY 2013-14. The Commission observes that the rate of interest projected by the Petitioner is lower than the rate of interest considered in review for FY 2013-14 in Tariff Order dated 28th February 2014. Accordingly, the Commission has considered the rate of interest on loans at 8.44% in truing up for FY 2013-14 and computed interest on loans for FY 2013-14 as detailed in the Table below:

Table 4.26: Interest on loan considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved in truing up for FY 2013-14
1	**Opening loan balance**	1121.73	434.38	579.40	434.38
2	Additions during the year	1085.00	525.88	52.96	--
3	Normative Repayment	77.60	56.93	73.12	12.40
4	Closing Loans (1+2-3)	**2129.13**	**903.33**	**559.24**	**421.98**
5	**Average Loans {(1+4)/2}**	**1625.43**	**668.86**	**569.32**	**428.18**
6	Interest rate	13.00%	13.00%	8.44%	8.44%
7	**Interest & Finance Charges (5 * 6)**	**211.28**	**86.95**	**48.07**	**36.14**

The Commission, accordingly, considered Rs.36.14 Crore towards interest on loans for FY 2013-14 in true up.

B. Other Interest and Finance Charges

Petitioner's submission:

NBPDCL has claimed actual other interest and finance charges as per audited annual accounts for FY 2013-14 as detailed in the Table below.

Table 4.27: Other Interest and Finance Charges projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved in Tariff Order dated 28.02.2014 for FY 2013-14 (RE)	Projected by NBPDCL for FY 2013-14 in truing up
1	Discount/Rebate to consumers for timely payment of bills			10.18
2	Power Factor Rebate			7.71
3	Late payment surcharge to power suppliers/interest to suppliers and contractors			20.26
4	Cost of raising finance			1.38
5	Other charges			0.19
6	**Total**			**39.72**

NBPDCL has requested the Commission to approve the other interest and finance charges for FY 2013-14 as per above Table.

Commission's analysis:

Discount to consumers for timely payment of bills (Rebate)

The BERC (Terms and Conditions for Determination of Tariff) Regulation 2007, Regulation 85 – Definitions of Income and Expenditure specify;

(1) Definitions of Income:

"Income shall include all income from any source but shall not be limited to (1) *sale of energy or gross receipts from sale of energy less discounts / rebates given based on the orders of the Commission"* for determination of tariffs.

Further, the Commission in the Tariff Orders issued year on year, specifies in the Tariff Principles, Design and Tariff Schedule that *Rebate for prompt payment of energy bills on or before due date by the LT and HT consumers* shall be allowed as per the rates prescribed in the tariff orders.

Power Factor Rebate

The Commission in the Tariff Orders issued year on year, specifies in the Tariff Principles, Design and Tariff Schedule that *Power factor Rebate to the HT consumers* shall be allowed as per the rates prescribed in the tariff orders.

Interest to suppliers/contractors (Late Payment Surcharge to Power Suppliers)

As per Clause 85 (ii) (5) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specify *"financing cost excluding penal interest/charges"*. Hence, the penal charges are not considered.

Cost of raising Finance

As per Clause 85 (ii) (5) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specify *"financing cost excluding penal interest/charges"*. The cost of raising finance includes documentation, loan syndication fee, etc. incurred towards raising finance, accordingly, the cost of raising finance charges are considered.

Other Charges

The other charges were considered by the Commission as they represent the other finance charges towards bank collection charges etc.

Accordingly, the Commission approves the Discount allowed to consumers for timely payment of energy bills and the power factor rebate, which were specified by the Commission in the Tariff Orders issued year on year and cost of raising finance and other charges as detailed in the table below:

Table 4.28: Approved interest and finance charges for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2013-14 in truing up	Approved in truing up for FY 2013-14
1	Discount/Rebate to consumers for timely payment of bills	10.18	10.18
2	Power Factor Rebate	7.71	7.71

Sl. No.	Particulars	Projected by NBPDCL for FY 2013-14 in truing up	Approved in truing up for FY 2013-14
3	Late payment surcharge to power suppliers/interest to suppliers and contractors	20.26	
4	Cost of raising finance	1.38	1.38
5	Other charges	0.19	0.19
6	Total	**39.72**	**19.46**

The Commission approves Rs.19.46 Crore towards other interest and finance charges for FY 2013-14 in the truing up.

The Commission approves total interest and finance charges at Rs.55.60 Crore (Rs.36.14 + Rs.19.46) in the truing up for FY 2013-14.

4.19 Employee Costs

Petitioner's submission:

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

Table 4.29: Employee Cost proposed by the Petitioner for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Previous year cost (pro-rata cost) of employee expenses		148.88	
2	Add: Inflationary index @ 9.21%		13.71	
3	**Employee Cost**	**394.24**	**162.59**	**138.21**
4	Add: New Manpower cost	10.00	5.00	
5	**Total Employee Cost**	**404.24**	**167.59**	**138.21**

Commission's analysis:

The Petitioner has considered the total employee cost as per the audited annual accounts for FY 2013-14, which includes payment towards terminal benefits.

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:

Particulars	Rate of Contribution as on 31.3.2012
Gratuity	@ 2.50% of Basic + GP + DA
Pension (Existing employees)	@ 2.50% of Basic + GP + DA
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.

The Commission has examined the employee cost computations of the Petitioner. The employee cost includes the Company’s contribution for existing employees’ future 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 actual expenditure as per audited annual accounts for FY 2013-14, which is within the approved level. Hence, the Commission has considered the employee cost as detailed in the Table below:

Table 4.30: Employee Cost considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in truing up
1	Previous year employee cost		148.88		
2	Add: Inflationary index @ 9.21%		13.71		
3	**Employee Cost**	**394.24**	**162.59**	**138.21**	**138.21**
4	Add: New Manpower cost	10.00	5.00		
5	**Total Employee Cost**	**404.24**	**167.59**	**138.21**	**138.21**

The Commission, accordingly, considered the employee cost at Rs. 138.21 Crore for FY 2013-14 in true up.

4.20 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

NBPDCL has submitted that R&M expenses primarily include costs related to repair of different class of fixed assets, etc. The R&M expense projected by the Petitioner is as given in the Table below:

Table 4.31: Repairs and Maintenance expenses projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	**Previous year R&M expenses**		**36.38**	
2	Add: Inflationary index @ 9.21%		3.35	
3	**Total R & M Cost**	**79.87**	**39.73**	**22.22**

NBPDCL 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 NBPDCL. The Petitioner has projected R&M expenses as per the audited annual accounts for

FY 2013-14. As per the annual accounts of NBPDCL for FY 2013-14, the petitioner has incurred Rs.22.22 Crore towards R&M expenses during FY 2013-14.

The Commission has considered the R&M expenditure based on actual expenses of FY 2013-14, which is within the approved level as detailed in the Table below:

Table 4.32: R&M expenses considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in true up
1	**R & M Cost**	**79.87**	**36.38**	**22.22**	**22.22**
2	Add: Inflationary index @ 9.21%		3.35		
3	**Total R & M Cost**	**79.87**	**39.73**	**22.22**	**22.22**

The Commission, accordingly, considers R&M expenses at Rs. 22.22 Crore in true up for FY 2013-14.

4.21 Administrative and General (A&G) Expenses

Petitioner's submission

NBPDCL has submitted that Administration and General expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling expenses etc.

The NBPDCL has projected the A&G expenses for FY 2013-14 in truing up as furnished in Table below:

Table 4.33: Administration and General Expenses projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Previous year A&G Expenses		31.08	31.58
2	Add: Inflationary index @ 9.21%		2.86	
3	**Total A&G Cost**	**46.04**	**33.94**	**31.58**

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

Commission analysis:

The Commission has examined the A&G expenses projected by NBPDCL. As per the audited annual accounts of NBPDCL for FY 2013.-14 A&G expenses incurred is at Rs.31.58 Crore.

The Administration and General expenses include Rs.2.05 Crore towards preliminary expenses amortised. The Commission observed that the expense represent the Company Registration charges incurred for NBPDCL by BSPHCL during FY 2012-13. The Commission has considered the total Registration charges paid to Registrar of Companies for registration of BSPGCL, BSPTCL, NBPDCL and SBPDCL and allowed the same under Administration and General charges in the truing up for FY 2012-13. Accordingly, the Commission disapproves Rs.2.05 Crore included in the Administration and General charges towards preliminary expenses amortised in the truing up for FY 2013-14.

The Commission has considered the Administration & General Expenses based on actual expenses reported in annual accounts for FY 2013-14, which is within the approved level as detailed in the Table below:

Table 4.34: Administration & General Expenses considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in truing up
1	A&G Expenses		31.08	31.58	31.58
2	Add: Inflationary index @ 9.21%		2.86		
3	Less: Preliminary expenses amortised				2.05
4	**A & G expenses (1+2-3)**	**46.04**	**33.94**	**31.58**	**29.53**

Accordingly, the Commission considered Rs.29.53 Crore towards A&G expenses for FY 2013-14 in true up.

4.22 Allocation of Holding Company Expenses

Petitioner's submission

NBPDCL 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.

NBPDCL 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".

NBPDCL 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 NBPDCL has projected the allocation of Holding Company expenses for FY 2013-14 as furnished in Table below:

Table 4.35: Allocation of Holding Company Expenses projected for FY 2013-14
(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Employee expenses		6.44	6.44
2	Repairs & Maintenance expenses		0.11	0.11
3	Administration & General expenses		1.91	1.91
4	**Total**	**--**	**8.46**	**8.46**

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

Commission's analysis:

The Commission has considered Rs.8.32 Crore in review for FY 2013-14 (RE) in the Tariff Order dated 28th February 2014.

The audited annual accounts of the NBPDCL for FY 2013-14 include Rs.8.46 Crore towards holding company expenses. Accordingly, the Commission considers the holding company expenses of Rs.8.46 Crore in true up for FY 2013-14 as detailed in the Table below:

Table 4.36: Holding Company expenses considered for FY 2013-14 (Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in truing up
1	Employee Expenses		6.44	6.44	6.44
2	R&M Expenses		0.11	0.11	0.11
3	A&G Expenses		1.91	1.91	1.91
4	**Total**	**--**	**8.46**	**8.46**	**8.46**

Accordingly, the Commission considered Rs.8.46 Crore towards Holding Company Expenses for FY 2013-14 in true up.

4.23 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 4.37: Total O&M cost considered by the Commission for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in truing up
1	Employee cost	404.24	167.59	138.21	138.21
2	R&M expenses	79.87	39.73	22.22	22.22
3	A&G Expenses	46.04	25.12	31.58	29.53
4	Holding Company expenses		8.46	8.46	8.46
5	**Total O& M cost**	**530.15**	**240.90**	**200.47**	**198.42**

The Commission has considered total O&M costs at Rs.198.42 Crore for FY 2013-14 in true up.

4.24 Interest on working capital

Petitioner's submission:

NBPDCL 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 4.38: 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 Petitioner has submitted that 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 total support received is at Rs.1024.65 Crore by the NBPDL out of total State Government support of Rs.2655.60 Crore for FY 2013-14 to the DISCOMs (i.e. NBPDCL and SBPDCL). The government is releasing the funds on monthly basis for which no working capital is required. Accordingly, the amount equivalent to two months of financial support from the State Government amounting to Rs.170.77 Crore is reduced from the working capital requirement.

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

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

Table 4.39: Interest on working capital projected for FY 2013-14 (Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	O&M exp. (1 month)	44.18	20.81	16.71
2	Maintenance spares @1% of opening GFA with 6% escalation	51.17	26.42	39.47
3	Receivables - 2 months	1117.00	394.24	443.50
4	**Total working capital**	**1212.35**	**441.48**	**499.68**
5	**Less**: Govt. assistance for power purchase	360.00	152.66	170.77
6	**Net working capital requirement**	**852.35**	**288.82**	**328.91**
7	Rate of interest	14.45%	14.45%	14.45%
8	**Interest on working capital**	**123.16**	**41.73**	**47.53**

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.965.91 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. Accordingly, the GFA is considered at Rs.2508.04 Crore (GFA Rs.3473.95 Crore – land revalued Rs.965.91 Crore) and the maintenance spares @ 1% with escalation of 6% on GFA at Rs.26.59 Crore in the working capital requirement for FY 2013-14.

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.1024.65 Crore for the petitioner for FY 2013-14 out of the total Government support of Rs.2655.60 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 NBPDCL works out to Rs.170.78 Crore and same is reduced from the working capital requirement of NBPDCL.

The Commission has considered the rate of interest as per the SBI PLR @14.45% 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 4.40: Interest on working capital considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14
1	O&M exp. (1 month)	44.18	20.81	16.71	16.54
2	Maintenance spares @1% of opening GFA with 6% escalation	51.17	26.42	39.47	26.42
3	Receivables - 2 months	1117.00	394.24	443.50	438.42
4	**Total working capital**	**1212.35**	**441.48**	**499.68**	**481.38**
5	Less: Govt. assistance for power purchase	360.00	152.66	170.77	170.78
6	**Net working capital requirement**	**852.35**	**288.82**	**328.91**	**310.60**
7	Rate of interest	14.45%	14.45%	14.45%	14.45%
8	**Interest on working capital**	**123.16**	**41.73**	**47.53**	**44.88**

The Commission, accordingly, considered interest on working capital at Rs. 44.88 Crore for FY 2013-14 in true up.

4.25 Return on Equity

Petitioner's submission:

NBPDCL has submitted that computation of Return on Equity is considering the equity excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) of BERC Tariff Regulations 2007.

NBPDCL has further submitted that it has considered opening equity as per approved transfer scheme and along with actual equity addition in FY 2013-14 to arrive at the closing equity for FY 2013-14.

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

Table 4.41: Return on Equity projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Opening Equity	879.00	385.00	538.28
2	Rate of Return per annum %	14.00%	14.00%	14.00%
3	**Return on Equity**	**123.06**	**53.90**	**75.36**

NBPDCL has requested the Commission to consider the RoE as per the computations furnished in the Table above for FY 2013-14 in truing up.

Commission's analysis

The Commission has examined the computation of RoE claim of NBPDCL. The Petitioner has computed RoE on the enhanced Equity. However, no details were furnished for the equity amount.

The Regulation 84 (Principles for fixation of tariff for a Distribution Licensee) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specify "*the tariff for a distribution licensee shall be fixed in such a manner that the licensee in a financial year shall ordinarily earn a return, which shall comprise 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). ……….. The definition of equity thus would involve all net worth deployed in the capital of the unit but does not include any revaluation of reserves and subsidies. The paid up equity capital for this purpose shall be the average of the opening and closing balances of paid up equity capital for that year*".

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. .

The Commission, in view of the above Regulations, for the purpose of computation of Return on Equity, has considered opening equity as on 1st April 2013 equity as per transfer scheme and @30% of capitalisation (net of grants) in respect of new investment capitalised based on the audited accounts of the Petitioner for FY 2013-14. The Commission considered the Grants for FY 2013-14 as per the audited annual accounts for FY 2013-14. As per the audited accounts, the investment capitalised is at Rs.529.60 Crore and the grants received is at Rs.1665.07 Crore (Rs.24.51 Crore consumer contribution + Rs.1640.56 Crore capital reserve). The grants are higher than the investment capitalised in FY 2013-14, hence, no equity addition is considered in FY 2013-14.

Accordingly, in view of the above, the Commission has computed return on equity for FY 2013-14 as detailed in the Table below:

Table 4.42: Return on Equity considered for FY 2013-14 (Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14
1	Equity	879.00	385.00	538.28	385.00
2	Rate of Return on Equity %	14.00%	14.00%	14.00%	14.00%
3	Return on Equity (1*2)	123.06	53.90	75.36	53.90

The Commission, accordingly, approved Return on Equity at Rs.53.90 Crore in true up for FY 2013-14.

4.26 Interest on Security Deposit

Petitioner's submission

NBPDCL 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 9.00 %. The Petitioner has projected interest on security deposit for FY 2013-14 as detailed in the Table below:

Table 4.43: Interest on security deposit projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2013-14
1	Opening Security Deposit	94.60
2	Addition / (Deletion)	43.40
3	Closing Security Deposit (1+2)	138.00
4	Average Security Deposit (1+3)/2	116.30
5	RBI Bank Rate	9.00%
6	Interest on Security Deposit (4*5)	10.49

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:

Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person.

BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle.

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.

The Commission is of the view that the Petitioner has utilised and invested these consumer deposits in the Regulated business. In such a scenario, there is no additional financial implication on distribution licensee because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. However, the Commission following the principle of prudence and consistency has not considered any notional normative income on consumers' security deposit, but disallowed the actual interest paid towards the interest on consumers' security deposits in the true up for FY 2013-14. ***If interest paid on consumers security deposit is allowed as pass through in tariffs, it tantamount to recovery of the interest from consumers itself***.

In view of the above, the Commission disapproves interest on Consumer's Security Deposit for FY 2013-14 in true up.

4.27 Net Prior Period Charges / (Credits)

Petitioner's submission:

NBPDCL has projected net prior period charges of Rs.100.45 Crore for truing up for FY 2013-14 based on the audited annual accounts of FY 2013-14 as detailed in the Table below.

Table 4.44: Net Prior period charges / (Credits) projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2013-14
1	Prior period income	(22.47)
2	Prior Period expenses	77.83
3	Miscellaneous charges / write offs	0.15
4	**Total**	**100.45**

Commission analysis:

The Commission has addressed the Petitioner through letter dated 16th December 2014 to furnish the complete particulars of the claims giving details of nature of claim, period for which the claim relates to, source of claim i.e. from whom the claim is received and whether the claims are fully discharged as on date.

The Petitioner vide Letter No.Com/TP/14(P-I)-164 dated 24.02.2015 has furnished the prior period power purchase cost, etc. for FY 2013-14 as detailed hereunder:

Particulars	Amount (Rs. Crore)
Prior period power purchase	70.47
Prior period consumer dues	0.08
Employee cost related to previous year	0.21
Depreciation under provided in previous year	7.07
Total	**77.83**

The Commission has examined the details of prior period power purchase bills and observed that these claims relates to NTPC, NHPC and PGCIL relating to fixed and variable cost. The Petitioner has intimated that the prior period bills have been admitted/paid. The Commission has considered the prior period power purchase (Rs.70.47 Crore), write off of consumer dues (Rs.0.08 Crore) and employee cost (Rs.0.21 Crore) amounting to Rs.70.76 Crore. The Commission observes that the Depreciation is considered in the ARR based on normative tariff principles and hence, has not considered Rs.7.07 Crore claimed by the Petitioner towards depreciation underprovided in the previous years as depreciation for the purpose of tariffs is considered on normative principles of depreciation as specified in the regulations. Further, the Commission has not considered the negative prior period income of Rs.22.47 Crore as the same represent correction of consumer bills and withdrawal of DPS, etc. accumulated over the past years and has no bearing on the operational performance and cash flows of the company for FY 2013-14.

The Commission in Case No.20/2014 has allowed additional amount on account of Net prior period charges for FY 2012-13. Accordingly, the same is considered in FY 2013-14 along with true up of FY 2013-14 and allowed Rs.16.39 Crore in FY 2013-14.

Accordingly, the Commission has considered the prior period expenses in true up for FY 2013-14 as detailed in the table below.

Table 4.45: Net Prior period charges / (Credits) considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2013-14	Now approved for FY 2013-14
1	Prior period income	(22.47)	
2	Prior Period expenses	77.83	70.76
3	Miscellaneous charges / write offs	0.15	
4	**Total**	**100.45**	**70.76**
5	Prior period charges allowed in Case No.20/2014 for FY 2012-13		16.39
6	**Total Prior Period charges**		**87.15**

The Commission, accordingly, considered net prior period charges at Rs.87.15 Crore for FY 2013-14 in true up.

4.28 Non-Tariff Income

Petitioner's submission:

NBPDCL has submitted that non tariff income is considered as per the audited annual accounts for FY 2013-14 and requested the Commission to approve the Non-tariff income as detailed in the Table below:

Table 4.46: Projected Non-tariff Income for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Meter / Service Rent			33.66
2	Late Payment surcharge			126.50
3	Miscellaneous Receipts			0.96
4	Rebate and Discount Received			0.75
5	Miscellaneous charges from consumers			19.29
6	Interest on Advance to suppliers / contractors			2.07
7	Incentive for timely payment of power purchase bills			5.23
8	Interest on investment & Bank balances			5.47
9	Sale of tender papers			1.46
10	**Total Non-tariff income**	**186.50**	**64.07**	**195.38**

Commission analysis:

The Non-Tariff income as per the audited annual accounts of NBPDCL for FY 2013-14 is at Rs.195.38 Crore.

The Petitioner has not claimed financing cost of delayed payment of outstanding dues by the consumers. However, following the principle of prudence, the Commission has considered the financing cost of outstanding dues in line with the judgement of the Hon'ble Appellate Tribunal for Electricity (APTEL) dated 12.07.2011 in case No.142 & 147 of 2009.

As per the audited annual accounts for FY 2013-14, the Non-tariff income is at Rs.195.38 Crore which includes Rs.126.50 Crore towards Delayed Payment Surcharge (DPS) from consumers. As the Petitioner charges DPS @ 18% per annum (1.5% per month), the principal amount works out to Rs.702.78 Crore on which DPS has been charged.

The Commission has allowed 14.45% being the prevailing SBI PLR as on 1st April 2013 towards the financing cost for DPS. The financing cost approved by the Commission is shown in the Table below:

Table 4.47: Financing cost of DPS (Rs. Crore)

Particulars	Now approved for FY 2013-14
DPS as per audited accounts (@1.5% pm)	126.50
Principal amount on which DPS charged	702.78
Interest rate for funding Principal of DPS	14.45%
Interest on funding of Principal DPS	101.55

Accordingly, the Commission has computed the Non-tariff income for FY 2013-14 as detailed in the Table below.

Table 4.48: Non-tariff Income considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in true up
1	Net Non-tariff income	**186.50**	**64.07**	**195.38**	**195.38**
2	Less: Interest on funding of principal amount of DPS				101.55
3	**Total non-tariff income**	**186.50**	**64.07**	**195.38**	**93.83**

The Commission, accordingly, considered non-tariff income at Rs.93.83 Crore for FY 2013-14 in true up.

4.29 Revenue from sale of power at existing tariff

Petitioner submission

NBPDCL has submitted the category wise revenue based on the existing tariff excluding sale to Nepal for FY 2013-14 as detailed in the Table below:

Table 4.49: Revenue from sale of power at existing tariff claimed for FY 2013-14

Sl. No.	Category	Sales (MU)	Revenue (Rs. Crore)
1	Kutir Jyoti	366.02	59.97
2	DS-I	491.92	122.85
3	DS-II	749.19	287.10
4	DS-III	0.76	0.35
5	NDS-I	17.60	4.61
6	NDS-II	279.82	194.02
7	NDS-III	0.98	0.45
8	SS-I	10.79	7.83
9	SS-II	15.27	7.88
10	IAS-I	12.19	1.51
11	IAS-II	92.64	43.80
12	Public Water Works	24.26	19.34
13	LTIS-I	56.22	33.39
14	LTIS-II	34.14	21.86
15	HTIS-I	193.96	136.91
16	HTIS-II	74.17	51.41
17	HTIS-III	25.67	23.18
18	HTIS-IV	57.65	33.93
19	RT	12.05	11.76
20	UI	76.58	10.80
21	DF	261.75	59.61
	Total	**2853.63**	**1132.56**

Commission's analysis

The Commission has observed that the Petitioner has applied the category-wise average billing rate on the energy sales to arrive at the revenue from sale of power during FY 2013-14.

The Commission has computed the revenue during FY 2013-14 at existing tariff based applying the same average billing rates on the energy sales approved in true up for FY 2013-14 and arrived at Rs. 1133.11 Crore excluding revenue from sale of power to Nepal, as detailed in the Table below:

Table 4.50: Revenue from sale of power at existing tariff considered for FY 2013-14

Sl. No.	Category	Sales (MU)	Average billing rate (Rs./kWh)	Revenue (Rs. Crore)
1	Kutir Jyoti	352.25	1.64	57.77
a		13.77	2.00	2.75
2	DS-I	491.92	2.50	122.85
3	DS-II	749.19	3.83	287.10
4	DS-III	0.76	4.61	0.35
5	NDS-I	17.60	2.62	4.61
6	NDS-II	279.82	6.93	194.02
7	NDS-III	0.98	4.59	0.45
8	SS-I	10.79	7.26	7.83
9	SS-II	15.27	5.16	7.88
10	IAS-I	11.18	1.24	1.39
11	IAS-II	92.64	4.73	43.80
12	Public Water Works	24.26	7.97	19.34
13	LTIS-I	56.22	5.94	33.39
14	LTIS-II	34.14	6.40	21.86
15	HTS-I	193.96	7.06	136.91
16	HTS-II	74.17	6.93	51.41
17	HTS-III	25.67	9.03	23.18
18	HTSS	57.65	5.89	33.93
19	RT	12.05	9.76	11.76
20	UI	76.58	1.41	10.80
21	DF	261.75	2.28	59.61
	Total	**2852.62**	**3.97**	**1133.11**

4.30 Revenue from Sales of Power to Nepal

NBPDCL has shown in its petition that the revenue from sale of 751.18 MU to Nepal at the rate of Rs. 4.94/kWh is Rs. 371.10 Crore for FY 2013-14. The Commission approves Rs. 371.10 Crore for sale of 751.18 MU to Nepal @ Rs. 4.94/kWh for FY 2013-14 as submitted by NBPDCL.

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

Petitioner's submission

The Petitioner has submitted that the total subsidy received for FY 2013-14 is Rs.2655.60 Crore and the share of NBPDCL is at Rs.1024.65 Crore for FY 2013-14 The Petitioner has furnished utilization of subsidy amount and balance amount be adjusted against revenue gap as detailed in the Table below:

Table 4.51: Resource Gap utilization projected for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up
1	Proposed resource gap grant from State Govt.	2160.00	915.94	1024.65
2	Less: Disallowed power purchase funded through State Govt. grant/subsidy	1588.02	368.93	315.95
3	Available Revenue Subsidy	571.98	547.01	708.75

Commission's analysis:

The Commission has considered the resource gap assistance for FY 2013-14 at Rs.2655.60 Crore for both DISCOMs out of which the NBPDCL share is considered at Rs.1024.65 Crore as per projected by the NBPDCL.

The Commission has considered the resource gap assistance of Rs.1024.65 Crore as projected by the Petitioner and adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of NBPDCL and distribution loss approved by the Commission from resource gap funding by the State Govt. as detailed in the Table below:

Table 4.52: Resource Gap utilization considered for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in true up
1	Proposed resource gap assistance from State Govt.	2160.00	915.94	1024.65	1024.65

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2013-14 in truing up	Now approved for FY 2013-14 in true up
2	Less: Disallowed power purchase funded through State Govt. grant	1588.02	368.93	315.79	426.47
3	Available balance resource gap assistance	571.98	547.01	708.86	598.18

4.32 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 4.53: ARR and Revenue Gap/ (Surplus) projected for FY 2013-14 (Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved in Tariff Order dated 28.02.2014 for FY 2013-14 (RE)	Projected by NBPDCL for FY 2013-14 in truing up
1	Purchase of power	5381.92	1751.20	2006.48
2	PGCIL & Other transmission charges	190.00	145.15	168.86
3	BSPTCL transmission charges	213.00	78.12	85.83
4	**O & M Expenses (A+B+C+D)**	**530.15**	**249.72**	**200.47**
A	Employee expenses	404.24	167.59	138.21
B	R&M expenses	79.87	39.73	22.22
C	A&G expenses	46.04	33.94	31.58
D	Holding company expenses		8.46	8.46
5	Depreciation	77.60	56.93	73.12
6	Interest & Finance charges	211.28	86.95	48.07
7	Other interest and finance charges			39.72
8	Return on equity	123.06	53.90	75.36
9	Interest on SD			10.49

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved in Tariff Order dated 28.02.2014 for FY 2013-14 (RE)	Projected by NBPDCL for FY 2013-14 in truing up
10	Prior period charges			100.45
11	Interest on working capital	123.16	41.73	47.53
12	**Less**: IDC		34.18	
13	**Total Revenue requirement (1 to 12)**	**6850.17**	**2429.52**	**2856.38**
14	**Less**:: Non-tariff income	186.50	64.07	195.38
15	**Less**: Expenditure disallowed due to excess T&D losses	1588.02	575.98	315.95
16	**Net Revenue requirement (13-14-15)**	**5075.65**	**1789.47**	**2345.05**
17	Revenue from Existing tariff	3723.70	1302.50	1121.76
18	Revenue from sale of power-Nepal	255.20	255.20	371.10
19	**Gross Gap / (Surplus) (16-17-18)**	**1096.75**	**231.77**	**852.19**

Commission analysis:

The Commission noted that in the above table, the Petitioner has not considered the balance grant available while 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 4.54: ARR and Revenue Gap / (Surplus) considered by the Commission for FY 2013-14

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL in truing up for FY 2013-14	Now approved for FY 2013-14 in truing up
1	Purchase of power	5381.92	1751.20	2006.48	2017.29
2	PGCIL & Other transmission charges	190.00	145.15	168.86	168.86
3	BSPTCL transmission charges	213.00	78.12	85.83	85.83
4	Less: Surplus energy sold outside the state			10.80	
5	**O & M Expenses (A+B+C+D)**	**530.15**	**249.72**	**200.47**	**198.42**
A	Employee expenses	404.24	167.59	138.21	138.21
B	R&M expenses	79.87	39.73	22.22	22.22
C	A&G expenses	46.04	33.94	31.58	29.53
D	Holding company expenses		8.46	8.46	8.46

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2013-14	Approved for FY 2013-14 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL in truing up for FY 2013-14	Now approved for FY 2013-14 in truing up
6	Depreciation	77.60	56.93	73.12	12.40
7	Interest & Finance charges	211.28	86.95	48.07	36.14
8	Other interest and finance charges			39.72	19.46
9	Return on equity	123.06	53.90	75.36	53.90
10	Interest on SD			10.49	
11	Prior period charges			100.45	87.15
12	Interest on working capital	123.16	41.73	47.53	44.88
13	**Less**: IDC		34.18		--
14	**Total Revenue requirement (1 to 13)**	**6850.17**	**2429.52**	**2856.38**	**2724.33**
15	**Less**:: Non-tariff income	186.50	64.07	195.38	93.83
16	**Less**: Expenditure disallowed due to excess T&D losses	1588.02	575.98	315.95	426.47
17	**Net Revenue requirement (14-15-16)**	**5075.65**	**1789.47**	**2345.05**	**2204.03**
18	Revenue from Existing tariff	3723.70	1302.50	1121.76	1133.11
19	Revenue from sale of power-Nepal	255.20	255.20	371.10	371.10
20	**Gross Gap / (Surplus) (17-18-19)**	**1096.75**	**231.77**	**852.19**	**699.82**
21	Add: Recovery Gap / (Surplus) of revenue gap of past filing (FY2011-12)	(170.33)	(59.62)		
22	**Net Gap / (Surplus) before subsidy**	**926.42**	**172.16**	**852.19**	**699.82**
23	Subsidy from State Government	2160.00	915.94	1024.65	1024.65
24	Subsidy used for disallowed power	1588.02	575.98	315.95	426.47
25	Balance subsidy	571.98	339.96	708.70	598.18
26	**Net Gap / (Surplus) after subsidy**	**354.44**	**(167.80)**	**143.49**	**101.64**

The Commission approves the net revenue Gap of Rs. 101.64 Crore for FY 2013-14 in true up, as against revenue gap of Rs.143.49 Crore projected by the Petitioner in the truing up petition for FY 2013-14.

4.33 Past recoveries and Regulatory Asset for FY 2015-16

The Commission has issued true up orders for FY 2006-07 to FY 2011-12 for BSEB and the summary of the true up orders is as detailed below:

Year	Particulars	Amount (Rs. Crore)
2006-07	Revenue Gap / (Surplus)	7.23
2007-08	Revenue Gap / (Surplus)	86.56
2008-09	Revenue Gap / (Surplus)	123.41
2009-10	Revenue Gap / (Surplus)	274.67
2010-11	Revenue Gap / (Surplus)	(639.93)
2011-12	Revenue Gap / (Surplus)	(149.94)
Total		**(298.00)**

The Commission issued truing up order for FY 2012-13 for BSPHCL and the truing up has resulted in a revenue surplus of Rs.801.51 Crore.

The Commission based on true up for FY 2013-14 has arrived at the consolidated Revenue gap of Rs.307.67 Crore (NBPDCL Rs.101.64 Crore and SBPDCL Rs.206.03 Crore).

The Commission considered the revenue surplus available up to FY 2012-13 shall be adjusted against the trued up revenue gap of FY 2013-14 and balance surplus available to be carried forward for adjustment in ARR for FY 2015-16. Accordingly, the Commission has adjusted the trued up revenue gap of FY 2013-14 against the carried forward revenue surplus available up to the end of FY 2012-13 as detailed in the table below:

Table 4.55: Approved consolidated Revenue Gap / (Surplus) of DISCOMs based on true up to end of FY 2013-14

Sl. No.	Particulars	Amount (Rs. Crore)
1	Net Gap / (Surplus) considered based on true up for FY 2006-07 to FY 2011-12	(298.00)
2	Add: Recovery of revenue Gap / (Surplus) of FY 2012-13	(801.51)
3	Add: Carrying cost on revenue Gap / (Surplus) of FY 2012-13 (for 1 year)	(115.82)
4	Total Revenue Gap / (Surplus) available for recovery upto FY 2012-13	(1215.33)
5	**Consolidated net Revenue Gap / (Surplus) for FY 2013-14 of DISCOMs**	**307.67**
6	**Net revenue Gap / (Surplus) available for carry forward to ARR in FY 2015-16**	**(907.66)**

The Commission based on the power sharing ratio has allocated the balance available revenue surplus to NBPDCL and SBPDCL in the ratio of 42: 58.

Sl. No.	Particulars	Total	NBPDCL	SBPDCL
1	Balance revenue Surplus allocated to DISCOMs	**(907.66)**	**(381.22)**	**(526.44)**
2	Carrying cost for FY 2014-15 (SBI PLR @ 14.75%) for 1 year	(133.88)	(56.23)	(77.65)
3	Carrying cost for FY 2015-16 (SBI PLR @ 14.75%) for 1/2 year	(66.94)	(28.11)	(38.83)
4	**Total surplus with Carrying cost available for recovery in ARR for FY 2015-16**	**(1108.48)**	**(465.56)**	**(642.92)**

The above revenue surplus is carried forward for adjustment in the ARR for FY 2015-16 of the respective DISCOMs.

5. Review for FY 2014-15

5.1 Background

The Commission has determined the Multi Year Aggregate Revenue Requirement (ARR) for FY 2013-14 to FY 2015-16 combinedly for both the DISCOMs i.e. SBPDCL and NBPDCL in the MYT Order dated 15th March, 2013. NBPDCL has submitted the petition independently for first time after unbundling of erstwhile BSEB, seeking for determination of revised ARR and retail supply tariff for FY 2014-15. The Commission issued the Tariff Order date d 28th February, 2014 determining the ARR and retail supply tariff for FY 2014-15.

NBPDCL has now submitted the present petition which includes Annual Performance Review (APR) for FY 2014-15. It is submitted that the APR for FY 2014-15 is based on actual figures for 5 months (as available) for elements like power purchase and O&M expenses etc. and pro-rata projections/escalations over previous year and also considering Commission approved figures as guiding principles for balance seven months.

NBPDCL has submitted that the Commission has approved MYT figures for FY 2013-14 to FY 2015-16, however the Petitioner would seek opportunity to review / revise its ARR for FY 2013-14 to FY 2015-16 so as to enable sound transition of new company and also avoiding financial loss, if any, in transition phase.

Review for FY 2014-15 is to be done according to the Regulation 22 (1) of the BERC (Terms and Conditions for Determination of Tariff) Regulations, 2007 which is reproduced below:

"The Commission shall undertake a review along with next Tariff Order of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the sale of electricity, income and expenditure for

the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called Review".

Accordingly the "Review" exercise for FY 2014-15 has been undertaken by the Commission.

In this Chapter, the Commission has analysed the energy sales and components of expenditure and revenue claimed by NBPDCL for FY 2014-15 (RE)

5.2 Profile of NBPDCL

NBPDCL 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).

NBPDCL area of supply consists of 3 Zones and 7 Distribution Circles as shown below which include 30 Divisions and 92 Sub-Divisions.

Table 5.1: NBPDCL Area and Circles

Area	Circle
TIRHUT	1. Muzaffarpur
	2. Chhapra
	3. Motihari
MITHILA	1. Darbhanga
	2. Samastipur
KOSI	1. Saharsa
	2. Purnea

NBPDCL has a total consumer base of 26,03,321 as on 31^{st} March, 2014.

Details of existing distribution infrastructure of NBPDCL as on August, 2014 is as given in the Table below:

Table 5.2: Distribution Infrastructure as on 31-08-2014

Particulars	Numbers
33 KV Feeders	139
11 KV Feeders	825
Power Substation	246
Power Transformers	506
Distribution Transformers	20900

5.3 Energy Sales, Number of Consumers and Connected Load

The Petitioner has submitted that NBPDCL and SBPDCL serve more than 44,83,570 consumers in the State (as on 31st March, 2014). The electricity consumers in the State have grown by more than 15% CAGR in past 4 years. Such a high growth rate is reflective of regressed demand in the State. Considerable increase in consumer load and number of consumers lead to quantum leap in energy sales under various categories of consumers.

NBPDCL has furnished the category wise number of consumers, connected load and energy sales over the last 5 years i.e. FY 2009-10 to FY 2013-14 as shown in the Tables below:

Table 5.3: Category-wise Effective Number of Consumers in Bihar (Actuals)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	3,19,244	5,79,852	8,89,252	13,37,493	14,47,536
2	Domestic	17,97,404	19,38,023	21,07,229	24,35,584	26,58,560
3	Commercial	1,90,089	1,95,145	2,16,530	2,79,879	3,01,634
4	Public Lighting	379	306	355	399	419
5	IAS	59,121	54,709	57,615	57,838	53,332
6	PWW	768	923	970	1,098	1,236
7	Industrial LT	18,917	17,144	16,181	18,816	19,280
8	Industrial HT	929	915	1,179	1,317	1,551
9	Rail way	15	15	17	17	19
10	Inter State & UI & DF	1	1	1	1	3
11	**Total**	**23,86,867**	**27,87,033**	**32,89,329**	**41,32,442**	**44,83,570**

Table 5.4: Category wise consumer growth in past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	46%	36%	28%	8%
2	Domestic	10%	11%	12%	9%
3	Commercial	12%	16%	18%	8%
4	Public Lighting	3%	11%	9%	5%
5	IAS	-3%	-1%	-4%	-8%
6	PWW	13%	10%	13%	13%
7	Industrial LT	0%	4%	9%	2%
8	Industrial HT	14%	19%	15%	18%
9	Railway	6%	8%	6%	12%
10	Inter State & UI & DF	32%	44%	73%	200%

Table 5.5: Category wise connected load (KW) in Bihar (Actual)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	23,84,686.00	30,60,488.00	35,35,753.00	39,89,210.00	44,12,384.78
2	Domestic					
3	Commercial	5,76,714.00	6,14,059.00	6,79,093.00	6,50,003.00	7,12,192.69
4	Public Lighting	9,625.00	11,411.00	6,260.00	7,872.00	7,747.34
5	IAS	6,18,974.00	4,17,191.00	4,23,965.00	1,85,000.00	1,64,469.82
6	PWW	21,385.00	23,055.00	25,329.00	18,154.00	21,645.56
7	Industrial LT	7,28,365.00	4,55,276.00	4,80,421.00	1,82,579.00	1,89,064.93
8	Industrial HT	4,30,833.00	3,27,610.00	5,16,509.00	5,26,757.00	6,32,329.51
9	Railway	1,02,150.00	3,26,500.00	1,37,085.00	35,640.00	1,70,462.00
10	Inter State & UI & DF					
11	**Total**	**48,72,732.00**	**52,35,590.00**	**58,04,415.00**	**55,95,215.00**	**63,10,296.63**

Table 5.6: Category wise connected Load growth in Past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	17%	13%	12%	11%
2	Domestic				
3	Commercial	5%	5%	2%	10%
4	Public Lighting	-5%	-12%	11%	-2%
5	IAS	-28%	-27%	-38%	-11%
6	PWW	0%	-2%	-8%	19%
7	Industrial LT	-29%	-25%	-37%	4%
8	Industrial HT	10%	25%	11%	20%
9	Railway	14%	-19%	12%	378%

Table 5.7: Category wise Energy Sales in Bihar (Actual)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	151	164	342	319.52	525.56
2	Domestic	1,814.00	1,969.00	2,026.00	2,342.84	2,755.45
3	Commercial	470	490	521	730.43	819.19
4	Public Lighting	27	33	23	56.35	45.7
5	IAS	794	389	363	336.53	321.79
6	PWW	143	60	45	53.3	58.52
7	Industrial LT	192	226	203	251.12	281.01
8	Industrial HT	1,475.00	1,501.00	1,470.00	1,404.76	1,553.51
9	Railway	445	458	537	448.64	523.95
10	Inter State & UI & DF	555	848	1,164.00	1,073.41	1,356.79
11	**Total**	**6,066.00**	**6,138.00**	**6,694.00**	**7,016.90**	**8,241.48**

Table 5.8: Category wise Energy sales growth in past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	37%	48%	24%	65%
2	Domestic	12%	13%	19%	21%
3	Commercial	16%	20%	28%	17%
4	Public Lighting	14%	12%	41%	-19%
5	IAS	-20%	-6%	-6%	-4%
6	PWW	-20%	-1%	15%	11%
7	Ind LT	11%	9%	20%	17%
8	Ind HT	2%	2%	4%	14%
9	Railway	4%	5%	-1%	17%
10	Inter State & UI & DF	25%	17%	8%	26%

5.3.1 Category wise number of consumer

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating number of consumer for FY 2014-15 (RE)

- 4 years, 3 years, 2 years and YoY calculation of number of consumers were adopted and applied on the actual number of consumers of FY 2013-14 for estimating number of consumers of FY 2014-15.
- Number of Consumers have been estimated as per CAGR arrived on actual number of consumers of FY 2013-14 for NBPDCL and SBPDCL for all categories except Kutir Jyoti.
- For Kutir Jyoti an increase of 8,50,000 of Consumers in FY 2014-15 has been considered based on monthly new connection drive started by Discom's from September, 14 and under RGGVY XIth and XIIth plan respectively;
- For Domestic, Commercial and Public Lighting 3 years CAGR of 11%, 16% and 11% has been considered
- In case of Public Water Works growth rate of 10% (YOY for FY 2013-14) has been considered for projection purpose
- For Industrial HT, Railway, growth rate of 3 years CAGR (15%, 8%) has been considered.
- For IAS growth rate of notional growth rate of 5% has been considered.
- For Industrial LT Category growth rate of 3 years CAGR 10% has been considered.

The total number of consumers thus estimated for FY 2014-15 are divided among SBPDCL and NBPDCL in the ratio of actual number of consumers existing during FY 2013-14.

The revised number of consumers projected for FY 2014-15 are as given in the Table below.

Table 5.9: Number of consumers projected for FY 2014-15

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
1	KJY	1828468	28763	1857231
2	DSI	807489	28756	836245
3	DSII	703023	84754	787777
4	DS III	39	4	43
5	NDS I Commercial	22483	1902	24385
6	NDS II Commercial	101087	20022	121110
7	NDS III Commercial	114	9	124
8	SS I	44	4	49
9	SS II	80	0	80
10	Irrigation and Agriculture I	2206	30	2237
11	Irrigation and Agriculture	2339	65	2405
12	PWW	584	37	622
13	LTIS I	4662	901	5563
14	LTIS II	358	128	486
15	HTS I	395	106	500
16	HTS II	17	3	21
17	HTS III	1	1	2
18	HTSS	7	0	7
19	RT	2	0	2
20	Sale to Nepal	1		1
21	UI	0	0	0
22	DF	0		0
23	**Total**	**34,73,400**	**1,65,487**	**36,38,887**

Commission's analysis

NBPDCL has considered an addition of 8,50,000 new Kutir Jyoti connections (excluding DF area) during FY 2014-15. The addition of Kutir Jyoti connections in the past years are as given below:

Table 5.10 Growth of Kutir Jyoti Consumers

DISCOMs / State	Actuals Existing					Projected
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
SBPDCL	-	-	-	-	443182	1920935
NBPDCL	-	-	-	-	1004354	1857231
Total	319244	579852	889252	1337493	1447536	3778166
Newly added	-	260608	309400	448241	110043	2330630

The maximum addition of new Kutir Jyoti connections in Bihar State in the past was 4,48,241 during FY 2012-13. Proposed addition of 8,50,000 new Kutir Jyoti connections during NBPDCL area FY 2014-15 seems to be very ambitious projection.

Further, as observed from the Table 5.4, the CAGR of Kutir Jyoti connections is reducing year on year from during the period FY 2009-10 to FY 2013-14.

On a query from the Commission directing NBPDCL to provide the new Kutir Jyoti connections given month-wise from April, 2014 to September 2014 and month-wise new Kutir Jyoti connection expected to be released during second half of FY 2014-15, NBPDCL has not responded. However, NBPDCL stated that the Kutir Jyoti connections existing at the end of November, 2014 are 10,74,652 and at the end of December, 2014 are 11,13,994.

It is observed that during December, 2014 the Kutir Jyoti connections released are 39,342. Considering the same trend will continue in releasing new Kutir Jyoti connections in rest of the three months, the Commission has estimated the total Kutir Jyoti connection in NBPDCL at 12,32,020 (i.e. 11,13,994 + 3*39342) for FY 2014-15 (RE).

For IAS category the number of consumers are considered at the same level as in FY 2013-14 as no growth is expected.

For other categories, the Commission has considered the number of consumers as projected by the Petitioner.

Details of category wise number of consumers considered by the Commission for FY 2014-15 in the review are shown in the Table below:

Table 5.11 Number of consumers considered for FY 2014-15 (RE)

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
1	KJY	12,03,257	28763	12,32,020
2	DSI	807489	28756	836245
3	DSII	703023	84754	787777
4	DS III	39	4	43
5	NDS I Commercial	22483	1902	24385
6	NDS II Commercial	101087	20022	121110
7	NDS III Commercial	114	9	124
8	SS I	44	4	49
9	SS II	80	0	80
10	Irrigation and Agriculture I	2101	29	2130
11	Irrigation and Agriculture II	2228	62	2290
12	PWW	584	37	622
13	LTIS I	4662	901	5563
14	LTIS II	358	128	486
15	HTS I	395	106	500
16	HTS II	17	3	21
17	HTS III	1	1	2
18	HTSS	7	0	7
19	RT	2	0	2
20	Sale to Nepal	1		1
21	UI	0	0	0
22	DF	0		0
23	**Total**	**28,47,973**	**1,65,483**	**30,13,456**

NBPDCL is directed to maintain correct details of category wise and sub category wise number of consumers for FY 2014-15 for considering while truing-up for FY 2014-15.

5.3.2 Category wise connected load

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating the connected load for FY 2014-15 (RE).

- 4 years, 3 years, 2 years and YoY calculation of connected load were adopted and applied on the actual connected load of FY 2013-14 for estimating connected load of FY 2014-15.

- Connected load have been estimated as per CAGR arrived on actual connected load of FY 2013-14 for NBPDCL and SBPDCL for all categories except Kutir Jyoti.
- For Kutir Jyoti an average load per consumer increase has been considered in FY 2014-15 as per actual in FY 2013-14 based on monthly new connection drive started by Discom's from September 14 and under RGGVY XIth and XIIth plan respectively;
- For Domestic, Commercial and Public Lighting 3 years CAGR of 12%, 5% and 11% has been considered, wherever negative growth is there a nominal increase has been considered;
- In case of IAS and Public Water Works notional growth rate of 5% has been considered for projection purpose.
- For Industrial HT, Railway growth rate of 2 years CAGR (11% and 12%) has been considered.
- For Industrial LT Category connected load are considered at nominal increase of 4% as per YOY growth in previous years.

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

Table 5.12 Connected Load (KW) projected for FY 2014-15

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
1	KJY	1568370	28925	1597296
2	DSI	704748	28989	733737
3	DSII	808730	126217	934947
4	DS III	460	18	478
5	NDS I Commercial	14432	1845	16277
6	NDS II Commercial	237410	40979	278389
7	NDS III Commercial	830	45	875
8	SS I	1772	42	1814
9	SS II	1957	0	1957
10	Irrigation and Agriculture I	7905	246	8151
11	Irrigation and Agriculture II	29881	1510	31391

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
12	PWW	8627	883	9510
13	LTIS I	37888	11970	49858
14	LTIS II	14084	8698	22781
15	HTS I	76038	24588	100626
16	HTS II	29166	14421	43587
17	HTS III	26558	3934	30492
18	HTSS	14775	0	14775
19	RT	21678	0	21678
20	Sale to Nepal			0
21	UI			0
22	DF			0
23	**Total**	**36,05,309**	**2,93,309**	**38,98,619**

Commission analysis

The Commission has considered the connected load for Kutir Jyoti consumers based on the number of consumers now approved for FY 2014-15 (RE).

For IAS category the connected load is considered at the same level of FY 2013-14 as no growth is expected.

For other categories, the Commission has considered the category wise connected load for FY 2014-15 as projected by the Petitioner. Details of category wise connected load considered by the Commission for FY 2014-15 in the review are given in the Table below:

Table 5.13 Connected load (KW) considered for FY 2014-15 (RE)

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
1	KJY	10,32,095	28925	10,61,020
2	DSI	704748	28989	733737
3	DSII	808730	126217	934947
4	DS III	460	18	478
5	NDS I Commercial	14432	1845	16277
6	NDS II Commercial	237410	40979	278389
7	NDS III Commercial	830	45	875
8	SS I	1772	42	1814
9	SS II	1957	0	1957
10	Irrigation and Agriculture I	7528	235	7763

Sl. No	Category	FY 2014- 15		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
11	Irrigation and Agriculture II	28458	1438	29896
12	PWW	8627	883	9510
13	LTIS I	37888	11970	49858
14	LTIS II	14084	8698	22781
15	HTS I	76038	24588	100626
16	HTS II	29166	14421	43587
17	HTS III	26558	3934	30492
18	HTSS	14775	0	14775
19	RT	21678	0	21678
20	Sale to Nepal			0
21	UI			0
22	DF			0
23	**Total**	**30,67,234**	**2,93,226**	**33,60,460**

5.3.3 Category wise Energy Sales

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating sales for FY 2014-15 (RE).

- 4 years, 3 years, 2 years and YoY calculation of sales were adopted and applied on the actual sales of FY 2013-14 for estimating sales of FY 2014-15.
- Sales of DF areas have been computed separately and accordingly grossed up by the losses to arrive at the input energy to the DF areas.
- Sales have been estimated as per CAGR arrived on actual sales of FY 2013-14 for NBPDCL and SBPDCL for all categories except for Kutir Jyoti.
- For Kutir Jyoti an average sales per consumer increase has been considered in FY 2014-15 as per actual in FY 2013-14 based on monthly new connection drive started by DISCOMs from September 14 and under RGGVY XIth and XIIth plan respectively;
- For Domestic, Commercial and Public Lighting 3 years CAGR of 13%, 20% and 12% has been considered;
- In case of Public Water Works growth rate considered at nominal increase of 11% as per the actual YOY increase in FY 2013-14
- For Industrial LT, Industrial HT, Railway growth and Interstate and Others rate of 3 years CAGR (9%, 2%, 5% and 8%) has been considered.

- For IAS Category nominal increase of 5% has been considered;

NBPDCL has also submitted that the sales thus estimated for FY 2014-15 have been bifurcated into SBPDCL and NBPDCL in line with the ratio of actual sale of FY 2013-14 of both the Utilities. The allocation ratio to be implemented on the sales is as given in the Table below:

Table 5.14: Energy Sales Allocation Ratio for NBPDCL & SBPDCL

Sl. No	Category	Sales Ratio	
		NBPDCL	SBPDCL
1	KJY	69.64%	30.36%
2	DSI	62.50%	37.50%
3	DSII	38.09%	61.91%
4	DS III	58.73%	41.27%
5	NDS I Commercial	67.66%	32.34%
6	NDS II Commercial	35.43%	64.57%
7	NDS III Commercial	29.02%	70.98%
8	SS I	86.42%	13.58%
9	SS II	45.95%	54.05%
10	Irrigation and Agriculture I	7.69%	92.31%
11	Irrigation and Agriculture II	56.74%	43.26%
12	PWW	41.46%	58.54%
13	LTIS I	35.51%	64.49%
14	LTIS II	27.82%	72.18%
15	HTS I	28.43%	71.57%
16	HTS II	30.42%	69.58%
17	HTS III	28.80%	71.20%
18	HTSS	10.71%	89.29%
19	RT	2.30%	97.70%
20	Sale to Nepal	100.00%	0.00%
21	UI	33.03%	66.97%
22	DF	70.03%	29.97%

NBPDCL has projected the revised sales for FY 2014-15 based on the above allocation ratio as given in the Table below.

Table 5.15: Energy Sales Projected for FY 2014-15

Sl. No	Category	MUs
1	KJY	684
2	DSI	556
3	DSII	847
4	DS III	1
5	NDS I Commercial	21
6	NDS II Commercial	337
7	NDS III Commercial	1

Sl. No	Category	MUs
8	SS I	12
9	SS II	17
10	Irrigation and Agriculture I	13
11	Irrigation and Agriculture II	97
12	PWW	27
13	LTIS I	61
14	LTIS II	37
15	HTS I	198
16	HTS II	76
17	HTS III	26
18	HTSS	59
19	RT	13
20	Sale to Nepal	811
21	UI	83
22	DF	696
23	**Total**	**4,673**

Commission's analysis

Since, NBPDCL is functioning as a Distribution Company with effect from 01.11.2012, only one year full data of category wise energy sales is available. Past trend of growth of energy sales exclusively for NBPDCL is not available. The Commission accepts the methodology considered by the Petitioner for estimating the energy sales for FY 2014-15 (RE).

However, the Commission has considered the energy sales for Kutir Jyoti at 433.17 MU (excluding DF area) based on the number of consumers considered for FY 2014-15 and considering a norms of 30 units/month / connection.

For Irrigation and Agriculture (IAS) category there is negative growth both in consumer and energy consumption. As observed in Table 5.7 the sales are falling down year on year. The Petitioner has considered a growth of 5% for estimating the sales for FY 2014-15 for this category. The Commission has considered the sales for this category at zero growth i.e. at the same level of sales as that in FY 2013-14 at 12.19 MU for IAS – I and 92.64 MU for IAS – II for FY 2014-15 (RE)

For HT industrial category, the Petitioner stated that they have considered 3 year CAGR of 2% over sales of FY 2013-14 for estimating sales for FY 2014-15. But as observed from Tables 5.3 and 5.5, the number of consumers and correspondingly the connected load for this category is growing at 14% to 18% and 10% to 25% respectively. Hence the Commission has considered 2 year CAGR i.e. 4% for estimating energy sales for FY 2014-15 to HT industrial category.

For DF area the Petitioner has considered the input energy as energy sales.

For other category of consumers the energy sales are considered as projected by the Petitioner.

Details of category wise energy sales considered by the Commission for FY 2014-15 in review are as given in the Table below:

Table 5.16: Energy Sales Considered for FY 2014-15 (RE)

(MUs)

Sl. No	**Category**	**Approved in Tariff Order dated 28.02.2014**	**Projected in the Petition for FY 2014-15**	**Considered for FY 2014-15 in review**
1	KJY	356	684	433.17
2	DSI	558	556	556
3	DSII	834	847	847
4	DS III	1	1	1
5	NDS I Commercial	17	21	21
6	NDS II Commercial	389	337	337
7	NDS III Commercial	1	1	1
8	SS I	5	12	12
9	SS II	7	17	17
10	Irrigation and Agriculture I	22	13	12.19
11	Irrigation and Agriculture II	114	97	92.64
12	PWW	23	27	27
13	LTIS I	78	61	61
14	LTIS II	48	37	37
15	HTS I	282	198	201.72
16	HTS II	70	76	77.14
17	HTS III	61	26	26.70
18	HTSS	86	59	59.96
19	RT	15	13	13
20	Sale to Nepal	550	811	811
21	UI	-	83	83
22	DF	-	696	696
23	**Total**	**3,515**	**4,673**	**4423.52**

5.4 Distribution Loss

Petitioner's submission

NBPDCL has submitted that the Commission in the MYT Order had approved distribution loss of 21.40% for FY 2014-15 for combined DISCOMs. It is also submitted that post unbundling both the DISCOMs are functioning separately and hence it is imperative to approve Distribution loss separately.

NBPDCL also submitted that actual distribution losses are much higher than approved losses and projected the revised distribution losses as given in the Table below:

Table 5.17: Distribution Loss projected for FY 2014-15

Sl. No	Particulars	Approved in MYT Order Dated 15.03.2013	Projected for FY 2014-15
1	Distribution Loss (%)	21.40%	31.48%

Commission analysis

The Commission has fixed the distribution loss for both DISCOMs 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 (%)
2013-14	23.00
2014-15	21.40
2015-16	20.00

The Commission in the 'review' in the Tariff Order dated 28th February 2014 has retained the distribution losses at 23.00% for NBPDCL for FY 2013-14 and also directed NBPDCL to conduct month wise energy audit and arrive at month-wise distribution losses during FY 2013-14.

NBPDCL has not furnished the details of energy audit and details of distribution losses arrived at as per energy auditing during FY 2013-14.

NBPDCL has submitted as compliance to the directives given by the Commission in the Tariff order dated 28th February 2014 that multiple measures were taken to control the losses. But the Commission has noted that the above said multiple measures taken by NBPDCL have not reduced the distribution losses to the required level. The Commission has also noted that Central Government sponsored schemes such as APDRP, R-APDRP and strengthening of transmission and distribution network of the DISCOM should have reduced the overall distribution loss of the DISCOMs. In addition, the State Govt. has also provided funds for 100% metering and replacement of old conductors. All these schemes should have helped the DISCOMs to reduce the distribution losses. Considering all these aspects, the Commission has fixed the distribution loss reduction trajectory for FY 2013-14 to FY 2015-16 in the MYT Order dated 15th March 2013.

The Commission is of the view that the distribution loss is a controllable parameter and it is the responsibility of the Distribution Licensee to take appropriate steps to bring down the distribution loss level. In this connection, the Commission has given a number of directives to improve the performance of distribution licensees, which if implemented in true spirit, should have brought down the Distribution loss level considerably.

The Commission cannot allow the burden of higher Distribution loss due to the non-achievement of Distribution loss reduction trajectory as approved by the Commission to be passed on to the consumers.

Accordingly, the Commission confirms the distribution loss at 21.40% for FY 2014-15 (RE). The same has been considered for computation of the power purchase for FY 2014-15 (RE).

The distribution loss level target set by the Commission, the distribution loss level projected by NBPDCL and the loss level approved by the Commission in the review for FY 2014-15 is summarised in the table below:

Table 5.17a: Approved Distribution Loss (%) for FY 2014-15

Particulars	Approved in T.O dated 15.3.2013	Considered in Review for FY 2014-15 in the T.O. dated 28.2.2014	Projected by SBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
Distribution loss	21.40%	21.40%	31.48%	21.40%

5.5 State Transmission Loss

Petitioner's submission

NBPDCL has projected the state transmission loss at 4.00% for FY 2014-15 as approved by the Commission in the MYT Order dated 15th March, 2013.

Commission's analysis

The Commission has considered the state transmission loss at 3.97% for FY 2014-15 (RE) as considered for BSPTCL for FY 2014-15 in the Tariff Order of BSPTCL for FY 2015-16.

5.6 Central Transmission Loss

Petitioner's submission

NBPDCL has projected the Central Transmission Loss at 2.19% considering weighted average transmission loss of Eastern Region for last 52 weeks (5th September, 2013 to 7th September, 2014) and stated that 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 considered the transmission loss in Eastern Regional Transmission System at 2.19% for FY 2014-15 (RE) as projected by the Petitioner.

5.7 Energy Requirement

Petitioner's submission

Based on the energy sales, distribution losses and transmission losses projected NBPDCL has projected the energy requirement at its transmission periphery for FY 2014-15 as given in the Table below:

Table 5.18: Energy Requirement projected or FY 2014-15

Sl. No	Particulars	UoM	Projected for FY 2014-15
1	Energy sales including sales to Nepal, UI and DF	MU	4672.76
2	Distribution Loss	%	31.48%
3	Distribution Loss	MU	2146.99
4	Energy required at Distribution periphery	MU	6819.75
5	State Transmission Loss	%	4.00%
6	State Transmission Loss	MU	282.89
7	Energy required at Transmission periphery	MU	7102.65

Commission analysis

The Commission has approved distribution loss at 21.40% for NBPDCL and state transmission loss for BSPTCL at 3.97% for FY 2014-15. Based on the approved sales, distribution loss and state transmission loss, the energy requirement at state transmission periphery is as given in the Table below:

Table 5.19: Energy requirement considered for FY 2014-15 (RE)

(MU)

Sl. No	Particulars	Approved in Tariff Order dated 28.2.2014	Projected for FY 2014-15	Considered for FY 2014-15 in Review
1	Energy sales within the state	3515	4672.76	4423.52
2	Less: Energy supplied to DF area	-	-	696
3	Less: Sale under UI			83
4	Less: Sale to Nepal			811
5	Net energy sales	-	-	2833.52
6	Distribution Losses (%)	21.40%	31.48%	21.40%
7	Distribution Losses	957.01	2146.99	771.47
8	Energy required			3604.99
9	Add: Energy supplied to DF area	-	-	696
10	Add: 33 kV Distribution Losses @6% on Energy Input to DF			44.43
11	Total energy required at Distribution periphery	4472.01	6819.75	4345.41
12	Add: Sales to Nepal			811.00
13	Total energy required (11+12)			5156.41
14	Transmission Loss (%)	4.00%	4.00%	3.97%
15	Transmission Loss (MU)	186.33	282.89	213.17
16	Energy required at Transmission Periphery (13 +15)	4658.34	7102.65	5369.59
17	Add: UI sales	-	-	83

Sl. No	Particulars	Approved in Tariff Order dated 28.2.2014	Projected for FY 2014-15	Considered for FY 2014-15 in Review
18	Total Energy requirement at transmission periphery (16+17)	4658.34	7102.65	5452.59

5.8 Power Purchase

Petitioner's submission

NBPDCL submitted that the DISCOMs rely on allocation from Central Generating system 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 (BSHPCL) in its Resolution No. 29-07 which states that:

"RESOLVED THAT THE Board of Directors do hereby adopt and accord approval on the amendment in the resolution no. 08-14.01 related to Power Sharing ratio between NBPDCL and NBPDCL and amended methodology for admittance and payment of Power Purchase related bills as below:

(A) Power Purchase/Transmission Charges/Arrear bills pertaining to which actual energy consumption data is available such bills shall be admitted by both the DISCOMS on actual consumption basis.

(B) Power Purchase/Transmission charges bills pertaining to which actual energy consumption data is not available such bills shall be provisionally admitted in the ratio of 58:42 between SBPDCL and NBPDCL respectively subject to necessary adjustment in payment of subsequent bills on the basis of available actual consumption data.

(C) Accordingly, amount paid earlier by the DISCOM's as per earlier decision of BSPHCL in its 8th Meeting vide resolution no. 08-14.01 shall be adjusted between the DISCOMs on the basis of actual energy consumed by them for the period from May 2013 to date and payment shall be made by the DISCOM concerned. The Board further ratifies the submission made in attached agenda note.

NBPDCL has projected the power purchase as detailed below:

i. **NHPC, NTPC & PTC:** The power purchase for existing sources has been NTPC, NHPC and PTC has been considered based on the actual 5 months quantum and further pro-rata to 12 months with adjustments to capture overall power purchase in a reasonable manner. The power purchase is further segregated into NBPDCL and SBPDCL as per allocation ratio.

ii. **New Sources:** The power purchase for the new sources has been considered based on the commissioning status. Further the allocation of power from the new projects is in the ratio of 42:58 for NBPDCL & SBPDCL as per the Board Resolution. The new plants considered are shown below:

Table 5.20: New Sources Assumption

Sl. No	Plant Name	Bihar Share MW	Date of Commissioning
1	Barh – Stg 2U #1	330	15th Nov 14
2	KBUNL Stage 1 U# 2	110	15th Nov 14
3	GMR Karmangla	200	01st Sep 14

iii. **Medium / Short Term Sources:** The power purchase from these sources namely, Adani and IEX etc are also considered as per actual trend of 5 months power purchase and then pro-rata to 12 months. The power purchase from NEA/ UI is assumed at same level as approved by the Commission in the MYT order for FY 2014-15.

iv. **Renewable Power Purchase**

NBPDCL submitted that it proposes to purchase 72.78 MU of Non-solar power during FY 2014-15.

Accordingly, NBPDCL has submitted revised projections of power purchase for FY 2014-15 as given in the Table below:

Table 5.21 Power Purchase projected for FY 2014-15

Sl. No	Source	Units Purchased (MUs)	PGCIL Losses (MUs)	Units at BSPTCL Periphery (MUs)
	Stations			
I	**NTPC Stations**	**4,334.22**	**94.92**	**4,239.30**
a	*Farakka 1,2&3*	*1,645.43*	*36.03*	*1,609.39*
b	*Talchar*	*1,185.76*	*25.97*	*1,159.79*
c	*Kahalgoan 1&2*	*1,150.91*	*25.21*	*1,125.71*
d	*Barh – Stg 2U#1*	*352.12*	*7.71*	*344.41*
e	*Nabinagar*	-	-	-
	NHPC			
II	**Stations**	**301.87**	**6.61**	**295.26**
a	*Rangit*	*45.38*	*0.99*	*44.38*
b	*Teesta*	*256.5*	*5.62*	*250.88*
III	**PTC Stations**	**446**	**9.77**	**436.23**
a	*Chukka*	*174.3*	*3.82*	*170.48*
b	*Tala*	*271.7*	*5.95*	*265.75*
IV	**DVC**	-	-	-
B	**State Generating Stations**	**435.82**	**7.2**	**428.61**
I	BTPS	-	-	-
II	KBUNL Stage 1 U# 1	*306.7*	*4.38*	*302.32*
III	KBUNL Stage 1 U# 2	*129.12*	*2.83*	*126.29*
C	**Medium/Short Term/ Others**	**1,645.10**	**14.64**	**1,630.46**
I	Adani	*719.45*	*7.32*	*712.13*
II	NEA	-	-	-
III	IEX/PXIL	*153.28*	-	*153.28*
IV	Open Market Purchase	*389.05*	-	*389.05*
V	UI	*49.11*	-	*49.11*
VI	Others	*334.22*	*7.32*	*326.9*
D	**Renewable Power Purchase**	**72.78**	**-**	**72.78**
I	**BSHPC**	*12.86*	-	*12.86*
II	**Sugar Mills**	*59.91*	-	*59.91*
III	**Solar Power Purchase**	-	-	-
E	**Total**	**7,235.79**	**133.14**	**7,102.65**

Commission's analysis

NBPDCL 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 and others with whom it has an agreement / arrangement.

NBPDCL has also proposed to purchase 389.05 MU from pen market without furnishing any details. NBPDCL seems to have shown this power purchase just for energy balance purpose only. Since, NBPDCL is already having surplus power from whom it has an agreement / arrangement, the Commission has not considered the purchase of power from open market during FY 2014-15

The Commission has considered the quantum of power purchase from various sources for FY 2014-15 (RE) as detailed in the Table below:

Table 5.22 Power Purchase considered for FY 2014-15 (RE)

(MU)

Sl. No	Source	Power Purchase Projected for FY 2014-15 (MUs)	Approved for FY 2014-15
	Stations		
I	**NTPC Stations**	**4,334.22**	**4,334.22**
a	*Farakka 1,2&3*	*1,645.43*	*1,645.43*
b	*Talchar*	*1,185.76*	*1,185.76*
c	*Kahalgoan 1&2*	*1,150.91*	*1,150.91*
d	*Barh – Stg 2U #1*	*352.12*	*352.12*
e	*Nabinagar*	-	-
	NHPC		
II	**Stations**	**301.87**	**301.87**
a	*Rangit*	*45.38*	*45.38*
b	*Teesta*	*256.5*	*256.5*
III	**PTC Stations**	**446**	**446**
a	*Chukka*	*174.3*	*174.3*
b	*Tala*	*271.7*	*271.7*
IV	**DVC**	-	-
B	**State Generating Stations**	**435.82**	**435.82**
I	**BTPS**	-	-
II	**KBUNL Stage 1 U# 1**	*306.7*	*306.7*
III	**KBUNL Stage 1 U# 2**	*129.12*	*129.12*
C	**Medium/Short Term/ Others**	**1,645.10**	**1256.06**
I	**Adani**	*719.45*	*719.45*
II	**NEA**	-	-
III	**IEX/PXIL**	*153.28*	*153.28*
IV	**Open Market Purchase**	*389.05*	-
V	**UI**	*49.11*	*49.11*
VI	**Others**	*334.22*	*334.22*
D	**Renewable Power Purchase**	**72.78**	**72.78**
I	**BSHPC**	*12.86*	*12.86*
II	**Sugar Mills**	*59.91*	*59.91*
III	**Solar Power Purchase**	-	-
E	**Total**	**7,235.79**	**6,846.75**

5.9 Energy Balance

Petitioner's submission

NBPDCL has submitted the revised energy balance for FY 2014-15 based on the energy sales, losses and power availability as given in the Table below:

Table 5.23: Energy Balance Projected for FY 2014-15

Sl. No	Particulars	MYT Order Dated 15.03.2013	TO Dated 28.02.2014	Projected in APR
A	Energy sales including sales to Nepal, UI and DF	8,893.00	3,515.00	4,672.76
B	Distribution Losses (%)	21.40%	21.40%	31.48%
C	Distribution Losses	2,421.25	957.01	2,146.99
D	Energy required at Distribution periphery	11,314.25	4,472.01	6,819.75
E	State Transmission Loss (%)	4.00%	4.00%	4.00%
F	State Transmission Loss	471.43	186.33	282.89
G	Energy Required at Transmission periphery	11,785.68	4,658.34	7,102.65
H	Total Available Power	23,344.00	8,240.00	7,235.79
i	*Central Generating Station*		5,912.00	5,082.09
ii	*State Generating Stations*			435.82
iii	*Others*	23,344.00	2,328.00	1,717.88
I	CTU Transmission Losses on CGS Power %	2.73%	2.49%	2.19%
J	CTU Transmission Losses	436	147.21	133.14
K	Net Power available after CTU Losses	22,908.00	8,092.79	7,102.65
L	**Surplus/ (Deficit) Energy at state periphery**	**11,122.32**	**3,434.45**	**0**

Commission analysis

In the energy balance projected by the Petitioner in the above Table, the Commission has noted that the distribution losses are also considered on UI sale, sales to Nepal and input energy supplied to the Distribution Franchisees (DF). The Commission has considered only 33 kV Distribution losses on energy supplied to DF area which is predominantly on 11 kV voltage and Transmission losses on sales to Nepal which is now mainly at 132 kV voltage level.

It is also noted that CTU losses are considered on the power purchase from KBUNL stations and CTU losses on power purchase from Adani are considered at lesser percentage (i.e. 1.03% instead of 2.19%). The Commission has computed the CTU losses at 134.37 MU considering CTU losses at 2.19% on purchase of power from Central Generation Stations, Adani and GMR.

The energy balance for FY 2014-15 has been worked out based on the energy sales, T&D loss and the power purchase considered by the Commission in the review for FY 2014-15 (RE) as detailed in the Table below:

Table 5.24: Energy Balance considered for FY 2014-15 (RE)

(MU)

Sl. No	Particulars	Approved in Tariff Order dated 28.02.2014	Projected for FY 2014-15	Approved for FY 2014-15 in Review
1	Energy sales within the state	3515	4672.76	4423.52
2	Less: Energy supplied to DF area			696
3	Less: UI sale			83
4	Less: Sale to Nepal			811
4	Net energy sale			2833.52
5	Distribution Losses (%)	21.40%	31.48%	21.40%
6	Distribution Losses	957.01	2146.9	771.47
7	Energy required			3604.99
8	Add: Energy supplied to DF area			696
9	Add: 33 kV Distribution Losses @6% on Energy Input to DF			44.43
10	Total energy required at Distribution periphery (7+8+9)	4472	6819.75	4345.41
11	Add: Sales to Nepal			811.00
12	Total energy required (10+11)			5156.41
13	Transmission Loss (%)	4.00%	4.00%	3.97%
14	Transmission Loss (MU)	186.33	282.89	213.17
15	Energy required at Transmission Periphery (12+14)	4658.34	7102.65	5369.59
16	Add: UI sales			83
17	**Total Energy requirement at transmission periphery (15+16)**	**4658.34**	**7102.65**	**5452.59**
18	Available Energy	8240	7235.79	6,846.75
I	CGS and IPP (NTPC, NHPC, PTC, Adani and GMR)	5912	5082.09	6,135.77
II	SGS and Others	2328	2153.7	710.98
19	Losses in Regional Transmission system (%)	2.49%	2.19%	2.19%
20	Losses in Regional Transmission system (MU)	147.21	133.14	134.37

Sl. No	Particulars	Approved in Tariff Order dated 28.02.2014	Projected for FY 2014-15	Approved for FY 2014-15 in Review
21	Net Energy available at State Transmission periphery (18-20)	8092.79	7102.65	6,712.38
22	**Surplus energy at state periphery (21-17)**	**3434.45**	**0.00**	**1,259.79**

The energy requirement at T&D losses projected by NBPDCL and at T&D losses approved by the Commission for the energy sales now 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 5.25: Surplus power available and disallowed power due to excess distribution loss

Sl. No	Particulars	Unit	FY 2014-15	
			As per NBPDCL projected losses	As per BERC approved losses
1	Energy sales	MU	4423.52	4423.52
2	Less: Energy supplied to DF area & UI	MU	779	779
3	Less: Sales to Nepal	MU	811	811
3	Energy sales	MU	2833.52	2833.52
4	Distribution loss	%	31.48%	21.40%
5	Distribution loss	MU	1301.80	771.47
6	Energy required	MU	4135.32	3604.99
7	Add: Energy supplied to DF area	MU	696	696
8	Add: 33 kV Distribution loss @6% to the energy input to DF		44.43	44.43
9	Total Energy Required		4875.74	4345.41
10	Add: Sales to Nepal		811	811.00
11	Total Energy Required		5686.74	5156.41
12	Transmission loss	%	4.00%	3.97%
13	Transmission loss	MU	236.95	213.17
14	Energy required at transmission periphery	MU	5923.69	5369.59
15	Add: UI sales		83	83
16	Total energy requirement at state transmission periphery	MU	6006.69	5452.59

Sl. No	Particulars	Unit	FY 2014-15	
			As per NBPDCL projected losses	As per BERC approved losses
17	**Additional energy at state periphery due to excess T&D loss (6006.89 – 5452.59)**	**MU**		**554.11**
15	Power purchase/Required to purchase	MU	6,846.75	5561.59
16	Losses in Regional transmission system	%		*1.96%
17	Regional losses	MU		109.01
18	Net power requirement at state periphery	MU		5452.59
19	**Surplus power purchase (6846.75 – 5561.59)**	**MU**		**1285.16**
20	Additional power at state transmission periphery due to excess T&D loss	MU		554.11
21	**Additional power purchase due to excess T&D loss disallowed (554.11 ÷ 1.96%)**	**MU**		**565.18**
22	**Surplus power to be sold outside (1285.16 – 565.18)**	**MU**		**719.97**

* The total power purchase required to purchase from long-term sources has been worked out by considering the impact of average transmission losses (i.e. 134.37 ÷ 6846.75 X 100 = 1.96%) applicable on the total power purchase. The reasons for applying the average regional transmission losses is that the power purchase quantum also include 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 in FY 2014-15 is 5561.59 MU with a regional transmission loss of 109.01 MU.

The Commission disallowed the power purchase requirement quantum equivalent of 565.18 MU based on the principle that excess power purchase on account of higher distribution loss i.e. over and above the approved losses shall not be permitted.

5.10 Power Purchase Cost

Petitioner's submission

NBPDCL has submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC and NHPC. NBPDCL has considered the actual energy charges for these power stations based on actual 5 months information and considered fixed charges for the remaining period proportionate to the approved fixed cost based on the current allocation of power and the tariff for Central Generating Stations has been considered based on CERC Tariff Regulations, 2014. The average power purchase cost for new sources has been considered at Rs. 5/kWh except GMR Karmangala which is based on actual bill. The power purchase costs for Adani, BSHPC and Sugar Mills are considered as per actual power purchase cost in last 5 months.

For rest of other power stations/sources for FY 2014-15 the tariffs as approved are considered.

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

Table 5.26 Power Purchase Cost projected for FY 2014-15

Sl. No	Source	Units Purchased (MUs)	Fixed Charges (Rs. Cr.)	Energy Charges (Rs. Cr.)	Arrears	Excess Generation Incentive	Others	Total Cost (Rs. Cr.)	Average Cost (Rs./kWh)
A	**Central Sector Stations**	**5,082.09**	**448.25**	**1,374.15**	**-7.51**	**2.55**	**-0.46**	**1,816.98**	**3.58**
I	**NTPC Stations**	**4,334.22**	**416.85**	**1,247.74**	**-7.88**	**2.55**	**-0.55**	**1,658.71**	**3.83**
a	*Farakka 1,2&3*	*1,645.43*	*179.22*	*523.65*	*-10.33*	-	*-1.02*	*691.52*	*4.2*
b	*Talchar*	*1,185.76*	*102.73*	*224.25*	*1.22*	*2.55*	*0.4*	*331.14*	*2.79*
c	*Kahalgoan 1&2*	*1,150.91*	*134.9*	*341.39*	*1.23*	-	*0.07*	*477.59*	*4.15*
d	*Barh – Stg 2U #1*	*352.12*	-	*158.46*	-	-	-	*158.46*	*4.5*
e	*Nabinagar*	-	-	-	-	-	-	-	*#DIV/0!*
II	**NHPC Stations**	**301.87**	**31.4**	**40.74**	**0.37**	**-**	**0.09**	**72.6**	**2.4**
a	*Rangit*	*45.38*	*6.62*	*6.81*	*0.08*	-	*0.04*	*13.54*	*2.98*
b	*Teesta*	*256.5*	*24.78*	*33.93*	*0.29*	-	*0.05*	*59.05*	*2.3*
III	**PTC Stations**	**446**	**-**	**85.67**	**-**	**-**	**-**	**85.67**	**1.92**
a	*Chukka*	*174.3*	-	*30.79*	-	-	-	*30.79*	*1.77*
b	*Tala*	*271.7*	-	*54.88*	-	-	-	*54.88*	*2.02*
IV	**DVC**	-	-	-	-	-	-	-	

Sl.	Source	Units	Fixed	Energy	Arrears	Excess	Others	Total	Average
B	**State Generating Stations**	**435.82**	**-**	**182.63**	**-**	**-**	**-**	**182.63**	**4.19**
I	**BTPS**	-	-	-	-	-	-	**-**	
II	**KBUNL Stage 1 U#1**	*306.7*	-	*124.53*	-	-	-	***124.53***	**4.06**
III	**KBUNL Stage 1 U#2**	*129.12*	-	*58.1*	-	-	-	***58.1***	**4.5**
C	**Medium/ Short Term/ Others**	**1,645.10**	**70.07**	**543.34**	**9.33**	**-**	**0.77**	**623.52**	**3.79**
I	**Adani**	*719.45*	*70.07*	*239.92*	*9.33*	-	*0.77*	***320.1***	**4.45**
II	**NEA**	-	-	-	-	-	-	**-**	
III	**IEX/PXIL**	*153.28*	-	*57.87*	-	-	-	***57.87***	**3.78**
IV	**Open**	*389.05*	-	*116.71*	-	-	-	***116.71***	**3**
	Market Purchase								
V	**UI**	*49.11*	-	*5.51*	-	-	-	***5.51***	**1.12**
VI	**Others**	*334.22*	-	*123.33*	-	-	-	***123.33***	**3.69**
D	**Renewable Power Purchase**	**72.78**	**-**	**31.54**	**-**	**-**	**-**	**31.54**	**4.33**
I	**BSHPC**	*12.86*	-	*3.2*	-	-	-	***3.2***	**2.49**
II	**Sugar Mills**	*59.91*	-	*28.33*	-	-	-	***28.33***	**4.73**
III	**Solar Power Purchase**	-	-	-	-	-	-	**-**	
E	**PGCIL Charges incl. POSOCO**						**195.15**	**195.15**	
F	**BSPTCL Charges**						**113.65**	**113.65**	
G	**SLDC Charges**						**0.36**	**0.36**	
H	**Total**	**7,235.79**	**518.32**	**2,131.66**	**1.82**	**2.55**	**309.48**	**2,963.83**	**4.1**

Commission's analysis

The actual average per unit cost for power procured from various sources during FY 2013-14 and average per unit cost projected by the Petitioner for power purchase for FY 2014-15 are tabulated in the Table below:

Table 5.27: Average power purchase rates during FY 2013-14 (actual) and FY 2014-15 (Projected)

Sl. No	Source	Average cost during FY 2013-14 (Rs. /kWh)	Average cost considered for FY 2014-15 (Rs./kWh)
I	**NTPC Stations**		
a	*Farakka 1,2&3*	4.14	4.20
b	*Talchar*	2.41	2.79
c	*Kahalgoan 1 &2*	3.88	4.15
d	*Barh – Stg 2U #1*	-	5.00
II	**NHPC Stations**		
a	*Rangit*	3.02	2.98
b	*Teesta*	2.63	2.30
III	**PTC Stations**		
a	*Chukka*	1.60	1.77
b	*Tala*	2.02	2.02
4	**DVC**	**4.48**	**-**
5	**State Generating**		
a	KBUNL Stage 1 U# 1	3.65	4.06
B	KBUNL Stage 1 U# 2	-	5.00
6	**Others**		
a	Adani	5.14	4.45
b	NEA	3.02	-
c	IEX/PXIL	3.12	3.78
D	Open Market	-	3.00
e	UI	1.86	1.12
f	PVVNL	5.70	-
g	GMR Karmangala	-	3.69
7	**Renewable Energy**		
a	BSHPC	2.49	2.49
b	Sugar Mills	4.55	4.73

The power purchase cost from Hydro projects could be lesser than that in previous year due to reduced fixed costs.

The Petitioner stated that for new sources average power purchase cost is considered at Rs. 5/- per unit but has shown Rs. 4.50/- per unit while computing power purchase cost. However, the Commission has considered Rs. 5/- per unit for new sources i.e. Barh – I and KBUNL – II stations.

The average per unit power purchase rate for other sources is considered reasonable which are arrived based on the first 5 months actuals of FY 2014-15.

The details of source wise power purchase cost for FY 2014-15 considered by the Commission are given in the Table below:

Table 5.28 Power Purchase Cost considered for FY 2014-15 (RE)

Sl. No	Source	Units Purchased (MUs)	Average Cost (Rs./kWh)	Total Cost (Rs. Crore)
A	**Central Sector Stations**	**5,082.10**	**3.61**	**1,833.85**
I	**NTPC Stations**	**4,334.22**	**3.87**	**1,675.60**
a	Farakka 1,2&3	1,645.43	4.20	691.08
b	Talchar	1,185.76	2.79	330.83
c	Kahalgoan 1 &2	1,150.91	4.15	477.63
d	Barh – Stg 2U #1	352.12	5.00	176.06
e	Nabinagar	-	-	-
II	**NHPC Stations**	**301.88**	**2.40**	**72.52**
a	Rangit	45.38	2.98	13.52
b	Teesta	256.5	2.30	59.00
III	**PTC Stations**	**446.00**	**1.92**	**85.73**
a	Chukka	174.3	1.77	30.85
b	Tala	271.7	2.02	54.88
IV	**DVC**	-		-
B	**State Generating Stations**	**435.82**	**4.34**	**189.08**
I	BTPS	-		**-**
II	KBUNL Stage 1 U# 1	306.7	4.06	124.52
III	KBUNL Stage 1 U# 2	129.12	5.00	64.56
C	**Medium/Short Term/ Others**	**1256.06**	**4.04**	**506.92**
I	Adani	719.45	4.45	320.16
II	NEA	-		-
III	IEX/PXIL	153.28	3.78	57.94
IV	UI	49.11	1.12	5.50
V	Others (GMR)	334.22	3.69	123.33
D	**Renewable Power Purchase**	**72.77**	**4.33**	**31.54**
I	BSHPC	12.86	2.49	3.20
II	Sugar Mills	59.91	4.73	28.34
III	Solar Power Purchase			
E	**Total**	**6,846.75**	**3.74**	**2,561.39**

5.11 Transmission Charges

Petitioner's submission

NBPDCL has submitted that the calculation of PGCIL charges is done as per prevailing

CERC methodology. The CERC charges for withdrawal and Injection and the Drawal quantum are taken from CERC Order No. L -1 /44/2010 – CERC dated 14.10.2014. NBPDCL has also submitted that for BSPTCL the rates as approved by the Commission in its Order dated 28th February 2014 are considered.

NBPDCL stated that in addition the Petitioner has also to pay POSOCO charges and open Access Charges which are projected.

NBPDCL has submitted the summary of the PGCIL, BSPTCL and SLDC charges for FY 2014-15 as given in the Table below.

Table 5.29: PGCIL and BSPTCL Charges projected for FY 2014-15

Sl. No	Particulars	Amount (Rs. Crore)
1	PGCIL charges including POSOCO	195.15
2	BSTPCL charges	113.65
3	SLDC charges	0.36
4	**Total**	**309.16**

Commission analysis

The actual PGCIL, POSOCO and ERLDC charges for FY 2013-14 incurred by NBPDCL are at Rs. 168.86 Crore.

On a query from the Commission, NBPDCL has provided the monthly PGCIL charges billed from April 2014 to December 2014 as given below:

Month	Apr'14	May'14	Jun'14	Jul'14	Aug'14	Sep'14	Oct'14	Nov'14	Dec'14	Total
Rs. Cr	12.05	13.67	13.70	14.18	14.04	13.86	14.48	18.16	17.36	131.50

The Commission presumes the PGCIL charges for remaining 3 months will be more or less at the same level of December 2014 and considers the PGCIL charges at Rs. 183.58 Crore (Rs. 131.50 Crore + 3* Rs. 17.36 Crore).

BSTPCL charges are considered at Rs. 113.65 Crore including SLDC charges as per the transmission charges approved for FY 2014-15 in the Tariff Order of BSPTCL dated 28th February 2014.

5.12 Total Power Purchase Cost

Summarizing the above, the total power purchase cost for FY 2014-15 including

PGCIL and BSPTCL charges is as given in the Table below:

Table 5.30: Total Power Purchase cost considered for FY 2014-15 (RE)

(Rs. Crore)

Sl. No	Particulars	Approved in Tariff Order dated 28-02-2014	Considered for FY 2014-15 (RE)
1	Power Purchase cost from various sources	3200.87	2,561.39
2	PGCIL (including POSOCO & ERLDC)	152.41	183.58
3	BSPTCL charges	94.71	113.65
4	**Total cost**	**3447.99**	**2,858.62**

5.13 Disallowance of Power Purchase cost due to excess Distribution Loss

Petitioner submission

NBPDCL submitted that as per methodology approved by the Commission in previous tariff orders, the power purchase cost due to excess distribution loss is computed as given in the Table below:

Table 5.31: Projected disallowance of Power Purchase cost due to excess distribution loss for 2014-15

Sl. No	Particulars	MYT Order Dated 15.03.2013	TO Dated 28.02.2014	Projected APR
1	Additional power purchase by DISCOMs due to excess Distribution loss	4,783.67	1,127.14	927.00
2	Average power purchase rate (Rs./kWh)	3.82	4.07	4.10
	Total Disallowed Power Purchase Cost	**1,827.36**	**458.74**	**379.71**

NBPDCL stated that the support for the disallowance cost has been provided by the State Government.

Commission's analysis

The difference in the actual power purchase and the power purchase requirement approved by the Commission for FY 2014-15 is disallowed at the average power purchase rate and is treated as "Disincentive for non-achievement of Distribution Loss Target".

As per the approved trajectory the maximum permissible distribution loss level for FY 2014-15 was set to 21.40%, which the Petitioner was not able to achieve.

The Commission, while computing the Energy Balance has noticed that 565.18 MU of energy (Gross) was additionally purchased due to not achieving the distribution loss trajectory of 21.40% approved for FY 2014-15. Accordingly, the Commission has computed the disincentive for non-achievement of distribution loss reduction target at Rs. 226.59 Crore for FY 2014-15, considering average power purchase rate at Rs. 4.01/kWh (including PGCIL Charges) as shown in the Table below:

Table 5.32: Disallowed Power Purchase Cost FY 2014-15 (RE)

Sl. No	Particulars	Unit	FY 2014-15
1	Gross Power Purchase disallowed	MU	565.18
2	Average Power Purchase cost [(2561.39+183.58)/6846.75]*10	Rs. / kWh	4.01
3	Cost of Power Purchase disallowed due to excess T &D loss	Rs. Crore	226.59

5.14 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 5.25. The net power purchase cost is arrived as detailed in the Table below:

Table 5.33: Net power purchase cost approved for FY 2014-15 (RE)

Sl. No	Particulars	Unit	FY 2014-15
1	Total power purchase cost (Including Transmission Charges)	Rs. Crore	2,858.62
2	Surplus power	MU	1285.16
3	Disallowed power due to excess distribution loss	MU	565.18
4	Surplus power to be sold outside	MU	719.97
5	Average power purchase	Rs/kWh	4.01
6	Cost of surplus power (4*5)	Rs. Crore	288.65
7	Net power purchase cost (1-6)	Rs. Crore	2,569.97

5.15 Capital Expenditure

Petitioner's submission:

NBPDCL has submitted that it has considered revised projections for Capex, capitalisation and funding as per the schemes now being pursued by NBPDCL.

NBPDCL 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 5.34: CWIP, Capex, Capitalisation and Funding of capitalisation projected for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Opening CWIP	5733.00	3505.88	1067.16
2	New Investment	7597.00	5207.83	1995.27
3	**Less: Capitalisation (4+5)**	**5779.00**	**3064.87**	**1015.73**
4	Opening CWIP	1184.00	1502.52	353.95
5	New Investment	4595.00	1562.35	661.78
6	**Closing CWIP (1+2-3)**	**7551.00**	**5648.84**	**2046.70**
7	**Funding**			
8	**CWIP Capitalisation (9+10)**	**1184.00**	**1502.52**	**353.95**
9	Grant	931.00	976.64	332.71
10	Loan	253.00	525.88	21.24
11	**New Investment (12+13)**	**4595.00**	**1562.35**	**661.78**
12	Grant	2852.00	1015.53	622.07
13	Loan	1743.00	546.82	39.71
14	**Total Capitalisation (8+11)**	**5779.00**	**3064.87**	**1015.73**
15	**Total Grant (9+12)**	**3783.00**	**1992.17**	**954.78**
16	**Total Loan (10+13)**	**1996.00**	**1072.70**	**60.95**

NBPDCL 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.7597.00 Crore with a capitalisation of Rs.5779.00 Crore for FY 2014-15 in the MYT order dated 15th March 2013.

The Commission in Tariff Order dated 28th February 2014 has approved a total capital investment of Rs.5207.83 Crore with a capitalisation of Rs.3064.87 Crore for FY 2014-15 for NBPDCL.

The Petitioner has projected capital investment and capitalisation at Rs.1995.27 Crore and Rs.1015.73 Crore respectively in review for FY 2014-15. However, the Petitioner has not furnished the details of scheme-wise capital expenditure and capitalisation for FY 2014-15.

The Commission has considered capitalisation of capex as per the schedule approved in MYT order dated 15th March 2013 for FY 2014-15 as given in the Table below:

Table 5.35: Capitalisation schedule for FY 2014-15

Particulars	1st year	2nd year	3rd year
For Opening CWIP	30%	30%	40%
For all New Capex	30%	30%	40%

Capitalisation

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Opening CWIP as on 1.4.2013	1175.71					1175.71
New Investment during the year	421.05	1995.27	4043.63			6459.95
Capitalisation						
Opening CWIP as on 1.4.013	389.95 *	352.71	433.05			1175.71
investment in FY 2013-14	139.65 *	126.32	155.08			421.05
Investment in FY 2014-15		598.58	598.58	798.11		1995.27
Investment in FY 2015-16			1213.09	1213.09	1617.45	4043.63
Total capitalisation	**529.60**	**1077.61**	**2399.80**	**2011.20**	**1617.45**	**7635.66**

***** Actual as per audited annual accounts for FY 2013-14 and as furnished by NBPDCL

The Petitioner has considered funding of the capex capitalised @ 94% through Grants and balance 6% of capitalisation as through Loans. The Commission considers the same in review for FY 2014-15 (RE).

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

Table 5.36: Capitalisation and funding Considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Opening CWIP	5733.00	3505.88	1067.16	1067.16
2	New Investment	7597.00	5207.83	1995.27	1995.27
3	**Less: Capitalisation (4+5)**	**5779.00**	**3064.87**	**1015.73**	**1077.61**
4	Opening CWIP	1184.00	1502.52	353.95	479.03
5	New Investment	4595.00	1562.35	661.78	598.58
6	**Closing CWIP (1+2-3)**	**7551.00**	**5648.84**	**2046.70**	**1984.82**
7	**Funding**				
8	**CWIP Capitalisation (9+10)**	**1184.00**	**1502.52**	**353.95**	**479.03**
9	Grant	931.00	976.64	332.71	450.29
10	Loan	253.00	525.88	21.24	28.74
11	**New Investment (12+13)**	**4595.00**	**1562.35**	**661.78**	**598.58**
12	Grant	2852.00	1015.53	622.07	562.67
13	Loan	1743.00	546.82	39.71	35.91
14	**Total Capitalisation (8+11)**	**5779.00**	**3064.87**	**1015.73**	**1077.61**
15	**Total Grant (9+12)**	**3783.00**	**1992.17**	**954.78**	**1012.96**
16	**Total Loan (10+13)**	**1996.00**	**1072.70**	**60.95**	**64.66**

5.16 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 5.37: Interest during Construction (IDC) projected for FY 2014-15 (RE)

(Rs. Crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Loan drawal	1996.00	1072.70	60.94
2	Average Loan (1/2)	998.00	536.35	30.47
3	Interest Rate	13.00%	13.00%	13.00%
4	IDC (on average loan) (2*3)	129.74	69.73	3.96

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 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 considers the interest rate @ 13% for FY 2014-15. Accordingly, the Commission considers the IDC for FY 2014-15 as detailed in the Table below:

Table 5.38: Interest during construction (IDC) considered for FY 2014-15

(Rs. Crore)

Sl No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Loan drawal	1996.00	1072.70	60.94	64.66
2	Average Loan ½	998.00	536.35	30.47	32.33
3	Interest Rate	13.00%	13.00%	13.00%	13.00%
4	IDC (on average loan) (2*3)	129.74	69.73	3.96	4.20

The Commission, accordingly, considers the Interest during Construction (IDC) at Rs.4.20 Crore as detailed in the Table above for FY 2014-15 (RE).

5.17 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 2014.

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

Table 5.39: Gross Fixed Assets projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Opening GFA	7941.89	4044.79	4003.55
2	Additions during the year	5779.00	3064.87	1015.73
3	Add : IDC	129.74	69.73	3.96
4	**Closing GFA (1 to 3)**	**13850.63**	**7179.39**	**5023.24**

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

Commission's analysis:

NBPDCL has adopted the opening GFA based on the Audited Annual Accounts for FY 2013-14 which is at Rs.4003.55 Crore.

The Commission, as discussed in para 5.15, has considered the capitalisation of capital expenditure at Rs.1077.61 Crore for FY 2014-15. The Commission has considered closing GFA as on 31st March 2014 at Rs.3016.47 Crore in true up for FY 2013-14, accordingly, the same is considered as opening GFA for FY 2014-15 and further updated with the additions during the year 2014-15 to arrive at the closing GFA as on 31st March 2015.

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

Table 5.40: Gross Fixed Assets considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Opening GFA	7941.89	4029.58	4003.55	4003.55
2	Additions during the year	5779.00	3178.45	1015.73	1077.61
3	Add : IDC	129.74	71.37	3.96	4.20
4	**Closing GFA (1 to 3)**	**13850.63**	**7279.40**	**5023.24**	**5085.36**

5.18 Depreciation

Petitioner's submission:

NBPDCL 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. NBPDCL 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 net depreciation to be charged.

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

Table 5.41: Depreciation projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Opening GFA	7941.89	4029.58	**4003.55**
2	Additions during the year	5779.00	3178.45	1015.73
3	IDC	129.74	71.37	3.96
4	**Closing GFA**	**13850.63**	**7279.40**	**5023.24**
5	**Average GFA**	**10896.26**	**5654.49**	**4513.39**
6	Weighted average rate of depreciation	5.22%	5.22%	4.09%
7	**Gross Depreciation**	**568.78**	**295.16**	**184.76**
8	Opening Grants	5877.50	2659.10	2934.91
9	Grants during the year	3783.00	1992.17	954.78
10	**Total Grants**	**9660.50**	**4651.27**	**3889.69**
11	**Average Grants**	**7769.00**	**3655.19**	**3412.30**
12	Weighted average rate of depreciation	5.22%	5.22%	2.83%
13	**Depreciation for GFA on Grants**	**405.54**	**190.80**	**96.49**
14	**Depreciation for GFA on Loans**	**163.24**	**104.34**	**88.27**

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

Commission's analysis:

The Commission has examined the computation of depreciation for FY 2014-15. The Petitioner has computed the depreciation adopting the CERC rates of depreciation. The weighted average rate of depreciation is arrived at 4.09% in respect of GFA and 2.83% in respect of Grants. However, the Petitioner has not furnished the details for weighted average rate of depreciation computations for GFA and for Grants.

The Petitioner has computed the depreciation on the GFA which is inclusive of assets Land valued at Rs.987.08 Crore.

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, while truing up for FY 2013-14 has considered the closing GFA value at Rs.3016.52 Crore excluding land value for the purpose of depreciation. Accordingly, the Commission has considered the value of assets at Rs.3016.52 Crore as opening GFA for FY 2014-15. The Commission has considered weighted average rate of depreciation in line with the weighted average rate of depreciation considered for FY 2013-14 in true up i.e. @ 5.81%.

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 2014-15 is as detailed in the Table below:

Table 5.42: Depreciation considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Opening GFA	7941.89	4029.58	4003.55	3016.47
2	Additions during the year	5779.00	3064.87	1015.73	1077.61
3	IDC	129.74	69.73	3.96	4.20
4	**Closing GFA (1+2+3)**	**13850.63**	**7164.18**	**5023.24**	**4098.28**
5	**Average GFA (1+4)/2**	**10896.26**	**5596.88**	**4513.39**	**3557.38**
6	Weighted average rate of depreciation	5.22%	5.22%	4.09%	5.81%
7	**Gross Depreciation (5*6)**	**568.78**	**292.16**	**184.76**	**206.68**
8	Opening Grants	5877.50	2659.10	2934.91	3373.84
9	Grants during the year	3783.00	1992.17	954.78	1012.96
10	**Total Grants (8+9)**	**9660.50**	**4651.27**	**3889.69**	**4386.80**
11	**Average Grants (8+10)/2**	**7769.00**	**3655.18**	**3412.30**	**3880.32**
12	Weighted average rate of depreciation	5.22%	5.22%	2.83%	5.81%
13	**Depreciation for GFA on Grants (11*12)**	**405.54**	**190.80**	**96.49**	**225.45**
14	**Depreciation for GFA on Loans (7-13)**	**163.24**	**101.36**	**88.27**	**--**

As could be observed from the above table, the depreciation on assets created out of Grants is higher than the depreciation on GFA.

The Commission, accordingly, considers the "Nil" depreciation for FY 2014-15 (RE).

5.19 Interest on Loans

Petitioner's submission:

NBPDCL has submitted that the opening loan balance as on 1st April 2014 is considered as per closing balance as on 31st March 2014 based on the audited annual accounts for FY 2013-14.

NBPDCL 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.

NBPDCL has projected the interest charges for FY 2014-15 as detailed in the Table below:

Table 5.43: Interest on loans projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	**Opening loan balance**	2129.13	902.95	559.24
2	Additions during the year	1996.00	1072.70	60.94
3	Normative Repayment	163.24	101.75	88.27
4	Closing Loans (1+2-3)	**3961.89**	**1873.90**	**531.91**
5	**Average Loans {(1+4)/2}**	**3045.51**	**1388.42**	**545.58**
6	Interest rate	13.00%	13.00%	13.00%
7	**Interest Charges (5 * 6)**	**395.92**	**180.50**	**70.92**

NBPDCL 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 Petitioner has considered opening loan balance as on 1st April 2014 at Rs.559.24 Crore, whereas as per the audited annual accounts as at 31st March 2014, the closing balance of loans as on 31-03-2014 is at Rs.1496.94 Crore (REC - Rs.327.74 Crore, PFC - Rs.142.20 Crore, Public Bonds – Rs.293.74 Crore, Commercial Banks – Rs.480.35 Crore and State Government – Rs.252.92 Crore).

The Petitioner has projected funding of capitalisation through Grants at 94% and through Loans at 6%, accordingly, the Commission has considered the loan additions in line with funding of capitalisation for FY 2014-15 as shown in Table 5.36.

As per CERC (Terms and Conditions for Determination of Tariff) Regulations 2009, repayment of loan shall be equal to the depreciation allowed for the year. The Commission has considered 'Nil' depreciation for the year 2014-15 as the depreciation on Grants used for creation of assets is higher than the depreciation on GFA. 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 interest on loans for FY 2014-15 as detailed in the Table below:

Table 5.44: Interest on loan considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	**Opening loan balance**	2129.13	902.95	559.24	421.98
2	Additions during the year	1996.00	1072.70	60.94	64.66
3	Normative Repayment	163.24	101.75	88.27	
4	Closing Loans (1+2-3)	**3961.89**	**1873.90**	**531.91**	**486.64**
5	**Average Loans {(1+4)/2}**	**3045.51**	**1388.42**	**545.58**	**454.31**
6	Interest rate	13.00%	13.00%	13.00%	13.00%
7	**Interest Charges (5*6)**	**395.92**	**180.50**	**70.92**	**59.06**

The Commission, accordingly, has considered Rs. 59.06 Crore towards interest on loans for FY 2014-15 (RE).

5.20 Operation and Maintenance (O&M) Expenses

Petitioner's submission

NBPDCL 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.

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

NBPDCL has proposed following inflation index for FY 2014-15 and FY 2015-16 for Employee cost, R&M and A&G expenses: **INDXn = 0.55*CPIn + 0.45*WPIn**

Table 5.45: 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 2012-13**	**167.62**	**215.17**	
4	Indexation n-1 (index point * weightage)	75.43	118.34	193.77
3	**Index points for FY 2013-14**	**177.64**	**236.00**	
5	Indexation n (index point * weightage)	79.94	129.80	209.74
6	**Combined inflation {(5-3) / 3)**			**8.24%**

The Commission has considered the above indexation/inflation factor for FY 2014-15 and FY 2015-16.

5.21 Employee Costs

Petitioner's submission:

NBPDCL 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 8.24% is considered for FY 2014-15 over FY 2013-14 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 5.46: Employee Cost for FY 2014-15 (RE) proposed by the Petitioner

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Previous year employee expenses		167.59	138.21
2	Inflationary index		9.21%	8.24%
	Add: Inflationary increase		15.43	11.39
3	**Employee Cost**	**428.26**	**183.02**	**149.60**
4	Add: New Manpower cost	10.00	5.00	5.00
5	**Total Employee Cost**	**438.26**	**188.02**	**154.61**

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

Commission's analysis:

The Petitioner has considered the total employee cost as per the audited annual accounts for FY 2013-14, which include the Company contribution for existing employees towards terminal benefits and leave encashment.

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 dated 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 NBPDCL contribution for existing employees towards Gratuity, Pension and Leave Salary 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' future terminal benefits.

The Employee cost projected by the Petitioner is based on actual expenditure as per audited annual accounts for FY 2013-14 with escalation at 8.24% (inflation index). Hence, the Commission has considered the employee cost as detailed in the Table below:

Table 5.47: Employee Cost considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Previous year employee cost		167.59	138.21	138.21
2	Inflationary index		9.21%	8.24%	8.24%
3	Inflationary increase		15.43	11.39	11.39
4	**Employee Cost (1+2)**	**428.26**	**183.02**	**149.60**	**149.60**
5	Add: New Manpower cost	10.00	5.00	5.00	5.00
6	**Total Employee Cost (3+4)**	**438.26**	**188.02**	**154.60**	**154.60**

The Commission, accordingly, considered the employee cost at Rs. 154.60 Crore for FY 2014-15 (RE) as detailed in the above Table.

5.22 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

NBPDCL has submitted that R&M expenses primarily include costs related to repair of different class of fixed assets, etc..

NBPDCL has projected R&M expenses based on actual R&M expenses as per audited annual accounts for FY 2013-14 with inflationary increase @ 8.24% for FY 2014-15. The R&M expenses projected by the Petitioner are as given in the Table below:

Table 5.48: Repairs and Maintenance expenses projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Previous year R & M Cost	86.01	39.73	22.22
2	Inflationary index		9.21%	8.24%
3	Inflationary increase		3.66	1.83
4	**Total R & M Cost**	**86.01**	**43.39**	**24.05**

NBPDCL 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 NBPDCL. The Petitioner has projected R&M expenses based on the actual expenses as per audited annual accounts for FY 2013-14 with escalation @8.24% for inflationary increase for FY 2014-15 as detailed in the Table below:

Table 5.49: R&M expenses considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
1	Previous year R & M Cost	86.01	39.73	22.22	22.22
2	Inflationary index		9.21%	8.24%	8.24%
3	Inflationary increase		3.66	1.83	1.83
4	**Total R & M Cost**	**86.01**	**43.39**	**24.05**	**24.05**

The Commission, accordingly, considers R&M expenses at Rs.24.05 Crore in review for FY 2014-15 (RE).

5.23 Administration and General (A&G) Expenses

Petitioner's submission

NBPDCL 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 8.24% has been considered over FY 2013-14 to arrive at the A&G cost for FY 2014-15.

The NBPDCL has estimated the A&G expenses at Rs.34.19 Crore for FY 2014-15 (RE) as furnished in Table below:

Table 5.50: Administration and General Expenses projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Previous year A&G expenses		33.94	31.58
2	Inflationary index		9.21%	8.24%
3	Inflationary increase		3.13	2.60
4	**Total A & G expenses**	**49.58**	**37.07**	**34.19**

NBPDCL has requested the Commission to approve the A&G expenses for FY 2014-15 as detailed in the Table above.

Commission analysis:

The Commission has examined the A&G expenses projected by NBPDCL. The A&G expenses are projected based on actual expenses as per the annual accounts of NBPDCL for FY 2013-14 with inflationary escalation of 8.24%.

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

Table 5.51: Administration & General Expenses considered for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
1	Previous year A&G expenses		33.94	31.58	29.53
2	Inflationary index		9.21%	8.24%	8.24%
3	Inflationary increase		3.13	2.60	2.43
4	**Total A&G expenses**	**49.58**	**37.07**	**34.19**	**31.96**

Accordingly, the Commission considered Rs.31.96 Crore for FY 2014-15 (RE) towards Administration and General Expenses.

5.24 Allocation of Holding Company Expenses

Petitioner's submission

NBPDCL 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.

NBPDCL 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".

NBPDCL 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 NBPDCL has estimated the Holding Company expenses at Rs.10.00 Crore for FY 2014-15 (RE) as furnished in Table below:

Table 5.52: Expenses of Holding Company projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Employee expenses		7.03	7.61
2	R&M expenses		0.12	0.13
3	A&G expenses		2.09	2.26
4	**Total**	--	**9.24**	**10.00**

NBPDCL has requested the Commission to approve the holding company expenditure as part of overall O&M expenditure for FY 2014-15 (RE).

Commission's analysis:

The Commission has considered Rs.8.46 Crore and Rs.9.24 Crore for FY 2013-14 (RE) and for FY 2014-15 respectively in the Tariff Order dated 28th February 2014.

The Petitioner has projected Rs.10.00 Crores towards holding company expenses for FY 2014-15 (RE).

BSPHCL vide letter No.1618 dated 22.10.2014 has claimed Rs.8.40 Crore towards holding company expenses for FY 2014-15.

The Commission, accordingly, considers holding company expenses in terms of Bihar State Electricity Reforms Transfer Scheme, 2012 for FY 2014-15 (RE) as detailed in the Table below:

Table 5.53: Allocation of Expenses of Holding Company considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
1	Employee expenses		7.03	7.61	5.24
2	R&M expenses		0.12	0.13	0.60
3	A&G expenses		2.09	2.26	2.57
4	**Total**	**--**	**9.24**	**10.00**	**8.40**

5.25 Summary of Operation and Maintenance (O&M) Expenses

The summary of the revised O & M expenses considered in review for FY 2014-15 (RE) are as tabulated below:

Table 5.54: Total O&M cost considered by the Commission for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
1	Employee cost	438.26	188.02	154.61	154.60
2	R&M expenses	86.01	43.39	24.05	24.05
3	A&G Expenses	49.58	37.07	34.19	31.96
4	Holding company expenses		9.24	10.00	8.40
5	**Total O& M cost**	**573.85**	**277.72**	**222.85**	**219.01**

The Commission considered total O&M costs at Rs.219.01 Crore for FY 2014-15 (RE).

5.26 Interest on working capital

Petitioner's submission:

NBPDCL 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 5.55: 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 @14.75% as per the SBI PLR as on 1st April 2014.

NBPDCL has claimed interest on working for FY 2014-15 computed on the above norms as detailed in the Table below:

Table 5.56: Interest on working capital projected for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	O&M exp. (1 month)	47.82	23.14	18.57
2	Maintenance spares @1% of opening GFA with 6% escalation	84.18	42.71	47.52
3	Receivables - 2 months	1300.46	504.09	548.34
4	**Total working capital**	**1432.46**	**569.94**	**614.43**
5	**Less**: Govt. assistance for power purchase	360.00	157.92	150.77
6	**Net working capital requirement**	**1072.46**	**412.02**	**463.66**
7	Rate of interest	14.45%	14.45%	14.75%
8	**Interest on working capital**	**154.97**	**59.54**	**68.39**

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 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 revalued by Rs.965.91 Crore. Further, the Petitioner has considered escalation @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 2014. 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 @14.75% as per the SBI PLR as on 1st April 2014.

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.904.62 Crore for the petitioner for FY 2014-15. The Government is releasing the funds on monthly basis. The Commission has considered the State Government funding/financial support to the NBPDCL 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 NBPDCL is reduced from the working capital requirement of the NBPDCL. The two months support to NBPDCL works out to Rs.150.77 Crore and the same is reduced from the working capital requirement of NBPDCL.

The Commission has considered the rate of interest as per the SBI PLR @14.75% as on 1st April 2014 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 5.57: Interest on working capital considered for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	O&M expenses (1 month)	47.82	23.14	18.57	18.25
2	Maintenance spares @1% of opening GFA with 6% escalation	84.18	42.71	47.52	31.97
3	Receivables - 2 months	1300.46	504.09	548.34	474.96
4	**Total working capital**	**1432.46**	**569.94**	**614.43**	**525.18**
5	Less: Govt. assistance for power purchase	360.00	157.92	150.77	150.77
6	**Net working capital requirement**	**1072.46**	**412.02**	**463.66**	**374.41**
7	Rate of interest	14.45%	14.45%	14.75%	14.75%
8	**Interest on working capital**	**154.97**	**59.54**	**68.39**	**55.23**

The Commission, accordingly, has considered interest on working capital at Rs.55.23 Crore for FY 2014-15 (RE).

5.27 Return on Equity

Petitioner's submission:

NBPDCL has submitted that computation of Return on Equity is excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) (c) of BERC Tariff Regulations 2007.

NBPDCL has computed the return on equity for FY 2014-15 as detailed in the Table below:

Table 5.58: Return on Equity projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Opening Equity	879.00	385.00	538.28
2	Rate of Return per annum %	14.00%	14.00%	14.00%
3	**Return on Equity**	**123.06**	**53.90**	**75.36**

NBPDCL has requested the Commission to consider the RoE as per the computations furnished in the Table above for FY 2014-15 (RE)

Commission's analysis

The Commission has examined the computation of RoE claim of NBPDCL. The Petitioner has computed RoE on the enhanced Equity. However, no details were furnished for the equity amount. The Petitioner has stated that RoE is claimed as per Regulation 73(2)(c) of the BERC Tariff Regulations 2007.

The Regulation 84 (Principles for fixation of tariff for a Distribution Licensee) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specify "*the tariff for a distribution licensee shall be fixed in such a manner that the licensee in a financial year shall ordinarily earn a return, which shall comprise 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). ………… The definition of equity thus would involve all net worth deployed in the capital of the unit but does not include any revaluation of reserves and subsidies. The paid up equity capital for this purpose shall be the average of the opening and closing balances of paid up equity capital for that year*".

Regulation 71 (1) specifies that;

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

The Commission, in view of the above Regulations, for the purpose of computation of Return on Equity, has considered opening equity as on 1st April 2014 as per true up for FY 2013-14 and @30% of capitalisation (net of grants) in respect of projected investment capitalised for FY 2014-15 (RE).

The Commission considered capitalisation at Rs.1077.61 Crore and funding of capitalization through Grants at 94% (Rs.1012.96 Crore) and balance through Loans at 6% (Rs.64.66 Crore) for FY 2014-15 based on projections made by the Petitioner for review. Hence no equity is considered for FY 2014-15 (RE).

Accordingly, in view of the above, the Commission has computed return on equity for FY 2014-15 as detailed in the Table below:

Table 5.59: Return on Equity considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Opening Equity	879.00	385.00	538.28	385.00
2	Closing equity	879.00	385.00	538.28	385.00
3	Average equity (1+2)/2	879.00	385.00	538.28	385.00
4	Rate of Return on equity	14.00%	14.00%	14.00%	14.00%
5	**Return on equity (3*4)**	**123.10**	**53.90**	**75.36**	**53.90**

The Commission, accordingly, approved Return on Equity at Rs.53.90 Crore in true up for FY 2013-14.

5.28 Interest on Security Deposit

Petitioner's submission:

NBPDCL 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 5.60: Interest on security deposit projected for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2014-15 (RE)
1	Opening Security Deposit	138.00
2	Addition / (Deletion)	47.74
3	Closing Security Deposit	185.74
4	Average Security Deposit	161.87
5	RBI Bank Rate (as on 7.10.2013)	9.00%
6	Interest on Security Deposit	14.57

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:

Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person.

BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle.

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.

The Commission is of the view that the Petitioner has utilised and invested these consumer deposits in the Regulated business. In such a scenario, there is no additional financial implication on distribution licensee because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. However, the Commission following the principle of prudence and consistency has not considered any notional normative income on consumers' security deposit, but disallowed the actual interest paid towards the interest on consumers' security deposits in the true up for FY 2013-14*.* Accordingly, the Commission has not considered interest on SD in review for FY 2014-15 (RE). ***If interest paid on consumers security deposit is allowed as pass through in tariffs, it tantamount to recovery of the interest from consumers itself.***

In view of the above, the Commission disapproves interest on Consumer's Security Deposit for FY 2014-15 (RE).

5.29 Net Prior Period Charges

Petitioner's submission:

NBPDCL has submitted that the Commission in its order in Case No.20/2014 had determined an additional Rs.37.10 Crore as additional amount on account of Net prior period charges for FY 2012-13 and has projected Rs.16.39 Crore towards NBPDCL share of net prior period charges for FY 2014-15 as detailed in the Table below.

Table 5.61: Net Prior period charges / (Credits) projected for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2014-15
1	Prior period expenses	16.39

Commission analysis:

The Commission in Case No.20/2014 has allowed additional amount on account of Net prior period charges for FY 2012-13. The Commission has considered and included in the Prior period charges in true up for FY 2013-14.

The Commission, in view of the above, disapproves prior period charges in review for FY 2014-15 (RE).

5.30 Non-Tariff Income

Petitioner's submission:

NBPDCL has submitted that non tariff income is considered based on actual non tariff income as per audited annual accounts for FY 2013-14 with escalation @10%

for FY 2014-15 over FY 2013-14. The Petitioner has submitted that the non tariff income is projected for FY 2014-15 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 5.62: Projected Non-tariff Income for FY 2013-14 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Net Non-tariff income for FY 2013-14		64.05	195.38
2	Increase in income @		8.00%	10.00%
3	**Net non-tariff income**	**183.11**	**69.20**	**214.92**

Commission analysis:

The Commission observed that the Petitioner has not adjusted financing cost of DPS against the Non-tariff income even though it claims to have been adjusted.

The Non-Tariff income as per the audited annual accounts of NBPDCL for FY 2013-14 is at Rs.195.38 Crore and after adjusting to the financing cost of outstanding dues towards delayed payment, the non-tariff income stood at Rs.93.83 Crore for FY 2013-14. The Commission, in true up for FY 2013-14, has considered non-tariff income of Rs.93.83 Crore (Rs.195.38 Crore less financing cost of DPS at Rs.101.55 Crore). Accordingly, the Commission has considered Rs.93.83 Crore with escalation @ 10% for FY 2014-15 (RE) as detailed in the Table below.

Table 5.63: Non-tariff Income considered for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved for FY 2014-15 (RE)
1	Net Non-tariff income		64.05	195.38	93.83
2	Rate of Increase		8.00%	10.00%	10.00%
3	Increase in non tariff income		5.15	19.54	9.38
4	**Total Non-tariff income**	**183.11**	**69.20**	**214.92**	**103.21**

The Commission, accordingly, considered non-tariff income at Rs.103.21 Crore for FY 2014-15 (RE) as detailed in the Table above.

5.31 Revenue from sale of power at existing tariff

Petitioner's submission

NBPDCL has submitted the category wise revenue based on the existing tariff excluding sale to Nepal for FY 2014-15 as detailed in the Table below:

Table 5.64: Projected Revenue from sale of power at existing tariff projected for FY 2014-15 (RE)

Sl. No	Category	Revenue (Rs. Crore)
1	KJY	112.07
2	DSI	138.90
3	DSII	324.59
4	DS III	0.40
5	NDS I Commercial	5.55
6	NDS II Commercial	233.33
7	NDS III Commercial	0.54
8	SS I	8.74
9	SS II	8.80
10	Irrigation and Agriculture I	1.58
11	Irrigation and Agriculture II	45.99
12	PWW	21.44
13	LTIS I	36.44
14	LTIS II	23.85
15	HT IS I	139.85
16	HT IS II	52.51
17	HT IS III	23.68
18	HTSS	34.66
19	RT	12.29
20	UI	11.66
21	DF	199.73
23	**Total**	**1436.59**

Commission's analysis

The Commission has computed the expected revenue during FY 2014-15 at existing tariff based on the number of consumers, energy sales and connected load considered in the review for FY 2014-15 (RE) and arrived at Rs 1435.30 Crore excluding revenue from sale of power to Nepal, as detailed in the Table below:

Table 5.65: Revenue from sale of power at existing tariff considered for FY 2014-15 (RE)

Sl. No	Category	Sales (MU)	Average Rate (Rs. kWh)	Revenue (Rs. Crore)
1	KJY	433.17	1.78	77.14
2	DSI	556.00	2.21	122.81
3	DSII	847.00	4.38	371.16
4	DS III	1.00	4.50	0.45
5	NDS I Commercial	21	2.51	5.28
6	NDS II Commercial	337.00	6.69	225.30
7	NDS III Commercial	1.00	4.13	0.41
8	SS I	12.00	7.00	8.40
9	SS II	17.00	4.97	8.45
10	Irrigation and Agriculture I	11.18	1.34	1.63
11	Irrigation and Agriculture II	92.64	6.11	56.61
12	PWW	27.00	7.79	21.02
13	LTIS I	61.00	5.98	36.50
14	LTIS II	37.00	6.20	22.95
15	HT IS I	201.72	7.06	142.35
16	HT IS II	77.14	6.86	52.93
17	HT IS III	26.70	8.98	23.98
18	HTSS	59.86	5.40	32.38
19	RT	13.00	10.89	14.15
21	UI	83	1.41	11.66
22	DF	696	2.87	199.73
23	**Total**	**3612.52**	**3.97**	**1435.30**

5.32 Revenue from sales of Power to Nepal

NBPDCL has shown in its petition that the revenue from sale of 811 MU to Nepal is Rs. 420.69 Crore for FY 2014-15. The Commission had approved Rs. 258.63 Crore for sale of 550 MU to Nepal at the rate of Rs. 4.70 per kWh for FY 2014-15 in the Tariff Order dated 28th February 2014. However, the Commission has considered sales and revenue from sales of power to Nepal as projected by NBPDCL at Rs. 420.69 Crore for sale of 811 MU for FY 2014-15 (RE).

5.33 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.904.65 Crore The Petitioner has furnished utilization of subsidy amount and balance amount be adjusted against revenue gap as detailed in the Table below:

Table 5.66: Resource Gap utilization projected for FY 2014-15

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Proposed resource gap grant from State Govt.	1080.00	426.38	904.62
2	Less: Disallowed power purchase funded through State Govt. grant/subsidy	1827.49	458.69	379.71
3	Available Revenue Subsidy	-747.49	-32.31	524.91

Commission's analysis:

The Commission has considered the resource gap assistance for FY 2014-15 at Rs.904.62 Crore for NBPDCL.

The Commission has considered the resource gap assistance of Rs.904.62 Crore as projected by the Petitioner and adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of NBPDCL and distribution loss approved by the Commission from resource gap funding by the State Govt. as detailed in the Table below:

Table 5.67: Resource Gap utilization considered for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Proposed resource gap assistance from State Govt.	1080.00	426.38	904.62	904.65

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
2	Less: Disallowed power purchase funded through State Govt. grant	1827.49	458.69	379.71	226.59
3	Available balance resource gap assistance	-747.49	-32.31	524.91	678.06

5.34 Annual Revenue Requirement and Revenue Gap at existing tariff projected for FY 2014-15 (RE)

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 5.68: ARR and Revenue Gap/ (Surplus) projected for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
1	Purchase of power	6216.52	2235.87	2643.00
2	PGCIL & Other transmission charges	190.00	152.41	195.51
3	BSPTCL transmission charges	262.00	94.71	113.65
4	**O & M Expenses (A+B+C+D)**	**573.85**	**277.73**	**222.85**
A	Employee expenses	438.26	188.02	154.61
B	R&M expenses	86.01	43.39	24.05
C	A&G expenses	49.58	37.07	34.19
D	Holding company expenses		9.24	10.00
5	Depreciation	163.24	101.36	88.27
6	Interest & Finance charges	395.92	180.57	70.92
7	Return on equity	123.10	53.90	75.36
8	Interest on SD			14.57
9	Deposit for RPO obligation		7.38	

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)
10	Net prior period charges			16.39
11	**Less:** IDC		-69.73	-3.96
12	Interest on working capital	158.09	59.64	68.39
13	**Total Revenue requirement (1 to 12)**	**8082.72**	**3093.73**	**3504.96**
14	**Less**:: Non-tariff income	183.11	69.20	214.92
15	**Less**: Expenditure disallowed due to excess T&D losses	1827.49	458.69	379.71
16	**Net Revenue requirement (13-14-15)**	**6072.12**	**2565.84**	**2910.33**
17	Revenue from Existing tariff	4119.75	1356.30	1424.93
18	Revenue from sale of power-Nepal	255.20	258.63	420.69
19	**Gross Gap / (Surplus) (16-17-18)**	**1697.17**	**950.91**	**1064.71**
20	**Add**: Recovery Gap / (Surplus) of past period (FY 2013-14)	0.00	0.00	153.85
21	**Net Gap / (Surplus) before subsidy (19+20)**	**1697.17**	**950.91**	**1218.56**
22	Subsidy from State Government	2160.13	947.52	904.62
23	Subsidy used for disallowed power	1827.49	458.69	379.71
24	Subsidy available for revenue gap **(22-23)**	332.64	488.83	524.94
25	**Net Gap / (Surplus) after subsidy (21-24)**	**1364.53**	**462.08**	**693.63**

Commission analysis:

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 5.69: ARR and Revenue Gap / (Surplus) considered by the Commission for FY 2014-15 (RE)

(Rs. Crore)

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
1	Purchase of power	6216.52	2235.87	2643.00	2272.74
2	PGCIL & Other transmission charges	190.00	152.41	195.51	183.58
3	BSPTCL transmission charges	262.00	94.71	113.65	113.65

Sl. No.	Particulars	DISCOMs ARR approved in MYT order for FY 2014-15	Approved for FY 2014-15 (RE) in Tariff Order dated 28.02.2014	Projected by NBPDCL for FY 2014-15 (RE)	Now approved in review for FY 2014-15 (RE)
4	**O & M Expenses (A+B+C+D)**	**573.85**	**277.73**	**222.85**	**219.01**
A	Employee expenses	438.26	188.02	154.61	154.60
B	R&M expenses	86.01	43.39	24.05	24.05
C	A&G expenses	49.58	37.07	34.19	31.96
D	Holding company expenses		9.24	10.00	8.40
5	Depreciation	163.24	101.36	88.27	0.00
6	Interest & Finance charges	395.92	180.57	70.92	59.06
7	Return on equity	123.10	53.90	75.36	53.90
8	Interest on SD			14.57	
9	Deposit for RPO obligation		7.38		
10	Net prior period charges			16.39	
11	**Less: IDC**		69.73	3.96	4.20
12	Interest on working capital	158.09	59.64	68.39	55.23
13	**Total Revenue requirement (1 to 12)**	**8082.72**	**3093.73**	**3504.96**	**2952.97**
14	Less:: Non-tariff income	183.11	69.20	214.92	103.21
15	Less: Expenditure disallowed due to excess T&D losses	1827.49	458.69	379.71	226.59
16	**Net Revenue requirement (13-14-15)**	**6072.12**	**2565.84**	**2910.33**	**2623.16**
17	Revenue from Existing tariff	4119.75	1356.30	1424.93	1435.30
18	Revenue from sale of power-Nepal	255.20	258.63	420.69	420.69
19	**Gross Gap / (Surplus) (16-17-18)**	**1697.17**	**950.91**	**1064.71**	**767.17**
20	Add: Recovery Gap / (Surplus) of past period (FY 2013-14)	0.00	0.00	153.85	0.00
21	**Net Gap / (Surplus) before subsidy (19+20)**	**1697.17**	**950.91**	**1218.56**	**767.17**
22	Subsidy from State Government	2160.13	947.52	904.62	904.65
23	Subsidy used for disallowed power	1827.49	458.69	379.71	226.59
24	Subsidy available for revenue gap **(22-23)**	332.64	488.83	524.91	678.06
25	**Net Gap / (Surplus) after subsidy (21-24)**	**1364.53**	**462.08**	**693.65**	**89.11**

The Commission approves the net revenue gap of Rs.89.11 Crore for FY 2014-15 (RE) subject to final truing up as and when the audited annual accounts for FY 2014-15 are submitted by the Petitioner. The net revenue gap approved by the Commission for FY 2014-15 (RE) Rs.89.11 Crore is against the Regulatory Asset of Rs.25.41 Crore created for FY 2014-15 for NBPDCL in Tariff Order dated 28th February 2014.

The gap estimated by the Commission is based on the revised estimates submitted by NBPDCL as modified by the Commission on prudence check and may vary with actual costs/expenditure based on the audited annual accounts for FY 2014-15.

Therefore, the Commission does not consider this gap of Rs.89.11 Crore to be carried forward in ARR of NBPDCL for FY 2015-16. However, considering the estimated gap for FY 2014-15, the Commission also decides that the Regulatory Asset of Rs.25.41 Crore approved for FY 2014-15 in the Tariff Order dated 28th February 2014 shall not be carried forward and adjusted in the ARR for FY 2015-16.

6. Revised Aggregate Revenue Requirement (ARR) FY 2015-16

6.1 Background

The Commission has determined the Multi Year Aggregate Revenue Requirement for the control period FY 2015-16, combinedly for NBPDCL & SBPDCL in the order dated 15th March 2013.

The Commission has determined the revised Aggregate Revenue Requirement (ARR) for FY 2014-15 and approved retail supply tariff for FY 2014-15 for NBPDCL in the Tariff Order dated 28th February, 2014.

NBPDCL has now submitted the present petition for determination of revised ARR and retail supply tariff for FY 2015-16. It is submitted that the revised ARR for FY 2015-16 is based on based on projections and escalations over previous year and also considering Commission approved figures as guiding principles.

NBPDCL has submitted that though the Commission has approved MYT figures for FY 2013-14 to FY 2015-16, however the Petitioner would seek opportunity to revise its ARR for FY 2015-16 so as to enable sound transition of new company and also avoiding financial loss, if any, in transition phase.

In this Chapter, the Commission has analysed the energy sales and components of expenditure and revenue projected by NBPDCL for FY 2015-16

6.2 Energy Sales, Number of Consumers and Connected Load

The Petitioner has submitted that NBPDCL and SBPDCL serve more than 44,83,570 consumers in the State (as on 31st March, 2014). The electricity consumers in the State have grown by more than 15% CAGR in past 4 years. Such a high growth rate is reflective of regressed demand in the State. Considerable increase in consumer load and number of consumers lead to quantum leap in energy sales under various categories of consumers.

NBPDCL has furnished the category wise number of consumers, connected load and energy sales over the last 5 years i.e. FY 2009-10 to FY 2013-14 in the state of Bihar as shown in the Tables below:

Table 6.1: Category-wise Effective Number of Consumers in Bihar (Actuals)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	3,19,244	5,79,852	8,89,252	13,37,493	14,47,536
2	Domestic	17,97,404	19,38,023	21,07,229	24,35,584	26,58,560
3	Commercial	1,90,089	1,95,145	2,16,530	2,79,879	3,01,634
4	Public Lighting	379	306	355	399	419
5	IAS	59,121	54,709	57,615	57,838	53,332
6	PWW	768	923	970	1,098	1,236
7	Industrial LT	18,917	17,144	16,181	18,816	19,280
8	Industrial HT	929	915	1,179	1,317	1,551
9	Rail way	15	15	17	17	19
10	Inter State & UI & DF	1	1	1	1	3
11	**Total**	**23,86,867**	**27,87,033**	**32,89,329**	**41,32,442**	**44,83,570**

Table 6.2: Category wise consumer growth in past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	46%	36%	28%	8%
2	Domestic	10%	11%	12%	9%
3	Commercial	12%	16%	18%	8%
4	Public Lighting	3%	11%	9%	5%
5	IAS	-3%	-1%	-4%	-8%
6	PWW	13%	10%	13%	13%
7	Industrial LT	0%	4%	9%	2%
8	Industrial HT	14%	19%	15%	18%
9	Railway	6%	8%	6%	12%
10	Inter State & UI & DF	32%	44%	73%	200%

Table 6.3: Category wise connected load (KW) in Bihar (Actual)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	23,84,686.00	30,60,488.00	35,35,753.00	39,89,210.00	44,12,384.78
2	Domestic					
3	Commercial	5,76,714.00	6,14,059.00	6,79,093.00	6,50,003.00	7,12,192.69
4	Public Lighting	9,625.00	11,411.00	6,260.00	7,872.00	7,747.34
5	IAS	6,18,974.00	4,17,191.00	4,23,965.00	1,85,000.00	1,64,469.82
6	PWW	21,385.00	23,055.00	25,329.00	18,154.00	21,645.56
7	Industrial LT	7,28,365.00	4,55,276.00	4,80,421.00	1,82,579.00	1,89,064.93
8	Industrial HT	4,30,833.00	3,27,610.00	5,16,509.00	5,26,757.00	6,32,329.51
9	Railway	1,02,150.00	3,26,500.00	1,37,085.00	35,640.00	1,70,462.00
10	Inter State & UI & DF					
11	**Total**	**48,72,732.00**	**52,35,590.00**	**58,04,415.00**	**55,95,215.00**	**63,10,296.63**

Table 6.4: Category wise connected Load growth in Past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	17%	13%	12%	11%
2	Domestic				
3	Commercial	5%	5%	2%	10%
4	Public Lighting	-5%	-12%	11%	-2%
5	IAS	-28%	-27%	-38%	-11%
6	PWW	0%	-2%	-8%	19%
7	Industrial LT	-29%	-25%	-37%	4%
8	Industrial HT	10%	25%	11%	20%
9	Railway	14%	-19%	12%	378%

Table 6.5: Category wise Energy Sales in Bihar (Actual)

Sl. No	Category	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	Kutir Jyoti	151	164	342	319.52	525.56
2	Domestic	1,814.00	1,969.00	2,026.00	2,342.84	2,755.45
3	Commercial	470	490	521	730.43	819.19
4	Public Lighting	27	33	23	56.35	45.7
5	IAS	794	389	363	336.53	321.79
6	PWW	143	60	45	53.3	58.52
7	Industrial LT	192	226	203	251.12	281.01
8	Industrial HT	1,475.00	1,501.00	1,470.00	1,404.76	1,553.51
9	Railway	445	458	537	448.64	523.95
10	Inter State & UI & DF	555	848	1,164.00	1,073.41	1,356.79
11	**Total**	**6,066.00**	**6,138.00**	**6,694.00**	**7,016.90**	**8,241.48**

Table 6.6: Category wise Energy sales growth in past 5 years

Sl. No	Category	4 Years	3 Years	2 Years	YOY
1	Kutir Jyoti	37%	48%	24%	65%
2	Domestic	12%	13%	19%	21%
3	Commercial	16%	20%	28%	17%
4	Public Lighting	14%	12%	41%	-19%
5	IAS	-20%	-6%	-6%	-4%
6	PWW	-20%	-1%	15%	11%
7	Industrial LT	11%	9%	20%	17%
8	Industrial HT	2%	2%	4%	14%
9	Railway	4%	5%	-1%	17%
10	Inter State & UI & DF	25%	17%	8%	26%

6.2.1 Category wise number of consumer

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating number of consumer for FY 2015-16

- 4 years, 3 years, 2 years and YoY calculation of number of consumers were adopted and applied on the actual number of consumers of FY 2013-14 for estimating number of consumers of FY 2014-15 and thereafter for FY 2015-16.
- For Kutir Jyoti an increase of 15,00,000 of Consumers (excluding in DF area) in FY 2015-16 has been considered based on monthly new connection drive started by DISCOMs from September, 14 and under RGGVY XIth and XIIth plan respectively;
- For Domestic, Commercial and Public Lighting 3 years CAGR of 11%, 16% and 11% has been considered
- In case of Public Water Works growth rate of 10% (3 year CAGR) has been considered for projection purpose
- For Industrial HT, Railway growth rate of 3 years CAGR (15%, 8%) has been considered.
- For IAS growth rate of notional growth rate of 5% has been considered.
- For Industrial LT Category growth rate of 3 years CAGR 10% has been considered.

The revised number of consumers projected for NBPDCL for FY 2015-16 are as given in the Table below.

Table 6.7: Number of consumers projected for FY 2015-16

Sl. No	Category	FY 2015 - 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
1	KJY	3328468	31959	3360427
2	DSI	897221	31951	929172
3	DSII	781145	94173	875318
4	DS III	43	5	48
5	NDS I Commercial	25995	2199	28194
6	NDS II Commercial	116879	23150	140029
7	NDS III Commercial	132	11	143
8	SS I	49	5	54
9	SS II	89	0	89
10	Irrigation and	2316	32	2348
11	Irrigation and	2456	68	2525
12	PWW	644	41	685
13	LTIS I	4848	937	5785

Sl. No	Category	FY 2015 - 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
14	LTIS II	372	133	505
15	HT IS I	453	121	574
16	HT IS II	20	4	24
17	HT IS III	1	1	3
18	HT IS IV	8	0	8
19	RT	2	0	2
20	Sale to Nepal	1		1
21	UI	0	0	0
22	DF	0		0
23	**Total**	**51,61,143**	**1,84,790**	**53,45,933**

Commission's analysis

The Petitioner has stated that monthly new connections drive has been started from September 2014 under RGGVY XIth and XIIth plans. NBPDCL has considered an addition of 15,00,000 new Kutir Jyoti connections during FY 2015-16 in NBPDCL area excluding DF area. The addition of Kutir Jyoti connections in the past are as given below:

Table 6.8 Growth of Kutir Jyoti Consumers

DISCOMs / State	Actuals					Projected	
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
SBPDCL	-	-	-	-	443182	1920935	3313731
NBPDCL	-	-	-	-	1004354	1857231	3360427
Total	**319244**	**579852**	**889252**	**1337493**	**1447536**	**3778166**	**6674158**
Newly added	-	260608	309400	448241	110043	2330630	2895992

The maximum addition of new Kutir Jyoti connections in Bihar State in the past was 448241 during FY 2012-13. Proposed addition of 15,00,000 new Kutir Jyoti connections during FY 2015-16 seems to be very ambitious. Further, as observed from the Table 6.2 the CAGR of Kutir Jyoti connections is reducing year on year from FY 2009-10 to FY 2013-14. However, the Commission has considered 3 year CAGR i.e. 36% growth over that half during FY 2014-15 for estimating the number of Kutir Jyoti consumers during FY 2015-16. Accordingly, the Commission has considered

16,75,547 number of KJ consumers for entire NBPDCL and 16,43,588 number of consumers excluding DF area (1675547-31959).

For IAS category the number of connections is considered at the same level of FY 2013-14 as no growth is expected.

For other categories, the Commission has considered the number of consumers as projected by the Petitioner.

Details of category wise number of consumers considered by the Commission for FY 2015-16 are shown in the Table below:

Table 6.9 Number of consumers approved for FY 2015-16

Sl. No	Category	FY 2015 – 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
1	KJY	1643588	31959	1675547
2	DSI	897221	31951	929172
3	DSII	781145	94173	875318
4	DS III	43	5	48
5	NDS I Commercial	25995	2199	28194
6	NDS II Commercial	116879	23150	140029
7	NDS III Commercial	132	11	143
8	SS I	49	5	54
9	SS II	89	0	89
10	Irrigation and Agriculture I	2101	29	2130
11	Irrigation and Agriculture II	2228	62	2290
12	PWW	644	41	685
13	LTIS I	4848	937	5785
14	LTIS II	372	133	505
15	HTS I	453	121	574
16	HTS II	20	4	24
17	HTS III	1	1	3
18	HTSS	8	0	8
19	RT	2	0	2
20	Sale to Nepal	1	-	-
21	UI	0	0	0
22	DF	0		0
23	**Total**	**34,75,819**	**1,84,781**	**36,60,600**

NBPDCL is directed to maintain correct details of category wise and sub category wise number of consumers for FY 2015-16 for considering while reviewing annual performance for FY 2015-16.

6.2.2 Category wise connected load

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating the connected load for FY 2015-16.

- 4 year, 3 years, 2 years and YoY calculation of connected load were adopted and applied on the actual connected load of FY 2013-14 for estimating connected load of FY 2014-15 and thereafter for FY 2015-16.
- For Kutir Jyoti an average load per consumer increase has been considered in and FY 2015-16 as per actual in FY 2013-14 based on monthly new connection drive started by DISCOMs from September 14 and under RGGVY XIth and XIIth plan respectively;
- For Domestic, Commercial and Public Lighting 3 years CAGR of 12%, 5% and 11% has been considered, wherever negative growth is there a nominal increase has been considered;
- In case of IAS and Public Water Works notional growth rate of 5% has been considered for projection purpose.
- For Industrial HT, Railway growth rate of 2 years CAGR (11% and 12%) has been considered.
- For Industrial LT Category connected load are considered at nominal increase of 4% as per YoY growth in previous years.

The details of revised connected load projected for FY 2015-16 is as given in the Table below:

Table 6.10 Connected Load (KW) projected for FY 2015-16

Sl. No	Category	FY 2015 - 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL (Projected)
1	KJY	2854997	32313	2887310
2	DSI	783063	32384	815446
3	DSII	903440	140998	1044438

Sl.	Category	FY 2015 - 16		
4	DS III	514	20	534
5	NDS I Commercial	15163	1938	17101
6	NDS II Commercial	249437	43055	292492
7	NDS III Commercial	872	47	920
8	SS I	1971	47	2019
9	SS II	2177	0	2177
10	Irrigation and Agriculture I	8300	259	8558
11	Irrigation and Agriculture II	31375	1586	32961
12	PWW	9059	927	9985
13	LTIS I	39234	12395	51629
14	LTIS II	14584	9007	23591
15	HTS I	84132	27205	111338
16	HTS II	32271	15956	48227
17	HTS III	29385	4353	33738
18	HTS IV	16348	0	16348
19	RT	24173	0	24173
20	Sale to Nepal			0
21	UI			0
22	DF			0
23	**Total**	**5100496**	**322489**	**5422985**

Commission analysis

The Commission has considered the connected load for Kutir Jyoti consumers based on the number of consumers approved for FY 2015-16.

For IAS category the connected load is considered at the same level of FY 2013-14 and FY 2014-15 as no growth is expected.

For other categories, the Commission has considered the category wise connected load for FY 2015-16 as projected by the Petitioner.

Details of category wise connected load considered by the Commission for FY 2015-16 are given in the Table below:

Table 6.11 Connected load (kW) approved for FY 2015-16

Sl. No	Category	FY 2015 - 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
1	KJY	1407333	32313	1439646
2	DSI	783063	32384	815446

Sl. No	Category	FY 2015 - 16		
		NBPDCL excluding DF	Muzaffarpur DF	Total NBPDCL
3	DSII	903440	140998	1044438
4	DS III	514	20	534
5	NDS I Commercial	15163	1938	17101
6	NDS II Commercial	249437	43055	292492
7	NDS III Commercial	872	47	920
8	SS I	1971	47	2019
9	SS II	2177	0	2177
10	Irrigation and Agriculture I	7528	235	7763
11	Irrigation and Agriculture II	28458	1438	29896
12	PWW	9059	927	9985
13	LTIS I	39234	12395	51629
14	LTIS II	14584	9007	23591
15	HTS I	84132	27205	111338
16	HTS II	32271	15956	48227
17	HTS III	29385	4353	33738
18	HTSS	16348	0	16348
19	RT	24173	0	24173
20	Sale to Nepal			0
21	UI			0
22	DF			0
23	**Total**	**3649142**	**322318**	**3971460**

6.2.3 Category wise Energy Sales

Petitioner's submission

NBPDCL has submitted that the following approach has been considered for estimating sales for FY 2015-16:

- 4 years, 3 years, 2 years and YoY calculation of sales were adopted and applied on the actual sales of FY 2013-14 for estimating sales of FY 2014-15 and thereafter for FY 2015-16.
- Sales of DF areas have been computed separately and accordingly grossed up by the losses to arrive at the input energy to the DF areas.
- Sales have been estimated as per CAGR arrived on estimated sales of FY 2014-15 (RE) for all categories except for Kutir Jyoti.
- For Kutir Jyoti an average sales per consumer increase has been considered in FY 2015-16 as per actual in FY 2013-14 based on monthly new connection drive started by DISCOMs from September 14 and under RGGVY XIth and XIIth plan

respectively;

- For Domestic, Commercial and Public Lighting 3 years CAGR of 13%, 20% and 12% has been considered;
- In case of Public Water Works growth rate considered at nominal increase of 11% as per the actual YOY increase in FY 2013-14
- For Industrial LT, Industrial HT, Railway growth rate of 3 years CAGR (9%, 2%, 5%) has been considered.
- For IAS Category nominal increase of 5% has been considered;

Table 6.12: Energy Sales Projected for FY 2015-16

Sl. No	Category	MUs
1	KJY	1,245
2	DSI	629
3	DSI I	958
4	DS III	1
5	NDS I Commercial	25
6	NDS II Commercial	405
7	NDS III Commercial	1
8	SS I	13
9	SS II	19
10	Irrigation and Agriculture I	13
11	Irrigation and Agriculture II	102
12	PWW	30
13	LTIS I	67
14	LTIS II	41
15	HTS I	202
16	HTS II	77
17	HTS III	27
18	HTSS	60
19	RT	13
20	Sale to Nepal	876
21	UI	-
22	DF	772
23	**Total**	**5577**

Commission's analysis

Since, NBPDCL is functioning as a Distribution Company with effect from 01.11.2012, only one year full data of category wise energy sales is available. Past trend of growth of energy sales exclusively for NBPDCL is not available. The Commission accepts the methodology considered by the Petitioner for estimating the energy sales for FY 2015-16.

However, the Commission has considered the energy sales for Kutir Jyoti category at 591.69 MU based on the number of consumers considered for FY 2015-16 at 16,43,588 and considering a norms of 30 units/month/connection.

For Irrigation and Agriculture (IAS) category there is negative growth both in consumer and energy consumption. As observed in Table 5.7 the sales are following downtrend year on year. The Petitioner has considered a growth of 5% for estimating the sales for FY 2014-15 for this category, but the Commission has considered the sales for this category at zero growth the same level of sales in FY 2013-14 and FY 2014-15.

Further, for HT industrial category, the Petitioner has considered 3 year CAGR of 2% for estimating sales for FY 2014-15. But as observed from Tables 5.3 and 5.5, the number of consumers and correspondingly the connected load for this category is growing at 14% to 18% and 10% to 25% respectively. Hence the Commission has decided to consider 2 year CAGR i.e. 4% for estimating energy sales for FY 2015-16 to HT industrial category.

For DF area, the Petitioner has considered the input energy as energy sales. For other category of consumers, the energy sales are considered as projected by the Petitioner.

Details of category wise energy sales approved by the Commission for FY 2015-16 are as given in the Table below:

Table 6.13: Energy Sales approved for FY 2015-16

Sl. No	Category	Projected for FY 2015-16	Approved for FY 2015-16
1	KJY	1245	591.69
2	DSI	629	629
3	DS II	958	958
4	DS III	1	1
5	NDS I Commercial	25	25
6	NDS II Commercial	405	405

Sl. No	Category	Projected for FY 2015-16	Approved for FY 2015-16
7	NDS III Commercial	1	1
8	SS I	13	13
9	SS II	19	19
10	Irrigation and Agriculture I	13	11.18
11	Irrigation and Agriculture II	102	92.64
12	PWW	30	30
13	LTIS I	67	67
14	LTIS II	41	41
15	HTS I	202	209.79
16	HTS II	77	80.23
17	HTS III	27	27.77
18	HTSS	60	62.36
19	RT	13	13
20	Sale to Nepal	876	876
21	UI	-	-
22	DF	772	772
23	**Total**	**5577**	**4925.66**

6.3 Distribution Loss

Petitioner's submission

NBPDCL has submitted that the Commission in the MYT Order had approved distribution loss of 20.00% for FY 2015-16 for combined DISCOMs. It is also submitted that post unbundling both the DISCOMs are functioning separately and hence it is imperative to approve Distribution loss separately.

NBPDCL also submitted that actual distribution losses are much higher than approved losses and projected the revised distribution losses as given in the Table below:

Table 6.14: Distribution Loss projected for FY 2015-16

Sl. No	Particulars	Approved in MYT Order Dated 15.03.2013	Projected for FY 2015-16
1	Distribution Loss (%)	20.00%	28.48%

Commission's analysis

The Commission has fixed the distribution loss for both DISCOMs 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 (%)
2013-14	23.00
2014-15	21.40
2015-16	20.00

NBPDCL has submitted as compliance to the directives given by the Commission in the Tariff order dated 28th February 2014 that multiple measures were taken to control the losses. But the Commission has noted that the measures taken by NBPDCL have not reduced the distribution losses to the required level. The Commission has also noted that Central Government sponsored schemes such as APDRP, R-APDRP and strengthening of transmission and distribution network of the DISCOM should have reduced the overall distribution loss of the DISCOMs. In addition, the State Govt. has also provided funds for 100% metering and replacement of old conductors. All these schemes should have helped the DISCOMs to reduce the distribution losses. Considering all these aspects, the Commission has fixed the distribution loss reduction trajectory for FY 2013-14 to FY 2015-16 in the MYT Order dated 15th March 2013.

The Commission is of the view that the distribution loss is a controllable parameter and it is the responsibility of the Distribution Licensee to take appropriate steps to bring down the distribution loss level. In this connection, the Commission has given a number of directives to improve the performance of distribution licensees, which if implemented in true spirit, should have brought down the Distribution loss level considerably.

The Commission cannot allow the burden of higher Distribution loss due to the non-achievement of Distribution loss reduction trajectory as approved by the Commission to be passed on to the consumers.

Accordingly, the Commission confirms the distribution loss at 20.00% for FY 2015-16. The same has been considered for computation of power purchase for FY 2015-16

The distribution loss level target set by the Commission, the distribution loss level projected by NBPDCL and the loss level approved by the Commission for FY 2015-16 is summarised in the table below:

Particulars	Approved in T.O dated 15.3.2013	Projected by SBPDCL for FY 2015-16	Approved for FY 2015-16
Distribution loss for FY 2015-16	20.00%	28.48%	20.00%

However, NBPDCL is directed to conduct month-wise, energy audit duly providing energy meters to all the service connections and feeders to measure the energy input into DISCOM and energy sales and submit the reports to the Commission along with the measures being taken to arrest / control the high commercial losses in its area of supply.

6.4 State Transmission Loss

Petitioner's submission

NBPDCL has projected the state transmission loss at 4.00% for FY 2015-16 as approved by the Commission in the MYT Order dated 15th March, 2013.

Commission's analysis

The Commission has considered the state transmission loss at 3.92% for FY 2015-16 as approved for BSPTCL for FY 2015-16 in the Tariff Order of BSPTCL for FY 2015-16.

6.5 Central Transmission Loss

Petitioner's submission

NBPDCL has projected the Central Transmission Loss at 2.19% considering weighted average transmission loss of Eastern Region for last 52 weeks (5th September, 2013 to 7th September, 2014) and stated that 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 considered the transmission loss in Eastern Regional Transmission System at 2.19% for FY 2015-16 as projected by the Petitioner.

6.6 Energy Requirement

Petitioner's submission

Based on the energy sales, distribution losses and transmission losses projected NBPDCL has projected the energy requirement at its transmission periphery for FY 2015-16 as given in the Table below:

Table 6.15: Energy requirement projected or FY 2015-16

Sl. No	Particulars	UoM	Projected for FY 2015-16
1	Energy sales	MU	5577.34
2	Distribution Loss	%	28.48%
3	Distribution Loss	MU	2221.16
4	Energy required at Distribution periphery	MU	7798.51
5	State Transmission Loss	%	4.00%
6	State Transmission Loss	MU	324.94
7	Energy required at Transmission periphery	MU	8123.44

Commission's analysis

The Commission has approved distribution loss at 20.00% for NBPDCL and state transmission loss for BSPTCL at 3.92% for FY 2015-16. Based on the approved sales, distribution loss and state transmission loss, the energy requirement at state transmission periphery considered by the Commission for FY 2015-16 is as given in the Table below:

Table 6.16: Energy requirement approved for FY 2015-16

(MU)

<table>
<tr><th>Sl. No</th><th>Particulars</th><th>Approved in Tariff Order dated 28.02.2014</th><th>Projected for FY 2015-16</th><th>Considered for FY 2015-16 in Review</th></tr>
<tr><td>1</td><td>Energy sales within the state</td><td rowspan="4">10451</td><td rowspan="4">5577.34</td><td>4925.66</td></tr>
<tr><td>2</td><td>Less: Energy supplied to DF area</td><td>772</td></tr>
<tr><td>3</td><td>Less: Sale under UI</td><td>0</td></tr>
<tr><td>4</td><td>Less: Sale to Nepal</td><td>876</td></tr>
<tr><td>5</td><td>Net energy sales</td><td>-</td><td>-</td><td>3277.66</td></tr>
<tr><td>6</td><td>Distribution Losses (%)</td><td>20.00%</td><td>28.48%</td><td>20.00%</td></tr>
<tr><td>7</td><td>Distribution Losses</td><td>2612.75</td><td>2221.16</td><td>819.42</td></tr>
<tr><td>8</td><td>Energy required</td><td></td><td></td><td>4097.08</td></tr>
<tr><td>9</td><td>Add: Energy supplied to DF area</td><td rowspan="2">13063.75</td><td rowspan="2">7798.51</td><td>772</td></tr>
<tr><td>10</td><td>Add: 33 kV Distribution Losses @6% on Energy Input to DF</td><td>49.28</td></tr>
</table>

Sl. No	Particulars	Approved in Tariff Order dated 28.02.2014	Projected for FY 2015-16	Considered for FY 2015-16 in Review
11	Total energy required at Distribution periphery			4918.35
12	Add: Sales to Nepal			876.00
13	Total energy required (11+12)			5794.35
14	Transmission Loss (%)	4.00%	4.00%	3.92%
15	Transmission Loss (MU)	544.32	324.94	236.41
16	Energy required at Transmission Periphery (13+15)	13608.09	8123.44	6030.76
17	Add: UI sales	-	-	0
18	Total Energy requirement at transmission periphery	13608.09	8123.44	6030.76

6.7 Power Purchase

Petitioner's submission

NBPDCL has submitted that the DISCOMs rely on allocation from Central Generating system 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 (BSHPCL) in its Resolution No. 29-07 which states that:

"RESOLVED THAT THE Board of Directors do hereby adopt and accord approval on the amendment in the resolution no. 08-14.01 related to Power Sharing ratio between SBPDCL and NBPDCL and amended methodology for admittance and payment of Power Purchase related bills as below:

(A) Power Purchase/Transmission Charges/Arrear bills pertaining to which actual energy consumption data is available such bills shall be admitted by both the DISCOMs on actual consumption basis.

(B) Power Purchase/Transmission charges bills pertaining to which actual energy consumption data is not available such bills shall be provisionally admitted in the ratio of 58:42 between SBPDCL and NBPDCL respectively subject to necessary adjustment in payment of subsequent bills on the basis of available actual consumption data.

(C) *Accordingly, amount paid earlier by the DISCOM's as per earlier decision of BSPHCL in its 8th Meeting vide resolution no. 08-14.01 shall be adjusted between the DISCOMs on the basis of actual energy consumed by them for the period from May 2013 to date and payment shall be made by the DISCOM concerned".*

NBPDCL has projected the power purchase as detailed below:

i. **NHPC, NTPC & PTC:** The power purchase for existing sources viz. NTPC, NHPC and PTC has been considered based on the allocation of power to Bihar State and further divided in the ratio of 42:58 among NBPDCL & SBPDCL as per Board Resolution with adjustments to capture overall power purchase in a reasonable manner. The power purchase is further segregated into NBPDCL and SBPDCL as per allocation ratio.

ii. **New Sources:** The power purchase for the new sources has been considered based on the commissioning status. Further the allocation of power from the new projects is in the ratio of 42:58 for NBPDCL & SBPDCL as per the Board Resolution. The new plants considered are shown below:

Table 6.17: New Sources assumption

Sl. No	Plant Name	Bihar Share MW	Date of Commissioning
1	Barh – Stage 2 U #1	330	15th Nov 14
2	KBUNL Stage 1 U# 2	110	15th Nov 14
3	GMR Karmangla	200	01st Sep 14

iii. **Medium / Short Term Sources:** The power purchase from these sources namely, Adani and IEX etc are also considered as per actual trend of first 5 months power purchase during FY 2014-15. The power purchase from NEA/ UI is not considered during FY 2015-16.

iv. **Renewable Power Purchase**

NBPDCL submitted that it proposes to purchase 146.26 MU of Non-solar power during FY 2015-16.

NBPDCL accordingly, submitted revised projections of power purchase for FY 2015-16 as given in the Table below:

Table 6.18: Power Purchase projected for FY 2015-16

Sl. No	Source	Units Purchased	PGCIL Losses		Units at BSPTCL Periphery	BSPTCL Losses		Units at Distribution Periphery
		MUs	%	MUs	MUs	%	MUs	MUs
A	**Central Sector**	**5,778.12**		**126.54**	**5,651.58**		**226.06**	**5,425.52**
I	**NTPC Stations**	**5,059.23**		**110.8**	**4,948.43**		**197.9**	**4,750.50**
a	*Farakka 1,2&3*	1,691.16	2.19	37.04	1,654.12	4.00%	66.16	1,587.96
b	*Talchar*	1,241.59	2.19	27.19	1,214.39	4.00%	48.58	1,165.82
c	*Kahalgoan 1 &2*	1,174.46	2.19	25.72	1,148.73	4.00%	45.95	1,102.79
d	*Barh – Stg 2U #1*	952.03	2.19	20.85	931.18	4.00%	37.25	893.94
e	*Nabinagar*							
II	**NHPC Stations**	**361.17**	2.19	**7.91**	**353.26**	**4.00%**	**14.13**	**339.13**
a	*Rangit*	55.53	2.19	1.22	54.31	4.00%	2.17	52.14
b	*Teesta*	305.64	2.19	6.69	298.95	4.00%	11.96	286.99
III	**PTC Stations**	**357.72**	2.19	**7.83**	**349.89**	**4.00%**	**14.00**	**335.89**
a	*Chukka*	115.39	2.19	2.53	112.87	4.00%	4.51	108.35
b	*Tala*	242.32	2.19	5.31	237.02	4.00%	9.48	227.54
IV	**DVC**							
B	**StateGenerating Stations**	**688.01**		**-**	**688.01**		**27.52**	**660.49**
I	BTPS							
II	KBUNL Stage 1 U# 1	**344.01**			344.01	4.00%	13.76	330.24
III	KBUNL Stage 1 U# 2	**344.01**			344.01	4.00%	13.76	330.24
C	**Medium/ Short Term/**	**1,718.43**		**25.20**	**1,693.22**		**67.73**	**1,625.50**
I	Adani	**575.4**	2.19	12.60	562.83	**4.00%**	**22.51**	540.31
II	NEA							
III	IEX/PXIL							
IV	Open Market Purchase	567.6			567.57	4.00%	22.70	544.87
V	UI							
VI	GMR Kamalanga	**575.43**	2.19	12.60	562.83	4.00%	22.51	540.31
D	**Renewable Power Purchase**	**90.62**			90.62		3.62	87.00
I	BSHPC	12.73			12.73	4.00%	0.51	12.22
II	Sugar Mills	56.9			56.92	4.00%	2.28	54.64
III	Solar Power Purchase	20.97			20.97	4.00%	0.84	20.13
E	**Total**	**8275.19**		*151.7*	*8123.44*		324.9	*7798.50*

Commission's analysis

NBPDCL 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 and others with whom it has an agreement/arrangement.

NBPDCL has not shown any power purchase from BTPS which is going to generate power during FY 2015-16 after completion of renovation and modernization. The Commission has estimated 1038.76 MU of net generation from BTPS during FY 2015-16 in the Tariff Order of BSPGCL for FY 2015-16. Accordingly, considering the sharing 42:58 among NBPDCL and SBPDCL, 436.28 MU of power purchase from BTPS is considered during FY 2015-16.

NBPDCL has also proposed to purchase 567.60 MU from open market. The details of sources from where this quantum of power purchase proposed is not provided. NBPDCL seems to have shown this power purchase just for energy balance purpose only. Since NBPDCL is already having sufficient power from whom it has an agreement/arrangement, the Commission has not considered this power purchase proposed from open market during FY 2015-16.

The Commission has considered the quantum of power purchase from various sources for FY 2015-16 as detailed in the Table below:

Table 6.19: Power Purchase approved for FY 2015-16 (MU)

Sl. No	Source	Projected for FY 2015-16	Approved for FY 2015-16
A	**Central Sector Stations**	**5,778.12**	**5,778.12**
I	**NTPC Stations**	**5,059.23**	**5,059.23**
a	Farakka 1,2&3	1,691.16	1,691.16
b	Talchar	1,241.59	1,241.59
c	Kahalgoan 1 &2	1,174.46	1,174.46
d	Barh – Stg 2U #1	952.03	952.03
e	Nabinagar		
II	**NHPC Stations**	**361.17**	**361.17**
a	Rangit	55.53	55.53
b	Teesta	305.64	305.64
III	**PTC Stations**	**357.72**	**357.72**
a	Chukka	115.39	115.39
b	Tala	242.32	242.32
IV	**DVC**		
B	**State Generating Stations**	**688.01**	**1124.30**
I	BTPS	0.00	436.28
II	KBUNL Stage 1 U# 1	344.01	344.01
III	KBUNL Stage 1 U# 2	344.01	344.01
C	**Medium/Short Term/Others**	**1,718.43**	**1,150.83**

Sl. No	Source	Projected for FY 2015-16	Approved for FY 2015-16
I	Adani	575.40	575.40
II	NEA		
III	IEX/PXIL		
IV	Open Market Purchase	567.60	0.00
V	UI		
VI	GMR Kamalanga	575.43	575.43
D	**Renewable Power Purchase**	**90.62**	**90.62**
I	BSHPC	12.73	12.73
II	Sugar Mills	56.92	56.92
III	Solar Power Purchase	20.97	20.97
H	**Total**	**8,275.19**	**8143.87**

6.8 Energy Balance

Petitioner's submission

NBPDCL has submitted the revised energy balance for FY 2015-16 based on the energy sales, losses and power availability as given in the Table below:

Table 6.20: Energy Balance Projected for FY 2015-16 (MU)

Sl. No	Particulars	Approved in MYT Order Dated 15.03.2013*	Projected for FY 2015-16
A	Energy sales including sales to Nepal, UI and DF	10,451.00	5,577.34
B	Distribution Losses (%)	20.00%	28.48%
C	Distribution Losses	2,612.75	2,221.16
D	Energy required at Distribution periphery	13,063.75	7,798.51
E	State Transmission Loss (%)	4.00%	4.00%
F	State Transmission Loss	544.32	324.94
G	Energy Required at Transmission periphery	13,608.07	8,123.44
H	Total Available Power	28,971.00	8,275.19
i	*Central Generating Station*		5,778.12
ii	*State Generating Stations*		688.01
iii	*Others*	28,971.00	1,809.05
I	CTU Transmission Losses on CGS Power %	2.73%	2.19%
J	CTU Transmission Losses	492	151.74
K	Net Power available after CTU Losses	28,479.00	8,123.44
L	**Surplus/ (Deficit) Energy at state periphery**	**14,870.93**	**0.00**

* Approved both DISCOMs together

Commission analysis

From the energy balance projected by the Petitioner in the above Table, the Commission has noted that the distribution losses are also considered on input energy supplied to the Distribution Franchisees (DF).

The energy balance for FY 2015-16 has been worked out based on the energy sales, T&D loss and the power purchase considered by the Commission for FY 2015-16 as detailed in the Table below:

Table 6.21: Energy Balance approved for FY 2015-16

(MU)

Sl. No	Particulars	*Approved for FY 2015-16 in TO dated 15.03.2013	Projected for FY 2015-16	Now Approved for FY 2015-16
1	Energy sales			4925.66
2	Less: Energy supplied to DF area			772
3	Less: Sale under UI	10451	5574.34	0
4	Less: Sale to Nepal			876
3	Net energy sales			3277.66
4	Distribution Losses (%)	20.00%	28.48%	20.00%
5	Distribution Losses	2612.75	2221.16	819.42
6	Energy required	-	-	4097.08
7	Add: Energy supplied to DF			772
10	Add: 33 kV Distribution Losses @6% on Energy Input to DF			49.28
11	Total energy required at Distribution periphery			4918.35
12	Add: Sales to Nepal			876.00
13	Total energy required (11+12)			5794.35
14	State Transmission Loss (%)	4.00%	4.00%	3.92%
15	Transmission Loss	544.32	324.94	236.41
16	Energy required at Transmission Periphery (13+15)	13608.07	8123.44	6030.76
17	**Available Energy**	**28971**	**8275.19**	**8,143.87**
18	CGS and IPP (NTPS, NHPC, PTC, Adani and GMR)		5778.12	6,928.95
I	SGS and Others		2497.06	1214.92
Ii	Losses in Regional transmission system (%)	2.73%	2.19%	2.19%
19	Losses in Regional transmission system	492	151.74	151.74
20	Net power available at State Transmission periphery (17-19)	28479	8123.44	7,992.13
21	**Surplus energy at State periphery (20-16)**	**14870.93**	**0.00**	**1,961.37**

* combinedly for SBPDCL & NBPDCL

The energy requirement at T&D losses projected by the Petitioner and at T&D losses approved by the Commission for the energy sales approved by the Commission and additional power purchase disallowed due to excess T&D losses for FY 2015-16 are as given below:

Table 6.22: Surplus Power available and disallowed power due to excess distribution loss

(MU)

Sl. No.	Particulars	Unit	FY 2015-16	
			As per NBPDCL Projected Losses	As per BERC Approved Losses
1	Energy sales	MU	4925.66	4925.66
2	Less: Energy supplied to DF area	MU	772	772
3	Less: Sale under UI			0
4	Less: Sale to Nepal		876	876
5	Net energy sales	MU	3277.66	3277.66
6	Distribution loss	%	28.48%	20.00%
7	Distribution loss	MU	1305.20	819.42
8	Energy required	MU	4582.86	4097.08
9	Add: Energy to DF area	MU	772.00	772.00
10	Add: 33 kV Distribution Losses @6% on Energy Input to DF	MU	49.28	49.28
11	Energy required at Distribution periphery	MU	5404.14	4918.35
12	Add: Sales to Nepal		876.00	876.00
13	Total energy required (11+12)		6280.14	5794.35
14	State Transmission loss	%	4.00%	3.92%
15	State Transmission loss	MU	261.67	236.41
16	Energy required at State Transmission periphery	MU	6541.81	6030.76
17	Add: UI sales			0.00
18	Total energy requirement at state transmission periphery		6541.81	6030.76
19	Additional energy at state periphery due to excess T&D loss (6541.81 – 6030.76)	MU		511.05
20	**Total power purchase/Required to purchase**	**MU**	**8,143.87**	**6145.26**
21	Losses in Regional transmission system	%	2.19%	1.86%
22	Regional loss	MU	151.74	114.50

Sl. No.	Particulars	Unit	FY 2015-16	
			As per NBPDCL Projected Losses	As per BERC Approved Losses
23	Net Power Requirement at state periphery	MU	7,992.13	6030.76
24	**Surplus power purchase (8143.87-6145.26)**	**MU**		**1998.61**
25	Additional power at state transmission periphery due to excess T&D loss	MU		511.05
26	**Additional power purchase due to excess T&D loss disallowed (511.05/(1-1.86%))**	**MU**		**520.75**
27	**Surplus power to be sold outside the state (1998.61– 520.75)**	**MU**		**1477.85**

* The total power purchase required to purchase from long-term sources has been worked out by considering the impact of average transmission losses (i.e. 151.74/8143.87*100 = 1.86%) applicable on the total power purchase. The reasons for applying the average regional transmission losses is that the power purchase quantum also include 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 in FY 2015-16 is 6145.26 MU with a regional transmission loss of 114.50 MU.

The Commission disallowed the power purchase requirement quantum equivalent of 520.75 MU based on the principle that excess power purchase on account of higher distribution loss i.e. over and above the approved losses shall not be permitted.

6.9 Power Purchase Cost

Petitioner's submission

NBPDCL has submitted that the power purchase cost mainly comprises of fixed charges and energy charges for two part tariff stations i.e. NTPC and NHPC. NBPDCL has submitted that the fixed cost has been calculated by escalating the cost considered in FY 2014-15 by a nominal rate of 5%. The tariff for Central Generating Station has been considered based on CERC Tariff Regulations, 2014. The average power purchase cost for new sources has been considered at Rs. 5/kWh except GMR

Karmangala which is based on actual bill. The power purchase costs for Adani, BSHPC and Sugar Mills are considered as per actual power purchase cost in last 5 months of FY 2014-15.

The Petitioner has considered tariff as approved for rest of other power station/source for FY 2015-16.

NBPDCL has projected the power purchase cost for FY 2015-16 as detailed in the Table below:

Table 6.23: Projected power purchase cost for FY 2015-16

Sl. No	Source	Units Purchased (MUs)	Excess Generation Incentive	Fixed Charges (Rs. Cr)	Energy Charges (Rs. Cr)	Total Cost (Rs. Cr)	Average Cost (Rs/kWh)
A	**Central Sector Stations**	**5,778.12**	**4.4**	**445.64**	**1,667.89**	**2,117.92**	**3.67**
I	**NTPC Stations**	**5,059.23**	**4.4**	**416.06**	**1,549.79**	**1,970.25**	**3.89**
a	*Farakka 1,2&3*	*1,691.16*	-	*199.16*	*538.2*	737.36	*4.36*
b	*Talchar*	*1,241.59*	*4.4*	*51.51*	*234.8*	290.71	*2.34*
c	*Kahalgoan 1 &2*	*1,174.46*	-	*165.38*	*348.37*	513.76	*4.37*
d	*Barh – Stg 2U #1*	*952.03*	-	-	*428.42*	428.42	*4.5*
e	*Nabinagar*						
II	**NHPC Stations**	**361.17**		**29.58**	**48.77**	**78.35**	**2.17**
a	*Rangit*	*55.53*		*6.28*	*8.33*	14.61	*2.63*
b	*Teesta*	*305.64*		*23.3*	*40.44*	63.74	*2.09*
III	**PTC Stations**	**357.72**		**-**	**69.33**	**69.33**	**1.94**
a	*Chukka*	*115.39*			*20.38*	20.38	*1.77*
b	*Tala*	*242.32*			*48.95*	48.95	*2.02*
IV	**DVC**		-			-	
B	**State Generating Stations**	**688.01**	**-**	**-**	**294.48**	**294.48**	**4.28**
I	**BTPS**						
II	**KBUNL Stage 1 U# 1**	344.01	-		*139.67*	139.67	**4.06**
III	**KBUNL Stage 1 U# 2**	344.01	-		*154.8*	154.8	**4.5**
C	**Medium/ Short Term/Others**	**1,718.43**	**-**	**69.05**	**575.37**	**644.42**	**3.75**
I	**Adani**	575.4		*69.05*	*192.77*	261.82	**4.55**
II	**NEA**					-	
III	**IEX/PXIL**					-	
IV	**Open Market Purchase**	567.6			*170.27*	170.27	3
V	**UI**					-	
VI	**GMR Kamalanga**	575.43			*212.33*	212.33	**3.69**
D	**Renewable Power Purchase**	**90.62**	**-**	**-**	**54.4**	**54.4**	**6**
I	**BSHPC**	12.73			3.2	3.2	2.52
II	**Sugar Mills**	56.92			28.3	28.33	4.98
III	**Solar Power Purchase**	20.97			22.86	22.86	10.9

Sl. No	Source	Units Purchased (MUs)	Excess Generation Incentive	Fixed Charges (Rs. Cr)	Energy Charges (Rs. Cr)	Total Cost (Rs. Cr)	Average Cost (Rs/kWh)
E	**PGCIL Charges including POSOCO**					**249.39**	
F	**BSPTCL Charges**					**125.02**	
G	**SLDC Charges**					**0.36**	
H	**Total**	**8,275.19**	**4.4**	**514.69**	**2,592.13**	**3,485.99**	**4.21**

Commission's analysis

The actual average per unit cost for power procured from various sources during FY 2013-14 and average per unit cost projected by the Petitioner for power purchase for FY 2015-16 are tabulated in the Table below:

Table 6.24: Average power purchase rates during FY 2013-14 (Actual) and FY 2015-16 (Projected) by Petitioner (Rs./kWh)

Sl. No	Source	Average cost Actuals during FY 2013-14	Average cost of considered for FY 2014-15*	Average cost considered by Petitioner for FY 2015-16
I	**NTPC Stations**	**3.55**		**3.89**
a	*Farakka 1,2&3*	4.09	4.20	4.36
b	*Talchar*	2.40	2.79	2.33
c	*Kahalgoan 1 &2*	3.86	4.15	4.37
d	*Barh – Stg 2U #1*	-	-	4.50
II	**NHPC Stations**	**2.66**		**2.17**
a	*Rangit*	3.00	2.98	2.63
b	*Teesta*	2.58	2.30	2.09
III	**PTC Stations**	**1.96**		**1.94**
a	*Chukka*	1.86	1.77	1.77
b	*Tala*	2.02	2.02	2.02
4	**DVC**	**4.19**	**-**	**-**
5	**State Generating**	**3.58**		**4.28**
a	KBUNL Stage 1 U# 1	3.58	4.06	4.06
b	KBUNL Stage 1 U# 2	-	-	4.50
6	**Others**	**4.36**		**3.46**
a	Adani	5.11	4.45	4.55
b	NEA	4.79	-	-
c	IEX/PXIL	3.11	3.78	-
d	Open Market	3.75	3.00	3.00
e	UI	1.82	1.12	-
f	PVVNL	0.63	-	-
g	GMR Karmangala	-	3.69	3.69
7	**Renewable Energy**	**4.04**		**5.85**
a	BSHPC	2.49	2.51	2.51
b	Sugar Mills	4.55	4.99	4.99

Sl. No	Source	Average cost Actuals during FY 2013-14	Average cost of considered for FY 2014-15*	Average cost considered by Petitioner for FY 2015-16
c	Solar		10.99	10.99
8	**Total Average**	**3.82**		**3.67**

* based on first 5 months actuals.

The Petitioner has considered the fixed costs for NTPC, NHPC, PTC and Adani escalating the fixed costs considered at 5% and energy charges at the same level as considered for FY 2014-15 which are considered reasonable and accepted by the Commission.

The Petitioner has stated that for new sources viz. Barh-I and KBUNL-II average per unit rates considered at Rs. 5/kWh but while computing power purchase cost only Rs. 4.50/kWh is considered. However, the Commission has considered Rs. 5/kWh for purchase of power from these sources.

For purchase of power from other sources viz. BSHPC, Sugar Mills, GMR the average per unit considered as per bills during FY 2014-15 is considered reasonable and accepted.

The purchase of power from BTPS is considered at the rate of Rs. 3.95/kWh as approved in the Tariff Order of BSPGCL for FY 2015-16.

The details of source wise power purchase cost for FY 2015-16 considered by the Commission are given in the Table below:

Table 6.25: Power purchase cost approved for FY 2015-16

Sl. No	Source	Units Purchased (MU)	Average Cost (Rs. / kWh)	Total Cost (Rs. Crore)
A	**Central Sector Stations**	**5,778.12**	**3.98**	**2,164.99**
I	**NTPC Stations**	**5,059.24**	**3.99**	**2017.13**
a	*Farakka 1,2&3*	1,691.16	4.36	737.35
b	*Talchar*	1,241.59	2.34	290.53
c	*Kahalgoan 1 &2*	1,174.46	4.37	513.24
d	*Barh – Stg 2U #1*	952.03	5.00	476.02
II	**NHPC Stations**	**361.17**	**2.17**	**78.48**
a	*Rangit*	55.53	2.63	14.60

Sl. No	Source	Units Purchased (MU)	Average Cost (Rs. / kWh)	Total Cost (Rs. Crore)
b	*Teesta*	305.64	2.09	63.88
III	**PTC Stations**	**357.71**	**1.94**	**69.37**
a	*Chukka*	115.39	1.77	20.42
b	*Tala*	242.32	2.02	48.95
B	**State Generating Stations**	**1,124.30**	**4.30**	**484.00**
I	BTPS	436.28	3.95	172.33
II	KBUNL Stage 1 U# 1	344.01	4.06	139.67
III	KBUNL Stage 1 U# 2	344.01	5.00	172.01
C	**Medium/ Short Term/ Others**	**1,150.83**	**4.12**	**474.14**
I	Adani	575.40	4.55	261.81
II	Open Market Purchase	0.00	-	-
III	GMR Karmangla	575.43	3.69	212.33
D	**Renewable Power Purchase**	**90.62**	**6.00**	**54.41**
I	BSHPC	12.73	2.52	3.21
II	Sugar Mills	56.92	4.98	28.35
III	Solar Power Purchase	20.97	10.9	22.86
E	**Total**	**8,143.87**	**3.90**	**3,177.54**

6.10 Transmission Charges

Petitioner’s submission

NBPDCL has submitted that the calculation of PGCIL charges is done as per prevailing CERC methodology. The CERC charges for withdrawal and Injection and the Drawal quantum are taken from CERC Order No. L-1/44/2010–CERC dated 14.10.2014. NBPDCL has also submitted that for BSPTCL the rates as approved by the Commission in its Order dated 28th February 2014 are considered.

NBPDCL stated that in addition, the Petitioner has also to pay POSOCO charges and open Access Charges which are projected.

NBPDCL has submitted the summary of the PGCIL, BSPTCL and SLDC charges for FY 2015-16 as given in the Table below:

Table 6.26: PGCIL and BSPTCL Charges projected for FY 2015-16

Sl. No	Particulars	Amount (Rs. Crore)
1	PGCIL charges including POSOCO	249.39
2	BSTPCL charges	125.02
3	SLDC charges	0.36
4	**Total**	**374.77**

Commission analysis

The actual PGCIL, POSOCO and ERLDC charges for FY 2013-14 incurred by NBPDCL are at Rs. 168.86 Crore. The Commission has considered PGCIL charges including POSOCO & ERLDC charges at Rs. 183.58 Crore for FY 2014-15 (RE) based on the bills for first nine months of FY 2014-15.

The Commission considers PGCIL charges for FY 2015-16 at Rs. 201.91 Crore considering 10% escalation on the PGCIL charges considered for FY 2014-15 (RE).

BSTPCL charges are considered at Rs. 93.72 Crore including SLDC charges as per the transmission charges approved for FY 2015-16 in the Tariff Order for FY 2015-16 of BSPTCL.

6.11 Total Power Purchase Cost

Summarizing the above, the total power purchase cost for FY 2015-16 including PGCIL and BSPTCL charges is as given in the Table below:

Table 6.27: Total Power Purchase cost approved for FY 2015-16

Sl. No	Particulars	Approved for FY 2015-16 (Rs. Crore)
1	Power Purchase cost from various sources	3,177.54
2	PGCIL (including POSOCO & ERLDC)	201.91
3	BSPTCL charges	93.72
4	**Total cost**	**3,473.17**

6.12 Disallowance of Power Purchase cost due to excess Distribution Loss

Petitioner's submission

NBPDCL submitted that as per methodology approved by the Commission in previous tariff orders, the power purchase cost due to excess distribution loss is computed as given in the Table below:

Table 6.28: Projected disallowance of Power Purchase cost due to excess distribution loss for 2015-16

Sl. No	Particulars	Approved in MYT Order Dated 15.03.2013	Projected for FY 2015-16
1	Additional power purchase by DISCOMs due to excess Distribution loss (MUs)	5,240.93	877.37
2	Average power purchase rate (Rs./kWh)	3.89	4.21
3	**Total Disallowed Power Purchase Cost**	**2,038.72**	**369.60**

NBPDCL stated that the support for the disallowance cost has been provided by the State Government.

Commission's analysis

The difference in the actual power purchase and the power purchase requirement approved by the Commission for FY 2015-16 is disallowed at the average power purchase rate and is treated as "Disincentive for non-achievement of Distribution Loss Target".

As per the approved trajectory the maximum permissible distribution loss level for FY 2015-16 was set to 20.00%, which the Petitioner was not able to achieve.

The Commission, while computing the Energy Balance has noticed that 520.75 MU of energy (Gross) was additionally purchased due to not achieving the distribution loss trajectory of 20.00% approved for FY 2015-16. Accordingly, the Commission has computed the disincentive for non-achievement of distribution loss reduction target at Rs. 216.10 Crore for FY 2015-16, considering average power purchase rate at Rs. 4.15/kWh (including PGCIL Charges with the charges from the various sources and dividing by the sales) as shown in the Table below:

Table 6.29: Power Purchase cost disallowed for FY 2015-16

Sl. No	Particulars	Unit	FY 2015-16
1	Gross Power Purchase disallowed	MU	520.75
2	Average Power Purchase cost	Rs / kWh	4.15
3	Cost of Power Purchase disallowed	Rs. Crore	216.10

6.13 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 6.25. The net power purchase cost is arrived as detailed in the Table below:

Table 6.30: Net power purchase cost approved for FY 2015-16

Sl. No	Particulars	Unit	FY 2015-16
1	Total Power purchase cost	Rs. Crore	3,473.17
2	Surplus Power	MU	1998.61
3	Disallowed power due to excess distribution loss	MU	520.75
4	Surplus power to be sold outside	MU	1477.85
5	Average power purchase	Rs./kWh	4.15
6	Cost of surplus power (4*5)	Rs. Crore	613.26
7	Net power purchase cost (1-6)	Rs. Crore	2,859.91

6.14 Capital Expenditure

Petitioner's submission:

NBPDCL has submitted that it has considered revised projections for Capex, capitalisation and funding as per the schemes now being pursued by NBPDCL.

NBPDCL has submitted the details of opening CWIP, investment during the year, capitalisation and funding of capex for FY 2015-16 as detailed in the Table below:

Table 6.31: CWIP, Capex, Capitalisation and Funding of capitalisation projected for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Opening CWIP	7551.00	2046.70
2	New Investment	5248.00	4043.63
3	**Less: Capitalisation (4+5)**	**6086.00**	**2020.00**
4	Opening CWIP		678.84
5	New Investment	6086.00	1341.16
6	**Closing CWIP (1+2-3)**	**6713.00**	**4070.33**
7	**Funding**		

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
8	**CWIP Capitalisation (9+10)**	**0.00**	**678.84**
9	Grant		638.11
10	Loan		40.73
11	**New Investment (12+13)**	**6086.00**	**1341.16**
12	Grant	3788.00	1260.69
13	Loan	2298.00	80.47
14	**Total Capitalisation (8+11)**	**6086.00**	**2020.00**
15	**Total Grant (9+12)**	**3788.00**	**1898.80**
16	**Total Loan (10+13)**	**2298.00**	**121.20**

NBPDCL has requested the Commission to approve the capital expenditure, capitalisation and funding of capitalisation for FY 2015-16 as per above Table.

Commission's analysis:

The Commission has approved, for Distribution system as a whole, a total capital investment of Rs.5248.00 Crore with a capitalisation of Rs.6086.00 Crore for FY 2015-16 in the MYT order dated 15th March 2013.

The Petitioner has projected the capital investment and capitalisation at Rs.4043.63 Crore and Rs.2020.00 Crore respectively for FY 2015-16. However, the Petitioner has not furnished scheme-wise details of capital expenditure and capitalisation for FY 2015-16.

The Commission has considered capitalisation of capex as per the schedule approved in MYT order dated 15th March 2013 for FY 2015-16 as given in the Table below:

Table 6.32: Capitalisation schedule for FY 2015-16

Particulars	1st year	2nd year	3rd year
For Opening CWIP	30%	30%	40%
For all New Capex	30%	30%	40%

Table 6.33: Capitalisation approved for FY 2015-16

(Rs. Crore)

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Opening CWIP as on 1.4.2013	1175.71					1175.71
New Investment during the year	421.05	1995.27	4043.63			6459.95
Capitalisation						
Opening CWIP as on 1.4.2013	389.95 *	352.71	433.05			1175.71
New investment in FY 2013-14	139.65 *	126.32	155.08			421.05
New Investment in FY 2014-15		598.58	598.58	798.11		1995.27
New Investment in FY 2015-16			1213.09	1213.09	1617.45	4043.63
Total capitalisation	**529.60**	**1077.61**	**2399.80**	**2011.20**	**1617.45**	**7635.66**

***** Actual as per audited annual accounts for FY 2013-14 and as furnished by NBPDCL

The Petitioner has considered funding of the capex capitalised @ 94% through Grants and balance 6% of capitalisation through Loans. The Commission considers the same for FY 2015-16.

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

Table 6.34: Capitalisation and funding Considered for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Opening CWIP	7551.00	2046.70	1984.82
2	New Investment	5248.00	4043.63	4043.63
3	**Less: Capitalisation (4+5)**	**6086.00**	**2020.00**	**2399.80**
4	Opening CWIP		678.84	1186.71
5	New Investment	6086.00	1341.16	1213.09
6	**Closing CWIP (1+2-3)**	**6713.00**	**4070.33**	**3628.65**
7	**Funding**			
8	**CWIP Capitalisation (9+10)**	**0.00**	**678.84**	**1186.71**
9	Grant		638.11	1115.51
10	Loan		40.73	71.20
11	**New Investment (12+13)**	**6086.00**	**1341.16**	**1213.09**

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
12	Grant	3788.00	1260.69	1140.30
13	Loan	2298.00	80.47	72.79
14	**Total Capitalisation (8+11)**	**6086.00**	**2020.00**	**2399.80**
15	**Total Grant (9+12)**	**3788.00**	**1898.80**	**2255.82**
16	**Total Loan (10+13)**	**2298.00**	**121.20**	**143.99**

6.15 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 2015-16. The IDC projected by the petitioner is as detailed in the Table below:

Table 6.35: Interest During Construction (IDC) projected for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Loan drawal	2298.00	121.20
2	Average Loan	1149.00	60.60
3	Interest Rate	13%	13%
4	IDC (on average loan)	149.37	7.88

The Petitioner has requested the Commission to approve the IDC for FY 2015-16 as detailed in the Table above.

Commission's analysis

The Commission has examined the computation of the petitioner. The petitioner has charged IDC on normative loan drawl based on the capex capitalised during FY 2015-16.

The Commission considered the normative loans based on the capitalisation of capex vis-à-vis Grants and loans and interest rate @ 13% for FY 2015-16. Accordingly, the Commission considered IDC for FY 2015-16 as detailed in the Table below:

Table 6.36: Approved Interest during Construction (IDC) for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Loan drawal	2298.00	121.20	143.99
2	Average Loan	1149.00	60.60	71.99
3	Interest Rate	13.00%	13.00%	13.00%
4	IDC (on average loan)	149.37	7.88	9.36

The Commission, accordingly, approved Interest during Construction (IDC) at Rs.9.36 Crore as detailed in the Table above for FY 2015-16.

6.16 Gross Fixed Assets

Petitioner's submission

NBPDCL has submitted the computation of GFA based on the capitalisation schedule for FY 2015-16 as detailed in the Table below:

Table 6.37: Gross Fixed Assets projected by the petitioner for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Opening GFA	7941.89	5023.24
2	Additions during the year	6086.00	2020.00
3	Add : IDC	149.37	7.88
4	**Closing GFA (1 to 3)**	**14177.26**	**7051.12**

NBPDCL has requested the Commission to approve the GFA as per above Table for FY 2015-16.

Commission's analysis:

The Commission has adopted the opening GFA based on the closing GFA considered for FY 2014-15 (RE) as discussed in para 5.17 and further updated with the additions during the year 2015-16 to arrive at the closing GFA as on 31st March 2016.

The opening GFA, additions to assets during the year and closing GFA for FY 2015-16, arrived at by the Commission is as detailed in the Table below:

Table 6.38: Gross Fixed Assets approved for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Opening GFA {as per FY 2014-15 (RE)	7941.89	5023.24	5085.36
2	Additions during the year	6086.00	2020.00	2399.80
3	IDC	149.37	7.88	9.36
4	**Closing GFA**	**14177.26**	**7051.12**	**7494.52**

6.17 Depreciation

Petitioner's submission:

NBPDCL 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 dated 15th March 2013. NBPDCL 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 2015-16 as detailed in the Table below:

Table 6.39: Depreciation projected for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Opening GFA	13850.63	5023.24
2	Additions during the year	6086.00	2020.00
3	IDC	149.37	7.88
4	**Closing GFA (1+2+3)**	**20086.00**	**7051.12**
5	**Average GFA (1+4)/2**	**16968.32**	**6037.18**
6	Weighted average rate of depreciation	5.22%	4.09%
7	**Depreciation (5*6)**	**885.75**	**247.14**
8	Opening Grants	9660.50	3889.69
9	Grants during the year	3788.00	1898.80
10	**Total Grants (8+9)**	**13448.50**	**5788.50**
11	**Average Grants (8+10)/2**	**11554.50**	**4839.10**

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
12	Weighted average rate of depreciation	5.22%	2.67%
13	**Depreciation for GFA on Grants (11*12)**	**603.14**	**129.07**
14	**Depreciation for GFA on Loans (7-13)**	**282.60**	**118.07**

NBPDCL has requested the Commission to approve the computation of depreciation cost for FY 2015-16.

Commission's analysis:

The Commission has examined the computation of depreciation for FY 2015-16. The Commission has considered the opening GFA for FY 2015-16 based on closing GFA of FY 2014-15 (RE) (excluding the value of land) and additions to assets based on capitalization for FY 2015-16.

The Commission has considered weighted average rate of depreciation in line with the weighted average rate of depreciation considered for FY 2013-14 in true up i.e. @ 5.81%.

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 2015-16 is as detailed in the Table below:

Table 6.40: Depreciation approved for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Opening GFA	13850.63	5023.24	4098.28
2	Additions during the year	6086.00	2020.00	2399.80
3	IDC	149.37	7.88	9.36
4	**Closing GFA (1+2+3)**	**20086.00**	**7051.12**	**6507.44**
5	**Average GFA (1+4)/2**	**16968.32**	**6037.18**	**5302.86**
6	Weighted average rate of depreciation	5.22%	4.09%	5.81%
7	**Depreciation (5*6)**	**885.75**	**247.14**	**308.10**
8	Opening Grants	9660.50	3889.69	4386.80
9	Grants during the year	3788.00	1898.80	2255.82

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
10	**Total Grants (8+9)**	**13448.50**	**5788.50**	**6642.62**
11	**Average Grants (8+10)/2**	**11554.50**	**4839.10**	**5514.71**
12	Weighted average rate of depreciation	5.22%	2.67%	5.81%
13	**Depreciation for GFA on Grants (11*12)**	**603.14**	**129.07**	**320.40**
14	**Depreciation for GFA on Loans (7-13)**	**282.60**	**118.07**	**--**

As could be observed from the above table, the depreciation on assets created out of Grants is higher than the depreciation on GFA.

The Commission, accordingly, considers the "Nil" depreciation for FY 2015-16

6.18 Interest on Loans

Petitioner's submission:

NBPDCL has submitted that the opening loan balance as on 1st April 2014 is considered as per closing balance as on 31st March 2014 based on the audited annual accounts for FY 2013-14 and further updated with the normative loans arrived at based on capitalisation during FY 2014-15 and FY 2015-16.

NBPDCL 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. NBPDCL has projected the interest charges for FY 2015-16 as detailed in the Table below:

Table 6.41: Projected interest on loans for FY 2015-16

(Rs. Crore)

Sl No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Opening loans	3961.89	531.91
2	Additions	2298.00	121.20
3	Repayment	282.60	118.07
4	**Closing Loan**	**5977.29**	**535.04**
5	**Average Loan**	**4969.59**	**533.48**
6	Rate of Interest	13.00%	13.00%
7	**Interest and Finance charges**	**646.05**	**69.35**

NBPDCL has requested the commission to approve the interest on loans for FY 2015-16 as per above Table.

Commission's analysis:

The Commission has examined the projected interest on loans computation of the Petitioner. The Petitioner has projected funding of capitalisation through Grants at 94% and through Loans at 6%, accordingly, the Commission has considered the loan additions in line with funding of capitalisation for FY 2015-16 as shown in Table 6.34. The Commission has considered the opening loan based on the closing loan of FY 2014-15 (RE).

As per CERC (Terms and Conditions for Determination of Tariff) Regulations 2009, repayment of loan shall be equal to the depreciation allowed for the year. The Commission has considered 'Nil' depreciation for the year 2015-16 as the depreciation on Grants used for creation of assets is higher than the depreciation on GFA. The Commission has considered the rate of interest @ 13% and loan addition based on the capitalisation and repayment equal to depreciation for FY 2015-16.

Considering the above, the Commission has computed interest on loans for FY 2015-16 as detailed in the Table below:

Table 6.42: Interest on loan approved for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Opening loans	3961.89	531.91	486.64
2	Additions	2298.00	121.20	143.99
3	Repayment	282.60	118.07	0.00
4	**Closing Loan**	**5977.29**	**535.04**	**630.63**
5	**Average Loan**	**4969.59**	**533.48**	**558.64**
6	Rate of Interest	13.00%	13.00%	13.00%
7	**Interest and Finance charges**	**646.05**	**69.35**	**72.62**

The Commission, accordingly, approved Rs.72.62 Crore towards interest on loans for FY 2015-16.

6.19 Operation and Maintenance (O&M) Expenses

Petitioner's submission

NBPDCL 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.

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

NBPDCL has proposed following inflation index for FY 2014-15 and FY 2015-16 for Employee cost, R&M and A&G expenses: **INDXn = 0.55*CPIn + 0.45*WPIn**

Table 6.43: 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 2012-13**	**167.62**	**215.17**	
4	Indexation n-1 (index point * weightage)	75.43	118.34	193.77
3	**Index points for FY 2013-14**	**177.64**	**236.00**	
5	Indexation n (index point * weightage)	79.94	129.80	209.74
6	**Combined inflation {(5-3) / 3)**			**8.24%**

The Commission has considered the above indexation/inflation factor for FY 2014-15 and FY 2015-16.

6.20 Employee Costs

Petitioner's submission:

NBPDCL 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 8.24% is considered over FY 2014-15 (RE) to arrive at the employee cost for FY 2015-16.

The petitioner has projected the employee expenses for FY 2015-16 as detailed in the Table below:

Table 6.44: Employee Cost proposed by the petitioner for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Previous year employee cost FY 2014-15 (RE)		154.61
2	Add: Inflationary index @ 9.21%		12.74
3	**Employee Cost**	**465.22**	**167.35**
4	Add: New Manpower cost	10.00	5.00
5	**Total Employee Cost.**	**475.22**	**172.35**

The petitioner has requested the Commission to approve the employee expenses for FY 2015-16 as per the Table above.

Commission's analysis:

The Commission has considered the employee cost as per the revised estimates considered by the Commission for FY 2014-15 (RE) excluding new manpower cost as base value and escalated to inflationary increase @ 8.24%. Further, the Commission has considered Rs.5.00 Crore towards additional new manpower cost for FY 2015-16 as projected by the Petitioner. The Commission has arrived at the total employee cost for FY 2015-16 as detailed in the Table below:

Table 6.45: Approved Employee Cost for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Employee cost considered for FY 2014-15 (RE)		154.61	149.60
2	Add: Inflationary increase @ 8.24%		12.74	12.33
3	**Employee Cost**	**465.22**	**167.35**	**161.93**
4	Add: New Manpower cost	10.00	5.00	5.00
5	**Total Employee Cost.**	**475.22**	**172.35**	**166.93**

The Commission has approved employee cost at Rs.166.93 Crore for FY 2015-16 as detailed in the above Table.

6.21 Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

NBPDCL has submitted that R&M expenses primarily include costs related to repair of different class of fixed assets, etc..

NBPDCL has projected R&M expenses based on the expenditure considered for FY 2014-15 (RE) with inflationary increase @ 8.24% for FY 2015-16. The R&M expenses projected by the Petitioner are as given in the Table below:

Table 6.46: Projected Repairs and Maintenance expenses for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	**R & M Cost**	**92.63**	**24.05**
2	Inflationary increase @ 8.24%		1.98
3	**Total R & M Cost**	**92.63**	**26.03**

NBPDCL has requested the Commission to approve the R&M expenses for FY 2015-16 as projected in the Table above.

Commission's analysis

The Commission has examined the R&M expenses projected by NBPDCL. The Petitioner has projected based on FY 2014-15 (RE) R&M expenses with escalation @8.24% for inflationary increase for FY 2015-16 as detailed in the Table below:

Table 6.47: Approved R&M expenses for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	**R & M Cost**	**92.63**	**24.05**	**24.05**
2	Inflationary increase @ 8.24%		1.98	1.98
3	**Total R & M Cost**	**92.63**	**26.03**	**26.03**

The Commission, accordingly, considered R&M expenses at Rs.26.03 Crore for FY 2015-16 as detailed in the above Table.

6.22 Administration and General (A&G) Expenses

Petitioner's submission

NBPDCL 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 8.24% has been considered over FY 2014-15 (RE) to arrive at the A&G cost for FY 2015-16.

The NBPDCL has estimated the A&G expenses for FY 2015-16 as detailed in Table below:

Table 6.48: Proposed Administration and General Expenses for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Previous year A&G cost		34.19
2	Add: Indexation @ 9.21%		2.82
3	**A & G Expenses**	**53.39**	**37.01**

NBPDCL has requested the Commission to approve the A&G expenses for FY 2015-16 as detailed in the Table above.

Commission's analysis:

The Commission has examined the A&G expenses projected by NBPDCL. The A & G expenses are projected based the expenses considered for FY 2014-15 (RE) with inflationary escalation of 8.24%.

The Commission has considered the A&G expenses for FY 2015-16 as detailed in the Table below:

Table 6.49: Approved Administration & General Expenses for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	A&G expenses considered for FY 2014-15 (RE)	53.39	34.19	31.96
2	Add: Inflationary increase @ 8.24%		2.82	2.63
3	**A & G expenses**	**53.39**	**37.01**	**34.60**

The Commission, accordingly, considered Rs.34.60 Crore for FY 2015-16 towards Administration and General Expenses as detailed in the Table above.

6.23 Allocation of Holding Company Expenses

Petitioner's submission

NBPDCL 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.

NBPDCL 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".

NBPDCL 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 NBPDCL has estimated the Holding Company expenses at Rs.10.83 Crore for FY 2015-16 as furnished in Table below:

Table 6.50: Expenses of Holding Company projected for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Employee expenses		8.24
2	R&M expenses		0.14
3	A&G expenses		2.45
4	**Total**	**--**	**10.83**

NBPDCL has requested the commission to approve the expenditure as part of overall O&M expenditure for FY 2015-16.

Commission's analysis:

NBPDCL has projected holding company expenses at Rs.10.83 Crore for FY 2015-16.

The Commission has observed that BSPHCL vide letter No.1618 dated 22.10.2014 has estimated the holding company expenses at Rs.9.67 Crore for FY 2015-16 and the same is communicated to the NBPDCL.

The Commission, accordingly, has considered the Holding Company expenses for FY 2015-16 in terms of Bihar State Electricity Reforms Transfer Scheme, 2012 as detailed in the Table below:

Table 6.51: Allocation of Expenses of Holding Company considered for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Employee expenses		8.24	6.03
2	R&M expenses		0.14	0.69
3	A&G expenses		2.45	2.95
4	**Total**	**--**	**10.83**	**9.67**

The Commission, accordingly, considered Rs.9.67 Crore for FY 2015-16 towards Holding Company expenses as detailed in the Table above.

6.24 Summary of Operation and Maintenance (O&M) Expenses

Table 6.52: Total O&M cost considered by the Commission for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Employee cost	475.22	172.35	166.93
2	R&M expenses	92.63	26.03	26.03
3	A&G Expenses	53.39	37.01	34.60
4	Holding company expenses allocated		10.83	9.67
5	**Total O& M cost**	**621.24**	**246.21**	**237.23**

The Commission considered total O&M costs at Rs.237.23 Crore for FY 2015-16.

6.25 Interest on Working Capital

Petitioner's submission:

NBPDCL 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 6.53: 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 @14.75% as per the SBI PLR as on 1st April 2014.

NBPDCL has claimed interest on working for FY 2015-16 computed on the above norms as detailed in the Table below:

Table 6.54: Projected Interest on working capital for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	O&M expenses (1 month)	51.77	20.52
2	Maintenance spares @1% of opening GFA with 6% escalation	146.82	63.35
3	Receivables - 2 months	1571.83	639.44
4	**Total working capital**	**1770.42**	**723.31**
5	Less: Govt. assistance for power purchase	360.00	270.09
6	**Net working capital requirement**	**1410.42**	**453.22**
7	Rate of interest	14.45%	14.75%
8	**Interest on working capital**	**203.81**	**66.85**

The Petitioner has requested the commission to approve the computation of interest on working capital and the interest charges for FY 2015-16 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 revalued by Rs.965.91

Crore. Further, the Petitioner has 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 in true up for FY 2013-14 and FY 2014-15 (RE). The Commission has considered closing GFA of FY 2014-15 (RE) as opening GFA for FY 2015-16 and accordingly, considered maintenance spares @1% of GFA with escalation at 6% over 1% value for FY 2015-16.

The Petitioner has considered the working capital as per Regulations and the rate of interest as per SBI PLR as on 1st April 2014. 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 @14.75% as per the SBI PLR as on 1st April 2014.

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.1620.54 Crore for the petitioner for FY 2015-16. The Government is releasing the funds on monthly basis. The Commission has considered the State Government funding/financial support to the NBPDCL 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 NBPDCL is reduced from the working capital requirement of the NBPDCL. The two months support to NBPDCL works out to Rs.270.09 Crore and the same is reduced from the working capital requirement of NBPDCL.

The commission has considered the rate of interest as per the SBI PLR @14.75% as on 1st April 2014 and based on the expenses/costs approved for FY 2015-16, has computed the working capital and interest on working capital for FY 2015-16 as detailed in the Table below:

Table 6.55: Approved Interest on working capital for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	O&M expenses (1 month)	51.77	20.52	19.77
2	Maintenance spares @1% of opening GFA with 6% escalation	146.82	63.35	43.44
3	Receivables - 2 months	1571.83	639.44	534.08
4	**Total working capital**	**1770.42**	**723.31**	**597.29**
5	**Less**: Govt. assistance for power purchase	360.00	270.09	83.58
6	**Net working capital requirement**	**1410.42**	**453.22**	**513.71**
7	Rate of interest	14.45%	14.75%	14.75%
8	**Interest on working capital**	**203.81**	**66.85**	**75.77**

The Commission, accordingly, has considered Rs.75.77 Crore towards interest on working capital for FY 2015-16 as detailed in the Table above.

6.26 Return on Equity

Petitioner's submission:

NBPDCL has submitted that computation of Return on Equity is excluding revaluation of reserves and subsidies and is claimed as per Regulation 72 (2) (c) of BERC Tariff Regulations 2007.

NBPDCL has computed the return on equity for FY 2014-15 as detailed in the Table below:

Table 6.56: Projected Return on Equity for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Equity	879.00	538.28
2	Rate of Return per annum %	14.00%	14.00%
3	**Return on Equity - Opening Equity**	**123.06**	**75.36**

NBPDCL has requested the Commission to consider the Return on Equity as per the computations furnished in the Table above for FY 2015-16.

Commission's analysis

The Commission has examined the computation of RoE claim of NBPDCL. The Petitioner has computed RoE on the enhanced Equity. However, no details were furnished for the equity amount. The Petitioner has stated that RoE is claimed as per Regulation 73(2)(c) of the BERC Tariff Regulations 2007.

The Regulation 84 (Principles for fixation of tariff for a Distribution Licensee) of the BERC (Terms and Conditions for Determination of Tariff) Regulations 2007, specify "*the tariff for a distribution licensee shall be fixed in such a manner that the licensee in a financial year shall ordinarily earn a return, which shall comprise 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). ………… The definition of equity thus would involve all net worth deployed in the capital of the unit but does not include any revaluation of reserves and subsidies. The paid up equity capital for this purpose shall be the average of the opening and closing balances of paid up equity capital for that year*".

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;

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

The Commission, in view of the above Regulations, for the purpose of computation of Return on Equity, has considered opening equity as on 1st April 2015 based on closing equity considered for FY 2014-15 (RE) and @30% of capitalisation (net of grants) in respect of projected investment capitalised for FY 2015-16.

The Commission, based on the Petitioner's projections, has considered capitalisation at Rs.2399.80 Crore and funding of capitalization through Grants (94%) at Rs.2255.82 Crore and balance through loan (6%) at Rs.143.99 Crore for FY 2015-16. Hence, addition to equity is considered for FY 2015-16.

Accordingly, the Commission has computed return on equity for FY 2015-16 as detailed in the Table below:

Table 6.57: Return on Equity considered for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Opening Equity	879.00	538.28	385.00
2	Closing equity (1+2)	879.00	538.28	385.00
3	Average equity (1+3)/2	879.00	538.28	385.00
4	Rate of Return on equity	14.00%	14.00%	14.00%
5	**Return on equity (4*5)**	**123.10**	**75.36**	**53.90**

The Commission, accordingly, considers Return on Equity at Rs.53.90 Crore for FY 2015-16 as detailed in the Table above.

6.27 Interest on Security Deposit

Petitioner's submission:

NBPDCL 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 2015-16 as detailed in the Table below:

Table 6.58: Projected Interest on security deposit for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2015-16
1	Opening Security Deposit	185.74
2	Addition / (Deletion)	52.52
3	Closing Security Deposit	238.25

Sl. No.	Particulars	Projected by NBPDCL for FY 2015-16
4	Average Security Deposit	212.00
5	RBI Bank Rate (as on 7.10.2013)	9.00%
6	Interest on Security Deposit	19.08

The Petitioner has requested the commission to approve the computation of interest on security deposit for FY 2015-16 as detailed in the table above.

Commission's analysis:

Section 47(1)(a) of the Electricity Act, 2003 specifies that any person who requires a supply of electricity to give reasonable security in respect of the electricity supplied to such person.

BERC Supply Code Regulations 2007 specifies that the distribution licensee shall pay interest at the RBI Bank rate, applicable on security deposits taken from the consumers. The interest amount of previous financial year shall be adjusted in the energy bill issued in May/June of each financial year depending on billing cycle.

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.

The Commission is of the view that the Petitioner has utilised and invested these consumer deposits in the Regulated business. In such a scenario, there is no additional financial implication on distribution licensee because it is compensated for its working capital funding on a normative basis or the interest earned can be passed on to the consumers. However, the Commission following the principle of prudence and consistency has not considered any notional normative income on consumers' security deposit, but disallowed the actual interest paid towards the interest on consumers' security deposits in the true up for FY 2013-14**.** Accordingly, the Commission has not considered interest on SD in review for FY 2014-15 (RE) and in ARR for FY 2015-16. ***If interest paid on consumers security deposit is allowed as***

pass through in tariffs, it tantamount to recovery of the interest from consumers itself.

In view of the above, the Commission disapproves interest on Consumer's Security Deposit for FY 2015-16.

6.28 Non-Tariff Income

Petitioner's submission:

NBPDCL has submitted that non-tariff income is considered based on actual non-tariff income as per audited annual accounts for FY 2013-14 with escalation @10% for FY 2014-15 (RE) over FY 2013-14 and for FY 2015-16 over FY 2014-15 (RE) . The Petitioner has submitted that the non-tariff income is projected for FY 2015-16 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 6.59: Projected Non-tariff Income for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Net Non-tariff income	179.27	214.92
2	Increase in income @ 10%		21.49
3	**Total non-tariff income**	**179.27**	**236.41**

The petitioner has requested the commission to approve the non-tariff income for FY 2015-16 as detailed in the Table above.

Commission's analysis:

The Commission computed the non-tariff income for FY 2015-16 based on the non-tariff income considered for FY 2014-15 (RE) with escalation at 10% over 2014-15 (RE) as detailed in the Table below:

Table 6.60: Non-tariff Income approved for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2015-16
1	Net Non-tariff income	179.27	214.92	103.21
2	Increase in income @ 10%		10.00%	10.00%
3	**Total non-tariff income**	**179.27**	**236.41**	**113.53**

The Commission, accordingly, considered non-tariff income at Rs.113.53 Crore for FY 2015-16 as detailed in the table above.

6.29 Revenue from sale of power at existing tariff

Petitioner's submission

NBPDCL has submitted the category wise revenue based on the existing tariff including sale to Nepal for FY 2015-16 as detailed in the Table below:

Table 6.61: Projected Revenue from sale of power at existing tariff for FY 2015-16

Sl. No	Category	Revenue (Rs. Crore)
1	KJY	204.01
2	DSI	157.04
3	DSII	366.98
4	DS III	0.45
5	NDS I Commercial	6.67
6	NDS II Commercial	280.62
7	NDS III Commercial	0.65
8	SS I	9.75
9	SS II	9.81
10	Irrigation and Agriculture I	1.66
11	Irrigation and Agriculture II	48.29
12	PWW	23.76
13	LTIS I	39.76
14	LTIS II	26.03
15	HT IS I	142.85
16	HT IS II	53.63
17	HT IS III	24.19
18	HTSS	35.40
19	RT	12.86
20	UI	454.20
21	DF	-
23	**Total**	**2160.89**

Commission's analysis

The Commission has computed the expected revenue 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 1636.30 Crore excluding revenue from sales to Nepal as detailed in the Table below:

Table 6.62: Revenue from sale of power at existing tariff considered for FY 2015-16

Sl. No	Category	Sales (MU)	Average Rate (Rs. kWh)	Revenue (Rs. Crore)
1	KJY	591.69	1.66	97.98
2	DSI	629	2.20	138.62
3	DSII	958	4.37	418.53
4	DS III	1	4.54	0.45
5	NDS I Commercial	25	2.50	6.26
6	NDS II Commercial	405	6.49	262.84
7	NDS III Commercial	1	4.17	0.42
8	SS I	13	7.00	9.10
9	SS II	19	4.95	9.40
10	Irrigation and Agriculture I	11.18	1.34	1.50
11	Irrigation and Agriculture II	92.64	6.11	56.61
12	PWW	30	7.74	23.23
13	LTIS I	67	5.95	39.85
14	LTIS II	41	6.17	25.30
15	HTS I	209.79	7.14	149.87
16	HTS II	80.23	6.95	55.74
17	HTS III	27.77	9.21	25.57
18	HTSS	62.36	5.55	34.59
19	RT	13	11.50	14.95
20	UI	-	-	-
21	DF	772	3.40	262.28
22	**Total**	**4049.66**	**4.03**	**1633.11**

6.30 Revenue from sale of Power to Nepal

NBPDCL has shown its Petition that the revenue from sale of 876 MU to Nepal Rs. 454.20 Crore for FY 2015-16. The Commission has approved Rs. 255.20 Crore for sale of 550 MU to Nepal at the rate of Rs. 4.64 per kWh for FY 2015-16 in the MYT Order dated 15th March 2013. However, the Commission has considered sales and revenue from sales of power to Nepal as projected by NBPDCL at Rs. 454.20 Crore for sale of 876 MU for FY 2015-16.

6.31 Resource gap funding from State Government for FY 2015-16

Petitioner's submission

The Petitioner has submitted that the total subsidy to be received for FY 2015-16 is Rs.1620.55 Crore. The Petitioner has furnished utilization of subsidy amount by the Petitioner and balance amount to be adjusted against revenue gap as detailed in the Table below:

Table 6.63: Projected Resource Gap utilization for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2015-16
1	Proposed subsidy from State Govt.	1620.55
2	**Less**: Disallowed power purchase funded through State Govt. grant/subsidy	369.60
3	Available Revenue Subsidy	1250.95

Commission's analysis:

The Government of Bihar vide letter No.16/Misc.74/2014 dated 16.12.2014 has communicated a total subsidy of Rs.1762.20 Crore for FY 2015-16.

The Commission observes that the subsidy to be received from the State Government against the subsidized categories is at Rs.854.16 Crore [NBPDCL Rs.507.35 Crore (59.40%) and SBPDCL Rs.346.81 Crore (40.60%)].

The Government of Bihar vide letter No.16/Misc.74/2014 dated 16-12-2014 has communicated a total subsidy of Rs.1762.20 Crore for FY 2015-16 for both DISCOMs.

However after adjustment of cost of power purchase disallowed towards higher T&D losses over and above the T&D losses approved by the Commission for both the DISCOMs of Rs.1281.81 Crore (NBPDCL Rs.216.11 Crore and SBPDCL Rs.1065.70 Crore), balance subsidy available is at Rs.480.39 Crore. The Commission has allocated the balance subsidy of Rs.480.39 Crore in the ratio of 40.60 : 59.40 to NBPDCL (Rs.285.35 Crore) and SBPDCL (Rs.195.04 Crore) respectively. Thus the total subsidy for NBPDCL is computed at Rs.501.46 Crore (Rs.216.11 Crore + Rs.285.35 Crore) from out of total subsidy of Rs.1762.20 Crore.

The Commission has considered the revenue gap assistance from State Government for FY 2015-16 at Rs.501.46 Crore to NBPDCL. The Commission has adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of NBPDCL and distribution loss approved by the Commission from resource gap funding by State Government as detailed in the Table below:

Table 6.64: Approved Resource Gap utilization for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2015-16	Approved for FY 2015-16
1	Proposed resource gap assistance	1620.55	501.46
2	**Less**: Disallowed power purchase funded through State Govt. grant/subsidy	369.60	216.11
3	Available balance resource gap assistance	1250.95	285.35

6.32 Renewable Purchase Obligation (RPO)

The Commission has approved Rs. 27.94 Crore towards shortfall of RPO for FY 2013-14 in true up of FY 2013-14 and directed the Petitioner to deposit the same in a separate fund. Accordingly, the amount (Rs.27.94 Crore) has been factored in the ARR for FY 2015-16.

6.33 ARR and Revenue Gap / (Surplus) projected for FY 2015-16

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 2015-16 against allocation from total approved revenue requirement by the Commission for FY 2015-16, as detailed in the Table below:

Table 6.65: Projected Net ARR and Revenue Gap for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16
1	Purchase of power	7238.96	3111.22
2	PGCIL & Other transmission charges	190.00	249.75
3	BSPTCL transmission charges	304.00	125.02
4	**O & M Expenses**	**621.24**	**246.21**
(i)	Employee expenses	475.22	172.35
(ii)	R&M expenses	92.63	26.03
(iii)	A&G expenses	53.39	37.01
(iiv)	Holding company expenses allocated		10.83
5	Depreciation	282.60	118.07
6	Interest & Finance charges	646.05	69.35
7	Return on equity	123.06	75.36
8	Interest on SD		19.08
9	Interest on working capital	204.37	**66.85**
	Less: IDC		7.88
10	**Total Revenue requirement**	**9610.28**	**4073.03**
11	Less: Expenditure disallowed due to excess T&D losses	2038.72	369.60
12	Less:: Non-tariff income	179.27	236.41
13	**Net Revenue requirement**	**7392.29**	**3467.02**
14	Revenue from Existing tariff	4879.15	1706.69
15	Revenue from sale of power-Nepal	255.20	454.20
16	**Gross Gap / (Surplus)**	**2257.94**	**1306.13**

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 6.66: ARR and Revenue Gap /(Surplus) approved by the Commission for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2014-15
1	Purchase of power	7238.96	3111.22	2564.28
2	PGCIL & Other transmission charges	190.00	249.75	201.91
3	BSPTCL transmission charges	304.00	125.02	93.72
4	**O & M Expenses (i to iv)**	**621.24**	**246.21**	**237.23**
(i)	Employee expenses	475.22	172.35	166.93
(ii)	R&M expenses	92.63	26.03	26.03
(iii)	A&G expenses	53.39	37.01	34.60

Sl. No.	Particulars	Approved for DISCOMs in MYT order for FY 2015-16	Projected by NBPDCL for FY 2015-16	Now approved for FY 2014-15
(iv)	Holding company expenses allocated		10.83	9.67
5	Depreciation	282.60	118.07	0.00
6	Interest & Finance charges	646.05	69.35	72.62
7	Return on equity	123.06	75.36	53.90
8	Interest on SD		19.08	--
	Deposit for RPO obligation			27.94
9	Interest on working capital	204.37	66.85	75.77
10	**Less:** IDC		7.88	9.36
12	**Total Revenue requirement**	**9610.32**	**4073.04**	**3318.01**
13	Less: Non-tariff income	179.27	236.41	113.53
14	Less: Expenditure disallowed due to excess T&D losses	2038.72	369.60	216.11
15	**Net Revenue requirement**	**7392.29**	**3467.02**	**2988.37**
16	Revenue from Existing tariff	4879.15	1706.69	1633.11
17	Revenue from sale of power to Nepal	255.20	454.20	454.20
18	**Gross Gap / (Surplus)**	**2257.94**	**1306.13**	**901.05**
19	Add: Revenue Gap/(Surplus) of past period (FY 2013-14)	-	756.13	(465.56)
20	**Gap/(Surplus) before subsidy**	**-**	**2062.26**	**435.49**
21	Grant from State Government		1620.55	501.46
22	Grant used for disallowed power		369.60	216.11
23	Grant available for revenue gap		1250.95	285.35
24	**Net Gap / (Surplus) after subsidy**		**811.31**	**150.14**

The Commission approves the net revenue gap of Rs.150.14 Crore for FY 2015-16 in NBPDCL subject to final truing up as and when the audited annual accounts for FY 2015-16 are submitted by the Petitioner.

6.34 Approved Revenue Gap / (Surplus) with existing tariff for FY 2015-16

The trued up carried forward revenue surplus approved by the Commission for FY 2013-14 amounts to Rs.465.56 Crore (including carrying cost). The Commission has considered this trued up gap and adjusted against the ARR of the NBPDCL for FY 2015-16.

The revenue gap arrived at for FY 2014-15 (RE) for NBPDCL is not considered in the ARR for FY 2015-16 as it is only indicative and worked out on the revised estimates projected by NBPDCL and not based on the approved/audited annual accounts. However, the gap of FY 2014-15 (RE) will be considered in the ARR for FY 2016-17 after truing up when the audited annual accounts are made available by the Petitioner.

Based on the Annual Revenue Requirement of NBPDCL approved for FY 2015-16 and estimated revenue from sale of power with existing tariff, considering adjustment of past years revenue surplus and after considering the State Government support for cost of additional power purchase requirement on account of difference in actual distribution loss approved by the Commission for NBPDCL, the net revenue gap approved by the Commission for FY 2015-16 is at Rs.150.14 Crore.

Consolidated approved revenue gap of DISCOMs for FY 2015-16

Based on the ARR of the DISCOMs (SBPDCL and NBPDCL) approved for FY 2015-16 and estimated revenue from sale of power with existing tariff, the consolidated revenue gap for FY 2015-16 is given in the Table below:

Table 6.67: Approved Revenue Gap for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	NBPDCL	SBPDCL	Total
1	Net Aggregate Revenue Requirement for FY 2015-16	2988.37	3969.40	6957.77
2	Add: Recovery of trued up revenue Gap / (Surplus) of FY 2013-14 (including Carrying cost)	(465.56)	(642.92)	(1108.48)
3	**Net Revenue Requirement (1+2)**	**2522.80**	**3326.48**	**5849.29**
4	**Less**: Revenue from existing Tariff	1633.11	2990.94	4624.05
5	**Less**: Revenue from sales to Nepal	454.20	0.00	454.20
6	**Gap / (Surplus) [3 - (4+5)]**	**435.49**	**335.54**	**771.04**
7	Total Grant from State Government	501.46	1260.74	1762.20
8	Grant used for compensating disallowed power	216.11	1065.70	1281.81
9	Balance resource assistance from State Government (7-8)	285.35	195.04	480.39
10	**Net Gap / (Surplus) (6 - 9)**	**150.14**	**140.51**	**290.65**

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 consolidated revenue gap approved by the Commission for FY 2015-16 is at Rs.290.65 Crore for both DISCOMs.

6.35 Revenue at Approved Tariff

The Commission, in order to bridge the revenue gap of Rs. 290.65 Crore (i.e. gap of Rs. 140.51 Crore for SBPDCL and gap of Rs. 150.14 Crore for NBPDCL), has marginally increased the tariff about 2.5%, which is giving additional revenue of about Rs. 113 Crore (about Rs. 42 Crore from NBPDCL and about Rs. 71 Crore from SBPDCL) leaving revenue gap of about Rs.177 Crore, which the Commission believes can be met by improving the operational performance by the DISCOMs. The Commission directs the DISCOMs to improve their operational performance and reduce the distribution losses, which are very high.

The estimated additional revenue (including revenue from sales to Nepal) from the approved tariff for FY 2015-16 is given in the table below:

Table 6.68: Revenue from sale of power at approved tariff considered for FY 2015-16

Sl. No	Category	Sales (MU)	Average Rate (Rs. kWh)	Revenue (Rs. Crore)
1	KJY	591.69	1.76	104.26
2	DSI	629	2.31	145.36
3	DSII	958	4.52	432.90
4	DS III	1	4.69	0.47
5	NDS I Commercial	25	2.61	6.52
6	NDS II Commercial	405	6.64	268.92
7	NDS III Commercial	1	4.32	0.43
8	SS I	13	7.00	9.10
9	SS II	19	4.95	9.40
10	Irrigation and Agriculture I	11.18	1.34	1.50
11	Irrigation and Agriculture II	92.64	6.25	57.87
12	PWW	30	7.73	23.23
13	LTIS I	67	6.10	40.85
14	LTIS II	41	6.32	25.91
15	HTS I	209.79	7.29	153.01
16	HTS II	80.23	7.10	56.95
17	HTS III	27.77	9.36	25.99
18	HTSS	62.36	5.70	35.53
19	RT	13	11.65	15.15
20	Nepal	876	5.18	454.20
21	DF	772	3.40	262.28
22	**Total**	**4925.66**	**4.32**	**2129.83**

From the above table it can be seen that the additional revenue at the approved tariff for FY 2015-16 for NBPDCL will be around Rs. 71 Crore.

6.36 Average Tariff as a percentage of Average Cost of Service in Tariff Order for FY 2014-15 and FY 2015-16.

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 service is moving towards the band of ± 20% of average cost of service as suggested in Tariff Policy. The average tariff as a percentage of average cost of service approved in Tariff Order for FY 2014-15 and that approved in the Tariff Order for FY 2015-16 is as shown in the Table below:

Table 6.69: Average realisation as a percentage of average Cross Service in FY 2014-15 and FY 2015-16

Sl. No.	Category	FY 2014-15 (approved in Tariff Order for FY 2014-15)			FY 2015-16 (approved by Commission)		
		Average Ralisation (Rs./kWh)	Average Cost of Service (Rs./kWh)	% of cost of service	Average Ralisation (Rs./kWh)	Average Cost of Service * (Rs./kWh)	% of cost of service
1	Kutir Jyoti	6.13	6.13	100%	6.15	6.21	99%
2	Domestic - I	6.13	6.13	100%	6.15	6.21	99%
3	Domestic - II	3.90	6.13	64%	4.58	6.21	74%
4	Domestic - III	4.50	6.13	73%	4.62	6.21	74%
5	Non-Domestic-I	6.13	6.13	100%	6.15	6.21	99%
6	Non-Domestic-II	6.92	6.13	113%	6.59	6.21	106%
7	Non-Domestic-III	4.60	6.13	75%	3.85	6.21	62%
8	Irrigation IAS-I	6.13	6.13	100%	6.15	6.21	99%
9	Irrigation IAS-II	4.04	6.13	66%	6.23	6.21	100%
10	LT IS-I	5.92	6.13	97%	6.06	6.21	98%
11	LT IS-II	5.93	6.13	97%	6.37	6.21	103%
12	Public Water Works	7.70	6.13	126%	7.75	6.21	125%
13	Street Light-I (Metered)	7.00	6.13	114%	7.00	6.21	113%
14	Street Light-II (Un-metered)	6.40	6.13	104%	6.59	6.21	106%
15	HTS-I	6.84	6.13	112%	7.46	6.21	120%
16	HTS-II	7.16	6.13	117%	7.49	6.21	121%
17	HTS-III	6.17	6.13	101%	7.31	6.21	118%
18	HTSS	7.61	6.13	124%	6.57	6.21	106%
19	RTS-I	9.70	6.13	158%	6.88	6.21	111%

Note: The average realization for Kutir Jyoti, DS-I, NDS-I and IAS-I is including revenue subsidy.

***** Average cost of service combinedly for NBPDCL and SBPDCL.

6.37 Average Tariff as a percentage of Voltage-wise Cost of Supply for FY 2014-15 and FY 2015-16.

The Commission has determined the voltage-wise cost of supply based on the limited data/information made available as detailed in Chapter-8. The average tariff as a percentage of voltage cost of supply approved in Tariff Order for FY 2014-15 and the average tariff as a percentage of voltage-wise cost of supply determined in Chapter-8 for FY 2015-16 is as shown in Table below:

Table 6.70: Average Realization as a percentage of voltage-wise Cost of Supply in FY 2014-15 and FY 2015-16

Sl. No.	Category	FY 2014-15 (approved in Tariff Order for FY 2014-15)			FY 2015-16 (approved by Commission)		
		Average Ralisation (Rs./kWh)	Voltagewise Cost of Supply (Rs./kWh)	% of cost of supply	Average Ralisation (Rs./kWh)	Voltage wise Cost of Supply * (Rs./kWh)	% of cost of supply
1	Kutir Jyoti	6.68	7.22	93%	6.15	6.78	91%
2	Domestic - I	6.68	7.22	93%	6.15	6.78	91%
3	Domestic - II	3.75	7.22	52%	4.58	6.78	68%
4	Domestic - III	4.20	7.22	58%	4.62	6.78	69%
5	Non-Domestic-I	6.68	7.22	93%	6.15	6.78	91%
6	Non-Domestic-II	7.00	7.22	97%	6.59	6.78	97%
7	Non-Domestic-III	4.37	7.22	61%	3.85	6.78	57%
8	Irrigation IAS-I	6.68	7.22	93%	6.15	6.78	91%
9	Irrigation IAS-II	5.71	7.22	79%	6.23	6.78	92%
10	LT IS-I	6.31	7.22	87%	6.06	6.78	90%
11	LT IS-II	6.03	7.22	84%	6.37	6.78	94%
12	Public Water Works	7.78	7.22	108%	7.75	6.78	115%
13	Street Light-I (Metered)	7.00	7.22	97%	7.00	6.78	104%
14	Street Light-II (Un-metered)	5.81	7.22	80%	6.59	6.78	97%
15	HTS-I	7.12	6.84	104%	7.46	6.39	117%
16	HTS-II	7.13	6.54	109%	7.49	6.07	123%
17	HTS-III	6.14	6.30	97%	7.31	5.83	125%
18	HTSS	5.05	6.54	77%	6.57	6.07	108%
19	RTS-I	6.26	6.30	99%	6.88	5.83	118%

Note: The average realisation for Kutir Jyoti, DS-I, NDS-I and IAS-I is including revenue subsidy.

* average cost of service combinedly for NBPDCL and SBPDCL.

7. Government grant/revenue subsidy

7.1 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.

7.2 Resource Gap Grants for FY 2015-16

The DISCOMs have projected the Government support @ Rs. 200 Crore per month working to Rs. 2400 Crore for FY 2015-16, which they are receiving from the Government towards power purchase bills and additional subsidy of Rs. 150 Crore per month i.e. Rs. 1800 Crore for both the DISCOMs. The allocation to NBDPCL out of this resource gap grant considered in the petition is Rs. 1620.55 Crore.

However, the Finance Department, Government of Bihar vide letter No. 16/Misc.74/2014 dated 16.12.2014 has communicated a total subsidy of Rs.1762.20 Crore for FY 2015-16.

The Commission has considered the revenue gap assistance from State Government for FY 2015-16 at Rs.501.46 Crore to NBPDCL. The Commission has adjusted the cost of additional power purchase requirement on account of difference in actual distribution loss of NBPDCL and distribution loss approved by the Commission from resource gap funding by State Government as detailed in the Table below:

Table 7.1: Approved Resource Gap utilization for FY 2015-16

(Rs. Crore)

Sl. No.	Particulars	Projected by NBPDCL for FY 2015-16	Approved for FY 2015-16
1	Proposed resource gap assistance	1620.55	501.46
2	**Less**: Disallowed power purchase funded through State Govt. grant/subsidy	369.60	216.11
3	Available balance resource gap assistance	1250.95	285.35

7.3 Consumer categories eligible for subsidy

The consumer categories which are considered by the Commission for subsidy support are as indicated below:

Table 7.2: 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.

7.4 Subsidy required for FY 2015-16

The Commission has worked out the subsidy support for the above listed consumer categories to compensate the NBPDCL to the extent of the difference between the average Cost of Supply and the average tariff for the respective categories.

The subsidy support required for agriculture/rural consumers on the approved sales/ARR for FY 2015-16 as worked out by the Commission is as provided in the table below:

Table 7.3: Subsidy required from State Government for FY 2015-16

Sl. No.	Name of Subsidized Category	Average Tariff (Rs./Unit)	Average Cost of Supply (Rs./Unit)	Units Sold (MU)	Subsidy Amount (Rs Crore)
1	Kutir Jyoti (KJ)	1.76	6.07	591.69	254.90
2	Domestic-I: Rural (DS –I)	2.31	6.07	629.00	236.44
3	Non-Domestic-I: Rural (NDS- I)	2.61	6.07	25.00	8.66
4	Irrigation and Agricultural Services-I:	1.34	6.07	11.18	5.28
5	**Total subsidy required from State Govt.**			**1256.87**	**505.28**

NBPDCL will require about Rs. 505.28 Crore from the State Government as subsidy support on sales of power to Agriculture/ Rural consumers against which actual subsidy received from the Govt. is Rs. 285.35 Crore after compensating NBPDCL for the loss incurred on account of higher T&D losses compared to losses approved by the Commission.

Further to the above, any FPPCA charges applicable during any month of FY 2015-16 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.

8. Voltage-wise Cost of Supply

8.1 Background

The Appellate Tribunal for Electricity (APTEL) in its Order dated 10th May 2012 on the Appeal No. 14 of 2011 of Bihar Industries Association and Appeal No. 27 of 2011 of Kalyanpur Cements Limited 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 for FY 2012-13 for the first time and subsequently for FY 2014-15 in the Tariff Order dated 28th February 2014.

8.2 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.

8.3 Fixation of T&D loss:

The DISCOMs in their Tariff petition for FY 2015-16 have 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	% Cumulative Loss
220 kV	2.05%	2.05%
132 kV	2.38%	4.38%
33 kV	3.08%	3.08%
11 kV	7.48%	10.38%
LT	34.92%	41.65%

Voltage wise technical losses projected by NBPDCL

Voltage level	% Technical Loss	% Cumulative Loss
220 kV	2.05%	2.05%
132 kV	2.33%	4.38%
33 kV	9.99%	9.99%
11 kV	9.66%	18.68%
LT	12.05%	28.48%

The technical losses indicated by the DISCOMs are based on the limited field study only. It is submitted by the Petitioner that they have computed voltage wise losses based on the sample feeder data collected for FY 2012-13, FY 2013-14, FY 2014-15 (April to October).

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 20.00% approved for FY 2015-16. In view of high loss level of 41.65% by SBPDCL and 28.48% 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 i.e. Transmission Loss of 3.92% and Distribution Loss of 20.00% allowed by the Commission. The Commission has approved the transmission losses at 3.92% for FY 2015-16. Hence, keeping the transmission losses at 3.92%, the remaining loss is adjusted among others.

The Commission has considered the following voltage-wise technical loss level for FY 2015-16 for computing voltage wise cost of supply:

Sl. No.	Voltage Level	Loss (%)
1	220/132 kV	3.92%
2	33 kV	5.00%
3	11 kV	6.00%
4	LT	7.00%

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 2015-16 in view of the common retail supply tariff and distribution loss percentage approved for FY 2015-16.

8.4 Energy Sales:

Approved energy sales and voltage-wise energy sales for FY 2015-16 are as given below:

Sl. No	Category	Approved for FY 2015-16 (SB)	Approved for FY 2015-16 (NB)	Total Sales (MU)
1	KJY	265.24	591.69	856.93
2	DS I	360.84	629.00	989.84
3	DS II	1469.60	958.00	2427.60
4	DS III	0.69	1.00	1.69
5	NDS I Commercial	11.90	25.00	36.90
6	NDS II Commercial	706.54	405.00	1111.54
7	NDS III Commercial	2.95	1.00	3.95
8	SS I	2.11	13.00	15.11
9	SS II	16.17	19.00	35.17
10	IAS-I	146.31	11.18	157.49
11	IAS-II	70.64	92.64	163.28
12	PWW	40.37	30.00	70.37
13	LTIS I	107.30	67.00	174.30
14	LTIS II	100.78	41.00	141.78
15	HTS I	528.03	209.79	737.82
16	HTS II	183.52	80.23	263.75
17	HTS III	68.63	27.77	96.40
18	HTSS	520.01	62.36	582.37
19	RT	559.93	13.00	572.93
20	Sale to Nepal	0.00	876.00	876.00
21	UI	0.00	0.00	0.00
22	DF	1124.94	772.00	1896.94
23	**Total**	**6286.50**	**4925.66**	**11212.16**

Sl. No.	Voltage and Category	Sales approved (MU)
A	**220/132 KV**	
	HT Industry (HTS-III)	96.40
	Railway Traction	572.93
	Nepal	876.00
	Sub - Total	**1545.33**
B	**33 KV**	
	HTS-II	263.75
	HTSS	582.37
	Sub - Total	**846.12**
C	**11 KV**	
	HTS-I	737.82
	DF	1896.94
	Sub-Total	**2634.76**

Sl. No.	Voltage and Category	Sales approved (MU)
D	**LT**	
	Domestic, Non-Domestic, Agriculture and Others	6185.95
	Total (A+B+C+D)	**11212.16**

8.5 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.

8.6 Computation of Technical Losses and Commercial Losses:

The technical Losses are arrived based on the following formulae as given below:

Voltage Level	Sales (MU)	Volt. Wise Tech. Loss (%)	Energy Input (MU)	Tech. Losses (MU)
1	2	3	4	5
132/220 KV	A	**w**	=A/(1-w%)	=(4)-(2)
33 KV	B	**x**	=B/(1-x%)(1-w%)	=(4)-(2)
11 KV	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)**			

The technical losses and commercial Losses are computed as given in the table below:

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	3.92%	3.92%	1545.33	1608.38	63.05
2	33	5.00%	8.72%	846.12	926.99	80.87
3	11	6.00%	14.20%	2634.76	3070.84	436.08
4	0.4	7.00%	20.21%	6185.95	7752.45	1566.50
Total				**11212.16**	**13358.65**	**2146.49**

Commercial Losses:

Sl. No.	Voltage Level (kV)	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	1545.33	63.05	1608.38	76.20	1684.57
2	33	846.12	80.87	926.99	43.92	970.91
3	11	2634.76	436.08	3070.84	145.48	3216.32
4	LT	6185.95	1566.50	7752.45	367.27	8119.71
Total		**11212.16**	**2146.49**	**13358.65**	**632.86**	**13991.51**

Note: The commercial losses are obtained by reducing the sales + technical losses from the energy input at state periphery (13991.51-13358.65=632.86). The commercial losses so arrived allocated in proportion to the sales and the technical losses to each voltage level.

8.7 Allocation of Power Purchase Cost for FY 2015-16

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. 4.25/unit. After deducting the regional transmission losses of 316.30 MU from the total power purchase of 19411.30 MU, the average power purchase cost per unit works out to Rs. 4.25 per unit as detailed below:

Sl. No.	Particulars	SBPDCL	NBPDCL	Total
1	Gross Power Purchase (MU)	11,267.43	8,143.87	19,411.30
2	Less: PGCIL Loss (MU)	209.55	151.74	361.30
3	Net Power Purchase (MU)	11057.88	7992.13	19050.00
4	Power Purchase Cost including PGCIL Charges (Rs. Crore)	4,713.22	3,379.45	8092.68
5	Average purchase Rate (Rs./kWh)	4.26	4.23	4.25

Allocation of power purchase cost

Sl. No.	Voltage Level (KV)	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	1545.33	1684.57	4.25	715.63	4.63
2	33 kV	846.12	970.91	4.25	412.45	4.87
3	11 kV	2634.76	3216.32	4.25	1366.33	5.19
4	LT	6185.95	8119.71	4.25	3449.35	5.58
Total		**11212.16**	**13991.51**		**5943.77**	**5.30**

8.8 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 costs approved by the Commission for FY 2015-16 are as given below:

Sl. No.	Particulars	NBPDCL (Rs. Cr)	SBPDCL (Rs. Cr)	Total Amount
1	Employee Cost	166.93	278.90	445.83
2	R&M costs	26.03	86.74	112.77
3	A&G expenses	34.60	32.46	67.06
4	Holding Company	9.67	5.41	15.08
5	Depreciation	0.00	11.29	11.29
6	Interest & Finance Charges	72.62	50.82	123.44
7	Interest on Working Capital	75.77	103.07	178.84
8	RPO fund	27.94	32.70	60.64
9	Return on Equity	53.90	69.16	123.06
10	Less: IDC	-9.36	-5.83	-15.19
11	**Total (1 to 12)**	**458.10**	**664.72**	**1122.82**
12	Transmission cost	93.72	129.43	223.15
13	**Total cost**			**1345.97**
14	Energy Sales (MU)			11212.16
15	**Network Cost per unit sale of energy (Distribution + Transmission) (Rs./kWh) (13/14)**			**1.20**

Allocation of network costs at different voltages

Sl. No.	Voltage Level (kV)	Energy Sale (MU)	Network Cost (Rs./Unit)	Total Network Cost (Rs. Crore)
1	220/132kV	1545.33	1.20	185.44
2	33	846.12	1.20	101.53
3	11	2634.76	1.20	316.17
4	LT	6185.95	1.20	742.31
Total		**11212.16**		**1345.45**

8.9 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	4.63	1.20	5.83
2	33 kV	4.87	1.20	6.07
3	11 kV	5.19	1.20	6.39
4	LT	5.58	1.20	6.78

9. Tariff Principles, Design and Tariff Schedule

9.1 Background

The Commission in determining the revised Annual Revenue Requirement (ARR) for FY 2015-16 and the retail tariff for FY 2015-16 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 revised the retail tariffs for FY 2015-

16 as detailed later in this chapter. 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 2015-16 for arriving at the cross subsidy level during FY 2015-16.

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.

9.2 Revenue gap for FY 2015-16

NBPDCL, in its tariff petition for FY 2015-16 has projected revenue gap of Rs. 811.31 Crore. The total revenue gap projected by SBPDCL and NBPDCL for FY 2015-16 is Rs.2540.57 Crore (i.e. Rs. 1729.26 Crore for SBPDCL and Rs. 811.31 Crore for NBPDCL). The DISCOMs proposed to create a regulatory asset of Rs. 1740.00 Crore. Out of total gap of Rs. 2540.57 Crore, which is to be amortized in three years starting from FY 2016-17 and then balance gap of Rs. 800.57 Crore (Rs. 2540.57 Crore – Rs. 1740.00 Crore) along with the carrying cost of Rs. 256.65 Crore i.e. total of Rs. 1057.22 Crore to be recovered through tariff hike of 20.66% over the existing tariff, and has proposed an uniform tariff rate both for NBPDCL and SBPDCL i.e. across whole state of Bihar.

However, on detailed scrutiny and application of prudency check on the annual revenue requirement filed by the DISCOM, the Commission has arrived at a more realistic annual revenue requirement (net) of Rs. 6957.77 Crore (i.e. Rs. 3969.40 Crore for SBPDCL and Rs. 2988.37 Crore for NBPDCL) for FY 2015-16. After considering the surplus in truing up from FY 2006-07 to FY 2013-14 along with carrying cost thereon, and after adjusting the balance resource grant available after meeting the disallowed power cost due to not achieving the targeted distribution loss, the net revenue gap arrived combinedly for both the DISCOMs is Rs. 290.65 Crore (i.e. gap of Rs. 140.51 Crore for SBPDCL and gap of Rs. 150.14 Crore for NBPDCL).

The revenue gap thus arrived is only based on the projections of the Petitioners for FY 2015-16. The experience shows that the truing up exercise based on the audited accounts has resulted into surplus. Therefore, the Commission does not consider increasing tariff to meet the entire revenue gap arrived for FY 2015-16. The Commission has marginally increased the tariff to get additional revenue of about Rs. 113 Crore. The Petitioners are directed to make up the balance gap of Rs. 178 Crore by improving their operational performance particularly by reduction of losses.

9.3 Changes in Tariff proposed by Petitioner:

The Petitioner has sought tariff increase of 20.66% over existing tariff. The Petitioner has proposed certain changes in fixed charges, energy charges and monthly minimum charges.

Commission's observation

The Commission has considered an increase of 10 paisa per unit for Kutir Jyoti (Metered), Domestic Rural (DS-I) (Metered), Non-Domestic Rural (NDS-I) (Metered) and 15 paisa per unit for other categories of consumers. The Commission has not increased charges for Private Irrigation and Agricultural Services i.e. IAS-I, Public Lighting and Public Water Works i.e. PWW. The Commission has considered increase of fixed charges at Rs. 5/month/connection for unmetered Kutir Jyoti, Rs. 10/month for Domestic Rural (DS-I Unmetered) and Non-Domestic Rural (NDS-I Unmetered). The Commission has not increased fixed charges for other category of consumers.

9.4 Other Changes proposed by the Petitioner

1. Revision in minimum contract demand

The Petitioner proposed to reduce the minimum contract demand in HTS-I category from existing 75 kVA to 50 kVA

Commission's View:

The Commission accepts the proposal of the Petitioner as it will reduce the line losses to some extent and will also ensure better quality and reliability of supply. However, those consumers having connected load less than 75 kVA/70 kW and availing supply under LT will be continued to be billed at LTIS-II category.

2. Clarity on admissible penalty in Transformer capacity clause

The Petitioner submitted that while the Commission has detailed the provisions under which the excess transformer capacity will be treated as malpractice, the Petitioner would like to request the Commission to kindly specify the applicable actions and penalties to be imposed in case the malpractice is established.

Commission's view:

The condition that "the transformer capacity of the HT consumer shall not be more than 150% of the contract demand, consumer found to be utilizing the transformer of high capacity than admissible for his contract load, will fall under malpractice" is withdrawn in this Order.

3. Modification of clause of violation of contract demand

The Petitioner submitted that the clause for violation of contract demand specified below:

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.

Should be modified as submitted below:

If the actual recorded demand of a consumer exceeds 110% consecutively for three months, Licensee may issue a notice and automatically revise and enhance the contract demand of the consumer to the extent of highest excess demand in past three months of violation. The Licensee will also take action as per provisions of the Act/Rules/Regulations.

Commission's view:

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.

In case the consumer do not respond to the notice within 30 days of issue of notice, to get additional demand sanctioned or limit their drawal as per the contract, the Distribution Licensee may revise and enhance the contracted demand of the consumer to the extent of highest demand in the past three months of the violation.

9.5 Changes made by the Commission in Tariff Structure

The Commission has made some changes in the Tariff structure which are mentioned below:

a. In pursuance of its observation in earlier tariff orders that monthly minimum charges for different categories of consumers should be done away with in phase, the Commission has taken a decision in this Tariff Order to withdraw the monthly minimum charges on NDS-I consumers as revenue from NDS-I consumers is very small.

b. The provision of flat rate of 5% power factor surcharge for fall of power factor below ninety percent for LT consumers has been rationalized on pro-rata basis like HT consumers.

c. The domestic consumers have been exempted from levy of power factor surcharge.

d. Time of Day (ToD) tariff which was mandatory for HT consumers having contract demand of 200 kVA and above has now been made mandatory to all HT consumers.

9.6 Tariff Schedule

The approved Tariff Schedule which shall be effective from 1st April 2015 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- I

TARIFF SCHEDULE FOR RETAIL TARIFF RATES AND TERMS AND CONDITIONS OF SUPPLY FOR FY 2015-16

(Effective from 1st April, 2015)

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.60 / connection / per month	X
	Metered	X	a) First 30 units at 170 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 205 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 (Ps/unit)
1.2	**DS – I :** Connected load: up to 2 kW only			
	Unmetered	Rs.170/connection /per month	X	X
	Metered	X	First 50 units	210
			51-100 units	240
			Above 100 units	280
		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	300
	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	365 435 545

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	300 365 435
	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	545
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	435
			Subject to monthly minimum charge For 1st kW – 40 units / flat per month Additional kW or part thereof– 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.230/connection/ per month	X	X
	Metered	x	1-100 units	240
		x	101-200 units	280
		x	Above 200 units	320

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	515
		101-200 units	545
		Above 200 units	585
	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:

Sl.	Category of consumer	Demand charge (Rs./kW/month)	Energy charges	
			Consumption in a month (Units)	Rate Ps/unit
2.2.1	**NDS-II (D) – (OPTIONAL) Demand Based Tariff**			
	Contract demand of 5 kW to 70 kW	Rs. 250/kW per month or part thereof on recorded demand or contract demand whichever is higher.	1-100 units 101-200 units Above 200 units	515 545 585
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.

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 (Units)	Rate 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	315
		101-200 units	395
		Above 200 units	485
		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	315 395 485
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– 615 Ps/unit

Urban feeder

Energy Charges– 715 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	550
	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) Connected 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	550
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 up to 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 up to 99 HP)**		
	Rs.110/HP or part thereof per month	All units	585
		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 up to 99 HP have option to avail power under LTIS / HTS category.

OPTIONAL

4.2.1 LTIS- II (D) (Connected 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	585
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 up to 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:

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

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.

(i) 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.

(ii) 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 for the period meter remain working.

(iii) In case of the meter of a consumer becoming defective in the first month of installation itself, without taking any reading the consumer shall be provisionally billed on the basis of amount of security collected for one month. However, the provisional bill will be done for one month only and that will be finalized and adjusted on the basis of consumption of the second month.

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 of standard make which meet the Bureau of Indian Standard Specification 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) 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.

(d) 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.

(e) Any LT consumer except Domestic category of 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 1% for every fall of 1% below 90% subject to a maximum of 5% in addition to its normal tariff.

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 50 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 – 585

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 - 565

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 – 555

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 325

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 570

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)

ToD tariff shall be mandatory for all HT consumers. 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

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 Defective / Damaged / Burnt meter replacement

(i) 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.

(ii) In case 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 for the period meter remained working.

(iii) In case of the meter of a consumer becoming defective in the first month of installation itself, without taking any reading, the consumer shall be provisionally billed on the basis of amount of security collected for one month. However, the provisional billing will be done for one month only and that will be finalized and adjusted on the basis of consumption of the second month.

8 Exceeding Contract Demand

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.

In case the consumer do not respond to the notice within 30 days of issue of notice, to get additional demand sanctioned or limit their drawal as per the contract, the Distribution Licensee may revise and enhance the contracted demand of the consumer to the extent of highest demand in the past three months of the violation.

9 Contract Demand for Induction Furnaces

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 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 GENRAL CHARGES

11.1 Meter Rent

The Miscellaneous and General charges approved by the Commission are as below:

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 and from the consumers opting to provide their own meter.

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 Other Terms and Conditions

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.

10. Fuel and Power Purchase Cost Adjustment

10.1 Background

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.

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.

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.

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 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.

11. Wheeling Charges and Open Access Charges

11.1 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 2015-16.

11.2 Wheeling Charges

The net distribution ARR for both the distribution licensees as approved in chapter 6 is Rs. 8239.58 Crore. The distribution ARR approved is segregated into wires business and retail supply business in the percentages given below:

Table 11.1: 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	Holding Company expenses	60%	40%
6	Depreciation	90%	10%
7	Interest and finance charges	90%	10%
8	Interest on working capital	10%	90%
9	Contribution to RPO fund	-	100%
10	Return on equity	90%	10%
11	Non-tariff income	10%	90%
12	Interest during construction	90%	10%

The total fixed costs (net ARR) are segregated into wire business and retail supply business as per the above matrix.

Table 11.2: Segregation of Wires and Retail supply costs

(Rs. Crore)

Sl. No.	Particulars	Total Fixed Cost	Wire Cost	Retail Supply
1	Power Purchase	7448.17	0.00	7448.17
2	Employee Cost	445.83	267.50	178.33
3	R&M costs	112.77	101.49	11.28
4	A&G expenses	67.06	33.53	33.53
5	Holding Company	15.08	9.05	6.03
6	Depreciation	11.29	10.16	1.13
7	Interest & Finance Charges	123.44	111.10	12.34
8	Interest on Working Capital	178.84	17.88	160.96
9	RPO fund	60.64	0.00	60.64
10	Return on Equity	123.06	110.75	12.31
11	Less: IDC	(15.19)	(13.67)	(1.52)
12	Less: NTI	(331.41)	(33.14)	(298.27)
13	**Total (1 to 12)**	**8239.58**	**614.64**	**7624.94**

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 11.3: Wheeling charges at 33 kV Voltage Level

Sl.	Details	Units	Approved wheeling Charges
1	Energy input into 33 kV system	MU	12567.04
2	Total distribution cost	Rs. Cr.	614.64
3	Distribution cost for 33 kV voltage levels (assuming 50% of item 2)	Rs. Cr.	307.32
4	**Wheeling charges for 33 kV voltage level (item 3÷1)**	**Ps./kWh**	**24.00**

The wheeling charges determined for 11 kV voltage level are as given in table below:

Table 11.4: Wheeling charges for 11 kV Voltage Level

Sl. No.	Details	Units	Approved wheeling Charges
1	Energy input into 33 KV system	MU	12567.04
2	Energy sales in 33 kV system as approved by the Commission	MU	846.12
3	Losses in 33 KV (5% on item 1)	MU	628.35
4	Energy input into 11 kV system [1-(2+3)]	MU	11092.57
5	Total distribution cost	Rs. Cr.	614.64
6	Distribution cost for 11 kV voltage levels (assuming 50% of item 5)	Rs. Cr.	307.32
7	**Wheeling charges for 11 kV voltage level (item 6÷4)**	**Ps./kWh**	**28.00**

The Commission approves wheeling charges at 24 paisa/kWh for 33 kV voltage level and at 28 paisa/kWh for 11 kV voltage level for the FY 2015-16.

11.3 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 and all consumers having a contract demand of 1 MW and above are eligible in transmission and distribution.

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.

11.4 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 Commission has approved Rs. 223.15 Crore (net) as Transmission charges for FY 2015-16 for BSPTCL. The Petitioner has considered the transmission capacity of 9640 MVA for computing transmission charges (Rs./MVA/Month) instead of considering transmission capacity (in MW) expected to be handled during FY 2015-16 for long term customers. The DISCOMs in its petition have mentioned that they will be getting power from the following new sources during FY 2015-16 as detailed below:

Station	CoD	New capacity (MW)	Capacity after PLF (MW)
KBUNL Stg 2 U#1	Nov 14	110	93.50
Barh Stage 2 U #1	Nov 14	330	280.50
GMR Karmangla	-	-	200.00
Total		**440.00**	**574.00**

The DISCOMs have not shown any generation from BTPS. BTPS Unit No. 6&7 are going to generate power after R&M during FY 2015-16. The Commission has considered the capacity of BTPS Unit 6&7 (220 MW *0.80 = 176 MW) also for computing the transmission tariff. The Commission had considered 3807 MW as transmission capacity during FY 2014-15 in the Tariff Order dated 28.02.2014. But 280 MW from Barh, 450 MW from Essar and 21 MW from Nabinagar was not materialized in FY 2014-15. Hence, the sum of allocated capacity (in MW) to all long term transmission customers of the state transmission system is considered for FY 2015-16 at 3630 MW (3807-751+574). Based on the transmission cost worked out earlier the approved transmission charge for open access consumers for the FY 2015-16 is as given in table below:

Table 11.5: Transmission Charge

Particulars	
Transmission ARR	223.15 (Rs. Crore)
Average transmission capacity (MW) – Total capacity (MW) allocated to long term customers of the State	3630 MW
Transmission charges for long term open access customers (Rs./MW/Month)	Transmission ARR ÷ (Average transmission capacity X 12) = Rs. 51,228

Particulars	
Transmission charges for short term open access customers (Rs./MW/Day)	(Transmission ARR x 0.25) ÷ (Average transmission capacity X 365) = Rs. 421

The Commission decides that the transmission charges in cash will be Rs. 51,228/MW/month or part thereof for long term open access consumers and Rs. 421/MW/day or part thereof for short term open access consumers. In addition transmission losses of 3.92% will be reduced in kind from the energy input (i.e. energy injected at the point of injection) at the point of delivery.

11.5 Transmission, Wheeling and 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 11.6: Open Access Charges

Drawl / Injection	Transmission	33 KV	11 KV
Transmission	Transmission Charges plus transmission losses @ 3.92%	Transmission charges plus wheeling charges of 33 kV. Losses of both transmission and 33 kV network shall be payable (Cumulative loss @ 8.72%)	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 (Cumulative loss @ 14.20%)
33 KV	Transmission charges plus wheeling charges of 33 kV. Losses of both transmission and 33 kV network shall be payable (Cumulative loss @ 8.72%)	*Wheeling charges of 33 kV plus losses of 33 kV network (Loss @ 5.00%)	*Wheeling Charges of 33 and 11 kV network. Losses for 33 and 11 kV shall also be payable (Cumulative loss @ 10.7%)
11 KV	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 (Cumulative loss @ 14.20%)	*Wheeling Charges of 33 and 11 kV network. Losses for 33 and 11 kV shall also be payable (Cumulative loss @ 10.7%)	** Wheeling Charges of 11 kV plus losses of 11 kV network (Loss @ 6.00%)

*Transmission Charges and transmission losses are payable if the transmission network is used.

**1. Wheeling charges of 33 kV and 33 kV loss is applicable if 33 kV network is used.
2. transmission charges and wheeling charges of 33 kV, transmission losses and 33 kV losses are applicable if transmission network is used.

11.6 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.

11.7 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 and FY 2014-15 during FY 2015-16 also 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

11.8 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.

11.9 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 FY 2012-13.

11.10 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.

12. Compliance of Directives

12.1 Background

The sub-clause(c) of Section 61 of the Electricity Act, 2003 stipulates that the Appropriate Commission shall be guided by the factors which would encourage competition, efficiency, economical use of resources, good performance and optimum investments. The Bihar Electricity Regulatory Commission (BERC) issued certain directives in its tariff order for determination of ARR and Tariff for retail sale of electricity by North Bihar Power Distribution Company Limited (NBPDCL) for FY 2013-14 and FY 2014-15 for improvement in its operational and financial performance, reducing distribution losses, improvement in quality of supply and services to the consumers and increasing efficiency. The Commission monitors the compliance of the directives given from time to time and has been directing the DISCOMs for complying with the directives.

The Commission has examined the compliance of directives issued to NBPDCL in the Tariff Order date 28th February 2014

Directives and their compliance

The directives issued in the Tariff order dated 28th February 2014 and their compliance by NBPDCL are dealt below:

Directive 1: Cent Percent Metering

<u>Directive Issued in Tariff Order Dated 15-03-2013.</u>

The Commission directed both the power distribution companies to ensure provision of electronic static meters to all unmetered consumers and replace all the defective/ damaged/ burnt meters of consumer 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.

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL is directed to submit compliance of 100% metering by 30th June, 2014 as the Government has provided funds for 100% metering.

Compliance Status of directive by NBPDCL

Present status of metering:

Sl. No	Circle	33KV Feeder			11KV Feeder			33KV Consumer			11KV Consumer		
		No of feeder	No of feeder with running meter	% metered feeder	No of feeder	No of feeder with running meter	% metered feeder	No of consumer	metered	% metered consumer	No of consumer	metered	% metered consumers
1	Motihari	32	28	87.5	106	87	82.08	3	3	100	38	38	100
2	Muzaffarpur	43	36	83.72	115	92	80.09	5	5	100	78	78	100
3	Chhapra	57	14	24.56	136	112	82.35	0	0	100	24	24	100
4	Darbhanga	69	33	47.83	147	51	34.69	1	1	100	48	48	100
5	Samastipur	45	43	95.56	129	105	81.4	8	8	100	78	78	100
6	Saharsa	51	30	58.82	137	111	81.02	0	0	100	21	21	100
7	Purnea	43	14	32.56	139	78	56.12	4	4	100	96	96	100
	Total	**340**	**198**	**58.24**	**909**	**636**	**69.97**	**21**	**21**	**100**	**383**	**383**	**100**

Sl. No	Circle	132KV Consumers			DT			LTCT			All Categories			DS2		
		No of Consumers	Metered	% metered Consumers	No of DT	Metered	% metered DT	No of consumer	metered	% metered consumer	No of consumers	metered	% metered consumers	No of consumers	Metered	% Metered Consumers
1	Motihari	0	0	0	2157	759	35.19	170	170	100	427263	409237	95.78	74030	71494	96.57
2	Muzaffarpur	2	2	100	4732	3868	81.74	190	190	100	532208	511027	96.02	142346	142326	99.98
3	Chhapra	2	2	100	3982	614	15.42	252	252	100	446773	375178	83.97	84063	83972	99.89
4	Darbhanga	0	0	0	3172	907	28.52	230	230	100	414207	414193	99.99	141934	141934	100
5	Samastipur	1	1	100	2923	287	9.82	181	181	100	312966	302998	96.14	121177	115071	94.96
6	Saharsa	0	0	0	2540	559	22.01	158	158	100	270720	253330	93.57	52533	51438	97.91
7	Purnea	0	0	0	3699	804	21.74	341	341	100	316031	292280	92.48	147207	142031	96.48
	Total	**5**	**5**	**100**	**23205**	**7798**	**33.6**	**1522**	**1522**	**100**	**2720168**	**2558243**	**94.05**	**763290**	**748266**	**98.03**

Commission's Comments

Action taken by NBPDCL is noted. 100% metering of all categories of consumers is yet to be completed.

NBPDCL is directed to submit compliance of 100% metering of all categories of consumers by 30th August, 2015.

Directive 2: Efficient meter reading, billing and collection

Directive Issued in Tariff Order Dated 15-03-2013.

In order to improve cash flow for erstwhile BSEB (now BSPHCL), 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
- Each Discom shall at least collect 90% of current bill amount and a minimum of 10% of arrear amount in each month .

Follow-up directive issued in Tariff Order Dated 28-02-2014

The process of appointing input based franchisees is slow as only Muzaffarpur town has been covered. Revenue based franchisees have also not been appointed in most of the villages. NBPDCL is directed to expedite the process and report the performance of outsourced job to input based franchisees and revenue based franchisees by 30th June, 2014, furnishing the level of improvement in meter reading, billing and revenue collection in the franchisee areas and other areas.

Compliance Status of directive by NBPDCL

Considering lack of man power and investment constraints, task of meter reading, billing and collection has been out sourced to private agencies. Out sourcing has been under taken up to section level with adequate empowerment so that efficiency can be improved through quick decision making .Following are the key features:

- Concerned AE of supply subdivision 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 agencies.
- Incentive scheme for meeting the target over and above certain level has been introduced so as to improve the productivity.
- In order to improve the efficiency for meter reading, billing and collection, input based Distribution Franchise has been introduced in the State. The NBPDCL is at different levels of progress for executing award of distribution franchisee for identified area. Muzaffarpur has been chosen for award of input based distribution franchisee for NBPDCL licensee area
- It is brought to the notice of the Commission that contract for award of distribution franchise has been executed with M/s Essel Infra and management, takeover is expected to conclude in the month of November 2013.
- Input based distribution franchise requires bidder to reduce AT&C 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, Rural Energy Revenue Franchisee Scheme 2013 has been introduced for appointing agent to improve meter reading, billing and collection in rural areas at village and/or 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.
- Multiple agencies could be engaged up to feeder level with emphasis on hiring of local personnel.

Commission's Comments

Action taken by NBPDCL is noted. Input based Distribution Franchisee at Muzaffarpur is already functioning.

NBPDCL is directed to furnish the level of improvement in meter reading, billing and revenue collection in DF area. NBPDCL is also directed to furnish the percentage of meter readings, billing and revenue collection during FY 2014-15 in other than DF area, month wise by 30th June, 2015.

Directive 3: Timely delivery of bills and Revenue Collection Counters

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed NBPDCL that;

- In city areas at least one collection counter at division should remain open from 8 AM in morning. So that the office goers may deposit energy bills.
- Adequate number 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 September 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.

Follow-up directive issued in Tariff Order Dated 28-02-2014

In course of public hearings, large numbers of complaints were regarding non-meter reading and non-delivery of bills. Therefore claim of the Petitioner of improvement is not correct. However, it is directed that collection centres and other facilities provided for collections of bills shall be maintained to ease payment by consumers.

Status report on the functioning of the facilities shall be reported periodically (Every Six months). Arrangement should also be made for 100% meter reading and bill delivery at least once in two months or once in three months, if monthly billing is not feasible.

Compliance Status of directive by NBPDCL

NBPDCL would like to submit that it has recently opened more collection centers to facilitate consumers payment & bills during rebate date.

NBPDCL would like to bring to the kind attention of Commission that following steps have been taken to improve ease of payment to consumers:

- Facility with 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 have been authorized as collection centres;
- Payment through mobile has been initiated in association with Airtel Money/ Oxygen and Sahaj Vasudha Kendra;
- Introduced Any Time Payment (ATP) Machines for collection of payment;
- All bill collection counters in urban areas shall be open on Sundays to facilitate bill payment on holidays.

Commission Comments

In course of public hearings on the tariff petition filed by NBPDCL for FY 2015-16, large number of complaints still were regarding non-meter readings and non-delivery of bills. Many complaints were also on bills with assessed consumption without recording actual meter reading and consumption.

NBPDCL is directed to ensure that 100% meter reading and bill delivery for Kutir Jyoti, DS – I and NDS I category of consumers is done bi-monthly or once in three months.

Directive 4: Regulation of Power Supply to Rural Areas

Directive Issued in Tariff Order Dated 15-03-2013.

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 6PM to 9PM and submit the progress of the work during FY2012-13 for strengthening/ maintenance of distribution network by 30th June 2013.

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL 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, NBPDCL 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 at least for 1-2 hours to enable the children to study and the consumers to complete cooking and other household works between 6.00 PM and 9.00 PM. The status of supply month wise during FY 2013-14 shall be reported by 30th June, 2014.

Compliance Status of directive by NBPDCL

NBPDCL would like to emphasise that all attempts are taken to increase the power supply to rural areas. On an 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 rural areas is expected to improve further.

Commission's Comments

Action taken by NBPDCL is noted. NBPDCL is directed to put forth the efforts to make at least power is available for lighting in rural areas also between 6.00 PM to 6.00 AM and submit a report in this regard by 30th June, 2015.

Directive 5: Prompt release of new connections

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed two distribution companies to provide new connection within 30 days of application. DISCOMs 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 and also should hold camps for disposing the applications.

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL is directed to submit monthly report from April, 2013 to March, 2014 indicating the number of applications as on 1st of the month, applications received during the month, supply released during the month. The report shall be submitted by 30th June, 2014.

Compliance status Directive by NBPDCL

Monthly connection drive camp has been initiated by the DISCOM. The drive has been encouraging resulting into more than 3.00 Lakhs applications received and out of this 1.39 lakhs energized as on date. Only negligible amount of applications have been rejected. These camps would be organized each month. NBPDCL would like to assure the Commission that all new connections are being released as per stipulated regulations.

Commission's comments

It is noted that the details called for in the Directive are not provided by NBPDCL. NBPDCL is directed to submit the month-wise report indicating the number of applications pending at the beginning of the month, applications received during the month, supply released during the month and number of applications pending at the end of the month for FY 2014-15 by 30th June, 2015.

Directive 6: Strengthening of Consumer Redressal Mechanism

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed the two power distribution companies 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 different bills and submit monthly list of grievances received and redressed to the concerned ESE of the supply circle

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL 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 NBPDCL shall be submitted by 30th September, 2014. NBPDCL is also directed to allow CGRF to hold camp hearings in districts at least once in a month to facilitate consumers to get their grievances redressed.

Compliance Status of directive by NBPDCL

It is stated that improvement in quality of service to consumers is one of the prime objectives for NBPDCL. Prompt redressal of consumer grievances is the essential part of improving the consumer experience and therefore multiple measures have been taken to improve the Grievance Redressal Mechanism.

- Consumer Grievance Redressal Forum established at Purnea and Muzaffarpur
- Jan Shikayat Protsahan Samiti has been formulated at head quarter level
- Officers across all levels have been sensitized to promptly address the consumer grievances
- Helpline no. has been established at SCADA office
- Janta Darbar has been organized across all levels
- In each district and circles power monitoring cell and fuse call and monitoring cell has been established
- Under RAPDRP customer care is to be established for urban areas on pilot basis;

Commission's Comments

The Directive in Tariff Order dated 28-02-2014 is not complied. Therefore, the directive is reiterated.

NBPDCL 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 NBPDCL shall be submitted by 30th September, 2014. NBPDCL is also directed to allow CGRF to hold camp hearings in districts at least once in a month to facilitate consumers to get their grievances redressed.

Directive 7: Interest on Security Deposit

<u>Directive Issued in Tariff Order Dated 15-03-2013.</u>

The Commission directed both distribution companies 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

Follow-up directive issued in Tariff Order Dated 28-02-2014

The L.T consumers are deprived of their genuine claim of interest on security deposits. As per Regulation BERC (Standard of Performance of Distribution Licensee), Regulation 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 held by the consumer. The compliance indicates that the consumer accounts do not have the security deposit held by each consumer. Since Reliance Infra is appointed to provide facilities to collect the information required on security deposits, NBPDCL is directed to submit a report on the security deposit of consumers based on information collected by R-Infra by October, 2014.

Compliance Status of directive by NBPDCL

It is to submit that interest on security deposit is promptly being paid to all the HT consumers. NBPDCL is in the process of collecting information about consumers through GIS based indexing, feeder mapping with GPS and asset codification. For performing same, NBPDCL has appointed M/s Reliance Infra and this will be get executed tentatively by the end of Jan-2015. Once the same is being completed, NBPDCL shall be able to identify consumers and allocate security deposit paid by them and further arrive at tentative interest to be paid to each consumer.

Commission's comments

NBPDCL is directed to submit the report on security deposit of consumers, based on information collected by M/s. Reliance Infra, by 30th June, 2015.

Directive 8: Voltage-wise Cost of Supply

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed 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 this regard shall be submitted by 15th July, 2013.

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL 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.

Compliance Status of directive by NBPDCL

NBPDCL 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. The detail has been covered in the petition under chapter voltage wise cost of supply. Following is the average loss figures at individual voltage level, monitored during last five months:

Voltage Level	%Technical Loss
220kV	2.05%
132kV	2.33%
33kV	9.99%
11kV	9.66%
LT Level	12.05%

NBPDCL 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

As per methodology ordered by APTEL, assessment of technical losses in the distribution systems network by carrying out system studies based on available data for 33 KV and above and field studies for representative feeders for 11 KV and 400 volt of various consumers mix prevailing in the distribution system is a pre-requisite for arriving at voltage wise cost of supply.

NBPDCL is directed to assess technical losses of all 33 KV feeders based on load curve and load duration curve of the feeders during FY 2014-15. Similarly technical losses for 11 KV feeders and LT lines (including distribution transformers and consumer connections) by selecting feeders of various consumer mix i.e. some feeders predominantly industrial and some feeders predominantly rural domestic, some feeders predominantly urban domestic and some feeders having different categories of consumers. An interim report on the action taken may be furnished by 30th September, 2015. Final report to be submitted along with the Tariff Petition for FY 2016-17.

Directive 9: Reduction in Transmission & Distribution Loss

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed the 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.

Follow-up directive issued in Tariff Order Dated 28-02-2014

Main reasons for high T&D losses apart from theft are non-metering, non-meter reading 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. The action taken by NBPDCL has not reduced the T&D losses rather it has increased. According to its own projection, the T&D loss in FY 2014-15 should be 34% as per tariff petition of FY 2013-14 but NBPDCL is projecting it at 36.50%. It is not reported as to what extent various steps taken so/far 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 DTs with high losses. NBPDCL is directed to furnish the steps taken to reduce technical losses to maintain the trajectory of reduction of loss every year by 30th September, 2014.

Compliance Status of directive by NBPDCL

The petitioner would like to state that under RAPDRP, proper metering and other remedial measure would be taken for proper metering, energy audit to reduce the T&D losses.

It is submitted that NBPDCL has undertaken many steps to reduce T&D losses

- Monitoring of performance of meter reading and bill distribution agencies
- Implementation of SCADA system (spot billing through Hand held machine, computerized billing, consumer indexing etc.) for PESU Area and for other R-APDRP towns (70 Towns) under process.
- Uploading of consumer energy bills, so that consumers who have not received the bills can down load their updated bills and can make payment online through net banking, SBI and Canara Bank Debit card.
- Circle wise monthly target for AT & C Loss and proper monitoring of revenue collection against current assessment and arrears.
- Close monitoring for realization of private dues exceeding Rs.1,00,000/-.
- Expediting the process of filing of the theft cases.
- Inspection of premises of disconnected consumers.
- Field office sensitized for leakage areas.
- Outsourcing for meter reading.
- Outsourcing for computerized billing except PESU Area.
- Outsourcing for distribution of Energy bills.
- Agency engaged for metering i.e. installation of meter to unmetered consumers, replacement of defective/damaged/stopped/burnt meters in circles.
- Ledgerisation of BPL connections energized under RGGVY.
- Issuance of monthly energy bills to different Govt. Depts.
- Several high level meetings organized under chairmanship of Secretary (Bihar) & Finance Commissioner (Bihar) for budgetary provisions and timely payment of energy dues against different Government Department.
- Introduction of input based feeder franchisees.
- Close monitoring of meter reading and billing of 3-phase LT Consumers.

Commission's Comments

The action taken by NBPDCL has not reduced the T&D losses to required level. Reduction of distribution losses has to be monitored feeder-wise and division wise.

The Commission has observed that only 3604.80 MU have been billed by NBPDCL during FY 2013-14 against 5419.31 MU received at Distribution Periphery for sale i.e. 66.52% of energy was billed by NBPDCL during the said year. Similarly, only 4672.76 MU is proposed to be billed by NBPDCL during FY 2014-15 against 6819.75 MU received at distribution periphery during FY 2014-15 i.e. only 68.52% during the said year.

NBPDCL is directed to assess distribution loss, feeder wise and circle wise, set trajectory for reduction of distribution losses circle wise, review the status of distribution losses every month, with effect from 1st April 2015. A report on details of cirlce wise losses during FY 2014-15 and target set for each division for reduction of losses is to be furnished to the Commission by 30th June, 2015.

Directive 10: Energy Accounting / Audit

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission has directed both distribution companies

- To provide meter 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 centers
- 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 Hon'ble Commission by 30th September 2014.

Follow-up directive issued in Tariff Order Dated 28-02-2014

Energy accounting should have been conducted on the feeders where meters have been provided. The results of the energy accounting shall be reported to the Commissions 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 shall be submitted to the Commission by 30th June, 2014.

Compliance Status of directive by NBPDCL

NBPDCL has initiated energy accounting/audit on monthly basis for all the meters installed feeders at 33kV level. Further, NBPDCL has appointed M/s Reliance Infra for IT implementation under RAPDRP and under the same it would be getting implemented by start of January, 2015 in urban areas, Non Rural areas would also get similar initiative.

Commission's comments

It is noted from the compliance status of metering, 58% of 33 KV feeders, 70% of 11 KV feeders and 34% of DTRs are provided with meters.

NBPDCL is directed to provide meters to all 33 KV and 11 KV feeders on top priority and report compliance by 30th June, 2015. NBPDCL is directed to submit the reports on energy audit / energy accounting, circle wise for FY 2012-13 and FY 2013-14 as called for in earlier directives immediately. Unless energy auditing/accounting is conducted regularly and appropriate action is initiated, the distribution losses cannot be brought down to the targeted level. NBPDCL is directed to conduct energy auditing/accounting every month and submit copy of report to the Commission. The first such report shall be submitted by 30th June, 2015.

Directive 11: Energy Conservation and Demand Side Management

Directive Issued in Tariff Order Dated 15-03-2013.

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
- The compliance and action taken report shall be submitted on quarterly basis by 15th of next month of the quarter. The report to be submitted on 15th July, 2013 is not submitted.

<u>Follow-up directive issued in Tariff Order Dated 28-02-2014</u>

NBPDCL is also directed to submit quarterly report on the implementation of various measures taken for energy conservation and demand side Management. First report should reach the Commission by 15th July 2014 for the quarter ending 30th June 2014.

Compliance Status of directive by NBPDCL

NBPDCL has submitted that 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 of 200kVA and above;
- Slab wise tariff has been introduced;
- DSM Cell has been established;
- Rural Energy Revenue Franchise Scheme has been launched;
- Voluntary Load Disclosure Scheme has been launched;
- An advertisement carry slogans for energy conservation;
- Special focus on improving meter reading and billing and theft reduction has been put forth;
- Use of CFL is mandatory for Kutir Jyoti Connection;
- Every Kutir Jyoti connection is provided with 2 CFLs financed under RGGVY
- CFL bulbs have been distributed under 11th Plan
- LED bulbs have also been distributed under 11th Plan

Commission's comments

Action taken is noted. The results of Demand Side Management can be achieved with public participation mainly. It is essential to create awareness in the public by arranging programmes in each supply circle periodically. NBPDCL is directed to submit quarterly report on the implementation of various measures taken for energy conversation and Demand Side Management.

Directive 12: Asset Register

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed BSPHCL and its four subsidiary companies and its four subsidiary companies to prepare Asset Register for each company and report by 30th September 2013 the action taken in this regard

Follow-up directive issued in Tariff Order Dated 28-02-2014

The Commission notes that inspite of the directives given since long, the asset register has not been prepared. The NBPDCL is directed to submit a report on the present status of preparing Fixed Assets Registers and a road map for completion of preparation of the Fixed Assets Register. The report shall be submitted by 30th September, 2014.

Compliance Status of directive by NBPDCL

Present Status of Fixed Assets Register:

- PFC has designed a software for Fixed Assets Register
- Demo has been provided and some modifications have been suggested by NBPDCL which PFC are incorporating.
- Data regarding fixed assets will be taken from closure report of recent closed projects. In case of old assets, data will be collected form line network starting from GSS-PSS-DT and No. of consumer tagged with distribution transformer.

Commission's comments

The Commission is pursuing since the year 2006 to maintain Asset Registers.

Still NBPDCL is at the initial stage, NBPDCL is directed to furnish the present status of preparing fixed assets register and by which date they will be able to complete the preparation of Fixed Assets Register. The reply to be furnished by 30th April 2015.

Directive 13: Installation of pre-paid meters

Directive Issued in Tariff Order Dated 15-03-2013.

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 with implement pre paid meters on pilot basis in Patna town. Installation of prepaid meters for consumers in the Government may also discussed with state government officials and implemented for some government offices

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL is directed to submit a report by September, 2014 on when the pre-paid meters are likely to be installed on pilot basis in the Government offices.

Compliance Status of directive by NBPDCL

The current status of prepaid meter is as follows:

- P.O 33 dated 13.02.14 issued to M/s HPL for supply, installation & system maintenance (turnkey) of 2000 nos. single phase prepaid meter and 1000 numbers three phase whole current meter, including 3 no's vending station. 40% supply to commence in two months from issue of P.O & 50% to be installed within 4 months i.e. by June2014
- 3 no's vending location for recharging prepaid meter of consumer finalised in Hajipur, Darbhanga, &Purnea Division.
- Data base provided to respective Division & Supplier by M/s HPL.

Commission's comments

Action taken is noted. The latest status on installation of prepaid meters is to be provided to the Commission by 30th September, 2015

Directive 14: Issues related to HT & High Value LT Consumers

Directive was dropped since action was taken by the Licensee.

Directive 15: Renewable Energy Purchase

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directs BSPHCL/DISCOMs 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/DISCOMs 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/DISCOMs 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.

Follow-up directive issued in Tariff Order Dated 28-02-2014

RPO obligation of NBPDCL is still not being met. In some cases, though cogeneration based power from Sugar Mills is available, PPA has not been signed inspite of directive from the Commission. BSPHCL and NBPDCL are directed to sign PPAs with all Sugar Mills who offer to generate power and supply. NBPDCL shall make all the efforts to meet the Renewable Purchase Obligation (RPO) by purchase of renewable energy. NBPDCL shall submit the plan for compliance of fulfilment 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.

Compliance Status of directive by NBPDCL

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 projects 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 PPAs 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	HPCL Bio-Fuel Ltd, Sugauli	20	13	16	53%
5	HPCL 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 ~400 MU against Non Solar RPO requirement of ~550 MU. 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

Acton taken is noted. NBPDCL shall put forth all efforts to procure energy from Renewable sources to meet RPO instead of meeting RPO by purchasing RE Certificates.

Directive 16: Database and Management Information System

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed BSPHCL/DISCOMs to arrange data base management information system (MIS) for each companies and submit the status of compliance of MIS system and implementation of SCADA system with full details by 30th Sep 2013.

Follow-up directive issued in Tariff Order Dated 28-02-2014

NBPDCL 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.

Compliance Status of directive by NBPDCL

NBPDCL has appointed agencies to provide division wise monthly billing data of all categories of consumers in the areas. These agencies are maintaining and providing division wise monthly billing data for all categories of consumers.

NBPDCL is also in the process of implementing SCADA Project under RAPDRP Scheme, There are some other plans under discussion in order to manage data base & implement efficient MIS.

Commission's comments

Action taken is noted. NBPDCL is directed to expedite the process for developing the database management information system and submit the latest status of the compliance by 30th September 2015.

Directive 17: Energy Consumption of Kutir Jyoti and Agriculture Consumers

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed the 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.

Follow-up directive issued in Tariff Order Dated 28-02-2014

100% metering of all Kutir Jyoti consumers shall be completed and reported to the Commission by 30th June, 2014. The billing on metered consumption basis should be done and compliance shall be submitted by 30th September, 2014.

Compliance Status of directive by NBPDCL

NBPDCL is undertaking all efforts to ensure 100% metering for KJ & Agricultural consumers and many steps have been taken to improve meter reading, billing and collection. Upon improvement in meter reading and billing, NBPDCL shall undertake comprehensive efforts to curtail load/consumption violations by Agriculture/KJ Consumers.

Commission's comments

NBPDCL is directed to;

- Computerize the data of each consumer, category-wise village-wise along with sanctioned load, date of release of supply etc.
- Ensure 100% metering of Kutir Jyoti and DS-I and NDS – I category consumers.
- Ensure meter readings are recorded periodically and bills are served to 100% of consumers.
- To provide meters on LT side of distribution transformers which are predominantly feeding agriculture connection to assess the consumption.

Directive 18: Pilferage of Electricity

Directive Issued in Tariff Order Dated 15-03-2013.

The Commission directed BSPHCL/DISCOMs to submit circle-wise details of raids conducted, FIR lodged, amount assessed and amount realized for FY 2011-12 and FY 2012-13 and thereafter to submit quarterly compliance report

Follow-up directive issued in Tariff Order Dated 28-02-2014

The Commission has directed NBPDCL to submit circle wise details of raids conducted, FIR lodged, amount assessed and amount realized during FY 2011-12, FY 2012-13 and thereafter to submit quarterly compliance report. NBPDCL 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.

Compliance Status of directive by NBPDCL

The latest status of three months in FY 2014-15 is shown below:

Sl. No	Month	FIR Nos	Arrest Nos	Amount assessed in (Rs. Lacs)	Fine Collected (Rs. Lacs)
1	June 2014	909	1	261	129
2	July 2014	950	1	233	206
3	August 2014	1027	0	297	173

Commission's comments

Action taken by NBPDCL is noted.

NBPDCL is directed to take action as provided in the Electricity Act 2003 whenever any malpractice / theft of energy is noticed. NBPDCL is directed to put forth more efforts till the distribution losses are brought down to at least to 15%. Quarterly report on number of inspections, number of cases registered, number of arrests made, Amount assessed, amount collected showing for each division, month-wise is to be submitted by the Commission. The report for 1st quarter FY 2015-16 is to be submitted by 31st July, 2015.

New Directives

12.2 a. Consumer Database

The Petitioner is directed to computerize the billing and collection of revenue. The consumer database shall include consumer category, connected load, tariff slab wise consumption, details of security deposit and all other information pertaining to all consumers. The Petitioner shall submit the category wise billing data and revenue realization to the Commission on quarterly basis for review and record.

b. Performance of Distribution Franchisee (DF)

During public hearing at Muzaffarpur, number of complaints related to erroneous billing, delay in giving new connections etc. in DF areas reported by the consumers.

On review of the sales and revenue projected for FY 2014-15 and FY 2015-16 it is noted that the average billing rate in DF area is less than the average billing rate in the licensee area excluding DF area. The Distribution Franchisee has put forth efforts to reduce line losses, to increase sales and to increase revenue.

The very purpose of entrusting areas an input energy basis to Distribution Franchisees is to improve the consumer service and to reduce line losses in these areas.

The DISCOMs are directed to closely monitor the functioning of Distribution Franchisee in their respective areas and report to the Commission on quarterly basis regarding the a) Billing Efficiency b) Collection Efficiency c) Number of consumers complaints received and resolved d) computation of line losses in the DF area to the Commission.

13. Renewable Purchase Obligation

13.1 Background

Electricity is one of the vital ingredients of the economic activity. A major chunk of electricity used today is generated by burning fossil fuels which is the main source of air pollution. Further, fossil fuels are a limited resource. To reduce dependence on conventional energy sources, promotion of renewable energy sources is essential. India has an average of 300 sunny days in a year and receives an average daily radiation of 5.5 KW/square meter. The Government of India launched the Jawaharlal Nehru National Solar Mission (JNNSM) in January 2010 with the objective of achieving 20,000 MW of solar Power capacity by 2022. This is a major initiation to tap India's naturally available energy sources and contribute to lower carbon growth in the Country. Now, Central Government has launched an ambitious plan to achieve 150 GW of renewable energy based power generation capacity by the year 2022 which includes 100 GW of solar power.

Renewable energy is an important solution to reduce power shortage especially in states like Bihar where fossil fuel or hydro power potential 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 income and quality of life in rural areas will also improve. There is a potential of 2000 MW of power generation based on Agro-residues such as rice husk, paddy straw, maize cob, bagasse etc. There is also a good potential of Solar Photovoltaic (SPV) power of the order of 8500 MW. Off grid SPV too has potential of over 7000 MW.

13.2 Renewable Purchase Obligation (RPO)

Provision of Renewable Purchase Obligations (RPOs) has been made to ensure that the distribution licensee and other obligated entities procure a certain minimum percentage of their total power requirement from renewable energy sources at preferential tariff.

13.3 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 renewable 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. Pra02/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 to the effect 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 specified by the BERC.

13.4 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 (hereinafter referred as BERC RPO Regulations) 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 their total energy consumption from Renewable Energy sources from FY 2010-11 to FY 2014-15.

Pending amendment of the BERC RPO regulations, the Commission considers the Renewable Power Purchase Obligation of 5.5% for FY 2015-16 as shown in the table below:

Table 13.1: Percentage of Renewable Purchase Obligation (RPO)

From Renewable Sources	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Renewable Power Purchase obligation (RPO)	1.50%	2.50%	4.00%	4.50%	5.00%	5.50%
% 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%	1.00%
% share of non-solar power in RPO	1.50% - Solar RPO	2.50% - Solar RPO	3.75%	4.00%	4.25%	4.50%

13.5 Power purchases from FY 2010-11 to FY 2013-14 and the Renewable Purchase Obligations (RPO)

The Commission observed that the NBPDCL and SBPDCL have not met the Solar RPO from FY 2010-11 to FY 2012-13 and has approved an amount of Rs.21.08 Crore (NBPDCL Rs.7.38 Crore and SBPDCL Rs.13.70 Crore) and factored the same in the ARR of FY 2014-15 and directed the DISCOMs to deposit this amount in a separate fund with a bank to be used for the purposes as directed by the Commission.

The Commission has observed in the truing up for FY 2013-14 that there is a short fall of renewable energy power purchases in FY 2013-14 by Rs.60.64 Crore (NBPDCL Rs.27.94 Crore and SBPDCL Rs.32.70 Crore) and accordingly the same is approved and factored in the ARR of FY 2015-16. The Commission directs NBPDCL and SBPDCL to deposit the same in a separate fund in a bank. This amount shall be used with the approval of the Commission for meeting the cost of evacuation and transmission to the nearest interconnection point of the grid of power generated from renewable energy projects which are not covered under clause 4.2.3 of Bihar policy for promotion of New and Energy Sources, 2011.

13.6 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. Further, vide its order in SMP-08/2013 dated 18.6.2013, the Commission determined generic tariff for Bagasse based co-generation plants and Biomass based plant for FY 2013-14 and vide order dated 22.9.2014 in SMP-11/2014 determined generic tariff for Bagasse based co-generation, Biomass based power plants and Biomass gasifier plants for FY 2014-15. Some bagasse based cogeneration plants are generating power in the State. Details of running bagasse based cogeneration plants with whom erstwhile BSEB now BSPHCL has signed PPAs are as follows:

Table 13.2: Co-generation Plants in Bihar

Sl. No.	Details of Non-solar (Biomass, Bagasse)	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	13	20
6	BPCL, Lauria	13	20
7	Vishnu Vishal Paper Mills Pvt. Ltd.	1	1

BSPHCL expects 3 MW from new cogeneration plant and 7 MW from biomass based plants in 2015-16. Additional 25 MW from cogeneration and 12 MW from biomass is expected in near future.

13.7 Small Hydro Power

Total installed capacity of small hydro power projects is 55 MW. Bihar State Hydroelectric Power Corporation has indentified 40 projects of 275 MW aggregate capacity.

13.8 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. Further in phase-I, BSPHCL has also signed PPAs for 100 MW of solar power based on tariff based competitive bidding process. Another 150 MW of solar power in phase-II is to be procured.

13.9 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

Time: 11:00 A.M. **Dated: 13th January, 2015**

Minutes of the meeting of the State Advisory Committee (SAC) constituted under section 87 of the Electricity Act 2003 held on 13.01.2015 in the Conference Room of the Commission to discuss on the Tariff petition of BSPGCL, BSPTCL, NBPDCL and SBPDCL for FY 2015-16.

1. The meeting of the State Advisory Committee (SAC) was held on 13.01.2015 under the chairmanship of Sri U. N. Panjiar, IAS (Retd.), Chairman, BERC and SAC. The list of participants present in the meeting is enclosed with the minutes.

2. Welcoming the members, the Chairman explained that the erstwhile Bihar State Electricity Board (BSEB) has been restructured into five companies' viz. Bihar State Power (Holding) Company Limited (BSPHCL), 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). The aforesaid generation, transmission and distribution companies have filed their separate petitions for true up of Aggregate Revenue Requirement (ARR) for FY 2013-14, Annual Performance Review for FY 2014-15 and approval of revised ARR for FY 2015-16 and determination of Generation Tariff of Barauni Thermal Power Station (BTPS), Transmission Tariff for Transmission of electricity by BSPTCL and Tariff for retail sale of electricity by NBPDCL and SBPDCL for FY 2015-16.

   It was stated by the Hon'ble Chairman that the NBPDCL and SBPDCL have proposed common tariff for retail sale of electricity during FY 2015-16. The Chairman also informed the SAC that the Commission has held public hearings at Gaya, Muzaffarpur, Munger, Bhagalpur and Chhapra and have received objections/ suggestions on the petitions. The Commission would also conduct public hearing at Darbhanga, Saharsa, Purnea and Patna and would take feedback from the stakeholders and general public. It was further stated that the suggestion of SAC has also to be considered.

3. The chairman directed the Petitioners to present their proposals to the SAC.

GENERATION

Bihar State Power Generation Company Limited (BSPGCL)

4. BSPGCL presented the details of the petition stating the status of generating units of BTPS, details of ARR and proposed tariff for FY 2015-16. They proposed generation tariff of Rs. 4.89/unit as against Rs. 4.27/unit approved by the Commission for FY 2015-16.

   It was stated by BSPGCL that the unit No. 6 and 7 is under Renovation and Modernization (R&M) and Unit 7 will come in operation from April 2015 and unit 6 from July 2015. Regarding extension project at BTPS, it was stated by BSPGCL that the expected project completion dates for Unit 8 is August 2015 and for Unit 9 is November 2015. The status of Ganga River Water scheme and BTPS Infrastructure Strengthening schemes were presented during the presentation.

5. After the presentation, the committee discussed the following issues pertaining to BSPGCL:

(i) **Weighted Average Landed Price of Oil**

During the presentation given by BSPGCL, it was stated that the ratio of Heavy Furnace Oil to that of Light Diesel Oil has been taken in the ratio of 60:40 during the first year of operation, as a result of which, the weighted average works out to be Rs. 58,400/KL.

Chief Engineer Railway, ECR, Hajipur, stated that as against the ratio of HFO:LDO adopted, the proportion should be in the ratio of 80:20 because LDO will be required only for the purpose of lighting up of the coal and also the cost of the LDO is higher. He further emphasized that adopting the ratio of 80:20 will also cut down the weighted average landed price of the oil.

(ii) **Date of restart (CoD) of Units of BTPS:**

The members of the Bihar Industries Association (BIA) raised the issue about the several extension of the date of restart of the units 6 and 7 of the BTPS. They also stated that due to continuous change in the date of operation of the units, it is affecting the ARR of those units.

In reply to the query made by BIA, BSPGCL stated that R&M work has been carried out by BHEL under the supervision of NTPC. The Energy Secretary and Chairman cum Managing Director, BSPHCL, stated that the Govt. is mounting pressure on them to complete the work soon, so that the units may restart as per the schedule proposed in the petition. It was assured by the BSPGCL that they are hopeful to restart the generation as proposed.

The Chairman stated that while passing the Order, the Commission will take in to consideration the views expressed by the members of the SAC and the ARR will be approved after prudence check.

TRANSMISSION

Bihar State Power Transmission Company Limited (BSPTCL)

6. BSPTCL presented the petition showing the details of ARR and proposed tariff for FY 2015-16. The Petitioner has proposed Rs.728.46 Crore as Annual Transmission charges to be recovered from the two distribution companies' i.e. NBPDCL and SBPDCL which translates in to transmission charges of Rs. 60.70 Crore per month as against Rs.25.35 Crore per month approved by the Commission for FY 2015-16. BSPTCL has further requested for additional revenue recovery of Rs 102.59 Crore and Rs. 241.36 Crore for FY 2013-14 (true-up) and FY 2014-15 (Review) respectively.

7. After the presentation, the committee discussed the following issues pertaining to BSPTCL:

(iii) **Depreciation**

Sanjay Bhartiya of Bihar Industries Association raised the query that there is a difference in the percentage of net depreciation and depreciation on the assets created out of Grants and Consumer Contribution. He also mentioned that, as a result of different percentages adopted, the amount of depreciation is on higher side amounting to Rs. 106.61 Crore as against Rs. 33.89 Crore approved for FY 2013-14.

In reply to the query, BSPTCL replied that the different rates shown are actually derived from the amount of depreciation and average GFA on grants. This rate is derived one and hence the difference which is only notional.

(iv) **Transmission Loss**

During the presentation, BSPTCL was asked to give the reason for the higher transmission loss against the transmission loss approved in the MYT Order. In the MYT Order dated 15.03.2013, the state transmission loss as detailed below has been approved:

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

Against the above approved percentage, BSPTCL has claimed the following percentage of state transmission loss.

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

In reply, BSPTCL stated that the company has only started its independent operation from November 2012. There is a substantial investment pertaining to strengthening of transmission network such as addition of new lines, augmentation of existing transformer capacities etc. The improvement in losses would be reflected after 1-2 years after the commissioning of the transmission assets.

(v) **Return on Equity**

Member of Bihar Industries Association raised the query about the equity addition of Rs. 590.35 Crore during FY 2013-14 in the company as a result of which Return on

Equity has jumped to Rs. 74.22 Crore as against Rs. 32.90 Crore approved for FY 2013-14.

BSPTCL clarified that they have annexed the supportive document in the petition in support to the amount claimed and they also assured that they will further provide supportive documents in support to the equity infusion to the Company by Govt.

The Chairman assured that the Commission would take into account the views expressed by the members of the SAC and appropriate order will be passed. In addition, the Chairman BERC and SAC, directed BSPTCL to submit the following information/clarification by 25.01.2015:-

1) Supportive document in support of the amount of Rs. 590.35 Crore claimed as equity addition during FY 2013-14 along with the details of investment which has come in operation and source of grants/loans,
2) Justification for the substantial increase in O&M expenses. The details of new appointments and amount of ACP arrears with details,
3) Increase in R&M expenses from Rs. 14 Crore to Rs. 59 Crore requires clarification. Broad item wise expenditure details,
4) Power transmitted in MVA by BSPTCL in the FY 2013-14 (actual), FY 2014-15 (RE), FY 2015-16 (Estimate) and energy transmitted in MU,
5) Per unit transmission cost (Rs./kWh) and transmission charges (Rs./MVA/month) worked out for FY 2013-14, FY 2014-15 and FY 2015-16,
6) Separate ARR of State Load Despatch Centre (SLDC), to have clear idea of SLDC expenses and charges,
7) Monthly energy accounting report (Energy received and energy sent out to Distribution Companies) from 1st April 2014 to 30th November 2014.

DISTRIBUTION

North Bihar Power Distribution Company Limited (NBPDCL) & South Bihar Power Distribution Company Limited (SBPDCL)

8. The two distribution companies i.e. NBPDCL and SBPDCL presented their petition showing the details of ARR and proposed tariff for FY 2015-16. The Petitioners have

proposed a combined gap of Rs.2540.28 Crore (Rs. 811.31 Crore for NBPDCL and Rs. 1729.26 Crore for SBPDCL), which will require a tariff hike of 49.65%. To avoid tariff shock, the Petitioners have proposed to create regulatory asset of Rs. 1740 Crore out of total gap, to be amortized in three years starting from FY 2016-17. Further, the balance gap of Rs. 800.57 Crore along with carrying cost of Rs. 256.65 Crore (i.e. total of Rs. 1057.22 Crore), proposed to be recovered through the tariff hike of 20.66%.

9. After the presentation, the committee discussed the following issues pertaining to NBPDCL and SBPDCL:

(vi) **Distribution Loss**

The member of Bihar Industries Association queried that why there is a wide difference in the distribution loss of the two DISCOMs. The loss proposed by SBPDCL is much higher than NBPDCL. For FY 2015-16 SBPDCL has proposed a loss of 41.65% and the NBPDCL has proposed 28.48% against 20% approved by the Commission. In response, Managing Director, SBPDCL, replied that the main difference arises due to supply of power to Nepal by NBPDCL where there is no distribution loss. The loss is very minimal while supplying power to Nepal. Also, the rural franchisees under NBPDCL are much more successful than SBPDCL. It was also stated by Managing Director, NBPDCL, that the response of the general consumers is better during the new connection camps in the area of NBPDCL. The Chairman, BERC and SAC directed the distribution companies to submit the figures of Distribution losses in franchisee area like Muzaffarpur, Gaya and Bhagalpur. MD, SBPDCL also mentioned that there are 19 districts in South Bihar and 21 districts in North Bihar and general law and order is better in the area of the NBPDCL compared to the area under SBPDCL.

(vii) **Power Purchase and Sale Ratio between the two DISCOMs**

The Chairman enquired about the ratio pertaining to the sales and power purchase among the two DISCOMs.

In response, the Managing Director, SBPDCL, replied that as per new resolution of the BSPHCL power purchase has been allocated in the ratio of 58% to SBPDCL and 42% to NBPDCL.

(viii) **Adherence of Tariff Policy**

The Chairman, BERC, stated that according to Tariff Policy notified by Govt. of India, category wise tariff should be in the price band of ±20% of the average Cost of Supply. But the DISCOMs have proposed further deviation from average Cost of Supply for some categories of the consumers.

Bihar industries Association requested that cross subsidization should be as per the Tariff Policy.

The Chairman, BERC, stated that while passing the Tariff Order, the Commission shall try to determine the tariff within ±20% of the Average cost of Supply.

Retail Tariff Schedule

(ix) The Chairman, BERC and SAC invited the member to give their response on the tariff schedule proposed by the DISCOMs.

BIA suggested that limit of transformer capacity of 150% of the Contract Demand in case of HT categories of consumers should be abolished. This practice is not being followed by many other neighbouring states of Bihar.

Prof. W.S. Triar, Head of Department of Electrical Engineering, NIT, Patna stated that the transformer capacity of 150% of the contract demand is sufficient and safe for operation. It is not also proper to keep too much capacity of transformer if it is not required.

The SBPDCL also stated that extra capacity of transformer will increase the no load loss so capacity of transformer of 150% of contract demand is appropriate. It is also to be noted that all HT/EHT consumers having contract demand of 200KVA and above are allowed to have a standby transformer equivalent to the capacity of main transformers, as per existing tariff order.

Chairman, BERC stated that this point will be considered while passing the Tariff Order.

(x) It was suggested by the member of Bihar Industries Association (BIA) and other members of the SAC to consider for a separate tariff for 500 watts in the Non-Domestic category as minimum demand for tariff purpose, so that small shops like beetle shop, gumti, etc. may not be compelled to take load of 1000 watt and pay for the same. The Chairman BERC and SAC stated that such proposal has also come during public hearings on Tariff Petition. The Chairman stated that the Commission will consider it during determination of tariff schedule.

(xi) It was also suggested by BIA to abolish the fixed charges and MMC from all the L.T. categories also to which Chairman, BERC, replied that it is not appropriate to completely remove the fixed charges from all the categories as each consumer is required to pay the capacity charges for the load contracted.

(xii) The members of Bihar Industries Association (BIA) requested to provide the information of energy audit results, metering status, compliance of the directives and others on the website of the related utility.

The Chairman directed NBPDCL and SBPDCL to upload all the information/ data/clarification which they submit to the Commission on their website.

The Chairman thanked all the Members and officials present in the meeting for attending the meeting and giving valuable suggestions. It was further stated that the Commission would consider these suggestion while passing the tariff orders of the Generation, Transmission and Distribution companies.

List of Participants

1	**The Chairman** Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna	15	**Shri Lakshman Bhakta,** Dy. Director (P) Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna
2	**The Secretary** Department of Energy Government of Bihar, Patna	16	**Shri S. K. P Singh, Director (Projects)** North Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna
	The Member Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna	17	**Shri Vijay Kumar, G.M. (Rev)** North Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna
	The Chairman-cum-Managing Director Bihar State Power (Holding) Company Ltd, Vidyut Bhawan, Bailey Road, Patna	18	**Shri Rakesh, EEE/Inter state** Bihar State Power (Holding) Company Ltd, Vidyut Bhawan, Bailey Road, Patna
3	**The Managing Director** North Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna	19	**Shri Arvind Kumar, DGM (F)** Bihar State Power Generation Company Ltd, Vidyut Bhawan, Bailey Road, Patna
4	**The Managing Director** South Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna	20	**Shri N. K. Jha, GM (F)** South Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna
5	**The Additional Secretary** Food & Consumer Protection Deptt., Govt. of Bihar, Patna	21	**Shri Pramod Tiwari, Dy. GM (A/c)** BSPTCL & NBPDCL Vidyut Bhawan, Bailey Road, Patna
6	**The Chief Electrical Engineer,** East Central Railway, Hajipur	22	**Shri Keshav Ranjan Pd. (OSD)** Bihar State Power (Holding) Company Ltd, Vidyut Bhawan, Bailey Road, Patna
7	**The Director** Bihar Renewable Energy Dev. Agency, Sone Bhawan, Patna	23	**Shri Nadeem Ahmad, EEE(Comml.)** South Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna
8	**The Head of the Department** Deptt. of Electrical Engineering, National Institute of Technology (NIT), Patna	24	**Shri J. K. Dubey, EEE(Comml.)** North Bihar Power Distribution Company Ltd, Vidyut Bhawan, Bailey Road, Patna
9	**The President** Bihar Chamber of Commerce, Khem Chand Chaudhary Marg, Patna	25	**Shri Ankesh Desai** Consultant, IL&FS Energy
10	**The President** Bihar Industries Association, Sinha Library Road, Patna	26	**Shri Nitin Gupta** Consultant, CRISIL
11	**Shri Parmanand Singh, Secretary** Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna	27	**Shri Atul Abhishek Singh** Consultant, CRISIL
12	**Shri Sanjeev Kr. Singh, Dy. Director (A)** Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna	28	**Shrimati Amrita Kaur** Consultant, CRISIL
13	**Shri Priya Ranjan, Consultant** Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna	29	**Shri Souvik Das** Consultant, ASCI
14	**Shri Nand Sharma, Consultant** Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Bailey Road, Patna		

Annexure-II

Public Hearing at Muzaffarpur on 19.12.2014

List of Participants as under:

Appearance of behalf of NBPDCL

1.	Shri Jitendra Kumar Bhanu	ESE (Commercial), NBPDCL, Patna
2.	Shri Binod Kumar Mishra	Dy. G.M cum ESE, Muzaffarpur
3.	Shri Tripurari Sharan	EEE, NBPDCL, Muzaffarpur
4.	Shri Ram Narayan Choudhary	EEE, NBPDCL
5.	Shri Atul A Singh	Sr. Consultant, NBPDCL, Patna
6.	Shri Nitin Gupta	Manager, NBPDCL Patna
Appearance on behalf of stakeholder/Public		
1.	Shri Shiv Narain Jha	President, Petroleum Dealers Association, Muzaffarpur
2.	Shri Ashok Kumar Deshbhakta	Vice-chairman, Akhil Bhartiya Deshbhakta Morcha, Muzaffarpur
3.	Shri Ganesh Pd. Singh	President, Utter Bihar Udyami Sangh, Muzaffarpur
4.	Shri Rajendra Kumar Paswan	Zila Upadhyaksha, LOJPA
5.	Shri Arun Dhanuka	Member, North Bihar Chamber of Commerce and Industries, Muzaffarpur
6.	Shri Acharya C. K. Prashar	Vice-president, Bhartiya Janta Party Kala Sanskriti Manch, Muzaffarpur
7.	Shri Anil Kumar Singh	Secretary General, District Congress Committee, Muzaffarpur
8.	Shri Motilal Chhaparia	President, North Bihar Chamber of Commerce, Muzaffarpur
9.	Shri Arjun Kumar	District Secretary, Socialist Unity Centre of India (Communist) Muzaffarpur
10.	Shri Kashi Nath Sahani	District Secretary, All India Krishak Khet Mazdoor Sanghatan, Muzaffarpur
11.	Shri Prabhat Kumar	Joint Secretary, Gandhi Peace Foundation, Muzaffarpur
12.	Shri Bharat Bhusan	Patron, Laghu Udyog Bharti (NB)
13.	Shri Chitranjan Prasad	Uttar Bihar Udyammi Sangh, Bela Muzaffarpur
14.	Shri Rajesh Kumar Pintoo	District President, BJP Vyvsay Manch, Muzaffarpur
15.	Shri Pravin Kumar	Contractor, KCCPL
16.	Shri Baidya Nath Singh	Domestic Consumer
17.	Shri Manoj Kumar	Uttar Bihar Udmi Sangh, Bela Muzaffarpur
18.	Shri Raju Kumar	Ashmit Hatcheries and Feeds Pvt. Ltd., Hajipur

Public Hearing at Chhapra on 12.01.2015

List of Participants as under:

Appearance of behalf of NBPDCL

1.	Shri Jitendra Kumar Bhanu	ESE (Commercial), NBPDCL, Patna
2.	Shri Krishan Nand Jha	ESE/Chhapra, NBPDCL
3.	Shri Sanat Kumar Pathak	EEE/ESD/Chhapra (West) NBPDCL
4.	Shri Abhishek Chauhan	AEE, NBPDCL, Chhapra
5.	Shri Atul A Singh	Sr. Consultant, NBPDCL, Patna
6.	Shri Ramesh Kumar	AEE/S/Chhapra (U) NBPDCL
Appearance on behalf of stakeholder/Public		
1.	Shri Pyar Chand Ram	Ex. Bank Officer, Chhapra
2.	Shri Dev Narayan Singh	Chhota Telpa, Ward No. 40, Chhapra
3.	Shri D. N. Prasad	Director, Saran Roller Flour Mills (P) Ltd. Chhapra
4.	Shri Vishwa Nath Singh	Consumer, Chhapra
5.	Shri Surendra Ram	Consumer, Dighwara, Saran
6.	Md. Ezaz Khan	Consumer, Dighwara, Saran
7.	Shri Yogendra Kumar	Retd. Teacher, Nandelal Tola, Nehru Chowk, Chhapra
8.	Shri Shirish Kumar Dutta	Consumer, Chhota Telpa, Ward No. 37, Chhapra
9.	Shri Madhwendra Tiwari	EEE (Retd.) BSEB Chhapra
10.	Shri Mithilesh Kumar	Consumer, Chhapra
11.	Shri Anil Kumar Singh	Advocate, Malkhana Chowk, Chhapra
12.	Shri Kautlya Kumar Singh	Consumer, Chhapra
13.	Shri Manoranjan Kumar Singh	Student, Masoomganj, Chhapra
14.	Shri Amit Raj Pd.	Director, Amar Roller Flour Mills Pvt. Ltd. Chhapra
15.	Md. Enamulidin Ansari	Consumer, Chhapra
16.	Shri Yugal Kishore Keshri	Ex. Engineer, Chhapra
17.	Shri Raj Kumar Manjhi	Malkhana Chowk, Chhapra
18.	Shri Kavindra Bhagat	E.E Minor Irrigation Chhapra
19.	Shri Yugal Kishore Sharma	Consumer, Sharma Cold Factory, Chhapra
20.	Shri Shankar Sharan Srivastava	Consumer, Dighwara, Saran
21.	Shri Rajeshwar Prasad	President, Cold Storage Association, Chhapra
22.	Shri Basudeo Pd. Singh	Consumer, Saran
23.	Shri Yogendra Srivastava	Consumer, Chhota Telpa, Lala Toli Chhapra
24.	Shri Krishna Murari	Convenor, Chhapra Nagar Bijlee Upbhokta Sangh, Chhapra
25.	Shri Shyam Prakash Upadhayay	Advocate, Dahiyawan Tola, Chhapra

Public Hearing at Darbhanga on 19.01.2015

List of Participants as under:

Appearance of behalf of NBPDCL

1.	Shri Jitendra Kumar Bhanu	ESE (Commercial), NBPDCL, Patna
2.	Md. Kalim	EEE (C&R) Darbhanga,NBPDCL
3.	Shri Sunil Kumar Das	EEE, NBPDCL, Darbhanga
4.	Shri Dadan Singh	ESE, Samastipur Anchal, NBPDCL
5.	Shri S.P. Singh	ESE, NBPDCL, Darbhanga
6.	Shri Saurabh Kumar	AEE/S/DBG (R), NBPDCL
7.	Shri Nitin Gupta	Manager, NBPDCL Patna
Appearance on behalf of stakeholder/Public		
1.	Shri Pawan Kumar Sureka	President, Divisional Chamber of Commerce & Industries, Darbhanga
2.	Shri Prakash Lal Poddar	Chairman, Electric Sub-Committee, Divisional Chamber of Commerce & Industries, Darbhanga
3.	Shri Badri Pd. Maheswari	Divisional Chamber of Commerce & Industries, Darbhanga
4.	Shri Ganeshwar Prasad	Mithilanchal Industries Chamber of Commerce, Darbhanga
5.	Shri Ramotar Keshri	Member, Mithilanchal Industries Chamber of Commerce, Darbhanga
6.	Shri Priya Ranjan	Member,Mithilanchal Industries Chamber of Commerce, Darbhanga
7.	Shri Shailendra Kumar Singh	Domestic Consumer, Rustampur, Hathadhar, Darbhanga
8.	Shri Sanjiv Kumar Singh	Domestic Consumer, Maksudpur, Hathadhar, Darbhanga

Public Hearing at Saharsa on 20.01.2015

List of Participants as under:

Appearance of behalf of NBPDCL

1.	Shri Jitendra Kumar Bhanu	ESE (Commercial), NBPDCL, Patna
2.	Shri Ajay Kumar	ESE, Saharsa
3.	Shri Krishna Kumar	Revenue Officer, NBPDCL, Saharsa
4.	Shri Anil Kumar Ram	AEE, Saharsa (Rural)
5.	Shri Rajanish Kr. Gupta	JEE (Revenue), NBPDCL, Saharsa
6.	Shri Nitin Gupta	Manager, NBPDCL Patna
Appearance on behalf of stakeholder/Public		
1.	Shri Kumar Hira Prabhakar	Chairman, Dist. Electric Consumer Union, Saharsa
2.	Shri Bhola Prasad Gupta	Secretary, Dist. Electric Consumer Union, Saharsa
3.	Shri Surendra Narayan Singh	Domestic Consumer, Naya Bazar, Saharsa
4.	Shri Binodanand Yadav	Propritor, Sone Engineering Works Industrial State Saharsa
5.	Shri Vinay Kumar Mishra	Press Representative, Rashtriya Sahara
6.	Shri Abhay Kumar Manish	Press Representative, Prabhat Khabar

Public Hearing at Purnea on 21.01.2015

List of Participants as under:

Appearance of behalf of NBPDCL

1.	Shri Jitendra Kumar Bhanu	ESE (Commercial), NBPDCL, Patna
2.	Shri Ajay Kumar	ESE, Purnea
3.	Shri Pranav Kumar	EEE, ESD, NBPDCL, Purnea
4.	Shri Nitin Gupta	Manager, NBPDCL Patna
Appearance on behalf of stakeholder/Public		
1.	Shri Durga Nand Chaudhary	President, Purnea Chamber of Commerce, Purnea
2.	Shri Jagat Lal Baishyantri	Secretary, Purnea Chamber of Commerce, Purnea
3.	Shri Rakesh Kumar Singh	Chairman, Bihar Vikash Morcha, Purnea
4.	Shri Ashok Kumar Chaudhary	Vice President, Bihar Vikash Morcha, Purnea
5.	Shri Dilip Kumar	District Dy. Chairman, Bihar Vikash Morcha, Purnea
6.	Shri Ranjeet Kumar	State Benist Officer, Bihar Vikash Morcha, Purnea
7.	Shri Ajay Bharti	Bihar Vikash Morcha, Purnea
8.	Shri Kamlesh Anand	Consumer, Purnea
9.	Shri Nitesh Kumar	Consumer, Purnea
10.	Shri Manoj Thakur	Pradesh Mahasachiv, Bihar Vikash Morcha, Purnea
11.	Shri Narayan Saraf	Director, North Bihar Chamber of Commerce & Industries

Public Hearing at Patna on 03.02.2015 & 04.02.2015

List of Participants as under:

Appearance of behalf of NBPDCL & SBPDCL

1.	Shri N. K. Jha	DGM (Finance), SBPDCL, Patna
2.	Shri Vijay Kumar	ESE (Comml.), SBPDCL, Patna
3.	Shri Rajeev Amit	GM cum CE, PESU Area
4.	Shri Nadeem Ahmad	EEE (Commercial), SBPDCL, Patna
5.	Shri Binod Kumar	AEE (Commercial), SBPDCL, Patna
6.	Shri Amit Kumar	JEE , SBPDCL, Patna
7.	Shri Atul Abhishek Singh	Sr. Consultant, SBPDCL, Patna
8.	Shri Harsh Gulati	Consultant, SBPDCL & NBPDCL, Patna
9.	Shri Shekhar Garg	Consultant, SBPDCL & NBPDCL, Patna
10.	Shri Purushottam Prasad	CE (Comml.), NBPDCL, Patna
11.	Shri Pramod Tiwari	Dy. G.M (A/C), NBPDCL, Patna
12.	Shri Bijendra Kr. Nirala	SRM (F&A), NBPDCL, Patna
13.	Shri Jayant Kumar Dubey	EEE (Comml.), NBPDCL, Patna
14.	Shri Sunil Kumar	Accounts Officer, BSPGCL, Patna
Appearance on behalf of stakeholder/Public		
1.	Shri C. K. Parashar	Vice-President, Art and Culture Munch State BJP
2.	Shri Sanjay Kanodia	Exe. Manager, Balmukund Concast Ltd. Patna
3.	Shri Ram Gopal Verma	Chief Liaison Officer, Riga Sugar Co. Ltd. Sitamarhi
4.	Shri Sanjeev Kishore Sinha	Accounts Manager, Kumar Tech Bio Products Pvt. Ltd.
5.	Shri Subodh Kumar	Secretary General, Bihar Industries Association Patna
6.	Shri Ram Deo Verma	Vice-president, Bihar State Kisan Sabha, Patna
7.	Shri Ramesh Chandra Gupta	Treasurer, Bihar Industries Association
8.	Miss Shweta Sinha	Executive, Bihar Industries Association
9.	Shri Abhishek Kumar	Executive Officer, Bihar Industries Association
10.	Shri Arjun Lal	Advocate, Bihar Chamber of Commerce and Industries, Patna
11.	Shri Umesh Poddar	Chairman Energy Sub-Committee, Bihar Chamber of Commerce and Industries, Patna
12.	Shri Subhash Kr. Patwari	Vice-president, Bihar Chamber of Commerce and Industries, Patna
13.	Shri Sanjeev Kumar	Sr. Manager, Kalyanpur Cements Ltd.
14.	Shri P. K. Choubey	CFO & Co-Secretary, Kalyanpur Cements Ltd.
15.	Shri S. K. Patwari	Director, Patwari Steels Pvt. Ltd.
16.	Shri Satendra Kumar	M.D, Dhankuwar Cold Storage Pvt. Ltd. Digha Patna
17.	Shri A.K.P Sinha	Director, M/s Natraj Engineer Pvt. Ltd.,

		Patna
18.	Shri Shashi Shekhar	President, Sangharsh Yatra
19.	Shri Ajay Kumar	Om Shivam Modern Rice Mill Pvt. Ltd. Sasaram
20.	Shri Durga Pd. Choudhary	Secretary, Kranti Consumer Welfare Society Raghopur
21.	Shri Satish Chandra	Shri Kapil Deo Agro Products (P) Ltd. Sasaram
22.	Shri Rajiv Ranjan Kumar	Chairman, Guptaji Brothers Rice Mill Pvt. Ltd. Rohtas
23.	Shri Surya Shekhar Panda	Regional Manager (Eastern India) Indian Energy Exchange Ltd.,
24.	Shri Sukanta Dutta	Asst. Manager, HPCL Power Trading Pvt. Ltd.
25.	Shri Shubhang Nandan	BPIC
26.	Shri Sanjay Bhartiya	Chairman, Energy Sub-Committee Bihar Industries Association, Patna
27.	Shri Abhimanyu Pd. Saha	Br. Admin Service (Retd.) General Consumer Interest
28.	Shri Doman Singh	Consumer, DS-II Category Patna
29.	Prof. Pramod Kumar Sharma	President, Vaishali Vidyut Upbhokta Sangh
30.	Shri Dhiraj Kumar	Consumer, Chirayatand, Patna
31.	Shri Bhanu Shekhar Pd. Singh	Consumer
32.	Shri Sridhar Pathak	Retd. S.A.O
33.	Shri Barun Kumar Singh	Consumer
34	Shri Ram Kishore Singh	Secretary, State JDU Kisan Sanghatan
35.	Shri Nawal Kishore Singh	Consumer, Patna
36.	Shri Prashant Kumar	Consumer, Patna