



UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

PETITION NO. : **858/2012**

FILED BY

NOIDA POWER COMPANY LIMITED

IN THE MATTER OF

DETERMINATION OF ANNUAL REVENUE REQUIREMENT (ARR)
AND TARIFF FOR THE FY 2013-14

ORDER UNDER SECTION 64 OF
THE ELECTRICITY ACT, 2003

31st MAY, 2013



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Before

UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

Petition No.: 858/2012

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) and Tariff for FY 2013-14.

And

IN THE MATTER OF:

Noida Power Company Limited, Greater Noida.

ORDER

The Commission having deliberated upon the above petition and also the subsequent filings by the Petitioner thereafter, and having considered the views / comments / suggestions / objections / representations received during the course of the above proceedings and also in the public hearing held, in exercise of power vested under Sections 61, 62, 64 and 86 of the Electricity Act 2003, hereby pass this Order signed, dated and issued on 31st May, 2013. The Licensee, in accordance with Section 139 of the Uttar Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, shall publish the approved tariffs and regulatory surcharge within three days from the date of this Order. The tariffs so published shall become the notified tariffs and shall come into force after seven days from the date of such publication of the tariffs, and unless amended or revoked, shall continue to be in force till issuance of the next Tariff Order.



Chapter 1. BACKGROUND AND BRIEF HISTORY

1.1 BACKGROUND:

1.1.1 M/s Noida Power Company Limited (NPCL) was granted a supply license on 30th August, 1993 by the State Government under Section 3(1) of the Indian Electricity Act, 1910, which authorized it to supply electricity in the licensed area.

1.1.2 NPCL started its operations in December, 1993 under a 30-year license from U.P. Government.

1.2 DISTRIBUTION TARIFF REGULATIONS:

1.2.1 Thereafter, the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2006 (hereinafter referred to as the "Distribution Tariff Regulations") were notified by the Commission on 6th October, 2006.

1.2.2 These regulations are applicable for the purposes of ARR filing and Tariff determination to all the Distribution Licensees within the State of Uttar Pradesh.

1.3 FILING OF ARR / TARIFF PETITION:

1.3.1 NPCL has filed the ARR and Tariff petition in line with the provisions of the Regulations and the same is being processed by the Commission accordingly.

1.4 ISSUES / CONCERNS OF THE COMMISSION:

1.4.1 Certain issues / concerns arising out of the statutory provisions of the Electricity Act, 2003 which have been deliberated upon by the Commission in detail in this Tariff Order, are listed below:

- Demand-Supply Gap / Current Shortage of Power
- Availability of Long Term Power

1.4.2 DEMAND-SUPPLY GAP / CURRENT SHORTAGE OF POWER:

NPCL in its retail tariff filing format No. P10 has provided the details of peak demand for FY 2011-12 (Actual), FY 2012-13 (Estimated) and FY 2013-14 (Projected). Based on the information available in petition and additional information provided by NPCL, the Commission has computed demand-supply gap with further assumption that availability of power from UPPCL is 45 MW and balance is



met through other sources (Captive power producers, Bilateral purchases from traders, Renewable energy sources etc.). The details of peak demand met, availability and shortfall is given in the table below:

Table 1-1: DEMAND-SUPPLY GAP OF NPCL (IN MW)

Details	F Y 2011-12 Actual	F Y 2012-13 Estimated	F Y 2013-14 Projected
Peak demand - Restricted	139	170	200
Peak demand - unrestricted	190	207	225
Peak Demand Met:			
- UPPCL	45	45	45
- Other sources	94	125	155
Shortfall- Unrestricted	51	37	25

With growing demand in NPCL's area and long term supply being available from UPPCL remaining constant at 45 MW only, the Commission observes that NPCL will have huge demand-supply gap and will be procuring most of its power on a short term basis from bilateral / other sources. Thus, it is imperative that NPCL ties-up for long / medium term power for the maximum possible quantum.

1.4.3 AVAILABILITY OF LONG TERM POWER:

Another challenging issue before NPCL is arrangement of long term power. The Commission in NPCL's previous Tariff Orders has been guiding NPCL to enter into long term contracts for purchase of power or plan for its own generation facilities to meet the demand in its license area.

In FY 2010-11, Petitioner floated a tender for long term power procurement where the Petitioner received six bids. On evaluation of the bids, M/s Essar Power (Jharkhand) Ltd. was declared the lowest bidder and consequently on 9th May, 2012, a PPA was executed between NPCL and M/s Essar Power (Jharkhand) Ltd. for supply of 240 MW power for 25 years commencing from 30th April, 2014. The long term power tied-up under the process seems adequate to service the demand in the Licensee area.

Although, NPCL has tied up long term power of 240 MW, as per the latest correspondence from Essar Power (Jharkhand) Limited, forwarded by the Petitioner, there is a delay in the project by at least 18 / 24 months. Thus, the Commission is concerned that the power from the plant would be available from April, 2016



onwards. During the period, NPCL would still have to procure maximum proportion of power on short-term basis through bilateral contracts.



Chapter 2. PROCEDURAL HISTORY

2.1 ARR / TARIFF PETITION FILING BY NPCL:

2.1.1 The provision under the Distribution Tariff Regulations requires the Licensee to submit their ARR / Tariff petitions latest by 30th November each year to be made applicable for the subsequent financial year.

2.1.2 Noida Power Company Limited, Greater Noida (hereinafter referred to as 'Licensee' or 'NPCL') submitted its ARR / Tariff petition for FY 2013-14, within the aforesaid prescribed timelines i.e. on 30th November, 2012.

2.2 PRELIMINARY SCRUTINY OF THE PETITION:

2.2.1 A preliminary scrutiny of the ARR Petitions for FY 2013-14 was carried out by the Commission and a detailed deficiency note was served to the Licensee vide letter No. UPERC/D(T)/2012-1469 dated 1st January, 2013 directing them to provide the required information latest by 15th January, 2013.

2.2.2 In response to the deficiency note, the Licensee vide its letters dated 18th January, 2013 provided most of the critical data as required by the Commission for the acceptance / admission of the petition.

2.2.3 Further, during the Commission's proceedings, the Petitioner filed some clarification on 23rd May, 2013 with regard to latest applicable Bank Rate for payment of interest on Consumer's Security Deposit and details of miscellaneous expenditure in the formats prescribed by the Commission vide its Order dated 7th January, 2013 in the matter of review of Tariff Order dated 19th October, 2012.

2.3 ADMITTANCE OF ARR / TARIFF PETITION OF THE LICENSEE:

2.3.1 The Commission, having gone through the supplementary submissions along with the previous submissions, found that the data / information submitted by Licensee were generally in order and accordingly admitted the petitions submitted by the Distribution Licensee for further processing.

2.3.2 The Commission through its Admittance Order dated 11th March, 2013 directed the NPCL to publish within 3 days of the Order a public notice detailing the salient information and facts of the ARR petition for FY 2013-14 and True-up for FY 2011-12 in at least two daily newspapers (One English and One Hindi) for two successive days for inviting comments / objections / suggestions by all stake-



holders and public at large within 15 days of the publication of such notice. The Commission also directed NPCL to upload a copy of the petition (including additional information) on the website of the Petitioner.

2.4 PUBLICITY OF THE PETITION:

The Public Notice detailing the salient information and facts of the ARR petitions appeared in Hindi & English language daily newspapers as detailed below:

- Dainik Jagran : 14th March, 2013 & 15th March, 2013
- The Stateman : 14th March, 2013 & 15th March, 2013

2.5 PUBLIC HEARING PROCESS:

The Commission invited comments / views / objections from consumers and all other stakeholders on the ARR & Tariff proposals of the Licensee. To provide an opportunity to all sections of the population in the license area and to obtain feedback from them, public hearing was held at Greater Noida on 22nd April, 2013 by the Commission.

The hearing had representations by consumers against the ARR / Tariff proposals submitted by NPCL.



Chapter 3. PUBLIC HEARING PROCESS

3.1 OBJECTIVE

- 3.1.1 The various provisions of Electricity Act, 2003 and UPERC (Conduct of Business) Regulations, 2004 provides for hearing the representations and propositions being filed by the consumers in matters related to tariff determination. The Commission, in order to achieve the twin objective that has been conferred upon it under the Electricity Act, 2003 i.e. to observe transparency in its proceedings and functions and to protect interest of consumers, has always attached importance to the objections / suggestions / comments of the public on the ARR / Tariff petitions submitted by the Licensee. The process gains significant importance in a “cost plus regime”, where the entire cost allowed to the Licensee gets transferred to the consumer. The consumers therefore have a locus-standi to comment on the ARR / Tariff Petition filed by the Licensee.
- 3.1.2 The Commission has provided public hearing as one of the platforms to obtain the views of various stakeholders to encourage a transparent and participative approach in the process of tariff determination. The public hearing was conducted on 22nd April, 2013 in Greater Noida to get the views / comments / objections, if any, of the various stakeholders and public at large on the proposals submitted by the Licensee. The Petitioner was also given an opportunity to respond to the stakeholders. The Commission has also taken into consideration the oral and written suggestions / comments / views / objections received from various stakeholders through post, e-mail and in person during the public hearings while disposing the ARR / Tariff petitions filed by the Licensee.

3.2 PUBLIC HEARING:

- 3.2.1 The Commission invited suggestions from consumers and all other stakeholders and conducted public hearing at Greater Noida on 22nd April, 2013. Consumer representatives, industry associations and other individual consumers participated actively in the hearing process.
- 3.2.2 The suggestions / comments / views / objections on the ARR filings received from the public were forwarded to the Licensee for their response. The comments of the consumers play an important role in the determination of rate design and tariff schedule as factors like quality of electricity supply and the service levels



have to be considered while determining the tariff. The Commission considers these submissions of the consumers before it embarks upon the exercise of determining the tariff for a particular period.

- 3.2.3 The Commission has taken note of the various views and suggestions made by the stakeholders and appreciate their keen participation in the process to provide feedback to the Commission on various issues. The major comments / views of various stakeholders in response to the Petition, the replies given by the Petitioner and the views of the Commission have been summarised below:

TARIFF RELATED ISSUES:

A) Comments / Suggestions of the Public:

- 3.2.4 **Minimum Charges:** Minimum Charges should be abolished.

B) Petitioner's Response:

- 3.2.5 Minimum Charges, equivalent to a portion of the bill amount, are levied to recover the fixed expenses incurred by the Petitioner to keep the network as well as supply always ready for the consumer to the extent of their contracted demand. Hence, minimum charges are vital and necessary. This was also observed by the Hon'ble Commission in its Tariff Order dated 19th October, 2012.

C) Commission's Analysis:

- 3.2.6 The Commission has considered the views of the stakeholders and have removed the minimum charges in respect of LMV-2 and LMV-6 categories.

A) Comments / Suggestions of the Public:

- 3.2.7 **Demand Charges:** Demand charges should be abolished.

B) Petitioner's Response:

- 3.2.8 It is pertinent to mention that the Demand Charge is also one part of the tariff and is levied towards continuous maintenance and expansion of the distribution network / infrastructure, creating sufficient capacity as per the connected load of the consumers.

C) Commission's Analysis:



It has been observed that many consumers / stakeholders have objected to the demand charges in the tariff structure and have suggested abolishing such charges. The Commission has placed reliance on Section 45 (1) of the Electricity Act, 2003 and Section 8.4 of the Tariff Policy, which promulgates two part tariff viz. Fixed and Variable Charges. The rationale for levying Demand Charges is to recover a part of the fixed cost of the utility through Fixed Charges, so that at least a part of the fixed cost is recovered, even if there is no consumption by the consumer. The Commission observes that the demand charges are already inbuilt in the tariff which ensures the recovery of fixed cost, though partly but the objective of the tariff design is achieved by levy of such charge.

A) Comments / Suggestions of the Public:

- 3.2.9 **8% Regulatory Surcharge:** There was strong objections against levy of 8% Regulatory Surcharge on the consumers of Greater Noida only and making electricity costlier in comparison to adjacent areas i.e. Noida.

B) Petitioner's Response:

- 3.2.10 Regulatory Surcharge is being levied in compliance to the Tariff Order dated 19th October, 2012. During the public hearing, it was clarified that the Regulatory Surcharge has been levied in compliance to the directives of the Hon'ble Appellate Tribunal for Electricity (APTEL) in its order dated 15th December, 2011 in Appeal No. 4 of 2012. The extracts of the order are reproduced below:

"12.15We, therefore, direct the State Commission to take measures to amortize the Regulatory Asset and allow the carrying cost/financing cost on the Regulatory Assets according to its Regulations."

C) Commission's Analysis:

- 3.2.11 The Commission believes that the revenue gaps / regulatory assets of the Petitioner are getting accumulated year after year, resulting into cash flow deficit. As can be seen in the past that the heavy burden of regulatory gaps / regulatory assets year after year coupled with heavy borrowings to finance the same along with interest, the revenue gap is burgeoning with every passing year resulting into higher interest cost, which in turn cascades into higher cost of service to the consumers. Therefore, any delay in recovery of revenue gap burdens the consumers for carrying cost; therefore, speedy recovery of the same is essential.
- 3.2.12 Various government and autonomous agencies are stressing on timely and accurate revision of tariffs for the survival of distribution companies. Even the Appel-



late Tribunal for Electricity, while dealing with a suo-motu petition, OP No. 1 of 2011, on the letter received from Ministry of Power (judgment passed on 11th November, 2011), has emphasized on timely recovery of regulatory assets. The relevant observation of the Hon'ble Tribunal in the said matter is as under:

*“66..... (iv) In determination of ARR / Tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff policy and the Regulations. **The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferable within Control period. Carrying Cost of the Regulatory Asset should be allowed to utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the Distribution Licensee.**”*
(at page 75 of the Order)

3.2.13 Thus, for meeting carrying cost of the revenue gap and liquidation of revenue gap, the Commission introduced a regulatory surcharge.

A) Comments / Suggestions of the Public:

3.2.14 **Applicability of the new tariff from 1st November, 2012 instead of 1st October, 2012:** It was stated that NPCL has implemented the revised tariff from 1st October 2012 instead of 1st November, 2012 as ordered by Hon'ble APTEL.

B) Petitioner's Response:

3.2.15 NPCL has implemented the revised tariff as per Tariff Order dated 19th October, 2012. With reference to the APTEL's direction in I. A. Nos. 387, 388, 389 & 390 of 2012 for implementation of tariff with effect from 1st November 2012, it is hereby clarified that the Petitioner is not a party to the appeals mentioned above, hence, the said order do not apply to the Petitioner.

C) Commission's Analysis:

The matter is subjudice and therefore, it will not be appropriate for the Commission to comment on the same.

A) Comments / Suggestions of the Public:



3.2.16 **No increase in Tariffs:** There shouldn't be any hike in the electricity tariff during this financial year, as there was substantial increase during the previous financial year.

B) Petitioner's Response

3.2.17 We would like submit that the Annual Revenue Requirement and the electricity tariff are determined in accordance with Section 61-64 of the Electricity Act, 2003 and the Distribution Tariff Regulations. Thus, the tariffs are determined as per the principles and methodologies specified under the above Regulations in order to recover the complete cost of supplying electricity. It is pertinent to mention that rationalization of electricity tariff and financial viability of the Distribution Companies is one of objective of the Electricity Act, 2003, hence, the tariff should be determined as per the methodologies and principles specified in the regulations and the Act to meet the objective of the Electricity Act, 2003.

C) Commission's Analysis:

3.2.18 The Commission carried out the process of determination of ARR and Tariffs are in accordance with the provisions of the Electricity Act, 2003, Distribution Tariff Regulations and Tariff Policy.

A) Comments / Suggestions of the Public:

3.2.19 **Fixed Charges only for unmetered connections:** The Company should provide Unmetered Connections only in rural areas with fixed charges.

B) Petitioner's Response:

3.2.20 The Electricity Act, 2003 mandated to provide metered electricity connection only, to all the consumers and therefore, unmetered connections cannot be provided. On the contrary, the existing unmetered connections are required to be converted into metered connections.

C) Commission's Analysis:

3.2.21 The Commission agrees with the Petitioner and the request for new unmetered connections cannot be accepted.

SUPPLY RELATED ISSUES:

A) Comments / Suggestions of the Public:



3.2.22 **Notice for Disconnections:** NPCL not to disconnect supply without notice and during night hours.

B) Petitioner's Response:

3.2.23 The supply is disconnected on non-payment of dues as per the provisions of the U.P. Electricity Supply Code, 2005. In fact, power supply bill itself is a bill cum notice and those consumers who do not pay their bills on time, their supply is disconnected as per the provisions of the U.P. Electricity Supply Code, 2005.

C) Commission's Analysis:

3.2.24 The Commission hereby directs the Licensee to take appropriate actions strictly in accordance with the provisions of U.P. Electricity Supply Code, 2005.

A) Comments / Suggestions of the Public:

3.2.25 **Additional Security Deposits:** No additional Security deposit should be collected from the consumers.

B) Petitioner's Response:

3.2.26 It is humbly submitted that the demand for Additional Security deposit is made in accordance with clause 4.20 (e) of the U.P. Electricity Supply Code, 2005.

C) Commission's Analysis:

3.2.27 The Commission agrees with the Petitioner and therefore, request the consumer for effective cooperation in this regard.

A) Comments / Suggestions of the Public:

3.2.28 **Power Supply Hours:** The Company should supply power for atleast 22-23 hours in a day.

B) Petitioner's response:

3.2.29 The Company is distributing power in accordance with the Open Access capacity made available to it by UPPTCL.

C) Commission's Analysis:

3.2.30 The Commission hereby directs UPPTCL to grant adequate Open Access to the Petitioner in accordance with the UPERC Open Access Regulations.



A) Comments / Suggestions of the Public:

3.2.31 **Restriction of Transmission Capacity:** The Hon'ble Commission to direct UPPTCL to allow NPCL Open access as per the demand of its licensed area.

B) Petitioner's Response

3.2.32 It is humbly submitted that it is the constant endeavour of the Petitioner to maintain reliable and stable supply to all its consumers barring circumstances beyond its control due to transmission and distribution outages and other *force majeure* conditions. Presently, the Petitioner is only allowed to draw 160 MW due to transmission constraints in the UPPTCL's network, as a result the Company has to resort to load shedding. Again we would request the Hon'ble Commission to kindly direct UPPTCL to allow NPCL to draw power as per its requirements.

C) Commission's Analysis:

3.2.33 The Commission hereby directs UPPTCL to grant adequate Open Access to the Petitioner in accordance with the UPERC Open Access Regulations.

OTHER ISSUES:

A) Comments / Suggestions of the Public:

3.2.34 **To reduce Electricity Duty:** It was mentioned that electricity duty has been increased sharply from 0.09 paise per unit to 7.50% of the rate charges by Government of U. P. This must be reduced.

B) Petitioner's response:

3.2.35 This is to clarify that Electricity duty is levied by the State Government under the provisions of the Uttar Pradesh Electricity Duty Act, 1952. The Petitioner is levying the electricity duty as per the directives of the State Government and matter for reduction of the same should be taken with the State Government directly.

C) Commission's Analysis:

3.2.36 The Commission requests the consumers to make a request directly to State Government in this regard.



3.3 LIST OF ATTENDEES:

- 3.3.1 The list of individuals and organisations who have submitted their objections / suggestions / comments on the ARR & Tariff petition in writing & in oral are given in **Annexure 1**.



Chapter 4. REVISED TRUE-UP FOR FY 2007 – 08, FY 2008-09, FY 2009-10 and FY 2010-11

4.1 BACKGORUND:

- 4.1.1 The Commission vide its Tariff Order dated 19th October, 2012 had approved the ARR of the Petitioner for FY 2011-12 and FY 2012-13 along with truing-up for FY 2009-10 & FY 2010-11 and review of truing-up from FY 2007-08 to FY 2008-09.
- 4.1.2 The Commission vide its aforesaid order has inter-alia approved the O&M expenses for respective years. Aggrieved by the same, the Petitioner had filed a Review Petition No. 847 of 2012, dated 2nd November, 2012 before the Commission requesting for rectification of O&M Expenses approved for the respective Financial Years.
- 4.1.3 The Commission vide its Order dated 7th January, 2013 allowed the petition and disposed of the Review Petition with following directions:

“9. All the Distribution Licensees are directed to claim the revised O&M Expenses for all the true up already done in which the Commission has passed orders, true up petitions filed with the Commission which are under consideration and all future true up and ARR / Tariff filings to be made. Due to the aforesaid revision in the O&M Expenses, there will be consequential impacts on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for each of the years for which all the Distribution Licensees are directed to claim accordingly.”

- 4.1.4 Simultaneously, the Petitioner was also directed as below:

“To capture the additional data / information, the formats are annexed to this order,.....”

- 4.1.5 In compliance to the above directions of the Commission, the Petitioner has filed the revised O&M expenses along with consequential impact of the same on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for all the financial years commencing from FY 2007-08 till FY 2013-14 on 23rd May, 2013. Further, the Petitioner has also provided additional data / information for loss on sale of fixed assets in the prescribed formats for all the financial years commencing from FY 2007-08 till FY



2013-14 along with its consequential impact on Annual Revenue Requirement etc. on the even date.

4.1.6 In view of the aforesaid Order on the review petition of the Petitioner, it has sought limited review of ARR for FY 2007-08 to FY 2010-11 with respect to O&M expenses and miscellaneous expenses i.e. loss on sale of fixed assets.

4.2 REVISED TRUE-UP FOR FY 2007-08:

Operational & Maintenance Expenses:

4.2.1 FY 2007-08 was the first financial year in which ARR was approved based on the UPERC Distribution Tariff Regulations 2006. Thus, O&M expenses for FY 2007-08 were approved at Rs. 10.45 Crores based on the trend of immediately preceding five years. Thus, it is being the first year of the regulations, hence, not affected because of the modification approved vide Order dated 7th January, 2013.

Miscellaneous Expenses:

4.2.2 The Petitioner has claimed an amount of Rs. 0.12 Crores as miscellaneous expenses on account of loss on sale of fixed assets for FY 2007-08. The Commission has verified the details of assets retired during FY 2007-08. As per the details, the Commission observes that due to fast obsolescence and normal wear and tear, some of the assets are required to be scrapped before their useful life. Hence, the loss on sale of assets incurred due to disposal of such scrap assets is genuine and legitimate business expenditure and therefore, the Commission approves miscellaneous expenditure at Rs. 0.12 Crores as per Audited Accounts of the Petitioner for FY 2007-08.

Summary of ARR for FY 2007-08

4.2.3 Based on the above, the Summary of the revised ARR approved for FY 2007-08 is provided in the table below:



Table 4-1: SUMMARY FOR FY 2007-08 (RS. CRORES)

SI No.	Item	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
1	Power Purchase Expenses	140.85	-	140.85
2	Transmission Charges	10.22	-	10.22
3	O&M expenses	10.45	-	10.45
4	Expenses for Regulatory Compliance	0.00	-	0.00
5	Interest Charges	8.51	-	8.51
6	Depreciation	9.40	-	9.40
7	Taxes (Income Tax & FBT)	0.81	-	0.81
8	Gross Expenditure	180.24	-	180.24
9	Less: Interest capitalized	0.34	-	0.34
10	Net Expenditure	179.90	-	179.90
11	Add: Provision for Bad & Doubtful Debts	1.12	-	1.12
12	Add: Miscellaneous Expenses	0.00	0.12	0.12
13	Add: Provisions for Contingency Rese	0.31	-	0.31
14	Total Net Expenditure with Provisions	181.33	0.12	181.45
15	Reasonable Return/ Return on Equity	6.01	-	6.01
16	Add: Efficiency Gains	-	-	-
17	Less: Non Tariff Income	1.08	-	1.08
18	Annual Revenue Requirement	186.26	0.12	186.38
19	Revenue from Existing Tariff	168.77	-	168.77
20	Revenue Gap	17.49	0.12	17.61
21	Revenue Gap/ Surplus from Prev. Year	0.00	-	0.00
22	Carrying cost @ 12.68%	1.18	0.01	1.18
23	Revenue Gap carried forward	18.67	0.13	18.79

4.2.4 Accordingly, the Revenue Gap determined in the revised truing-up for FY 2007-08 is Rs. 17.61 Crores as against Rs. 17.49 Crores approved in Tariff Order dated 19th October, 2012. The total Revenue Gap for FY 2007-08 along with the carrying cost of Rs. 1.18 Crores is approved at Rs. 18.79 Crores and is being allowed to be carried forward in the ARR approval of FY 2008-09.



4.3 REVISED TRUE-UP FOR FY 2008-09:

Operational & Maintenance Expenses:

- 4.3.1 The Commission vide its Order dated 7th January, 2013 has directed the Petitioner to claim O&M expenses on the basis of addition to fixed assets after deducting assets scrapped during the year. Accordingly, the revised O&M expenses for FY 2008-09 based on the methodology approved vide aforesaid Order is given below: -

Table 4-2: COMPUTATION OF O&M EXPENSES (APPROVED), (Rs. Crores)

Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
Total additions to Fixed Assets	61.23	61.23	61.23
Less: Assets Retired/Scrapped	0.00	0.29	0.29
Net Addition to Fixed Assets	61.23	60.94	60.94
Preceding Year Gross O&M	10.45	10.45	10.45
Incremental O&M @ 2.5%	1.53	1.52	1.52
Inflation Index Applicable	8.68%	8.68%	8.68%
Net O&M Expenses	11.36	11.36	11.36
Total	12.89	12.88	12.88

- 4.3.2 Based on above, the O&M expenses for FY 2008-09 are approved at Rs. 12.88 Cr. as against Rs. 12.89 Cr approved vide T O dated 19th October 2012.

Miscellaneous Expenses:

- 4.3.3 The Petitioner has claimed an amount of Rs. 0.15 Cr as miscellaneous expenses on account of loss on sale of fixed assets for FY 2008-09. The Commission has verified the details of assets retired during FY 2008-09. In order to appropriately compensate for loss on sale / retirement of fixed assets, the Commission approves miscellaneous expenditure at Rs. 0.15 Crores as per Audited Accounts of the Petitioner for FY 2008-09 on account of the reasons highlighted in para 4.2.2 above.

Summary of ARR for FY 2008-09

- 4.3.4 Based on the above, the summary of the revised ARR approved for FY 2008-09 is provided in the table below:



Table 4-3: SUMMARY FOR FY 2008-09 (Rs. CRORES)

SI No.	Item	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
1	Power Purchase Expenses	225.82	0.00	225.82
2	Transmission Charges	12.77	0.00	12.77
3	O&M expenses	12.89	-0.01	12.88
4	Expenses for Regulatory Compliance	0.08	0.00	0.08
5	Interest Charges	12.86	0.00	12.86
6	Depreciation	12.50	0.00	12.50
7	Taxes (Income Tax & FBT)	1.40	0.00	1.40
8	Gross Expenditure	278.32	-0.01	278.31
9	Less: Interest capitalized	0.44	0.00	0.44
10	Net Expenditure	277.88	-0.01	277.87
11	Add: Provision for Bad & Doubtful Debts	1.65	0.00	1.65
12	Add: Miscellaneous Expenses	0.00	0.15	0.15
13	Add: Provisions for Contingency Reserve	0.47	0.00	0.47
14	Total Net Expenditure with Provisions	280.00	0.14	280.14
15	Reasonable Return/ Return on Equity	8.06	0.00	8.06
16	Add: Efficiency Gains	0.00	0.00	0.00
17	Less: Non Tariff Income	1.81	0.00	1.81
18	Annual Revenue Requirement	286.24	0.14	286.39
19	Revenue from Existing Tariff	212.63	0.00	212.63
20	Revenue Gap	73.61	0.14	73.76
21	Revenue Gap/ Surplus from Prev. Year	18.67	0.13	18.80
22	Carrying cost @ 12.79%	7.53	0.03	7.55
23	Revenue Gap carried forward	99.81	0.30	100.11

4.3.5 The Revenue Gap determined in the revised truing-up for FY 2008-09 is Rs. 73.76 Crores as against Rs. 73.61 Crores approved in Tariff Order dated 19th October, 2012. The Net Revenue Gap for FY 2008-09 after considering the revenue gap of Rs. 18.80 Crores from previous year and carrying cost of Rs. 7.55 Crores is Rs. 100.11 Crores. The same is carried forward in the ARR approval of FY 2009-10.



4.4 REVISED TRUE-UP FOR FY 2009-10:

Operational & Maintenance Expenses:

4.4.1 The Commission vide its order dated 7th January, 2013 has directed the Petitioner to claim O&M expenses on the basis of addition to fixed assets after deducting assets scrapped during the year. Accordingly, the revised O&M expenses for FY 2009-10 based on the methodology approved vide aforesaid order is given below: -

Table 4-4: COMPUTATION OF O&M EXPENSES (APPROVED), (Rs. Crores)

Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
Total additions to Fixed Assets	70.64	70.64	70.64
Less: Assets Retired/Scrapped	0.00	0.69	0.69
Net Addition to Fixed Assets	70.64	69.95	69.95
Preceding Year Gross O&M	11.36	12.88	12.88
Incremental O&M @ 2.5%	1.77	1.75	1.75
Inflation Index Applicable	7.52%	7.52%	7.52%
Net O&M Expenses	12.21	13.85	13.85
Total	13.98	15.60	15.60

4.4.2 Based on above, the O&M expenses for FY 2009-10 are approved at Rs. 15.60 Crores as against Rs. 13.98 Crores approved vide T O dated 19th October, 2012.

Miscellaneous Expenses:

4.4.3 The Petitioner has claimed an amount of Rs. 0.21 Crore as miscellaneous expenses on account of loss on sale of fixed assets for FY 2009-10. The Commission has verified the details of assets retired during FY 2009-10. In order to appropriately compensate for loss on sale / retirement of fixed assets, the Commission approves miscellaneous expenditure at Rs. 0.21 Crore as per audited accounts of the Petitioner for FY 2009-10 on account of the reasons highlighted in para 4.2.2 above.

Interest on Working Capital



4.4.4 Due to change in the O&M Expenses, as above, there is a consequential change in interest on working capital, the computation of the same is given in the table below-

Table 4-5: COMPUTATION OF INTEREST ON WORKING CAPITAL, (RS. Crores)

Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
One Month's O&M Expenses	1.16	1.32	1.32
One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	5.99	5.99	5.99
Receivables equivalent to 60 days average billing on consumers	45.71	45.71	45.71
Gross Total	52.87	53.02	53.02
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003			
Opening Balance	32.24	32.24	32.24
Received during the year	7.82	7.82	7.82
Closing Balance	40.06	40.06	40.06
Less: Security Deposit with UPPCL	11.28	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	24.87	24.87	24.87
Net Working Capital	28.00	28.15	28.15
Rate of Interest for Working Capital	11.87%	11.87%	11.87%
Interest on Total Working Capital	3.32	3.34	3.34

4.4.5 From the above, interest on working capital approved for FY 2009-10 is determined at Rs. 3.34 Crores as against Rs. 3.32 Crores approved vide Tariff Order dated 19th October, 2012.

Summary of ARR for FY 2009-10

4.4.6 Based on the above, the summary of the revised ARR approved for FY 2009-10 is provided in the table below:



Table 4-6: SUMMARY FOR FY 2009-10 (Rs. Crores)

Sr. No.	Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
1	Power Purchase Expenses	312.63	312.63	312.63
2	Transmission Charges (UPPTCL+PGCIL)	13.57	13.57	13.57
3	Net O&M Expenses	13.98	15.60	15.60
4	Statutory & Other Regulatory Expenses	0.22	0.22	0.22
5	Net Interest charges	17.59	17.61	17.61
6	Depreciation	12.75	12.75	12.75
7	Taxes (Income Tax and FBT)	3.30	3.30	3.30
8	Gross Expenditure	374.04	375.68	375.68
9	Interest capitalized	0.44	0.44	0.44
10	Net Expenditure	373.60	375.24	375.24
11	Provision for Bad & Doubtful debts	2.09	2.09	2.09
12	Miscellaneous Expenses	-	0.21	0.21
13	Provision for Contingency Reserve	-	-	-
14	Prior Period Adjustments	-	-	-
15	Total net expenditure with provision	375.68	377.55	377.55
16	Add: Reasonable Return / Return on Equity	10.31	10.31	10.31
17	Less: Non Tariff Income	0.89	0.89	0.89
18	Annual Revenue Requirement (ARR)	385.11	386.97	386.97
19	Revenue from Existing Tariff	278.05	278.05	278.05
20	Revenue Gap	107.05	108.92	108.92
21	Revenue Gap/ Surplus from Prev. Year	99.81	100.09	100.11
22	Carrying cost @ 11.87%	19.22	19.38	19.38
23	Revenue Gap carried forward	226.09	228.39	228.41

4.4.7 The Revenue Gap determined in the revised truing-up for FY 2009-10 is Rs. 108.92 Crores as against Rs. 107.05 Crores approved in Tariff Order dated 19th October, 2012. The Net Revenue Gap for FY 2009-10 after considering the revenue gap of Rs. 100.11 Crores from previous year and carrying cost of Rs. 19.38 Crores is Rs. 228.41 Crores. The same is carried forward in the ARR approval of FY 2010-11.



4.5 REVISED TRUE-UP FOR FY 2010-11:

Operational & Maintenance Expenses:

- 4.5.1 The Commission vide its order dated 7th January, 2013 has directed the Petitioner to claim O&M expenses on the basis of addition to fixed assets after deducting assets scrapped during the year. Accordingly, the revised O&M expenses for FY 2010-11 based on the methodology approved vide aforesaid order is given below: -

Table 4-7: COMPUTATION OF O&M EXPENSES (APPROVED), (Rs. Crores)

Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
Total additions to Fixed Assets	100.61	100.61	100.61
Less: Assets Retired/Scrapped	0.00	1.05	1.05
Net Addition to Fixed Assets	100.61	99.56	99.56
Preceding Year Gross O&M	12.21	15.60	15.60
Incremental O&M @ 2.5%	2.52	2.49	2.49
Inflation Index Applicable	9.96%	9.96%	9.96%
Net O&M Expenses	13.43	17.15	17.15
Total	15.94	19.64	19.64

- 4.5.2 Based on above, the O&M expenses for FY 2010-11 are approved at Rs. 19.64 Crores as against Rs. 15.94 Crores approved vide T O dated 19th October 2012.

Miscellaneous Expenses:

- 4.5.3 The Petitioner has claimed an amount of Rs. 0.25 Crore as miscellaneous expenses on account of loss on sale of fixed assets for FY 2010-11. The Commission has verified the details of assets retired during FY 2010-11. In order to appropriately compensate for loss on sale / retirement of fixed assets, the Commission approves miscellaneous expenditure at Rs. 0.25 Crore as per audited accounts of the Petitioner for FY 2010-11 on account of the reasons highlighted in para 4.2.2 above.

Interest on Working Capital

- 4.5.4 Due to change in the O&M Expenses, as above, there is a consequential change in interest on working capital, the computation of the same is given in the table below-



Table 4-8: COMPUTATION OF INTERES ON WORKING CAPITAL, (RS. Crores)

Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
One Month's O&M Expenses	1.33	1.67	1.67
One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	10.49	10.49	10.49
Receivables equivalent to 60 days average billing on consumers	63.08	63.08	63.08
Gross Total	74.89	75.23	75.23
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003			
Opening Balance	40.06	40.06	40.06
Received during the year	10.84	10.84	10.84
Closing Balance	50.90	50.90	50.90
Less: Security Deposit with UPPCL	11.28	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	34.20	34.20	34.20
Net Working Capital	40.69	41.03	41.03
Rate of Interest for Working Capital	12.28%	12.28%	12.28%
Interest on Total Working Capital	5.00	5.04	5.04

4.5.5 From the above, interest on working capital approved for FY 2010-11 is determined at Rs. 5.04 Crore as against Rs. 5.00 Crores approved vide tariff order dated 19th October 2012.

Summary of ARR for FY 2010-11

4.5.6 Based on the above, the summary of the revised ARR approved for FY 2010-11 is provided in the table below:



Table 4-9: SUMMARY FOR FY 2010-11 (Rs. Crores)

Sr. No.	Particulars	As per Tariff Order dt. 19.10.12	As per Review Petition	Approved
1	Power Purchase Expenses	356.31	356.31	356.31
2	Transmission Charges (UPPTCL+PGCIL)	17.51	17.51	17.51
3	Employee cost	-	-	-
4	A&G expenses	-	-	-
5	R&M expenses	-	-	-
3	Net O&M Expenses	15.94	19.64	19.64
4	Statutory & Other Regulatory Expenses	0.36	0.36	0.36
5	Net Interest charges	25.91	25.95	25.95
6	Depreciation	18.51	18.51	18.51
10	Bad Debts written off	-	-	-
7	Taxes (Income Tax and FBT)	8.29	8.29	8.29
12	Misc Expenses	-	-	-
8	Gross Expenditure	442.84	446.58	446.58
14	Expense capitalization	-	-	-
15	Employee cost capitalized	-	-	-
9	Interest capitalized	0.84	0.84	0.84
17	A&G expenses capitalized	-	-	-
10	Net Expenditure	442.00	445.74	445.74
11	Special Appropriations	-	-	-
12	Provision for Bad & Doubtful debts	2.75	2.75	2.75
13	Add: Miscellaneous Expenses	-	0.25	0.25
14	Provision for Contingency Reserve	-	-	-
15	Prior Period Adjustments	-	-	-
16	Total net expenditure with provisions	444.75	448.74	448.74
17	Add: Reasonable Return / Return on Equity	13.84	13.84	13.84
18	Less: Non Tariff Income	1.71	1.71	1.71
19	Add: Efficiency Gains	0.51	0.51	0.51
20	Annual Revenue Requirement (ARR)	457.39	461.38	461.38
21	Revenue from Existing Tariff	383.72	383.72	383.72
22	Revenue Gap	73.67	77.66	77.66
23	Revenue Gap/ Surplus from Prev. Year	226.09	228.39	228.41
24	Carrying cost	34.18	34.74	34.74
25	Revenue Gap carried forward	333.94	340.79	340.81

4.5.7 The Revenue Gap determined in the revised truing-up for FY 2010-11 is Rs. 77.66 Crores as against Rs. 73.67 Crores approved in Tariff Order dated 19th October, 2012. The Net Revenue Gap for FY 2010-11 after considering the revenue gap of Rs. 228.41 Crores from previous year and carrying cost of Rs. 34.74 Crores is Rs. 340.81 Crores. The same is carried forward in the ARR approval of FY 2011-12.



Chapter 5.TRUE-UP FOR FY 2011-12

5.1 SALES APPROVAL:

5.1.1 The sales based on actual audited accounts for FY 2011-12 represent growth of 11% over FY 2010-11 (786.53 MUs). The Commission approves the sales based on the audited accounts at 876.36 MUs.

5.1.2 The category-wise sales approved and trued-up for FY 2011-12 is given in table below:

Table 5-1: CATEGORY WISE SALES FOR FY 2011-12- TRUE-UP (MUs)

Sr. No.	Category	Approved	Petition	True-up
1	LMV-1: Domestic Light, Fan & Power	152.44	146.85	146.85
2	LMV-2: Non Domestic Light, Fan & Power	14.53	16.07	16.07
3	LMV-3: Public Lamps	17.15	21.82	21.82
4	LMV-4: Institutions	7.41	9.80	9.80
5	LMV-5: Private Tube Wells	16.38	11.15	11.15
6	LMV 6: Small and Medium Power	27.82	30.29	30.29
7	LMV-7: Public Water Works	5.89	10.19	10.19
8	LMV-8: STW and Pumped Canals	0.31	0.31	0.31
9	LMV-9: Temporary Supply	20.23	19.67	19.67
10	HV-1: Non Industrial Bulk Power	41.57	49.31	49.31
11	HV-2: Large and Heavy Power	572.12	560.90	560.90
	Total	875.85	876.36	876.36

5.1.3 The Category wise Number of Consumers, Connected Load and Sales approved/trued-up for FY 2011-12 are summarised in the table below:

Table 5-2: CATEGORY WISE CONSUMERS, LOAD & SALES – TRUE-UP

Sr. No.	Category	No. of Consumers	Connected Load (MW)	Sales (MUs)
1	LMV-1: Domestic Light, Fan & Power	48,031	182.16	146.85
2	LMV-2: Non Domestic Light, Fan & Power	1,777	14.02	16.07
3	LMV-3: Public Lamps	3	4.78	21.82
4	LMV-4: Insitutions	365	5.96	9.80
5	LMV-5: Private Tube Wells	1,191	5.13	11.15
6	LMV 6: Small and Medium Power	1,410	27.81	30.29
7	LMV-7: Public Water Works	160	3.41	10.19
8	LMV-8: STW and Pumped Canals	1	0.17	0.31
9	LMV-9: Temporary Supply	1,525	14.42	19.67
10	HV-1: Non Industrial Bulk Power	51	23.96	49.31
11	HV-2: Large and Heavy Power	425	202.18	560.90
	Total	54,939	484.00	876.36



5.2 DISTRIBUTION LOSSES:

5.2.1 The Licensee in the ARR petition has sought distribution losses at 8.0% for FY 2011-12.

The Commission's Analysis

5.2.2 The distribution losses projected by the Petitioner for FY 2011-12 are at 8.0%. The Commission would reiterate that there has been no significant improvement in loss levels, despite huge capital expenditure / system improvements undertaken by the Petitioner.

5.2.3 In reference to the above, the Petitioner submitted that the aforesaid capex has been incurred on development of new / virgin areas and also to cater to the increased demand of the area and therefore, cannot be directly linked with the reduction in losses.

5.2.4 The Commission acknowledges the fact that the Greater Noida Area was largely a rural area and with development year-on-year, more of the area is being urbanised. Hence, it requires a huge capital expenditure to cater to the demand of existing and new consumers. However, the Commission observes that T & D losses have been constant at 8% from so many years. Therefore, the Commission directs the Petitioner to conduct a technical loss study of its network again and apart from determining the technical losses, the study should also reflect the efforts and cost required to bring down the losses down from current 8%. It will also enable the Commission to formulate a loss trajectory for future years linked with required capital expenditure which is also required for the purpose of Multi-year tariff.

5.2.5 Hence, recognizing the fact that the distribution loss of 8% is one of the lowest in the country, the distribution losses for FY 2011-12 are trued-up at 8%.

5.3 ENERGY BALANCE:

5.3.1 The Commission in the above sections has discussed about true-up of sales and distribution losses. Based on these elements, the power purchase requirement and the energy balance for FY 2011-12 is given in the table below:



Table 5-3: ENERGY BALANCE FOR FY 2011-12 – TRUE-UP

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Energy Sales (MU)	875.85	876.36	876.36
Distribution Loss %	8.00%	8.00%	8.00%
Distribution Loss (MU)	76.16	76.21	76.21
Energy Purchase (MU)	952.01	952.57	952.57

5.4 POWER PURCHASE QUANTUM & COST:

5.4.1 Based on the above trued-up energy balance for FY 2011-12, the power purchase requirement is of **952.57** MUs.

5.4.2 As per the present arrangement, NPCL receives 45 MW of power from UPPCL at pooled cost. The balance power was procured by NPCL on short term basis through Open Access Route. The details of power purchase and the cost approved vide Tariff Order dated 19th October, 2012 and actually incurred by NPCL for FY 2011-12 is provided in the table below:

Table 5-4: POWER PURCHASE COST - FY 2011-12

Item	Approved vide T.O. 19/10/12			True-up Petition		
	Energy	Avg.	Costs	Energy	Avg.	Costs
Retail Sales (Mus)	875.85			876.36		
Losses	8.0%			8.0%		
Power Purchase	952.01			952.57		
Sources of Power Purchase	Energy	Avg.	Costs	Energy	Avg.	Costs
UPPCL	340.96	2.64	90.01	340.96	2.64	90.01
Power Purchase from Traders	611.05	3.98	243.12	611.61	3.95	241.30
Sub-Total	952.01	3.50	333.14	952.57	3.48	331.31
PGCIL charges			13.90			24.65
UPPTCL charges			10.78			
Total Transmission charges			24.67			24.65
Total Power Purchase Cost	952.01	3.76	357.81	952.57	3.74	355.96

5.4.3 The briefs about the power purchase from the above table are as follows:

- The power purchase from UPPCL is 340.96 MUs, power purchase from open access route is 611.61 MUs at NPCL periphery.
- The transmission losses of PGCIL and UPPTCL are approved on actual basis.
- The Bulk Supply Tariff payable to UPPCL is as per UPPCL Tariff order dated 31st March, 2010 for FY 2009-10 at Rs. 2.64 /kWh.



- As submitted by the Petitioner, the Commission vide Tariff Order dated 19th October 2012 for FY 2010-11, FY 2011-12 and FY 2012-13 has approved the BST for FY 2011-12 at Rs. 3.78 per unit. However, since the T.O. was issued after the finalisation of accounts i.e. 23rd July, 2012, therefore, arrears towards increase in BST has been claimed in the ARR for FY 2012-13.
- The transmission charges payable on open access charges include transmission charges of UPPTCL as well as PGCIL for various regions.

5.4.4 The Commission observed that the audited accounts were approved on 23rd July, 2012 while the UPPCL's BST was determined vide Tariff Order dated 19th October, 2012. Hence, the Commission agrees with the contention of the Petitioner and therefore, approved power purchased from UPPCL at provisional BST of Rs. 2.64 per unit.

5.4.5 The Commission further observes that power availability from UPPCL has been restrained at 45 MW and therefore, residual requirement of power has been met from Open Access Market. During FY 2011-12, the Petitioner has procured 611.61 MU from Open Access Market at an average cost of Rs. 3.95 per unit which is significantly lower as compared to power purchase cost for FY 2010-11 at Rs. 5.01 per unit.

5.4.6 Further, the average power purchase cost from Open Access of Rs. 3.95 per unit at NPCL periphery is within the average power purchase cost of Rs. 3.98 per unit provisionally approved vide Tariff Order dated 19th October, 2012. Simultaneously, it is also competitive from All India Average Power purchase rate of Rs. 4.23 per unit (ex-bus) transacted under bilateral trade during FY 2011-12 (source – MMC Report of CEA). Hence, the Commission approves the power purchased from Open Access on actuals at Rs. 3.95 per unit.

5.4.7 The approval of the power purchase cost for FY 2011-12 is provided in the table below:



Table 5-5 POWER PURCHASE COST- APPROVED (Rs. CRORES)

Item	True-up Approved		
	Energy	Avg.	Costs
Retail Sales (Mus)	876.36		
Losses	8.0%		
Power Purchase	952.57		
Sources of Power Purchase	Energy	Avg.	Costs
UPPCL	340.96	2.64	90.01
Power Purchase from Traders	611.61	3.95	241.30
Sub-Total	952.57	3.48	331.31
PGCIL charges			24.65
UPPTCL charges			24.65
Total Transmission charges			24.65
Total Power Purchase Cost	952.57	3.74	355.96

- The total quantum approval for FY 2011-12 is 952.57 MUs with power purchase from UPPCL – 340.96 MUs, from open access – 611.61 MUs.
- The power purchase cost for UPPCL is approved at provisional BST rate of Rs. 2.64 / kWh.
- The transmission charges for UPPTCL and PGCIL are approved as per audited accounts at Rs. 24.65 Crores.
- Accordingly, the total power purchase cost is trued-up at Rs. 355.96 Crores.

5.5 OPERATION & MAINTENANCE (O&M) EXPENSES:

5.5.1 Operation and Maintenance (O&M) expenses comprise of Employee related costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) expenditure.

5.5.2 The Clause No. 4.3 of the Distribution Tariff Regulations stipulates:

“1. The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The O&M expenses for the base year shall be calculated on the basis of historical/audited costs and past trend during the preceding five years. However, any abnormal variation during the preceding five years shall be excluded. For determination of the O&M expenses of the year under consideration, the O&M expenses of the base year shall be escalated at inflation rates notified by the Central Government for different years. The inflation rate for above purpose shall be the weighted average of



Wholesale Price Index and Consumer Price Index in the ratio of 60:40. Base year, for these regulations means, the first year of tariff determination under these regulations

2. Where such data for the preceding five years is not available the Commission may fix O&M expenses for the base year as certain percentage of the capital cost.

3. Incremental O&M expenses for the ensuing financial year shall be 2.5% of capital addition during the current year. O&M charges for the ensuing financial year shall be sum of incremental O&M expenses so worked out and O&M charges of current year escalated on the basis of predetermined indices as indicated in regulation 4.3 (1)..”

- 5.5.2.1 In the True-up petition for FY 2011-12, the Petitioner has claimed gross O&M expenses of Rs. 24.28 Crores after making adjustments for O&M expenses of previous year and inflation index.

The Commission’s Analysis:

- 5.5.2.2 In accordance of the Clause No. 4.3.1 of Distribution Tariff Regulations; the net O&M expenses would be computed based on Inflation Index over FY 2010-11 true-up expenses for FY 2011-12. The Weighted average Inflation Index computed is 8.69% for FY 2011–12 as given in the table below:



Table 5-6

Table 5-6: INFLATION INDEX FOR FY 2011-12

Month	Wholesale Price Index		Consumer Price Index	
	2010-11	2011-12	2010-11	2011-12
April	138.60	152.10	170.00	186.00
May	139.10	152.40	172.00	187.00
June	139.80	153.10	174.00	189.00
July	141.00	154.20	178.00	193.00
August	141.10	154.90	178.00	194.00
September	142.00	156.20	179.00	197.00
October	142.90	157.00	181.00	198.00
November	143.80	157.40	182.00	199.00
December	146.00	157.30	185.00	197.00
January	148.00	158.70	188.00	198.00
February	148.10	159.30	185.00	199.00
March	149.50	161.00	185.00	201.00
Average for Financial Year	143.33	156.13	179.75	194.83
Calculation of Inflation Index (CPI-40%, WPI-60%) for FY-12				
Inflation index for FY 2010-11	157.90			
Inflation index for FY 2011-12	171.61			
Applicable Inflation rate	8.69%			

- 5.5.3 The gross O&M expenses so claimed by the Petitioner include additional O&M expenses towards capitalization of assets in the preceding year. The capitalized assets in the preceding year include assets handed over by GNIDA and UPSIDC free of cost in the FY 2010-11. These assets have been considered on the basis of values declared by respective authorities.
- 5.5.4 The Commission has also gone through the audited accounts of NPCL wherein, the value of those assets is ascertained by the auditor through the communications received from GNIDA and UPSIDC. Further the audited accounts mention that the assets have been handed over for maintenance purpose only while the ownership is yet to be transferred.
- 5.5.5 Accordingly, the Commission has considered the additional O&M expenses for these assets to be allowed for O&M purposes only. Any other impact on other parameters like depreciation, capital expenditure, capitalization etc. is not being allowed till the company takes ownership of the assets.



5.5.6 The Commission vide its Tariff Order dated 19th October, 2012 had approved O&M expenses for FY 2011-12 at Rs. 17.57 Crores Aggrieved by the same, the Petitioner had filed a Review Petition No. 847 of 2012, dated 2nd November, 2012 before the Hon'ble Commission requesting for rectification of O&M Expenses approved for FY 2007-08 to FY 2012-13.

5.5.7 The Commission vide its order dated 7th January, 2013 allowed the prayer of the Petitioner and disposed of the Review Petition with following directions:

“9. All the Distribution Licensees are directed to claim the revised O&M Expenses for all the true up already done in which the Commission has passed orders, true up petitions filed with the Commission which are under consideration and all future true up and ARR / Tariff filings to be made. Due to the aforesaid revision in the O&M Expenses, there will be consequential impacts on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for each of the years for which all the Distribution Licensees are directed to claim accordingly.”

5.5.8 Apart from the above directions, the Commission also directed as below:

To capture the additional data / information, the formats are annexed to this order,.....”

5.5.9 In compliance to the above directions of the Commission, the Petitioner, has filed the revised O&M expenses along with consequential impact of the same on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for all the financial years commencing from FY 2007-08 till FY 2013-14 on 23rd May, 2013. Also, the Petitioner has filed additional data/information in the prescribed formats for all the financial years commencing from FY 2007-08 till FY 2013-14 as well.

5.5.10 Based on the above, the computation of O&M expenses trued-up for FY 2011-12 is as below:



Table 5-7: O&M EXPENSES FOR FY 2011-12 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Total additions to Fixed Assets	119.03	119.03	119.03
Less: Assets Retired/Scrapped	0.00	1.87	1.87
Net Addition to Fixed Assets	119.03	117.16	117.16
Preceding Year Gross O&M	13.43	19.64	19.64
Incremental O&M @ 2.5%	2.98	2.93	2.93
Inflation Index Applicable	8.68%	8.69%	8.69%
O&M Expenses escalated	14.59	21.35	21.35
Total O & M expenses	17.57	24.28	24.28

STATUTORY & OTHER RELATED EXPENSES:

5.5.11 In the ARR petition for FY 2011-12, the Petitioner has claimed other statutory expenses of Rs. 1.18 Crores over and above the normative O&M expenses. These expenses are and over and above the expenses incurred on fees and other UP-ERC related expenses and has requested for allowance of the same.

The Commission's Analysis

5.5.12 The Petitioner has claimed CGRF expense of Rs. 0.12 Crore in FY 2011-12. In this regard Regulation 22 of the Consumer Grievances Redressal Forum Regulations, 2007 is reproduced below.

"Treatment of Expenses –

All reasonable costs incurred by the Distribution Licensee on the establishment and running of the Forum, shall be a pass through in the Annual Revenue Requirements filed by the Distribution Licensee after deducting the amount of fees collected by the Distribution Licensee under the regulations."

5.5.13 In view of the above, the Commission approves CGRF expense of Rs. 0.12 Crore.

5.5.14 Further, the Petitioner has claimed expenses incurred towards competitive bidding process for long-term / short-term power procurement, technical studies and other activities as directed by the Commission. In this regard Tariff Regulations 4.3.5 is reproduced as below:



“The Commission may consider additional O&M expenses on account of war, insurgency, and change in laws or like eventualities for a specified period.”

5.5.15 Accordingly, the Commission approves the additional statutory expenses incurred towards competitive bidding process, demand side management activities and technical studies on actuals.

5.5.16 The table below highlights the approved statutory and other expenses approved by the Commission for FY 2011-12:

Table 5-8: STATUTORY/OTHER REGULATORY EXPENSES (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Demand Side Management Expenses	0.15	0.10	0.10
CGRF Expenses	0.17	0.12	0.12
Competitive Bidding Expenses	0.48	0.68	0.68
Technical studies as directed by Commission	0.30	0.28	0.28
Total	1.10	1.18	1.18

5.6 CAPITAL EXPENDITURE (CAPEX):

5.6.1 For FY 2011-12, the Petitioner in the true-up petition has claimed capex of Rs. 67.93 Crores as against Rs. 95.07 Crore approved by the Commission in its Tariff Order dated 19th October 2012.

5.6.2 Apart from the above capex, an amount of Rs. 0.93 Cr has been capitalised as interest during construction period.

The Commission’s Analysis:

5.6.3 The actual capital expenditure for FY 2011-12 has been considered as per the audited accounts. The opening capital work in progress (CWIP) for FY 2011-12 is 4.08 Crores. Total capitalization i.e. transfers to GFA for FY 2010 - 11 as per the audited accounts is Rs. 67.93 Crores. Accordingly, the capital expenditure incurred by the utility for the FY 2011-12 as per the Audited Accounts works out to be Rs. 65.61 Crores.

5.6.4 The interest capitalization computed for FY 2011-12 is Rs. 0.93 Crores.



5.6.5 The details of the capex claimed and approved/true-up by Commission for FY 2011-12 is provided in the below:

Table 5-9: CAPEX TRUE-UP FOR FY 2011-12 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Total Additions to Assets	95.07	67.93	67.93
Add: Closing CWIP	4.21	1.76	1.76
Less: Opening CWIP	4.08	4.08	4.08
Total Additions to Assets	95.20	65.61	65.61
Add: Interest Capitalisation	1.15	0.93	0.93
Total Capex	96.34	66.54	66.54
Consumer Contribution & GNIDA	12.50	8.65	8.65
Net Capex	83.84	57.89	57.89
Debt @ 70%	58.69	40.52	40.52
Equity @ 30%	25.15	17.37	17.37

5.6.6 Consumer contribution of Rs. 8.65 Crores is taken as per the audited accounts for FY 2011-12.

5.7 INTEREST AND FINANCE CHARGES:

5.7.1 The Licensee has claimed Interest and Finance Charges which includes following heads:

- ❖ Interest on Long Term Loans;
- ❖ Finance Charges;
- ❖ Interest on working capital / short term loans ;
- ❖ Interest on consumer security deposits.

5.7.2 Each of the above cost elements are discussed separately as under:

5.7.3 INTEREST ON LONG TERM LOANS:

5.7.3.1 In the true-up petition, the company has claimed interest on debt of Rs. 21.23 Crores after considering loan additions of Rs. 40.52 Crores.

The Commissions' Analysis

5.7.3.2 The interest on long term loans as submitted by NPCL and true-up by Commission for FY 2011-12 is given in table below:



Table 5-10: INTEREST ON LONG TERM LOANS - PETITION (Rs. Crores)

Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Bank - Domestic (Long Term Loans)	0.60	-	0.60	-	0.02
Bank - Foreign	5.77	-	2.88	2.88	0.34
Yes Bank (FY08)	17.60	-	4.80	12.80	1.98
Bank of Maharashtra (FY 10)	30.14	-	2.88	27.26	3.89
Yes Bank (FY 10)	12.29	-	8.19	4.10	1.14
IDBI Bank(FY11)	66.30	-	8.29	58.01	8.39
HDFC Car Loan	0.01	-	0.00	0.01	0.00
GNIDA	12.73	-	0.48	12.25	0.66
Normative Loans (FY08)	3.72	-	0.53	3.19	0.46
ICICI Bank Limited (FY12)	-	40.52	-	40.52	4.35
Total	149.17	40.52	28.66	161.03	21.23

Table 5-11: INTEREST ON LONG TERM LOANS – TRUE-UP (Rs. Crores)

Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Bank - Domestic (Long Term Loans)	0.60	-	0.60	-	0.02
Bank - Foreign	5.77	-	2.88	2.88	0.34
Yes Bank (FY08)	17.60	-	4.80	12.80	1.98
Bank of Maharashtra (FY 10)	30.15	-	2.88	27.27	3.89
Yes Bank (FY 10)	12.33	-	8.19	4.14	1.14
IDBI Bank(FY11)	66.30	-	8.29	58.01	8.39
GNIDA	12.73	-	0.48	12.25	0.66
Normative Loans (FY08)	3.71	-	0.53	3.18	0.46
Normative Loans (FY12)	-	40.52	-	40.52	4.35
Total	149.19	40.52	28.66	161.06	21.24

5.7.3.3 The opening balances of loan trued-up for FY 2011-12 are considered as per closing balances of true-up for FY 2010-11.

5.7.3.4 The normative loan of FY 2007-08 is continued in FY 2011-12 also with repayment considered based on 10-year repayment period. The interest on the normative loan for the FY 2011-12 is computed as the weighted average inter-



est rate applicable for the year on the actual loan portfolio approved by the Commission for the year.

5.7.3.5 As discussed in earlier section, the debt component has been considered at 70% and accordingly the additions during the year FY 2011-12 is at Rs. 40.52 Crores. The source of loan is ICICI bank Limited with rate of interest @13.65% p.a. NPCL has submitted the bank sanction letters with the petition and accordingly the Commission has taken into account other terms and conditions.

5.7.3.6 The repayments, rate of interest and interest on existing loans are approved as per actual loan portfolio for FY 2011-12. The repayment and interest in respect of GNIDA loan has been considered on the basis of actual payment acknowledged by challan deposited during the year.

5.7.3.7 Accordingly the interest on long term loan is approved/trued-up at Rs. 21.24 Crores against as Rs. 21.23 Crores claimed.

5.7.4 INTEREST ON WORKING CAPITAL:

5.7.4.1 The Distribution Tariff Regulations provides for normative interest on working capital based on the principles outlined and accordingly Licensee is eligible for interest on working capital worked out on this basis. Further the Clause No. 4.8 (2) (b) of the Distribution Tariff Regulations provides for rate of interest on working capital borrowings at bank rate specified by RBI + appropriate margin decided by Commission. For the purpose, the Commission has considered weighted average of SBI-PLR as given in the Table below –

Table 5-12: WEIGHTED AVERAGE SBI-PLR

From	To	Days	SBI PLR %
13-Aug-11	31-Mar-12	232	14.75
11-Jul-11	12-Aug-11	33	14.25
11-May-11	10-Jul-11	61	14.00
25-Apr-11	10-May-11	16	13.25
1-Apr-11	24-Apr-11	24	13.00
Weighted Average		366	14.40

5.7.4.2 In the petition for FY 2011-12, the Licensee has considered the security deposit passed onto UPPCL amounting to Rs. 11.28 Crores. The total interest on working capital claimed by the Petitioner is Rs. 6.24 Crores.

The Commission's Analysis

5.7.4.3 The Commission has worked out the working capital and interest on working capital for FY 2011-12 as given in table below:

Table 5-13: INTEREST ON WORKING CAPITAL - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
One Month's O&M Expenses	1.46	2.12	2.12
One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	11.00	16.00	16.00
Receivables equivalent to 60 days average billing on consumers	72.75	71.24	71.24
Gross Total	85.21	89.36	89.36
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003			
Opening Balance	50.90	50.90	50.90
Received during the year	8.50	12.99	12.99
Closing Balance	59.40	63.89	63.89
Less: Security Deposit with UPPCL	11.28	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	43.87	46.11	46.11
Net Working Capital	41.35	43.25	43.25
Rate of Interest for Working Capital	14.40%	14.44%	14.40%
Interest on Total Working Capital	5.95	6.24	6.23

5.7.4.4 Accordingly, the normative interest on working capital approved by the trued-up for FY 2011-12 is Rs. 6.23 Crores as against Rs. 6.24 Crores claimed by the Petitioner.

5.7.5 FINANCE CHARGES:

5.7.5.1 The actual finance charges paid by NPCL as per audited accounts are to the tune of Rs. 5.84 Crores. The break-up of finance charges provided by NPCL for FY 2011-12 is presented in the table below:



Table 5-14: FINANCE CHARGES – APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Credit Rating Charges	0.10	0.05	0.05
Processing Charges	2.20	5.39	5.39
Other Finance Charges	0.31	0.40	0.40
Total Finance Charges	2.61	5.84	5.84

5.7.5.2 The Petitioner had provided bank sanction letters for verification of interest rate and other terms and conditions. The Commission trues-up the finance charges as per audited accounts at Rs. 5.84 Crores for FY 2011-12.

5.7.6 INTEREST ON SECURITY DEPOSIT:

5.7.6.1 The Clause No. 4.8.3 of the Distribution Tariff Regulations provides for Interest on Security Deposit amount at bank rate or more, as may be specified by the Commission.

5.7.6.2 NPCL in the ARR / True-up petition has claimed interest on security deposit at Rs. 3.57 Crores which is computed at 6%.

The Commission's Analysis

5.7.6.3 The Commission has approved the actual interest on security deposit paid/ provided for FY 2011 – 12 as per audited accounts for FY 2011-12. The details of the interest on security deposits claimed and true-up by Commission for FY 2011-12 are given in the table below:



Table 5-15: INTEREST ON SECURITY DEPOSIT - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Opening Balance of Security Deposit	50.90	50.90	50.90
Addition During the year	8.50	12.99	12.99
Closing Balance for Security Deposit	59.40	63.89	63.89
Average Balance for Security Deposit	55.15	57.39	57.39
Rate of Interest	6.00%	6.00%	6.00%
Interest payable on Security Deposit	3.29	3.57	3.57

5.7.6.4 The company has paid interest on consumer security deposit @ 6% p.a. on its consumer security deposits. The interest on security deposit is trued-up at Rs. 3.57 Crores as per the Audited Accounts of FY 2011-12. The actual rate of interest on average consumer security deposits for the year works out at 6%.

5.7.7 INTEREST CAPITALISATION:

5.7.7.1 The Commission has directed the Petitioner for formulating a methodology for capitalisation of interest. Accordingly, the Petitioner has submitted a policy for capitalisation of interest as below –

“Clause 5.5.1.5 of the truing-up Petition for FY 2011-12

- a) As per the directions of the Hon’ble UPERC and APTEL, from FY 2011-12, the Company has devised and adopted the methodology for capitalisation of actual interest cost incurred over new assets in accordance with “Accounting Standard 16 on Cost of Borrowing” and accordingly, capitalised a sum of Rs. 0.93 Cr in FY 2011-12 in its Audited Financial Statements. The aforesaid methodology has been duly approved by the Board of Directors of the Company and has been verified by the Statutory Auditors as well.
- b) According to the methodology, interest expenses incurred on the purchase of Materials is being computed from the date of supply and in case of supply of Labour, it is being computed from the date of erection for each project.
- c) The Company is using SAP based ERP for the purpose of accounting and maintenance of Fixed Asset Register. Thus, the interest cost so computed is included in the project cost and is being capitalised along with the same for depreciation, RoE etc. purposes.”



5.7.7.2 The Commission considers the above methodology appropriate and approve the Interest capitalization up at 0.93 Crores for FY 2011-12 as per Audited Accounts of the Petitioner.

5.7.8 SUMMARY OF INTEREST & FINANCE CHARGES:

5.7.8.1 The Summary of Interest and Finance Charges trued-up by the Commission for FY 2011-12 are given in the table below:

Table 5-16: SUMMARY-INTEREST & FINANCE CHARGES - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Interest on Long term loans	19.90	21.23	21.24
Interest on short term loans/working capital	5.95	6.24	6.23
Finance charges	2.61	5.84	5.84
Interest on security deposit	3.29	3.57	3.57
Total Interest & Finance charges	31.75	36.89	36.87
Less: Interest capitalization	1.15	0.93	0.93
Net Interest & Finance charges	30.60	35.96	35.94

5.8 CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY:

The Petitioner has submitted revised return on equity computations based on the debt equity ratio 70:30 as provided in Regulation 4.7.

The Commission's Analysis:

5.8.1 As per Clause 1 of Regulation 4.10 of the Distribution Tariff Regulations, 2006, return on equity shall be allowed @16% on the equity base determined in accordance with Regulation 4.7.

5.8.2 The Capitalisation of Assets or Capital Formation takes place from Opening Work-in-Progress (WIP) and investments / capex undertaken during the year. The true-up computation of equity approved by the Commission for FY 2011-12 is given in the table below:



**Table 5-17: CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY - APPROVED
(Rs. Crores)**

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Opening CWIP	4.08	4.08	4.08
Capital Investment	96.34	66.54	66.54
Total capitalization=Transfer to GFA	96.21	68.86	68.86
Capitalisation of Capex approved during the year in the year	92.13	64.78	64.78
Consumer contribution	12.50	8.65	8.65
Remaining investment	83.84	57.89	57.89
Debt	58.69	40.52	40.52
Equity	25.15	17.37	17.37
Portion of Inv. Assumed to be capitalised through CC	11.95	8.42	8.42
Portion of remaining investment to be capitalised	80.18	56.36	56.36
Debt	56.13	39.45	39.45
Equity	24.05	16.91	16.91
Portion of Opening CWIP	1.07	1.07	1.07
Total Equity for RoE	25.12	17.97	17.97

5.9 GROSS FIXED ASSETS (GFA) & WORK-IN-PROGRESS:

5.9.1 NPCL has submitted the audited GFA for truing-up and the same is presented in the table below along with Commission's approval for FY 2011-12.

Table 5-18: GROSS FIXED ASSETS - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Opening Balance	414.13	414.11	414.13
Addition during the Year	96.21	68.86	68.86
Retirement during the Year	1.26	1.39	1.39
Closing Balance	509.08	481.58	481.60

5.10 DEPRECIATION:

5.10.1 The Commission in its Distribution Tariff Regulation has specified the rates to be utilised for the purposes of computing depreciation for different class of assets.



The Commission in the Tariff Order dated 1st September, 2008 para 4.16.3 had taken a stand to allow Licensee to charge higher depreciation on IT assets @ 30% instead of 12.77%.

5.10.2 NPCL in the petition has claimed depreciation of Rs. 24.00 Crores for the FY 2011-12 as per the Audited Accounts and after considering interest capitalization.

5.10.3 The depreciation expenses approved by Commission for FY 2011-12 are provided in the table below:

Table 5-19: DEPRECIATION - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Depreciation	28.11	28.76	28.77
Less: Depreciation on Consumer Contribution	4.76	4.76	4.76
Net Depreciation	23.35	24.00	24.01
Average Normative GFA	461.61	447.84	447.86
Weighted average depreciation rate	6.09%	6.42%	6.42%

5.11 INCOME TAX:

5.11.1 The income tax paid by NPCL as per Audited Accounts for FY 2011-12 is Rs. 6.42 Crores. NPCL in its supplementary submission has submitted actual challans of Income Tax paid. The Commission has duly verified the same and accordingly approves the income tax at Rs. 6.42 Crores.

5.11.2 Over and above the Minimum Alternate Tax of Rs. 6.42 Crores paid, the Petitioner has claimed tax expenses towards additional Income Tax Demand of Rs. 3.33 Crores paid during the year for FY 2007-08 and FY 2008-09. The Commission has looked verified the same from the challans submitted to it.

5.11.3 Thus, Additional income tax demand of Rs. 3.33 Crores as paid by the Petitioner is approved for FY 2011 – 12.

5.12 CONTINGENCY RESERVE:

5.12.1 Clause No. 4.14 of the Distribution Tariff Regulations provides for creation of Contingency Reserve upto 0.5% of opening gross fixed assets to be included in



ARR for meeting cost of replacement of equipment damaged due to force majeure situations.

5.12.2 NPCL in its true-up petition has not claimed any contingency reserve for FY 2011-12. Accordingly, the Commission trues-up the contingency reserve for FY 2011-12 at NIL.

5.13 PROVISION FOR BAD & DOUBTFUL DEBTS:

5.13.1 The expenses claimed by NPCL on account of bad and doubtful debts for FY 2011-12 are Rs. 3.20 Crores. The Petitioner submitted that any recovery around 97% - 98% of the sales should undoubtedly be considered as efficient collection and, therefore, the balance 2-3% may be provided as bad and doubtful debts.

The Commission's Analysis:

5.13.2 As per clause 4.4 of the Distribution Tariff Regulations, 2006 – “Bad and Doubtful Debts shall be allowed as a legitimate business expense with the ceiling limit of 2% of the revenue receivables provided the Distribution Licensee actually identifies and writes off bad debts as per the transparent policy approved by the Commission.”

5.13.3 Thus, from the above, bad debts subject to actual written off in the audited books shall be allowed upto 2% of the revenue for the year under consideration. The Commission had provisionally approved bad-debts for FY 2011-12 at 0.72%, of sales vide Tariff Order dated 19th October 2012. The Licensee has claimed bad debts for FY 2011-12 at 0.74% of revenue billed during the year as per transparent policy duly approved by the Commission.

5.13.4 The Commission considers it appropriate that since Licensee has written off bad-debts on actual basis after taking its Management's approval, the bad-debts may be trued-up @ 0.74% level on revenue approved by Commission. The details of bad-debts trued-up by the Commission for 2011-12 are provided in the table below:



Table 5-20: BAD & DOUBTFUL DEBTS FOR FY 2011-12 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Receivable from Customers as at the beginning of the year	32.46	32.46	32.46
Revenue billed for the year	429.22	434.56	434.56
Collection for the year	415.82	424.14	424.14
Gross receivable from customer as at the end of the year	45.87	42.88	42.88
% of Provision	0.72%	0.74%	0.74%
Provision for Bad & Doubtful debts	3.08	3.20	3.20

5.13.5 Accordingly, the bad-debts are approved in truing-up for FY 2011-12 at Rs. 3.20 Crores.

5.14 MISCELLANEOUS EXPENSES:

5.14.1 The Commission vide its Tariff Order dated 19th October, 2012 had approved the ARR of the Petitioner for FY 2011-12 and FY 2012-13 along with truing-up for FY 2009-10 and FY 2010-11 & review of truing-up from FY 2007-08 and FY 2008-09.

5.14.2 Aggrieved by the same, the Petitioner had filed a Review Petition No. 847 of 2012, dated 2nd November, 2012 before the Commission. The Commission vide its Order dated 7th January 2013 accepted the plea of the Company and directed the Petitioner to claim O&M expenses as per the said order. Simultaneously, it also directed the Petitioner to file certain additional information in the prescribed formats for the appropriate treatment of Loss on sale of fixed asset.

5.14.3 Accordingly, in compliance to the aforesaid order, the Petitioner provided additional data/information in the prescribed formats for all the financial years commencing from FY 2007-08 till FY 2013-14 along with its consequential impact on Annual Revenue Requirement etc. on 23rd May, 2013.

5.14.4 After perusing the aforesaid details, the Commission observes that due to fast obsolescence and normal wear and tear, some of the assets are required to be scrapped before their useful life. Hence, the loss on sale of assets incurred due to disposal of such scrap assets is genuine and legitimate business expenditure and therefore, the Commission approves miscellaneous expenditure at Rs. 0.26 Crore as per Audited Accounts of the Petitioner for FY 2011-12.



5.15 RETURN ON EQUITY:

5.15.1 The Licensee is entitled to earn Return on Equity as per Clause No. 4.10 of the Distribution Tariff Regulations.

5.15.2 NPCL based on its computations of equity after making adjustment for interest capitalization has claimed return of Rs. 17.51 Crores.

The Commission's Analysis:

5.15.3 The return on equity computed by Commission and approved for FY 2011-12 is provided in the table below:

Table 5-21: ROE FOR FY 2011-12 (Rs. Crores)

Return on Equity Computation	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Regulatory Equity Base at the beginning of the year	100.47	100.47	100.47
Assets Capitalised during the year	96.21	68.86	68.86
Equity portion of Assets Capitalised during the year	25.12	17.97	17.97
Regulatory Equity Base at the end of the year	125.59	118.44	118.44
Computation of Return on Equity			
Return on Opening Regulatory Equity Base @ 16%	16.07	16.07	16.08
Return on Addition to Equity Base during the year @ 16%	2.01	1.44	1.44
Total Return on Equity	18.08	17.51	17.51

5.15.4 The return on equity true-up for FY 2011-12 is Rs. 17.51 Crores as against Rs. 18.08 Crores approved in Tariff Order dated 19th October, 2012.

5.16 NON TARIFF INCOME:

5.16.1 The Non-Tariff Income includes delayed payment surcharge, miscellaneous charges, income from investments, interest on fixed deposits and income from consultancy business. The non-tariff income claimed by NPCL in true-up is Rs. 3.67 Crores.

5.16.2 In order to appropriately compensate for the cost incurred for financing that deferred payment beyond the normative period, the Commission in its Tariff Order dated 19th October, 2012 has reduced the amount of non-tariff income by the fi-



financing costs of DPS on account of the reasons highlighted in section 6.15 of the aforesaid Order.

5.16.3 The financing cost of delayed payment surcharge is computed by the Commission based on the actual DPS for the year. The DPS is grossed up conservatively based on the highest applicable surcharge rate which is 1.5% per month. Further, the financing cost is arrived at on the grossed-up amount and the weighted average SBI PLR rate applicable. The computation of the financing cost for DPS is provided below:

Table 5-22: COST OF BORROWING FOR DPS (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
Delayed Payment Surcharge (Rs. Crores)	1.15	1.99	1.99
DPS grossed up at 1.50% per month or 18% per annum	18%	18%	18%
Amount (Rs. Crores)	6.39	11.06	11.06
Financing cost @SBI PLR	14.40%	14.44%	14.40%
Cost of Borrowing (Rs. Crores)	0.92	1.60	1.60

5.16.4 The Commission approves the non-tariff income net of financing cost for DPS at Rs. 2.07 Crores in the truing-up for FY 2011-12.

5.17 REVENUE FROM SALE OF POWER:

5.17.1 NPCL in the true-up petition has submitted that the revenue from sale of power as per Audited Accounts is Rs. 434.56 Crores. The Commission has approved the sales as per Audited Accounts and accordingly approves the revenue from sale of power at Rs. 434.56 Crores. The category wise revenue from sale of power for FY 2011-12 is provided in the table below:



Table 5-23: REVENUE FOR FY 2011-12

Particulars	Sales	Revenue	Average Realisation
	(MU)	(Rs. Crs)	(Rs/kWh)
LMV-1: Domestic Light, Fan & Power	146.85	54.44	3.71
LMV-2: Non Domestic Light, Fan & Power	16.07	10.04	6.25
LMV-3: Public Lamps	21.82	11.55	5.29
LMV-4: Institutions	9.80	4.58	4.68
LMV-5: Private Tube Wells	11.15	0.78	0.70
LMV 6: Small and Medium Power	30.29	22.32	7.37
LMV-7: Public Water Works	10.19	5.21	5.11
LMV-8: STW and Pumped Canals	0.31	0.19	6.10
LMV-9: Temporary Supply	19.67	13.08	6.65
HV-1: Non Industrial Bulk Power	49.31	26.57	5.39
HV-2: Large and Heavy Power	560.90	285.79	5.10
Total	876.36	434.56	4.96

5.18 REVENUE GAP OF FY 2010-11:

5.18.1 The revenue gap carried forward from FY 2010-11 is Rs. 340.81 Crores as determined in the earlier sections. The same is considered for the purpose of ARR for FY 2011-12.

5.19 SUMMARY OF ARR FOR FY 2011-12:

5.19.1 Based on the above cost approvals, the Summary of the ARR approved for FY 2011-12 is provided in the table below:



Table 5-24: SUMMARY FOR FY 2011-12 (Rs. Crores)

Sr. No.	Particulars	Approved vide T.O. 19/10/12	True-up Petition	True-up Approved
1	Power Purchase Expenses	333.14	331.31	331.31
2	Transmission Charges (UPPTCL+PGCIL)	24.67	24.65	24.65
3	Net O&M Expenses	17.57	24.28	24.28
4	Statutory & Other Regulatory Expenses	1.10	1.18	1.18
5	Net Interest charges	31.75	36.89	36.87
6	Depreciation	23.35	24.00	24.01
7	Taxes (Income Tax and FBT)	8.62	9.75	9.75
8	Gross Expenditure	440.21	452.06	452.05
9	Interest capitalized	1.15	0.93	0.93
10	Net Expenditure	439.06	451.13	451.12
11	Special Appropriations	-	-	-
12	Provision for Bad & Doubtful debts	3.08	3.20	3.20
13	Terminal Depreciation of Assets Retired/Scrap	-	0.26	0.26
14	Provision for Contingency Reserve	-	-	-
15	Prior Period Adjustments	-	-	-
16	Total net expenditure with provisions	442.13	454.59	454.58
17	Add: Reasonable Return / Return on Equity	18.08	17.51	17.51
18	Less: Non Tariff Income	1.20	2.07	2.07
19	Add: Efficiency Gains	0.35	0.35	0.35
20	Annual Revenue Requirement (ARR)	459.37	470.38	470.38
21	Revenue from Existing Tariff	429.22	434.56	434.56
22	Revenue Gap	30.14	35.83	35.82
23	Revenue Gap/ Surplus from Prev. Year	333.94	340.79	340.81
24	Carrying cost	53.71	55.36	55.20
25	Revenue Gap carried forward	417.79	431.98	431.83

5.19.2 The Revenue Gap determined in the truing-up for FY 2011-12 is Rs. 35.82 Crores as against Rs. 30.14 Crore provisionally approved in Tariff Order dated 19th October, 2012. The Net Revenue Gap for FY 2011-12 after considering the revenue gap of Rs. 340.81 Crores from previous year and carrying cost of Rs. 55.20 Crores is Rs. 431.83 Crores. The same is carried forward in the ARR approval of FY 2012-13.



Chapter 6. REVISION OF ARR FOR FY 2012-13

6.1 BACKGROUND:

6.1.1 The Commission has approved the ARR for FY 2012-13 vide its Order dated 19th October, 2012. The Petitioner has filed review against the said order on 3rd November, 2012 which was determined by the Commission vide its Order dated 7th January, 2013. Accordingly, the Commission has undertaken partial revision in true-up of FY 2007-08, FY 2008 - 09, FY 2009 - 10 and FY 2010 – 11 to incorporate the effect of the aforesaid Order.

6.1.2 The Petitioner has filed its ARR petition for FY 2013-14 on 30th November 2012 along with the revised estimate for FY 2012-13. In its petition, the Petitioner has highlighted some significant changes in capital expenditures like acquisition of 220 / 132 kV R C Green Substation and T & D losses due to addition of another transformation level. Also, to incorporate the effects of the aforesaid order dated 7th January, 2013, it has become imperative to review the approval of ARR for FY 2012-13.

6.2 SALES APPROVAL:

6.2.1 In its Order dated 19th October, 2012, the Commission had approved the total sales at 981.38 MUs based on the actual data till January, 2012 and past trends. The Commission retains the sales approved at the same level and any variation shall be taken up for consideration at the time of true-up.

6.2.2 Accordingly, the category-wise sales approved for FY 2012-13 is provided in table below:



Table 6-1: CATEGORY WISE SALES FOR FY 2012-13- (MUs)

Sr. No.	Category	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
1	LMV-1: Domestic Light, Fan & Power	186.95	189.14	186.95
2	LMV-2: Non Domestic Light, Fan & Power	15.75	20.35	15.75
3	LMV-3: Public Lamps	15.94	19.69	15.94
4	LMV-4: Institutions	7.91	16.23	7.91
5	LMV-5: Private Tube Wells	16.51	9.23	16.51
6	LMV 6: Small and Medium Power	30.14	35.29	30.14
7	LMV-7: Public Water Works	7.03	11.13	7.03
8	LMV-8: STW and Pumped Canals	0.31	0.31	0.31
9	LMV-9: Temporary Supply	25.15	19.82	25.15
10	HV-1: Non Industrial Bulk Power	45.73	74.43	45.73
11	HV-2: Large and Heavy Power	629.97	639.25	629.97
	Total	981.38	1,034.87	981.38

6.2.3 The Category wise Number of Consumers, Connected Load and Sales trued-up for FY 2012-13 are summarised in the table below:

Table 6-2: CATEGORY WISE CONSUMERS, LOAD & SALES – TRUE-UP

Sr. No.	Category	No. of Consumers	Connected Load (MW)	Sales (MUs)
1	LMV-1: Domestic Light, Fan & Power	53,124	194.55	186.95
2	LMV-2: Non Domestic Light, Fan & Power	2,160	17.48	15.75
3	LMV-3: Public Lamps	4	4.80	15.94
4	LMV-4: Institutions	500	10.61	7.91
5	LMV-5: Private Tube Wells	977	5.10	16.51
6	LMV 6: Small and Medium Power	1,653	31.06	30.14
7	LMV-7: Public Water Works	134	4.37	7.03
8	LMV-8: STW and Pumped Canals	15	0.15	0.31
9	LMV-9: Temporary Supply	1,408	14.64	25.15
10	HV-1: Non Industrial Bulk Power	163	65.40	45.73
11	HV-2: Large and Heavy Power	484	232.73	629.97
	Total	60,622	580.89	981.38

6.3 DISTRIBUTION LOSSES:

6.3.1 The distribution loss approved by Commission for FY 2012-13 was 8% based on past trends. The Licensee in the ARR petition for FY 2013-14 has sought distribution losses at 8.17% for FY 2012-13 due to various socio-political reasons.



- 4.1.1 Further, the Petitioner has also claimed additional system losses of 0.69% due to addition of EHV voltage level. The Petitioner has stated that the Re-Creational Green 132 kV Substation (R C Green Substation) was commissioned in FY 2010–11 with a marginal load of 20-25 MW. With the addition of 132/33 kV RC Green Substation, it was observed that the Technical Loss marginally increased by another 0.2% towards 132 kV Line Loss and Transformation Loss, since the Inter-phase Meter has been placed at the 132 kV Line emanating end at Greater Noida (Pali) 400/220/132 kV Substation.
- 6.3.2 During FY 2012-13, the 132/33kV RC Green Substation was upgraded to 220 kV , hence, another Voltage Level has been added and the Inter-phase Meter was placed at the 220 kV Line emanating end at 400 kV Greater Noida (Pali) Substation. This has resulted into significant increase in the EHV Technical Losses from 0.2% to 0.7%, arising out of Line Losses of 220 kV Lines and two stage Transformation Losses i.e. 220/132 kV and then 132/33 kV. Addition of 220 kV and 132 kV voltage levels into network has strained the losses further as almost 60% of current demand is being met through this substation.

The Commission's Analysis

- 6.3.3 The distribution losses projected by NPCL for FY 2012-13 are at 8.17%. The Commission would reiterate that there has been no significant improvement in loss levels, despite huge capital expenditure / system improvements undertaken by NPCL.
- 6.3.4 In reference to the above, NPCL submitted that the aforesaid capex has been incurred on development of new / virgin areas and also to cater to the increased demand of the area and therefore, cannot be directly linked with the reduction in losses.
- 6.3.5 The Commission acknowledges the fact that the Greater Noida Area was largely a rural area and with development year-on-year, more of the area is being urbanised. Hence, it requires a huge capital expenditure to cater to the demand of existing and new consumers. However, the Commission observes that T & D losses have been constant at 8% from so many years. Therefore, the Commission directs the Petitioner to conduct a technical loss study of its network again and apart from determining the technical losses, the study should also reflect the efforts and cost required to bring down the losses down from the current levels of 8%. It will also enable the Commission to formulate a loss trajectory for future



years linked with required capital expenditure which is also required for the purpose of Multi-year tariff.

6.3.6 Hence, recognizing the fact that the distribution loss of 8% is one of the lowest in the country, the distribution losses for FY 2012-13 are being approved at 8%. Further, the Petitioner has mentioned that due to the additional voltage level of 220 kV and 132 kV into the system, its technical losses has increased by 0.69%. The Commission recognises the fact that integration of the network with own 220/132 kV EHV network will ensure better supply to its consumer, however, it will also in turn increase in system losses at EHV level. To determine the technical losses at EHV level, the Commission directs the Licensee to conduct a study from an expert body before the filing of next tariff petition to determine the actual technical losses due to this additional voltage level which in the opinion of the Commission is beyond the control of the Licensee. In the meanwhile, the Commission provisionally approves additional EHV losses at 0.60% of the total import. The same is provisional and will be reconsidered based on the audited results and the conclusion of the technical study.

6.3.7 Thus the T&D Losses approved for FY 2012-13 is 8.0% of energy available for distribution and EHV losses are approved at 0.60% of the energy imported by the Licensee.

6.4 ENERGY BALANCE:

6.4.1 The Commission in the above sections has discussed the approval of sales and distribution losses. Based on these elements, the power purchase requirement and the energy balance for FY 2012-13 is given in the table below:

Table 6-3: ENERGY BALANCE FOR FY 2012-13 – Revised

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Energy Sales (MU)	981.38	1,034.87	981.38
Distribution Loss %	8.00%	8.17%	8.00%
Distribution Loss (MU)	85.34	92.07	85.34
Energy Available for Sale	1,066.72	1,126.94	1,066.72
System Losses at 220kV/33kV (MU)	0.00	7.80	6.44
Energy Purchase (MU)	1,066.72	1,134.74	1,073.16



6.5 POWER PURCHASE QUANTUM & COST:

6.5.1 Based on the above revised energy balance for FY 2012-13, the power purchase requirement is of 1073.16 MUs.

6.5.2 As per the present arrangement, NPCL receives 45 MW of power from UPPCL at pooled cost. The balance power was procured by NPCL on short term basis through Open Access Route. As submitted by the Petitioner in its ARR petition, during January, 2012, the Petitioner has conducted a short-term competitive bidding for procuring power for FY 2012-13. Thus, most of the power during FY 2012-13 has been procured through competitive bidding.

6.5.3 The details of actual power purchase and the cost claimed by NPCL for FY 2012-13 is provided in the table below:

Table 6-4: ENERGY BALANCE FOR FY 2012-13 – Revised

Supplier's Name	Capacity	Period		MU	MU Imported	Total	Rate	Amount	Transmission	Total
	(In MW)	From	To	Exported	at Gr. Noida	Losses in %	(Rs. / Unit)	(in Rs. Crs)	Chgs (in Rs. Crs)	(in Rs. Crs)
UPPCL	43	01-Apr-12	31-Mar-13	206.15	206.15	0.00%	3.61	74.42	3.59	78.01
UPPCL BST Arrears F.Y 11 & F.Y 12								50.19	0.00	50.19
Inter State Power										
KISPL	6	01-Apr-12	31-Mar-13	54.48	51.41	5.63%	3.77	20.54	1.25	21.79
NVDNL	37	01-Apr-12	31-May-12	54.63	51.55	5.63%	3.93	21.47	1.12	22.59
	3	24-Aug-12	31-Aug-12	0.60	0.56	5.63%	3.70	0.22	0.02	0.24
	44	01-Jun-12	30-Sep-12	127.47	120.29	5.63%	3.93	50.09	2.60	52.70
	37	01-Oct-12	28-Feb-13	135.23	127.62	5.63%	3.93	53.14	2.77	55.91
	44	01-Mar-13	31-Mar-13	32.39	30.57	5.63%	3.93	12.73	0.66	13.39
PCBL-Durgapur	12	01-Apr-12	31-Mar-13	100.79	95.11	5.63%	3.89	39.21	2.17	41.38
PCBL-Palej	5	01-Apr-12	31-Mar-13	41.40	39.07	5.63%	3.89	16.11	0.99	17.09
Tata Power	9	09-May-12	31-May-12	5.15	4.86	5.63%	3.54	1.82	0.11	1.94
	16	01-Jun-12	31-Aug-12	27.18	25.65	5.63%	3.43	9.32	0.58	9.91
	12	03-Sep-12	30-Sep-12	8.36	7.89	5.63%	3.60	3.01	0.18	3.19
	22	01-Oct-12	30-Nov-13	222.55	210.02	5.63%	3.65	81.23	4.63	85.85
PTC	19	01-Jun-12	30-Jun-12	2.80	2.64	5.63%	4.42	1.24	0.07	1.31
	31	01-Jul-12	31-Oct-12	19.12	18.05	5.63%	4.42	8.45	0.44	8.89
	31	01-Nov-12	30-Nov-12	4.66	4.40	5.63%	4.60	2.15	0.11	2.25
	19	01-Dec-12	31-Dec-12	2.89	2.73	5.63%	4.60	1.33	0.07	1.40
	16	01-Jan-13	28-Feb-13	4.59	4.33	5.63%	4.60	2.11	0.12	2.23
	25	01-Mar-13	31-Mar-13	3.86	3.64	5.63%	4.60	1.77	0.09	1.86
RPGPTCL	3	06-Jun-12	30-Jun-12	1.48	1.39	5.63%	3.39	0.50	0.04	0.54
Inter State Power - from Traders / G	26	01-Dec-12	31-Mar-13	74.45	70.26	5.63%	4.00	29.78	1.54	31.32
Renewable Power	7	01-Apr-12	31-Mar-13	59.93	56.55	5.63%	6.50	38.95	2.70	41.65
Total- UPPCL	43	01-Apr-12	31-Mar-13	206.15	206.15	0.00	3.61	124.61	3.59	128.20
Total- Others	422	01-Apr-12	31-Mar-13	983.99	928.59	5.63%	4.02	395.17	22.25	417.42
Total	465	01-Apr-12	31-Mar-13	1190.14	1134.74	4.65%	4.37	519.79	25.83	545.62

6.5.4 The briefs about the power purchase from the above table are as follows:



- The power purchase from UPPCL is claimed at 206.15 MUs, power purchase from traders claimed is 872.04 MUs and power purchase from renewable sources claimed is 56.55 MUs for FY 2012-13.
- The transmission charged claimed by NPCL is Rs. 25.83 Crores.
- The Bulk Supply Tariff payable to UPPCL is claimed at Rs. 3.61 per unit.
- The transmission charges payable on open access charges include transmission charges of UPPTCL as well as PGCIL for various regions.

6.5.5 The Commission has looked into the submissions of the Petitioner. The Commission is of the opinion that energy demand of consumers is season dependent. The power purchase of any particular year needs to be benchmarked with the previous year audited actual power purchase costs and quantum. Accordingly, the Commission in its Tariff Order dated 19th October, 2012 had benchmarked the power purchase price for FY 2012-13 against the actual audited power purchase cost details for FY 2011-12. Any variation between the approved power purchase costs and the actual power purchase costs for FY 2012-13 would be considered at the time of final truing up.

6.5.6 Thus, the power purchase cost for FY 2012-13 has been computed on the same rates as was approved vide Tariff Order dated 19th October, 2012. The approval of the power purchase cost for FY 2012-13 is provided in the table below:

Table 6-5: POWER PURCHASE COST – APPROVED (Rs. Crores)

Item	Approved vide T.O. 19/10/12			Revised Petition			Revised Approval		
	Energy	Avg.	Costs	Energy	Avg.	Costs	Energy	Avg.	Costs
Retail Sales (Mus)	981.38			1,034.87			981.38		
Losses	8.0%			8.8%			8.6%		
Power Purchase	1,066.72			1,134.74			1,073.16		
Sources of Power Purchase	Energy	Avg.	Costs	Energy	Avg.	Costs	Energy	Avg.	Costs
UPPCL	340.96	3.61	123.09	206.15	3.61	74.42	340.96	3.61	123.09
Power Purchase from Traders	668.06	3.98	265.81	872.04	4.08	356.22	674.50	3.98	268.37
Power Purchase from RE	57.70	6.11	35.26	56.55	6.89	38.95	57.70	6.11	35.26
Sub-Total	1066.72	3.98	424.15	1134.74	4.14	469.60	1073.16	3.98	426.72
PGCIL charges						25.83			32.25
UPPTCL charges			32.25						
Total Transmission charges			32.25			25.83			32.25
Total Power Purchase Cost	1066.72	4.28	456.40	1134.74	4.37	495.43	1073.16	4.28	458.96
Additional PP cost approved			50.19			50.19			50.19
Total Power Purchase Cost	1066.72	4.75	506.59	1134.74	4.81	545.62	1073.16	4.74	509.15

- The total quantum approval for FY 2012-13 is 1073.16 MUs with power purchase from UPPCL – 340.96 MUs, from open access – 674.50 MUs and from Renewable Energy – 57.70 MUs.
- The power purchase cost for UPPCL is approved at BST rate of Rs. 3.61 /kWh



- The power purchase cost for Open Access has been retained at Rs. 3.98/kWh as approved in tariff order dated 19th October'2012. Any variation in same shall be considered at the time of truing up.
- The arrear of UPPCL BST of Rs. 50.19 for FY 2010-11 and FY 2011-12 has been considered.
- The transmission charges for UPPTCL and PGCIL are retained at Rs. 32.25 Crore as approved in tariff order dated 19th October, 2012 .
- Accordingly, the total power purchase cost is approved at Rs. 509.15 Crores.

6.6 FUEL & POWER PURCHASE COST ADJUSTMENT SURCHARGE

- 6.6.1 The mechanisms for adjustment of Fuel & Power Purchase Cost Adjustment Surcharge has been formulated by the Commission vide amendment No.3 to the UPERC (Terms and Conditions of Determination of Distribution Tariff) Regulation dated 10th May, 2012.
- 6.6.2 The Distribution Licensee procures power from state resources and the deficit through short-term purchases. The power purchase cost including transmission charges accounts for about 80% to 85% of the total Annual Revenue Requirement for the Distribution Licensee.
- 6.6.3 However, power purchase cost being uncontrollable in nature is a pass-through to the consumers but the difference in actual cost of procurement of power and the estimated cost of purchase of power gets trued up only after 12 months, provided the true-up petition is filled based on Audited Accounts. The time lag burdens both the Distribution Licensee as well on consumers. Due to the delayed recovery of allowable procurement of power cost Distribution Licensee's cash-inflows severely affected leading to working capital management problems further is affected consumers by way of interest charges.
- 6.6.4 The UPERC Distribution Tariff Regulation enshrines implementation of the Fuel Cost Adjustment Formula aimed at mitigating the above stated issue. The Fuel Cost Adjustment (FCA) provided in the regulations allows the Licensee only to recover the fuel cost adjustment. Sub-section (4) of section 64 of the Electricity Act 2003 provides that, no tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula, as may be specified. However, the Hon'ble Appellate Tribunal for Electricity in its Judgment dated 11th November, 2011, in the matter of OP No. 1 of 2011, has direction all



State Electricity Regulatory Commissions to put in place a mechanism for Fuel & Power Purchase cost adjustment preferably on a monthly basis but in no case exceeding a quarter of a year. Accordingly, it is stated that the recovery of Fuel and power purchase adjustment is legitimate and is in accordance with the Electricity Act, 2003.

6.6.5 The Commission recognizes that the power purchase costs are uncontrollable in nature and are volatile making it difficult to accurately estimate power purchase costs at the time of annual tariff fixation. Thus, the Commission has in its Tariff order dated 19th October, 2012 had approved monthly power purchase cost for the purpose of computation of FPPCA applicable from January to March, 2013 quarter.

6.7 OPERATION & MAINTENANCE (O&M) EXPENSES:

6.7.1 Operation and Maintenance (O&M) expenses comprise of Employee related costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) expenditure.

6.7.2 The Clause No. 4.3 of the Distribution Tariff Regulations stipulates:

“1. The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The O&M expenses for the base year shall be calculated on the basis of historical/audited costs and past trend during the preceding five years. However, any abnormal variation during the preceding five years shall be excluded. For determination of the O&M expenses of the year under consideration, the O&M expenses of the base year shall be escalated at inflation rates notified by the Central Government for different years. The inflation rate for above purpose shall be the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40. Base year, for these regulations means, the first year of tariff determination under these regulations

2. Where such data for the preceding five years is not available the Commission may fix O&M expenses for the base year as certain percentage of the capital cost.

3. Incremental O&M expenses for the ensuing financial year shall be 2.5% of capital addition during the current year. O&M charges for the ensuing financial year shall be sum of incremental O&M expenses-



es so worked out and O&M charges of current year escalated on the basis of predetermined indices as indicated in regulation 4.3 (1)..”

6.7.3 In accordance of the Clause No. 4.3.1 of Distribution Tariff Regulations; the net O&M expenses would be computed based on Inflation Index over FY 2012-13. The Weighted average Inflation Index computed is 8.75% for FY 2012-13 as given in the table below:

Table 6-6: INFLATION INDEX FOR FY 2012-13

Month	Wholesale Price Index		Consumer Price Index	
	2011-12	2012-13	2011-12	2012-13
April	152.10	163.50	186.00	205.00
May	152.40	163.90	187.00	206.00
June	153.10	164.70	189.00	208.00
July	154.20	165.80	193.00	212.00
August	154.90	167.30	194.00	214.00
September	156.20	168.80	197.00	215.00
October	157.00	168.50	198.00	217.00
November	157.40	168.80	199.00	218.00
December	157.30	168.80	197.00	219.00
January	158.70	170.30	198.00	221.00
February	159.30	170.20	199.00	223.00
March	161.00	170.60	201.00	224.00
Average for Financial Year	156.13	167.60	194.83	215.17
Calculation of Inflation Index (CPI-40%, WPI-60%) for FY-13				
Inflation index for FY 2011-12	171.61			
Inflation index for FY 2012-13	186.63			
Applicable Inflation rate	8.75%			

6.7.4 The gross O&M expenses so claimed by the Petitioner include additional O&M expenses towards capitalization of assets in the preceding year. The capitalized assets in the preceding year include assets handed over by GNIDA and UPSIDC free of cost in the FY 2011-12. These assets have been considered on the basis of values declared by respective authorities.

6.7.5 The Commission has also gone through the Audited Accounts of NPCL wherein, the value of those assets is ascertained by the auditor through the communications received from GNIDA and UPSIDC. Further the Audited Accounts mention that the assets have been handed over for maintenance purpose only while the ownership is yet to be transferred.



- 6.7.6 Accordingly, the Commission has considered the additional O&M expenses for these assets to be allowed for O&M purposes only. Any other impact on other parameters like depreciation, capital expenditure, capitalization etc. is not being allowed till the company takes ownership of the assets.
- 6.7.7 The Commission vide its Tariff Order dated 19th October, 2012 had approved O&M expenses for FY 2012-13 at Rs. 18.26 Crores. Aggrieved by the same, the Petitioner had filed a Review Petition No. 847 of 2012, dated 2nd November, 2012 before the Commission requesting for rectification of O&M Expenses approved for FY 2007-08 to FY 2012-13.
- 6.7.8 The Commission vide its order dated 7th January, 2013 allowed the prayer of the Petitioner and disposed of the Review Petition with following directions:
- “9. All the Distribution Licensees are directed to claim the revised O&M Expenses for all the true up already done in which the Commission has passed orders, true up petitions filed with the Commission which are under consideration and all future true up and ARR / Tariff filings to be made. Due to the aforesaid revision in the O&M Expenses, there will be consequential impacts on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for each of the years for which all the Distribution Licensees are directed to claim accordingly.”*
- 6.7.9 Apart from the above directions, the Commission also directed as below:
- “ To capture the additional data / information, the formats are annexed to this order,.....”*
- 6.7.10 In compliance to the above directions of the Commission, the Petitioner, has filed the revised O&M expenses along with consequential impact of the same on the computation of working capital requirement, Annual Revenue Requirement, regulatory asset and carrying cost thereof for all the financial years commencing from FY 2007-08 till FY 2013-14 on 23rd May, 2013. Also, the Petitioner has filed additional data/information in the prescribed formats for all the financial years commencing from FY 2007-08 till FY 2013-14.
- 6.7.11 Based on the above, the computation of O&M expenses trued-up for FY 2012-13 is provided herebelow:



Table 6-7: O&M EXPENSES FOR FY 2012-13 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval	
Total additions to Fixed Assets	96.21	35.37	75.81	
Less: Assets Retired/Scrapped	0.00		1.39	
Net Addition to Fixed Assets	96.21		74.42	
Preceding Year Gross O&M	14.59		24.28	
Incremental O&M @ 2.5%	2.41		1.86	
Inflation Index Applicable	8.68%		8.75%	
Net O&M Expenses	15.86		26.40	
O & M Expenses escalated	18.26		28.26	
Gross O&M Expenses	18.26		35.37	28.26

STATUTORY / OTHER REGULATORY EXPENSES

6.7.12 In the ARR petition for FY 2012-13, the Petitioner has claimed other statutory expenses of Rs. 2.47 Crores over and above the normative O&M expenses.

The Commission's Analysis:

6.7.13 The Petitioner claimed CGRF expense of Rs. 0.20 Crore in FY 2012-13. In this regard Regulation 22 of the Consumer Grievances Redressal Forum Regulations, 2007 is reproduced below:

“Treatment of Expenses –

All reasonable costs incurred by the Distribution Licensee on the establishment and running of the Forum, shall be a pass through in the Annual Revenue Requirements filed by the Distribution Licensee after deducting the amount of fees collected by the Distribution Licensee under the regulations.”

6.7.14 In view of the above, the Commission retains the approved CGRF expense of Rs. 0.20 Crore.

6.7.15 Further, the Petitioner claimed expenses incurred towards demand side management (DSM) and competitive bidding process for long term power procurement. In this regard Tariff Regulations 4.3.5 is reproduced as below:

“The Commission may consider additional O&M expenses on account of war, insurgency, and change in laws or like eventualities for a specified period.”



6.7.16 The commission elaborated on undertaking Demand Side Management measures by the utility in section 9.9 of Tariff Order dated 14th October, 2010 and also discussed about the benefits of the same in terms of reducing power purchase costs and utilization of energy efficiently. The utility has high power purchase costs on account of short-term power procurement of expensive power. The Commission also notices the efforts put-in by the utility for long term power procurement. Accordingly, the Commission retains the approved the additional statutory expenses incurred towards DSM and competitive bidding process.

6.7.17 The Petitioner has claimed expenses of Rs. 1.50 Crores towards liability for payment of service tax on various services being availed by the Petitioner in view of the material changes in Service Tax Regulations as introduced in Union Budget-2012. The Commission has taken cognizance of the changes in the service tax regulations and has referred to the Tariff Determination regulations in this respect. In this regard the Regulation 2.1.5 may be referred as reproduced here-below:

“The Commission may broadly classify costs incurred by Licensee as controllable and non-controllable. Uncontrollable costs shall include (but not limited to) fuel cost, increase in interest rates, increase in cost on account of inflation, taxes & cess, variation in power purchase unit costs including on account of hydrothermal mix in case of adverse natural events”

6.7.18 Since, the taxes and cess are part of uncontrollable cost, the Commission agrees on allowance of such additional cost and provisionally allows the expense at Rs. 1.50 Crore subject to the truing upon the basis of Audited Accounts for FY 2012-13.

6.7.19 The table below highlights the approved statutory and other expenses approved by the Commission for FY 2012-13:



Table 6-8: STATUTORY / OTHER REGULATORY EXPENSES (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Demand Side Management Expenses	0.20	0.22	0.20
CGRF Expenses	0.19	0.20	0.20
Competitive Bidding Expenses	0.25	0.30	0.25
Technical studies as directed by Commission	0.20	0.25	0.20
Service Tax payable due to change in law	0.00	1.50	1.50
Total	0.84	2.47	2.35

6.8 CAPITAL EXPENDITURE (CAPEX):

6.8.1 For FY 2012-13, the total capital expenditure approved by the Commission in the previous tariff order was Rs. 99.59 Crores. The Petitioner in the revised petition has claimed capex of Rs. 141.71 Crores. Apart from the general capex, the above includes acquisition of one 220 / 132 /33 kV Substation at Recreational Green, Greater Noida at a cost of Rs. 67.50 Cr from Greater Noida Industrial Authority. The Substation has a transmission capacity of 200 MW and is being constructed by UPPTCL under the directions and funding of GNIDA. Thus, GNIDA has transferred the aforesaid substation to the Petitioner at the cost at which it was constructed. The cost of land has already been paid by the Petitioner and approved by the Commission in FY 2007-08.

6.8.2 The above capex claimed by the Petitioner include interest capitalization of Rs. 1.28 Crores.

The Commission's Analysis:

6.8.3 The Commission acknowledges the effectiveness and benefits of the backward integration of the network. It is also required for the purpose of connecting to PowerGrid network directly. Hence, the Commission approves the capital expenditure for FY 2012-13 as per the Petitioner's submission at Rs. 139.69 Crores. The opening capital work in progress (CWIP) for FY 2012-13 has been considered at Rs. 1.76 Crores as trued up in previous section. Total capitalization i.e. transfers to GFA for FY 2012-13 is taken as per Petitioner's submission.

6.8.4 The interest capitalization computed for FY 2012-13 is Rs. 1.28 Crores.



6.8.5 The details of the capex claimed and approved by Commission for FY 2012-13 is provided in the table below:

Table 6-9: CAPEX DETAILS FOR FY 2012-13 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Total Additions to Assets	98.07	139.69	139.69
Add: Closing CWIP	4.46	2.50	2.50
Less: Opening CWIP	4.21	1.76	1.76
Total Additions to Assets	98.32	140.43	140.43
Add: Interest Capitalisation	1.27	1.28	1.28
Total Capex	99.59	141.71	141.71
Consumer Contribution & GNIDA	9.69	10.00	10.00
Net Capex	89.90	131.71	131.71
Debt @ 70%	62.93	92.19	92.19
Equity @ 30%	26.97	39.51	39.51

6.8.6 As elaborated in tariff order dated 19th October, 2012, the contribution from GNIDA is not considered for the purpose of computation of net capital expenditure. Consumer contribution of Rs. 10.0 Crores is taken as per the Petitioner's submission for FY 2012-13.

6.9 INTEREST AND FINANCE CHARGES:

The Licensee has claimed Interest and Finance Charges which includes following heads:

- ❖ Interest on Long Term Loans;
- ❖ Finance Charges;
- ❖ Interest on working capital / short term loans &
- ❖ Interest on consumer security deposits.

Each of the above cost elements are discussed separately as under:

6.9.1 INTEREST ON LONG TERM LOANS:

6.9.1.1 The interest on long term loans as approved by Commission in Tariff Order dated 19th October, 2012 for FY 2009-10 was Rs. 24.99 Crores. In the revised petition, the company has claimed interest on debt of Rs. 26.25 Crores after considering loan additions of Rs. 92.19 Crores.



The Commissions' Analysis:

6.9.1.2 The interest on long term loans as submitted by NPCL and true-up by Commission for FY 2012-13 is given in table below:

Table 6-10: INTEREST ON LONG TERM LOANS - PETITION (Rs. Crores)

Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Bank - Foreign	2.88	-	2.88	-	0.08
Yes Bank (FY08)	12.80	-	4.80	8.00	1.40
Bank of Maharashtra (FY 10)	27.26	-	4.93	22.33	3.38
Yes Bank (FY 10)	4.10	-	4.10	-	0.19
IDBI Bank(FY11)	58.01	-	11.05	46.96	7.03
HDFC Car Loan	0.01	-	0.01	-	0.00
GNIDA	12.25	-	6.31	5.94	3.95
Normative Loans (FY08)	3.19	-	0.53	2.66	0.39
Normative Loans (FY12)	40.52	-	3.38	37.15	5.57
Central Bank of India (FY 13)	-	80.00	-	80.00	3.62
ICICI Bank (FY 13)	-	12.19	-	12.19	0.64
Total	161.03	92.19	37.99	215.23	26.25

Table 6-11: INTEREST ON LONG TERM LOANS – Approved (Rs. Crores)

Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Bank - Foreign	2.88	-	2.88	0.00	0.08
Yes Bank (FY08)	12.80	-	4.80	8.00	1.40
Bank of Maharashtra (FY 10)	27.27	-	4.93	22.34	3.38
Yes Bank (FY 10)	4.14	-	4.14	-	0.20
IDBI Bank(FY11)	58.01	-	11.05	46.96	7.02
GNIDA	12.25	-	6.31	5.94	3.95
Normative Loans (FY08)	3.18	-	0.53	2.65	0.39
Normative Loans (FY12)	40.52	-	3.38	37.15	5.57
ICICI Bank / Central Bank (FY13)	-	92.19	-	92.19	4.26
Total	161.06	58.69	26.10	181.78	26.25

6.9.1.3 The opening balances of loan true-up are considered as per closing balances of true-up for FY 2011-12.

6.9.1.4 The normative loan of FY 2007-08 is continued in FY 2012-13 also with repayment considered based on 10-year repayment period. The interest on the normative loan for the FY 2012-13 is computed as the weighted average interest rate applicable for the year on the actual loan portfolio approved by the Commission for the year.



- 6.9.1.5 The Petitioner has submitted that the long pending possession of the lands allotted by the GNIDA for erection of new substations has been handed over to the Petitioner during FY 2012-13. Therefore, the payment instalments have become due during FY 2012-13. The Petitioner has claimed an amount of Rs. 6.31 Crores towards principal and Rs. 3.95 Crores towards interest. The repayment and interest in respect of GNIDA loan has been considered on the basis of actual payment acknowledged by challan deposited during the year.
- 6.9.1.6 The repayments, rate of interest and interest on existing loans are approved as per Petitioner's submission and bank's sanction letters.
- 6.9.1.7 Accordingly the interest on long term loan is approved at Rs. 26.25 Crores for FY 2012-13 same as claimed by Petitioner.

6.9.2 INTEREST ON WORKING CAPITAL:

- 6.9.2.1 The Distribution Tariff Regulations provides for normative interest on working capital based on the principles outlined and accordingly Licensee is eligible for interest on working capital worked out on this basis. Further the Clause No. 4.8 (2) (b) of the Distribution Tariff Regulations provides for rate of interest on working capital borrowings at bank rate specified by RBI + appropriate margin decided by Commission.
- 6.9.2.2 In the revised petition for FY 2012-13, the Licensee has considered the security deposit passed onto UPPCL amounting to Rs. 11.28 Crores. The total interest on working capital claimed by the Petitioner is Rs. 9.26 Crores against Rs. 7.72 Crores approved in the previous Tariff Order dated 19th October, 2012.

The Commission's Analysis:

- 6.9.2.3 The Commission has worked out the working capital and interest on working for FY 2012-13 as given in table below:



Table 6-12: INTEREST ON WORKING CAPITAL - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
One Month's O&M Expenses	1.52	3.03	2.55
One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	12.00	15.00	15.00
Receivables equivalent to 60 days average billing on consumers	92.95	104.90	104.90
Gross Total	106.47	122.93	122.46
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003			
Opening Balance	59.39	63.89	63.89
Received during the year	9.50	14.00	14.00
Closing Balance	68.89	77.89	77.89
Less: Security Deposit with UPPCL	11.28	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	52.86	59.61	59.61
Net Working Capital	53.61	63.33	62.85
Rate of Interest for Working Capital	14.40%	14.62%	14.61%
Interest on Total Working Capital	7.72	9.26	9.19

6.9.2.4 The differences in the approval are explained as under:

- The O&M expenses are approved as per normative approval for FY 2012-13 at Rs. 28.27 Crores.
- The security deposit of Rs. 11.28 Crores passed on to UPPCL is considered by the Commission and deducted from the available security deposits.
- The normative interest on working capital approved for FY 2012-13 is Rs. 9.19 Crores against the claim of Rs. 9.26 Crores.

6.9.3 FINANCE CHARGES:

6.9.3.1 The finance charges claimed by the Petitioner for FY 2012-13 is Rs. 5.66 Crores of which Rs. 5.25 Crores is towards processing of term loans and working capital facilities, Rs. 0.10 Crore towards rating charges and Rs. 0.31 Crores towards LC and other finance charges

The Commission's Analysis:



6.9.3.2 In the prevalent power sector, as per the industry practice, processing charges on term loan & working capital loans, payment of commission for provisioning of letter of credit (LC) for securing power purchase payment is prevalent and acceptable norms of the distribution business. Hence, the finance charges of Rs. 5.25 Crores towards processing charges, commission charges by the banks/FIs issuing the LC etc. are approved.

6.9.3.3 Rating charges of Rs. 0.10 Crores and other finance charges of Rs. 0.31 Crores is approved considering past years trend of actual costs incurred.

Table 6-13: FINANCE CHARGES – APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Credit Rating Charges	0.10	0.10	0.10
Processing Charges	5.14	5.25	5.25
Other Finance Charges	0.31	0.31	0.31
Total Finance Charges	5.55	5.66	5.66

6.9.3.4 The Petitioner had provided bank sanction letters for verification of interest rate and other terms and conditions. The Commission approves the finance charges as claimed by Petitioner at Rs. 5.66 Crores for FY 2012-13.

6.9.4 INTEREST ON SECURITY DEPOSIT:

6.9.4.1 The Clause No. 4.8.3 of the Distribution Tariff Regulations provides for Interest on Security Deposit amount at bank rate or more, as may be specified by the Commission. The interest on security deposits allowed by Commission was Rs. 3.83 Crore

6.9.4.2 The Petitioner vide its supplementary submission dated 23rd May, 2013 has submitted that Bank Rate as per RBI has been revised to 9.50% p.a. and has requested to kindly approve the same. Accordingly, interest on Security Deposit has been claimed at Rs. 6.73 Crores @ 9.50% as per RBI Bank Rate as on 1st April, 2012.

The Commission's Analysis:



6.9.4.3 The Clause 4.20 (i) of the Uttar Pradesh Electricity Supply Code, 2005 provides for payment of interest on security deposits to the consumer at bank rate as on 1st April of applicable financial year by way of credit in the bill of the consumer in the months of April, or May or June as per the applicable billing cycle. The Commission has verified the bank rate as on the date and therefore, approved the interest on security deposit provided for FY 2012-13 on the basis of RBI Bank rate of 9.50% existing as on 1st April, 2012.

6.9.4.4 The details of the interest on security deposits approved by Commission for FY 2012-13 are given in the table below:

Table 6-14: INTEREST ON SECURITY DEPOSIT - (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Opening Balance of Security Deposit	59.39	63.89	63.89
Addition During the year	9.50	14.00	14.00
Closing Balance for Security Deposit	68.89	77.89	77.89
Average Balance for Security Deposit	64.14	70.89	70.89
Rate of Interest	6.00%	9.50%	9.50%
Interest payable on Security Deposit	3.83	6.73	6.73

6.9.4.5 The company has provided interest on consumer security deposit @ 9.50% p.a. on its consumer security deposits outstanding. The interest on security charges is approved at Rs. 6.73 Crores as per the claim of Petitioner. The rate of interest on average consumer deposits for the year works out at 9.5%.

6.9.5 INTEREST CAPITALISATION:

6.9.5.1 The Petitioner has claimed an amount of Rs. 1.28 Crores as interest capitalised @ 30% of the interest on the new term loan availed for capex during FY 2012-13 on the same basis as considered by the Commission in its Tariff Order dated 19th October, 2012.

6.9.5.2 Accordingly, the interest capitalization for FY 2012-13 is computed and approved at Rs. 1.28 Crores.

6.9.6 SUMMARY OF INTEREST & FINANCE CHARGES:

6.9.6.1 The Summary of Interest and Finance Charges trued-up by the Commission for FY 2012-13 are given in the table below:



Table 6-15: SUMMARY-INTEREST & FINANCE CHARGES - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Interest on Long term loans	24.99	26.25	26.25
Interest on short term loans/working capital	7.72	9.26	9.19
Finance charges	5.55	5.66	5.66
Interest on security deposit	3.83	6.73	6.73
Total Interest & Finance charges	42.08	47.90	47.82
Less: Interest capitalization	1.27	1.28	1.28
Net Interest & Finance charges	40.82	46.62	46.54

6.10 CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY:

6.10.1 The Petitioner has submitted revised return on equity computations based on the debt equity ratio 70:30 as provided in Regulation 4.7.

The Commission's Analysis:

6.10.2 As per Clause 1 of Regulation 4.10 of the Distribution Tariff Regulations, 2006, return on equity shall be allowed @16% on the equity base determined in accordance with Regulation 4.7.

6.10.3 The Capitalisation of Assets or Capital Formation takes place from Opening Work-in-Progress (WIP) and investments / capex undertaken during the year. The computation of equity approved by the Commission for FY 2012-13 is given in the table below:

Table 6-16: : CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY – APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Opening CWIP	4.21	1.76	1.76
Capital Investment	99.59	141.71	141.71
Total capitalization=Transfer to GFA	99.34	140.97	140.97
Capitalisation of Capex approved during the year in the year	95.13	139.21	139.21
Consumer contribution	9.69	10.00	10.00
Remaining investment	89.90	131.71	131.71
Debt	62.93	92.19	92.19
Equity	26.97	39.51	39.51
Portion of Inv. Assumed to be capitalised through CC	9.26	9.82	9.82
Portion of remaining investment to be capitalised	85.87	129.38	129.38
Debt	60.11	90.57	90.57
Equity	25.76	38.81	38.81
Portion of Opening CWIP	1.10	0.46	0.46
Total Equity for RoE	26.86	39.27	39.27



6.11 GROSS FIXED ASSETS (GFA) & WORK-IN-PROGRESS:

6.11.1 The Commission in the last Tariff Order had approved additions to GFA at Rs. 99.34 Crores and closing GFA of Rs. 606.52 Crores for FY 2012-13. The Petitioner has submitted the revised capex plan and the same is presented in the table below, after considering the interest capitalization of Rs. 1.28 Crores, along with Commission's approval for FY 2012-13.

Table 6-17: GROSS FIXED ASSETS - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Opening Balance	509.08	481.58	481.60
Addition during the Year	99.34	140.97	140.97
Retirement during the Year	1.50	1.77	1.77
Closing Balance	606.92	620.78	620.80

6.12 DEPRECIATION:

6.12.1 The Commission in its Distribution Tariff Regulation has specified the rates to be utilised for the purposes of computing depreciation for different class of assets. The Commission in its Tariff Order dated 1st September 2008 under para 4.16.3 had taken a stand to allow Licensee to charge higher depreciation on IT assets @ 30% instead of 12.77%.

6.12.2 The depreciation approved by Commission for FY 2012-13 was Rs. 28.72 Crores. NPCL in the revised petition has claimed depreciation of Rs. 29.19 Crores.

6.12.3 The depreciation expenses approved by Commission for FY 2012-13 are provided in the table below:

Table 6-18: DEPRECIATION - APPROVED (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Depreciation	33.99	34.46	34.46
Less: Depreciation on Consumer Contribution	5.27	5.27	5.27
Net Depreciation	28.72	29.19	29.19
Average Normative GFA	558.00	551.18	551.20
Weighted average depreciation rate	6.09%	6.25%	6.25%



6.13 INCOME TAX:

- 6.13.1 The income tax liability approved by the Commission for FY 2012-13 was Rs. 10.75 Crores.
- 6.13.2 The income tax provisioning by NPCL as per revised petition for FY 2012-13 is Rs. 63.49 Crores based on normal tax rates instead of MAT as was done in preceding years.
- 6.13.3 The Commission has retained the approved amount for Income Tax at Rs. 10.75 Crore same as approved in Tariff Order dated 19th October, 2012. The Petitioner has submitted that due to protracted litigation, the power purchase price for power purchased from UPPCL is still pending at various appellate authorities and once the same is decided, it will also affect the income tax liability of the Petitioner.
- 6.13.4 The Commission in Tariff Order dated 26th June 2007 has already clarified that for the purpose of ARR and tariff determination, income tax will be allowed on actually paid basis. Hence, any variation in actual tax paid by the Petitioner and as approved by the Commission would be taken up for consideration at the time of truing up.

6.14 CONTINGENCY RESERVE:

- 6.14.1 Clause No. 4.14 of the Distribution Tariff Regulations provides for creation of Contingency Reserve upto 0.5% of opening gross fixed assets to be included in ARR for meeting cost of replacement of equipment damaged due to force majeure situations.
- 6.14.2 The Petitioner in its petition has not claimed any contingency reserve for FY 2012-13. Accordingly, the Commission trues-up the contingency reserve for FY 2012-13 at NIL.

6.15 PROVISION FOR BAD & DOUBTFUL DEBTS:

- 6.15.1 The provision for bad and doubtful debts approved by the Commission for FY 2012-13 was Rs. 3.42 Crores
- 6.15.2 The expenses claimed by NPCL on account of bad and doubtful debts for FY 2012-13 are Rs. 6.16 Crores. The Petitioner submitted that any recovery around



97% - 98% of the sales should undoubtedly be considered as efficient collection and, therefore, the balance 2-3% may be provided as bad and doubtful debts.

The Commission's Analysis

6.15.3 The Commission had trued-up / approved bad-debts for FY 2007-08 to FY 2011-12 ranging from 0.66% to 0.78% in the Tariff Orders of revenue billed during the year. The Distribution Tariff Regulations clause No. 4.4 provides for bad-debts with ceiling limit upto 2% of revenue receivables and that the same are written off actually with transparent policy approved by Commission.

6.15.4 The Petitioner has claimed a provisioning of 1.0% for FY 2012-13 at Rs. 6.16 Crores.

6.15.5 The Commission approves the provisioning at 1.0% as for FY 2012-13. Any variations would be considered at the time of true-up for FY 2012-13. Accordingly the provision for bad debts is computed at Rs. 5.81 Crores as highlighted below:

Table 6-19: BAD & DOUBTFUL DEBTS FOR FY 2012-13 (Rs. Crores)

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Receivable from Customers as at the beginning of the year	42.32	39.68	39.68
Revenue billed for the year	476.70	616.15	581.08
Collection for the year	448.96	582.14	549.01
Gross receivable from customer as at the end of the year	70.06	73.68	71.75
% of Provision	0.72%	1.00%	1.00%
Provision for Bad & Doubtful debts	3.42	6.16	5.81

6.15.6 Accordingly, the bad-debts are approved for FY 2012-13 at Rs. 5.81 Crores.

6.16 MISCELLANEOUS EXPENSES:

6.16.1 For the reasons stated in para 5.14 above and to incorporate the effect of the Order dated 7th January, 2013, the Commission approves miscellaneous expenditure at Rs. 0.35 Crore subject to truing-up as per Audited Accounts of the Petitioner.



6.17 RETURN ON EQUITY:

6.17.1 The Licensee is entitled to earn Return on Equity as per Clause No. 4.10 of the Distribution Tariff Regulations. The Commission had earlier approved RoE for FY 2012-13 at Rs. 22.24 Crores.

6.17.2 NPCL based on its computations of equity after making adjustment for interest capitalization has claimed return of Rs. 22.09 Crores.

The Commission's Analysis:

6.17.3 The return on equity computed by Commission and approved for FY 2012-13 is provided in the table below:

Table 6-20: RETURN ON EQUITY - APPROVED (Rs. Crores)

Return on Equity Computation	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Regulatory Equity Base at the beginning of the year	125.59	118.44	118.44
Assets Capitalised during the year	99.34	140.97	140.97
Equity portion of Assets Capitalised during the year	26.86	39.27	39.27
Regulatory Equity Base at the end of the year	152.45	157.72	157.72
Computation of Return on Equity			
Return on Opening Regulatory Equity Base @ 16%	20.09	18.95	18.95
Return on Addition to Equity Base during the year @ 16%	2.15	3.14	3.14
Total Return on Equity	22.24	22.09	22.09

6.17.4 The return on equity approved for FY 2012-13 is Rs. 22.09 Crores as against Rs. 22.24 Crores approved in T. O. dated 19th October, 2012.



6.18 NON TARIFF INCOME:

6.18.1 The Non-Tariff Income includes delayed payment surcharge, miscellaneous charges, income from investments, interest on fixed deposits and income from consultancy business. The non-tariff income claimed by NPCL in petition is Rs. 4.31 Crores.

6.18.2 In order to appropriately compensate for the cost incurred for financing that deferred payment beyond the normative period, the Commission in this order approves to reduce the amount of non-tariff income by the financing costs of DPS.

6.18.3 The financing cost of delayed payment surcharge is computed by the Commission based on the projected DPS for the year. The DPS is grossed up conservatively based on the highest applicable surcharge rate which is 1.5% per month. Further, the financing cost is arrived at on the grossed-up amount and the weighted average SBI PLR rate applicable. The computation of the financing cost for DPS is provided below:

Table 6-21: COST OF BORROWING FOR DPS

Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
Delayed Payment Surcharge (Rs. Crores)	1.50	2.50	2.50
DPS grossed up at 1.50% per month or 18% per annum	18%	18%	18%
Amount (Rs. Crores)	8.33	13.89	13.89
Financing cost @SBI PLR	14.40%	14.62%	14.61%
Cost of Borrowing (Rs. Crores)	1.20	2.03	2.04

6.18.4 The Commission approves the non-tariff income net of financing cost for DPS at Rs. 2.27 Crores in the trueing-up for FY 2012-13.

6.19 REVENUE FROM SALE OF POWER:

6.19.1 The Commission had approved the revenue from sale of power at Rs. 581.08 Crores including the regulatory surcharge of 8% w.e.f. 1st October, 2012. NPCL in its petition has submitted that the revenue from sale of power as at Rs. 616.15 Crores on the basis of estimated sales volume of 1034.87 MU. However, The Commission has approved the sales as per its order dated 19th October'2012 and accordingly approves the revenue from sale of power at Rs. 581.08 Crores including the regulatory surcharge. The category wise revenue from sale of power for FY 2012-13 is reproduced in the table below:



Table 6-22: REVENUE FOR FY 2012-13

Particulars	Sales	Revenue	Average Realisation
	(MU)	(Rs. Crs)	(Rs/kWh)
LMV-1: Domestic Light, Fan & Power	186.95	73.53	3.93
LMV-2: Non Domestic Light, Fan & Power	15.75	10.76	6.83
LMV-3: Public Lamps	15.94	9.65	6.05
LMV-4: Institutions	7.91	5.14	6.51
LMV-5: Private Tube Wells	16.51	1.00	0.61
LMV 6: Small and Medium Power	30.14	23.61	7.83
LMV-7: Public Water Works	7.03	4.50	6.40
LMV-8: STW and Pumped Canals	0.31	0.25	8.19
LMV-9: Temporary Supply	25.15	20.43	8.12
HV-1: Non Industrial Bulk Power	45.73	29.95	6.55
HV-2: Large and Heavy Power	629.97	376.86	5.98
Subtotal	981.38	555.69	5.66
Regulatory Surcharge w.e.f. 01.10.2012		25.39	0.26
Total Sales	981.38	581.08	5.92

6.20 REVENUE GAP OF FY 2011-12:

6.20.1 The revenue gap carried forward from FY 2011-12 is Rs. 431.83 Crores as determined in the earlier sections. The same is considered for the purpose of ARR for FY 2012-13.

6.21 SUMMARY OF ARR FOR FY 2012-13:

6.21.1 Based on the above cost approvals, the Summary of the ARR approved for FY 2012-13 is provided in the table below:



Table 6-23: SUMMARY OF ARR - APPROVED FOR FY 2012-13 (Rs. Crores)

Sr. No.	Particulars	Approved vide T.O. 19/10/12	Revised Petition	Revised Approval
1	Power Purchase Expenses	474.35	519.79	476.91
2	Transmission Charges (UPPTCL+PGCIL)	32.25	25.83	32.25
3	Net O&M Expenses	18.26	35.37	28.26
4	Statutory & Other Regulatory Expenses	0.84	2.47	2.35
5	Net Interest charges	42.08	47.90	47.82
6	Depreciation	28.72	29.19	29.19
7	Taxes (Income Tax and FBT)	10.75	63.49	10.75
8	Gross Expenditure	607.24	724.03	627.52
9	Interest capitalized	1.27	1.28	1.28
10	Net Expenditure	605.97	722.75	626.24
11	Provision for Bad & Doubtful debts	3.42	6.16	5.81
12	Terminal Depreciation of Assets Retired/	-	0.35	0.35
13	Provision for Contingency Reserve	-	-	-
14	Prior Period Adjustments	-	-	-
15	Total net expenditure with provisions	609.39	729.27	632.41
16	Add: Reasonable Return / Return on Equi	22.24	22.09	22.09
17	Less: Non Tariff Income	1.42	2.27	1.42
18	Add: Efficiency Gains	0.16	0.16	0.16
19	Annual Revenue Requirement (ARR)	630.38	749.24	653.25
20	Revenue from Existing	476.70	616.15	476.70
21	Additional Revenue from Revised Tariff	104.39	-	104.39
22	Revenue Gap	49.29	133.09	72.16
23	Revenue Gap/ Surplus from Prev. Year	417.79	431.98	431.83
24	Carrying cost	60.05	77.99	65.00
25	Revenue Gap carried forward	527.14	643.07	568.99

6.21.2 The Revenue Gap determined for FY 2012-13 is Rs. 72.16 Crores. The Net Revenue Gap for FY 2012-13 after considering the revenue gap of Rs. 431.83 Crores from previous year and carrying cost of Rs. 65.00 Crores is Rs. 568.99 Crores. The same is carried forward for ARR of FY 2013-14.



Chapter 7.ARR FOR FY 2013-14

7.1 SALES APPROVAL:

- 7.1.1 The Commission in the earlier chapters has undertaken partial revision in true-up of FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010–11 to incorporate the effect of its order dated 7th January, 2013 on review petition filed by the Company. The Commission has also trued up the ARR for FY 2011-12, which were provisionally approved in its order dated 19th October, 2012. Further, the ARR for FY 2012-13 has also been revised in view of the material changes in Capital Expenditure and T & D losses for the year due to acquisition of 220/132/33 kV Substation.
- 7.1.2 Accordingly, based on the past trends and the truing-up for FY 2011-12, provisional approval for FY 2012-13, the Commission has approved sales for FY 2013-14 considering 12% CAGR over the sales approved for FY 2012-13. The summary of revenue for FY 2013-14 as approved against the petition is presented in the table below:

Table 7-1: CATEGORY WISE SALES FOR FY 2013-14- APPROVED (MUs)

Sr. No.	Category	Petition	Approved
1	LMV-1: Domestic Light, Fan & Power	216.06	187.06
2	LMV-2: Non Domestic Light, Fan & Power	25.32	20.12
3	LMV-3: Public Lamps	18.46	11.82
4	LMV-4: Institutions	23.60	12.90
5	LMV-5: Private Tube Wells	7.32	11.51
6	LMV 6: Small and Medium Power	39.69	42.39
7	LMV-7: Public Water Works	13.62	10.13
8	LMV-8: STW and Pumped Canals	0.31	0.30
9	LMV-9: Temporary Supply	18.02	22.24
10	HV-1: Non Industrial Bulk Power	90.84	62.64
11	HV-2: Large and Heavy Power	728.15	719.19
	Total	1,181.38	1,100.32

- 7.1.3 The Category wise Number of Consumers, Connected Load and Sales approved for FY 2013-14 are summarised in the table below:



Table 7-2: CATEGORY WISE CONSUMERS, LOAD & SALES – APPROVED

Sr. No.	Category	No. of Consumers	Connected Load (MW)	Sales (MUs)
1	LMV-1: Domestic Light, Fan & Power	51,518	171.62	187.06
2	LMV-2: Non Domestic Light, Fan & Power	2,023	14.60	20.12
3	LMV-3: Public Lamps	4	6.97	11.82
4	LMV-4: Insitutions	459	6.77	12.90
5	LMV-5: Private Tube Wells	957	4.09	11.51
6	LMV 6: Small and Medium Power	1,750	33.75	42.39
7	LMV-7: Public Water Works	160	10.80	10.13
8	LMV-8: STW and Pumped Canals	1	0.15	0.30
9	LMV-9: Temporary Supply	1,043	14.48	22.24
10	HV-1: Non Industrial Bulk Power	70	29.74	62.64
11	HV-2: Large and Heavy Power	508	233.78	719.19
	Total	58,494	526.76	1,100.32

7.2 DISTRIBUTION LOSSES:

7.2.1 The distribution loss approved by Commission for FY 2012-13 was 8% based on past trends. The Licensee in the ARR petition for FY 2013-14 has sought distribution losses at 8.20% due to various socio-political reasons.

4.1.2 Further, the Petitioner has also claimed additional system losses of 0.83% due to addition of EHV voltage level. As explained earlier, the Petitioner is importing almost 75% of its energy requirement through 220/132/33 kV Substation at R C Green and proposed 220/ 33 kV substation at Gharbara. With the addition of new voltage levels of 220 kV & 132 kV and metering at the 220 kV Line emanating end at 400 kV Greater Noida (Pali) Substation, the technical losses has increased significantly by 0.83%, arising out of Line Losses of 220 kV Lines and two stage Transformation Losses i.e. 220/132 kV and then 132/33 kV. Addition of 220 kV and 132 kV voltage levels into network has all the more strained the losses as almost 75% of current demand is being met through this substation.

7.2.2 With the commissioning of another 220 / 33 kV substation at Gharbara during FY 2013-14, the technical losses are bound to go up.

The Commission's Analysis

7.2.3 The distribution losses projected by NPCL for FY 2013-14 are at 8.20%. The Commission would reiterate that there has been no significant improvement in



loss levels, despite huge capital expenditure / system improvements undertaken by NPCL.

- 7.2.4 In reference to the above, NPCL submitted that the aforesaid capex has been incurred on development of new / virgin areas and also to cater to the increased demand of the area and therefore, cannot be directly linked with the reduction in losses.
- 7.2.5 The Commission acknowledges the fact that the Greater Noida Area was largely a rural area and with development year-on-year, more of the area is being urbanised. Hence, it requires a huge capital expenditure to cater to the demand of existing and new consumers. However, the Commission observes that T & D losses have been constant at 8% from so many years. Therefore, the Commission directs the Petitioner to conduct a technical loss study of its network again and apart from determining the technical losses, the study should also reflect the efforts and cost required to bring down the losses down from the current levels of 8%. It will also enable the Commission to formulate a loss trajectory for future years linked with required capital expenditure which is also required for the purpose of Multi-year tariff.
- 7.2.6 Hence, recognizing the fact that the distribution loss of 8% is one of the lowest in the country, the distribution losses for FY 2013-14 are being approved at 8%.
- 7.2.7 Further, the Petitioner has mentioned that due to the additional voltage level of 220 kV and 132 kV into the system, its technical losses has increased by 0.83%. The Commission recognises the fact that integration of the network with own 220/132 kV EHV network will ensure better supply to its consumer, however, it will also in turn increase in system losses at EHV level. To determine the technical losses at EHV level, the Commission directs the Licensee to conduct a study from an expert body before the filing of next tariff petition to determine the actual technical losses due to this additional voltage level which in the opinion of the Commission is beyond the control of the Licensee. In the meanwhile, the Commission provisionally approves additional EHV losses at 0.60% of the total import. The same is provisional and will be reconsidered based on the audited results and the conclusion of the technical study.
- 7.2.8 Thus the T&D Losses approved for FY 2013-14 is 8.0% of energy available for distribution and EHV losses are approved at 0.60% of the Energy imported by the Licensee.



7.3 ENERGY BALANCE:

7.3.1 The Commission in the above sections has discussed about approval of sales and distribution losses. Based on these elements, the power purchase requirement and the energy balance for FY 2013-14 is given in the table below:

Table 7-3: ENERGY BALANCE FOR FY 2013-14 – APPROVED

Particulars	Petition	Approved
Proposed Energy Sales (MU)	1,181.38	1,100.32
Distribution Loss %	8.20%	8.00%
Distribution Loss (MU)	105.53	95.68
Energy Available for Sale	1,286.91	1,196.00
System Losses at 220kV/33kV (MU)	10.80	7.22
Proposed Energy Purchase (MU)	1,297.71	1,203.22

7.4 POWER PURCHASE QUANTUM & COST:

7.4.1 Based on the above approved energy balance for FY 2013-14, the power purchase requirement is of 1201.94 MUs.

7.4.2 NPCL has power procurement arrangement with UPPCL and accordingly, it receives 45 MW of power from UPPCL. The balance power is procured by NPCL on short term basis through Open Access Route. The details of power purchase cost as claimed by NPCL for FY 2013-14 are presented in the table below:



Table 7-4: POWER PURCHASE (PROJECTED) - FY 2013-14

Supplier's Name	Capacity	Period		MU		Total	Rate (Rs. / Unit)	Amount (in Rs. Crs)	Transmission Chgs (in Rs. Crs)	Total (in Rs. Crs)
	(In MW)	From	To	Exported	at Gr. Noida					
UPPCL	43	01-Apr-13	31-Mar-14	300.28	300.28	0.00	3.61	108.40	5.22	113.62
Inter-State Power										
	104	01-Apr-13	30-Sep-13	457.54	431.78	5.63%	4.35	199.03	9.32	208.35
	41	01-Apr-13	30-Sep-13	29.84	28.16	5.63%	6.50	19.40	0.68	20.08
	18	01-Apr-13	30-Sep-13	29.84	28.16	5.63%	5.00	14.92	0.68	15.60
	91	01-Oct-13	30-Nov-13	132.62	125.15	5.63%	4.35	57.69	2.70	60.39
	32	01-Oct-13	30-Nov-13	7.74	7.30	5.63%	6.50	5.03	0.18	5.21
	23	01-Oct-13	30-Nov-13	12.43	11.73	5.63%	5.00	6.22	0.28	6.49
Inter State Power - from Trader / Generator										
	94	01-Dec-13	28-Feb-14	203.49	192.04	5.63%	4.35	88.52	4.15	92.67
	23	01-Dec-13	28-Feb-14	8.15	7.69	5.63%	6.50	5.30	0.20	5.50
	13	01-Dec-13	28-Feb-14	10.22	9.65	5.63%	5.00	5.11	0.25	5.36
	104	01-Mar-14	31-Mar-14	77.51	73.14	5.63%	4.35	33.72	1.58	35.29
	41	01-Mar-14	31-Mar-14	5.05	4.77	5.63%	6.50	3.29	0.12	3.40
	18	01-Mar-14	31-Mar-14	5.05	4.77	5.63%	5.00	2.53	0.12	2.64
Renewable Power										
	9	01-Apr-13	31-Mar-14	77.45	73.09	5.63%	7.20	55.76	3.41	59.18
Total UPPCL	43	01-Apr-13	31-Mar-14	300.28	300.28	0.00	3.61	108.40	5.22	113.62
Total - Others	609	01-Apr-13	31-Mar-14	1056.94	997.43	5.63%	4.70	496.50	23.66	520.16
Total	652	01-Apr-13	31-Mar-14	1357.22	1297.71	4.38%	4.46	604.90	28.89	633.79

7.4.3 The briefs about the power purchase from the above table are as follows:

- The power purchase from UPPCL is claimed at 300.28 MUs, power purchase from traders claimed is 924.34 MUs and power purchase from renewable sources claimed is 73.09 MUs for FY 2013-14.
- The transmission charged claimed by NPCL is Rs. 28.89 Crores.
- The Bulk Supply Tariff payable to UPPCL is claimed at Rs. 3.61 per unit.
- The transmission charges payable on open access charges include transmission charges of UPPTCL as well as PGCIL for various regions.

7.4.4 Subsequently, the Petitioner, on 11th March, 2013, filed a Petition under Section 63 of the Electricity Act, 2003 read with Clause 10.4 of the Guidelines for short-term (i.e. for a period less than or equals to one year) Procurement of Power by Distribution Licensees through Tariff based bidding process issued by Ministry of Power on 15th May, 2012, for adoption of tariff for purchase of electricity from the Prospective/ Successful Bidders pursuant to tariff determined through a transparent and Competitive Bidding Process.

7.4.5 The Petitioner submitted that it has floated a tender for procurement of approximately 170 MW power on short term basis through competitive bidding in the month of January and has received bids for almost 1500 MW power from various traders / generators/ distribution licensees. After the evaluation of all bids, the



Standing committee has selected the following bidders for procurement of power for FY 2013-14-

Table 7-5: POWER PURCHASE PLAN FOR APRIL' 13 TO SEP' 13

S. No.	Bidders	Period	Delivery Point	MW offered	Wt. Avg. Tariffat NPCL Bus (Rs./kWh)	
1	M/s Reliance Energy Trading Ltd.	Apr-13 to Sep-13	WR	14.67	3.96	
2	M/s Knowledge Infrastructure Systems (P) Ltd.	Apr-13 to Sep-13	WR	20	3.99	
3	M/s Shree Cement Ltd.	Apr-13 to Sep-13	NR	40	4.23	
4	M/s Shree Cement Ltd.	Apr-13 to Sep-13	NR	20	4.23	
5	M/s PTC India Ltd. (for Malana Power)	Jun-13	NR	20	4.26	
		Jul-13 to Aug-13	NR	30		
6	M/s PTC India Ltd. (for Jaypee Karcham Wangtoo)	May-13	NR	50		
		Jun-13	NR	30		
		Jul-13 to Aug-13	NR	20		
		Sep-13	NR	50		
7	Wt. Average rate at NPCL Bus	Apr'13 to Sep'13		110		4.18

Table 7-6: POWER PURCHASE PLAN FOR OCTOBER' 13 TO MARCH' 14

S. No.	Bidders	Period	Delivery Point	MW offered	Wt. Avg. Tariff at NPCL Bus (Rs./kWh)
1	M/s Reliance Energy Trading Ltd.	Oct-13	WR	14.67	3.96
		Nov-13 to Mar-14	WR	34.67	



The Weighted Average	2	M/s Knowledge Infrastructure Systems (P) Ltd.	Oct-13 to Mar-14	WR	20	3.99
	3	M/s Tata Power Trading Company Ltd. (for TPDDL)	Oct-13 to Mar-14	NR	40	4.23
	4	M/s Tata Power Trading Company Ltd. (for Maithon Power)	Oct-13 to Mar-14	ER	15	4.00
	5	Wt. Average Rate at NPCL Bus	Oct'13 to Mar'14		110	4.07

range of

- 7.4.6 It is further submitted that the weighted average power purchase cost landed at the Petitioner's Bus is Rs. 4.13 per kWh for FY 2013-14 which is comparable with the UPPCL rate and also the all india weighted average rate of bilateral agreement for the month of December 2012 at Rs. 4.31 per unit.

The Commission's Analysis:

- 7.4.7 The Commission in the Order for UPPCL has approved Bulk Supply Tariff (BST) applicable for FY 2013-14 at Rs. 3.92 per kWh and transmission charges at Rs. 0.135 per kWh. Thus landed cost at the Petitioner's bus come to Rs. 4.055 per unit.
- 7.4.8 The Commission has also considered the Petitioner's submission in ARR petition as well as the petition for approval of Short-term power through competitive bidding filed on 11th March, 2013. From the above and after seeing prevailing power procurement cost in the Open Access Market and adjacent state, the Commission considers the power purchase cost at Rs. 4.13 per unit landed at Petitioner's Bus as reasonable and thus, approve the same. Any variation between the approved power purchase costs and the actual power purchase costs for FY 2013-14 would be considered at the time of truing up.
- 7.4.9 The overall approval of the power purchase cost for FY 2013-14 is provided in the table below:



Table 7-7: POWER PURCHASE COST– APPROVED

Item	Petition			Approved		
	Energy	Avg.	Costs	Energy	Avg.	Costs
Retail Sales (Mus)	1,181.38			1,100.32		
Losses	9.0%			8.6%		
Power Purchase	1,297.71			1,203.22		
Sources of Power Purchase	Energy	Avg.	Costs	Energy	Avg.	Costs
UPPCL	300.28	3.61	108.40	337.35	3.92	132.35
Power Purchase from Traders	924.34	4.77	440.74	793.68	3.91	310.40
Power Purchase from RE	73.09	7.63	55.76	72.19	7.63	55.08
Sub-Total	1297.71	4.66	604.90	1203.22	4.14	497.83
Transmission Charges for Open Access			23.66			20.76
Transmission Charges for UPPCL Energy			5.22			4.55
Total Transmission charges			28.89			25.31
Total Power Purchase Cost	1,297.71	4.88	633.79	1,203.22	4.35	523.14

- The total quantum approval for FY 2013-14 is 1,203.22 MU with power purchase from UPPCL – 337.35 MUs against 300.28 MU as projected by Petitioner for FY 2013-14, from renewable sources- 72.19 MU (computed as proportion of total power procurement for meeting the renewable purchase obligation) and from open access – 793.68 MUs (computed as the difference between the total power requirement net of power procured from traders and renewable sources).
- The power purchase cost for UPPCL is approved as per BST rate approved for the other State Discoms at Rs. 3.923 per unit.
- The power purchase cost from traders is approved at the weighted average landed rate of Rs. 4.13 per unit as determined through short-term competitive bidding.
- The power purchase cost from renewable sources is projected at an average cost of Rs. 7.63 per unit as claimed by the Petitioner.
- The transmission charges are approved based on the applicable per unit transmission charges of PGCIL and per unit transmission charges of UPPTCL approved for the year.

7.4.10 The total power purchase cost for NPCL is approved at Rs. 523.14 Crores as highlighted in the above table.

7.5 FUEL & POWER PURCHASE COST ADJUSTMENT SURCHARGE

7.5.1 The mechanisms for adjustment of Fuel & Power Purchase Cost Adjustment Surcharge has been formulated by the Commission vide amendment No.3 to the UPERC (Terms and Conditions of Determination of Distribution Tariff) Regulation dated 10th May, 2012.



- 7.5.2 The Distribution Licensee procures power from state resources and the deficit through short-term purchases. The power purchase cost including transmission charges accounts for about 80% to 85% of the total Annual Revenue Requirement for the Distribution Licensee.
- 7.5.3 However, power purchase cost being uncontrollable in nature is a pass-through to the consumers but the difference in actual cost of procurement of power and the estimated cost of purchase of power gets trued up only after 12 months, provided the true-up petition is filled based on Audited Accounts. The time lag burdens both the Distribution Licensee as well on consumers. Due to the delayed recovery of allowable procurement of power cost Distribution Licensee's cash-inflows severely affected leading to working capital management problems further is affected consumers by way of interest charges.
- 7.5.4 The UPERC Distribution Tariff Regulation enshrines implementation of the Fuel Cost Adjustment Formula aimed at mitigating the above stated issue. The Fuel Cost Adjustment (FCA) provided in the regulations allows the Licensee only to recover the fuel cost adjustment. Sub-section (4) of section 64 of the Electricity Act 2003 provides that, no tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula, as may be specified. However, the Hon'ble Appellate Tribunal for Electricity in its Judgment dated 11th November 2011, in the matter of OP No. 1 of 2011, has direction all State Electricity Regulatory Commissions to put in place a mechanism for Fuel & Power Purchase cost adjustment preferably on a monthly basis but in no case exceeding a quarter of a year. Accordingly it is stated that the recovery of Fuel and power purchase adjustment is legitimate and is in accordance with the Electricity Act, 2003.
- 7.5.5 The Commission recognizes that the power purchase costs are uncontrollable in nature and are volatile making it difficult to accurately estimate power purchase costs at the time of annual tariff fixation. For the purpose of Fuel & Power Purchase Cost Adjust (FPPCA) as provided in Regulation 6.9 of the UPERC (Terms and Conditions of Determination of Distribution Tariff) Regulation, Amendment No. 3, 2012, the monthly approvals are provided in the Table below. The FPPCA will be applicable from the quarter April to June 2013 onwards.

Table 7-8: MONTHLY APPROVED POWER PURCHASE COST

Months (FY 2013-14)	Import at GNIDA	Total (Rs. Crs)
Apr	102.89	44.62
May	106.32	46.10
Jun	102.89	44.62
Jul	106.32	46.10
Aug	106.32	46.10
Sep	102.89	44.62
Oct	96.97	42.32
Nov	93.84	40.97
Dec	95.88	41.85
Jan	95.88	41.85
Feb	86.66	37.81
Mar	106.38	46.16
Total	1203.22	523.14

7.6 OPERATION & MAINTENANCE (O&M) EXPENSES:

7.6.1 Operation and Maintenance (O&M) expenses comprises of Employee costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) expenditure.

7.6.2 The Clause No. 4.3 of the Distribution Tariff Regulations stipulates:

- “1. The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The O&M expenses for the base year shall be calculated on the basis of historical/audited costs and past trend during the preceding five years. However, any abnormal variation during the preceding five years shall be excluded. For determination of the O&M expenses of the year under consideration, the O&M expenses of the base year shall be escalated at inflation rates notified by the Central Government for different years. The inflation rate for above purpose shall be the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40. Base year, for these regulations means, the first year of tariff determination under these regulations
2. Where such data for the preceding five years is not available the Commission may fix O&M expenses for the base year as certain percentage of the capital cost.
3. Incremental O&M expenses for the ensuing financial year shall be 2.5% of capital addition during the current year. O&M charges for



the ensuing financial year shall be sum of incremental O&M expenses so worked out and O&M charges of current year escalated on the basis of predetermined indices as indicated in regulation 4.3 (1)..”

7.6.3 In the ARR petition for FY 2013-14, the Petitioner has claimed gross O&M expenses of Rs. 45.14 Crores after making adjustments for O&M expenses of previous year and inflation index.

The Commission’s Analysis:

7.6.4 In accordance of the Clause No. 4.3.1 of Distribution Tariff Regulations, the net O&M expenses would be computed based on Inflation Index. Accordingly, the weighted average Inflation Index computed at 8.75% for FY 2012-13 is used for computation of O&M charges approved by the Commission.

Table 7-9: INFLATION INDEX FOR FY 2013-14

Month	Wholesale Price Index		Consumer Price Index	
	2011-12	2012-13	2011-12	2012-13
April	152.10	163.50	186.00	205.00
May	152.40	163.90	187.00	206.00
June	153.10	164.70	189.00	208.00
July	154.20	165.80	193.00	212.00
August	154.90	167.30	194.00	214.00
September	156.20	168.80	197.00	215.00
October	157.00	168.50	198.00	217.00
November	157.40	168.80	199.00	218.00
December	157.30	168.80	197.00	219.00
January	158.70	170.30	198.00	221.00
February	159.30	170.20	199.00	223.00
March	161.00	170.60	201.00	224.00
Average for Financial Year	156.13	167.60	194.83	215.17
Calculation of Inflation Index (CPI-40%, WPI-60%) for FY-14				
Inflation index for FY 2011-12	171.61			
Inflation index for FY 2012-13	186.63			
Applicable Inflation rate	8.75%			

7.6.5 The gross O&M expenses so claimed by the Petitioner include additional O&M expenses towards capitalization of assets in the preceding year. The capitalized assets in the preceding year include assets handed over by GNIDA and UPSIDC free of cost in the FY 2012-13. These assets have been considered on the basis of values declared by respective authorities.



- 7.6.6 The Commission has also gone through the Audited Accounts of NPCL wherein, the value of those assets is ascertained by the auditor through the communications received from GNIDA and UPSIDC. Further the Audited Accounts mention that the assets have been handed over for maintenance purpose only while the ownership is yet to be transferred.
- 7.6.7 Accordingly, the Commission has considered the additional O&M expenses for these assets to be allowed for O&M purposes only. Any other impact on other parameters like depreciation, capital expenditure, capitalization etc. is not being allowed till the company takes ownership of the assets.
- 7.6.8 The computations of net O&M expenses approved for FY 2013-14 are given below:

Table 7-10: O&M EXPENSES FOR FY 2013-14 (Rs. Crores)

Particulars	Petition	Approved
Total additions to Fixed Assets		141.97
Less: Assets Retired/Scrapped		1.77
Net Addition to Fixed Assets		140.20
Preceding Year Gross O&M	45.14	28.30
Incremental O&M @ 2.5%		3.50
Inflation Index Applicable		8.75%
Net O&M Expenses		30.77
Gross O&M Expenses	45.14	34.28

STATUTORY / OTHER REGULATORY EXPENSES

- 7.6.9 In the ARR petition for FY 2013-14, the Petitioner has claimed other statutory expenses of Rs. 3.28 Crores over and above the normative O&M expenses.

The Commission's Analysis:

- 7.6.10 The Petitioner claimed CGRF expense of Rs. 0.25 Crores in FY 2013-14. In this regard Regulation 22 of the Consumer Grievances Redressal Forum Regulations, 2007 is reproduced below:

"Treatment of Expenses –

All reasonable costs incurred by the Distribution Licensee on the establishment and running of the Forum, shall be a pass through in the Annual Reve-



nue Requirements filed by the Distribution Licensee after deducting the amount of fees collected by the Distribution Licensee under the regulations.”

7.6.11 In view of the above, the Commission approves CGRF expense of Rs. 0.25 Crores.

7.6.12 Further, the Petitioner claimed expenses incurred towards demand side management (DSM) and competitive bidding process for long term power procurement. In this regard Tariff Regulations 4.3.5 is reproduced as below:

“The Commission may consider additional O&M expenses on account of war, insurgency, and change in laws or like eventualities for a specified period.”

7.6.13 The commission elaborated on undertaking Demand Side Management measures by the utility in section 9.9 of Tariff Order dated 14th October, 2010 and also discussed about the benefits of the same in terms of reducing power purchase costs and utilization of energy efficiently. The utility has high power purchase costs on account of short-term power procurement of expensive power. The Commission also notices the efforts put-in by the utility for long term power procurement. Accordingly, the Commission approves the additional statutory expenses incurred towards DSM and competitive bidding process.

7.6.14 The Petitioner has claimed expenses of Rs. 2.25 Crore towards liability for payment of service tax on various services being availed by the Petitioner in view of the material changes in Service Tax Regulations as introduced in Union Budget-2012. The Commission has taken cognizance of the changes in the service tax regulations and has referred to the Tariff Determination regulations in this respect. In this regard the Regulation 2.1.5 may be referred as reproduced here-below:

“The Commission may broadly classify costs incurred by Licensee as controllable and non-controllable. Uncontrollable costs shall include (but not limited to) fuel cost, increase in interest rates, increase in cost on account of inflation, taxes & cess, variation in power purchase unit costs including on account of hydrothermal mix in case of adverse natural events”

7.6.15 Since, the taxes and cess are part of uncontrollable cost, the Commission agrees in principal on allowance of such additional cost. However, since the amount claimed by the Petitioner is based on projection only, the Commission provision-



ally allows the expense at Rs. 1.50 Crore only subject to the truing up , once the actual expenses are made available to the Commission.

7.6.16 The table below highlights the approved statutory and other expenses approved by the Commission for FY 2013-14:

Table 7-11: STATUTORY / OTHER REGULATORY EXPENSES FOR FY 2013-14 (Rs. Crores)

Particulars	Petition	Approved
Demand Side Management Expenses	0.22	0.22
CGRF Expenses	0.25	0.25
Competitive Bidding Expenses	0.30	0.30
Technical studies as directed by Commission	0.25	0.25
Service Tax payable due to change in law	2.25	1.50
Total	3.28	2.53

7.7 CAPITAL EXPENDITURE (CAPEX):

7.7.1 For FY 2013-14, the Petitioner in the ARR petition has claimed capex of Rs. 163.68 Crores.

7.7.2 The above capex claimed by the Petitioner include interest capitalization of Rs. 1.70 Crores.

The Commission's Analysis:

7.7.3 The capital expenditure (excluding interest capitalization) for FY 2013-14 has been considered as per the Petitioner's submission. The opening capital work in progress (CWIP) for FY 2013-14 is Rs. 2.50 Crores. Total capitalization i.e. transfers to GFA for FY 2013-14 is taken as per Petitioner's submission.

7.7.4 The interest capitalization computed for FY 2013-14 is Rs. 1.73 Crores.

7.7.5 The details of the capex claimed and approved by Commission for FY 2013-14 is provided in the below:



Table 7-12: CAPEX DETAILS FOR FY 2013-14 (Rs. Crores)

Particulars	Petition	Approved
Total Additions to Assets	161.48	161.45
Add: Closing CWIP	3.00	3.00
Less: Opening CWIP	2.50	2.50
Total Additions to Assets	161.98	161.95
Add: Interest Capitalisation	1.70	1.73
Total Capex	163.68	163.68
Consumer Contribution & GNIDA	11.00	11.00
Net Capex	152.68	152.68
Debt @ 70%	106.87	106.87
Equity @ 30%	45.80	45.80

7.8 INTEREST AND FINANCE CHARGES:

7.8.1 The Licensee has claimed Interest and Finance Charges which includes following heads:

- ❖ Interest on Long Term Loans;
- ❖ Finance Charges;
- ❖ Interest on working capital / short term loans &
- ❖ Interest on consumer security deposits.

Each of the above cost elements are discussed separately as under:

7.8.2 INTEREST ON LONG TERM LOANS:

7.8.2.1 In the ARR petition, the petitioner has claimed interest on debt of Rs. 33.65 Crores after considering loan additions of Rs. 106.87 Crores.

Commissions' Analysis

7.8.2.2 The interest on long term loans as submitted by NPCL and approved by Commission for FY 2013-14 is given in table below:

Table 7-13: INTEREST ON LONG TERM LOANS - PETITION (Rs. Crores)



Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Yes Bank (FY08)	8.00	-	4.80	3.20	0.77
Bank of Maharashtra (FY 10)	22.33	-	4.93	17.40	2.71
IDBI Bank(FY11)	46.96	-	11.05	35.91	5.56
GNIDA	5.94	-	4.88	1.06	1.99
Normative Loans (FY08)	2.66	-	0.53	2.13	0.32
Normative Loans (FY12)	37.15	-	6.75	30.39	4.81
Central Bank of India (FY 13)	80.00	-	-	80.00	10.17
ICICI Bank (FY 13)	12.19	-	0.51	11.69	1.55
Normative Loans (FY14)	-	106.87	-	106.87	5.77
Total	215.23	106.87	33.45	288.65	33.65

Table 7-14: INTEREST ON LONG TERM LOANS – APPROVED (Rs. Crores)

Particulars	Opening Balance	Additions During the Year	Repayment	Closing Balance	Interest
Yes Bank (FY08)	8.00	-	4.80	3.20	0.77
Bank of Maharashtra (FY 10)	22.34	-	4.93	17.40	2.71
IDBI Bank(FY11)	46.96	-	11.05	35.91	5.55
GNIDA	5.94	-	4.88	1.06	1.99
Normative Loans (FY08)	2.65	-	0.53	2.12	0.32
Normative Loans (FY12)	37.15	-	6.75	30.39	4.81
Central Bank of India (FY 13)	80.00	-	-	80.00	10.17
ICICI Bank (FY 13)	12.19	-	0.51	11.69	1.55
Normative Loans (FY14)	-	106.87	-	106.87	5.77
Total	215.23	106.87	33.45	288.65	33.64

7.8.2.3 The opening balances of loan approved for FY 2013-14 are considered as per closing balances of approval for FY 2012-13.

7.8.2.4 The normative loan of FY 2007-08 to FY 2011-12 is continued in FY 2013-14 also with repayment considered based on 10-year repayment period. The normative loan of Rs. 106.87 Crores is approved for FY 2013-14 with 8-year repayment period including 2 years moratorium in accordance with the terms of the loans obtained by the Petitioner in preceding years. The interest on the normative loans is computed as the weighted average interest rate applicable for the year on the actual loan portfolio approved by the Commission for the year. The average interest rate so calculated is applied on the approved average normative loans for computation of interest on such normative loans.



7.8.2.5 The repayments, rate of interest and interest on existing loans are approved as per actual loan portfolio for FY 2012-13.

7.8.2.6 Accordingly the interest on long term loan is approved at Rs. 33.64 Crores against claim of Rs. 33.65 Crores.

7.8.3 INTEREST ON WORKING CAPITAL:

7.8.3.1 The Distribution Tariff Regulations provides for normative interest on working capital based on the principles outlined and accordingly Licensee is eligible for interest on working capital worked out on this basis. Further the Clause No. 4.8 (2) (b) of the Distribution Tariff Regulations provides for rate of interest on working capital borrowings at bank rate specified by RBI + appropriate margin decided by Commission.

7.8.3.2 In the petition for FY 2013-14, the Licensee has considered the security deposit passed onto UPPCL amounting to Rs. 11.28 Crores. The total interest on working capital claimed by the Petitioner is Rs. 11.89 Crores.

The Commission's Analysis:

7.8.3.3 The Commission has worked out the working capital and interest on working for FY 2013-14 as given in table below:



Table 7-15: INTEREST ON WORKING CAPITAL - APPROVED (Rs. Crores)

Particulars	Petition	Approved
One Month's O&M Expenses	3.85	3.07
One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.	15.00	15.00
Receivables equivalent to 60 days average billing on consumers	136.58	136.58
Gross Total	155.43	154.65
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003		
Opening Balance	77.89	77.89
Received during the year	15.00	15.00
Closing Balance	92.89	92.89
Less: Security Deposit with UPPCL	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	74.11	74.11
Net Working Capital	81.32	80.54
Rate of Interest for Working Capital	0.15	0.15
Interest on Total Working Capital	11.89	11.77

7.8.3.4 The differences in the approval are explained as under:

- The O&M expenses are approved for FY 2013-14 at Rs. 34.29 Crores against Petitioner's claim of Rs. 45.14 Crores.
- The Statutory expenses are approved for FY 2013-14 at Rs. 2.53 Crores against Petitioner's claim of Rs. 3.28 Crores.
- Accordingly, the normative interest on working capital approved for FY 2013-14 is Rs. 11.77 Crores against the claim of Rs. 11.89 Crores.

7.8.4 FINANCE CHARGES:

7.8.4.1 The finance charges claimed by the Petitioner for FY 2013-14 is Rs. 5.74 Crores of which Rs. 5.25 Crores is towards processing of term loans and working capital facilities, Rs. 0.12 Crores towards rating charges and Rs. 0.31 Crores towards LC and other finance charges

The Commission's Analysis:

7.8.4.2 In the prevalent power sector, as per the industry practice, processing charges on term loan & working capital loans, payment of commission for provisioning of letter of credit (LC) for securing power purchase payment is prevalent and



acceptable norms of the distribution business. Henceforth, the finance charges of Rs. 5.25 Crores towards processing charges, commission charges by the banks/FIs issuing the LC etc. are approved.

7.8.4.3 Rating charges of Rs. 0.12 Crores and other finance charges of Rs. 0.31 Crores is approved considering past years trend of actual costs incurred.

Table 7-16: FINANCE CHARGES – APPROVED (Rs. Crores)

Particulars	Petition	Approved
Credit Rating Charges	0.12	0.12
Processing Charges	5.25	5.25
Other Finance Charges	0.37	0.37
Total Finance Charges	5.74	5.74

7.8.5 INTEREST ON SECURITY DEPOSIT:

7.8.5.1 The Clause No. 4.8.3 of the Distribution Tariff Regulations provides for Interest on Security Deposit amount at bank rate or more, as may be specified by the Commission.

7.8.5.2 NPCL in the petition has claimed interest on security deposit at Rs. 7.69 Crores which is computed at 9%.

The Commission's Analysis:

7.8.5.3 The details of the interest on security deposits claimed and approved by Commission for FY 2013-14 are given in the table below:

Table 7-17: INTEREST ON SECURITY DEPOSIT - APPROVED (Rs. Crores)

Particulars	Petition	Approved
Opening Balance of Security Deposit	77.89	77.89
Addition During the year	15.00	15.00
Closing Balance for Security Deposit	92.89	92.89
Average Balance for Security Deposit	85.39	85.39
Rate of Interest	9%	9%
Interest payable on Security Deposit	7.69	7.69

7.8.5.4 The company has paid interest on consumer security deposit @ 9% p.a. its consumer security deposits. The interest on security charges is approved at Rs. 7.69 Crores on the interest rate of 9% on average consumer deposits for the year FY 2013-14.



7.8.6 INTEREST CAPITALISATION:

7.8.6.1 The Interest capitalization claimed by the Petitioner for FY 2013-14 is Rs. 1.70 Crores.

7.8.6.2 The Interest capitalization for FY 2013-14 is computed by the Commission on the basis of normative interest approved on normative loan for FY 2013-14 which is Rs. 5.77 Crores. Accordingly, the similar methodology is adopted as in the last Tariff Order and was later accepted by APTEL. The interest capitalization for FY 2013-14 is computed and approved at Rs. 1.73 Crores.

7.8.7 SUMMARY OF INTEREST & FINANCE CHARGES:

7.8.7.1 The Summary of Interest and Finance Charges approved by the Commission for FY 2013-14 are given in the table below:

Table 7-18: SUMMARY-INTEREST & FINANCE CHARGES - APPROVED (Rs. Crores)

Particulars	Petition	Approved
Interest on Long term loans	33.65	33.64
Interest on short term loans/working capital	11.89	11.77
Finance charges	5.74	5.74
Interest on security deposit	7.69	7.69
Total Interest & Finance charges	58.96	58.84
Less: Interest capitalization	1.70	1.73
Net Interest & Finance charges	57.26	57.11

7.9 CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY:

7.9.1 The Petitioner has submitted return on equity computations based on the debt equity ratio 70:30 as provided in Regulation 4.7.

The Commission's Analysis:

7.9.2 As per Clause 1 of Regulation 4.10 of the Distribution Tariff Regulations, 2006, return on equity shall be allowed @16% on the equity base determined in accordance with Regulation 4.7.



7.9.3 The Capitalisation of Assets or Capital Formation takes place from Opening Work-in-Progress (WIP) and investments/ capex undertaken during the year. The computation of equity approved by the Commission for FY 2013-14 is given in the table below:

Table 7-19: CAPITALISATION OF ASSETS & COMPUTATION OF EQUITY – APPROVED (Rs. Crores)

Particulars	Petition	Approved
Opening CWIP	2.50	2.50
Capital Investment	163.68	163.68
Total capitalization=Transfer to GFA	163.18	163.18
Capitalisation of Capex approved during the year in the year	160.68	160.68
Consumer contribution	11.00	11.00
Remaining investment	152.68	152.68
Debt	106.87	106.87
Equity	45.80	45.80
Portion of Inv. Assumed to be capitalised through CC	10.80	10.80
Portion of remaining investment to be capitalised	149.88	149.88
Debt	104.91	104.91
Equity	44.96	44.96
Portion of Opening CWIP	0.70	0.70
Total Equity for RoE	45.66	45.66

7.10 GROSS FIXED ASSETS (GFA) & WORK-IN-PROGRESS:

7.10.1 The capitalization and transfer to GFA is approved as projected by NPCL, however the interest capitalised portion is considered as computed by the Commission in the previous section. Accordingly, the GFA is approved as per table below:

Table 7-20: GROSS FIXED ASSETS - APPROVED (Rs. Crores)

Particulars	Petition	Approved
Opening Balance	620.78	620.80
Addition during the Year	163.18	163.18
Retirement during the Year	1.90	1.90
Closing Balance	782.05	782.07

7.11 DEPRECIATION:

7.11.1 The Commission in its Distribution Tariff Regulation has specified the rates to be utilised for the purposes of computing depreciation for different class of assets.



The Commission in its Tariff Order dated 1st September 2008 under para 4.16.3 had taken a stand to allow Licensee to charge higher depreciation on IT assets @ 30% instead of 12.77%.

7.11.2 NPCL in the petition has claimed net depreciation of Rs. 41.32 Crores for the FY 2013-14.

7.11.3 The depreciation expenses approved by Commission for FY 2013-14 are provided in the table below:

Table 7-21: DEPRECIATION - APPROVED (Rs. Crores)

Particulars	Petition	Approved
Depreciation	46.98	46.98
Less: Depreciation on Consumer Contribution	5.66	5.66
Net Depreciation	41.32	41.32
Average Normative GFA	701.41	701.43
Weighted average depreciation rate	5.89%	5.89%

7.12 INCOME TAX:

7.12.1 The Commission earlier has trued up income tax for FY 2011-12 at Rs. 6.42 and allowed the additional income tax demand of Rs. 3.33 Crores actually paid by the Petitioner as reflected in the Audited Accounts.

7.12.2 For the FY 2013-14, the Petitioner has projected the income taxes at Rs. 25.84 Crores and the same are approved for the year. Any variation from the actual taxes paid would be considered at the time of true-up.

7.13 CONTINGENCY RESERVE:

7.13.1 Clause No. 4.14 of the Distribution Tariff Regulations provides for creation of Contingency Reserve upto 0.5% of opening gross fixed assets to be included in ARR for meeting cost of replacement of equipment damaged due to force majeure situations.

7.13.2 NPCL in the petition has not claimed any contingency reserve for FY 2013-14. Accordingly, the Commission approves the contingency reserve for FY 2013-14 at NIL.



7.14 PROVISION FOR BAD & DOUBTFUL DEBTS:

7.14.1 The expenses claimed by NPCL on account of bad and doubtful debts for FY 2013-14 are Rs. 8.31 Crores. The Petitioner submitted that any recovery around 97% - 98% of the sales should undoubtedly be considered as efficient collection and, therefore, the balance 2 - 3% may be provided as bad and doubtful debts.

The Commission's Analysis:

7.14.2 The Commission has approved bad-debts for FY 2012-13 at 1% of revenue billed during the year in the earlier section of the Tariff Order. The Distribution Tariff Regulations clause No. 4.4 provides for bad-debts with ceiling limit upto 2% of revenue receivables and that the same are written off actually with transparent policy approved by Commission.

7.14.3 The Petitioner has claimed a provisioning of 1.0% for FY 2013-14 at Rs. 8.31 Crores.

7.14.4 The Commission approves the provisioning at 1.0% as for FY 2013-14. Any variations would be considered at the time of true-up for FY 2013-14. Accordingly the provision for bad debts is computed at Rs. 8.31 Crores as highlighted below:

Table 7-22: BAD & DOUBTFUL DEBTS FOR FY 2013-14 (Rs. Crores)

Particulars	Petition	Approved
Receivable from Customers as at the beginning of the year	67.52	65.94
Revenue billed for the year	830.88	830.88
Collection for the year	787.66	787.66
Gross receivable from customer as at the end of the year	102.44	100.85
% of Provision	1%	1%
Provision for Bad & Doubtful debts	8.31	8.31

7.15 MISCELLANEOUS EXPENSES:

7.15.1 For the reasons stated in para 5.14 above and to incorporate the effect of the Order dated 7th January, 2013, the Commission approves miscellaneous expenditure at Rs. 0.40 Crores subject to true-up as per Audited Accounts of the Petitioner.



7.16 RETURN ON EQUITY:

7.16.1 The Licensee is entitled to earn Return on Equity as per Clause No. 4.10 of the Distribution Tariff Regulations.

7.16.2 NPCL based on its computations of equity after making adjustment for interest capitalization has claimed return of Rs. 28.89 Crores.

The Commission's Analysis:

7.16.3 The return on equity computed by Commission and approved for FY 2013-14 is provided in the table below:

Table 7-23: ROE FOR FY 2013-14 (Rs. Crores)

Return on Equity Computation	Petition	Approved
Regulatory Equity Base at the beginning of the year	157.72	157.72
Assets Capitalised during the year	163.18	163.18
Equity portion of Assets Capitalised during the year	45.66	45.66
Regulatory Equity Base at the end of the year	203.38	203.38
Computation of Return on Equity		
Return on Opening Regulatory Equity Base @ 16%	25.23	25.24
Return on Addition to Equity Base during the year @ 16%	3.65	3.65
Total Return on Equity	28.89	28.89

7.16.4 The return on equity approved for FY 2013-14 is Rs. 28.89 Crores same as claimed by the Petitioner.

7.17 NON TARIFF INCOME:

7.17.1 The Non-Tariff Income includes delayed payment surcharge, miscellaneous charges, income from investments, interest on fixed deposits and income from consultancy business. The non-tariff income claimed by NPCL in petition is Rs. 4.89 Crores.



7.17.2 In order to appropriately compensate for the cost incurred for financing that deferred payment beyond the normative period, the Commission in this order approves to reduce the amount of non-tariff income by the financing costs of DPS.

7.17.3 The financing cost of delayed payment surcharge is computed by the Commission based on the projected DPS for the year. The DPS is grossed up conservatively based on the highest applicable surcharge rate which is 1.5% per month. Further, the financing cost is arrived at on the grossed-up amount and the weighted average SBI PLR rate applicable. The computation of the financing cost for DPS is provided below:

Table 7-24: COST OF BORROWING FOR DPS (Rs. Crores)

Particulars	Petition	Approved
Delayed Payment Surcharge (Rs. Crores)	3.00	3.00
DPS grossed up at 1.50% per month or 18% per annum	18%	18%
Amount (Rs. Crores)	16.67	16.67
Financing cost @SBI PLR	14.62%	14.61%
Cost of Borrowing (Rs. Crores)	2.44	2.44

7.17.4 The Commission approves the non-tariff income as per Petitioner's submission and the financing cost for DPS as computed above. The non-tariff income net of cost for DPS is approved at Rs. 2.45 Crores in the ARR for FY 2013-14. Any variations would be taken at the time of true-up order.

7.18 REVENUE FROM SALE OF POWER AT EXISTING TARIFFS:

7.18.1 NPCL in the petition has projected the revenue from sales of power at Rs. 830.88 Crores for FY 2013-14 with existing tariffs including Regulatory Surcharge. The Commission has gone through the submissions by the Petitioner and considered the category wise average realization at similar rates as projected while projecting revenue at existing tariffs. Accordingly, the commission has approved the revenue from sales of power as provided in the table below:



Table 7-25: REVENUE FOR FY 2013-14

Particulars	Sales	Revenue	Average Realisation
	(MU)	(Rs. Crs)	(Rs/kWh)
LMV-1: Domestic Light, Fan & Power	187.06	75.22	4.02
LMV-2: Non Domestic Light, Fan & Power	20.12	15.32	7.62
LMV-3: Public Lamps	11.82	7.12	6.03
LMV-4: Institutions	12.90	9.78	7.58
LMV-5: Private Tube Wells	11.51	1.01	0.88
LMV 6: Small and Medium Power	42.39	33.54	7.91
LMV-7: Public Water Works	10.13	9.16	9.04
LMV-8: STW and Pumped Canals	0.30	0.22	7.26
LMV-9: Temporary Supply	22.24	20.73	9.32
HV-1: Non Industrial Bulk Power	62.64	48.68	7.77
HV-2: Large and Heavy Power	719.19	493.94	6.87
Subtotal	1,100.32	714.73	6.50
Regulatory Surcharge		57.18	0.52
Total Sales	1,100.32	771.91	7.02

7.19 REVENUE FROM SALE OF POWER AT APPROVED TARIFFS:

7.19.1 The Commission in its Tariff Order for other state utilities dated 31st May, 2013 approved the retail tariffs for different category of consumers of the state effective within 7 days from the date of publication. Same tariffs are also made applicable in the area of supply of NPCL. The Commission hereby retains the tariffs for NPCL as approved in Tariff Order for the other state DISCOMS and approves the same as final tariffs. The detailed tariff schedule is enclosed as **Annexure –III**.

7.19.2 The Commission in this section has computed the revenue at approved tariffs for FY 2013-14. Based on these approved tariffs and the period of applicability, the approved revenue for FY 2013-14 for NPCL computes to Rs. 787.83 Crores inclusive of regulatory surcharge as shown in the table below:



Table 7-26: REVENUE APPROVED FOR FY 2013-14

Particulars	Sales	Revenue	Average Realisation
	(MU)	(Rs. Crs)	(Rs/kWh)
LMV-1: Domestic Light, Fan & Power	187.06	86.58	4.63
LMV-2: Non Domestic Light, Fan & Power	20.12	15.95	7.93
LMV-3: Public Lamps	11.82	7.25	6.13
LMV-4: Institutions	12.90	10.11	7.83
LMV-5: Private Tube Wells	11.51	1.65	1.43
LMV 6: Small and Medium Power	42.39	34.06	8.04
LMV-7: Public Water Works	10.13	9.29	9.17
LMV-8: STW and Pumped Canals	0.30	0.23	7.52
LMV-9: Temporary Supply	22.24	21.19	9.53
HV-1: Non Industrial Bulk Power	62.64	49.22	7.86
HV-2: Large and Heavy Power	719.19	493.94	6.87
Subtotal	1,100.32	729.47	6.63
Regulatory Surcharge		58.36	0.53
Total Sales	1,100.32	787.83	7.16

7.20 REVENUE GAP OF FY 2012-13:

7.20.1 The revenue gap carried forward from FY 2012-13 is Rs. 568.99 Crores as determined in the earlier sections. The same is considered for the purpose of ARR for FY 2013-14.

7.21 SUMMARY OF ARR FOR FY 2013-14:

7.21.1 Based on the above cost approvals, the Summary of the ARR approved for FY 2013-14 is provided in the table below:



Table 7-27: SUMMARY FOR FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petition	Approved
1	Power Purchase Expenses	604.90	497.83
2	Transmission Charges (UPPTCL+PGCIL)	28.89	25.31
3	Net O&M Expenses	45.14	34.28
4	Statutory & Other Regulatory Expenses	3.28	2.53
5	Interest charges	58.96	58.84
6	Depreciation	41.32	41.32
7	Taxes (Income Tax and FBT)	25.84	25.84
8	Gross Expenditure	808.33	685.95
9	Interest capitalized	1.70	1.73
10	Net Expenditure	806.64	684.22
11	Provision for Bad & Doubtful debts	8.31	8.31
12	Miscellaneous Expenses	0.40	0.40
13	Total net expenditure with provisions	815.34	692.93
14	Add: Reasonable Return / Return on Equity	28.89	28.89
15	Less: Non Tariff Income	2.45	2.45
16	Add: Efficiency Gains	0.07	0.07
17	Annual Revenue Requirement (ARR)	841.86	719.44
18	Revenue from Existing Tariff	830.88	773.30
19	Revenue Gap/(Surplus)	10.98	(53.87)
20	Revenue Gap/ Surplus from Prev. Year	643.07	568.99
21	Carrying cost	101.46	82.48
22	Net Revenue Gap	755.50	597.61
23	Total Revenue at Approved Tariff	-	787.83
24	Additional Revenue from Revised Tariff	755.50	14.53
25	Revenue Gap carrying forward	0.00	583.08

7.21.2 From the above, the Revenue surplus for FY 2013-14 is Rs. 53.87 Crores at existing tariff. The total Revenue Gap at existing tariff for FY 2013-14 after considering the revenue gap of Rs. 568.99 Crores from previous years and carrying cost of Rs. 82.48 Crores is Rs. 597.61 Crores. The revenue at proposed tariff is approved at Rs. 787.83 Crores implying additional revenue due to tariff increase of Rs. 14.53 Crores during FY 2013-14. Thus, the revenue gap approved for FY 2013-14 to be carried forward to subsequent years is Rs. 583.08 Crores.

7.21.3 Further, the revenue gap carried forward for FY 2013-14 is approved provisionally. It shall be subject to final true-up during next ARR tariff petition process or as may be decided by the Commission and shall be recovered in future years.



Chapter 8. OPEN ACCESS CHARGES

8.1 BACKGROUND:

8.1.1 The Commission has issued Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2004 (in short 'UPERC Open Access Regulations') vide notification no. UPERC/Secy./Regulations/05-249 dated 7.6.05 to operationalize long term and short term open access in State network. The Regulations also provides that effective from 1st April, 2008 any consumer with demand of above 1 MW can avail open access of transmission and distribution systems.

8.1.2 Subsequently, the Commission has also made / finalized the necessary regulatory framework as below:

- a. UPERC (Terms and Conditions for Open Access) (First Amendment) Regulations, 2009 that includes among others detailed procedure(s) for Long-Term Open Access and Short-Term Open Access for use of distribution system, with or without transmission system;
- b. Model Bulk Power Wheeling Agreement (BPWA) for availing wheeling services of Distribution Licensee(s);
- c. Procedures for Scheduling, Despatch, Energy Accounting, UI Accounting and Settlement System of electricity transmitted through the State grid for the electricity drawn by Distribution Licensee(s) from outside and/or within the State.

Further, the Commission has also directed SLDC to develop procedure for energy accounting of electricity drawn from the grid by an open access consumer who is connected with the distribution system or electricity injected into the grid by a generating station embedded in the distribution system.

8.2 RECENT DEVELOPMENTS:

8.2.1 In absence of procedures and guidelines from State Transmission Utility (in short 'STU') and State Load Despatch Centre (in short 'SLDC'), the Commission, on its own motion, has made detailed procedures for long term and short term open access which covers all aspects, which the Regulations direct by way of an amendment. The "Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) (First Amendment) Regulations, 2009 dated 18.6.09", shall come into force from the date it is notified in the Gazette.



8.2.2 The said amendment, which includes procedures for Long-Term Open Access and Short-Term Open Access mainly, focuses on:

- i. Operationalisation of long-term and short-term use of intra-State transmission and distribution system by generating companies including captive plants/renewable energy plants, distribution/trading Licensees and open access consumers with sustained development of transmission and distribution systems in 'proper and coordinated' manner for conveyance of electricity.
- ii. Operationalisation of time-block wise accounting of the quantity of electricity transmitted through State grid and stating the responsibilities of STU for weekly metering and of SLDC for scheduling, despatch and energy accounting including UI accounting.
- iii. Requirement of Bulk Power Transmission Agreement for use of transmission network and Bulk Power Wheeling Agreement for use of distribution network for long-term open access transactions.

8.2.3 The Commission has finalized model Bulk Power Transmission Agreement (BPTA) and Supplementary BPTA for availing transmission services of UPPTCL.

8.2.4 The Commission has also finalized model Bulk Power Wheeling Agreement (BPWA) which is to be signed between a Distribution Licensee and long term customer to agree therein, inter-alia, to make payment of wheeling charge, surcharge and additional surcharge, if any, for use of the distribution system.

8.3 OPEN ACCESS CHARGES - TRANSMISSION CHARGES:

8.3.1 The Commission in the Tariff Order for UPPTCL has determined the Transmission Charges payable by the Open Access users for use of the UPPTCL transmission network for transmission of electricity. Similarly, the Commission had also determined the wheeling charges payable by the Open Access users for utilising the distribution network of the Distribution Licensees for wheeling of electricity. On the same lines, the Commission in the present order determines the wheeling charges payable for use of NPCL's distribution network for wheeling of energy.



8.4 WHEELING CHARGES:

8.4.1 Clause 2.1 (2) & (3) of the Distribution Tariff Regulations provide that ARR/Tariff filing by the Distribution Licensee shall separately indicate Aggregate Revenue Requirement (ARR) for Wheeling function and Retail Supply function embedded in the distribution function and that till such time complete segregation of accounts between Wheeling and Retail Supply function takes place, ARR proposals for Wheeling and Retail Supply function shall be submitted on the basis of an allocation statement left to be prepared by the Distribution Licensee to the best of their judgment.

8.4.2 As per Distribution Tariff Regulations, the Annual Expenditure of the Distribution Licensee shall comprise of the following components:

- | | | |
|---|---|--|
| (a) Power Purchase Cost Only | } | For Retail Supply Business |
| (b) Transmission Charge | | |
| (c) SLDC Charges | } | As per proportionate allocation
towards Wheeling and Retail
Supply Business |
| (d) Operation & Maintenance Expense | | |
| (e) Depreciation | | |
| (f) Interest & Financing Costs | | |
| (g) Bad and Doubtful Debts | | |
| (h) Return on Equity | | |
| (i) Taxes on Income | | |
| (j) Other expense | | |
| (k) Contribution to Contingency Reserve | | |

8.4.3 The above given Expenditure (c to k) have to be proportionately allocated towards both Wheeling & Retail Supply Business. The allocation % of the ARR into Wheeling and Retail Supply is provided by the Petitioner.

8.4.4 The Commission for the purpose of this Tariff Order has adopted the basis of allocation of the expenses provided by the Licensee and accordingly approved the ARR into Wheeling and Retail Supply for FY 2013-14 as given in the table below:



Table 8-1: WHEELING & RETAIL SUPPLY ARR - APPROVED (Rs Crores)

Sr. No.	Item	Allocation % FY 2013-14		Allocation FY 2013-14		
		Wheeling	Retail Supply	Total Approved ARR	Wheeling ARR	Retailing Supply ARR
a	b	c	d	e	f = c x e	g = d x e
1	Power Purchase Expenses	0.00%	100.00%	497.83	-	497.83
2	Transmission Charges	0.00%	100.00%	25.31	-	25.31
3	O&M Expenses	67.00%	33.00%	34.28	22.97	11.31
4	Statutory & Other Regulatory Expenses	0.00%	100.00%	2.53	-	2.53
5	Interest Charges	92.00%	8.00%	57.11	52.54	4.57
6	Depreciation	82.00%	18.00%	41.32	33.89	7.44
7	Taxes (Income Tax & FBT)	91.00%	9.00%	25.84	23.51	2.33
8	Gross Expenditure			684.22	132.90	551.31
Add:	Special Appropriation					
9	Add: Provision for Bad & Doubtful Debts	0.00%	100.00%	8.31	-	8.31
10	Add: Miscellaneous Exp	100.00%	0.00%	0.40	0.40	-
11	Total Net Expenditure with Provisions			692.93	133.30	559.62
12	Add: Reasonable Return/ Return on Equity	91.00%	9.00%	28.89	26.29	2.60
13	Less: Non Tariff Income	0.00%	100.00%	2.45	-	2.45
14	Add: Efficiency Gains	0.00%	100.00%	0.07	-	0.07
15	Annual Revenue Requirement (ARR)			719.44	159.59	559.85

8.4.5 Based on the same, the wheeling charges for FY 2013-14 are Rs. 1.45 /kWh. The details of the same are given in table below:

Table 8-2: WHEELING CHARGES - APPROVED (Rs/kWh)

Details	Unit	FY 2013-14
		Approved
Net Approved Distribution (Wheeling Function) ARR	Rs. Cr	159.53
Retail Sales by NPCL	Mus	1,100.32
Wheeling Charges	Rs/kWh	1.450

8.4.6 The Commission in order to encourage Open Access transactions in the State has further tried to segregate the wheeling charges payable by consumers seeking Open Access based on the voltage levels at which they are connected to the distribution network. However, in absence of voltage level wise break-up of actual expenses and asset details, the Commission has considered an interim allocation of costs at various voltage levels and approved the following wheeling charges payable by Open Access customers based on the voltage level at which they are connected with the distribution network.



8.4.7 The charges have been worked out on the assumption that the wheeling expenses at 11 kV voltage level shall be 80% of the average wheeling charges determined for the Wheeling function of NPCL and that for wheeling at voltages above 11 kV shall be 50% of the average wheeling charges as given in the table below. The wheeling charges for the short term open access customers remain the same as approved in the previous Tariff Order dated 19th October, 2012.

Table 8-3: LONG TERM VOLTAGE LEVEL WHEELING CHARGES (Rs./kWh)

Details	Unit	FY 2013-14
		Approved
Connected at 11 kV Voltage Level	Rs/kWh	1.160
Connected above 11 kV Voltage Level	Rs/kWh	0.725

8.4.8 In addition to the payment of wheeling charges, the customers also have to bear the wheeling losses in kind. Further, it is also logical that the open access customers have to bear only the technical losses in the system, and should not be asked to bear any part of the commercial losses.

8.4.9 The Licensee in the petition for FY 2013-14 has submitted that the technical losses at 11 kV voltage level would be around 2.75% and the technical losses above 11 kV voltage level upto 132 kV would be in around 2.13%. Hence, the Commission has considered the wheeling loss applicable for Open Access transactions entailing drawal at 11 kV voltage level shall be 2.75%, and that for drawal at voltages above 11 kV voltage level shall be 2.13%.

8.4.10 The open access charges and the losses to be borne by the Open Access customers may be reviewed by the Commission on submission of the relevant information by the Distribution Licensee.

8.4.11 The wheeling charges determined above shall not be payable if the Open Access customer is availing supply directly from the state transmission network.

8.5 CROSS SUBSIDY SURCHARGE:

8.5.1 The Commission has computed the cross-subsidy surcharge for Open Access consumers in accordance with the methodology specified in clause 6.6 of UPERC (Terms and Conditions for Determination of Distribution Tariff) Regulation-2006.



8.5.2 As per clause 6.6, the cross subsidy surcharge is to be computed based on the difference between (i) the tariff applicable to the relevant category of consumers and (ii) the cost of the Distribution Licensee to supply electricity to the consumers of the applicable class. In case of a consumer opting for open access, the Distribution Licensee could be in a position to discontinue purchase of power at the margin in the merit order. Accordingly, the Commission has computed the cost of supply to the consumer for this purpose as the aggregate of (a) the weighted average of power purchase costs (inclusive of fixed and variable charges) of top 5% power at the margin, excluding liquid fuel based generation, in the merit order approved by the UPERC adjusted for average loss compensation of the relevant voltage level and (b) the distribution wheeling charges as determined in the preceding section.

8.5.3 The Commission has computed the cross subsidy surcharge for the relevant consumer categories using the following formula:

$$S = T - [C (1 + L / 100) + D]$$

Where

S is the cross subsidy surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power. In case of the Petitioner, this works out to Rs. 4.38 /kWh considering the cost of marginal power purchase from open access.

D is the average wheeling charges for transmission and distribution of power which is Rs. 1.45 /kWh

L is the system Losses for the applicable voltage level, expressed as a percentage, which is computed at 2.12% at 33 kV, 3.60% at 11 kV and 8.96% at LT level.

8.5.4 As per the above formula, the avoidable cost of supply of the Open Access consumers as approved is provided in the table below, which will be applied against the tariff applicable for the relevant consumer category for computation of Cross subsidy surcharge as and when any consumer applies for the same-



Table 8-4: COST OF SUPPLY APPROVED, (Rs. / kWh)

Sl. No	Categories	Wh. Cost (D)	Wt. Avg Pur. Cost (C)	System Loss (L)	Total Cost
----- 33 kV -----					
1	Large & Heavy Power (HV-2)	0.73	4.38	2.12%	5.20
----- 11 kV -----					
2	Non Industrial Bulk Load (HV-1)	1.16	4.38	3.60%	5.70
3	Large & Heavy Power (HV-2)	1.16	4.38	3.60%	5.70
----- LT -----					
4	Domestic Light, Fan & Power (LMV-1 M)	1.45	4.38	8.96%	6.22
5	Non - Domestic Light, Fan & Power (LMV-2- Metered)	1.45	4.38	8.96%	6.22
6	Public Lamps (LMV-3-Metered)	1.45	4.38	8.96%	6.22
7	Light ,Fan & Power for Institutions (LMV-4)	1.45	4.38	8.96%	6.22
8	Small Power for Private Tubewell (LMV-5- Metered)	1.45	4.38	8.96%	6.22
4	Small and Medium Power (LMV-6)	1.45	4.38	8.96%	6.22
5	Public Water Works (LMV-7)	1.45	4.38	8.96%	6.22
6	Temporary Supply (LMV-9)	1.45	4.38	8.96%	6.22
7	Domestic Light, Fan & Power (LMV-1- Unmetered)	1.45	4.38	8.96%	6.22
8	Public Lamps (LMV-3-Unmetered)	1.45	4.38	8.96%	6.22
9	Small Power for Private Tubewell (LMV-5- Unmetered)	1.45	4.38	8.96%	6.22
10	State Tube Wells (LMV-8)	1.45	4.38	8.96%	6.22

8.5.5 The impact of migration of consumers from the network of the incumbent Distribution Licensee on the consumer mix and revenues of a particular Distribution Licensee shall be reviewed by the Commission from time to time as may be considered appropriate.

8.6 ADDITIONAL SURCHARGE:

8.6.1 For the present order, additional surcharge is determined to be **zero**.

8.7 OTHER CHARGES:

8.7.1 The Open Access Regulations, 2008 notified by CERC specifies:

“Unless specified otherwise by the concerned State Commission, UI rate for intra-State entity shall be 105% (for over-drawals or under generation) and 95% (for under-drawals or over generation) of UI rate at the periphery of regional entity.”

And which further provides that:



“In an interconnection (integrated A.C. grid), since MW deviations from schedule of an entity are met from the entire grid, and the local utility is not solely responsible for absorbing these deviations, restrictions regarding magnitude of deviations (except on account of over-stressing of concerned transmission or distribution system), and charges other than those applicable in accordance with these regulation (such as standby charges, grid support charges, parallel operation charges) shall not be imposed by the State Utilities on the customers of inter-State open access.”

- 8.7.2 The Commission prescribes to the philosophy specified by CERC for the unscheduled interchange and also rules that the standby, grid support and parallel operations charges shall be **zero** in case of an Open Access customer.



Chapter 9. TARIFF PHILOSOPHY

9.1 CONSIDERATIONS IN TARIFF DESIGN

- 9.1.1 Section 62 of the Electricity Act 2003, read with Section 24 of the Uttar Pradesh Electricity Reform Act, 1999 sets out the overall principles for the Commission to determine the final tariffs for all categories of consumers defined and differentiated according to consumer's load factor, power factor, voltage, total consumption of energy during any specified period or the time at which supply is required or the geographical position of any area, nature of supply and the purpose for which the supply is required. The overall mandate of the statutory legislations to the Commission is to adopt factors that will encourage efficiency, economical use of the resources, good performance, optimum investments and observance of the conditions of the License.
- 9.1.2 The linkage of tariffs to cost of service and elimination of cross-subsidies is an important feature of the Electricity Act, 2003. Section 61 (g) of the Electricity Act, 2003 states that the tariffs should progressively reflect the cost of supply and it also requires the Commission to reduce cross subsidies within a timeframe specified by it. The need for progressive reduction of cross subsidies has also been underlined in Sections 39, 40 and 42 of the Electricity Act, 2003. The Tariff Policy also advocates for adoption of average cost of supply, which should be taken as reference point for fixing the tariff bands for different categories.
- 9.1.3 The Commission has determined the retail tariff for FY 2013-14 in view of the guiding principles as stated in the Electricity Act, 2003 and Tariff Policy. The Commission has also considered the comments / suggestions / objections of the stakeholders and public at large while determining the tariffs. The Commission in its past Orders has laid emphasis on adoption of factors that encourages economy, efficiency, effective performance, autonomy, regulatory discipline and improved conditions of supply. On these lines, the Commission, in this Order too, has applied similar principles keeping in view the ground realities.
- 9.1.4 As regards to the linkage of Tariff with the Cost of Service, the Distribution Tariff Regulations state as follows:

"1. The tariffs for various categories / voltages shall progressively reflect Licensee's cost to serve a particular category at a particular voltage. Allocation of all costs prudently incurred by the Distribution Licensee to different category of con-



sumers shall form the basis of assessing cost to serve of a particular category. Pending availability of information that reasonably establishes the category-wise / voltage-wise cost to serve, average cost of supply shall be used for determining tariffs taking into account the fact that existing cross subsidies will be reduced gradually. Every Licensee shall provide to the Commission an accurate cost to serve study for its area. The category-wise/ voltage wise cost to serve should factor in such characteristics as supply hours, the load factor, voltage, extent of technical and commercial losses etc.

2. To achieve the objective that the tariff progressively reflects the cost of supply of electricity, the Commission may notify a roadmap with a target that latest by the end of year 2010-2011 tariffs are within $\pm 20\%$ of the average cost of supply. The road map shall also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.”

- 9.1.5 In terms of the Distribution Tariff Regulations, Tariff Policy and the Electricity Act, 2003, the Commission opines that in the ideal scenario, the tariff of any category should be linked to the cost imposed on the system by the said category. In this regard, the Commission has been directing the Licensee to conduct Cost of Service studies to have a tool for alignment of costs and charges. The licensee has filed its duly audited cost records for FY 2011-12 for the verification of the Commission in this regard.
- 9.1.6 Accordingly, while determining the tariff for each category, the Commission has looked into the relationship between the tariff and the overall average cost of supply for FY 2013-14. In case the tariff is at / near 120% of the average cost of supply, no increase has been approved, as they are already at maximum end of the band. However, effort has been made to move the tariff of appropriate consumer categories, towards the band to meet the declared objectives of the Distribution Tariff Regulations, Tariff Policy and the Electricity Act, 2003.
- 9.1.7 In view of the above, the Commission has determined the retail tariff keeping in the mind the guiding principles as stated in Section 61 of the Electricity Act, 2003. The accumulated gap of FY 2013-14 for the licensee is Rs. 596.53 crores. An increase in tariff is inevitable keeping in view the increase in cost of supply over the period and resultant poor cost coverage and in the absence of cost reflective tariff. Therefore the Commission has decided to increase the tariff as detailed in the subsequent sections to ensure part recovery of revenue gap.



- 9.1.8 It is a fact that despite categorical provision under Electricity Act, 2003 to necessarily achieve 100% metering, large chunk of rural consumers are still un-metered in the State. In the licenses area of the licensee, predominant proportion of rural consumers either in domestic category (LMV-1) and pump set (LMV-5) category continue to be billed under un-metered category. The situation cannot be changed overnight however; the Commission feels that unless very clear incentives and disincentives are build into the system, the vision of universal metering would remain merely a wishful and glorious intention of the legislature.
- 9.1.9 The Commission in its pursuit of achieving the mandate of 100% metering is consciously increasing the tariff of un-metered consumers' vis-à-vis metered consumers to discourage unmetered connections. In this regard, the Commission has increased the rates for unmetered category in LMV-1 (Domestic Light, Fan and Power), LMV-2 (Non Domestic Light, Fan and Power), LMV-3 (Public Lamps), LMV-5 (Small Power for Private Tube Wells / Pumping Sets for Irrigation Purposes) and LMV-8 (State Tube Wells / Panchayati Raj Tube Well and Pumped Canals). Therefore, impetus to metering is at the nucleus of present rate design.
- 9.1.10 There has been no hike in the tariffs of urban metered consumers since the last three years. However, the cost of supply has gone up tremendously in the last few years. Accordingly, the Commission has increased the tariffs for other metered domestic consumers. The Commission has also created a new slab for consumers having monthly consumption above 500 units.
- 9.1.11 The Commission understands that the lifeline consumers are one of the most disadvantaged consumers of the State and considering this, the Commission has only increased their rates marginally.
- 9.1.12 The LMV-2 (Non Domestic Light, Fan and Power) and LMV-6 (Small and Medium Power) contribute significantly to the revenue stream of the Licensee. With advanced technological intervention and substantial investments being undertaken by the Licensees, the application of minimum charges on LMV-2 (Non Domestic Light, Fan and Power) and LMV-6 (Small and Medium Power) categories has been withdrawn.
- 9.1.13 As in the previous Tariff Order of FY 2012-13 dated 19th October, 2012, a good rise was given to tariffs of HV-2 (Large and Heavy Power) category. Since the tariff of such category of consumers is already above cost of service, they have been spared from any tariff revision.
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Chapter 10. TREATMENT OF REVENUE GAP

10.1 REVENUE GAP / REGULATORY ASSET

10.1.1 The Commission in current Tariff Order has carried out the revised true-up for FY 2007-08 to FY 2010–11, true-up of FY 2011-12 and ARR approval for FY 2012-13 & FY 2013-14. The Commission is guided by the provisions of Distribution Tariff Regulations for treatment of the revenue gap. The provisions of Distribution Tariff Regulations on Regulatory Asset are extracted for reference as under:

“6.12 Regulatory Asset:

1. *Creation of Regulatory Asset only for the purposes of avoiding tariff increase shall not be allowed and it shall only be created to take care of natural causes or force majeure conditions or **major tariff shocks**. The Commission shall have the discretion of providing regulatory asset.*
2. *The use of the facility of Regulatory Asset shall not be repetitive.*
3. *Depending on the amount of Regulatory Asset accepted by the Commission, the Commission shall stipulate the amortization and financing of such assets. Regulatory Asset shall be recovered within a period not exceeding three years immediately following the year in which it is created.”*

10.1.2 The Petitioner submitted that it has been facing severe pressure on its cash flows and has been managing to fund the revenue gap by borrowing and arranging promoter’s equity. Further the Petitioner submitted that it has filed various loan instruments at various time intervals both for working capital as well as term loan and in all the loan agreements, the interest is payable every month. On account of the above reasons, the Petitioner requested to allow interest on regulatory assets on the basis of weighted average SBI PLR as proposed in the petition on monthly compounding basis.

10.1.3 The Regulation 6.12 (3) provides for allowance of financing cost on regulatory assets. Further, the Hon’ble Appellate Tribunal for Electricity has held that proper financing costs / carrying costs / interest charges on the regulatory assets has to be allowed by the State Commission(s). The Commission has gone through the submissions and is in agreement to the contention of the Petitioner. Accordingly, the Commission approves the percentage of carrying cost to be allowed to the



Petitioner based on monthly compounding of weighted average SBI PLR rate applicable for the year on the same principles as has been done by the Commission in its Tariff Order dated 19th October, 2012. The table below provides the computation of the effective percentage of financing cost approved by the Commission.

Table 10-1: PERCENTAGE CARRYING COST APPROVED

Particulars	FY-2011-12 Actual	FY-2012-13 Actual	FY-2013-14 Approved
Weighted Average Rate	14.40	14.61	14.61
Effective Cost	15.39%	15.63%	15.63%

10.1.4 Based on the approved % of carrying costs and the revenue gap for the respective years, the table below highlights the approved/trued-up ARR, revenue at applicable tariffs, carrying cost and the revenue gap for respective years under consideration in the present order.

Table 10-2: REVENUE GAP ANALYSIS (Rs. Crores)

Particulars	F Y 2011-12	F Y 2012-13	F Y 2013-14
Annual revenue Requirement	470.38	653.24	719.44
Revenue at Applicable / approved Tariff (without Regulatory Surcharge)	434.56	581.08	729.47
Revenue Gap	35.82	72.16	-10.03
Revenue Gap from Prev. Year	340.81	431.83	568.99
Carrying Cost	55.20	65.00	82.48
Revenue Gap Carried Forward	431.83	568.99	641.44

10.1.5 As presented in above table, the consolidated revenue gap for FY 2013-14 including regulatory asset component is approved at Rs. 641.44 Crore. The Commission observes that after revision of tariff and introduction of regulatory surcharge vide Tariff Order dated 19th October, 2012; the recovery of unrecovered revenue gap has still not started. The revenue gap carried forward for FY 2013-14 is approved on a provisional basis and shall be subject to final true-up during next ARR tariff petition process or as may be decided by Commission and shall be recovered in future years.



10.2 REGULATORY SURCHARGE

10.2.1 As can be seen from the table above, the entire ARR for FY 2013-14 at Rs. 801.92 Crores (including carrying cost of Rs. 82.48) could not be recovered completely even after applying approved tariff. A revenue gap of Rs. 72.44 Crores is after considering carrying cost of Rs. 82.48 Crores.

10.2.2 The Commission believes that the revenue gaps / regulatory assets for NPCL are getting accumulated year after year, resulting into cash flow deficit. It has been also observed in the past that due to heavy burden of regulatory assets year after year coupled with heavy borrowings to finance the same along with interest, the revenue gap is burgeoning with every passing year resulting into higher interest cost, which in turn cascades into higher cost of service to the consumers. Therefore, any delay in recovery of revenue gap burdens the consumers for carrying cost, therefore, speedy recovery of the same is essential.

10.2.3 Various government and autonomous agencies are stressing on timely and accurate revision of tariffs for the survival of distribution companies. Even, the Appellate Tribunal for Electricity, while dealing with a suo-motto petition, OP No. 1 of 2011, on the letter received from Ministry of Power (judgment passed on 11th November 2011), has emphasized on timely recovery of regulatory assets. The relevant observation of the Hon'ble Tribunal in the said matter is as under:

*“66..... (iv) In determination of ARR / Tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff policy and the Regulations. **The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferable within Control period. Carrying Cost of the Regulatory Asset should be allowed to utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the Distribution Licensee.**” (at page 75 of the Order)*

10.2.4 While the Commission acknowledges that the Licensee is one of the most efficient distribution utility in the country, however, due to heavy burden of regulatory assets year after year coupled with heavy borrowings to finance the same along with interest thereon, suitable tariff revision commensurate with the Annual Revenue Requirements approved by the Commission is inevitable for its survival and sustainability.



10.2.5 In view of the above, it would be relevant to note that even, Delhi Electricity Regulatory Commission in the case of TPDDL, BYPL and BRPL, in their Tariff Orders, while approving Annual Revenue Requirement for the MYT period from FY 2012-13 to FY 2014-15, has allowed a regulatory surcharge @ 8% for recovery of past accumulated regulatory asset.

10.2.6 Thus, for meeting carrying cost of the revenue gap and liquidation of revenue gap, the Commission has decided to continue with the **regulatory surcharge of 8% over "RATE" as defined in the Rate Schedule for FY 2013-14.**

10.2.7 The Commission observes that the revenue gap for the Petitioner till FY 2012-13 is Rs 568.99 Crores, while revenue gap for FY 2013-14 at revised tariff without considering regulatory surcharge is Rs 641.44 Crores. Thus, even after considering the tariff increase approved by the Commission in this Order, it will not enable the Petitioner to generate sufficient revenue in the remaining period of the year, leaving revenue gap for FY 2013-14 as above. Thus, only after considering the regulatory surcharge approved by the Commission vide its Tariff Order dated 19th October, 2012, the Petitioner will be able to generate additional revenue of Rs. 58.36 Crores in the remaining period of the year. Hence, the final revenue gap approved to be carried forward for FY 2013-14 is Rs. 583.08 Crores Thus, the net revenue gap created during the year after considering new tariffs and regulatory surcharge is Rs. 14.09 Crores

10.3 FUTURE POWER PURCHASE PROCUREMENT

10.3.1 The Commission really acknowledges the efforts and initiatives taken by the Petitioner in containing its power purchase costs. It becomes all the more important to control the power purchase costs as it is the single element which contributes more than 80% of the Annual Revenue Requirement of the Licensee.

10.3.2 The Commission acknowledges that since FY 2008-09, NPCL has been able to bring down the power purchase cost of bilateral agreements from Rs. 6.43 per unit to Rs. 3.69 per unit in FY 2011-12. However, the Commission is equally concerned on the constant reliance on short-term power from Open Access. It is also noteworthy that the Petitioner has taken several initiatives to enter into Long-term Power and has finally signed one for supply of 240 MW with Essar Power (Jharkhand) Limited. However, the Commission will be closely monitoring the development on the same.



- 10.3.3 Currently, the power procurement is being carried out through the transparent process of competitive bidding and there is nothing much the Petitioner can do to regulate the prices. Despite this, the Commission firmly believes that the Petitioner will continue its efforts to procure the power at the least possible rates in order to contain the cost of supply and thereby the regulatory asset for the overall benefit of the industry as well as consumer.
- 10.3.4 The Commission is aware that the Petitioner is procuring most of its power through the transparent process of competitive bidding and further directs it to continue to procure power through the same process in accordance with the guidelines issued by the Central Government / CERC for procurement of Long-term / Short-term power.
- 10.3.5 Further, the Commission feels that there is still scope for improvement in the operations of the Licensee and if suitable steps are taken by them in this direction it can result in enormous financial savings. These steps could range from;
- a) Savings in power procurement
 - b) Effective Demand Supply Management (DSM)
- 10.3.6 The Commission in the next Chapter on 'Way Forward' has dealt with DSM in detail and has also mentioned that cost for implementation of such measures will be allowed as pass through in the ARR / Tariff process.



Chapter 11. WAY FORWARD

11.1 BACKGROUND:

11.1.1 The Commission is of the firm opinion that implementation of reforms in the power sector is an imperative and 'on – going' activity. This shall ensure dynamic economic growth of the country and shall never allow any sector to stagnate.

11.1.2 Notwithstanding the various reforms initiated by the Commission, the speed of implementation of these reforms by the Licensee has been a worry. This could be gauged from the fact that even after several years;

- Long Term Power Procurement is yet to kick-off although the PPA has been executed for supply of 240 MW power;
- Development in terms of procurement of Renewable Energy is yet to be made;

11.2 PROACTIVES MEASURES BY COMMISSON IN IMPLEMENTATION OF REFORMS:

11.2.1 The Commission, in its endeavour to expedite implementation of the various reforms has taken proactive measures in the following areas;

- Open Access on Distribution Network;
- Execution of Bulk Power Transmission Agreement;
- Power Trading and Market Development;
- Power Exchange;

11.3 OPEN ACCESS ON DISTRIBUTION NETWORK:

11.3.1 Besides preparing the procedures for grant of Open Access, the Commission also finalised the model Bulk Power Wheeling Agreement (BPWA) which is to be signed between a Distribution Licensee and long term customer to agree therein, interalia, to make payment of wheeling charge, surcharge and additional surcharge, if any, for use of the distribution system.

11.4 BULK POWER TRANSMISSION AGREEMENT:

11.4.1 NPCL has long-term power purchase agreement requiring transmission of electricity between specified point(s) of injection and drawal interfaced with intra-State transmission system. In view of above, Bulk Power Transmission Agreement is to be signed by NPCL along with other Distribution Licensees, in their ca-



capacity of existing long term customer(s), for use of existing transmission system of UPPTCL and assume an obligation to pay transmission charge.

11.5 POWER TRADING AND MARKET DEVELOPMENT:

11.5.1 With the power market opening up and in view of power shortage, the development of a strong power trading mechanism is the need of the future for NPCL. Capacity building and Institutional strengthening is the first step in this direction. This can be achieved with the creation of a Trading Desk for:

- Real time monitoring;
- External information and networking;
- Skill sets development & training;

11.5.2 In this regard, NPCL has created a Power Procurement Desk for carrying out all activities concerned with inter & intra state open access transactions. The Commission directs NPCL, that the Trading Desk must ensure availability & optimum utilisation of power.

11.6 POWER EXCHANGE:

11.6.1 The Power Exchanges have vast opportunities which can be availed by the NPCL in the State. It could be worthwhile to tap the possibilities available for use of Power Exchanges to meet its power demand. Electricity bought from a power exchange where multiple sellers are available on a common platform shall bring economy in power purchases for the NPCL. However, to exploit the potential of the power exchanges to the fullest extent, the utility need to nurture and develop a team with appropriate skill sets. The team participating in the power exchange on behalf of the utility would need to have adequate knowledge of the power sector, the electricity grid code provisions, open access related issues, balancing and settlement of Open Access intra - state and inter – state transactions, metering, availability based tariff regimen, unscheduled interchange mechanism, scheduling dispatch and energy accounting procedures.

11.6.2 The Commission directs NPCL to submit within 2 months from the date of issue of this Tariff Order the status on participation in the Power Exchange(s).



11.7 OTHER DEVELOPMENTS – NEED FOR THE FUTURE:

The Commission would like to highlight here some of the recent developments that have taken place in the power sector which have strived to fulfil the objectives of the Electricity Act, 2003 in its true spirit. The key issues addressed here are of paramount importance and their implementation will help the power sector in the near future. These issues are as described below:

- Roadmap for reduction of cross subsidy
- Demand side management;
- Non-allocation of PPAs
- Multi Year Tariff (MYT) framework;
- Long Term Power Procurement;
- Compliance of Renewable Purchase Obligation.

11.8 DEMAND SIDE MANAGEMENT:

11.8.1 The gap between demand and supply of electricity is common knowledge. The two obvious ways to reduce it are:

- (i) Increase Supply
- (ii) Reduce Demand

Increase in supply suffers from following impediments:

- a. Long gestation period that consumes a lot of quality time;
- b. Large scale capital investment required for new / expansion of projects;
- c. Scarce fossil fuels are consumed;

11.8.2 Therefore it is prudent to contain increasing demand through Demand Side Management (DSM) measures. The Distribution Licensee needs to make full utilisation of the available resources in this regard. NPCL should work out strategies with Uttar Pradesh Power Corporation Limited (UPPCL), the State Designated Agency (SDA) to associate with Bureau of Energy Efficiency (BEE) which has been implementing many DSM projects.

11.8.3 The Commission appreciates the efforts taken by NPCL towards DSM to reduce demand. However, to hasten the speed of implementation of these measures, NPCL must create DSM cell with dedicated staff, resources and budget allocations to plan, develop, monitor and implement DSM initiatives on a sustainable basis. In this regard, NPCL is expected to take up the following steps:



- Prepare DSM plans and allocate budget for implementation of the plans.
- Develop & institutionalize bidding mechanism for implementation of DSM projects aimed at savings in terms of MW of load avoided and / or kWh of energy purchase avoided in identified places such as distribution transformers, feeders, or large bulk consumers like airports, shopping malls, commercial complexes, etc.
- Verification of results of DSM programs / projects through third party or expert(s).
- Consideration of the projected feasible savings through Energy Conservation and Energy Efficiency measures in power procurement plans.
- Capacity building of staff through domestic / international visits to places and exposure to successful DSM projects that have been implemented.
- Utilities may use pre - Identified sources of funds for financing DSM activities.

11.8.4 However, DSM plans should be backed with systematic load research to provide data in terms of expected savings in energy and reductions in demand. This shall also endeavour to provide an insight in to consumer load profile and valuable inputs on cost of service and profitability analysis. This in turn would help NPCL in rate design, load forecasting, load control and load management.

11.8.5 Some of the common measures for DSM that can be taken up are:

- Reduction of Technical & Commercial Losses of Distribution System;
- Energy Efficient Pumps for lifting water;
- Use of CFL / LED lamps in place of Incandescent lamps;
- Energy Efficient Lighting Controls;
- Widespread use of solar water heating system for which capital and interest subsidies are also available;
- Replacement of existing Magnetic Ballasts with use of Electronic Ballasts;
- Automatic Power Factor Controllers;
- Energy Efficient Motors / Fans including water pumping;
- Energy efficient Transformers;
- Segregation of Agricultural feeders;
- Energy Audit of large Government / Commercial / Industrial Consumers;

11.8.6 NPCL should also give wide publicity to 'day to day' DSM measures for public awareness on benefits of conservation of electricity. These include:

- Completely switching off AC, TV, Computers and other electrical appliances when not in use;



- Using white paint for roof tops and walls to enhance reflection for energy saving;
- Defrosting of refrigerators for half an hour during peak load period;
- Encouraging replacement of the conventional electric geysers with energy efficient gas geysers.

11.8.7 The effect of Demand Side Management should reflect in lesser purchase of cost-ly power due to effective energy conservation measures. This shall reduce the revenue requirement of the NPCL. The cost of such DSM projects would be offset by the savings in power purchase cost due to reduction in demand. This should be represented as a separate cost element which shall be allowed by the Commission as a part of the Annual Revenue Requirement of NPCL.

11.8.8 The benefits of DSM can be summarised as below:

- Reduction in customer energy bills;
- Reduction in peak power prices for electricity.
- Reduction in need for new power plant, transmission & distribution network;
- Reduction in air pollution;
- Reduction in dependency on foreign energy sources;
- Creation of long - term jobs to cater to new innovations and technologies;
- Increasing competitiveness of local enterprises;
- Stimulating economic development;

11.8.9 The Commission directs NPCL to regularly update the Commission on the status of implementation of the DSM measures being undertaken / intended to be taken up by the utility. The report must indicate the cost-benefit analysis of the measures being undertaken by NPCL.

11.8.10 Further NPCL may refer to the “REPORT ON DSM & ENERGY EFFICIENCY” of the Forum of Regulators issued in September, 2008 for detailed information and guidance.

11.9 NON-ALLOCATION OF POWER PURCHASE AGREEMENTS (PPAs)

11.9.1 Prior to commencement of the NPCL’s operations, UPSEB was procuring power from the Central Generating Stations through various Power Purchase Agreements (PPAs) and supplying power to the entire State of UP including the area now being served by NPCL. The power allocated to UP from Central Generating



Stations was inter alia in terms of the Gadgil formula for central assistance to the States. UPSEB was also procuring power from their own generating plants which have been set up either from the funds of its own consumers or from subvention by State Government (being contributed from the entire population of State through tax collection). It is therefore evident from the aforesaid arrangements that the entire population of UP including the consumers of Greater Noida have equitable share of the power generated from the Central & State Generating Stations.

11.9.2 With the unbundling of UPSEB, UPPCL became the legal successor of the aforesaid PPAs in terms of Section 13 of the Reforms Act, for supplying power to all Distribution Licensees including the Company in the State of UP. Subsequently, with the enactment of the EA 2003, the Central Government prepared and notified the National Electricity Policy, 2005 and the Tariff Policy, 2006 in pursuance of Section 3 of the EA 2003. Clause 5.3.4 of the National Electricity Policy, 2005 and Clause 8.4 (2) of the Tariff Policy, 2006 specifically provided for suitable allocation of existing PPAs with the generating companies, after the reform process, by the State Government to the distribution companies as per their load profile in such a manner that each Distribution Licensee gets the benefit of cheaper power as well as share the burden of expensive power so that the consumers in the area of different distribution companies can equitably enjoy the benefit of all power purchase agreements. These policies have the due force of law and are binding even on the Regulatory Commissions by virtue of Sections 79 (4) and 86 (4) of the EA 2003. In fact, even the Commission *vide* its several orders passed from time to time has directed for suitable allocation of the PPAs to NPCL and other discoms in terms of the aforesaid policies of the Government of India. Unfortunately, despite such orders of the Commission, the PPAs have not yet been assigned to all the state discoms. Such allocation of PPAs is urgent need of the hour.

11.10 MULTI YEAR TARIFF FRAMEWORK:

11.10.1 The Commission on careful evaluation of the tariff system prevalent across the country feels that annual revision of performance norms and tariff might not always be desirable. Hence there is a need for a Multi Year Tariff (MYT) framework wherein a multi - year trajectory is specified for performance parameters and ARR and Tariff is determined on an annual basis.



11.10.2 During the first control period (of five or three years), the performance norms may be specified as close as possible to the actual level of performance in accordance to the Tariff Policy even though better levels may have been specified in the past and a trajectory of improvement of norms to the desired level shall be set along with adequate incentive and disincentive mechanisms.

11.10.3 For subsequent control periods, the opening levels shall be considered at closing levels specified by the Commission for the preceding control period. Thus, in a way, the MYT framework shall allow the utility to start afresh.

11.10.4 Six months prior to submission of the MYT petition, NPCL shall have to submit Business Plan and Power Purchase Plan covering following aspects:

- Category-wise sales projections;
- Load growth details;
- Power procurement plan indicating long-term and short-term sources;
- Details of load shedding;
- Capital expenditure and capitalisation plans, financing pattern and impact on related expenses;
- Employee rationalisation etc.

11.10.5 Further, NPCL may also refer to the "REPORT ON MULTI-YEAR TARIFF FRAMEWORK & DISTRIBUTION MARGIN" of the Forum of Regulators issued in November, 2008 for detailed information and guidance.

11.11 LONG TERM POWER PROCUREMENT:

11.11.1 Power purchase cost is the main cost element which accounts for about 85% of the total cost for the distribution business. The power purchase cost is determined from the demand and supply position. The power purchase cost projected is based on the projected demand of power purchase and the expected price for each unit of power.

11.11.2 NPCL is facing power shortage scenario since 6-7 years and had it envisaged or forecasted demand through proper planning and initiated efforts for long term power procurement through some tie-ups or even through own generation capacity, the situation would have been different. In this situation, the Commission reiterates that NPCL needs to vigorously pursue setting up its own power plant for meeting its power purchase needs.



- 11.11.3 NPCL should map a 5 to 10 years long-term power procurement plan on the basis of the demand forecast and assessment of power availability. Such a plan is useful for determining the demand and supply position which would facilitate NPCL to enter into long-term power purchase agreements with State Generating Stations, Non-conventional Energy Sources, Merchant Power Producers Independent Power Producers (IPP) and Captive Power Plants.
- 11.11.4 The objective of the long-term power procurement plan is to secure available and reliable power supply to all consumers with economically viable tariffs, while satisfying power supply planning and security standards.
- 11.11.5 The Commission is of the view that NPCL should ensure that the entire quantum of required power supply is tied up through optimum long-term Power Purchase Agreements (PPAs), so that the need for costly short-term power purchase, is minimised and eliminated.
- 11.11.6 It is understood that NPCL since FY 2008 - 09, the Petitioner has made four attempts to procure power through long term competitive biddings, but due to lack of sufficient valid bids, procurement of power through long-term sources could not be finalized. Hence, the Petitioner had to rely on the short term bilateral contracts to meet the demand of the consumers in Greater Noida area. The fifth attempt was made in FY 2010 - 11, when the Petitioner received six bids. After evaluating the bids, M/s Essar Power (Jharkhand) Limited was declared as the lowest bidder and consequently, on 9th May 2012, PPA was executed for supply of 240 MW power for 25 years commencing from 30th Apr 2014. Under the circumstances, the Petitioner has no other option but to source power through short term bilateral contracts at the market determined rates till then.
- 11.11.7 The Commission acknowledges that the long term power procurement from April 2014 would surely help NPCL to a large extent but the actual commencement of of the PPA is the key and any delay in actual implementation will increase the dependence on short term power purchase for more than 50% of the demand till a few more years which may worsen financial position of NPCL and may give undesirable tariff shocks to the consumers. Therefore, NPCL is directed to closely monitor the development of the project from where the Long-term power has been tied-up and keep the Commission duly informed on the same.



11.12 COMPLIANCE OF RENEWABLE PURCHASE OBLIGATION:

11.12.1 NPCL shall purchase a minimum percentage of its total consumption of electricity (in kWh) from renewable energy sources under the renewable purchase obligation during each financial year in accordance with the UPERC (Captive and Non-Conventional Energy Generation Plants) Regulations, 2009.

11.12.2 NPCL may also establish its own generating plant based on renewable energy sources to fulfil renewable purchase obligation

11.13 CONCLUSION:

11.13.1 The Commission, through this particular chapter, has touched upon some of the new developments taking place in the power sector. From this it can be seen that there are some areas where the utility needs to further focus their efforts. The Commission can act as a facilitator, but the actual efforts needs to be put in by the utility itself to achieve the desired results.

11.13.2 As has always been the case, the utility will no doubt rise to the challenge and look at new opportunities coming up in the sector and at the same time not lose focus on the reform initiatives.

11.13.3 The power sector is the flag - bearer of development of any economy. The vibrant health of the power sector is often an accurate reflection of the State's economy. Greater Noida has been the centre of the attraction for all Infrastructure developments and hence it must take all necessary measures to ensure healthy growth of the power sector and propel the State forward towards economic success.



Chapter 12. DIRECTIVES FOR NPCL

12.1 DIRECTIVES PROVIDED BY COMMISSION AND COMPLIANCE BY PETITIONER

12.1.1 This chapter details the Commission's directives to the Licensee. The Licensee in its ARR and Tariff filings has provided details regarding the status of compliance to the Commission's directives issued vide the Tariff Order for FY 2012-13. The details of compliance to directives by Licensee are provided in Annexure 3.

12.1.2 Further, some of the directives issued by the Commission in the present Tariff Order are in continuation or similar to the directives issued in previous Tariff Order. In case of such directives, if the Licensee has not complied with the same earlier, it shall be necessary for the Licensee to provide reasons for non-compliance and further comply with the same as per the time-lines prescribed in the present Tariff Order.

12.1.3 The directives for the Licensee as issued under the present Tariff Order are given in the table below along with the time frame for compliance.

Table 12-1: DIRECTIVES FOR NPCL

Sr. No.	Description of Directive for NPCL	Time Period for Compliance from the date of issue of the Tariff Order
1.	The Commission directs NPCL to procure short term power in accordance with the Guidelines for Short-Term (i.e. for a period less than or equal to one year) Procurement of Power by Distribution Licensees through Tariff based Bidding process, notified by the Ministry of Power on 15 th May, 2012.	Immediate
2.	The Commission directs NPCL to initiate concrete steps to purchase power from renewable sources of energy so as to meet its Renewable Purchase Obligation under the UPERC (Promotion of Green Energy through Renewable Purchase Obligation) Regulations, 2010.	During each financial year
3.	The Commission directs NPCL to economize on power purchase front by exploring possibility of drawing power through UI when the grid frequencies are favourable. UPPTCL is also directed to permit NPCL to	Immediate



	draw power from the UI route as and when the frequency is found favourable and not affecting the grid stability.	
4.	The Commission directs NPCL to explore the opportunity of purchasing power through Power Exchange when economical, by participating in Power Exchange(s). UPPTCL / UPSLDC is also directed to provide the requisite Concurrence / No Objection Certificate / Prior Standing Clearance to NPCL for participation in the Power Exchange(s).	Two Months
5.	The Commission directs NPCL to avail open access on the transmission network in accordance with the UPERC (Terms and Conditions for Open Access) Regulations, 2004 so as to procure power corresponding to the demand in its area. The Commission also directs UPPTCL to strengthen its transmission network and facilitate open access for NPCL on its transmission network.	Immediate
6.	The Commission directs the Petitioner to conduct a study from an expert to determine actual technical loss incurred in new voltage levels viz. 220 kV and 132 kV	Before the filing of next tariff petition
7.	The Commission directs the Petitioner to conduct a study for assessment of additional technical losses due to additional voltage levels of 220 kV and 132 kV at R C Green and Gharbara Substation.	Within six months of this Tariff Order
8.	The Commission directs the licensee to provide a copy of the Fixed Asset Register within one month from the finalisation of the audit for FY 2012-13 for the records of the Commission.	Within one month from the date of finalisation of Audited Accounts for FY 2012-13

The Commission would like to submit that while it has attempted to enlist most of the directives given in the Tariff Order in the present chapter, the list given above may not be exhaustive and the Licensee is directed adhere to all the directives given in the text of the Tariff Order.



Chapter 13. APPLICABILITY OF THE ORDER

The Licensee, in accordance to Section 139 of the Uttar Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations 2004, shall publish the approved tariffs and regulatory surcharge within three days from the date of this Order. The Licensee shall ensure that the same is published in at least two daily newspapers (one English and one Hindi) having wide circulation in the area of supply. The tariffs and regulatory surcharge so published shall become the notified tariffs applicable in the area of supply and shall come into force after seven days from the date of such publication of the tariffs and regulatory surcharge, and unless amended or revoked, shall continue to be in force till issuance of the next Tariff Order.

(Meenakshi Singh)

Member

(Shree Ram)

Member

Dated: 31st May, 2013

Lucknow.



Chapter 14.ANNEXURES

14.1 LIST OF ATTENDEES

ANNEXURE – I

List of Persons who attended Public Hearing in Greater Noida on 22 nd April, 2013		
S.N	Name	Organization
1	Mr. Mohit Bhatia	WLL, Junpat
2	Mr. Jogendra	Makara
3	Mr. Manoj Bhatt	Bulk
4	Mr. Harber Singh	Kanpur
5	Mr. Naveen	Village- Tilpata
6	Mr. Manoj Nagar	Village- Bajpura
7	Mr. Mahaveer	Khanpur
8	Mr. Sunil	Sakipur
9	Mr. Narendra	Bhanohta
10	Mr. Sanjeev	Makara
11	Mr. Balendra Singh	Beta II, G. Nagar
12	Mr. Haroon Khan	Thapheda
13	Mr. Govind Singh	-
14	Mr. Suresh Bhatia	Junpat
15	Mr. Ravi Nagar	Chaula
16	Mr. Vinit Rana	Lukshar
17	Mr. Anil Kumar	D-92, Alpha 01
18	Mr. Satish	Dabra
19	Ms. Rupa Gupta	G-193,
20	Mr. A.W. Pandey	Chairman, Indian Industries Association
21	Mr. Bhim	-
22	Mr. Abhishek	Habibpur
23	Mr. Basanta Sahu	-
24	Mr. Priyanshu	Sallarpur
25	Mr. Ashok Kumar	Ghaziabad
26	Mr. J.S. Rana	Accman Industry
27	Mr. Anil Bhava	NBT
28	Mr. Rajesh Gautam	Dainik jagran
29	Mr. Arun Bhatia	National
30	Ms. Pinki Verma	AWHO Society
31	Mr. Deepak Kumar	-
32	Mr. Vinod Kumar	Surajpur S/s



List of Persons who attended Public Hearing in Greater Noida on 22nd April, 2013		
S.N	Name	Organization
33	Mr. Vamid Kumar	Bata I
34	Mr. Arvind Mishra	Dainik Jagran
35	Mr. Sanjay Garg	Dainik Jagran
36	Mr. Vishaeed Gautam	RWA
37	Mr. Alok Singh	RWA
38	Mr. Ajay Bhatt	-
39	Mr. S.A. Rizvi	EE (RAU), UPPCL
40	Mr. Mohd Ghufraan	CE (RAU), UPPCL
41	Mr. D.C. Verma	EE (RAU), UPPCL



ANNEXURE – II

14.2 COMPLIANCE TO DIRECTIVES

Sr. No.	Description of Directive for NPCL	Time Period for Compliance from the date of issue of the Tariff Order	Updated Status of the Compliances
1.	The Commission directs NPCL to procure short term power in accordance with the Guidelines for Short-Term (i.e. for a period less than or equal to one year) Procurement of Power by Distribution Licensees through Tariff based Bidding process, notified by the Ministry of Power on 15 th May, 2012.	Immediate	The company has tied up substantial power for FY 12-13 through short term competitive bidding. The Company will procure substantial power required for FY13-14 through short term competitive bidding as per the guidelines notified by the Central Government.
2.	The Commission directs NPCL to initiate concrete steps to purchase power from renewable sources of energy so as to meet its Renewable Purchase Obligation under the UPERC (Promotion of Green Energy through Renewable Purchase Obligation) Regulations, 2010.	During each financial year	<p>The Company has been exploring every possible opportunity to procure green power. In order to fulfill its obligation the Company has once again floated a tender for procurement of power through RE sources for FY'12-13 and FY'13-14 in September 2012, however, not even a single response was received. The Company has informed the Commission regarding outcomes of the bidding process vide its letter no. P-77A/129 dated 29.10.2012. [Copy enclosed as Annexure 10.1]</p> <p>The Company has also explained in detail the difficulties coming in the way of</p>



			procurement of RE power in Chapter-4.
3.	<p>The Commission directs NPCL to economize on power purchase front by exploring possibility of drawing power through UI when the grid frequencies are favourable. UPPTCL is also directed to permit NPCL to draw power from the UI route as and when the frequency is found favourable and not affecting the grid stability.</p>	Immediate	<p>Despite various Correspondences and requests made by the Company through various letters [Copy of latest letter enclosed as Annexure 10.2] to PVVNL/UPPCL regarding the implementation of UI accounting as per the order dated 24/25.09.2007 of the Commission regarding implementation of ABT accounting, the Company has received no response from them, neither they have implemented ABT accounting nor have they settled the UI account as per the abovementioned order. In addition to above on various occasions when frequency is greater than 50 Hz, UPPTCL has restrained the Company to draw power through UI. This issue has been raised a number of times to UPPTCL / UPSLDC, recently vide our letter no. NPCL/OA/UPPTCL/149 dated 16.11.2012. [Copy enclosed as Annexure 10.3]</p>
4.	<p>The Commission directs NPCL to explore the Opportunity of purchasing power through Power Exchange when economical, by participating in Power Exchange(s).</p> <p>UPPTCL/SLDC is also directed to provide the requisite concurrence/No Objection Certificate to NPCL for participating in Power</p>	Two Months	<p>The Company would start buying power from power exchange as and when NOC/Clearance is given by UPSLDC/UPPTCL. This has already been explained in Chapter 4 and the Petition in Form-1.</p>



	Exchanges(s).		
5.	The Commission directs UPPCL / PVVNL to revise the monthly bills of NPCL at the Bulk Supply Tariffs determined in the Tariff Order for other State distribution utilities and accordingly give effect of the same in subsequent periods. NPCL is directed to pay the arrears on account of the revised charges for previous period in 48 installments.	Immediate	While the BST (Bulk Supply Tariff) in respect to Power Supply by UPPCL has been increased w.e.f from 1 st April, 2010, on the other hand the Retail Tariffs were revised w.e.f 1 st October, 2012 adding further burden on already strained cash flow of the Company. However, NPCL will pay the arrear in 48 equal installments as soon as revised bills giving effects to the Tariff Order dated 19 th October, 2012 are given to the Company.
6.	The Commission directs UPPTCL to revise the monthly bills of NPCL at the charges (transmission charges) determined in the Tariff Order for UPPTCL and accordingly give effect of the same in subsequent periods. UPPTCL and NPCL are advised to settle their accounts accordingly.	Immediate	Response Awaited from UPPTCL
7.	To ensure appropriate treatment of interest capitalization in future years, NPCL is directed to devise a methodology for booking the interest charges during the construction period of the capital account and submit the same for approval of the	Next ARR Filing	As per the directions of the Hon'ble UPERC and APTEL, the Company has adopted the methodology for capitalisation of actual interest cost incurred on new assets in accordance with "Accounting Standard 16 on Cost of Borrowing" and accordingly, capitalised a sum of Rs. 0.93 Cr in FY 2011-12 in its Audited Financial Statements. The aforesaid methodology has been duly approved by the Board of Directors of the



	Commission.		<p>Company and has been verified by the Statutory Auditors as well.</p> <p>According to the methodology, interest expenses incurred on the purchase of materials and supply of labor is being computed from the date of supply, in case of materials, and from the date of erection, in case of labour, each projectwise.</p> <p>The Company is using SAP based ERP for the purpose of accounting and maintenance of Fixed Asset Register. Thus, the interest cost so computed is included in the project cost and is being capitalised along with the same for depreciation, RoE etc. purposes.</p>
8.	The Commission directs NPCL to expedite O&M expenditure study for determination of desired performance standards and submit the same to the Commission.	Next ARR Filing	As directed by the Commission, the O&M Study has been assigned to ICRA Management Consultancy Services (IMaCS) vide our Work Order no. 4100000608 dated 5 th March 2012 . Due to frequent changes in the IMaCS team and a number of refinements being carried out in the Draft Report, the same could not be finalised till date. IMaCS has indicated that the report would be submitted latest by 26 th December 2012.
9.	The Commission directs NPCL to avail open access on the transmission network in accordance with the UPERC (Terms and Conditions for Open Access) Regulations, 2004 so as to procure power corresponding to the demand	Immediate	UPPTCL has not done anything in last 8 years to augment / strengthen its transmission network so as to enable the Company to procure and wheel adequate power for meeting the demand of its consumers. This has been mentioned in detail in para – 4.9 of Chapter 4 .



	<p>in its area. The Commission also directs UPPTCL to strengthen its transmission network and facilitate open access for NPCL on its transmission network.</p>	<p>The Company is already procuring power through Open Access from various Inter-state and Intra-state sources. In this reference the Company would like to submit that UPSLDC /UPPTCL have curtailed the quantum of power to be drawn through Open Access citing the reason of overloading of Power-grid line [Consent Form is enclosed as Annexure 10.4]</p> <p>In reference to the same, the Company vide letter no. NPCL/OA/UPPTCL/126 and dated 22/10/2012 [Copy enclosed as Annexure 10.5] submitted to UPPTCL that their actions are not in line with Clause 8(3)(b) CERC (Open Access in Inter-State Transmission) Regulation, 2008. Still, no response has been received from them till now.</p> <p>Further, in this matter PGCIL vide their letter dated 26/10/2012 [copy enclosed as Annexure 10.6] while referring to the same regulations as mentioned above informed the Company to take the matter with UPPTCL.</p> <p>Despite the direction of the Commission UPPTCL is not discharging its statutory obligation in providing non-discriminatory open access to the Company despite the fact that 220 / 132 / 33kV R C Green Substation has 200 MW capacity. The Commission is requested to take necessary action on the same so that Company is able to supply requisite power to the consumers of the Greater Noida.</p>
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<p>10.</p>	<p>The Commission directs NPCL and UPPCL / PVVNL / UPPTCL/ UPSLDC to settle the cost on account of UI transactions since Feb'2008 in accordance with the ABT Order dated 24/25.09.2007 passed by the Commission. The Commission also directs UPPTCL / UPSLDC to undertake energy accounting of NPCL in accordance with the said ABT order dt. 24/25.09.2007.</p>	<p>Immediate</p>	<p>Despite various Correspondences and requests through various letters [Copy of latest letter enclosed as Annexure 10.2] made by the Company to PVVNL/UPPCL regarding the implementation of UI accounting as per the order dated 24/25.09.2007 of the Commission regarding implementation of ABT accounting, the Company has received no response from them, neither they have implemented ABT accounting nor have they settled the UI account as per the abovementioned order. Further, the Company has also started sending its daily drawal schedule from 01.10.2012 as asked by UPSLDC in the prescribed format to start the UI accounting.[Copy enclosed as Annexure 10.7].</p> <p>However, UPPCL / PVVNL /UPPTCL / UPSLDC have not yet implemented the Order of the Commission dated 14 / 25th Sep'07.</p>
<p>11.</p>	<p>The Commission directs the Licensee to submit the investment plan for next year filing strictly in accordance with Distribution Tariff Regulation.</p> <p>The Commission further directs the Licensee to submit the progress details regarding the major schemes under implementation for review by the Commission on a quarterly</p>	<p>Next ARR Filing</p> <p>Quarterly</p>	<p>The Company have been submitting the investment plan along with its funding and Cost benefit Analysis as per the UPERC Distribution Tariff Regulation, 2006.</p> <p>Also, the status regarding the major schemes under implementation for the FY 2011-12 has been submitted to the Commission and for FY 2012-13 will be submitted shortly.</p>



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ANNEXURE – III

RATE SCHEDULE FOR FY 2013 - 14



14.3 RATE SCHEDULE FOR FY 2013-14

RETAIL TARIFFS FOR FINANCIAL YEAR 2013-14:

GENERAL PROVISIONS:

These provisions shall apply to all categories unless specified otherwise and are integral part of the Rate Schedule.

1. NEW CONNECTIONS:

- (i) All new connections shall be given as per the applicable provisions of Electricity Supply Code and shall be released in multiples of KW only, excluding consumers of Rate Schedule LMV-5 & LMV-8. Further, for tariff application purposes fractional kW loads (if any) of already existing consumers shall be treated as next higher kW load;
- (ii) New connection of 10 kW & above and 13.4 BHP & above loads shall be given with installation of demand recording Static Tri-vector Meter (TVM) or TOD meters as may be appropriate. Licensee shall ensure installation of Tri-vector Meter (TVM) or TOD meters (Demand Recording Meters), (as may be appropriate) on all existing consumers with load of 10 kW / 13.4 BHP and above as the case may be and for all consumers of Rate Schedule where TOD rates have been specified.

2. READING OF METERS:

As per applicable provisions of Electricity Supply Code.

3. BILLING WHEN METER IS NOT ACCESSIBLE OR NOT READ (NA / NR BILLS - PROVISIONAL PAYMENT):

As per the provisions of applicable Electricity Supply Code with a provision of penalty of Rs. 50 / kW / month for the purposes of Clause 6.2 (c) of applicable Electricity Supply Code.

4. BILLING IN CASE OF DEFECTIVE METERS:

As per the applicable provisions of Electricity Supply Code.



5. KVAH TARIFF:

'kVAh based tariffs' shall be applicable on all consumers having contracted load of 10 kW & above for Light, Fan & Power and 13.4 BHP & above for Motive Power Loads, under different categories with static TVM / TOD meters installed (as appropriate).

The rates prescribed in different categories in terms of kW and kWh will be converted into appropriate kVA and kVAh by multiplying Fixed / Demand Charges and Energy Charges by an average power factor of 0.90. Similarly, the Fixed / Demand Charges expressed in BHP can be converted into respective kVA rates in accordance with formula given below:

$$\text{Demand Charges in kVA} = (\text{Demand Charges in BHP} * 0.90) / 0.746$$

By applying the same formula Fixed Charges can also be calculated.

Note: If the power factor of a consumer is leading and is within the range of 0.95 -1.00, then for tariff application purposes such leading power factor shall be treated as unity. The bills of such consumers shall be prepared accordingly. However, if the leading power factor is below 0.95 (lead) then the consumer shall be billed as per the kVAh reading indicated by the meter. However, the aforesaid provision of treating power factor below 0.95 (lead) as the commensurate lagging power factor for the purposes of billing shall not be applicable on HV-3 category and shall be treated as unity. Hence, for HV-3, lag + lead logic of the meter should not be used and "lag only" logic of the meter should be provided which blocks leading kVARh thereby treating leading power factor as unity and registering instantaneous kWh as instantaneous kVAh in case of leading power factor.

6. BILLABLE DEMAND:

For all consumers having static Tri-vector Meter / TOD Meters (Demand Recording Meters) installed, the billed demand during a month shall be the actual maximum demand as indicated by TVM / TOD meter (can be in parts of kVA) or 75% of the contracted load, whichever is higher. The contracted load in kW shall be divided by a power factor of 0.90 to work out the equivalent contracted load in kVA and rounded off to nearest integer.



7. SURCHARGE / PENALTY:

(i) DELAYED PAYMENT:

If a consumer fails to pay his electricity bill by the due date specified therein, a late payment surcharge shall be levied at 1.25 % per month; up-to first three months and subsequently @ 1.5% per month. Late payment surcharge shall be calculated proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill excluding surcharge. Imposition of this surcharge is without prejudice to the right of the Licensee to disconnect the supply or take any other measure permissible under the law.

(ii) CHARGES FOR EXCEEDING CONTRACTED DEMAND:

If the maximum demand in any month of a consumer having TVM / TOD / Demand recording meters does not exceed the Contracted Demand beyond 10% then such excess demand shall be levied at normal rate as charged for exceeding contracted demand apart from the demand charge recovery as per the maximum demand recorded by the meter.

However, if the demand exceeds the contracted demand by more than 10%; then such excess demand shall be levied at twice the normal rate apart from the demand charge on the maximum demand indicated by the meter.

This additional charge shall be without prejudice to the Licensee's right to take such other appropriate action including disconnection of supply, as may be deemed necessary to restrain the consumer from exceeding his contracted load.

Any surcharge / penalty shall be over and above the minimum charge, if the consumption bill of the consumer is being prepared on the basis of minimum charge.

8. POWER FACTOR SURCHARGE:

- (i) It shall be obligatory for all consumers to maintain an average power factor of more than 0.85 during any billing period. No new connections of motive power loads / inductive loads above 3 kW, other than under LMV-1 and LMV-2 category, and / or of welding transformers above 1kVA shall be given, unless shunt capacitors having I.S.I specifications of appropriate ratings are installed, as described in ANNEXURE 10.4 **Error! Reference source not found..**



- (ii) In respect of the consumers with or without static TVMs, excluding consumers under LMV-1 category up to connected load of 10 kW and LMV-2 category up to connected load of 5 kW, if on inspection it is found that capacitors of appropriate rating are missing or in-operational and Licensee can prove that the absence of capacitor is bringing down the power factor of the consumer below the obligatory norm of 0.85; then a surcharge of 15% of the amount of bill shall be levied on such consumers. Licensee may also initiate action under the relevant provisions of the Electricity Act, 2003, as amended from time to time.

Notwithstanding above the Licensee also has a right to disconnect the power supply, if the power factor falls below 0.75.

- (iii) Power factor surcharge shall however, not be levied during the period of disconnection on account of any reason whatsoever and where consumer is being billed on kVAh consumption basis.

9. PROVISION RELATED TO SURCHARGE WAIVER SCHEME FOR RECOVERY OF BLOCKED ARREARS:

- i. The Licensee may, on a decision by its Board of Directors, launch a Surcharge Waiver Scheme (One time Settlement Scheme) in any two months of a financial year for recovery of its blocked arrears by waving off surcharge to the extent not exceeding 50% of overall surcharge for which no approval of the Commission shall be required.
Provided that the impact of such surcharge waiver shall not be allowed as pass through in the next ARR / Tariff or true-ups. In this regard, the Licensees would have to submit the certificate duly verified by the statutory auditor, of the surcharge waived for any previous year along with the ARR / Tariff Petition of the ensuing year.
- ii. Further, the Licensee may launch a surcharge waiver scheme without any restrictions on quantum of surcharge waiver provided the State Government provides an advance subsidy to compensate the complete / full loss of the Licensee arising out of surcharge waiver.
- iii. The Licensees would be required to submit the full details of each Surcharge Waiver Scheme (One time Settlement Scheme) within one month from the end of the scheme.



10. PROTECTIVE LOAD:

Consumers getting supply on independent feeder at 11kV & above voltage, emanating from sub-station, may opt for facility of protective load and avail supply during the period of scheduled rostering imposed by the Licensee, except under emergency rostering. An additional charge @ 100% of base demand charges fixed per month shall be levied on the contracted protective (as per Electricity Supply Code) load each month. During the period of scheduled rostering, the load shall not exceed the sanctioned protective load. In case the consumer exceeds the sanctioned protective load during scheduled rostering, he shall be liable to pay twice the prescribed charges for such excess load. Consumers of LMV-4 (A) - Public Institutions will however pay the additional charge @ 25% only.

11. ROUNDING OFF:

All bills will be rounded off to the nearest rupee.

12. OPTION OF MIGRATION TO HV2 CATEGORY:

The consumer under LMV-1, LMV-2, LMV-4 and LMV-6 with contracted load above 50 kW and getting supply at 11 kV & above voltage shall have an option to migrate to the HV-2 category. Furthermore, the consumers shall have an option of migrating back to the original category on payment of charges prescribed in Cost Data Book for change in voltage level.

13. PRE-PAID METERS / AUTOMATIC METER READING SYSTEM:

In line with the directive given in the last Tariff Order, the Commission directs the Licensees to expedite the process of introduction of pre-paid meters on all government connections and public institutions wanting to opt for with loads below 45 kW and installation of automatic meter reading systems for loads above 45 kW.

14. Consumers not covered under any rate schedule or expressly excluded from any category:

For consumers of light, fan & power (excluding motive power loads) not covered under any rate schedule or expressly excluded from any LMV rate schedule will be categorized under LMV-2.

15. Wherever, the billing is based on two part tariff structure, the fixed charge will be computed on the basis of contracted load.



- 16.** A consumer under metered category may undertake any extension work, in the same premises, on his existing connection without taking any temporary connection as long as his demand does not exceed his contracted demand and the consumer shall be billed in accordance with the tariff applicable to that category of consumer.



RATE SCHEDULE LMV – 1:

DOMESTIC LIGHT, FAN & POWER:

1. APPLICABILITY:

This schedule shall apply to:

- a) Premises for residential / domestic purpose, Janata Service Connections, Kutir Jyoti Connections, Places of Worship (e.g. Temples, Mosques, Gurudwaras, Churches) and Electric Crematoria.
- b) Mixed Loads

i. 50 kW and above

- a. Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings with mixed loads (getting supply at single point) with the condition that 70% of the total contracted load shall be exclusively for the purposes of domestic light, fan and power. The above mixed load, within 70%, shall also include the load required for lifts, water pumps and common lighting,
- b. Military Engineer Service (MES) for Defence Establishments (Mixed load without any load restriction).

ii. Less than 50 kW

For mixed loads less than 50 kW, however, if any portion of the above load is utilized for conduct of business for non-domestic purposes then the entire energy consumed shall be charged under the rate schedule of higher charge.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(a) Consumers getting supply as per 'Rural Schedule' (other than Tehsil Head Quarters, Nagar Palikas and Nagar Panchayat Areas):

Description	Fixed charge	Energy charge)
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Description	Fixed charge	Energy charge)
i) Un-metered	Rs. 180 / connection / month	Nil
ii) Metered	Rs. 50 / kW / month	Rs. 2.20 / kWh

(b) Supply at Single Point for bulk loads:

Description	Fixed Charge	Energy Charge
For Townships, Registered Societies, Residential Colonies, multi-storied residential complexes (including lifts, water pumps and common lighting within the premises) with loads 50 kW and above with the restriction that at least 70% of the total contracted load is meant exclusively for the domestic light, fan and power purposes and for Military Engineer Service (MES) for Defence Establishments (Mixed load without any load restriction).	Rs. 70.00 / kW / Month	Rs. 4.50 / kWh

The body seeking the supply at Single point for bulk loads under this category shall be considered as a deemed franchisee of the Licensee.

(c) OTHER METERED DOMESTIC CONSUMERS:

- 1. Lifeline consumers:** Consumers with contracted load of 1 kW, energy consumption up to 150 kWh / month.

Description	Fixed Charge	Energy Charge
Loads of 1 kW only and for consumption up to 100 kWh / month (0 to 100 kWh / month)	Rs. 50.00 / kW / month	Rs. 2.20 / kWh
Loads of 1 kW only and for consumption above 100 kWh / month up to 150 kWh / month (101 to 150 kWh / month)		Rs. 2.60 / kWh



- 2. Others:** Other than life line consumers (i.e. consumers who do not qualify under the criteria laid down for lifeline consumers.)

Description	Consumption Range	Fixed Charge	Energy Charge
All loads	Upton 200 kWh / month	Rs. 75.00 / kW / month	Rs. 4.00 / kWh
	201 – 500 kWh / month		Rs. 4.50 / kWh
	Above 500 kWh / month (From 501 st unit onwards)		Rs. 5.00 / kWh

Note:

1. For all consumers under this category the maximum demand during the month recorded by the meter has to be essentially indicated in their monthly bills. However, this condition would be mandatory only in case meter reading is done by the Licensee. Accordingly, if the bill is being prepared on the basis of reading being submitted by the consumer then the consumer would not be liable to furnish maximum demand during the month and his bill would not be held back for lack of data on maximum demand. Recording of such maximum demand will be used for the purpose of system planning and consumer education in the current tariff year.



RATE SCHEDULE LMV– 2:

NON DOMESTIC LIGHT, FAN AND POWER:

1. APPLICABILITY:

This schedule shall apply to all consumers using electric energy for Light, Fan and Power loads for Non-Domestic purposes, like all type of Shops, Hotels, Restaurants, Private Guest Houses, Private Transit Hostels, Private Students Hostels, Marriage Houses, Show-Rooms, Commercial / Trading Establishments, Cinema and Theatres, Banks, Cable T.V. Operators, Telephone Booths / PCO (STD / ISD), Fax Communication Centres, Photo Copiers, Cyber Café, Private Diagnostic Centres including X-Ray Plants, MRI Centres, CAT Scan Centres, Pathologies and Private Advertising / Sign Posts / Sign Boards, Commercial Institutions / Societies, Automobile Service Centres, Coaching Institutes, Private Museums, Power Looms with less than 5 kW load and for all companies registered under Companies Act-1956 with loads less than 75 kW and getting supply at low voltages.

2. Character and Point of Supply:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(a) Consumers getting supply as per 'Rural Schedule' (other than Tehsil Head Quarters, Nagar Palikas and Nagar Panchayat Areas):

Description	Fixed Charge	Energy charge
(i) Un-metered	Rs. 300 / connection / month	Nil
(ii) Metered	Rs. 65 / kW / month	Rs. 2.50 / kWh



(b) Private Advertising / Sign Posts / Sign Boards / Glow Signs / Flex:

For all commercial (road side / roof tops of buildings) advertisement hoardings such as Private Advertising / Sign Posts / Sign Boards / Glow Signs / Flex, the rate of charge shall be as below:

Description	Fixed Charge	Energy Charge	Minimum Charge
Metered	-	Rs. 14.00 / kWh	Rs. 1200/kW/Month

Note:

For application of these rates Licensee shall ensure that such consumption is separately metered.

(c) In all other cases, including urban consumers and consumers getting supply through rural feeders but exempted from scheduled rostering / restrictions or through co-generating radial feeders in villages / towns.

Consumption Range	Fixed Charge	Energy Charge
Upton 300 kWh / month	Rs. 200.00 / kW / month	Rs. 6.00 / kWh
Above 300 kWh / month (From 301 st unit onwards)		Rs. 6.50 / kWh

Note:

1. For all consumers under this category the maximum demand during the month recorded by the meter has to be essentially indicated in their monthly bills. However, this condition would be mandatory only in case meter reading is done by the Licensee. Accordingly, if the bill is being prepared on the basis of reading being submitted by the consumer then the consumer would not be liable to furnish maximum demand during the month and his bill would not be held back for lack of data on maximum demand.

4. REBATE TO POWER LOOMS:

Rebate to Power Loom consumers shall be applicable in accordance with the Government order dated 14th June, 2006 and the Commission's order dated 11th July, 2006 subject to adherence of provision of advance subsidy.



RATE SCHEDULE LMV -3:

PUBLIC LAMPS:

1. APPLICABILITY:

This schedule shall apply to Public Lamps including Street Lighting System, Road Traffic Control Signals, Lighting of Public Parks, etc. The street lighting in Harijan Bastis and Rural Areas are also covered by this rate schedule.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate gives the fixed and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(a) Un-metered Supply:

Description	Gram Panchayat	Nagar Palika and Nagar Panchayat	Nagar Nigam
To be billed on the basis of total connected load calculated as the summation of individual points	Rs. 1700 per kW or part thereof per month	Rs. 2000 per kW or part thereof per month	Rs. 2500 per kW or part thereof per month



(b) Metered Supply:

Description	Gram Panchayat		Nagar Palika and Nagar Panchayat		Nagar Nigam	
	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
All loads	Rs. 120 / kW / month	Rs. 5.25 / kWh	Rs. 150 / kW / month	Rs. 5.60 / kWh	Rs. 160 / kW / month	Rs. 5.75 / kWh

TOD Rates applicable for the metered supply (% of Energy Charges):

18:00 hrs – 06:00 hrs	0%
06:00 hrs – 18:00 hrs	(+) 20%

4. For 'Maintenance Charges', 'Provision of Lamps' and 'Verification of Load' refer ANNEXURE 10.2.2.



RATE SCHEDULE LMV- 4:

LIGHT, FAN & POWER FOR PUBLIC INSTITUTIONS AND PRIVATE INSTITUTIONS:

1. APPLICABILITY:

LMV- 4 (A) - PUBLIC INSTITUTIONS:

This schedule shall apply to:

- (a) Government Hospitals / Government Research Institutions / Offices of the Government Organizations other than companies registered under Companies Act 1956.
- (b) Government & Government aided (i) Educational Institutions (ii) Hostels (iii) Libraries
- (c) Religious and charitable Institutions including orphanage homes, old age homes and those providing services free of cost or at the charges / structure of charges not exceeding those in similar Government operated institutions.
- (d) Railway Establishments (excluding railway traction, industrial premises & Metro) such as Booking Centres, Railway Stations & Railway Research and Development Organization, Railway rest houses, Railway holiday homes, Railway inspection houses.
- (e) All India Radio and Doordarshan.

LMV-4 (B) - PRIVATE INSTITUTIONS:

This schedule shall apply to non-Government hospitals, nursing homes / dispensaries / clinics, private research institutes, and schools / colleges / educational institutes & charitable institutions / trusts not covered under **(A)** above.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

Description	Fixed Charge	Energy Charge
(A) For Public Institutions	Rs. 200 / kW / month	Rs. 6.50 / kWh
(B) For Private Institutions	Rs. 200 / kW / month	Rs. 6.75 / kWh



RATE SCHEDULE LMV– 5:

SMALL POWER FOR PRIVATE TUBE WELLS / PUMPING SETS FOR IRRIGATION PURPOSES:

1. APPLICABILITY:

This schedule shall apply to all power consumers getting supply as per Rural / Urban Schedule for Private Tube-wells / Pumping Sets for irrigation purposes having a contracted load up to 25 BHP and for additional agricultural processes confined to Chaff-Cutter, Thresher, Cane Crusher and Rice Huller. All new connections under this category shall necessarily have the ISI marked energy efficient mono-bloc pump sets with power factor compensation capacitors of adequate rating to qualify for the supply. All existing pump sets shall be required to install power factor compensation capacitors.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(A) For consumers getting supply as per Rural Schedule:

(i)Un-metered Supply

Fixed Charge	Energy Charge
Rs. 100 / BHP / month	Nil
Consumer under this category will be allowed a maximum lighting load of 120 Watts.	



(ii) Metered Supply

Fixed Charge	Minimum Charges	Energy Charge
Rs. 30 / BHP / month	Rs. 75 / BHP / month	Rs. 1.00 / kWh

NOTE: Minimum bill payable by a consumer under Rural Schedule (Metered Supply) shall be Rs. 75 per BHP per month, till the installation of the meter.

(B) For consumers getting supply as per **Urban Schedule** (Metered Supply) including consumers getting supply through rural feeders exempted from scheduled rostering or through co-generating radial feeders in villages and towns.

Fixed Charge	Minimum Charges	Energy Charge
Rs. 55 / BHP / month	Rs. 140 / BHP / month	Rs. 4.00 / kWh

NOTE: Minimum bill payable by a consumer under Urban Schedule (Metered Supply) shall be Rs. 140 per BHP per month, till the installation of the meter.



Rate Schedule LMV– 6:

SMALL AND MEDIUM POWER:

1. APPLICABILITY:

This schedule shall apply to all consumers of electrical energy having a contracted load up to 100 HP (75 kW) for industrial / processing or agro-industrial purposes, power loom (load of 5 kW and above) and to other power consumers, not covered under any other rate schedule. Floriculture / Mushroom farming units having loads up-to 100 BHP (75kW) shall also be covered under this rate schedule. This schedule shall also apply to pumping sets above 25 BHP.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the fixed and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(A) Consumers getting supply other than Rural Schedule:

Consumption Range	Fixed Charge	Energy Charge
For all Consumption	Rs. 225.00 / kW / month	Rs. 6.00 / kWh

TOD Rates (% of Energy Charges):

22:00 hrs – 06:00 hrs	(-) 7.5%
06:00 hrs – 17:00 hrs	0%
17:00 hrs – 22:00 hrs	(+) 15%

(B) Consumers getting supply as per Rural Schedule:

The consumer under this category shall be entitled to a rebate of 15% on demand & energy charges as given for under urban schedule without TOD rates.

4. PROVISIONS RELATED TO SEASONAL INDUSTRIES:

Seasonal industries will be determined in accordance with the criteria laid down below. No exhaustive list can be provided but some examples of industries exhib-



iting such characteristics are sugar, ice, rice mill and cold storage. The industries which operate during certain period of the year, i.e. have seasonality of operation, can avail the benefits of seasonal industries provided:

- i) The load of such industry is above 13.4 BHP (for motive power loads) & 10 kW (other loads) and have Tri-vector Meters / TOD meters installed at their premises.
- ii) The continuous period of operation of such industries shall be at least 4 (four) months but not more than 9 (nine) months in a financial year.
- iii) Any prospective consumer, desirous of availing the seasonal benefit, shall specifically declare his season at the time of submission of declaration / execution of agreement mentioning the period of operation unambiguously.
- iv) The seasonal period once notified cannot be reduced during the next consecutive 12 months. The off-season tariff is not applicable to composite units having seasonal and other category loads.
- v) The off-season tariff is also not available to those units who have captive generation exclusively for process during season and who avail Licensees supply for miscellaneous loads and other non-process loads.
- vi) The consumer opting for seasonal benefit has a flexibility to declare his off seasonal maximum demand subject to a maximum of 25% of the contracted demand. The tariff rates (demand charge per kW / kVA and energy charge per kWh / kVAh) for such industries during off-season period will be the same as for normal period. Further, during the off season fixed charges shall be levied on the basis of maximum demand recorded by the meter (not on normal billable demand or on percentage contracted demand). Rates for the energy charges shall however be the same as during the operational season. Further, first violation in the season would attract full billable demand charges and energy charges calculated at the unit rate 50% higher than the applicable tariff during normal period but only for the month in which the consumer has defaulted. However, on second default the consumer will forfeit the benefit of seasonal rates for the entire season.

5. REBATE TO POWER LOOMS:



Rebate to Power Loom consumers shall be applicable in accordance with the Government order dated 14th June, 2006 and the Commission's order dated 11th July, 2006 subject to adherence of provision of advance subsidy.

6. FACTORY LIGHTING:

The electrical energy supplied shall also be utilized in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, crèche, dispensary, staff welfare centres, compound lighting, etc. No separate connection for the same shall be provided.

7. LOAD FACTOR REBATE:

For any excess consumption over the defined kVAh per KVA (of maximum demand recorded) as defined in the table below, a graded rebate is provided on the energy charges for such excess consumption. This rebate will be available on monthly basis and will be given to the consumer for each slab.

Description	Rebate on Energy charges
For all consumption over 288 kVAh per kVA up to 432 kVAh per kVA per month	7.5% on the consumption over 288 kVAh / kVA / month and up to 432 kVAh / kVA / month
For all consumption over 432 kVAh per kVA up to 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% on the consumption over 432 kVAh / kVA / month and up to 504 kVAh / kVA / month
For all consumption in excess of 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% as applicable in second slab <i>plus</i> 20% on the consumption over 504 kVAh / kVA / month

Note: Consumer with arrears shall not be eligible for above rebate. In case the consumer has obtained an order of stay from a court or any other statutory authority, the amount of load factor rebate for which the consumer is eligible in re-



spect of the amount of the bill shall be calculated and the same shall accrue to the account of the consumer. However, the actual credit thereof shall not be given to the consumer in his monthly bill until the case relating to the dispute regarding arrear is finally decided by the competent court / statutory authority.



RATE SCHEDULE LMV– 7:

PUBLIC WATER WORKS:

1. APPLICABILITY:

This schedule shall apply to Public Water Works, Sewage Treatment Plants and Sewage Pumping Stations functioning under Jal Sansthan, Jal Nigam or other local bodies.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

(A) Consumers getting supply other than “Rural Schedule”:

Rate gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

Fixed Charge	Energy Charge
Rs. 230 / kW / month	Rs. 6.25 / kWh

(B) Consumers getting supply as per “Rural Schedule”:

The consumer under this category shall be entitled to a rebate of 15% on demand & energy charges as given for under other than rural schedule.



Rate Schedule LMV – 8:

STATE TUBE WELLS / PANCHAYTI RAJ TUBE WELL & PUMPED CANALS:

1. APPLICABILITY:

- (i) This schedule shall apply to supply of power for all State Tube wells, including Tube wells operated by Panchayti Raj, World Bank Tube wells, Indo Dutch Tube wells, Pumped Canals and Lift Irrigation schemes having a load up to 100 BHP.
- (ii) Laghu Dal Nahar having load above 100 BHP.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

Description	Fixed Charge	Energy Charge
Metered	Rs. 200 / BHP / month	Rs. 6.00 / kWh
Un-metered	Rs. 1250 / BHP / month	Nil

- 4.** For finding out net additional load during any quarter of the year for this category refer ANNEXURE 10.2.3



RATE SCHEDULE LMV – 9:

TEMPORARY SUPPLY:

1. APPLICABILITY:

A) Un-metered Supply for Illumination/ Public Address/ Temporary Shops in Melas:

This schedule shall apply to temporary supply of light, fan & power up to 20 KW, Public address system and illumination loads during functions, ceremonies and festivities and temporary shops, not exceeding three months.

B) Metered Supply for all other purposes:

This schedule shall apply to all temporary supplies of light, fan and power load for the purpose other than mentioned in (A) above.

This schedule shall also apply for power taken for construction purposes not exceeding two years, including civil work by all consumers and Govt. Departments.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE (SEPARATELY FOR EACH POINT OF SUPPLY):

Rate gives the fixed and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

A. Un-metered:

(i) Fixed charges <i>for illumination / public address / ceremonies</i> for load up to 20 kW per connection plus Rs. 100 per kW per day for each additional kW.	Rs. 2500 / day
(ii) Fixed charges for <i>temporary shops</i> set-up during festivals / melas or otherwise and having load up to 2KW	Rs. 170 / day / shop

B. Metered:

Description	Minimum Charge	Energy Charge
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Individual Residential construction	Rs. 115/kW/week	Rs. 6.00 / kWh
Others		Rs. 6.50 / kWh

Note:

Charge as specified at A, shall be paid by the consumer in advance.



RATE SCHEDULE HV– 1:

NON INDUSTRIAL BULK LOADS:

1. APPLICABILITY:

This rate schedule shall apply to:

- (a) Commercial loads (as defined within the meaning of LMV-2) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels.
- (b) Private institutions (as defined within the meaning of LMV-4 (b)) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels.
- (c) Non domestic bulk power consumer (other than industrial loads covered under HV-2) with contracted load 75 kW & above and getting supply at single point on 11 kV & above voltage levels and feeding multiple individuals (owners / occupiers / tenants of some area within the larger premises of the bulk power consumer) through its own network and also responsible for maintaining distribution network.
- (d) Public institutions (as defined within the meaning of LMV-4 (a)) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels. The institution / consumer seeking the supply at Single point for non-industrial bulk loads under this category shall be considered as a deemed franchisee of the Licensee.
- (e) Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings with mixed loads (getting supply at single point) with contracted load 75 kW & above and getting supply at single point on 11 kV & above voltage levels and having less than 70% of the total contracted load exclusively for the purposes of domestic light, fan and power. Figure of 70%, shall also include the load required for lifts, water pumps and common lighting,
- (f) For Offices / Buildings / Guesthouses of UPPCL / UPRVUNL / UPJVNL / UPPTCL / Distribution Licensees having loads above 75 kW and getting supply at 11 kV & above voltages.

2. CHARACTER AND POINT OF SUPPLY:



As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the demand and energy charges at which the consumer shall be billed for consumption during the billing period applicable to the category:

- (a) **Commercial Loads / Private Institutions / Non domestic bulk power consumer with contracted load 75 kW & above and getting supply at Single Point on 11 kV & above:**

	For supply at 11kV	For supply at 33 kV & above
Demand Charges	Rs. 270 / kVA / month	Rs. 250 / kVA / month
Energy Charges	Rs. 6.10 / kVAh	Rs. 6.00 / kVAh

- (b) **Public Institutions with contracted load 75 kW & above and getting supply at Single Point on 11 kV & above voltage levels:**

	For supply at 11kV	For supply at 33 kV & above
Demand Charges	Rs. 250 / kVA / month	Rs. 240 / kVA / month
Energy Charges	Rs. 6.00 / kVAh	Rs. 5.80 / kVAh



RATE SCHEDULE HV– 2:

LARGE AND HEAVY POWER:

1. APPLICABILITY:

This rate schedule shall apply to all consumers having contracted load above 75 kW (100 BHP) for industrial and / or processing purposes as well as to Arc / induction furnaces, rolling / re-rolling mills, mini-steel plants and floriculture & farming units and to any other HT consumer not covered under any other rate schedule.

Supply to Induction and Arc furnaces shall be made available only after ensuring that the loads sanctioned are corresponding to the load requirement of tonnage of furnaces. The minimum load of one-ton furnace shall in no case be less than 400 kVA and all loads will be determined on this basis. No supply will be given on loads below this norm.

For all HV-2 consumers, conditions of supply, apart from the rates, as agreed between the Licensee and the consumer shall continue to prevail as long as they are in line with the existing Regulations & Acts.

2. CHARACTER AND POINT OF SUPPLY:

As per the applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the demand and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed for his consumption during the billing period applicable to the category:



(A) Urban Schedule:

	For supply at 11 kV	For supply above 11 kV and up to & including 66 kV	For supply above 66 kV and up to & includ- ing 132 kV	For supply above 132 kV
BASE RATE				
Demand Charges	Rs. 250 / kVA / month	Rs. 240 / kVA / month	Rs. 220 / kVA / month	Rs. 220 / kVA / month
Energy Charges	Rs. 5.90 / kVAh	Rs. 5.60 / kVAh	Rs. 5.40 / kVAh	Rs. 5.20 / kVAh
TOD RATE				
22:00 hrs – 06:00 hrs	(-) 7.5%	(-) 7.5%	(-) 7.5%	(-) 7.5%
06:00 hrs – 17:00 hrs	0%	0%	0%	0%
17:00 hrs – 22:00 hrs	(+) 15%	(+) 15%	(+) 15%	(+) 15%

(B) Rural Schedule:

This schedule shall be applicable only to consumers getting supply up to 11 kV as per 'Rural Schedule'. The consumer under this category shall be entitled to a rebate of 15% on demand & energy charges as given for 11 kV consumers under urban schedule without TOD rates.

(C) Consumers already existing under HV-2 category with metering arrangement at low voltage:

Existing consumer under HV-2 with metering at 0.4 kV shall be required to pay as per schedule applicable to 11 kV consumers under HV-2 category.



4. PROVISIONS RELATED TO SEASONAL INDUSTRIES:

Seasonal industries will be determined in accordance with the criteria laid down below. No exhaustive list can be provided but some examples of industries exhibiting such characteristics are sugar, ice, rice mill and cold storage. The industries which operate during certain period of the year, i.e. have seasonality of operation, can avail the benefits of seasonal industries provided:

- i. The continuous period of operation of such industries shall be at least 4 (four) months but not more than 9 (nine) months in a financial year.
- ii. Any prospective consumer, desirous of availing the seasonal benefit, shall specifically declare his season at the time of submission of declaration / execution of agreement mentioning the period of operation unambiguously.
- iii. The seasonal period once notified cannot be reduced during the next consecutive 12 months. The off-season tariff is not applicable to composite units having seasonal and other category loads.
- iv. The off-season tariff is also not available to those units who have captive generation exclusively for process during season and who avail Licensees supply for miscellaneous loads and other non-process loads.
- v. The consumer opting for seasonal benefit has a flexibility to declare his off seasonal maximum demand subject to a maximum of 25% of the contracted demand. The tariff rates (demand charge per kW / kVA and energy charge per kWh / kVAh) for such industries during off-season period will be the same as for normal period. Further, during the off season fixed charges shall be levied on the basis of maximum demand recorded by the meter (not on normal billable demand or on percentage contracted demand). Rates for the energy charges shall however be the same as during the operational season. Further, first violation in the season would attract full billable demand charges and energy charges calculated at the unit rate 50% higher than the applicable tariff during normal period but only for the month in which the consumer has defaulted. However, on second default the consumer will forfeit the benefit of seasonal rates for the entire season.



5. LOAD FACTOR REBATE:

For any excess consumption over the defined kVAh per KVA (of maximum demand recorded) as defined in the table below, a graded rebate is provided on the energy charges for such excess consumption. This rebate will be available on monthly basis and will be given to the consumer for each slab.

Description	Rebate on Energy charges
For all consumption over 396 kVAh per kVA up to 432 kVAh per kVA per month	7.5% on the consumption over 396 kVAh / kVA / month and up to 432 kVAh / kVA / month
For all consumption over 432 kVAh per kVA up to 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% on the consumption over 432 kVAh / kVA / month and up to 504 kVAh / kVA / month
For all consumption in excess of 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% as applicable in second slab <i>plus</i> 20% on the consumption over 504 kVAh / kVA / month

Note: Consumer with arrears shall not be eligible for above rebate. In case the consumer has obtained an order of stay from a court or any other statutory authority, the amount of load factor rebate for which the consumer is eligible in respect of the amount of the bill shall be calculated and the same shall accrue to the account of the consumer. However, the actual credit thereof shall not be given to the consumer in his monthly bill until the case relating to the dispute regarding arrear is finally decided by the competent court / statutory authority.



6. FACTORY LIGHTING:

The electrical energy supplied shall also be utilized in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, crèche, dispensary, staff welfare centres, compound lighting, etc. No separate connection for the same shall be provided.



RATE SCHEDULE HV – 3:

A: RAILWAY TRACTION:

1. APPLICABILITY:

This schedule shall apply to the Railways for Traction loads only.

2. CHARACTER OF SERVICE AND POINT OF SUPPLY:

Alternating Current, single phase, two phase or three phase, 50 cycles, 132 kV or below depending on the availability of voltage of supply and the sole discretion of the Licensee. The supply at each sub-station shall be separately metered and charged.

3. RATE:

Rate, gives the demand and energy charges at which the consumer shall be billed for consumption during the billing period applicable to the category:

Description	Charges
(a) Demand Charge	
For supply at and above 132 kV	Rs. 280 / kVA / month
Below 132 kV	Rs. 280 / kVA / month
(b) Energy Charge (all consumption in a month)	
For supply at and above 132 kV	Rs. 5.90 / kVAh
Below 132 kV	Rs. 5.90 / kVAh
(c) Minimum Charge	Rs. 650 / kVA / month

4. LOAD FACTOR REBATE:

For any excess consumption over the defined kVAh per KVA (of maximum demand recorded) as defined in the table below, a graded rebate is provided on the



energy charges for such excess consumption. This rebate will be available on monthly basis and will be given to the consumer for each slab.

Description	Rebate on Energy charges
For all consumption over 396 kVAh per kVA up to 432 kVAh per kVA per month	7.5% on the consumption over 396 kVAh / kVA / month and up to 432 kVAh / kVA / month
For all consumption over 432 kVAh per kVA up to 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% on the consumption over 432 kVAh / kVA / month and up to 504 kVAh / kVA / month
For all consumption in excess of 504 kVAh per kVA per month	7.5% as applicable in first slab <i>plus</i> 10% as applicable in second slab <i>plus</i> 15% on the consumption over 504 kVAh / kVA / month

5. DETERMINATION OF THE DEMAND:

Demand measurement at a particular time will be made on basis of simultaneous maximum demands recorded in summation kilovolt-ampere meter installed at contiguous substation serviced by same grid transformer.

The demand for any month shall be defined as the highest average load measured in Kilo Volt –amperes during any fifteen consecutive minutes period of the month.



B: DELHI METRO RAIL:

1. APPLICABILITY:

This schedule shall apply to the DMRC (Delhi Metro Rail Corporation).

2. CHARACTER OF SERVICE AND POINT OF SUPPLY:

Alternating Current, single phase, two phase or three phase, 50 cycles, 132 kV or below depending on the availability of voltage of supply and the sole discretion of the Licensee. The supply at each sub-station shall be separately metered and charged.

3. RATE:

Rate, gives the energy charges at which the consumer shall be billed for consumption during the billing period applicable to the category:

Demand Charges	Rs. 125 / kVA / month
Energy Charges	Rs. 5.00 / kVAh
Minimum charge	Rs. 550 / kVA / month

- Penalty @ Rs. 540 / kVA will be charged on excess demand, if demand exceeds contracted load.
- This category has been made as per the agreement between DMRC and NOIDA Administration.

4. DETERMINATION OF THE DEMAND:

Demand measurement shall be made by suitable kilovolt ampere indicator at the point of delivery. The demand for any month shall be defined as the highest average load measured in Kilo Volt-Amperes during any fifteen consecutive minutes period of the month.



RATE SCHEDULE HV – 4:

LIFT IRRIGATION WORKS:

1. APPLICABILITY:

This Rate Schedule shall apply to medium and large pumped canals having load of more than 100 BHP (75kW).

2. CHARACTER OF SERVICE & POINT OF SUPPLY:

As per applicable provisions of Electricity Supply Code.

3. RATE:

Rate, gives the demand and energy charges at which the consumer shall be billed for his consumption during the billing period applicable to the category:

(a) Demand Charges:

Voltage Level	Rate of Charge
For supply at 11 kV	Rs. 250 / kVA / month
For supply at 33 kV and 66 kV	Rs. 240 / kVA / month
For supply at 132 kV	Rs. 230 / kVA / month

(b) Energy Charges:

Voltage Level	Rate of Charge
For supply at 11 kV	Rs. 6.00 / kVAh
For supply at 33 kV and 66 kV	Rs. 5.80 / kVAh
For supply at 132 kV	Rs. 5.60 / kVAh

c) Minimum Charges:

Rs. 650 / kVA / month irrespective of supply voltage



4. DETERMINATION OF THE DEMAND:

Demand measurement shall be made by suitable kilovolt ampere indicator at the point of supply. In the absence of suitable demand indicator, the demand as assessed by the Licensee shall be final and binding. If, however, the number of circuits is more than one, demand and energy measurement will be done on the principle of current transformer summation metering.



DEPARTMENTAL EMPLOYEES:

1. OTHER PROVISIONS:

- (i) For serving / retired employees and their spouse, the supply will only be given at one place where Licensee's mains exist. The electric supply under this tariff will be given only at one place, within the area of erstwhile UPSEB / its successor companies.
- (ii) In the event of transfer of the employee, this tariff shall be applied at the new place of posting only when a certificate has been obtained from the concerned Executive Engineer of the previous place of posting, that the supply under this tariff has been withdrawn at previous place of posting. Further, the employee shall also be required to submit an affidavit that he is not availing the benefit of LMV-10 connection anywhere else in the state.
- (iii) Those who are not availing this tariff shall also give a declaration to this effect. This declaration shall be pasted / kept in his service book / personal file / Pensioners record. If the declaration is found wrong, necessary action against the employee shall be taken as per the provisions of service rules. If declaration has already been given at the present place of posting then further declaration is not necessary due to this revision. Pensioners shall also have to give a similar declaration for availing departmental tariff at only one place. In case this declaration is found wrong, this tariff shall be withdrawn forever.
- (iv) No other concession shall be admissible on this tariff.
- (v) The schedule of miscellaneous charges as appended with Licensee's General Tariff as amended from time to time and Electricity Supply (Consumers) Regulation, 1984 as enforced from time to time shall also be applicable on the employee / pensioner receiving supply under this schedule.
- (vi) Retired employees drawing pension from the Treasury / Bank will have to pay the monthly electricity charges as per the rates given in the rate schedule applicable to their category.
- (vii) In case of Multi-Storied / Societies where the electricity connection are provided at single point with HT metering, the employees / pensioners / family pensioners, shall be provided through a separate meter and shall be given adjustment towards HT side metered energy at single point. Fixed



charges equivalent to sanctioned load of the departmental employee shall also be adjusted. One percent of energy consumed by LMV-10 consumer shall also be added towards transformation losses for giving adjustment

- (viii) LMV-10 consumers will have to give an undertaking regarding use of Air conditioners.

2. MODE OF PAYMENT:

- (i) The Disbursing Officer shall compulsorily and regularly deduct the amount due monthly from the salary bill of each and every employee / pensioners drawing pay / pension from his unit each month. The Drawing Officer shall ensure that each employee / pensioner has given the declaration about the connection in his name together with details of S.C. No. / Book No. and name of the billing division, before the disbursement of pay / pension.
- (ii) The monthly amount due from a consumer of this category can also be deposited by the concerned officer / employee to the concerned division in case the said amount is not being deducted from his salary / pension.
- (iii) Revenue and Energy Statistics in respect of the category of employee / pensioner shall be regularly prepared by the Divisions in the same manner as for every other manually billed category.
- (iv) Recovery from the salary shall be sent to the billing units in accordance with the instructions contained in circular No. 362-CAO/C-177 (Misc.) dated 5.5.89 and No. 380-CAO dated 12.5.89 from Chief Accounts Officer of erstwhile UPSEB, Lucknow.
- (v) In case of metered consumption, the mode of payment shall be similar to the domestic consumer.



PUBLIC LAMPS:

1. MAINTENANCE CHARGE:

In addition to the “Rate of Charge” mentioned above, a sum of Rs. 10.00 per light point per month will be charged for operation and maintenance of street lights. This Maintenance Charge will cover only labour charges, where all required materials are supplied by the local bodies. However, the local bodies will have an option to operate and maintain the public lamps themselves and in such case, no maintenance charge shall be recovered. This charge shall not apply to the consumers with metered supply.

2. PROVISION OF LAMPS:

Streets where distribution mains already exist, the Licensee will provide a separate single-phase, 2-wire system for the street lights including light fitting and incandescent lamps of rating not exceeding 100 Watts each. In case the above maintenance charge is being levied, the labour involved in replacements or renewal of lamps shall be provided by the Licensee. However, all the required materials shall be provided by the local bodies. The cost of all other types of street light fittings shall be paid by the local bodies.

The cost involved in extension of street light mains (including cost of sub-stations, if any) in areas where distribution mains of the Licensee have not been laid, will be paid for by the local bodies.

3. VERIFICATION OF LOAD:

The number of light points including that of traffic signals together with their wattage will be verified jointly by the representatives of Licensee and Town Area / Municipal Board / Corporation at least once in a year. However, additions will be intimated by the Town Area / Municipal Board / Corporation on monthly basis. The Licensee will carry out the checking of such statements to satisfy themselves of the correctness of the same. The monthly bills shall be issued on the basis of verified number of points at the beginning of the year and additions, if any, during the months as intimated above. The difference, if any, detected during joint verification in the following year shall be reconciled and supplementary bills shall be issued.



Further, if the authorized representative of concerned local body does not participate in the work of verification of light points, a notice will be sent by concerned Executive Engineer in writing to such local bodies for deputing representative on specific date(s), failing which the verification of the light points shall be done by the concerned representative of Licensee which shall be final and binding upon such local body.



STATE TUBE-WELLS

NET ADDITIONAL LOAD:

- (i) Net additional load hereinafter shall mean the total additional load connected during the quarter less the load of failed and abandoned tube-wells accounted for during that quarter.
- (ii) The connected load as on 31st March of the preceding year will be worked out on the basis of 'Net additional load' reported by the Executive Engineers of concerned Divisions after joint inspection and verification of the same by the concerned officers of the State Government / Panchayat, joint meter reading shall also be taken during the inspection on quarterly basis. The monthly bills for three months of the first quarter will be issued on the connected load worked out as such at the above rates. The same process shall be repeated for subsequent quarters.



SCHEDULE OF MISCELLANEOUS CHARGES

SI. No.	NATURE OF CHARGES	UNIT	RATES (₹)
1.	Checking and Testing of Meters:		
	a. Single Phase Meters	Per Meter	50.00
	b. Three Phase Meters	Per Meter	50.00
	c. Recording Type Watt-hour Meters	Per Meter	175.00
	d. Maximum Demand Indicator	Per Meter	350.00
	e. Tri-vector Meters	Per Meter	1000.00
	f. Ammeters and Volt Meters	Per Meter	50.00
	g. Special Meters	Per Meter	400.00
	h. Initial Testing of Meters	Per Meter	Nil
	Disconnection and Reconnection of supply for any reason whatsoever (Disconnection & Reconnection to be separately treated as single job)		
2.	a. Consumer having load above 100 BHP/75kW	Per Job	500.00
	b. Power consumers up to 100BHP/75kW	Per Job	275.00
	c. All other categories of consumers.	Per Job	150.00
	Replacement of Meters:		
3.	a. By higher capacity Meter		
	b. Installation of Meter and its subsequent removal in case of Temporary Connections	Per Job	50.00
	c. Changing of position of Meter Board at the consumer's request	Per Job	75.00
	Service of Wireman :		
4.	a. Replacement of Fuse		
	b. Inserting and Removal of Fuse in respect of night loads.	Per Job	20.00
	c. Hiring of services by the consumer during temporary supply or otherwise.	Per wireman /day of 6 Hrs.	60.00
5.	Resealing of Meters on account of any reason in addition to other charges payable in terms of other provision of charging of penalties, etc.)	Per Meter	100.00
6.	Checking of Capacitors (other than initial checking) on consumer's request:		
	a. At 400 V / 230 V	Per Job	100.00
	b. At 11 kV and above.	Per Job	200.00



CHARGES FOR TATKAL VIDYUT SANYOJAN (TATKAL CONNECTION):

For urban consumers of LMV-1, LMV-2 and LMV-9 categories, desirous of getting connection within 24 hours of making the application, provided such release of connection does not require extension of distribution mains or commissioning of sub-station or augmenting capacity of transformers, shall have to pay following additional charges apart from the regular connection charges:

1. FOR PERMANENT ELECTRICITY CONNECTION:

- a. Single Phase Domestic light and fan : Rs. 500 per connection
- b. Three Phase Domestic light and fan : Rs. 750 per connection
- c. Single Phase Commercial : Rs. 750 per connection
- d. Three Phase Commercial : Rs. 1000 per connection

2. FOR TEMPORARY ELECTRICITY CONNECTION:

- a. Single Phase (Up to 4 kW) : Rs. 750 per connection
- b. Three Phase (from 5 kW to 24 kW) : Rs. 1000 per connection



14.4 LIST OF POWER FACTOR APPARATUS

FOR MOTORS:

Sl. No.	Rating of Individual Motor	KVAR Rating of Capacitor			
		750 RPM	1000 RPM	1500 RPM	3000 RPM
1.	Upto 3 HP	1	1	1	1
2.	5 HP	2	2	2	2
3.	7.5 HP	3	3	3	3
4.	10 HP	4	4	4	3
5.	15 HP	6	5	5	4
6.	20 HP	8	7	6	5
7.	25 HP	9	8	7	6
8.	30 HP	10	9	8	7
9.	40 HP	13	11	10	9
10.	50 HP	15	15	12	10
11.	60 HP	20	20	16	14
12.	75 HP	24	23	19	16
13.	100 HP	30	30	24	20
14.	125 HP	39	38	31	26
15.	150 HP	45	45	36	30
16.	200 HP	60	60	48	40



FOR WELDING TRANSFORMERS:

Sl. No.	Name Plate Rating in KVA of Individual Welding Transformer	Capacity of the Capacitors (KVAR)
1.	1	1
2.	2	2
3.	3	3
4.	4	3
5.	5	4
6.	6	5
7.	7	6
8.	8	6
9.	9	7
10.	10	8
11.	11	9
12.	12	9
13.	13	10
14.	14	11
15.	15	12
16.	16	12
17.	17	13
18.	18	14
19.	19	15
20.	20	15
21.	21	16
22.	22	17
23.	23	18
24.	24	19



Sl. No.	Name Plate Rating in KVA of Individual Welding Transformer	Capacity of the Capacitors (KVAR)
25.	25	19
26.	26	20
27.	27	21
28.	28	22
29.	29	22
30.	30	23
31.	31	24
32.	32	25
33.	33	25
34.	34	26
35.	35	27