BEFORE

THE MEGHALAYA STATE ELECTRCITY REGULATORY COMMISSION

IN THE MATTER OF:

Meghalaya Energy Corporation Limited ------- **Petitioner**

Lumjingshai Short Round Road

Shillong-793001

AND

IN THE MATTER OF:

Petitions for approval of Annual Revenue

Requirement (ARR) & determination of distribution

Tariff for the FY 2011-12 & 2012-13.

Coram

Anand Kumar

Chairman

Date of Order: 20.01.2012

ORDER

This Order relates to the Petitions on Annual Revenue Requirement and Tariff for financial year 2011-12 and 2012-13 filed by Meghalaya Energy Corporation Ltd (MeECL), hereinafter referred to as the Petitioner, on 15.09.2011 and 15.12.2011 respectively.

Section 64 (1) read with Sections 61 & 62 of the Electricity Act, 2003 (hereinafter referred to as "Act") requires the Distribution Company, Transmission Company and Generating Company to file an Application for Determination of Tariff before the appropriate Commission in such manner and along with such fees as may be prescribed by the appropriate Commission through regulations. In compliance with Electricity Act, 2003 the Commission on 7th December, 2006, had notified MSERC (Determination of Tariff) Regulations 2006 which was effective up to 10th February, 2011. Subsequently, the Commission had notified MSERC (Conduct of Business) Regulation 2007 on 22nd February, 2007 which prescribes the filing procedure of Petition, etc. On 10th February, 2011 the new Regulations MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011 were notified which is currently under use.

Presently the Meghalaya Energy Corporation Ltd (the holding company) is responsible for supplying electricity to the consumers of the state. MeECL has filed an Application on 15th September, 2011 for determination of Annual Revenue Requirement and Tariff for FY – 2011-12. Subsequently, in accordance with the Tariff Regulations, the MeECL has filed another petition for financial year 2012-13 which was due by 30th November, 2011. In order to avoid frequent revisions of Tariffs within a span of 2-3 months, the Commission has accepted this Petition vide its Order dated 16.12.2011. By this Order, the Commission has combined the proceedings of Tariffs determination exercise for 2011-12 and 2012-13 and decided to pass a single Tariff Order for both the years.

This Order accordingly relates to the said Tariff Applications filed by MeECL and is based on the data submitted by the Company and submissions made thereafter including proceedings of the Public Hearings.

Tariff Determination being the most important function of the Commission, the Commission would like to detail the procedure and explain the principles followed by it in determination of Tariff. For sake of convenience and clarity, this Tariff Order has been divided into following parts:

Part I	**Introduction and Brief History**
Part II	**Petitioner's submission**
Part III	**Stakeholder's responses**
Part IV	**Commission's approach**
Part V	**Performance Review**
Part VI	**ARR Determination and Gap**
Part VII	**Tariff Rationalisation**
Part VIII	**Commission's Directive**

PART I

INTRODUCTION AND BRIEF HISTORY

As mentioned earlier, all Tariff application has to be examined in accordance with the provisions of Electricity Act, 2003 and Regulations made there under. In accordance with the Tariff Regulation 2011, the Commission while determining the Tariff shall be guided by the principles contained in Sections 61 of Electricity Act, 2003 and principles as laid down in Regulation (Terms and Conditions for Tariff Determination) 2011. Regulation prescribes that Licensee shall file Tariff Application for the ensuing year to be filed latest by 30th November of the current financial year.

Initially the application for ARR and Tariff for 2011-12 was filed by MeECL on 30th November 2010 which was admitted by the Commission on 20.12.2010. MeECL has published Notices in the newspapers giving the salient features of the filing and invited comments from the Public by 31.1.2011. Only two comments have been received from Byrnihat Industries Association and Crematorium consumers. On 22.02.2011 the then Chairperson retired and there was no Chairman in the Commission up to the time the new Chairman has taken over w.e.f. 02.08.2011. On 09.08.2011 MeECL has made a request to the Commission to withdraw the ARR and Tariff Petition for 2011-12 on the following grounds:-

a) *Due to rescheduled dates in commissioning of Myntdu Leshka Hydro Electric Project (MLHEP), the energy availability from own sources during FY 2011-12 as projected in the earlier Tariff Petition filed on 30.11.2010, is required to be revised.*

b) *The MeECL is obligated to purchase electricity from renewable energy sources in accordance with the Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and Compliance) Regulation 2010, as notified on 21.12.2010. This was not considered in the earlier Tariff Petition filed on 30.11.2010.*

c) *In this revised Annual Revenue Requirement (ARR), the revised employee cost based on the proposed revision of pay 2010, is incorporated. This was not considered in the earlier Tariff Petition filed on 30.11.2010.*

d) *The MSERC had notified the Meghalaya State Electricity Regulatory Commission (Terms & Conditions for Determination of Tariff) Regulation 2011 dated 16th February, 2011, which was made effective from March 2011. Clause 114 of the above Regulation provides for a reduction in the fixed charge payable by HT & EHT, if the MeECL is unable to supply power as per contract-demand. Accordingly, the revised projected revenue in respect of demand charge from industrial HT & EHT consumers is calculated taking into consideration the above Regulation. This was not considered in the earlier Tariff Petition filed on 30.11.2010.*

e) *To provide the industrial consumer with incentive for power factor improvement, it is proposed that in respect HT & EHT consumers, billing on Kvah consumption be adopted. Accordingly, the revised projected revenue from HT & EHT consumers is calculated based on Kvah units.*

f) *Pre-audited financial figures were indicated for 2009-10 in the earlier Petition. However, as the accounts for 2009-10 have been audited, the audited figures have been indicated in the revised Petition. It may however be mentioned that the Audit Certificate from the office of the Auditor General, Government of India, has not been received. The same shall be submitted as soon as it is available.*

Since there was no substantive Order passed by the Commission on the Original Petition of MeECL dated 30.11.2010, the Commission has considered the request of the Petition to withdraw the Original Petition on the grounds mentioned in the said application. The Commission further directed vide its order dated 11.08.2011 issued to MeECL for submitting a consolidated and self contained application meeting the provisions of MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011 within 7 days of issue of the Order. The Commission has also made certain queries on the old petition and directed the Licensee to fulfil that before submitting the revised petition to the Commission. The queries given to MeECL were as follows:-

1. In case of withdrawal of old petition submitted on 29.11.2010, a fresh application giving full details must be provided. No inter linking with the previous ARR shall be allowed.
2. BOD approval of the proposed ARR in the form of Minutes to be submitted.
3. Authorisation of the person filing the ARR.
4. MeECL is required to make a presentation before the Commission as and when MeECL is ready so as to validate its claims made in the ARR to meet the Demand-supply crisis in the State.
5. Audited Statements' for 2009-10, Provisional Accounts for 2010-11 and Monthly Trial Balances for 2011- 12 for April to June 2011.
6. Details of Generation for 2011-12 (Actuals) for April, May, June, July 2011 from each unit so as to work out the estimated output in the full year 2011-12. Previous audit records for 2007-08 shows that total Generation was 665.38 when installed capacity was 185.20 MW only.
7. Since, MeECL has shown restricted demand in the year 2011-12, details of load shedding for the period FY 2010-11 and period April 11 to July 11 is required to be submitted in terms of MW,MUs and Hours.
8. MeECL is also required to submit action plan for meeting demand for 2011-12 and 2012-13 so as to meet its obligation to supply continuous power in the State. In this regard, schedule of completion of its own new generating plants and progress made so far in having PPAs for purchase of power from other/outside sources.
9. Details of Energy sold in Year 2010-11 and April 2011 to July 2011 so as validate the sale figures. This is important as audited figures for 2008-09 shows a sale figure of 1044.60 MU when availability was 1521.76 MU at 32% loss. While in the ARR for 2010-11 losses has been taken at 33% to show a sale of 1104 MU when availability was 1637 MU. Therefore to validate sale, documentary evidence like Divisions records or Commercial Statements' is required to be submitted.
10. Action Plan for Short Term Purchases from Renewable and other sources in order to meet competitive rates and transparency in the process. MeECL is also required to apprise the Commission on any PPAs done so far in bilateral dealings or PPAs in offing.
11. As a commercial entity, MeECL is required to give an statement on reduction of losses including ATC so as to reach 28% T&D loss in the year 2011-12or ATC at 29.4% from actual estimated adhoc figure of T& D loss of 32.5% or 35.3% of ATC in the year 2010-11.
12. Details of Power Purchase Cost (Capacity as well as variable) source wise for 2010-11 and April-11 to June 11. Actual Bills of power purchase from outside must be submitted for the above period.
13. Statement on changes in Transmission charges, if any, in light of new regulations of CERC to be effective from 1.7.2011. The actual implication in term of cost as shown in the ARR should be given with calculations.
14. Actual bills of Transmission charges(PGCIL) from 2010-11 till date.

15. As far as employees cost, details of actual outflow in past 4 months in the year 2011-12 to be submitted. The Commission may also be apprised of the Transfer Scheme and liabilities sharing if any done by the GOM.
16. To validate claim of salary account increase by 80-90 %, details to be provided.
17. A& G, Interest, bad debt, other income, ROE, subsidy etc to be provided.
18. ARR proposes power supply restriction on the HT/EHT Industrial consumers and therefore reduction in revenue from such industrial consumers. In this regard, MeECL is required to furnish MRI Reports of all Industrial consumers for the past 4 months i.e. April 11 to July 11.
19. To validate the claims in new investments estimated in the ensuing year and capitalisation of investments already approved by the Commission so far, details of scheme wise capitalised including complete details such as original cost, completed project cost, means of finance loan agreement, status of Electrical inspector clearances, date of energisation, and date of actual capitalisation during 2009-10, 2010-11 and 2011-12.
20. Details of Scheme proposed in 2011-12 in terms of addition of 33/11 KV Sub-Stations, additional length of 11 KV and 33 KV feeders and numbers of energy meters to be procured in 2011-12.
21. Details of Un-Metered consumers and proposal for placing meters on them in time bound manner. Status of Electronic meters in each category to be shown.
22. Details of consumers category wise where KVAH can be read from installed energy meters.

MeECL vide its Letter dated 19.08.2011, sought time up to 05.09.2011 for filing of the Petition. The Commission accepted their request provided that all the conditions as laid down in the Commission's Order dated 11.08.2011 is fully met. However, MeECL could not submit the ARR and further sought time up to 15.09.2011. The Commission considered their request and extension was allowed.

On 15th September, 2011, MeECL has submitted the ARR and Tariff Application for 2011-12 to the Commission. On preliminary examination the Commission found certain infirmities and data gaps in the application and given 15 (fifteen) days time to MeECL to furnish the following information.

1. Power Purchase:

(i) MeECL will have to clarify the unit cost of energy calculated after the CERC vide Notification No. L. 7/145(160)/2008 CERC dated 02.05.11 allowed provisional tariff up to 95% of the AFC filed/claimed by CGS. (page 86 & 15 of the tariff Petition 2011-12).

(ii) W.r.t. Notification above and the AFC effective 2009-14; what will be the implication if CG'S (page 15) give supplementary bills for the period April 09 to March 11. Is this included in the tariff Petition.

(iii) Calculation methodology under "PO (point of connection) method" for calculation of Transmission charge adopted from July 2011.

(iv) It is observed that during swapping and sale of energy outside the state in high monsoon, some amount of transmission and wheeling charges are paid for the said energy sold. Therefore, the licensee may please submit the expenditure on such account. Copy of such agreements to be furnished.

2. Employees cost

(i) The employee's cost during 2010 – 11 = Rs. 116.69 cr.

"" """ 2011 - 12 = Rs. 184.96 cr.

Increase = Rs. 68.27 Cr.

Shows the % increase is almost 59% from previous year.

The Normal increase during the year should have been 10% from previous years and for revision of pay & allowances the increase should have been from 20% - 25%. Please furnish the detail calculation justifying the increase with details of actual payment made in FY10-11 and up to Sep11 in FY 11-12.

3. Depreciation

It is observed that Gross value of Assets in the beginning of 2011-12 is shown as 668.26 Cr. and an addition of Rs. 1036 Cr. was shown in FY 2011-12, resulting in Rs. 1701.02Cr at the end of FY 2011-12. This is an increase of about 155%.The licensee is required to give justification of such an huge investment with details of projects capitalised in 2011-12 beginning. It is also observed that the projected Depreciation has substantially increased mainly due to the increase in the Hydraulic works and Plant & machinery. Please furnish all the WIP payment required to be transferred to Asset and use.

4. Interest

Detail calculation of Interest alongwith capitalization be furnished & whether the loan/investment against WIP has been charged to Revenue Accounts.

5. Income Tax

Income Tax estimated for 2010-11 and projected during 2011-12 is Rs.9.33 cr respectively. As per regulation 105 of MSERC regulation 2011. Tax on income, if, any liable to be paid shall be limited to tax on return on the equity of capital employed. The return on equity provided is Rs.28.28 cr. If however, tax is deducted as per, Income Tax Act 1961 what will be the amount projected for 2011-12.

6. Subsidy

Please provide Govt. sanction/disbursement of the subsidy (non tariff income).

7. AT & C Loss

The MeECL shall propose loss reduction programme for the ensuring year as well as for the next three years duly indicating details of measures proposed for achieving the same. They may also indicate the Guidelines and the measures undertaken in the Part A of the R-APDRP for loss reduction and to inform commission accordingly. If MeECL has a road map from 2007-08 to 2011-12 they shall furnish the actual short fall/excess/met during such period year-wise & to justify the projection for 2011-12.

8. Others

- Action plan for metering Un-Metered Connection in order of priority division wise in two year (as proposed in the ARR).
- Status report of all running projects in Generation, Transmission and Distribution giving the original capital cost, original time frame, revised cost, financing and proposed date of completion.
- Electrical Inspector certificates given to MeECL before the energisation of all capital projects completed including HT/EHT lines in FY 2009-10 & FY 2010-11 as per IE Rules.
- Pattern of Load distribution for one specific day each in winter, rain, summer seasons to understand the peak and off peak demand curve of MeECL.
- Actual Revenue from all Industrial Consumers on HT/EHT separately from demand charges and energy charges in FY 2010-11.
- Statement of accounts for FY 2010-11.

After careful examination of the petition, the Commission has made several queries relating to the Tariff Petition Dated 15.9.2011 which are given below and given time to MeECL to furnish their reply by 24th November, 2011.

1. State Generation plant wise in 2011-12 from April-11 to October-11.
2. Status of RMU Work in old units and expected COD for Leshka Project.
3. Expected Net Generation from State Plants in 2011-12.
4. Details of Purchase in MUs from CGS/IPPs/BiLat/Trader/Free Power/UI/Banking in 2011-12 (4/11 to 10/11). Expected purchase in MUs in 2011-12.
5. CEA annual plan of Generation in 2011-12 for plants from where share of generation is allocated to Meghalaya.
6. Status of un- allocated share from CGS in 2011-12.
7. Status of POC Billing. About 50% share from CGS comes from within NE while 50% from outside. Is there any relief from POC for the power transported with in NE.
8. Purchase of UI in 2011-12, Quantity and Average rate.
9. Details of Technical and Commercial losses. E.g. 28% T&D losses consist of 18%(Tech) +10%(Com)
10. Salary bills for the October month in 2011-12 and terminal benefits to employees. Expected cash out flow in Rs. Cr. in 2011-12 against employees cost.
11. Status of Pension Fund, if yes, yearly contribution and present balance.
12. Status of Capital work in progress (CWIP) in (Rs Cr.) in the beginning of 2011-12 and i) Commissioned works out of it as on date ii) and expected commissioning of CWIP at the end of 2011-12.
13. Actual Revenue from HT consumers in 2011-12 till last month.
14. Rostering of Industrial feeders in 2011-12.

In order to expedite the tariff matter without further delay, the Commission admitted the petition provisionally on 26th September, 2011 with the condition that MeECL shall furnish all the information/clarification required by the Commission failing which the Petition will be treated as deemed return. Through above admittance order the Commission further directed MeECL to publish the salient point of its proposals in the newspapers widely circulated in the area of operation of MeECL, in accordance with regulations.

MeECL has published the ARR and Tariff details for Fy-2011-12 in the following Newspapers on 01.10.2011 and invited comments from the Public by 30th October, 2011.

Language of Newspaper	Newspapers
English	The Shillong Times, Shillong and Tura Edition.
Garo	Salantini Janera, Tura.
Khasi	U Mawphor
Jaintia	Chitylli

Through this Notice, the Public was required to file their comments latest by 30.10.2011. The Commission has received 7 responses which are being discussed in Section 3. The Commission on its own initiatives also sent the copies of salient points of Tariff proposals submitted by the Petitioner to the members of Advisory Committee and kept details of proposals on its website and in the office.

For direct interaction with all stakeholders the Commission had held hearing on 25.11.2011 at MUDA conference Hall, Shillong. The responses and public proceedings are given at Section 3. The list of responses and participants in the Public Hearing is also given at Annexure-1.

MSERC Tariff Regulation prescribes that by end of 30th November, every Licensee should file a Tariff Petition for the ensuing year and therefore MeECL was required to file the tariff petition for 2012-13 by 30.11.2011. The MeECL required the Commission to grant them time up to February 2012 for filing of tariff petition for 2012-13. However, the Commission, following guidelines and regulations, did not give the permission and directed the licensee to follow the regulations. Accordingly, MeECL has filed a Tariff Petition for Financial Year 2012-13 on 15.12.2011. Since, the Tariff Order for 2011-12 was due in the month of January 2012 and next Tariff Order for 2012-13 was also expected by 31.03.2012, there would be frequent revisions of Tariff within a span of 2-3 months. Therefore, to avoid inconvenience to the Public for two Tariff revisions in a very short time, the Commission vide its Order dated 16.12.2011 has combined two tariff Petitions together and admitted the Petition for 2012-13.

MeECL has published the details of the ARR and Tariff for 2012-13 in the following Newspaper and invited comments from the public on the ARR and on the procedure for combining two ARRs.

Language of Newspaper	Newspapers
English	The Shillong Times, Shillong and Tura Edition
Garo	Salantini Janera, Tura
Khasi	U Mawphor
Jaintia	Chitylli, Shillong

The Commission has also held a Public Hearing on 10.01.2012 in its Office so as to discuss the matter related with Tariff Application for FY 2012-13 and the procedure adopted by it. The information of the Hearing has also been sent to the Respondents who have given their objections earlier on the Petition for FY-2011-12. The Public Notice inviting Respondents to attend the Hearing was also given widely in the Newspapers.

The Commission has also held meeting with the Advisory Committee members for FY-2011-12 on 28.11.2011 and for FY-2012-13 on 12.01.2012. The minutes of the meeting with the Committee's member is placed at Annexure 2 &3.

PART II

PETITIONER'S SUBMISSIONS

This section deals with the summary of proposals made by the Petitioner, MeECL, in its Aggregate Revenue Requirement (ARR) and Retail Tariff proposals for FY 2011-12 and 2012-13.

1. Abstract of Aggregate Revenue Requirement (ARR) of MeECL for FY – 2011-12.

Meghalaya Energy Corporation Limited (MeECL), is presently the sole licensee for undertaking distribution of electricity in the state of Meghalaya filed its ARR and Tariff Petition for FY 2011-12 on 15.09.2011 In this Petition, the Petitioner has projected the Annual Revenue Requirement for 2011-12 as Rs. 687.01 Crores and in considering the projected revenue at current tariff of Rs. 429.36 Crores, has estimated the revenue gap of Rs. 257.65 Crores for the FY 2011-12. The summary of the petitioner's ARR for FY 2011-12 is in the following table:

Table 1:Annual Revenue Requirement for 2011-12.

(Rs. Crores)

Sl. No.	Particulars	2011 - 12
1	Power Purchase Expenses	405.93
2	Employees Cost	184.96
3	R & M Expenses	23.33
4	Adm. And General Expenses	10.54
5	Depreciation	49.44
6	Interest Charges	46.81
7	Return on Equity	28.28
8	Income Tax	9.33
9	Provision for Bad & Doubtful Debts	10.00
10	Total Revenue Requirement	768.62
11	Less Non Tariff Income	63.30
	* Including subsidy	12.31
	** Including outside the state	6.00
12	Annual Revenue Requirement	687.01

2. Action Plan for FY 2011-12 for improving the efficiency.

The Petitioner submitted that it realises the importance of reducing the T&D losses by increasing efficiency in its operations and is committed to undertake the following technical and commercial measures in this direction in 2011-12 as follows:

i) Strengthening transmission, sub transmission and distribution system and reengineering thereof.
ii) Metering of unmetered consumers, unmetered feeders and replacement of defective meters.
iii) Inspection of connections, detection of theft/pilferage of energy reducing to the maximum possible extent.

2.1Human Resources Productivity Parameters:

The Petitioner has submitted the employees productive parameters and summarised as per table here under:

Table 2: Employees Productivity Parameter.

Sl No.	Particular	FY 2009-10 (Actual)	FY 2010-11 (Estimated)	FY 2011-12 (Projected)
1	Number of employees as on 1st.April	3492	3435	3339
2	Number of employees on deputation/foreign service as on 1st. April	1	1	1
3	Total number of employees (1+2)	3493	3436	3340
4	Number of employees retired/retiring during the year	124	161	55
5	Number of employees newly joined during the year	67	65	68
6	Number of employees at the end of the year (3+4+5)	3436	3340	3353
7	Number of consumers in million	0.26	0.27	0.28
8	Connected load (KW)	562743	626986	677677
9	Line circuit (KM) (LT+HT)	21298.06	23505.44	33445.14
10	Energy sold (MU)	978.84	1104.53	1222.56
11	Employees per MU of energy sold	3.5	3.0	2.7
12	Employees per 1000 consumers	13	12	12
13	Share of employees cost in total expenses	109.40	116.69	184.96
14	Employees cost in paise/Kwh of energy sold	112	106	151
15	Line circuit KM (EHT lines)	623.82	744.85	913.28
16	Employees per KM of EHT line Transmission related	5.51	4.48	3.67
17	Power station installed capacity own generation(MW)	186.70	186.70	186.70
18	Employees per MW of capacity for generating company	18.40	17.89	17.96

2.2 T & D Loss Reduction Plan.

Tentatively the reduction of the overall T&D losses in coming years is planned as below:

Actual T&D loss in FY 2009-10 = 33.95 %

Target of reduction of T&D loss in FY 2010-11 = 32.53 %

Target of reduction of T&D loss in FY 2011-12-29 = 28.38 %

2.2 Metering Programme:

The metering of consumers is being done by the MeECL under RGGVY and from its own resources. The MeECL has taken a policy decision that no new connection to any category of consumers shall be provided without meters. Efforts are being made to achieve 100% metering of consumers in the next two years.

2.3 **Collection Efficiency:**

The Petitioner has submitted that the collection efficiency during the FY 2009-10 was adversely affected due to part payment of the current bills by the members of the Byrnihat Industries Association (BIA). They have informed that the amount paid by the industries for the period April to November 2009 was Rs. 121.34 crores against a demand of Rs. 159.12 crores(as per Tariff Order dated 30th. September 2008), and thereby outstanding amount is Rs. 37.78 crores. The collection efficiency for FY 2009-10 is 91.61%. for FY 2010-11 is 96.34% and for FY 2011-12 is projected at 97.79 %.

3 Energy Sales Forecast:

The Petitioner has analysed the trends of the category wise data for the past years. The data includes units sold, number of consumers and connected load. These trends have been used in forecasting the data for the FY 2011-12.The Petitioner has made projections for FY 2011-12 on CAGR basis according to the actual sales starting from the FY 2007-08.

The Petitioner had submitted the projected sale for FY 2011-12 as per table here under:

Table 4: Projected Sales for FY 2011-12.

Category	2011-12 (Projected by Petitioner) MU.	No. Of Consumers at the end of the Year
Domestic (LT)	266.56	222915
Agriculture (LT)	0.77	29
Kutir Jyoti	8.52	33825
Crematorium (LT)	0.20	1
Employees (LT)	37.76	
Commercial (LT)	55.86	19839
Industry (LT)	7.35	800
Water Supply (LT)	7.19	391
Public Lighting	1.60	79
General Purpose (LT)	15.14	1941
HT Industry	310.20	144
HT Water Supply	30.00	35
HT General Purpose (Bulk Supply) incl. HT Domestic	84.42	227
HT Assam	15.29	3
HT Commercial	17.58	135
E H T	314.12	13
UI/Bilateral	20.00	
Swapping(NVVN)	13.00	
Total	1222.56	280377

4. Efficiency Parameters.

4.1 Distribution Loss:

The MeECL has submitted in its tariff petition for FY 2011-12 to reduce the overall T&D loss to 28.38%. The actual T&D loss was 35.61% in the FY 2007-08, 31.54% in the FY 2008-09, 33.02% in the FY 2009-10 and provisional at 32.83% during FY 2010-11. The targeted T&D loss level for FY 2011-12 as per the trajectory adopted by the commission works out to 11.32%, necessitating a reduction of 17.06% from the base value of March 2012.

The Petitioner, vide letter no. MeECL/SE(RA)/4/Pt.V/2011-12/35 Dated 24th Nov. 2011 has submitted to the quantum of the increase in the number of unmetered consumers in the rural supply which is 48812 as on 1st Nov.2011 and also considering the condition of the present distribution network and available resources, thereby reduction of 17.06% losses within a year would be a stiff target. However MeECL, has agreed to set an efficiency parameter in reducing the commercial loss by 3% every year.

5. Availability of Power and Power Purchase Cost.

The Petitioner has submitted power availability during the FY 2011-12 as per revised petition vide their letter no. MeECL/SE(RA)/46/Vol-III/2011-12/47 Dated24th November, 2011 from the following sources as here under:

i. Own generation.

The table showing power availability from own generation is summarised here under:

Table 5: Own Generation for FY 2011-12.

(*All figures are in MUs*)

Sl. No.	Source	2011-12(Projected)
1	Stage I	110.86
2	Stage II	12.61
3	Stage III	125.28
4	Stage IV	195.05
5	Umtru	36.00
6	Micro Hydels	6.50
7	Myntdu Leshka	42.30
8	Gross Generation	528.60
10	Net Generation	528.60

ii. Projected Availability from Outside the State.

The Petitioner, in the revised submission vide their letter no. MeECL/SE(RA)/46/Vol-III/2011-12/47 Dated 24th.November,2011 has indicated the power availability from outside the state along with the estimated cost which is estimated on the basis of relevant tariff orders, recent bills and existing arrangements etc. from various sources such as the central generating stations located in the eastern zone and in the north eastern zone of the country.

The entitlement/allocation from central stations and energy purchase for the FY 2011-12 is given in the table here under:

Table 6: Availability from Outside the State.

Sl. No.	Station	Capacity (MW)	Firm Allocation to		Energy sent out	Firm energy entitlement	Actual Utilised
1	2	3	4 %	5(MW)	6	7	8
1	NTPC						
	a)Farrakha-STPS-I	1600	0.65	10.38	11137.90	63.68	63.68
	b)KhSTPS Stage – I	840	0.64	5.41	5274.66	27.65	27.65
	c))KhSTPS Stage – II	1500	1.60	24.00	8516.27	144.56	144.56
	d)TSTPS Stage I	1000	0.65	6.49	7351.24	39.35	39.35
2	NHPC						
	a)Loktak HEP	105.00	12.14	12.75	565.59	68.72	68.72
3	NEEPCO						
	a)Kopili Stage I HEP	200.00	17.15	34.30	483.56	128.54	128.54
	b)Kopili Stage II HEP	25.00	18.65	4.66	51.89	14.48	14.48
	c)Khangdong HEP	50.00	16.65	8.33	112.33	29.39	29.39
	d)Ranganadi HEP	405.00	11.25	45.56	1417.72	159.61	159.61
	e)Doyang HEP	75.00	11.23	8.42	246.47	27.69	27.69
	f)AGBPP	291.00	11.55	33.61	1825.60	211.35	211.35
	g)AGTPP	84.00	11.34	9.53	627.71	71.44	71.44
4	Other Sources						
	a)UI+Bilateral+Exchange					46.34	46.34
	b)Solar					3.66	3.66
	c)Swapping					30.00	30.00
	Total			203.43		1066.46	1066.46

The Petitioner had given a revised submission on the allocation from central generating stations (CGS) vide their letter no. MeECL/SE/RA/Vol.III/2011-12/47 Dt. 24/11/2011. The projected availability from various firm sources of power from outside the state and the associated cost proposed by the Petitioner for FY 2011-12 is summarised in the table below:

Table 7 – Power Purchase Cost for FY 2011-12.

Sl No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost	Total Fixed Cost	Others	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	NTPC							
	a) Farakka STPS-I	63.68	374.00	23.82	2.21	5.73	31.76	4.99
	b) Kahalgaon STPS-I	27.65	264.00	7.30	1.11	2.02	10.43	3.77
	c) Kahalgaon STPS-II	144.56	220.00	31.80	17.13		48.93	3.38
	d) Talcher STPS-I	39.35	229.00	9.01	1.48	2.33	12.82	3.26
	e)							
2	NHPC							
	a) Loktak HEP	68.72	122.35	8.41	6.29	11.45	26.14	3.80

3	NEEPCO							
	a) Kopili Stage-I HEP	83.01	42.71	3.55	2.63	3.2	9.38	1.13
	b) Kopili Stage-II HEP	9.55	78.44	0.75	0.56	-0.32	0.99	1.03
	c) Khandong HEP	18.72	89.60	1.68	1.25	1.31	4.23	2.26
	d) Ranganadi HEP	159.61	110.53	17.64	13.10	19.64	50.38	3.16
	e) Doyang HEP	27.69	267.00	7.39	5.49	9.43	22.31	8.06
	f) AGBPP	211.35	200.00	42.27	13.07	16.42	71.76	3.40
	g) AGTPP	71.44	257.00	18.36	3.87	7.18	29.41	4.12
	h) Free Power	61.13						
4	Other sources							
	a) UI+Bilateral+Exchange	46.34	400.09	18.54			18.54	4.00
	b) Solar	3.66	1699.45	6.22			6.22	16.99
	c) Swapping	30.00						
	d)							
	e)							
5	Other Charges							
	a) POWERGRID						55.68	
	b) ASEB						5.00	
	c) POSOCO						0.80	
	d) OAC						0.75	
	e) Reactive Charges						0.40	
	Total	**1066.46**					**405.93**	

The Increase in Transmission Charges to PERGRID can be attributed to the following reasons:

1. Due to the addition of Assets by PowerGRID
2. Due to the increase in AFC for the existing assets.
3. Due to the PoC method being adopted from July onwards.

The breakup of the cost i.e. 55,68 crores is as follows:

Considering the monthly bill (in Cr) prior to July is	2.89
Considering the monthly bill (in Cr) from July onwards is	3.52
Total cost of Current bill for 1 Year is	40.35
Projected amount of Supplementary bill on account for the earlier period	15.33
Total transmission charges payable to POWERGRID for 2011-12	55.68

The Petitioner has estimated the above cost of power purchase from central generating stations on the following assumptions:

a) The Annual Fixed Charge (AFC) is taken on the basis of CERC Tariff Order and based on the allocation of power to Meghalaya.

b) The variable cost is based on CERC norms equivalent to the variable cost of Thermal Stations in the region.

iii. Deficit Power.

The Petitioner submitted that the availability from firm sources of power is not sufficient for meeting the Industrial HT and EHT consumers in the state. The energy requirement in the FY 2011-12 as per the contract demand is calculated at 1873.32 MU for Industrial HT and EHT consumers only, out of which only 624.32 MU is available. The Petitioner has projected a deficit of 1249.00 MU.

The Petitioner has proposed a short term purchase from UI+Bilateral+Trading to meet the deficit @ Rs 4.00 per unit which is more than the cost of power from central generating stations. Alternatively, the Petitioner has submitted that the Industrial HT and EHT consumers demand shall be restricted at 33% of the contract demand.

6. Revenue and Existing Tariff and Revenue Gap.

The Petitioner has estimated revenue from existing tariffs based on the revised estimates of sales in accordance of revised availability submitted by the Petitioner in the revised submission vide letter No. MeECL/SE(RA)/46/Vol-III/2011-12/47 Dated 24th. November, 2011 for various categories in FY 2011-12 as Rs. 467.08 Crores which leads to a revenue deficit of Rs. 219.33 Crores in FY 2011-12. The estimated revenue at the existing tariff is given in the ARR.

7. Operation and Maintenance Expenses.

The Petitioner submitted the O & M expenses as outlined in the table below:
Table 8: O & M Expenses.

(Rs. in crores)

O & M Expenses	2009-10 (Actual)	2010-11 (Extended)	2011-12 (Projected)
R & M Expenses	20.35	24.34	23.33
Employee's Cost	109.40	116.69	184.96
Administrative & General Expenses	9.88	9.45	10.54
Total	139.63	150.48	218.83
Percentage increase %	-	7.7	45.42

The significant increase of 45.45% in the ensuing FY 2011-12 of the O & M expenses is mainly due to the significant increase in the employee's cost component. The Petitioner submitted that the increase is due to its obligation to the terminal benefit of its retired employees which is estimated to be around 3000 nos. as on FY 2011-12. This is being met from the revenue earnings on a year to year basis. In other words, the actual pension outflow for the retired personnel of the erstwhile MeSEB is being managed from the revenue earned in the year. The Petitioner submitted that the employees costs was projected at Rs. 184.96 crores for the following reasons:

a. New recruitment to meet the shortage of manpower due to gradual retirement.
b. To pay the arrears and new pay scale due to pay revision of its employees which was revised w.e.f. 1st. January,2010.

With this approach, the Petitioner has projected O & M expenses for FY 2011-12 as Rs. 218.83 crores as against the actual O & M expenses of Rs. 139.63 crores during FY 2009-10.

8. Investment Plan.

The Petitioner has submitted that it has executed various capital works amounting to about Rs. 7.51 crores on various projects in FY 2010-11. The investment plan for FY 2011-12 have been drawn up by the Petitioner considering its expected investment under various schemes like state plan, RGGVY, R-APDRP, PMGY etc. Including investment under system improvement works to be carried out by the Petitioner.

Table : Investment Plan (Scheme-wise)

(Rs. in Lacs)

Sl. No.	Name of Projects/Site	Approved Outlay	Previous Year FY 2009-10 (Actual)	Current Year (RE) FY 2010-11	Ensuing Year FY 2011-12 (Projected)	Progressive Expenditure up to Ensuing Year
A	Transmission Schemes					
1	Construction of 132KV D/C Mawngap Sumer line along with 132/33 KV, 2x20 MVA S/S at Mawngap	3127.00	0.00	0.00	500.00	2744.00
2	Construction of 132KV S/C line on D/C Tower from Nangalbibra to Agia.	4332.00	1598.05	1000.00	533.95	4332.00
3	Construction of 132KV LILO on Mawlai-Cherra line at Mawngap.	496.74	0.00	111.11	385.63	496.74
4	Construction of LILO of Agia-Nangal line at Mendipathar	499.65	0.00	0.00	311.10	311.10
5	Construction of 132 KV D/C line from Rongkhon S/S to Ampati along with 231/33 KV,2X25 MVA S/S at Ampati & line bay construction at Rongkhon S/S.	3079.33	0.00	0.00	1108.55	1108.55
6	Construction of 132KV three ckt on four ckt tower from Killing 220/132 KV to EPIP 1	1215.00	0.00	0.00	1215.00	1215.00
7	Construction of LILO on the 132 KV S/C Mawlai-Nangal line at 132/33 KV, 2x20 MVA S/S at Mawngap S/S.	494.00	0.00	0.00	277.78	277.78
8	Construction of 132/33 KV, 2x20 MVA S/S at Umiam	479.72	88.00	333.33	58.39	479.72
9	Construction of 132/33 KV, 2x20 MVA S/S at Mendipathar	471.00	0.00	52.33	418.67	471.00
10	Augmentation of Rongkhon S/S from 35 MVA to 50 MVA.	469.00	0.00	0.00	469.00	469.00
11	Construction of LILO of 400 KV Palantana-Bongaigoan line along with a 400/220 KV, 2x315 MVA GIS S/S at Killing.	9348.00	0.00	0.00	5300.89	5300.89
12	Misa Byrnihat	16065.00	8472.00	1507.77	333.23	16065.00
B	Generation Schemes					
(a)	Construction of HEPs					
1	Construction of the Myntdu Leshka Stage I HEP	117313.00	19168.00	11380.00	20828.00	117313.00

	(2x42+1x42)MW					
2	New Umtru Hep (2x20)MW (NLCPR)	22600.00 (NLCPR-30% HUDCO-70%)	3107.27	2030.92	11924.88	5560.14 (upto June 2011)
3	Ganol HEP (2x7.50)MW (NLCPR)	12241.30 (NLCPR-30% MNRE-1681.00 REC/PFC-10741.00	0.00	0.00	0.00	0.00
4	Lakroh HEP (1.5 MW) (NEC)	500.00	187.00	144.44	168.56	500.00
(b)	Survey & investigation Schemes					
1	Umngot HEP 240 MW	430.78	30.00	44.44	64.43	238.87
2	Myntdu Leshka Stage II HEP (280 MW)	359.42	20.00	61.11	62.77	238.88
3	Selim Hydro Power Project (2x85)MW	450.00	100.00	-	166.66	266.66
4	Mawblei Hydro Power Project (2x70) MW.	472.00	20.00	22.22	50.00	92.22
5	Ganol HE Project Stage II (3x5) MW.	211.00	40.00	22.22	50.00	112.22
6	Upper Khri Diversion	448.46	0.00	0.00	122.22	122.22

9. Fixed Assets and Depreciation.

The Petitioner has computed depreciation on the opening Gross Fixed Assets (GFA) for each class/category of assets individually and also considered addition of gross block based on the capitalisation of works under various schemes and projects carried out by it. The following tables outline the Gross Fixed Assets as projected by the Petitioner.

Table 9: Gross Fixed Assets for FY 2009-10, FY 2010-11 & ensuing FY 2011-12.

(Rs. In crores)

Sl. No.	Asset Groups	FY 2009-10 (Actual)				FY 2010-11 (Actual)			FY 2011-12 (ensuing year)		
		Opening Balance	Addition during the year	Deduction during the year	Closing Balance	Addi-tion during the year	Deduction during the year	Closing Balance	Addi-tion during the year	Deduc-tion during the year	Closing Balance
1	Land & Land Rights	9.33	1.20	-	10.53	1.05	-	11.58	46.63	-	58.21
2	Building	30.26	1.24	-	31.50	3.16	-	34.66	32.62	-	67.28
3	Hydraulic works	125.46	2.88	-	128.34	12.83	-	141.17	577.56	-	718.72
4	Other civil works	26.93	0.58	-	27.41	2.73	-	30.14	87.39	-	117.53
5	Plant & Machinery	144.57	9.51	-	154.08	15.41	-	169.49	258.44	-	427.93

6	Lines & Cables	197.69	40.06	-	237.75	23.77	-	261.52	26.15	-	287.67
7	Vehicles	6.99	1.75	-	8.74	0.87	-	9.61	1.60	-	11.21
8	Furniture	4.10	0.25	-	4.35	0.45	-	4.80	1.00	-	5.80
9	Office Equipment	4.44	0.37	-	4.81	0.48	-	5.29	1.38	-	6.67
Total		**549.77**	**57.84**	**-**	**607.51**	**60.75**	**-**	**668.26**	**1032.76**	**-**	**1701.02**

On the basis of the above Gross Fixed Assets projected by the Petitioner, depreciation was computed by the Petitioner on the norms specified in **Regulation 106** of the MSERC (Term & Conditions for determination of Tariff) Regulation, 2011. The Petitioner has projected a huge addition of Gross Block in the FY 2011-12 due to the expectation that MLHEP will be completed and commissioned during FY 2011-12.

As per the statement of accounts FY 2010-11 (provisional & unaudited) in schedule-5 the fixed assets for FY 2010-11 is corrected in the table below:

Table 10: Gross Fixed Assets for FY 2009-10, FY 2010-11 and ensuing FY 2011-12.

(Rs. In crores)

Sl. No.	Asset Groups	FY 2009-10 (Actual)				FY 2010-11 (Actual)			FY 2011-12 (ensuing year)		
		Opening Balance	Addition during the year	Deduc-tion during the year	Closing Balance	Addi-tion during the year	Deduc-tion during the year	Clos-ing Balance	Addition during the year	Deduc-tion dur-ing the year	Closing Balance
1	Land & Land Rights	9.33	1.20	-	10.53	0.10	0.47	10.16	46.63	-	56.79
2	Building	30.26	1.24	-	31.50	0.05	-	31.55	32.62	-	64.17
3	Hydraulic works	125.46	2.88	-	128.34	0.10	-	128.44	577.56	-	706.00
4	Other civil works	26.93	0.58	-	27.41	0.06	-	27.47	87.39	-	114.86
5	Plant & Machinery	144.57	9.51	-	154.08	0.19	-	154.27	258.44	-	412.71
6	Lines & Cables	197.69	40.06	-	237.75	6.06	-	243.81	26.15	-	269.96
7	Vehicles	6.99	1.75	-	8.74	0.50	-	9.24	1.60	-	10.84
8	Furniture	4.10	0.25	-	4.35	0.20	-	4.55	1.00	-	5.55

9	Office Equipment	4.44	0.37	-	4.81	0.25	-	5.06	1.38	-	6.44
Total		549.77	57.84	-	607.51	9.31	-	614.55	1032.76	-	1647.32

10.Interest on Loans.

The Petitioner has estimated the interest and finance charges separately for each loan availed by it under various schemes.

11.Provision for Bad and Doubtful Debts.

The Petitioner submitted that the commission in its previous orders had allowed an expenditure of Rs. 10.00 crores for `Other debits including bad debts' during FY 2010-11 as provided in the statement of accounts. The Petitioner has again provided the same amount for FY 2011-12. The commission in its previous orders has placed on record that it may not be in a position to consider any similar revenue requirement for writing-off bad debts arising from uncollectable arrears of electricity bills, while considering ARR petition in future. The Petitioner in its petition for FY 2011-12 has submitted that the entire sales of MeECL is on credit basis. Sales are mostly in semi urban and rural areas in wide geographical spread and there could be occurrence of bad debts.

The commission in its previous order, directs the Petitioner to improve its organisational efficiency in the matter of billing and collection of electricity dues from all category of consumers so that such write-off's do not reflect camouflaged AT & C losses over and above the accounted for AT & C losses upto March 2011. The Petitioner has considered a provision of Rs. 10.00 crores for FY 2011-12 at a conservative level of 1.45% of the revenue to be billed during the ensuing year, as provision for bad and doubtful debt. The Petitioner has estimated Rs. 687.07 crores as revenue to be billed in the ensuing year.

12. Return on Equity.

The Petitioner submitted its (MeECL) equity base at Rs. 202.00 crores. As per Regulation 101 of the MSERC(Term & Conditions for determination of Tariff) Regulation, 2011, return on equity was calculated at a fixed rate of 14% per annum on equity amounting to Rs. 28.28 crores. The Petitioner has assumed this figure for FY 2011-12 as per table below:

Table 11: Return on equity.

(Rs. In crores)

Sl. No.	Particulars	2009-10 (Provisional)	2010-11 (Estimated)	2011-12 (Projected)
1	Opening Balance of Equity	202.00	202.00	202.00
2	Net Additions during the Year	0.00	0.00	0.00
3	Less: Capitalisation	0.00	0.00	0.00
4	Closing Balance of Equity	202.00	202.00	202.00
5	Rate of Return(%)	14%	14%	14%
6	ROE	28.28	28.28	28.28

13. Non- Tariff Income.

The non-tariff income for the Petitioner comprises of meter/service rent late payment surcharge, theft/pilferage of energy charges, miscellaneous receipts, miscellaneous charges, wheeling charges, interest on staff loans and advance, income from trading, income from welfare activities, excess on verification, investments and bank balances and delayed payment charges from consumers.

The Petitioner has provided the actual non-tariff income for FY 2009-10 as Rs. 63.36 crores, estimated for FY 2010-11 as Rs. 24.94 crores and projected for FY 2011-12 as Rs. 63.30 crores respectively as per Table below:

Table: Non Tariff Income

(Rs. in crores)

Sl.No.	Source of loan	2009-10 (Actuals)	2010-11 (Estimated)	2011-12 (Projected)
1	2	3	4	5
1	Meter / Service rent	1.31	0.52	1.31
2	Late payment surcharge	48.59	19.13	48.54
3	Theft / pilferage of energy charges	0.02	0.01	0.02
4	Misc. receipts	1.09	0.43	1.09
5	Misc. charges	3.08	1.21	3.08
6	Wheeling charges	0.45	0.18	0.45
7	Interest on staff loans & advance	0.01	0	0.01
8	Income from trading	0.31	0.12	0.31
9	Income from welfare activities			
10	Excess on verification	3.15	1.24	3.15
11	Investments & bank balances	5.35	2.1	5.34
12	Total Income	63.36	24.94	63.30
13	Add Prior period income *			
	Total	63.36	24.94	63.30

14.LOW TENSION (LT) SUPPLY:

Classification of supply at Low Tension shall be as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 and the Meghalaya Electricity Supply (Amendment) Code, 2009 Regulation 6 of 2009.

CATEGORY I: DOMESTIC LOW TENSION (DLT)

This category shall be applicable to domestic consumption as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (A) and the Meghalaya Electricity Supply (Amendment) Code, 2009 Regulation 6 of 2009 para 2.

A. KUTIR JYOTI / BPL

Kutir Jyoti Connections have been grouped under domestic category with two sub-categories of Un-metered Kutir Jyoti /BPLU Connections and Metered Kutir Jyoti Connections / BPLM.

I. **UNMETERED KUTIR JYOTI / BPLU**

The tariff for this category of consumers is 65.00 per connection per month. The MeECL proposes to increase the rate to Rs. 75.00 per connection / month inclusive of fixed charge.

Category	Existing Rates	Proposed Rates
Kutir Jyoti (KJ-U)/ BPLU	Rs. 65.00	Rs. 75.00

As no more connections shall be given without meter, hence this tariff is only applicable for the existing un-metered Kutir Jyoti connections until they are metered.

II. **METERED KUTIR JYOTI / BPL**

The MeECL proposes that the tariff shall be as per consumption at the rate of Rs. 2.25 per unit for monthly consumption within 0-30 units. If it is found that their monthly consumption in any month exceeds the limit of 0-30 units, then the billing of excess units shall be done based on the tariff prescribed for normal domestic consumers.

Category	Current Tariff	Proposed Tariff
Kutir Jyoti (KJ-M) / BPLM	Rs. 1.70 per unit for monthly consumption within 30 units In case consumption in any month exceeds 30 units, then the billing of excess units shall be on the tariff prescribed for appropriate slab for normal domestic consumers.	Rs. 2.25 per unit for monthly consumption within 30 units In case consumption in any month exceeds 30 units, then the billing of excess units shall be on the tariff prescribed for appropriate slab for normal domestic consumers.

B. DOMESTIC (DLT)

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Domestic (DLT)	Rs. 25.00	Rs. 35.00

II. **Energy Charge:** The MeECL proposes to continue the same slabs for the energy charges. The proposed energy charge for unit consumption of electricity in the various slabs is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Domestic (DLT)	First 100 Units	225	315
	Next 100 Units	250	350
	Above 200 Units	300	425

C. EMPLOYEES : (EMPL)

I. **Energy Charges:** MeECL proposes to levy energy charge for unit consumption of electricity to the employees as given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
EMPL	All Units	273	375

CATEGORY II: COMMERCIAL LOW TENSION (CLT)

This category shall be applicable to commercial consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (B).

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Commercial (CLT)	Rs. 50.00	Rs. 75.00

II. **Energy Charges:** MeECL proposes to continue the same slabs for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Commercial (CLT)	All Units	387	520

CATEGORY III: INDUSTRIAL LOW TENSION (ILT)

This category shall be applicable to industrial consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (C).

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Industrial (ILT)	Rs. 50.00	Rs. 75.00

II. **Energy Charges:** MeECL proposed to continue the single slabs for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Industrial (ILT)	All Units	336	466

CATEGORY IV: PUBLIC SERVICE LOW TENSION (PSLT)

This category shall be applicable to public service consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (D).

A. PUBLIC LIGHTING (PL)

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Public Lighting (PL)	Rs. 50.00	Rs. 75.00

II. **Energy Charges:** MeECL proposed to continue the single slabs for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Public Lighting (PL)	All Units	433	580

The Street Light supply has also to be generally metered without any separate minimum charge concept, but only with Fixed Charges. However, the billing of existing un-metered connections (until they are metered) shall be done as below. The tariff includes repairs, attendance and renewal of lamps subject to a maximum of 4 (four) renewals per point per lamp per annum, but with initial fitting at the cost of the customer. The rates given below are in addition to the fixed charge as applicable to metered supply.

Serial No.	Type of Lamps	Current Rate (Rupees per lamp per point per month)	Proposed Rate (Rupees per lamp per point per month)
1.	Incandescent lamp ▪ 40 Watts ▪ 60 Watts ▪ 100 Watts	 72.50 112.00 178.00	 72.50 112.00 178.00
2.	Fluorescent Lamps ▪ Up to 40 Watts	 112.00	 112.00
3.	Mercury Vapour Lamps ▪ 80 Watts ▪ 125 Watts ▪ 250 Watts ▪ 500 Watts	 151.50 232.00 478.50 897.50	 151.50 232.00 478.50 897.50
4.	Sodium Vapour Lamps ▪ Up to 150 Watts ▪ 250 Watts	 345.00 545.00	 345.00 545.00

B. PUBLIC WATER SUPPLY/SEWAGE TREATMENT PLANTS (WSLT)

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below:

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Public Water Supply (WSLT)/ Sewage Treatment Plants	Rs. 50.00	Rs. 75.00

II. **Energy Charges:** MeECL proposes to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Public Water Supply (WSLT) /Sewage Treatment Plants	All Units	399	530

C. GENERAL PURPOSE (GP)

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
General Purpose (GP)	Rs. 50.00	Rs. 75.00

II. **Energy Charges**: MeECL proposes to continue the same slabs for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
General Purpose (GP)	All Units	397	525

CATEGORY V: AGRICULTURE (AP)

This category shall be applicable to agricultural consumption only as per the Meghalaya Electricity Supply (Amendment) Code, 2009 Regulation 6 of 2009 para 2.

I. **Fixed Charges:** The MeECL proposes to levy fixed charge per KW per month as below.

Category	Existing Fixed Charge per KW	Proposed Fixed Charge per KW
Agriculture (AP)	Rs. 30.00	Rs. 45.00

II. **Energy Charges**: MeECL proposes to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Agriculture (AP)	All Units	130	175

CATEGORY VI: CREMATORIUM

I **Fixed Charges:** The MeECL proposes to levy fixed charge per month as below.

Category	Existing Fixed Charge per month	Proposed Fixed Charge per month
Crematorium (CRM)	Rs. 4200.00	Rs. 5000.00

II **Energy Charges**: MeECL proposes to levy energy charge for unit consumption of electricity as given below.

Category	Slabs of Units	Existing Tariff Rate (P/U)	Proposed Tariff Rate (P/U)
Crematorium (CRM)	All Units	250	350

14.2 HIGH TENSION (HT) SUPPLY:

Classification of supply at High Tension shall be as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 3. The MeECL proposes to continue with the present system of metering which shall be on the HT side. In case where metering is on the LT side, 2% transformation loss shall be added to arrive at the demand (KW / KVA) on HT side and 3% transformation loss shall be added to arrive at the consumption (Kvah) at HT side.

KVAH BILLING FOR HT AND EHT CONSUMERS

The MeECL proposes to introduce Kvah billing for all HT & EHT consumers. The reasons for such proposal is as below :-

The alternating current (AC) power consists of two components – Reactive and Active – and it is only the active component that is useful energy. It is, therefore, important that reactive component is minimized as it represents pure wastage of energy. This requires that the Power Factor (ratio of active to total power) be kept as close to unity as possible.

Although, the system configuration (i.e. the transmission and distribution system) also influences the power factor, the key determinant is the Load characteristic at the consumer end. Loads such as induction motors and lighting sources using arc tube technology (such as CFLs) which have inherently low power factors. As a result, if 1 MVA of energy is supplied to these loads, they actually use only 0.7 – 0.8 MW and the balance 20-30% represents loss. This not only affects the economics of the utility but in a power-scarcity situation it also deprives others from gainfully using the energy. In other words, if power factor is improved from an average of 0.8 to 0.88 it would imply that MeSEB would be able to supply 0.7 MU per MVA per annum of additional energy to the state without incurring any additional expenditure.

Power factor may be improved significantly by adding optimum capacitance and is obviously implies that the consumers have to make investment. Although, the MeSEB has been persuading the consumers in this regard, the improvement is not significant as the tariff structure has insufficient incentive to justify the additional investment.

The MeECL proposes to move away from the present KWH billing to KVAH billing. This would give an incentive to the consumer to lower their energy bills for a given consumption by improving the power factor through capacitive correction. The concept is also intended to bring about significant improvement in voltage profile and quality and reliability on grid supply. The main advantage will be low reactive power in the system leading to reduced system technical loss. The MeECL had received an application from one such HT consumer, i.e., Pioneer Carbide, requesting for incentives for improvement of power factor. A copy of the application is enclosed with the ARR.

Accordingly, the MeECL petition the Hon'ble Commission to kindly **approve this proposal for Kvah billing for HT and EHT consumers,** as this would be hugely beneficial to both the MeECL and the consumers. KVAH billing for EHT & HT supply has already been introduced in Delhi, Himachal Pradesh, Jammu & Kashmir and Uttarakhand. The tariff of the above mentioned states is enclosed with the ARR. In this petition, the proposed energy charge (P/U) for HT & EHT categories implies energy charge per Kvah.

CATEGORY VII: DOMESTIC HIGH TENSION (DHT)

This category shall be applicable to domestic consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (A).

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/KVA/month)
Domestic HT (DHT)	Rs. 100.00	Rs. 200.00

II. **Energy Charges:** MeECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Energy Charge (P/U)
Domestic HT (DHT)	370	500

CATEGORY VIII: COMMERCIAL HIGH TENSION (CHT)

This category shall be applicable to commercial consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (B).

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/KVA/month)
Commercial (CHT)	Rs. 100.00	Rs. 200.00

II. **Energy Charges:** MeECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Energy Charge (P/U)
Commercial (CHT)	339	430

CATEGORY IX: INDUSTRIAL HIGH TENSION (IHT)

This category shall be applicable to industrial consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (C).

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/ KVA / month)
Industrial (IHT)	Rs. 100.00	Rs. 250.00

II. **Energy Charges:** MEECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Tariff Rate (P/U)
Industrial (IHT)	383	541

CATEGORY X: PUBLIC SERVICE HIGH TENSION (PSHT).

This category shall be applicable to public service consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (D).

A. PUBLIC WATER SUPPLY/SEWAGE TREATMENT PLANTS (WSHT)

I. **Fixed Charge**: The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/ KVA / month)
Public Water Works (WSHT)	Rs. 100.00	Rs. 200.00

II. **Energy Charges:** MeECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Energy Charge (P/U)
Public Water Works (WSHT)	399	540

B. GENERAL PURPOSE / BULK SUPPLY (BS)

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/KVA/month)
General Purpose/Bulk Supply (BS)	Rs. 100.00	Rs. 200.00

II **Energy Charges:** MeECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Energy Charge (P/U)
General Purpose/Bulk Supply (BS)	371	490

14.3 EXTRA HIGH TENSION (EHT) SUPPLY:

Classification of supply at Extra High Tension shall be as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 3.

CATEGORY XI: INDUSTRIAL EXTRA HIGH TENSION (IEHT)

This category shall be applicable to industrial consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 4 (C).

I. **Fixed Charge:** The MeECL proposes to levy fixed charge per KVA per month as below.

Category	Existing Fixed Charge (/KVA/month)	Proposed Fixed Charge (/ KVA / month)
Industrial (IEHT)	Rs. 100.00	Rs. 250.00

II. **Energy Charges:** MeECL proposed to continue the single slab for the energy charges. The proposed energy charge for unit consumption of electricity is given below.

Category	Existing Energy Charge (P/U)	Proposed Tariff Rate (P/U)
Industrial (IEHT)	361	521

CATEGORY XII: TEMPORARY SUPPLY (LT & HT)

This category shall be applicable to temporary consumption, as per the Meghalaya Electricity Supply Code, 2006 Regulation 7/2006 para 14.

The MeECL proposes to continue with the existing arrangement where the fixed and energy charges shall continue to be double the standard applicable rate for all categories.

Petitioner's Submission for FY 2012-13.

The Petitioner has projected the Annual Revenue Requirement (ARR) for FY 2012-13 as Rs. 886.38 crores. The summary of the Petitioner's ARR is given in the table below:

ANNUAL REVENUE REQUIREMENT

(Rs. in Crores)

S.N	Item of expenditure	2010-11 (Pre-audit)	2011-12 (Estimted)	2012-13 (Projected)
1	Cost of Power Purchase	303.62	405.93	483.02
2	Employee costs	128.73	184.96	270.00
3	R&M expenses	22.78	23.33	29.94
4	Adm. & Gen. Expenses	11.70	10.54	11.67
5	Depreciation	27.02	49.44	55.53
6	Interest charges	44.01	46.81	130.49
7	Return on equity	28.28	28.28	28.28
8	Income Tax		9.33	9.33
9	Provision for bad and doubtful debt	11.24	10.00	10.00
10	Total revenue requirement	577.38	768.62	1028.26
11	Less: Non tariff income	87.80	63.30	105.55
	* including subsidy	12.32	12.31	14.00
	** including outside sale	19.84	6.00	22.33
12	Net revenue requirement (10-11)	457.42	687.01	886.38
13	Revenue from tariff **	360.33	429.36	-
14	Gap (12 - 13)	97.09	257.65	
15	Gap for FY ____________			
16	Total gap (14+15)	97.09	257.65	
17	Revenue surplus carried over ***	-	-	
18	Additional revenue from proposed tariff	-	257.64	
19	Regulatory asset			
20	Energy sales (MU)	1104.53	1222.56	1560.38

NB: Non Tariff income includes subsidy and outside sale.

** Excluding outside sale

*** Truing up of ARR is pending

Energy Sales Forecast.

The MeECL has estimated the energy sales for FY 2012-13 at Rs. 1560.38 MU as per table below:

Table : Energy sales forecast for FY 2012-13.

Sl. No	Category of Consumers	2012-13 (Projected)	
		No. of Consumers at the end of the year (Nos.)	Energy Sale / Demand (MU)
1	2	3	4
	LT CATEGORY		
1	Domestic (DLT)	234084	292.80
2	Commercial (CLT)	20724	67.05
3	Industrial (ILT)	832	8.31
4	Agriculture (Ap)	31	0.52
5	Public Lighting (PL)	79	1.63
6	Water Supply (WSLT)	395	7.79
7	General Purpose	1948	17.05
8	Kutir Jyoti/BPL	49091	12.35
9	Crmatorium	1	0.20
10	MeECL's offices & Employees		38.26
	HT CATEGORY		
11	Water Supply (WS HT)	38	32.74
12	Industrial (IHT)	150	393.86
13	General Purpose (Bulk Supply) including Domestic (DHT)	234	85.66
14	Commercial (CHT)	140	21.52
	EHT CATEGORY		
15	Industrial	13	388.28
16	Assam (Gen.Pur.)	3	15.36
17	U.I / Bilateral		50.00
18	Swapping (NVVN)		127.00
	Total	307763	1560.38

Power Availability State Hydel Stations and Through Purchase.

Meghalaya is a power deficit State due to accelerated load growth caused by a liberalized industrial policy of the State Government. This liberalized policy has encouraged power intensive industries to set up industrial units, mainly in the Byrnihat Industrial area, Ri Bhoi District and at Lumshnong, Jaintia Hills District, with a demand of about 200 MW. This is in addition to the normal increase in the demand. The demand is expected to rise further in view of Government policy for 100 % electrification of all villages and households. At present, there is a wide gap in demand and availability of power in the State. The data regarding the availability of power from State's own generation and Central share, both during monsoon seasons and lean seasons, are given in Table 2 below.

Table : Demand & Availability Scenario

Sl. No.	Particulars	FY 11-12
1	Peak Demand / (Unrestricted)	425 MW
2	Peak Demand Met / (Restricted) - Monsoon	260 MW
	- Lean	240 MW
3	Power Availability from Own Generation	
i.	Peak During Monsoon Seasons	151 MW
ii.	Average During Monsoon Seasons	74 MW
iii.	Peak During Lean Seasons.	104 MW
iv.	Average During Lean Seasons	39 MW
4	Central Share (NEEPCO,NHPC & Free Power)	
i.	Peak During Monsoon Seasons.	150 MW
ii.	Average Off Peak During Monsoon Seasons.	122 MW
iii.	Peak during Lean Seasons	101 MW
iv.	Average Off Peak During Lean Seasons	68 MW

Energy availability from own Generation:

The energy availability from own sources is dependent on the monsoon. The maximum generation recorded during the last decade was 665.38 MU in 2007-08. The generation of the last two years and the projection for 2012-13 is in Table 3 below:

Table : Own Generation *(All figures are in MUs)*

Sl. No.	Source	2010-11 (Pre-audit)	2011-12 (Provisional)	2012-13 (Projected)
1	Stage I	103.80	107.25	108.29
2	Stage II	47.52	12.00	37.72
3	Stage III	132.24	150.40	131.17
4	Stage IV	204.93	203.20	195.07
5	Umtru	15.51	18.00	33.24
6	Micro Hydels	5.16	11.83	7.89
7	Myntdu Leshka		140.18	194.49
8	Gross Generation	509.17	642.86	707.87
9	Auxiliary consumption	1.27	2.23	2.83
	Net Generation	507.90	640.63	705.04

Energy availability by purchasing from outside sources.

(a) The MeECL is also resorting to purchase of power from other sources to meet the energy requirement. Long term power purchases is as per the allocation made by the Ministry of Power, Government of India from the Central Sector Generating Stations of NEEPCO & NHPC, located in the North Eastern Region and also from the thermal stations of NTPC located in the Eastern Region. The rates at which power is purchase from the aforesaid stations are as determined by the Hon'ble Central Electricity Regulatory Commission.

(b) Short term power purchase is also inevitable to maintain stability in the power system and 30 MU was projected during 2012-13. Moreover, the MeECL is obligated to purchase electricity from renewable energy sources, which is in accordance with the Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and Compliance) Regulation 2010 as notified on 21st December 2010. Clause 4 of this Regulation specifies the quantum of Renewable Purchase Obligation (RPO) by the Licensees, and the same is reproduced below:-

"4. Quantum of Renewable Purchase Obligation (RPO)

(1) Every obligated entity shall purchase electricity (in KWh) from renewable energy sources at a quantum which is not less than the minimum calculated on the basis of percentage of the total consumption of the consumers in an area of the entity.

(2) At the commencement of these regulations the minimum percentage shall be as herein below specified, that is:-

Table :

Year	Minimum quantum of purchase (in %) from renewable energy sources (in kWh)			
	Total	Wind	Solar	Others
2010-11	0.5 %	0.1 %	0.2 %	0.2 %
2011-12	0.75 %	0.15 %	0.3 %	0.3 %
2012-13	1.0 %	0.20 %	0.4 %	0.4 %

(c) Accordingly, during 2012-13, the MeECL is obligated to purchase electricity from renewable energy sources as below:-

Table:

Energy sale (MU)	Minimum quantum of purchase from renewable energy sources (in MU)			
	Total	Wind	Solar	Others
1560.38	15.60	3.12	6.24	6.24

However, the MeECL proposes to generate 78.85 MU of energy from small hydro which is categorized as Non-solar. The MeECL's obligation to purchase electricity from Non-solar sources has, therefore been met, and is obligated to purchase only solar energy. Out of 30 MU projected for short term purchase, 6.24 MU is projected from solar sources and the balance 23.76 MU from other conventional sources.

(d) Taking into consideration all the factors mentioned above, the purchase of power from outside sources as shown in Table below:

Table: Purchase of Power from Outside the State.

(Rs. in Crores)

Sl. No	Source	Energy received (MU)	Variable Cost (Ps / Unit)	Total Variable Cost	Total Fixed Cost	Others	Total Cost (5+6+7)	Unit Cost (Rs./ KWH)
1	2	3	4	5	6	7	8	9
1	NTPC							
	a) Farakka STPS-I	66.51	411.40	27.36	2.43		29.80	4.48
	b) Kahalgaon STPS-I	34.45	290.40	10.00	1.43		11.44	3.32
	c) Kahalgaon STPS-II	136.66	242.00	33.07	24.33		57.40	4.20
	d) Talcher STPS-I	41.57	251.90	10.47	1.58		12.06	2.90
	e) BTPS	113.88	412.00	46.92	4.33		51.25	4.50
2	NHPC							
	a) Loktak HEP	65.28	124.80	8.15	6.61		14.75	2.26
3	NEEPCO							
	a) Kopili Stage-I HEP	89.80	43.56	3.91	3.36		7.27	0.81
	b) Kopili Stage-II HEP	8.20	80.01	0.66	0.46		1.12	1.36
	c) Khandong HEP	19.09	91.39	1.74	1.69		3.44	1.80
	d) Ranganadi HEP	152.66	112.74	17.21	12.25		29.46	1.93
	e) Doyang HEP	25.12	272.34	6.84	5.52		12.36	4.92
	f) AGBPP	68.46	220.00	15.06	8.08		23.14	3.38
	g) AGTPP	207.00	282.70	58.52	0.06		58.58	2.83
	h) Free Power	62.97						
4	OTPC -PALLATANA GPP	156.86	412.00	64.63	5.96		70.59	4.50
5	Other sources	(Details to be furnished)						
	a) UI+Bilateral+Exchange	23.76					10.69	4.50
	b) Solar	6.24					11.17	17.90
	c) Swapping	150.00						
6	Other Charges	(Details to be furnished)						
	a) POWERGRID						68.65	
	b) ASEB						2.50	
	c) POSOCO						1.56	
	d) OAC						5.00	
	e) Reactive Charges						0.80	
	Total	1428.51					483.02	

ENERGY BALANCE:

The energy availability from own sources is projected at 705.04 MU and purchase from outside sources is projected at 1428.51 MU. The total availability is 2133.55 MU, out of which the total energy sale is projected at 1560.38 MU, resulting in T&D loss of 573.18 MU. The detail of energy balance is given in table below:

Table : Energy Balance.

(MU)

Sl. No.	Item	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projected)
A	ENERGY REQUIREMENT			
1	Energy sales within the State	968.18	1157.27	1368.02
2	Sales to common pool consumers			
3	Sales outside State	15.22	15.29	15.36
4	Sales to electricity traders	121.13	50.00	177.00
5	Sales to other distribution licensees			
6	Total Sales	1104.53	1222.56	1560.38
7	Distribution Losses			
(i)	MU	532.52	484.53	573.18
(ii)	%	32.53	28.38	26.87
8	Total energy requirement (6+7(i))	1637.05	1707.09	2133.56
B	ENERGY AVALABILITY			
1	Net thermal generation (own)	Nil	Nil	Nil
2	Net hydel generation (own)	507.90	640.63	705.04
3	Power Purchase from			
	a) Central Stations	953.80	986.46	1248.51
	b) Traders	19.00	50.00	30.00
	c) Power Exchange			
	d) Others	156.35	30.00	150.00
4	Net Power Purchase (1+2+3)	1129.15	1066.46	1428.51
5	Total energy availability	1637.05	1707.09	2133.55

TRANSMISSION & DISTRIBUTION LOSSES:

At present, there is considerable number of un-metered consumers, as well as consumers with defective meters, not only under domestic category but under other categories too. Moreover, there are many HT feeders that have no meters. The consumption of un-metered consumers as well as consumers with defective meters, are being assessed, and thus there is a possibility of higher actual consumption resulting in lower computation of T&D loss. With more meters installed against un-metered and defective connections and with metering of HT feeders, there is a possibility of reaching more realistic position of T&D loss. In this situation, the actual overall T&D loss of 32.53 % during FY 2010-11, is estimated at 28.38 % during FY 2011-12 and targeted to be reduced to 26.87% during FY 2012-13.

Analysis of T&D Losses:

At present the break up of T&D loss in respect of technical loss and commercial loss (including due to theft/pilferage of energy) is not available. The MeECL is making all efforts to analyze the T&D loss, which is quite a tedious job and may require a lot of time**.** In general, the higher T&D losses are due to the following reasons:

i) Long and overloaded transmission, sub-transmission and distribution lines

ii) Un-metered connections, where actual consumption is more than the assessment being done or where flat rate billing does not cover actual consumption.

iii) Stopped/defective meters, where billing is not being done on the basis of actual consumption

iv) Theft/pilferage of energy.

Remedial Measures:

Efforts are being made to reduce T&D losses by way of -

i) Strengthening transmission, sub-transmission and distribution system and re-engineering thereof

ii) Metering of un-metered consumers, un-metered feeders and replacement of defective meters.

iii) Inspection of connections, detection of theft/pilferage of energy and reducing it to the maximum possible extent

T&D Losses Reduction Plan:

Tentatively, the reduction of the overall T&D losses in coming years is planned as below:

Actual T&D loss in FY 2010-11	= 32.53 %
Target of reduction of T&D loss in FY 2011-12	= 28.38 %
Target of reduction of T&D loss in FY 2012-13	= 26.87 %

Metering Programme:

The metering of consumers is being done by the MeECL under RGGVY and from its own resources. The MeECL has taken a policy decision that no new connection to any category of consumers shall be provided without meters. Efforts are being made to achieve 100% metering of consumers in the next two years.

AGGREGATE TECHNICAL & COMMERCIAL LOSSES (AT&C LOSSES):

Determining technical losses has traditionally been used to measure the efficiency of the electrical system, which is computed as the ratio of the difference in energy input and energy sold to the energy input. However, this does not reflect the overall efficiency of the system. This limitation is addressed by adding another parameter to the T&D losses, viz. the collection efficiency, which is defined as the ratio of the total revenue collected to the total demand raised (billing done) during the year. By combining the technical losses and collection efficiency, the Aggregate Technical and Commercial (AT&C) losses is determined, which is a measure of the total efficiency of the electrical system.

Collection Efficiency

The collection efficiency for FY 2010-11 is 104.91% and for FY 2011-12 is estimated at 97.79% and for FY 2012-13 is projected at 97.88 %.

AT&C loss

The Meghalaya State Electricity Regulatory Commission (Determination of Tariff) Regulation 2011, requires submission of the AT&C loss figures in the prescribed Format D 2(A). In this format, the AT&C loss calculation takes into account the energy availability, energy sold and revenue collection made from within the State only.. The AT&C loss projected within the state is as below:

Actual AT&C loss in FY 2010-11	= 29.53 %
Provisional AT&C loss in FY 2011-12	= 29.47 %
Target of reduction of AT&C loss in FY 2012-13	= 27.92 %

EXPENDITURE:

Power Purchase Cost:

(a) To meet the energy requirement in the state, power is proposed to be purchased from various sources as indicated in the ARR. During 2012-13 the quantum of power to be purchased is projected at 1428.51 MU at an expenditure of Rs. 483.03 crore.

b) The Hon'ble Central Electricity Regulatory Commission (CERC) vide its Order dated 23rd August 2011 has determined the following price for renewable energy:-

(i) The forbearance price for Non-Solar Renewable Energy Certificate (REC) at Rs 3300/- per Mwh and the floor price at Rs 1500/- per Mwh.

(ii) The forbearance price for Solar REC at Rs 13,400/- per Mwh & the floor price at Rs 9300/- per Mwh.

A copy of the Hon'ble CERCs Order dated 23rd August 2011, is enclosed with the ARR.

During 2011-12, the MeECL had requested Power Trading Company of India Limited (PTCIL) to explore the market for arranging 3.66 MU of solar power to MeECL. However, PTCIL, vide letter dated 24th November 2011, has informed that no solar developer is available for supply of 3 MU of solar energy for one year. Therefore, PTCIL has advised that MeECL should instead purchase Solar Renewable Certificates (RECs) from the Energy Exchange. A copy of the letter from PTCIL dated 24.11.2011 is enclosed with the ARR.

During 2012-13, the procurement rate of solar energy is projected at the forbearance price of Rs 13400 per Mwh. However, due to non-availability of solar energy, the MeECL shall have to procure RECs in addition to 6.24 MU of energy, at the projected rate of Rs 4.50 per unit. Therefore, the procurement rate for solar energy is projected at Rs (13.40 + 4.50) or Rs. 17.90 per unit, amounting to Rs 11.17 crore.

The MeECL proposes to generate 78.85 MU of energy from small hydro which is categorized as Non-solar. The MeECL's obligation to purchase electricity from Non-solar sources has therefore been met, and it is obligated to purchase only solar energy.

(c) The MeECL also proposes to purchase 23.76 MU of short term power from conventional sources, at the projected rate of Rs 4.50 per unit at a total cost of Rs 10.69 crore.

Repair & Maintenance:

The repair and maintenance expense is projected in the petition. Except for Stage I power station, which was renovated in 2001-02, the MeECL is having outlived power stations between 30 to 50 years old. These power stations incur more expenses to maintain the scheduled generation. Moreover, Meghalaya being a hilly terrain state demands comparatively more investment for maintaining the transmission and distribution network. Under these circumstances there is a genuine need for incurring repair & maintenance expenses to keep the current assets under satisfactory running condition.

Table: Repair and Maintenance. (Rs. in crores)

Sl. No	Particulars	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projected
1	2	3	4	5
1	Plant & Machinery	5.10	5.56	7.13
	-Plant and Apparatus			
	-EHV Sub-stations			
	- 33 kV Sub-stations			
	- 11 kV Sub-stations			
	-Switch gear and cable connections			
	- Others			
	Total	**5.10**	**5.56**	**7.13**
2	Building	3.45	2.86	3.67
3	Hydraulic works & Civil works			
	Hydraulic works	2.20	3.71	4.76
	Civil works	4.91	3.11	3.99
	Total	**7.11**	**6.82**	**8.75**
4	Line cable & Network	6.06	7.02	9.01
	- EHV Lines			
	-33 kV Lines			
	-11 kV Lines			
	-LT Lines			
	-Meters and metering equipment			
	-Others			
	Total	**6.06**	**7.02**	**9.01**
5	Vehicles	0.55	0.66	0.85
6	Furniture & Fixtures	0.29	0.24	0.31
7	Office equipments	0.22	0.17	0.22
8	Operating expenses *			
9	**Total**	**1.06**	**1.07**	**1.38**
10	Add / Deduct share of other (To be specified)			
11	**Total expenses**	**22.78**	**23.33**	**29.94**
12	Less capitalized			
13	Net expenses			
14	Add prior period *			
15	**Total expenses charges to revenue as R&M expenses**	**22.78**	**23.33**	**29.94**

* Shown as "Generation of power" at schedule 7 in Statement 1 of the Staement of Accounts.

Employee Cost:

A significant component of the employees cost has been the terminal benefit which is being met from the revenue earning on a year to year basis. In other words, the actual pension outflow for the retired personnel of the erstwhile MeSEB is being managed from the revenue earned in the year. The MeECL is also recruiting employees to meet the shortage of man power due to gradual retirement of employees. Also, the employee cost was projected keeping in mind the payment of arrear pay of the employees arising out of pay revision which was made effective from January 2010 and implemented from September 2011. Accordingly**,** the employee's cost is as indicated in the table below:

Table: Employees Cost

(Rs. in crores)

Sl. No.	Particulars	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projected)
1	2	3	4	5
	SALARIES & ALLOWANCES			
1	Basic Pay	60.26	90.83	99.91
2	Dearness Pay			
3	Dearness Allowance	26.19	29.66	32.62
4	House rent Allowance	9.29	15.31	16.84
5	Fixed medical allowance			
6	Medical reimbursement charges	2.31	3.30	3.63
7	Over time payment	0.63	1.17	1.29
8	Other allowances (detailed list to be attached)			
9	Generation incentive	0.11	0.15	0.17
10	Bonus			
11	Sub-Total	98.79	140.42	154.46
	Terminal Benefits			
12	Leave encashment	2.31	3.06	3.37
13	Staff welfare expenses	0.09	0.11	0.12
14	Commutation of Pension			
15	Workman compensation	0.01	0.02	0.02
16	Ex- gratia	3.26	6.36	7.00
17	Sub-Total	5.67	9.55	10.51
	Pension Payment			
18	Basic Pension	29.38	40.52	44.57
19	Dearness Pension			
20	Dearness allowance			
21	Any other expenses	1.47	2.47	2.72
22	Sub-Total	30.85	42.99	47.29
23	Total (11+17+22)	135.31	192.96	212.26
24	Less amount capitalised	9.49	8.00	4.35
25	Net amount	125.82	184.96	207.91
26	Add prior period expenses *	2.91		62.09
27	Grand Total	128.73	184.96	270.00

Administrative & General Expenses:

The administrative and general expenses of the MeECL are also increasing gradually due to expansion of the power sector in the state and also to keep pace with the inflation. The breakup / details of the A & G expenses under various heads is as indicated in table below.

Table: Administrative & General Expenses.

(Rs. In crores)

Sl. No.	Particulars	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projected)
1	2	3	4	5
1	Rent, rates & taxes	0.28	0.29	0.34
2	Insurance	0.68	0.36	0.42
3	Telephone, postage & Telegrams	0.52	0.50	0.58
4	Consultancy fees	0.72	1.57	1.82
5	Technical fees	0.03	0.12	0.14
6	Other professional charges	2.85	0.17	0.20
7	Conveyance & travel expenses	5.26	5.35	6.21
8	Electricity & Water charges	0.01	0.01	0.01
9	Others	1.04	1.86	2.15
10	Freight	0.00	0.00	0.00
11	Other material related expenses	0.27	0.31	0.36
12	Total expenses	11.66	10.54	12.23
13	Less Capitalised	2.52	0.00	0.56
14	Net expenses	9.14	10.54	11.67
15	Add Prior period*	0.00	0.00	0.00
16	Add Debits	2.56	0.00	0.00
17	Total expenses charged to revenue	11.70	10.54	11.67

* Year-wise details of these charges may be provided.

Depreciation:

Depreciation has been computed on the opening Gross Fixed Assets for each class / category of assets individually for approval as part of the annual revenue requirement for 2009-10. The depreciations are given in table below**:**

Table: Value of Assets & Depreciation. (Rs. in crores)

Sl. No.	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the year	Rate of Depreciation (%)	Depreciation charges for the year
1	2	3	4	5	6	7	8
1	Land & Land Rights	41.49	19.31		60.8		
2	Building	54.15	15.14		69.29	3.34	1.93
3	Hydraulic Works	516.9	239.5		756.4	5.28	22
4	Other Civil Works	86.46	36.77		123.23	3.34	3.15

5	Plant & Machinery	330.69	113.56		444.25	5.28 & 6.33	13.79
6	Line & Cables	268.19	26.82		295.01	5.28	13.64
7	Vehicles	10.59	1.27		11.86	9.5	0.46
8	Furniture	5.36	0.71		6.07	6.33	0.24
9	Office Equipments	6.14	0.89		7.03	6.33	0.32
	TOTAL	1319.97	453.97	0	1773.94		55.53

Interest & Finance Charges:

The interest component proposed to be charged is on account of loans taken for the purpose of capital investments as well as for meeting working capital requirements. The interest & finance charges are given in table below**.** The Hon'ble Commission in its Tariff Order 2008-09 has not allowed the provision on interest to be paid to the State Government. Accordingly, this expenditure has been deducted from Interest and Finance charges.

Table: Details of Loan & Interest for FY 2012-13. (Rs. in Lacs)

Sl. No.	Particulars	Opening Balance	Rate of Interest	Addition during the Year	Repayment during the Year	Closing Balance	Amount of interest accrued during the Year
1	2	3	4	5	6	7	8
1	MSE & BSE Bonds	17000.00	x	-	-	17000.00	1763.63
2	Non SLR Bonds	-	x	-	-	-	-
3	LIC	-	x	-	-	-	-
4	REC	24723.93	x	778.00	2530.42	22971.51	2930.39
5	Commercial Banks	34301.13	x	3633.00	5355.34	32578.79	4124.04
6	Bills Discounting	-	x	-	-	-	-
7	Lease rental	-	x	-	-	-	-
8	PFC	25039.40	x	2378.00	1601.33	25816.07	3173.26
9	GPF	-	x	-	-	-	-
10	CSS	221.17	x	-	46.88	174.29	98.39
11	Working Capital Loan	11069.65	x	-	-	11069.65	980.93
12	Other (JBIC & OECF Loan)	9513.29	x	-	-	9513.29	326.39
13	TOTAL:	121868.57	x	6789.00	9533.97	119123.60	13397.03
14	Add State Govt. Loan	20619.76	x	2431.79	890.05	22161.50	2378.00
15	TOTAL: (13+14)	142488.33	x	9220.79	10424.02	141285.10	15775.03
16	Less Capitalization	-	-	-	-	-	977.00
17	Net Interest	-	-	-	-	-	14798.03
18	Add prior period	-	-	-	-	-	Nil
19	Total Interest	-	-	-	-	-	14798.03
20	Finance Charges	-	-	-	-	-	628.95
21	Total Interest and Finance Charges	-	-	-	-	-	15426.98

Note : Penal interest at serial no. 15 is being shown separately as per Statement of Accounts

Provision for Bad & Doubtful Debts:

The entire sale of MeECL is on credit basis. Sales are mostly in semi urban and rural areas in a wide geographical spread and there would be occurrences of bad debts. During FY 2010-11 a provision of Rs. 11.24 was provided. A provision of Rs. 10.00 crore has been kept FY 2011-12 and FY 2012-13 respectively.

Other Non-Tariff Incomes:

Other incomes include interest on loan and advance, income from investment, delayed payment surcharge, discounts/rebates from suppliers, interest from banks, and income from trading as well as miscellaneous receipts. The details are given in table below:

Table: Other Non Tariff Incomes.

(Rs. in crores)

Sl. No.	Source of loan	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projected)
1	2	3	4	5
1	Meter / Service rent	1.47	1.31	2.02
2	Late payment surcharge	70.06	48.54	81.28
3	Theft / pilferage of energy charges	0.01	0.02	0.01
4	Misc. receipts	1.27	1.09	1.45
5	Misc. charges	3.94	3.08	7.18
6	Wheeling charges	1.86	0.45	3.77
7	Interest on staff loans & advance	0.01	0.01	0.01
8	Income from trading	0.03	0.31	0.04
9	Income from welfare activities			
10	Discount/Rebates from suppliers/contractors	1.67	3.15	2.6
11	Interest on Investments & bank balances	6.90	5.34	7.19
12	Total Income	87.22	63.30	105.55
13	Add Prior period income *	0.58		
14	Total	87.80	63.30	105.55
	* Year wise details of prior period income may be provided			
Note	Item at S.N. 1, 3, 5 & 6 are shown at serial 12, 13, 14 & 15 in Schedule 2 of the Statement of Accounts			

* Year-wise details of these charges may be provided.

Return on Equity:

The equity held in MeECL's accounts is Rs. 202.00 crore. 14% return on equity amounting to Rs. 28.28 crore has therefore been assumed for the FY 2012-13 as shown in Table 4 below.

Table : Return on Equity

(All figures are in Rs. Crore)

Sl. No.	Particulars	2010-11 (Pre-audit)	2011-12 (Estimated)	2012-13 (Projection)
1	Opening Balance of Equity	202.00	202.00	202.00
2	Net Additions during the Year	0.00	0.00	0.00
3	Less: Capitalization	0.00	0.00	0.00
4	Closing Balance of Equity	202.00	202.00	202.00
5	Rate of Return (%)	14%	14%	14%
6	ROE	28.28	28.28	28.28

State Government Subsidy:

The State Govt. has provided RE subsidy of Rs 12.32 crore in FY 2010-11. A provision of Rs 12.31 crore was kept for FY 2011-12 and Rs. 14.00 crore was kept for FY 2012-13.

11. Road Map for Tariff Proposal.

(a).The Hon'ble Commission, in its Tariff Order dated 23.08.2010, had in Paragraph 42, gives the Road-Map for compliance with Section 61(g) of the Electricity Act 2003, which is reproduced below :-

"42. Road-Map for compliance with Section 61(g) of the Electricity Act 2003 read with National Tariff Policy –

1. *The Commission notes that the Distribution Tariff decided by these Orders, is already compliant with the provisions of Section 61(g) of the Electricity Act of 2003 and the National Tariff Policy, that is the distribution tariff is within +/- 20 percent of the average cost of supply, except in respect of domestic consumption, consumption for agricultural purposes, consumption under the Kutir Jyoti Program and consumption in Crematoria under the L.T Category.*

2. *The Commission, therefore, hereby prescribes the road-map to comply with the requirements of Section 61 of the said Act. The road map is reflected in Table-XI below –*

TABLE-XI

ROAD MAP FOR COMPLIANCE WITH THE PROVISION OF SECTION 61(g) OF THE ELECTRICITY ACT 2003, read with THE CONNECTED PROVISIONS OF THE NATIONAL TARIFF POLICY RELATING TO DISTRIBUTION TARIFF BEING BROUGHT WITHIN +/- 20 PERCENT OF THE COST OF SUPPLY WITHIN 2010-11.					
Sl.	*Category*	*Deviation % of Distribution Tariff from the cost of supply*			
	YEAR	*2010-11*	*2011-12*	*2012-13*	*2013-14*
1	*LT Domestic Category for domestic consumption, including consumption for Agricultural purposes, Kutir Jyoti Program and Crematorium; as fixed vide sub-para 5 read with Table - KKK, above*	*(-) 30.0 %* *NON COMPLIANT*	*(-) 26.0 %* *NON COMPLIANT*	*(-) 22.0 %* *NON COMPLIANT*	*(-) 18.0 %* *COMPLIANT*
2	*LT Non-domestic Category for non-domestic Purposes including consumption by industry, commercial establishments, general purposes and for water supply systems and street lighting.*	*(+) 16.0 %* *COMPLIANT*	*(+) 14 %* *COMPLIANT*	*(+) 12.0 %* *COMPLIANT*	*(+) 10 %* *COMPLIANT*
3	*HT Category*	*(+) 11.0 %* *COMPLIANT*	*(+) 9.0 %* *COMPLIANT*	*(+) 7.0 %* *COMPLIANT*	*(+) 5.0 %* *COMPLIANT*
4	*EHT Category*	*(+) 6.0 %* *COMPLIANT*	*(+) 4.0 %* *COMPLIANT*	*(+) 2.0 %* *COMPLIANT*	*(+) 0.0 %* *COMPLIANT*

(b). By the above direction, the Hon'ble Commission sought to reduce the cross subsidy of the EHT category to 2 % and that of HT category to 5 % during FY 2012-13. However, this Road Map proposed by the Hon'ble Commission is in contravention to the provisions of Section 61(g) of the Electricity Act of 2003 and the National Tariff Policy, wherein it was specified that the distribution tariff shall be within +/- 20 percent of the average cost of supply.

(c.) The MeECL therefore petitioned the Hon'ble Commission to kindly approve the tariff for FY 3012-13 in accordance with the provisions of Section 61(g) of the Electricity Act of 2003 and the National Tariff Policy, that is, the distribution tariff is kept within + 20 percent of the average cost of supply for HT and EHT categories.

12. Kvah Billing for HT and EHT consumers

The MeECL proposes to introduce Kvah billing for all HT & EHT consumers. The reason for the proposal is given below:

The alternating current (AC) power consists of two components – Reactive and Active – and it is only the active component that is useful energy. It is, therefore, important that reactive component is minimized as it contributed to the I^2R loss in the system. This requires that the Power Factor (ratio of active to total power) be kept as close to unity as possible.

Although, the system configuration (i.e. the transmission and distribution system) also influences the power factor, the key determinant is the Load characteristic at the consumer end. Loads such as induction motors and lighting sources using arc tube technology (such as CFLs) which have inherently low power factors. As a result, if 1 MVA of energy is supplied to these loads, they actually use only 0.7 – 0.8 MW and the balance 20-30% represents loss. This not only affects the economics of the utility but in a power-scarcity situation it also deprives others from gainfully using the energy. In other words, if power factor is improved from an average of 0.8 to 0.88 it would imply that MeSEB would be able to supply 0.7 MU per MVA per annum of additional energy to the state without incurring any additional expenditure.

Power factor may be improved significantly by adding optimum capacitance and is obviously implies that the consumers have to make investment. Although, the MeSEB has been persuading the consumers in this regard, the improvement is not significant as the tariff structure has insufficient incentive to justify the additional investment.

The MeECL proposes to move away from the present KWH billing to KVAH billing. This would give an incentive to the consumer to lower their energy bills for a given consumption by improving the power factor through capacitive correction. The concept is also intended to bring about significant improvement in voltage profile and quality and reliability on grid supply. The main advantage will be low reactive power in the system leading to reduced system technical loss. The MeECL had received an application from one such HT consumer, i.e., Pioneer Carbide, requesting for incentives for improvement of power factor. A copy of the application is enclosed with the ARR.

Accordingly, the MeECL petition the Hon'ble Commission to kindly approve this proposal for Kvah billing for HT and EHT consumers, as this would be hugely beneficial to both the MeECL and the consumers. KVAH billing for EHT & HT supply has already been introduced in Delhi, Himachal Pradesh, Jammu & Kashmir and Uttarakhand. The tariff of the above mentioned states is enclosed in the ARR. In this petition, the proposed energy charge (P/U) for HT & EHT categories implies energy charge per Kvah

Tariff Proposal for FY 2012-13.

(i). LT Category:

Category	Fixed charge for every KW or part thereof per month		Slabs of Units	Energy Charges (Paisa per kwhr)	
	Current	Proposed		Current	Proposed
Domestic (DLT)	Rs. 25.00	Rs 35.00	First 100 Units	225	350
			Next 100 Units	250	385
			Above 200 Units	300	460
Non Domestic/Commercial (CLT)	Rs. 50.00	Rs 75.00	All Units	387	555
Industrial (ILT)	Rs. 50.00	Rs 75.00	All Units	336	501
Agriculture (AP)	Rs. 30.00	Rs 45.00	All Units	130	210
Public Lighting (PL)	Rs. 50.00	Rs 75.00	All Units	433	615
Public Water Supply (WSLT)	Rs. 50.00	Rs 75.00	All Units	399	565
General Purpose (GP)	Rs. 50.00	Rs 75.00	All Units	397	560
MeECL Employees (EMPL)	-	-	All Units	273	410

Category	Fixed charge per month		Slab of Units	Energy Charges (Paisa per kwhr)	
	Current	Proposed		Current	Proposed
Crematorium (CRM)	Rs. 4200.00	Rs.5000.00	All Units	250	385

Category	Connection per month	Existing rates	Proposed rates
Domestic (DLT)	Un-metered Kutir Jyoti/BPLU	Rs. 65.00	Rs. 75.00
	Metered Kutir Jyoti/ BPLM	Rs. 1.70 per unit for monthly consumption within 30 units per month. In case consumption in any month exceeds 30 units, then the billing of excess units shall be on the tariff prescribed for appropriate slab for normal domestic consumers.	Rs. 2.60 per unit for monthly consumption within 30 units per month. In case consumption in any month exceeds 30 units, then the billing of excess units shall be on the tariff prescribed for appropriate slab for normal domestic consumers.

(ii). HT Category

Category	Fixed Charge (Rs / KVA / month)		Energy Charge (paisa per kvah)	
	Current	Proposed	Current	Proposed
Domestic HT	Rs.100.00	Rs 200.00	370	537
Public Service (Bulk supply)	Rs.100.00	Rs 200.00	371	535
Commercial (CHT)	Rs.100.00	Rs 200.00	339	505
Industrial (IHT)	Rs.100.00	Rs 250.00	383	595
Public Water Works (WSHT)	Rs.100.00	Rs 200.00	399	580

(iii). EHT Category

Category	Fixed Charge (Rs / KVA / month)		Energy Charge (paisa per kvah)	
	Current	Proposed	Current	Proposed
Industrial (IEHT)	Rs.100.00	Rs 250.00	361	580

PART III

STAKE HOLDER'S RESPONSES AND PETITIONERS COMMENTS

The Commission has received 8 objections/ suggestions on the ARR and Tariff proposal of MeECL for 2011-12 and 2012-13. Further the Commission in its public hearing held on 25.11.2011 and on 10.1.2012 has received some suggestions/ objections from respondents. List of participants who have attended the public hearings are enclosed in Annexure-1 & 6 and proceedings of the Public Hearing are enclosed at Annexure 4 & 5. The Commission has also obtained comments from MeECL on the responses received from stakeholders. Since several issues are common issues and have been raised by more than one respondent, all responses have been clubbed category wise and summarised below. These issues have also been duly considered while analyzing the factors affecting the tariff determination in the later Sections in this Order.

1. Domestic Tariff:

Stake Holder's Response:

Ka Synjuk ki Rangbah Shnong has held a general body meeting of the Synjuk ki Rangbah Shnong, Shillong on 25.09.2011 and in the meeting following decisions were taken and intimated to the Commission :

"While appreciating that may be need to revise the Tariff, the meeting felt that any revision should not be more than 25%. It is also of the view that keeping the Tariff within reasonable rates may be achieved through following measures:

- Curtail the power purchase to the minimum.
- Expedite completion of the long delayed Leshka Hydro Project in order to augment the generation from own sources.
- There is a need to adopt more stringent measures to prevent power pilferages and to ensure regular collection of charges from all consumers. "

Similarly on same issue, the Meghalaya Pensioners Association has sent their objection vide Letter dated 24.11.2011 and requested the Commission to raise the Electricity Tariff within 10% only and not more. They have also raised the following issues in their letter:

1) We have a serious concern on the inordinate delay of commissioning of 3x42 MW Hydel Electric Projects which is adding to the expenditure in the form of Loan interest burden and repayment of capital etc. From the above view the MeECL requires expertise to make the Hydro Electric Projects completed on time and within the original estimated amount. The burden due to over run time in Power projects should not be thrown as a burden on the consumers particularly the Pensioners.
2) There is a suggestion that generation Projects be handed over to Private Sector till such time MeECL acquires expertise. In such a situation restriction should be imposed on setting up of power intensive industries, as it requires higher quantum of purchase leading to increased operational cost.
3) Pit head Thermal power station should be set up in the State instead of coal being siphoned out from the State.

4) The traditional heating system of charcoal is no longer in practice now, due to the ban on charcoal production to preserve a clean and green environment. The senior citizens and aged people require the heating system more especially in winter and depends only on Electricity. Otherwise it will affect the old age health hazard to them, and if the hike is increased at an exorbitant rate the Pensioners will find it difficult to bear the cost.
5) In the current scenario, it is requested that the Commission may kindly consider as a relief measures for the pensioners not to hike the tariff up to a minimum level of consumption say first 300 units to the Pensioners as this will not be a big burden to the Government.”

In the Public Hearing held on 25.11.2011, several respondents like Ka Synjuk ki Rangbah Shnong and a representative from the NCP state unit objected to the proposal of the Petitioner to raise tariff for domestic category up to 60%. However they have shown their concern that in order to meet the power purchase requirement and network cost of the Petitioner (MeECL), it is necessary to raise the revenue of the Petitioner. They have shown their willingness to accept the tariff rise by 10% to 25% only. They also requested the commission to revise the tariff with prospective date and not with retrospective. The Pensioner’s Association suggested there should not be any increase in tariff for the first 300 units of energy consumed in the domestic category. Similarly, in the public hearing on Tariff for 2012-13 on 10.01.2012, the Pensioner’s Association again put up their concern about the increase proposed by the MeECL and requested the Commission to consider their demand and Tariff should not be raised unreasonably.

Response of MeECL

On the objections raised by Ka Synjuk Ki Seng Rangbah Shnong (KSKRS), MeECL has responded vide its Letter dated 15.11.2011 the following:

a) MeECL has filed the Petition with the proposed rates of increase is based on aggregate revenue requirement.
b) An optimum quantum of power purchase has been proposed. All efforts have been made to expedite the completion of the Leshka Hydro Project. It may also be informed that the corporation is committed to adopting measures to prevent power pilferage, improvement of billing and collection efficiencies and improving power supply in the state.
c) They have noted the observations of KSKRS and informed that MeECL is trying to improve the power supply to all its esteem consumers.

2. Commercial Tariff

North Eastern Hills University vide its Letter dated 25.10.2011 has given the following comments to the Commission:

i) “Any enhancement of the Tariff as prayed for the MeECL should not be approved as a matter of routine.
ii) MeECL should be asked to re-submit its Petition for Approval of Annual Revenue Requirement & Tariff for 2011-12 with proper justification on all counts, particularly on power purchase and employee cost (under Expenditure).
iii) MeECL must be asked to provide data on the actual expenditure for the months available for 2010-11, before any consideration can be made on the projected revenue requirements for 2011-12. Only Revised Estimates on Revenue from current tariff is given.
iv) Any proposed enhancement in the tariff must not only be based on revenue requirements but also be linked to revenue collection. In many towns, including Tura, meter reading and

collection of bills is not made regularly – I know of cases where for years, no bills has been served to the consumers! This ultimately places a heavy burden on the consumers when they are suddenly billed for all those months/years with penalty. It is a matter of time when some consumer will approach a court of law for redressal on this count.

v) Further, any proposed enhancement in the tariff must also be linked to efficiency of utilities. We have witnessed how the power supply fails on multiple occasions every day in both in Shillong and Tura. The situation is worse in smaller towns.

vi) The revenue requirements on maintenance must be studied carefully. For years, old transformers (sub-stations) have not been replaced, with the result that there is regular power failure or power voltage drop/increase, resulting in damage to electrical equipment installed by consumers."

In the Public Hearing held on 10.01.2012 on the ARR of 2012-13, a representative from Tourism Department submitted before the Commission that the Commission should also look into the interest of petty consumers in semi-urban or rural areas and try to make their Tariff not as high as being done for big commercial consumers. In the hearing, the matter of introduction of slab rates in commercial category was also raised on which MeECL has made No Objection and submitted that before 2010-11 there were different slab rates in commercial categories.

Response of MeECL

MeECL in its reply to objection raised by Prof. E.D. Thomas has given the para-wise replies as follows:-

1) MeECL filed the Tariff Petition on an annual basis in accordance with the Regulation.
2) MeECL has given proper justification and all additional information as sought out by the Commission.
3) MeECL has provided monthly trial balances for the period April to June 2011 to the Commission.
4) The Tariff Petition is made in accordance with the Regulation. As regard revenue collection, the same is address in the AT & C loss computation and the projection is provided in format D 2 (A) of the Petition. The statement on non billing is too generalised and does not provide any specific detail. However, it may be informed that the MeECL is truing its best to improve the efficiency on billing collection and maintenance of power supply to all its consumers.
5) MeECL is agreed with the concern of the consumer that it should try its best to improve the power supply to all its consumer.
6) MeECL in accordance with the supply code publishes the details of assistance and service cells for compliance in newspaper every January. The same is available in the office website of the Corporation.

3. Electric Crematorium Tariff

M/s Greater Shillong Crematorium and Mortuary Society vide its Letter dated 24.10.2011 given the following comments to the Commission:

1) "Our society is operating the Electric Crematorium at Jhalupara on a non-profit and non-commercial basis with effect from 19.05.2007 upon being so entrusted by the Meghalaya Urban Affairs Department.
2) As we are charging an amount of Rs.1200.00 for APL category ad Rs.800.00 for BPL category since 1st July 2009 prior to that it was Rs.800.00 for APL and 500.00 for BPL

category. In a month on an average 25 to 30 dead bodies are being incinerated, the total revenue generated which comes to Rs.35,000.00 to 40,000.00

3) Upon being satisfied by the decisions of the Honourable Meghalaya Electricity Regulatory Commission during the financial year 2009-10, we are still not in a position of paying the electricity bill regularly as charged by the MeECL as per Honourable Meghalaya Electricity Regulatory Commission's decision.
4) Further, Meghalaya Energy Corporation Limited vide proposed ARR Tariff petition for the year 2011-12 to Honourable Commission wherein it is stated the enhancement of rate for the year 2011-12 which the Society strongly opposed as the same will be again a burden for the society.
5) In the above circumstances, we ardently request your honour to kindly consider our grievances, it is also pertinent to mention here that in the different States of the Country consumption of Electricity for Crematorium have been separately categorized with minimum tariff recognizing the yeoman service being rendered by these (Copies of relevant documents substantiating the same are also enclosed herewith) and bring the tariff at minimum level i.e. by waiving of demand charges and a uniform billing system especially for the Crematorium like the Agriculture sector is required to be introduced in place of the present slab system. "

Response of MeECL

Vide its Letter dated 15.11.2011, MeECL has given its reply on the objections raised by Greater Shillong Crematorium and Mortuary Society in the following manner:

a) They have noted the objections raised by the Respondent.
b) MeECL has proposed to enhance the rate across all categories of consumers without discrimination to any particular category of consumer subject to the approval of Commission.

5. Industrial HT & EHT Tariff.

M/s BIA vide its Letter dated 27.10.2011 has given the following comments on the ARR of the MeECl. They have raised numbers of issues and given their observations in detailed these are taken one by one in the following paragraphs

i) Projections are arbitrarily and without basis and liable to be rejected:
   a) At the outset, it is submitted that though the MeECL has filed the Petition purportedly in accordance with the Meghalaya State Electricity Regulatory Commission (Determination of Tariff) Regulations, 2011 (hereinafter 'Tariff Regulations, 2011'), notified by this Hon'ble Commission, there are various inconsistencies in the Petition and it is not clear as to why when the Financial Year 2010-11 is already over and the actual figures are known to MECL, MECL has not placed the same before the Hon'ble Commission which will enable the Hon'ble Commission to true up the financials of the year 2010-11 before proceeding to determine the revenue requirements and tariff for the year 2011-12.
   b) Upon the perusal of the Petition, it is noticed that MECL has claimed the revenue requirements under all heads on the basis of projections for the year 2011-12. It is respectfully submitted that by October 2011, 7 moths of the year 2011-12 are already over and the actual figures for these months ought to be available. Even so, MECL has claimed its revenue requirements at highly inflated, arbitrary, perverse levels and with

the sole objective of unduly increasing the revenue requirements and consequent tariff to be charged from the consumers.

c) MECL has been consistently following such improper practice of unfairly inflating the revenue requirements and thereby seeking to collect a much higher tariff from the consumers that what can legitimately be claimed. The actual revenue requirements are subsequently discovered to be much less. As a consequence, the consumers are required to pay a much higher tariff than the legitimate revenue requirements of MECL and the corresponding tariff to be determined.

d) The above is evident from the past practice of MECL over the years, namely, the revenue requirements claimed for every year since 2008-09, the actual revenue requirements allowed by the Hon'ble Commission and the actual revenue requirements at the end of the year. For example, for the year 2008-09, MECL projected revenue requirements of more than Rs.500 crores while the audited accounts for the year 2008-09 revealed a revenue requirement of around Rs.345 crores, which is subject to final truing up by the Hon'ble Commission. For the year 2009-10, the revenue requirements projected by MECL was 559.45 crores, which was much in excess of the revenue requirements allowed by the Hon'ble Commission and also much in excess of the actual revenue requirements submitted by MECL of Rs.369.27 crores finally for truing up. Similarly, for the year 2010-11, the revenue requirements projected by MECL was Rs.496.72 crores which was much in excess of the revenue requirements allowed by the Hon'ble Commission. Further, at present, when MECL is seeking tariff determination for the year 2011-12 MECL has not produced the audited figures for 2010-11 and is showing the provisional at Rs.426.01 crores. Ultimately, when the audit is conducted, the figures turn out to be much lower.

e) In fact, in the present filing, MECL has not even indicated the audited actual of the immediately preceding year 2010-11 which will enable this Hon'ble Commission to decide on the reasonable allowable expenditure for the current year 2011-12.

f) In the circumstances mentioned above there is absolutely no basis whatsoever for MECL to project a revenue requirement for 2011-12 at Rs.1478.59 crores, which is three times the provisional figures of 2010-11 of 526.01 crores (assuming but not admitting that this figure is correct) without furnishing the actual data for the period 1.4.2010 to 31.1.2011 duly certified by an auditor so that some reliance can be placed on the financials of MECL.

g) In the absence of the above, it is submitted that the Hon'ble Commission should take only the actual for the year 2009-10 finally submitted as the base figure to determine the revenue requirements of MECL for the year 2011-12. The projections of MECL are liable to be rejected as having no basis and being arbitrary.

h) The Hon'ble Appellate Tribunal in its Order dated 9.2.2009 passed in Appeal No. 132 of 2008 relating to the tariff of Meghalaya State Electricity Board for the tariff year 2008-09, has held as under:

"5.It is well known that tariff determination is undertaken by the Commission for the ensuing year and is grounded on estimates and projections of expenses and revenues on the basis of previous yar data moderated on estimated growth in electricity consumption and other factors arising out of the prudence check by the Commission. By the time there is need to work out tariff for the ensuing year actual revenue and expenses generated on the basis of pre-existing tariff fixed by the Cmmissiion would be known. On the basi of the un-audited near actual data the truing-up exercise must be undertaken by the Commission. The revenue gap in the Annual Revenue Requirement based on the pre-existing tariff is required to be filled up by the new tariff applicable for the ensuring year. It seems that the tariff for the financial year 2008-09 has been

finalized by the Commission without subjecting the estimates claimed by MeSEB to the prudence check, validation of data and in absence of actual financial data available with MSEB till 31.08.2008. Except under the head of interest and finance charges, the Commission has allowed all expenditure such as purchase of power; Inter-state Transmission charges; R&M expenses; employees expenses; depreciation; etc. As claimed for by the MeSEB. Also the impugned order while being critical to the petition filed by the MeSEB has stated that "The Commission at this stage is unable to rationalize in other area of expenditure..........." Normally, the Petition for approval of Annual Revenue Requirement and determination of tariff by the licensee is to be filed by November so that tariff order is issued so that it is prospectively made effective from 1st April of the ensuing year. In the instant case the filing of the Annual Revenue Requirement Petition for 2007-08 was unduly delayed and tariff order was only issued on 17.12.2007. Also tariff petition for financial year 2008-09 was filed on 31.12.2007. We observe the pattern of Utility filing the Petition for approval of Annual Revenue Requirement and determination of tariff just few months prior to completion of the tariff year. We feel the Commission is not powerless for ensuring timely filing of tariff petition. It needs to be corrected."

i) Thus, the claim and projections of the revenue requirements of the utility are to be based on the actual for the previous year. The claims of MECL are wholly arbitrary and without any correlation to the actual financials for the previous year. The above practice of MECL needs to be rejected and also deprecated. MECL ought not to be entitled to any increase in revenue requirements and tariff till MECL provides full details and justification for the revenue requirements claimed.

j) The objections of the Respondent on specific issues of revenue requirements are as under

a) POWER PURCHASE COST

1) Out of the total ARR projected of Rs.1478.59 crores, the claim on account of Power Purchase Cost is Rs.1197.51 crores. The power purchase cost as stated by MECL for the financial year 2009-10 was Rs.222.62 crores which is claimed to have increased to Rs.297.34 crores in the year 2010-11. MECL has projected the power purchase cost for the year 2010-11. This projection borders on an absurdity.
2) MECL has made several inconsistent projections in the proposed power purchase cost. These are as follows-
   i. As against 1104.53 MUs which is provisional demand for the year 2010-11, MECL has projected the demand for 2011-12 at 2471. 56 MU. There is absolutely no basis for doubling the power demand; The sole objective is to get more tariff by inflating the revenue requirements;
   ii. The power purchase cost is also lopsided as MECL barely has any generation and depends for most of the power purchase from sources outside the State. For instance, out of the total 2471.56 MU projection for 2011-12, only 640.63 MU is MECL's own generation and the rest is from outside.
   iii. MECL has stated that out of the 2810.50 MU proposed to be purchased from out6side the state, only 986.46 MU is proposed to be procured on long term basis and 1824.04 is proposed to be procured on short term basis; This is unacceptable as the short term rates of power purchase are almost double of the long term rates of power purchase

iv. The contrasting difference between the long term and short term purchase is clearly visible in the Table filed at Pages 20-21 of the tariff petition; while 986.46 MUs of long term ppwer are proposed to be purchased at 318.54 crores, 1632. 50 MUs of short term power are proposed to be purchased at 653 crores;

3) Firstly, the above is assuming all the power purchases to be legitimate and prudent, MECL has tried to justify the exorbitant increase in power purchase cost by stating that the entral Electricity Regulatory Commission has increased the tariff of the Central Sector generating stations like NTPC, NHPC, NEEPCO etc. However, this is not the correct picture.The main increase is due to the absurd proposal of MECL to purchase such a large quantum of its requirement through short term sources.

4) Secondly, it is disheartening to see that even after 8 years of operation of the Electricity Act 2003, MECL has not taken any serious efforts to procure long term power at competitive rates. Every distribution licensee in India has initiated competitive biddings and concluded various PPAs for 25 year period that ensure firm supply of power at competitive rates and lower tariffs. However, MECL seems to have no such plans as it continues to depend on the Central Sector Allocation and short term purchases.

5) MECL has also projected purchase of power through short term sources including UI mechanism of the total quantum of 1632.50 MUs. MECL has not given any break up of the short-term sources and has simply clubbed all under one head. Merely by stating the names 'Shyam Century Ferro', 'UI', 'RPG', 'PTC' and 'NVVN', there is no clarity on how much quantum is being procured from which source. In the absence of any details, the projections by MECL should be rejected. Ii is submitted that in any case UI cannot be treated as a source of power purchase but is only a mechanism to ensure grid discipline and a compensatory charge for not adhering to the schedule. In this regard, the decision taken by the Forum of Regulators and notified vide press release dated 23.7.2009 recognizes that the UI charges are not to be allowed in the Revenue Requirements of the utilities. Para 5 and 6 of the Press Release reads as under:

"5. It may be recalled that CERC notified the new regulations on 30th March, 2009 rationalizing the UI mechanism is not meant for trading of electricity and will be mainly on instrument for grid discipline and settling the unintended deviations during the normal course of operations and when the frequency is in normal operating range according to the Indian Electricity Grid Code. The objectives of this measure were to promote electricity markets for providing certainty to the investors and also to penalize the utilities who indulge in excessive withdrawal from the grid.

6. After this decision of the Forum of Regulators, the distribution utilities will now be required to forecast their demand more precisely and plan the power purchase in advance. Otherwise, they will have to bear the burden of additional UI charges from their won finances and will not be able to pass this on to the consumers."

A copy of the Press Release dated 23.7.2009 is attached hereto.

b) EMPLOYEES EXPENSES

1) The last audited balance sheet for the year 2009-10 indicates that the employees expenses were Rs.114.92 crores which allegedly increased to Rs.126.80 crores as per the provisionals for 2010-11. However, MECL has asked for employees expenses of Rs.192.96 crores for 2011-12, which once again seems to be inflated and excessive.
2) A perusal of Format 1 of the tariff petition indicates that the maximum increase is in the salaries and allowances of the employees and partly due to the pension payment. Mere vague statements that new employees are being hired cannot suffice in a regulatory regime. MECL ought to be directed to produce the exact number of new employees hired by MECL in the past few years including the year 2011-12 as 8 months of the year are already over. Further, MECL should also be directed to report the number of employees who have retired and what is the corresponding pension liability.
3) MECL must also be directed to come with a viable long term plan, MECL has not created any pension trust fund which could have been done with appropriate provisions being transferred to such fund from time to time rather than suddenly claiming Rs.49 crores (which is highly excessive) in the revenue requirements.
4) It is also respectfully submitted that any increase in employees expenses must be linked with corresponding increase in the operational efficiency of the employees. The Full Bench of the Hon'ble Appellate Tribunal in the case of SIEL Ltd Vs Punjab State Electricity Regulatory Commission and Ors. (2007) APTEL 931 did not allow any increase in the employee cost in the absence of improvement in efficiency of the utilities. The Hon'ble Appellate Tribunal upheld the capping of the employee cost at the level of previous years till the improvement in efficiency of the employees. The relevant part of the judgment of the Hon'ble Tribunal reads as under:

   "138. The main plank on which the Board has assailed the impugned orders of the Commission with regard to employees' cost, is that the Commission has over looked the fact that Board cannot substantially reduce employees due to certain obligations cast upon it under law. The Board is seeking to justify the increase in the employees' cost on the following grounds:

   i. Basic salary/increment: annual increment was assured to the employees in terms of Punjab State Electricity Board Main Service Regulations 1972 (PSEB MSR). The rate of increment has been provided in the PSEBs Master scale, which gives rise to average increase of 3.25% p.a. in the total basic pay.
   ii. The Board has adopted recommendations of the 5th Pay Commission, following the decision of the State Government and accordingly Dearness Allowance (DA) to the extent of 50% was merged with Dearness pay (DP). This has resulted in an increase in the House Rent Allowance, leave encashment and terminal benefits payable to the employees of the Board.

   139. It is significant to note that in so far as the increase in DA and merger of DA with DP of the employees of the Board is concerned on the own showing of the Board, the benefits have been extended in order to maintain parity with the employees of the State Government. These benefits have been extended on the ostensible ground that when the electricity undertaking was transferred to the Board, it was stipulated that the salary, allowances etc of the transferred employees were not to be less favourable than the Government employees. It

appears t us that this condition applied only to the salary and allowances etc, which were in vogue on the date of the transfer. This stipulation does not in any manner guarantee some salary, allowances for the PSEB employees as may be admissible to the employees of the State Government in comparable posts. There is no obligation on the part of the Board to extend some salary and allowances to the employees of the Board as are payable to the employees of the State Government. The process of reforms which has been triggered by the Act of 1998 and the Act of 2003 will lose its momentum in case salaries/incentives are not linked to the performance of the employees. There is nothing on record to show that there has been improvement in the performance of the employers of the Board. Benefit should be made available for rewarding efficiency in performance. Automatic availability of benefits generates inefficiency and indolence."

5) In such circumstances, there is no justification whatsoever for the MECL to claim an extra-ordinary high increase in employees cost, amounting to almost double of the previously claimed costs on account of employees, especially when there is nothing in record to show any increase in the efficiencies of the employees.

c) C) DEPRECIATION

1. MECL has claimed a substantial increase in the depreciation to Rs.49.44 crores as compared to the actual for the year 2009-10 of Rs.25.93 crores. The above seems to be claimed on account of the proposed commissioning of the Myntdu Leshka HEP (under Plant & Machinery and Hydraulic Works) in February, 2011. It is submitted that the above claim of MECL is unjustified. For including the capital cost of the asset to be commissioned, MECL first ought to approach the Hon'ble Commission for approval of the capital cost of the project and there has to be a prudence check on the total capital cost claimed by the MECL and approve only such part which is prudent and not as a result of the inefficiencies of the MECL can be approved for being serviced in tariff. MECL has not given any data about the total capital cost of the project, with supporting documents and the justification for the claim. MECL has not even provided the confirmation regarding the commissioning of the project, the project status and the details of the project. In the circumstances, there cannot be any consideration of any part of the capital cost of the project.
2. The depreciation projected for all other assets including land, land rights, plant and machinery and other civil works has also increased substantially. However, MECL has not claimed any specific capitalization of the assets. In the circumstances, MECL is required to first have the capital cost of any proposed projects approved by the Hon'ble Commission after subjecting itslf to complete prudence check, provide all the necessary data including the audited statements of the capital cost of the project and provide full justification for the expenditure incurred. The issue of capital cost to be approved and the consequent depreciation to be allowed will only arise thereafter.

d) INTEREST AND FINANCE CHARGES

1. The interest and finance charges as claimed by MECL are much in excess of the actual for the previous years. There is no justification whatsoever provided by MECL for claiming such high interest and finance charges of Rs.96.48 crores, when the actual interest and finance charges for the previous years was much

less. In the previous years, MECL has capitalized a substantial part of the interest and finance charges as being towards capital projects of MECL. Following the above, such interest and finance charges had been deducted from the revenue requirements. In view of the above, the actual interest and finance charges of MECL were much less.

2. In the circumstances, there is a substantial part of interest and finance charges which may be required to be capitalised as being related to the capital works in progress for the present year. MECL has not given the details of any such amounts or the break up of the interest and finance charges. Only an amount of Rs.35.54 crores is shown as interest capitalized for 2010-11 as against the provisional actual of Rs.89.78 crores. The details have not been clearly provided by MECL. Such interest capitalised needs to be reduced from the revenue requirements of MECL. There is no justification whatsoever given by MECL for claiming that substantially higher interest and finance charges in the present petition.

e) TARIFF SHOULD BE REFLECTIVE OF COST

1) MECL has given very elaborate reasons and proposals for maintaining the tariff increases+ - 20% of the cost to supply. However, the average cost to supply has been shown at Rs.5.25 per unit. If the excessive and arbitrary provisions made by MECL are rejected, the cost to supply will not be as high as Rs.5.25 per unit. Only then will the correct picture of increase / decrease in cross subsidy will be visible.

2) Further, it has been clarified that the cost of supply has to be determined category wise and not by clubbing all expenses and finding out one common average cost of supply for all consumers in the State.

3) The industrial consumers are being charged tariff at much higher than the cost of supply, the cross subsidy being contributed by the industrial consumers ought to be reduced as per the provisions of the Electricity Act, the National Tariff Policy and also as per the consisted decisions of the Hon'ble Appellate Tribunal for Electricity.

4) Under the Electricity Act, 2003, the cost of supply to the consumers is to be the criteria to determine the tariff for the consumers. Though in the initial years, the cost of supply was calculated on average cost of supply basis, it is the mandate of law that the cost of supply is to be calculated on voltage wise and the actual cost incurred by the licensee for supply of electricity to each specified category of consumers. A substantial part of the supply by the MECL is unmetered to consumers other than the objector category. MECL has not taken any steps to achieve metering as is mandated under Section 55 of the Electricity Act. In the circumstances, it is submitted that the cost of supply be calculated category wise and voltage wise and tariff be determined based on the above.

5) The above is consistent with the decisions of the Hon'ble Appellate Tribunal in the case of SIEL Limited & Others V. Punjab State Electricity Regulatory Commission & Others, 2007 APTEL 931 wherein the Hon'ble Tribunal has held as under:

"108. The Learned counsel for the Industrial Consumers canvassed that the Commission is required to safeguard the interests of the consumers by fixing a reasonable tariff, which should reflect the cost of supply of electricity. There cannot be any quarrel with the proposition that the ultimate aim is to go by the conept of cost plus basis of supply of electricity to various categories and classes of consumers, but this cannot be achieved immediately in ojne go. This can be accomplishd stage by stage over a period of time by reducing the cross subsidies etc. In case, the cost of supply of electricity is known the inefficiencies of the generator and the licensee cannot be hidden. This will tend to bring transparency and efficiency in the working of the utilities. It will also be conductive to the recovery of the cost of electricity by utility in a reasonable manner, giving bost to cost plus regime. We are conscious of the fact that at present, data on cost of supply has not been made available to the Commission. The data must be supplied by the utilities to the Commission. The cost of supply at different voltages is different. Therefore, data in this regard must be acquired with reference t cost of supply to the different class of consumers by calling upon the Board to furnish the same."

f) PROPOSAL FOR BILLING ON KVAH INSTEAD ON KWH AND POWER FACTOR

1. MECL has for the first time raised the issue of billing the consumers of only HT and EHT categories on Kvah instead of Kwh basis trying to justify the same by relying on the practice followed by certain other states. MECL has also stated that this will incentivize consumers to lower their energy bills by improving that power factor.

2. The above is wholly incorrect. It is respectfully submitted that –

Kwh = Kvah X Power Factor

The perfect power factor is '1' and if it is achieved, there will be no difference in the billing of consumers either on Kwh or Kvah basis. However, it is practically impossible to achieve the power factor of '1'. Therefore, by billing of Kvah basis, MECL will merely get a higher revenue and indeed will recover more than the revenue requirement. The following example will clarify the same-

Kvah = Units consumed = 100

Power Factor = 0.85

Applying the above formula, the Kwh will work out to 100 x 0.85=85 units. Thus instead of being billed for 85 units, the consumers will be billed for 100 units even if their power factor in very high as the power factor will never be '1'.

3. It is also to be noticed that while MECL has proposed such detailed reasons for Kvah billing instead of Kwh billing, MECL has not proposed to give any power factor rebate. MECL is seeking to rely on the practice being followed by Delhi, Himachal Pradesh, J & K and Uttarakhand without giving the corresponding power factor and load factor rebate being given in the case of all these states.

During the Public hearing on the ARR for 2011-12, the Byrnihat Industries Association represented by Smti. S. Seshadri, Advocate objected on the proposed increase in the industrial tariff. They have principally accepted the benefit of Kvah based tariff in order to incentivise the industrial consumer who have better power factor. She also insisted on production of upto date statement of accounts by MeECL. Further she requested MeECL to provide the industries with uninterrupted power supply or to permit them to arrange power on their own from outside the state through open access.

In the Public Hearing held on 10.01.2012, BIA represented by their counsel raised the same issue of their reservation about the introduction of Kvah Tariff. However, they have admitted that they are not getting any benefit out of improvement of power factor by MeECL. In the meeting they have given the records of one of the industry and shown to the Commission that their power factor is 0.94832 during April 2011 to November 2011 and similarly his average power factor during 2010-11 was 0.91467. They have submitted before the Commission that while fixing the Tariff, the Commission may also consider the issue of quality and uninterruptable supply to industries which is not available at oresent. Their concern is that they should get at least one shift electricity so that their function is done smoothly. The counsel of the BIA submitted before the Commission that the MeECL should have taken into account the statutory audited balance sheet for 2010-11 while submitting the ARR.

Response of MeECL

Vide its Letter dated 21.11.2011, MeECL has sent its reply to the Commission. They have given parawise replies to the objections raised by the BIA, these are as follows:-

(i) They have objected to the statement made by BIA on the data furnished by them. MeECL in its petition filed has placed all the facts and figures before the stakeholders for a fair and equitable decision.

(ii) MeECL has submitted to the commission full details and justification for the ARR projection.

(iii) The ARR calculated was projected on the basis of previous year estimated figures alongwith certain information expected to be derived during that year. They have also submitted that accurate projections could not be made at the time of submission of the ARR as the actual figures/balance sheet for the year 2010-11 was not available at that stage.

(iv) MeECL in its petition has submitted all documents as sought for by the Commission in the formats prescribed by the Commission. The formats are made for previous year (actual), current year (estimated) and ensuing year (projected).

(v) MeECL has projected ARR for 2011-12 at Rs.687.01 crores out of which Rs.405.93 crores is towards power purchase.

(vi) MeECL has submitted that the supply power as per the contract dement to the industrial consumers in accordance with Tariff Regulations, it has projected a demand for 2011-12 at 3451.13 MUs to meet the requirement it is required to purchase 2810.50 Mus from outside source.

(vii) MeECL has appreciated the observations of the BIA that purchasing power at such high cost is absolutely unjustified. Therefore, they have not proposed to meet the energy requirement of Industrial HT & EHT consumers as per the contract demand.

(viii) Employees cost of Rs.192.96 crores in the year 2011-12 is based on 2010-11 figures of Rs.126 crores an amount of Rs.48.62 crores is added to the previous year being the estimated expenditure to be incurred due to revision of pay w.e.f. 01.01.2010 and a normal 10% increase of 17.54 crore is projected over the previous year and arrived at Rs.192.96 crore as the projected expenditure to be incurred on employee cost during the year 2011-12.

(ix) MeECL has furnished the data relating the employee in the Tariff Petition.

(x) MeECL is operating a separate Pension Trust Account. Consequent upon the revision of Pension w.e.f 1.1.2010 it is estimated that an amount of Rs.49 crores per annum will be required to service for monthly pension. Furthermore, the exercise for actuarial value is already entrusted to the corporation consultants that is power finance corporation New Delhi.

(xi) The depreciation for MLHEP has been projected to the tune of Rs.18.07 crore for 2011-12 in addition to normal depreciation of Rs.31.37 crore. However, the commissioning of the project was delayed due to the vagaries of the nature and unforeseen technical snag.

(xii) Depreciation on land and land rights has not been provided in the projection of the ARR. Since the MeECL had contemplated commissioning of the MLHEP during 2011-12 specific claims for capitalisation of projects assets has not been made.

(xiii) MeECL has clarified that the interest and finance charges at Rs.46.81 crores has been claimed and not Rs.96.48 crores.

(xiv) An amount of Rs.35.54 crores was projected as interest capitalization for 2010-11 on the assumption that MLHEP shall be commission during later part of 2010-11. However since the project could not be commission the actual amount of interest capitalized during 2010-11 works out to the tune of Rs.71.11 crore. Subsequently after rescheduling of commissioning date of MHLEP in 2011-12 interest capitalisation for 2011-12 is projected at 49.67 crores. The details are given below:

Calculation of interest capitalisation for 2011-12, Leshka – Normal 10% over Rs.667452698.00 = Rs.73.42 crore

Rs. 8.16 crore for 1st Unit, Rs.14.28 for 2nd Unit and Rs.22.43 crore for 3rd Unit The total shall be Rs.44.87 crore.

New Umtru – Normal 10% over Rs.43614342.00=Rs.4.80 crore. The Total interest capitalised for 2011-12 shall be Rs.44.87 + Rs.4.80 = Rs.49.67 crore.

(xv) MeECL in its petition has projected the cost of supply at Rs.5.25 per unit. The reasons and justification of the above proposed rate was submitted to the Commission.

(xvi) MeECL has not given any special tariff to its employees but has abided by the order of the Commission.

(xvii) MeECL appreciates the observations of the BIA regarding the detailed reasons for Kvah billing instead of Kwh billing. However, introducing power factor rebate in Kvah billing system is no longer necessary. Since any improvement in the power factor is being addressed by the Kvah units recorded.

(xviii) MeECL in its tariff proposal has submitted all justification for the ARR and has submitted all the data as sought out by the Commission.

6. Public Lighting and Water Tariff

Office of the Shillong Municipal Board has sent a letter to the Commission on 21.10.2011 and has mentioned that rates for Street Lights and water supply are very high when it is compared with the rates fixed in other states like Assam, Mizoram and Manipur. They have also raised that Municipal Board recovers the expenses on Street Lighting from the citizens and has received number of grievances on the higher rate on Public Lighting. They have requested the Commission not to enhance the rate for public lighting, water supply and sewerage as this would lead to unnecessary burden on the beneficiary of the services. Similarly office of the Tura Municipal Board has also objected to the Tariff increase for Public Lighting to Rs.5.80 per unit from the existing Rs.4.33 per unit. They have mentioned that the proposed rise is higher than the rise proposed for commercial consumers while public lighting is provided in the interest of the citizens and it is not a profit making services. Better lighting is required to reduce crimes etc and use for wellbeing of the society. They have prayed to the Commission to consider Public Lighting as a social service and do not increase Tariff rates as proposed by the Licensee.

In the Public Hearing, Water supply (WSLT) consumer was represented by Sri. S.K. Sun, Additional Chief Engineer, PHE Department. He read out the detailed representation submitted to the commission and submitted that the PHE is a no profit no loss organisation and height in tariff for this category of consumer should be reasonable and sustaining. He deliberated in details and explained the year-wise inconsistent and unreasonable tariff rise in the water supply category of consumer. He requested the commission to consider his submission in the determination of tariff in particular for rural water supply. In their comment they have given the rise in Tariff from 1992 up to the proposed rate for 2011-12 and they have also given the examples in Maharashtra State for Tariff of Water Supply. Finally they have raised that providing water supply should not be considered as a commercial services and be taken as no profit no loss activity and therefore the rates and charges for HT & LT supply should be reviewed accordingly.

In the Public Held on 10.01.2012 on the ARR of 2012-13, representative from PHE has raised the same issue as was done in the last hearing on increase of Tariff for water supply. Similarly from Shillong Municipal Board representative have raised their concern about the abnormal increase in Tariff for Public Lighting and submitted that the Commission should not raise Tariff unreasonably. In the Public Hearing held on 10.01.2012, Mr. B. K. Panda from MUDA also raised his concern about the increase of Tariff in Public Departments. He has also raised the issue of efficiency improvement in MeECL and shown his concern about the rise in employees cost and power purchase cost.

Response of MeECL

MeECL vide its Letter dated 15.11.2011 has given its reply on the Shillong Municipal Board and Tura Municipal Board that MeECL proposal to increase the tariff of public lighting from the existing rate of 433 paisa per unit to 580 paisa per unit and the commercial category from the existing rate of 387 paisa per unit to 520 paisa per unit. The MeECL has proposed to enhance the tariff across all categories of supply without any discrimination to any particular category.

Commission's views

The Commission has taken note of the various suggestions/objections made by different stakeholders through their letters and submissions in Public Hearing. The Commission appreciates the keen interest and participation by various stakeholders to provide feedback to the Commission on various issues related to the Tariff and performance of the Corporation. The Commission has also realised that the foundation stone of any meaningful regulation made for the Utilities for better service to the consumers must have feedback on operational issues from the utility and interested parties throughout the year, rather than the interactions being limited to the year-end submission of the Tariff filings. In certain cases, the Commission also undertook actual ground verification of the information being submitted by the Utilities and made the Utilities aware of the shortcomings in their information systems and processes. The Commission has tried to address the issues raised by the respondents on the aspects of tariff rationalisation and category-wise tariffs in determining the Tariff for consumers which is dealt with in the ARR determination and Tariff rationalisation Sections.

PART IV

COMMISSION'S APPROACH

General

As explained earlier, the Commission while determining the Tariff follows the principles and practices as given in the Commission's Regulation and in Section 61 of Electricity Act, 2003.

Statutory requirements

Sections 64 of the Electricity Act, 2003 requires the Licensee to file an application for determination of Tariff under Section 62 in such manner as may be specified through regulations by the Commission. Section 61 of the Act further requires appropriate Commission to specify the terms and conditions for determination of Tariff in accordance with the provision of the Act. The Act also provides that while framing regulations, the Commission shall be guided by the National Electricity Policy and National Tariff Policy.

The Commission, in light of provisions of Electricity Act, has specified Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations 2011. This regulation covers the general guiding principles for determination of Tariff, Generation Tariff Determination for Hydro and Thermal, determination of Transmission Tariff and determination of Distribution Tariff. Apart from guiding principles, the Regulation has also prescribed formats for filing of Tariff Application by Licensee and Generating companies.

Since this Tariff Petition has been filed by the holding company i.e. MeECL as a single petition for all three business of Generation, Transmission and Distribution and to determine the consumer's tariff, the Commission has decided to determine the Tariff on the basis of norms as laid down in the Regulations for distribution business. The Commission has, while allowing a consolidated petition, considered the State Government decision for allowing MeECL time for separation of accounts by 31.3.2012. However, the Commission directs the licensee that tariff petitions for 2013-14 shall be considered in accordance with the Commission's tariff Regulation provided for separate utilities.

By and large under the existing regulations and current practices, the Commission shall follow the cost plus approach subject to specified norms wherein expenses are allowed to be recovered through Tariff subject to prudence check by the Commission.

1. Estimation of Sales

Regulation 90 of MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011 specifies that the Commission shall examine the estimates of sales for each category of consumers on the basis of growth in numbers of consumers, consumption and demand of electricity in previous year and anticipate growth in the current year and next year and any other factor which the Commission may considers appropriate. The Licensee shall provide category wise sale of the previous year with a suitable CAGR to arrive at the sale for the current year. The Licensee shall also estimate sales to unmetered category on the basis of consumption norms.

In accordance with the Regulations for estimating and projecting the category wise sale for 2011-12, the Commission has analysed the past trend of consumption for different category of the consumers on the basis of audited accounts of 2008-09 and 2009-10 and provisional accounts finalised for the year 2010-11. The Commission has also analysed the actual sale in April-11 to August 2011. Following the trend in year 2008-09, 2009-10, 2010-11 and part of 2011-12, the forecasted sales for each category of consumers is determined.

2. Distribution Loss

Regulation 91 provides that the Licensee shall furnish information on distribution loses for previous year and current year and on the basis of which distribution loss shall be worked out. Regulation also prescribes that Commission shall fix suitable targets for reduction of distribution losses for the period specified by the Commission. Similarly, the Licensee shall also propose a loss reduction programme for next three years including ensuing year indicating the details of majors proposed for achieving the results.

Before arriving at the target for 2011-12, it would be prudent to see the targets fixed by the Commission in the previous years.

Year	Distribution Losses as set by MSERC%	Actual Losses as claimed by Petitioner
2007-08	38.60	
2008-09	33.79	31.36
2009-10	30.79	33.95
2010-11	27.08	32.53

In the very first Order, the Commission has also mentioned about the road map for reduction in the losses and improvement in the collection efficiency on the 11th year plan proposed by MeECL themselves. These are given in the Table below.

Year	T & D Loss (%)	AT & C Losses (%)
2006-07	33.95	36.80
2007-08	28.41	35.62
2008-09	24.42	31.29
2009-10	20.02	26.68
2010-11	15.69	22.05
2011-12	11.32	15.11

The Commission has followed National tariff policy on fixing the targets for T&D loss for a distribution company after considering the ground realities. Regarding Fixation of trajectory for loss reductions, the Commission has dealt in detail on the issue in section 5& 6. The Commission has taken a pragmatic approach for allowing the Distribution losses as proposed by the licensee for allowing full requirement of power purchase quantity. However to benefit of consumer’s and performance improvement the Commission has ensured that each year in 2011-12 and 2012-13, there should be overall reduction of about 3% in the Distribution loss and commercial loss. This shall also be in consistent with the Commission’s regulations.

3. A T & C Losses

Regulation 91 (a) prescribes that Licensee shall provide information of AT & C losses during the previous year and that projected for the year for which Tariff is proposed. It is also provided that it shall be duty of the Licensee whose AT & C losses during the previous year are in excess of 30%, it will project a reduction of such losses by a minimum of 3% during the year for which Tariff is proposed. Any shortfall in the projected level of AT&C losses for such year, in this regard, shall be penalised by an amount equivalent to the cost of contempt of energy to be lost due to inability of the Licensee to plan and achieve reduction of AT & C losses by a minimum of 3% from the previous year. Such amount shall be calculated at the average overall unit cost of sale of power as approved by the Commission. Similarly, if AT & C losses for the previous year is less than 30% then licensee will reduce such losses by a minimum of 1.5%.

The approach of the Commission for year 2011-12 and 2012-13 shall be in accordance with the regulations and consumer's interest. In the year 2011-12 the Commission while allowing full power purchase on the proposed T&D losses so as to make un-interrupted power supply in the State, has approved 3% Commercial loss reduction. In this methodology 3% overall reduction in losses is approved which is also in consonance with the Regulation. In the similar manner, in the year 2012-13, the Commission has approved 1.5% reduction in T&D losses and 1.5% reduction in commercial losses so as to follow regulation on reduction in AT&C losses. Therefore overall reduction of losses in the licensee's business is ensured to be 3% in 2012-13. The Commission has also considered that in 2 years where 10 months are already passed, the licensee should achieve a possible target of 4.5% reduction in Commercial losses and 1.5% in T&D losses.

4. Estimate of Energy Requirement and Power Purchase

Regulation 92 provides that on the basis of Distribution Losses the Commission shall determine the quantum of electricity required meeting the estimated sales and on that basis power purchase shall be determined for ensuing year. In accordance with Regulation the Commission shall work out the power purchase.

In accordance with Regulation 93, the Licensee has to procure power from approved sources and procurement arrangement shall be made by the Licensee on the basis of availability and contractual procedures. However, regulation prescribes that all purchases of long term and medium term shall be made with the prior approval of the Commission. The cost of power purchase shall be worked out on the basis of CERC Orders for central generating station and cost of power from state own generating station shall be determined by the State Commission. Since, this year filing is made by the holding Company and MeECL has not separated their accounts for generation, the Commission is constrained to consider the consolidated ARR and is not working out the generation cost of each station as per the Tariff Regulations.

Cost of power purchase from private developers shall be based on the PPAs already done if any between the developer and licensee. In case of power from renewal sources, the cost of purchase shall be based on the policy of the Government or the approval of the State/Central Commission. Therefore, the approach of the Commission shall be in line with the Regulations and cost of power purchase from long and medium term sources shall be decided on the basis of CERC approved rates and renewable energy regulations of MSERC and for short term the Commission shall fix a ceiling over which the licensee shall not be authorised to purchase from open market without prior approval of the Commission. While allowing the power purchase cost of 2011-12, the Commission has validated the actual bills of the current months and has detailed discussions with the licensee on payment of power purchase bills. The Commission is concerned with the power supply situation in the State and while allowing power purchase has taken every care to allow full current year cost to the licensee after prudence checks. The Commission has also considered the availability from

MLHEP on the basis of targets dates given by the licensee. However as far project related cost is concerned, the Commission has provisionally approved the same subject to the condition that it will take a conscious and fair decision at the time of determination of generation tariff in accordance with the regulations only. The Commission has also taken a stand in accordance with the regulation that the total amount of power purchase shall not exceed the Commission's approved total power purchase quantity. However, if it exceeds over the approved total value that is allowed, the cost of such purchase shall be validated and verified during true up application of 2011-12 and 2012-13 subject to prudence check within the limit of allowed losses.

5. Transmission/ wheeling and RLDC/SLDC charges

Regulation prescribes that Transmission charges shall be payable in the ARR but for outside sales shall not be considered as expenses. The Commission has decided to pass through the Transmission charges as may be approved by the CERC for PGCIL. However, for state transmission company since MeECL is the sole agency at present, the ARR is consolidated and no separated transmission charges or SLDC charges shall be allowed. While approving Transmission charges of central agencies the Commission has gone through the actual bills of PGCIL up to Dec 2011 and allowed expenses as per actual.

6. UI charges

Regulation prescribes that UI purchases and sales shall be furnished by the Licensee in the formats as prescribed and charges of such purchases shall be similar as specified by CERC. The Commission shall allow the UI purchases on such rate as determine in previous year by CERC.

7. Capital Cost

Regulation 99 prescribes that Capital Cost shall include the actual capital expenditure till the date of commercial operation subject to prudence check by the Commission. The validation of complete project shall be done only when the certificate of completion shall be submitted by the Licensee for such project. The Cost of capital projects shall be taken as the original cost and in case of any abnormal delay in execution of the project causing cost and time overrun attributable to the failure of the utility the Commission may not approve the full capitalization of interest and over head expenses.

8. Interest and Finances charges on Loan capital

Regulation 102 provides that interest shall be payable on the outstanding loan on the prevailing landing rate provided that debt equity ratio is maintained as per regulation 100. No interest charges shall be given to work in progress. The Commission has taken the similar approach for allowing the interest cost as per regulations.

9. Operation and maintenance expenditure

O & M expenses include employee's cost, repair and maintenance and administration and general expenses. Regulation prescribes that if there is norms fixed by the Commission, O & M expenses shall be limited to it. However, in absence of any norms, the Licensee shall give the statement of expenses for last year, current year and ensuing year. The Commission has decided to take the audited balance sheet of accounts for 2008-09, 2009-10 and provisional accounts for 2011-12 figures for such expenses for deriving ensuing year expenses subject to prudence check. The Commission has also considered actual payment made to the employees in the recent months in 2011-12 and transfer scheme on the issue of pensioner benefits while allowing employees cost in 2011-12 and 2012-13.

10.Depreciation

Regulation provides the depreciation shall be done as per the rates specified by CERC and MSERC regulations and asset value for the purpose of depreciation shall be equal to the assets as approved by the Commission. The Commission has considered the audited balance sheets as per the transfer scheme notification for allowing depreciations for the year 2011-12 and 2012-13.

11.Bad and Doubtful debt

Bad and doubtful debt has been allowed in accordance with MSERC tariff regulations with the condition that the licensee shall provide full details of the dues, previously allowed by the Commission which are actually written off as bad debt by MeECL at the time of filing of truing up application or during the next tariff filing.

12.Return on Equity

Regulation prescribes 14 % rate of return on the equity base as determined in accordance with Regulation 100. The Commission has decided to take the transfer scheme notification and actual equity invested in the business as per the balance sheets in accordance with regulations while determining R O E.

13.Interest on Working Capital

Regulation 104 prescribes that working capital shall consist of 1 (one) month O & M expenses, 1 % maintenances sphere and 2 (two) months receivable from sale. The rate of interest shall be equal to short term prime lending rate of SBI as on 01.04.2011.The Commission has followed the similar approach to estimate the ceiling for the working capital cost. However this year since interest charges includes working capital interest the same shall be considered in conjugation with total interest subject to ceiling.

14.Income Tax

Regulation provides that Income Tax on the distribution business shall be passed through in the Tariff provided that it is actually payable or paid. The Commission has decided that Income Tax already paid shall be considered in the tariff determination.

15.Revenue

The revenue of the Licensee from the business of distribution shall include the following:

(i) Revenue from sale of power.

(ii) Non Tariff Income (delay payment surcharge, meter rent, customer charges, income from investments, miscellaneous receipts from consumers, trading income, prior period income, interest on staff loans and advances, recovery of theft and pilferage of energy and any other income).

(iii) Income from surcharge and additional surcharge from open access customer.

(iv) Wheeling charges recovered from open access consumers.

(v) Any grant received from the State Government other than the subsidy meant for any consumer or class of consumers.

(vi) Net income from other business apportioned as per licensee conditions.

The Commission has taken all Tariff and Non Tariff Income as proposed by the Licensee subject to validation from the audited accounts and provisional accounts. The Commission has also taken records from the licensee in January 2012 so as to validate revenue details.

16.**Revenue Gap**

Difference of the ARR which combines all expenses given in Regulation 98 less expected revenue from the current Tariff shall become the revenue gap which will be met by:

(i) Efficiency improvement.

(ii) Utilization of reserves.

(iii) Tariff changes as approved by the Commission.

The Commission has considered this similar approach revenue from efficiency improvement i.e. reduction in commercial losses shall be added in the expected revenue from the current charges and the balance gap shall be met by increasing the existing Tariff and tariff rationalisation measures.

17. Design of Tariff

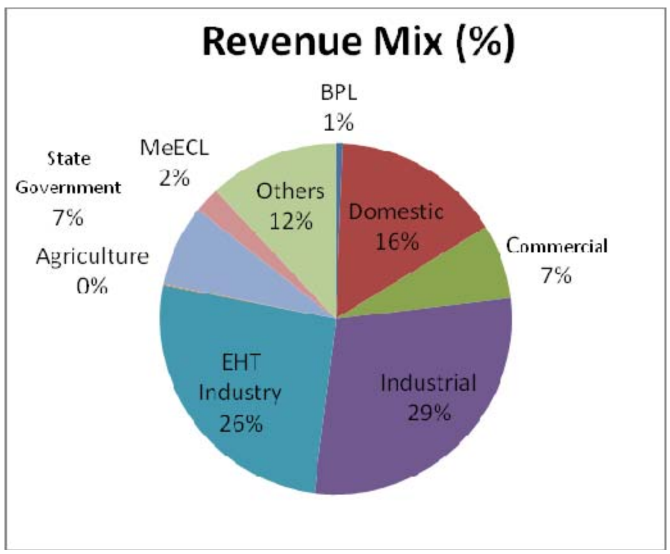
The Commission has tried to balance the stakeholder's interest with the objective of protecting consumer's interest. The ultimate objective in this exercise is to make efficient tariff which encourages optimum utilisation of resources and stop wasteful consumption and waste of energy in shape of non-optimisation of use of electricity. Metered Tariff & Lower consumption of electricity have been encouraged.

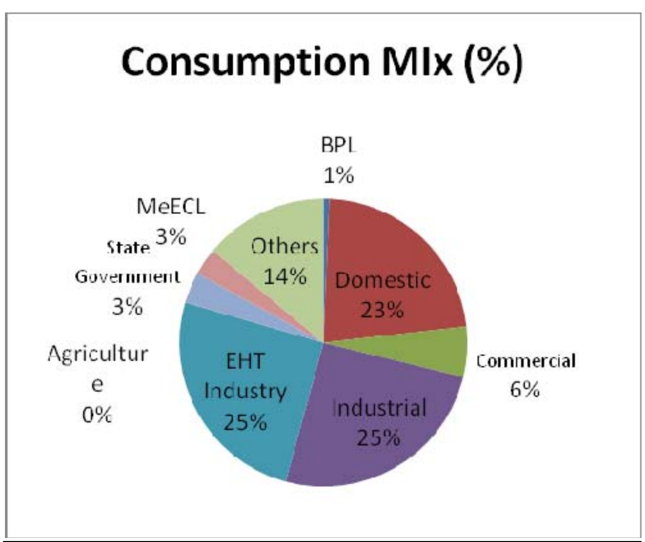
PART V

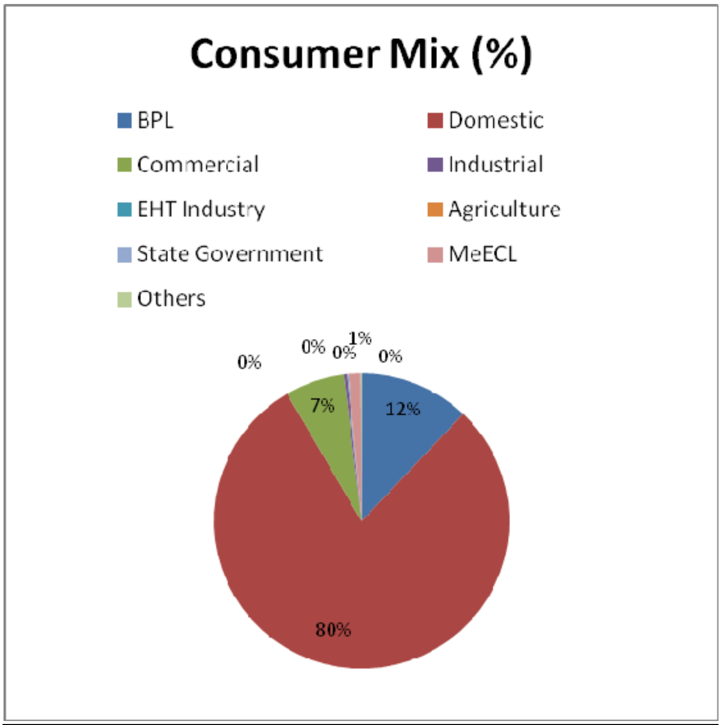
REVIEW OF PERFORMANCE OF MEECL

The Commission has tried to review the performance of the licensee on the basis of current data, present audited accounts and technical sessions with the officers of the company. Accordingly, this Section deals with the review of the performance of the MeECL in respect of T& D losses, AT&C losses and deficiencies in its metering, billing and collection system.

The State of Meghalaya has a distinct advantage over other comparable States in North East as large portion of revenue of the State come out of the sale of electricity from a very small number of consumers. About 13 consumers contribute about 26% of the total revenue of the MeECL business. Less than half percent of total consumers contribute more than 55% of total revenue of the State. 7% consumers are of non-domestic nature and about 80% consumers are in domestic category. The chart given below elaborates the consumer mix, revenue and consumption mix in the State:







The National Electricity Policy envisages its targets to provide 'Power to All' by 2012, which can only be achieved by reducing losses, improving the performance of Distribution companies and increasing generation of the electricity in the States. The generation of electricity involves huge expenditure besides availability of raw material such as Water (Hydro), Coal (Thermal), Nuclear fuel (Nuclear Power Station) Gas (Gas Stations) etc., which are becoming costlier day by day and also has limitations in terms of its availability. In Meghalaya, the estimated Aggregate Technical and Commercial (AT&C) losses are in the range of 30-35%, while Transmission and Distribution (T&D) losses are above 28%. The major challenges for the utility are to increase its efficiency in regard to reduction of its T&D and improvement in collection to reduce their AT&C losses. In order to reduce the technical losses, utility has to take care of its network and infrastructure strengthening so as to avoid over loading of transformer and distribution lines. After proper study the licensee should have to make plans for replacement of under capacity network in phased manner as it involves huge expenditure.

However, to reduce commercial losses, utility needs to set its metering, billing and collection system in order at a very marginal cost. As per the petition, there are 2,70,817 consumers as on 31.03.2011. The Commission has analyzed the billing data and observed that still there are sizable number of meters in the State, which are not being read (NA/NR) and more than 12% are defective meters (IDF/ADF) which have not been replaced for many months. There are about 33134 cases of defective meters, 53204 cases (about 20%) of consumers where bills are not being raised on meter reading basis and there are 569 consumers where their arrears are more than Rs.100000/- each. Therefore, in the State of Meghalaya there are sizable consumers who are either not being billed or their bills are stopped or have defective meters. In order to run on the commercial principles as per the Electricity Act, 2003, the MeECL has to check the above parameters on priority and bring them at par with national standards. ***The Commission therefore directs MeECL to replace 33134 defective meters immediately in a time bound manner and give a report to the Commission***

on the compliance of this direction within 6 months time. Similarly, from the date of this Order MeECL will give monthly report to the Commission for all 6 circles of the State on the cases of bills not raised on meter reading basis. The Commission further directs MeECL that meter reading is compulsory and the Licensee should ensure that there should not be any lapse of meter reading repeatedly in two billing cycles.

TRANSMISSION & DISTRIBUTION LOSSES:

At present, there is considerable number of un-metered consumers, as well as consumers with defective meters, not only under domestic category but under other categories too. Moreover, there are many HT feeders that have no meters. The consumption of un-metered consumers as well as consumers with defective meters, are being assessed, and thus there is a possibility of higher actual consumption resulting in lower computation of T&D loss. With more meters installed against unmetered and defective connections and with metering of HT feeders, there is a possibility of reaching more realistic position of T&D loss. In this situation, the actual overall T&D loss of 32.53 % during FY 2010-11, is estimated at 28.38 % during FY 2011-12 and targeted to be reduced to 26.87% during FY 2012-13.MeECL has in its petition not given the break up of T&D loss in respect of technical loss and commercial loss (including due to heft/pilferage of energy).

MeECL- Proposal

MeECL has submitted that they will make all efforts to analyze the T&D loss which may take a lot of time. MeECL has given following reasons for higher T&D losses:

i) Long and overloaded transmission, sub-transmission and distribution lines

ii) Un-metered connections, where actual consumption is more than the assessment being done or where flat rate billing does not cover actual consumption.

iii) Stopped/defective meters, where billing is not being done on the basis of actual consumption

iv) Theft/pilferage of energy.

MeECL has given remedial measures to reduce the losses and submitted that efforts are being made to reduce T&D losses by way of -

i) Strengthening transmission, sub-transmission and distribution system and re-engineering thereof

ii) Metering of un-metered consumers, un-metered feeders and replacement of defective meters.

iii) Inspection of connections, detection of theft/pilferage of energy and reducing it to the maximum possible extent

According to MeECL the T&D Losses Reduction Plan is as follows:

Actual T&D loss in FY 2010-11 = 32.53 %

Target of reduction of T&D loss in FY 2011-12 = 28.38 %

Target of reduction of T&D loss in FY 2012-13 = 26.87 %

They have also projected that the metering of consumers is being done by the MeECL under RGGVY and from its own resources. The MeECL has taken a policy decision that no new connection to any category of consumers shall be provided without meters and they would achieve 100% metering of consumers in the next two years.

AGGREGATE TECHNICAL & COMMERCIAL LOSSES (AT&C LOSSES):

Determining technical losses has traditionally been used to measure the efficiency of the electrical system, which is computed as the ratio of the difference in energy input and energy sold to the energy input. However, this does not reflect the overall efficiency of the system. This limitation is addressed by adding another parameter to the T&D losses, viz. the collection efficiency, which is defined as the ratio of the total revenue collected to the total demand raised (billing done) during the year. By combining the technical losses and collection efficiency, the Aggregate Technical and Commercial (AT&C) losses is determined, which is a measure of the total efficiency of the electrical system.

MeECL-Proposal

The Meghalaya State Electricity Regulatory Commission (Determination of Tariff) Regulation 2011, requires submission of the AT&C loss figures in the prescribed Format D 2(A). In this format, the AT&C loss calculation takes into account the energy availability, energy sold and revenue collection made from within the State only. The AT&C loss, based on this calculation is shown in Format D2 (A) of MeECL's petition. The AT&C loss projected by MeECL within the state is as below:

Actual AT&C loss in FY 2010-11 = 29.53 %

Provisional AT&C loss in FY 2011-12 = 29.47 %

Target of reduction of AT&C loss in FY 2012-13 = 27.92 %

COMMISSION'S ANAYSIS

As per the Tariff Petition submitted by MeECL for the year 2011-12 and 2012-13 the Commission has analysed the submissions of the Licensee. In the ARR for the year 2011-12, the overall T & D Losses for the year 2010-11 is estimated at 29.98%. However, for the year 2011-12 and 2012-13 the MeECL has projected that it will reach 28.38 in the year 2011-12 and 26.83 in the year 2012-13. As per their proposal there is considerable numbers of unmetered consumers not only in Domestic category but under other categories also. The consumption of unmetered consumers is presently being assessed by MeECL and thus there is a possibility of higher actual consumption and lower billing resulting in high T & D losses in the State. As per their submission the losses are due to over loaded Transmission and Distribution lines, unmetered connections, defective meters and direct theft of energy. The Commission in its admission Order dated 26.09.2011 has required the Licensee MeECL to propose loss reduction programme for the year 2011-12 as well as for next 3 years. MeECL was also required the measures undertaken by them in reduction in losses as per the R-APDRP funds. The Licensee has submitted some of the information in this respect. After analysis of their submission, the Commission has reached to the conclusion that the situation prevailing in the State of Meghalaya is not better than other States where similar reasons are responsible for high losses. Accordingly, the Commission has decided to chalk out a time bound action plan for MeECL to reduce their losses reaching at a level of 15% within a span of 4 to 5 years. It is to be noted that MeECL (erstwhile MeSEB) had themselves given a loss reduction trajectory in 11th Plan which is as follows:-

Description	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
T & D Loss	33.95	28.41	24.42	20.05	15.69	11.32
AT & C Loss	36.80	35.62	31.29	26.68	22.05	15.11
Actual T & D Loss (As per Audited Record)	36.84	33.34	31.36	33.95	-	-

Improvement in Metering and Billing

In the Tariff Petition for the year 2012-13, MeECL has submitted that in the year 2010-11 as per their provisional audited records they have a distribution loss of 32.83% against the target of 15.69% given in the 11th Plan. Similarly, the AT & C loss level in the year 2010-11 is given as 29.53% against the target of MeECL at 22.05%. Looking at this performance, the Commission has shown its concern as these losses are resulting into a higher cost of services to the consumers of the State. If we compare the loss figures with National standards, there is ample scope for improvement in this direction. As per CEA records, the T & D losses and AT & C losses at National Standards are 28.44% in the year 2008-09 while in Meghalaya it is 33.95%.

The Commission has done an analysis on the availability and sale of power in last 6 years. It is found that the availability to the State of Meghalaya in last 6 years has been increased by 13% compounded annual growth rate while the sale has only been increased by 1% CAGR.

Description	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Power purchase	157.66	871.66	929.3	924.15	968.92	947.28	1129.15
Self generation	637.65	516.72	391.12	665.38	554.13	536.15	507.9
Availability	795.31	1388.38	1320.42	1589.53	1523.05	1483.43	1637.05
Sales	1031.43	890.37	832.75	1058.1	1044.6	978.86	1104.53
CAGR - Sales							1%
CAGR availability							13%

It is a matter of concern before the Commission that sale is not increased while purchase and availability in the State is increasing at a faster rate than sale. It means there are an increasing distribution losses and commercial losses. Now the agenda before the Commission for next 5 years is to improve the sale and increase the revenue of the Company so that benefit is accrued to common man of Meghalaya. In this Order the Commission would like to propose the following trajectory of reduction of losses including the commercial losses for MeECL. MeECL has to put their efforts to at least reach to this trajectory by the end of 2014-15. However, in order to get the benefit of R-APDRP schemes of Ministry of Power, MeECL has to achieve 15% as AT & C losses.

Year	2012-13	2013-14	2014-15	2015-16
Distribution Losses (*)	26.87%	25%	24%	23%
Commercial Losses	1.5%	1.5%	1.5%	1.5%
Overall losses	25.37%	23.5%	21%	20%
Collection efficiency (**)	98%	98.5%	99%	99.5%
AT&C Losses (***)	26.86%	24.64%	21.79%	20.4%

(*) MeECL in its Petition for 2012-13 has submitted the level of transmission and distribution losses in the year 2010-11 at 32.53% and projected loss in the year 2012-13 at 26.87%.

(**) The MeECL in its Letter dated 11.10.2011 has mentioned that their collection efficiency in 2010-11 is 96.34% and have projected in the year 2011-12 at 97.79%.

(***) The MeECL in its Petition for 2012-13 has given 29.53% in the year 2010-11, 29.47 in the year 2011-12 and projected 27.92% in the year 2012-13.

Therefore, the Licensee is directed to take all necessary steps to regulate their losses and improve their collection efficiency for next 4 years. For reduction of technical losses there is a need to invest in the distribution network for strengthening the existing lines, improve the transformation capacity and put new lines wherever required. This will require investment from the Licensee. As per the records of the MeECL, the investment in the distribution network is made by MeECL around 32 crores in the year 2011-12 and year 2012-13. So the Licensee has invested in construction of lines, etc in the system which is also reflected in their Tariff. Now, the Licensee has to put effort in reduction of commercial losses by way of metering, improvement in billing and collection of arrears. The Petitioner in its reply to the Commission dated 11th October, 2011 submitted action plan for metering of unmetered connection in the year 2011-12 and the year 2012-13. This is given below:-

Name of Division	Year	Domestic (LT)	Kutir Jyoti (BPL)	Commercial (LT)	General Purpose	Industry (LT)	Water Supply (LT)	Total
Jowai	2011-12	278	136	303	36	50	9	812
	2012-13	3000	400	-	-	-	-	3400
Central	2011-12	1686	363	378	-	-	-	2427
	2012-13	20000	2000	-	-	-	-	22000
Western	2011-12	155	500	5	-	-	3	663
	2012-13	1000	1341	-	-	-	-	2341
Williamnagar	2011-12	113	642	756	139	11	8	1669
	2012-13	5000	2000	-	-	-	-	7000
Tura	2011-12	286	630	104	103	-	-	1123
	2012-13	6000	3000	-	-	-	-	9000

The Commission has also decided to make a trajectory for improvement in metering and billing for next 4 years. However, the licensee is expected to perform better and achieve at least or better than these targets so as improve its financial position. The targets are as follows:-

Year	2012-13	2013-14	2014-15	2015-16
Metering	MeECL is directed to adhere to their commitment as per above table		99%	100%
Minimum Improvement by % every year in meters not read.	5%	5%	5%	5%
Minimum Improvement in replacement of defective meters by electronic meters as per CEA requirements.	3%	3%	3%	3%

Now the Licensee has to chalk out action plan for metering of unmetered consumers on the basis of priority and size of revenue, improvement in billing of all consumers so that there is a minimum improvement of 3% in the existing level of cases in meters not read, and also to replace at least 3% of cases having defective meters in near future. The licensee is further advised to replace defective meters and improve meter reading in a minimum possible time.

As per the MeECL proposal about 1000 Unit are consumed by each employee every month. This consumption figure does not seem to be realistic and therefore MeECL is required to verify these figures in their next Tariff filing for 2013-14. In the meantime, MeECL is being directed to ensure that every employee of MeECL should get supply through a correct energy meter in accordance with CEA Regulations.

Improvement in Collection

In order to reduce the commercial losses, it is necessary to review the present metering, billing and collection system of MeECL. To improve the collection, the MeECL must facilitate the consumers of the State to deposit their Bill in user friendly method. They have to take the following steps in order to improve in collection of Revenue from consumers of the State.

- Every collection centre should have a facility to get the deposits from consumers of different areas. For this they have to make a computer based billing system where the records of the consumers and their Bills is available at each collection centres. This will facilitate the consumers to go to any collection centre as per their convenience and deposit their Bills.

- Every collection centre should have counters on the basis of number of consumers visiting that centre. There should be separate counter for cheque and cash. Preference should be given to women and senior citizens by opening a separate window for them.

- There should be a facility of making payment through net by either using debit cards or payment through Banks. MeECL is required to make a study of the system being used in other States and make a proposal to the Commission for their approval.

- Every collection centre must have a facility for consumers to wait for their turn in an enclosed room and have a facility of drinking water.

MeECL may present a proposal to the Commission for improvement in their existing collection centres as per above and investment required therein.

Energy Audit

As per National Tariff Policy, every Licensee has to do energy audit every year and locate the areas where losses are high. In order to find out the area of maximum losses the Licensee required to start energy audit in each sub station by putting energy meters on each incoming feeder and outgoing feeder. The Licensee has to ensure that each meter is read at the end of the month and it should be reconciled with the billing data books so as to find out losses on each feeder. It is desirable that every meter reader and junior engineer should be made responsible for energy accounting and there should be a system of target setting for each sub-station/sub division for reduction of T & D losses. To begin with the Licensee is directed to complete the feeder metering and introduce the energy accounting in two areas in Shillong within 3 months time. The Report of the same is to be submitted to the Commission on 1st June, 2012.

The Licensee also required to take seven Distribution Transformers in Shillong in each circle and put meters on each D T and start taking reading of that meter and reconcile the same with the energy bill to consumers connected with that D T. This is also be done within 3 months time and reports to be given on 1st June to the Commission.

Conclusion

In order to make the company viable, it is necessary that loss reductions are achieved by MeECL as per the targets set by the Commission in the Tariff Order. In case of not meeting the targets, the Commission shall fix the Tariff as per the normative values and repercussion of any loss due to non achievement of targets shall be on MeECL's account.

PART VI

ANNUAL REVENUE REQUIREMENT ANALYSIS

The Commission has examined the Petitions filed by MeECL for financial year 2011-12 and 2012-13. All relevant information regarding actual expenditures made in financial year 2011-12 up to November 2011 were taken and analysis was done. The Commission has also considered the Audited Balance Sheets of MeECL for 2007-8, 2008-9, 2009-10 and Provisional Balance Sheet for 2010-11. The Commission has taken all necessary steps in order to allow only prudent expenditures made by MeECL in providing service to consumers. The Commission while determining the ARR has followed the provisions of Electricity Act, Tariff Regulations, National Policies, and CERC Regulations. In this Section, the Commission has tried to work out the Revenue Requirement for 2011-12 and 2012-13 separately and then find the gap so that the same is met by revising the Tariff. For the sake of convenience, the Commission has given the expenses for both the years in a single table wherever possible.

ARR of MeECL for Financial Year 2011-12

Estimation of Sales

- Estimation of Sales

  The Regulation prescribes category wise sale estimation for assessment of energy input so as to determine the quantum of generation and quantum of energy to be purchased for the correct assessment of revenue requirement for generation and power purchase. Regulation also prescribes that suitable methodology like C A G R to arrive the category wise sale for the current year. It is also prescribed that MeECL shall submit the restricted demand and unrestricted demand and sale to different category of consumers for the previous year, estimated for the current year and the forecast for the ensuing year. Regulation prescribes that MeECL shall assess the sale requirement to unmetered categories of consumers on the basis of consumption norms. The Licensee has given the following sale requirement in their proposal for 2011-12 and 2012-13.

Sl.No	Category of Consumers	2009-10 (Actuals)	2010-11 (Estimated)	2011-12 (Projected)	2012-13 (Projected)
	LT category				
1	Domestic	208.71	245.57	266.56	292.8
2	Commercial	39.88	46.74	55.86	67.05
3	Industrial	5.63	6.58	7.35	8.31
4	Agriculture	0.63	0.35	0.77	0.52
5	Public Lighting	1.49	1.33	1.6	1.63
6	Water Supply	6.3	6.67	7.19	7.79
7	General Purpose	11.85	13.57	15.14	17.05
8	Kutir Jyoti	4.9	6.68	8.52	12.35
9	Crematorium	0.22	0.2	0.2	0.2
10	MeECL Offices & Employees	36.79	37.27	37.76	38.26
	HT Category				
11	Water Supply	25.28	27.2	30	32.74
12	Industry	219.69	272.28	310.2	393.86
13	General Purpose	81.58	82.91	84.42	85.66
14	Commercial	12.14	15.68	17.58	21.52

	EHT Category				
15	Industry	243.31	205.16	314.12	388.28
16	Assam	13.16	15.22	15.29	15.36
17	Bilateral	40.65	40.38	20	50
18	Swap	26.63	80.75	30	127
	TOTAL	978.84	1104.54	1222.56	1560.38

The Commission has examined the sales figures in the past 3 (three) years and derived the C A G R value for the category of consumers. On the basis of the CAGR methodology, the Commission has approved figures for sale which is presented in table given below:

Year	2007-08 (Audited)	2008-09 (Audited)	2009-10 (Audited)	2010-11 (Estimated)	2011-12 (Approved)	2012-13 (Approved)
LT						
Domestic	191.25	209.72	214.6	245.75	261.65	278.57
Agriculture	0.61	0.5	0.62	0.35	0.77	0.52
Kutir Jyoti	3.05	4.31	5.39	6.68	8.13	9.89
Crematorium	0	0	0.22	0.22	0.22	0.22
Employees	32	36.32	36.79	37.27	37.76	38.26
Non Domestic	32.1	33.65	39.88	46.74	51.34	56.40
Industry	4.99	4.96	5.63	6.58	7.05	7.56
Water Supply	5.84	5.74	6.29	6.67	6.90	7.13
Public Lighting	1.5	1.5	1.99	1.33	1.6	1.63
General Purpose	9.42	9.2	11.85	13.57	14.87	16.29
HT						
Industry	245.52	294.99	303.64	272.28	310.20	463.36
Water Supply	9.72	23.96	25.28	27.2	35.18	45.50
Bulk Supply	66.31	64.56	6.77	68.05	68.49	68.94
Assam	9.75	10.88	13.16	14.81	16.44	18.17
Non Domestic	7.06	10.25	12.36	15.68	19.14	23.37
EHT						
Industry	257.15	228.6	189.02	205.16	314.12	456.8
bi-lateral						50
Domestic	17.36	16.97	18.19	18	18.16	18.33
Grand Total	893.63	956.11	891.68	986.34	1190.28	1560.94

After analysis of previous year data the Commission has estimated and approved the sale figure for each category of consumer for 2011-12 and 2012-13. These figures are derived for the purpose of power purchase requirement. However, actual sales shall be considered at the time of truing-up of expenditures for these years on the basis of audited accounts.

Domestic category :

The Commission has analysed the sale figures for the year 2007-08, 2008-09, 2009-10 and 2010-11. On the basis of the sale figures compound annual growth rate for each category of consumers were derived. For Domestic category CAGR growth rate is 6%. Using this rate the sale figure for 2011-12 is 261.65 MU and for 2012-13 it is 278.57 MU. The Commission has approved these sales projections for Domestic category in the year 2011-12 and 2012-13.

Commercial category :

For Non Domestic category or commercial the CAGR growth rate is 10%. Using this rate the sale figure for 2011-12 is around 51.34 and for the year 2012-13 it is 56.40 MU. The Commission has approved these figures as the sales projections for Non Domestic category.

Industrial category (LT) :

For Industrial category the CAGR growth rate is 7%. Using this rate the sale figure for 2011-12 is around 7.05 and for the year 2012-13 it is 7.56 MU. The Commission has approved 7.05 MU for the year 2011-12 and 7.56 MU for the year 2012-13 as the sales projections for Industrial category.

Agriculture category :

This category has a very low consumption and there is no clear cut trend derived therefore the Commission has taken the MeECL projections as the sales projection for 2011-12 and 2012-13. Using this approach the sale figure for 2011-12 and 2012-13 is taken as 0.77 and 0.52 MU respectively.

Public Lighting category :

For Public Lighting category, the Commission has accepted the values of MeECL for 2010-11 estimations for the purpose of ARR. Therefore, the Commission has approved 1.6 and 1.63 MU as the sales projections for Public Lighting category in the year 2011-12 and the year 2012-13.

Water Supply category :

For Water Supply category the CAGR growth rate is 3%. Using this rate the sale figure for 2011-12 is around 6.90 MU and for 2012-13 it is 7.13 MU. The Commission has approved these figures as the sales projections for Water Supply category.

General Purpose category :

For General Purpose category the CAGR growth rate is 10%. Using this rate the sale figure for 2011-12 is around 14.87 MU and for the year 2012-13 it is 16.29 MU. The Commission has approved these figures as the sales projections for General Purpose category.

Kutir Jyoti category :

For Kutir Jyoti category the CAGR growth rate is 22%. Using this rate the sale figure for 2011-12 is around 8.13 MU and for the year 2012-13 it is 9.89 MU. The Commission has approved these figures as the sales projections for Kutir Jyoti category.

Crematorium category :

In this category there is only one consumer the Commission has accepted the values projected by MeECL for this category. The Commission has approved 0.22 MU as the sales projections for Crematorium category in the year 2011-12 and 2012-13.

HT CATEGORY:

Industry category :

For Industry category the pattern of demand is not uniform and related to the restrictions of sales to this category of consumers. Therefore, the Commission has accepted the values projected by MeECL for this category of consumer. The Commission is approving 310.2 MU as the sales figures for Industry category as estimated by MeECL. The basic reasons for deviation is that in the year 2010-11 the sale figures for Industry Category was under restriction of supply. However, for 2012-13 the Commission is allowing sales of 463.36 MU to industries instead of MeECL's proposal of 383 MU on the ground of higher availability of energy as per MeECL's proposal. Accordingly, the Commission is taking the value of sales in the year 2011-12 as 310.2 MU and 463 MU for the year 2012-13.

Water Supply category :

For Water Supply category the CAGR growth rate is 29%. Using this rate the sale figure for 2011-12 is around 35.18 and for 2012-13 it is 45.50 MU. The Commission has approved 35.18 MU as the sales projections for Water Supply category in 2011-12 and 45.50 MU for 2012-13.

General Purpose category :

The Commission has accepted 84.93 and 87.19 MU as sales figures for General Purpose category which was submitted by the Petitioner for 2011-12 and 2012-13.

Commercial category :

For Commercial category CAGR growth rate has come as 22%. Using this rate the sale figure for 2011-12 is coming around 19.14 MU and for 2012-13 it is 23.37 MU. The Commission has approved 18.97 MU as the sales projections for Commercial category.

EHT CATEGORY:

Industry category :

The Commission has accepted 314.12 MU as the sales projection in 2011-12 for Industrial consumers as projected by MeECL. CAGR methodology was not used for the reason that in the year 2010-11, there was restricted supply to this category. However, for 2012-13 the Commission instead of MeECL's proposal of 388.2 MU has approved 456.8 MU to EHT consumers. This will not affect the power purchase requirement due to the fact that MeECL in its proposal has assumed the total power availability as 1560.38 MU which is approximately meeting with the Commission's approval of 1560.94 MU in 2012-13.

Other category :

For other categories like Assam, etc the Commission has approved the sale figures as given in the Table above.

The summary of the sales projection are given in Table below.

Category wise sales for FY 2011-12 & 2012-13 (MU)

Sl. No	Category	Proposed by MeECL for 2011-12	Accepted by the Commission for 2011-12	Proposed by MeECL for 2012-13	Accepted by the Commission for 2012-13
	LT category				
1.	Domestic	266.56	261.65	292.8	278.57
2.	Commercial	55.86	51.34	67.05	56.40
3.	Industrial	7.35	7.05	8.31	7.56
4.	Agriculture	0.77	0.77	0.52	0.52
5.	Public Lighting	1.6	1.6	1.63	1.63
6.	Water Supply	7.19	6.9	7.79	7.13
7.	General Purpose	15.14	14.87	17.05	16.29
8.	Kutir Jyoti	8.52	8.13	12.35	9.89
9.	Crematorium	0.2	0.22	0.2	0.22
10.	MeECL Offices & Employees	37.76	37.76	38.26	38.26
	HT Category				
11.	Water Supply	30	35.18	32.74	45.50
12.	Industry	310.2	310.2	393.86	463.36
13.	General Purpose including Bulk supply	84.42	84.93	85.66	87.19
14.	Commercial	17.58	19.14	21.52	23.37
	EHT Category				
15.	Industry	314.12	314.12	388.28	456.8
16.	Assam	15.29	16.44	15.36	18.25
17.	Bilateral	20	20	50	50
18.	SWAP*	30	-	127	-
	TOTAL	1222.56	1190.28	1560.38	1560.94

* Since swapping of 150 MU energy has not been taken in power purchase, the same is not reflected in the above table. However, the same can be considered as and when required.

- **<u>Transmission and Distribution Losses:</u>**

  Regulation prescribes that the Licensee shall furnish the data on losses for previous year and current year and on which such losses have been worked out. Regulation also prescribes that Licensee shall propose loss reduction programme for the ensuing year as well as for next three years. Based on the information furnished by the Licensee the Commission shall fix suitable target for reduction of distribution losses. It is also prescribed that Licensee shall conduct regular energy audit and submit regular reports to the Commission to substantiate its estimation of energy losses. In the absence of the energy audit report, the Commission may determine the loss level on the basis of information. The Commission has examined the audited results for the year 2008-09, 2009-10 and provisional results for 2010-11 and found that T&D losses of MeECL was 31.13% in 2008-09, 33.95% in 2009-10 and estimated losses of 29.98% in 2010-11. In this context the Commission would like to point out the road map for loss reduction programme was already approved by the Commission in its very first Tariff Order. In the year 2007-08, the Commission has prescribed a road map for reduction of losses during the 11th Plan on the proposal of MeSEB. The target approved by the Commission for T&D losses was as follows:

Year	% T&D Losses
2007-08	28.41
2008-09	24.42
2009-10	20.02
2010-11	15.69
2011-12	11.32

The Commission has also shown its concern for reduction of losses as per the National Standard and Provision of R-APDRP Programmes which prescribes the AT & C loss level as 15% for sanction of grant under its programme. In the last few years, the Commission has examined that there was no improvement in the loss levels which is an area of importance. In light of performance improvement and reduction of cost to serve to consumers, the Commission feels that MeECL should make sincere efforts to improve its losses from existing level to the targets as fixed by the Commission earlier. This year, the Commission in accordance with National tariff policy, the commission's regulation has taken a pragmatic approach while allowing T&D losses. Since at present the loss level is not less than 30%, the Commission has allowed the licensee's proposal of 28.38% Distribution loss and 1.5% reduction from 2011-12 level, the loss target for 2012-13 is allowed at 26.87%. But to improve their performance in commercial loss reduction the Commission has fixed 3% reduction in 2011-12 and 1.5% in 2012-13 as per MSERC Tariff regulations. The Commission has ensured that overall improvement in both the year shall not be less than 3%.

Particulars	FY 2011-12	FY 2012-13
Distribution Sales in MUs	1190.28	1560.94
Loss level for energy input	28.38%	26.87%
Energy input requirement at T&D interface (in MU)	1664.59	2134.47
Commercial loss reduction in %	3%	1.5%
Commercial loss reduction In MUs	49.94	32.02
Total Sales (in MUs) by MeECL with efficiency improvement in FY 2011-12	1240.22	1592.96

Therefore in order to sell 1190.28 million units to consumers, MeECL is required to arrange 1664.59 MU from self generation and purchase from outside in 2011-12. Similarly in 2012-13, MeECL is required to arrange 2134.47MU energy to sell 1560.94MU to consumers of the state.

MSERC (Terms and Condition for tariff) Regulations 2011, under Regulation 91A prescribed that it shall be obligatory on the licensee whose AT & C losses during the previous year are in excess of 30%, to project reduction of such losses by a minimum of 3% during the year for which a tariff application is made. Any shortfall in the projected level of AT&C losses for such year, shall be penalise by an amount equivalent to the cost of quantum of energy to be loss due to inability of the licensee to plan and achieve reduction of AT& C losses by a minimum of 3% from the previous year given. Such amount shall be calculated at the average over all unit cost of sale of power as approved by the Commission for such year. It is also prescribed that failure of licensee to reduce the AT&C losses during the previous year by 3% would be penalised on the same basis. In the FY 2012-13, the Commission tentatively approved 1.5% reduction in commercial losses.

The licensee in its proposal for 2011-12 has proposed loss level of 28.28% as the target. However, actual loss level in 2009-10 as per the audited balance sheet is 33.95%. Therefore the commission in accordance with the regulations and in order to protect interest of consumers of Meghalaya State, fixes 3% target for efficiency improvement by collecting 3% additional revenue in 2011-12 and 1.5% in 2012-13 by improving the billing, metering and collection system from the present level. It is very essential to put some milestone before the MeECL to improve efficiency from the current level to reach to the national level so that cost of service to consumers are within the reasonable limits. ***Accordingly commission is directing MeECL to collect Rs.2.5 crores per month starting from February 2012 and upto 31st March 2013. This amount is derived by improvement of 3% efficiency in the existing system for year 2011-12 and 1.5% in 2012-13. Accordingly MeECL is advised to work out division wise or circle wise revenue targets for their officers and regularly monitor that this amount is additionally generated over and above the normal sale target fixed by the commission. Further MeECL is required to send quarterly report to the commission on division wise sale, revenue assessed, revenue collected and T&D loss (difference of energy given to division and energy billed by that division). MeECL is also advised to take immediate action for replacement of defective meters, improvement in issuing electricity bills on the basis of actual meter reading and improve collection of past arrears.***

MeECL in response to commission's letter, informed the commission on 5th January 2012 that i) the cases of defective meters ii) bills not raised on meter reading and iii) number of consumers who have more than one lakh arrear in each Revenue division which are given in the table below.

Sl. No.	Name of Division	Cases of defective meters	Cases of bills not raised on meter reading	Cases of consumers having arrear more than Rs.1 lakh
1.	Shillong Revenue	345	1965	21
2.	Western Revenue	3446	5242	108
3.	Central Revenue	13864	25566	171
4.	Jowai Revenue	6578	6179	101
5.	West Garo Hills Revenue	4450	8523	99
6.	East Garo Hills Revenue	4451	5729	69
	Total	33134	53204	569

The commission would like to advice MeECL to make division wise monthly targets for replacement of defective meters, improvement in meter reading and collection of arrears and complete the work within the filing of next tariff petition.

Availability of energy

At present the power availability to the State are from two major sources. One is through self generation within the state and other through purchase from central generating stations etc. from outside. In 2012-13 self generation shall have additional 126MW source from Leshka Hydro Project which will benefit the state in order to make more energy available to consumers of the state. The following are the sources of energy in the state.

Energy Balance

Sl. No.	Source	2011-12	2012-13
1.	Net Own Generation	527.3	864.4
2.	Power Purchase from outside the State	1135.51	1272.27
3.	Total Energy available	1662.81	2136.67
4.	Total Power purchase requirement	1664.59	2134.47

The details of purchase of electricity and generation from MeECL power stations are given below:

- **Availability of Power from own generation for 2011-12**

Sl. No	Name	Total MW	2009-10 (Audited)	2010-11 (Prov)	2011-12 (As per Petition)	2011-12* As approved	2012-13 As per Petition	2012-13 as Approved
1	Umiam Stage-I	36	110.32	103.80	107.25	110.86	108.29	108.29
2	Umiam Stage-II	18	51.18	47.52	12	12.6	37.72	52.74
3	Umiam Stage-III	60	137.25	132.24	150.40	125.28	131.17	131.17
4	Umiam Stage-IC	60	187.31	204.93	203.20	195.05	195.07	195.07
5	Umtru	11.2	48.22	15.51	18	36	33.24	33.24
6	Micro Hydels	3	1.87	5.16	11.83	6.5	7.89	7.89
7	Myntdu Leshka	126	0	0	140.18	42.30	194.49	340.0
	Total		536.15	509.17	642.86	528.61	707.87	868.4
	Less Auxiliary consumption		1.36	1.27	2.23	1.8	2.83	4
	Net availability from State		534.79	507.90	640.63	527.3	705.04	864.4

* As per revised submission of MeECL dated 24.11.11

- **Energy availability from outside sources for 2011-12 & 2012-13**

To meet the power requirement in the State, the Licensee is also resorting to purchase a power from other sources like Long Term Purchases from Central Generating Station of NEEPCO and NHPC and also from some Thermal station of NTPC located in the eastern region. The power procurement rate is determined by the Central Electricity Regulatory Commission.

Sl. No	Source	2009-10 (Audited)	2010-11 (Provisional)	2011-12 (ARR Projected)	As approved for 2011-12	2012-13 ARR projection	As approved for 2012-13
1.	NEEPCO						
	Free Power	55.51	55.89	61.13	76.98	62.97	62.97
	Kopli Power Station Stage-I	507.94	77.52	83.01	112.84	89.80	89.80
	Kopli Power Station Stage-II		9.93	9.55	7.81	8.20	8.20
	Khandong Power Station		16.77	18.72	20.95	19.09	19.09

	AGTPP		71.35	71.44	74.22	68.46	68.46
	AGBPP		208.21	211.35	218.85	207.00	207.00
	Ranganadi		157.60	159.61	118.41	152.66	152.66
	Doyang		27.52	27.69	25.46	25.12	25.12
2.	NHPC	45.31					
	Loktak		71.78	68.72	61.46	65.28	65.28
3.	NTPC	139.47					
	Farakkha STPP		59.51	63.68	64.88	66.51	66.51
	Kahalgaon HSTPP-I		25.84	27.65	31.67	34.45	34.45
	Kahalgaon HSTPP-II		135.10	144.56	131.90	136.66	136.66
	Talcher STPP		36.78	39.35	40.56	41.57	41.57
4.	BTPS					113.88	113.88
5.	OTPC- Pallatana					156.86	156.86
6.	Other Sources including UI	199.05	175.35	76.34	149.52	179.90	23.76
	TOTAL	947.28	1129.14	1062.8	1135.51	1428.51	1272.27

3. Cost of power purchase in 2011-12 & 2012-13 from outside sources

Regulation 93 prescribes that Licensee shall procure power from approved sources, additional energy required after taking into account the availability of energy from such approved sources, shall be reasonably estimated well in advance and procurement arrangements made for such long and medium term purchases, by following standard contractual procedures. All such purchases shall only be made with the prior approval of the State Commission.

For purchase of electricity from sources outside the state, the transmission loss level agreed to in the Power Purchase Agreement (PPA) or worked out from energy accounts of RLDC/SLDC shall be taken into account for purchase of power from such sources. The cost of power purchase from central generating station shall be taken on the basis of the Tariff as approved by the CERC. The regulation also specifies that if there is a variation in the power purchase in excess of the approve requirement of the power the Commission may take up the need of the additional power at the time of truing up of the Tariff.

This year after working out the requirement of energy to meet the state consumer’s requirement the Commission has followed the national tariff policy. The National Tariff Policy prescribes the following:

- All power purchase costs need to be considered legitimate unless it is established that the merit order principle has been violated or power has been purchased at unreasonable rates.
- The reduction of Aggregate Technical & Commercial (ATC) losses needs to be brought about but not by denying revenues required for power purchase for 24 hours supply and necessary and reasonable O&M and investment for system up-gradation.
- Actual level of retail sales should be grossed up by normative level of T&D losses as indicated in trajectory for allowing power purchase cost subject to justifiable power purchase mix variation (for example, more energy may be purchased from thermal

generation in the event of poor rainfall) and fuel surcharge adjustment as per regulations of the SERC.

This year Commission is working out the requirement of power purchase on the basis of the ground realities in reference to the T&D losses. The Commission feels that the T&D losses as projected by the Licensee themselves i.e. 28.38 % for the year 2011-12 and 26.87% for the year 2012-13 respectively may be considered . The availability of energy from power purchase from Central Generating Stations and other outside sources was considered as proposed by the Licensee in the meeting held with the Commission and in their submission dated 24.11.11. The rate for cost of power purchase has been taken as per their proposal for the year 2011-12. For 2012-13, the rates as given by MeECL for 2011-12 has been escalated by the inflation rate. However, actual cost of power purchase shall be considered at the time of truing-up of ARR for 2011-12 and 2012-13 provided that the Licensee MeECL follows the Commission's Order and their Regulations. Similarly any liability accrued to previous years purchases, due to change in tariff by CERC, shall be considered after prudence check at the time of truing of that year tariff petition.

Table for cost of power purchase for 2011-12

Sl. No.	Source	2011-12 (Projected)	Fixed cost Rs. (Cr)	Variable cost Rs. (Cr)	Total Power purchase cost	Unit cost Rs/Unit
1.	NEEPCO					
	Free Power	76.98				
	Kopli Power Station Stage-I	112.84	2.63	3.55	6.18	0.74
	Kopli Power Station Stage-II	7.81	0.56	0.75	1.31	1.37
	Khandong Power Station	20.95	1.25	1.68	2.93	1.57
	AGTPP	74.22	3.87	18.36	22.23	3.11
	AGBPP	218.85	13.07	42.27	55.34	2.62
	Ranganadi	118.41	13.10	17.64	30.74	1.93
	Doyang	25.46	5.49	7.39	12.88	4.65
2.	NHPC					
	Loktak	61.46	6.29	8.41	14.70	2.14
3.	NTPC					
	Farakkha STPP	64.88	2.21	23.82	26.03	4.09
	Kahalgaon HSTPP-I	31.67	1.11	7.30	8.41	3.04
	Kahalgaon HSTPP-II	131.90	17.13	31.80	48.93	3.39
	Talcher STPP	40.56	1.48	9.01	10.49	2.66
4.	Other Sources	149.52			59.81	4.0
	TOTAL	1135.51	68.19	171.98	299.98	2.64

While determining the cost of power purchase, the commission has taken the UI rate as per the Regulation which is based on the average frequency specified from by CERC from time to time.

Any purchases over and above the approved values shall be looked into by the commission at the time of next year tariff filing. MeECL is also advised to maintain the quantum of power purchases and try to adhere with the approved values as given in the tariff order. **However, if power purchase variation is more than 5% of the total bill, they will take the prior approval of the commission.**

Table for cost of power purchase for 2012-13

Sl. No	Source	2012-13 (Projected)	Fixed cost Rs. (Cr)	Variable cost Rs. (Cr)	Total Power purchase cost	Unit cost Rs/Unit
1.	NEEPCO					
	Free Power	62.97				
	Kopli Power Station Stage-I	89.80	3.36	3.91	7.27	0.81
	Kopli Power Station Stage-II	8.20	0.46	0.66	1.12	1.37
	Khandong Power Station	19.09	1.69	1.74	3.43	1.8
	AGTPP	68.46	8.08	15.06	23.14	3.38
	AGBPP	207.00	0.06	58.52	58.58	2.83
	Ranganadi	152.66	12.25	17.21	29.46	1.93
	Doyang	25.12	5.52	6.84	12.36	4.92
2.	NHPC					
	Loktak	65.28	6.81	8.15	14.96	2.29
3.	NTPC					
	Farakkha STPP	66.51	2.32	25.01	27.33	4.11
	Kahalgaon HSTPP-I	34.45	1.17	7.67	8.83	2.56
	Kahalgaon HSTPP-II	136.66	17.99	33.39	51.38	3.76
	Talcher STPP	41.57	1.55	9.46	11.01	2.65
	BTPS	113.88	9.34	30.75	40.09	3.52
	OTPC-Pallatana	156.86	13.02	42.35	55.37	3.53
4.	Other Sources	23.76			9.50	4.0
	TOTAL	1272.27	68.19	171.98	353.83	2.78

4. Transmission and Other Charges

Regulation 95 prescribes that Transmission wheeling and other charges payable to Licensee shall be considered as expenses and included in the power purchase cost. The commission has taken full care while determining the cost of power purchase and transmission charges payable to CGS, PGCIL and other agencies. The commission has tried to examine the actual bills raised by different agencies to MeECL with regard to power purchase and transmission charges. All bills of transmission charges payable in 2010-11 and in the recent months of 2011-12 were examined. Accordingly, for PGCIL approximately 3 crores per month for three months and 3.5 crores in another nine months in 2011-12 and 3.5 crores for twelve months in 2012-13 has been allowed subject to validation of expenses at the time of truing up. Similarly for other agencies transmission charges are allowed. Accordingly the commission has allowed 48 crores in 2011-12 and 52 crores in 2012-13. The transmission charges for additional energy transfer in 2012-13 have already been included in the expenses.

Transmission/Wheeling Charges

Agency	Charges for 2009-10 (Audited)	Charges for 2010-11 (Prov BS)	Charges as Proposed for 2011-12	Approved for 2011-12	Proposed Charges for 2012-13	Approved for 2012-13
PGCIL & Others	27.59	55.99	62.63	48	58.33	52

5. Total cost of power purchase

Sl.No	Particulars	Approved Charges for 2011-12	Approved Charges for 2012-13
1	Total power purchase cost in Rs./ Cr	299.98	353.83
3	Transmission & wheeling charges in Rs./Cr	48	52
4	Total power purchase cost	347.98	405.83

6. O & M expenses

Operation and maintenance expenses shall mean the total of the following expenditures:

a) Employees Cost.

b) Repair & Maintenance cost.

c) Administration and General Cost.

Regulation prescribes that the Licensee shall submit to the Commission a statement of O & M expenses indicating under each head of account the actual of last year, estimates for the current year and projection for the next year. The Commission shall ensure that O & M expenses are in accordance with the norms fix by the Commission and in absence of such fixation the Commission shall determine O&M expenses based on prudent check of estimates submitted by the Licensee. Increase of O & M expenses due to the reasons not within the control of the distribution licensee may be considered by the Commission for determination of Tariff. Head wise expenditures are being worked out which are given below:

a) Employees cost.

Last tariff order, the Commission has not agreed to Licensee proposal for increase in the employees cost due to their pay revision from 1st January, 2010 on the ground that the expenditures for meeting employees cost has to be based on notified and authorised pay scale was not available in the Tariff Order for 2010-11. In the current filing MeECL has submitted the Notification and stated in one of the technical session that they have revised the scales of their employees and started paying them revised salaries. At this point commission would like to take cognizance of transfer scheme notified by Government of Meghalaya on 31st march 2010. The transfer scheme is applied for providing transfer of assets, liabilities and personnel of Meghalaya State Electricity Board to MeECL and other utilities. Personnel under the definition mean existing and retired employees of the Board. The transfer scheme has specified that on transfer of existing employees their terminal benefit and other facilities shall in no way be reduced than the one existing at the time of electricity board. Similarly, transfer scheme has also specified that all statutory matters including gratuity funds, pension etc. shall be taken over by MeECL in relation to terminal benefit including the retired personnel. However MeECL is responsible to create a trust for entertaining pensioners etc. and ensure that trust is progressively funded in regard to the unfunded liability to meet the pension, gratuity and leave encashment etc. pertaining to the years of service rendered including retired personnel of the board as determined by actuarial valuation. It is also specified that in the event of any short fall of funds whether trust at any point of time relating to the period prior to the date of transfer, the state government shall pay the short fall. It also the responsibility of the MeECL to ensure that the contribution to the trust relating to personnel related fund, for the services after the effective date of transfer are made as required from time to time. Finally the transfer scheme has specified that all obligation in respect of pension gratuity, leave encashment and other retirement benefits including provident fund, superannuation and gratuity to the personnel who have retired from the services of the board before the date of transfer shall be discharged by MeECL

As per the audited balance sheet of Me.S.E.B. the employee cost of Me.S.E.B. is Rs.114.92 crores in the year 2009-10. Out of which Rs. 29.39 crores has been spent on terminal benefit which is about 25% of the total wage bill. In the year 2008-09 it was also 26%. In this tariff proposal the employee cost was given as Rs. 192.62 crores which is 52% more than expenses made in 2010-11 towards the employee's cost. The reason of increase in salaries is due to a notification given by the Meghalaya Energy Corporation Limited on 30th August 2011. This revision is applied to every employee including officers of MeECL With the effect of this revision their pay scale has been escalated by 63%. In the tariff petition of 2011-12 MeECL has provided details of employees cost made in 2009-10 and 2010-11. In 2009-10 pension payment was Rs.25.61 crores and in 2010-11 it is 28.25 crores. In the tariff year i.e 2011-12 MeECL has projected Rs.42.99 crores as the pension liability out of total payment of Rs. 184.96 crores. It means that this year too about 25% of the total wage bill is towards pensions to retired employees. The commission directs MeECL to get complete the excise of actuary and start funding the pension trust so that in the future the liabilities towards pension etc. is made from the fund itself and not from the current tariff. The commission has taken the actual payment made in September 2011 and October 2011 from MeECL account towards their employees and found it to be Rs. 13.9 crores in September and 11.52 crores in the month of October. Out of this MeECL has provided Rs. 5.3 crores in the pension trust in the month of September 2011. The petitioner has projected Rs.192.9 crores during the current year 2011-12. The actual employee cost as per their provisional account was Rs.132.32 crores in the year 2010-11. After considering the total expenditure of the employee cost during 2010-11 which was Rs. 135.32 crores and after allowing 30% increase for revision of pay this amount comes to Rs. 175.91 crores in 2011-12. Similarly for 2012-13 the petitioner has projected Rs. 270.00 crores towards their employee cost. On careful consideration the commission has allowed 12.5% increase from the previous year of Rs.175.91 crores and arrived at Rs.197.80 crores during 2012-13. However the commission shall validate actual expenses made towards employees and status of pension fund in the next tariff filing. The commission advises MeECL to draw a plan for human resource development in order to improve the current level of efficiencies to serve the consumers better.

Sl. No	Items	2008-09 (Audi-ted)	2009-10 (Audi-ted)	2010-11 (As per provisio-nal accounts)	ARR proposal for 2011-12	ARR approved for 2011-12	ARR proposa l for 2012-13	ARR approved for 2012-13
1	Employee s Cost	104.79	114.92`	135.32	192.96	175.91	270.00	197.80

b) Repair and Maintenance expenses

As per regulation, the commission has examined the recent audited balance sheet of MeECL and provisional balance sheet for 2010-11 against repair and maintenance expenses. As per audited records, Me.E.C.L has spent 16.05 crores towards repair and maintenance of plant and machinery, civil works etc.in 2008-09 and Rs 20.09 crores in 2009-10. In 2010-11 as per provisional account they have spent upto 31st March 2011 as 22.79 crores towards repair and maintenance. The commission has considered these value while determining the R&M expenditure of 2011-12 and 2012-13. The petitioner has projected Rs. 23.33 crores during the year 2011-12 including Leshka Project. In the year 2010-11 the commission has approved 19.5 crores towards R&M expenditures while the cost of actual R&M expenditure was 22.79 crores. In order to satisfy national tariff policy and good upkeep of transformers, transmissions and distribution lines and maintenance of power plants including the new assets, the commission is not curtailing any amount from MeECL proposals and thus allowing 23.33 crores for 2011-12 and 29.94 crores for 2012-13.

Sl. No	Items	2008-09 (Audited)	2009-10 (Audited)	2010-11 (As per provisional balance sheet	ARR proposal for 2011-12	ARR approved for 2011-12	ARR proposal for 2012-13	ARR approved for 2012-13
1	R & M cost	16.05	20.09	22.79	23.33	23.33	29.94	29.94

b) A & G expenses

The petitioner has projected a requirement of 10.5 crore for meting Administration and general expenses during 201-12. The actual amount incurred for 11.67 crores. On careful consideration the commission approves the proposed level of A&G expenses in the year 2011-12 and 2012-13

Sl. No	Items	2008-09 (Audited)	2009-10 (Audited)	2010-11 (As per provisional order)	ARR proposal for 2011-12	ARR approved for 2011-12	ARR proposal for 2012-13	ARR approved for 2012-13
1	A & G cost	7.92	10.01	11.71	10.54	10.54	11.67	11.67

7. <u>Capital Cost and Depreciation</u>

Regulation 99 prescribes that capital cost includes the actual expenditure till the date of commercial operation of the Licensee distribution system subject to prudence check. The Regulation also specifies that in case of any abnormal delay in execution of the project causing cost and time overrun attributable to the failure of the utility the Commission may not approve the full capitalisation of interest over head expenses.

In the transfer scheme the Government of Meghalaya has transferred all capital works in three utilities of Generation, Distribution and Transmission. As per the transfer scheme the value of capital assets as on 1.4.2008 was around 520 crores. However there was capital work in progress were around 736 crores in Generation, Distribution and Transmission. As per the audited balance sheet of Me.S.E.B of 2009-10 it has also shown Rs.549.66 crores as opening balance and at the end of the year it was Rs.607.51 crores. It also tallies with the value of assets given by MeECL in its tariff proposal of 2011-12.

Asset position 2010-11 (Actual as per MeECL report)

Sl. No	Name of the Asset	Value of Assets in beginning of 2010-11	Addition in 2010-11	Withdrawn in 2010-11	Value of assets at the end of 2010-11	Rate of depre-ciation	Depre-ciation Amount (Rs. Crores)
1.	Land & Land Rights	10.53	0.1	0.47	10.16		
2.	Building	31.51	.05	-	31.56	3.34	1
3.	Bydraulic Works	128.34	.1	-	128.44	5.28	6.64
4.	Other Civil Works	27.4	.06	-	17.46	3.34	.87
5.	Plant & Machinery	154.08	0.18	-	154.26	5.28+6.33	6.45
6.	Line & Cables	237.74	6.07	-	243.81	5.28	11.27
7.	Vehicles	8.74	0.5	-	9.24	9.5	0.36
8.	Furniture	4.36	0.2	-	4.56	6.33	0.18
9.	Office Equipments	4.81	0.25	-	5.06	6.33	0.25
	TOTAL	607.51	7.51	0.47	614.55	-	27.02

As per the provisional balance sheet of 2010-11 the asset position at the end of the year is Rs.614.55 crores which becomes the opening value for 2011-12. The depreciation charge for 2010-11 was 27.02 crores. As per MSERC Regulations, capital assets shall only be considered after prudence check by the commission provided that they are in commercial operation. It means that after commercial operation of the assets the depreciation and interest charges shall be allowed to MeECL. The Regulation has specified that opening asset value recorded in the balance sheet as per transfer sheet scheme shall be deemed to have been approved. Regulations also specify that any abnormal delay in execution of the project causing cost in time overrun attributed to mismanagement may not be approved in full as depreciation and interest charges. Depreciation rate in the ARR proposal are being allowed as it tallies with the rates as given in MSERC regulations. In the proposal the MeECL has shown total asset value in the beginning of 2011-12 as 668.26 crores and Rs.1032.76 crores was added during the year. Similarly in 2012-13 MeECL has added Rs. 453.9 crores and at the end of the year 2012-13, the total assets are shown as Rs 1773.94 Cr. MeECL has proposed that Leshka Project of Rs.965.93 crores shall be added as the first unit shall be in commercial operation in December 2011 and the second unit in January 2012 and the third unit shall be in June 2012. Similarly, first unit of Umtru Plant which is of Rs. 226.40 crores shall be completed in March 2013. MeECL, in response to the Commission's letter dated 21.12.2011, replied on 5th January 2012 that approved cost of MLHEP is Rs. 965.93 crores out of which Rs. 643.96 crores shall be added in 2011-12 and Rs.321.97 crores shall be added in 2012-13.

Asset position 2012-13 (As per tariff proposal)

Sl. No.	Name of the Asset	Value of Assets	Addition	Withdrawn	Value of	Rate of	Depreciation
1.	Land & Land Rights	41.49	19.31		60.8		
2.	Building	54.15	15.14		69.29	3.34	1.99
3.	Bydraulic Works	516.9	239.5		756.4	5.28	22
4.	Other Civil Works	86.46	36.77		123.23	3.34	3.15
5.	Plant & Machinery	330.69	113.56		444.25	5.28+6.33	13.79
6.	Line & Cables	268.19	26.82		295.01	5.28	13.64
7.	Vehicles	10.59	1.27		11.86	9.5	0.46
8.	Furniture	5.36	0.71		6.07	6.33	0.24
9.	Office Equipments	6.14	0.89		7.03	6.33	0.32
	TOTAL	1319.97	453.97	0	1773.94		55.53

The petitioner projected a revenue requirement of Rs. 49.44 crores during the year 2011-12 for covering depreciation cost. It is observed from the original petition that the main increase of depreciation is due to transfer of assets work-in-progress into Capital-in-use with an expectation that the Myntdu Leshka Project will be completed and commissioned during the current year 2011-12. On scrutiny of the proposal, the Commission found that Myntdu Leshka Project will be getting delayed and may not be fully commissioned during the year 2011-12.

On scrutiny of the projection submitted by the petitioner and due to delay in the commissioning of the project and re-schedule of date of the commissioning of the three units of Myntdu Leshka Project, the proposal for such increase of depreciation cannot be considered during the year 2011-12. It is also observed that an amount of Rs. 27.02 crores has been indicated during the year 2010-11 (pre-actual). The Commission therefore after proper scrutiny and due consideration allows 5% increase from the actual amount of depreciation cost during 2010-11 and fixes and approves Rs. 28.37 crores during the year 2011-12. MeECL in its Letter dated 05.01.2012 informed the Commission that they have projected the revised proposal an amount of Rs.12.90 crores depreciated against the Leshka Projects for 2012-13. The existing depreciation was worked out on the basis of fixed assets excluding Leshka in is in the Order of Rs.28.37 crores in 2011-12 and after adding 5% the amount of depreciation shall come to 29.79 crores. The commission after careful examination approved for 2012-13 a depreciation of 42.68 crores. Since Leshka Project is still to be completed, this is the provisional amount as per MeEEL's proposal and Commission shall validate it at the time of truing up and commissioning of Leshka Project.

(Rs. Crores)

2008-09 (Audited)	2009-10 (Audited)	2010-11 Provisional	2011-12 Proposal	2011-12 Allowed	2012-13 Proposal	2012-13 Allowed
14.12	25.93	27.02	49.44	28.37	55.53	42.68

- **REVENUE REQUIREMENT FOR INTEREST &FINANCE CHARGES**

Regulation 102 prescribes that interest and financial charges on loan capital shall be computed on the outstanding loans duly taking into account the schedule of loan repayment terms and conditions of loan agreement and interest thereof. However, as per Regulation the loan should be consistent with the amount as determined under Regulation 100 which provides 70:30 ratios for loan and debt. The Regulation also prescribes that loan shall not be attributable to capital works in progress. The important issue in the ARR determination is that the rate of interest should be competitive for the benefit of both the distribution licensee and to the consumers. The Commission has examined the Licensee's proposal wherein high amount of loan is shown to finance the capital of the Company. The average interest rate is very high and around 12%. ***The Commission therefore directs the Licensee to consider this issue on priority and try to swap loans with resultant benefit to MeECL. MeECL shall provide details of loans outstanding, loans created because of non-payment of dues to the financial institutions, rates and action plan for swapping for loans containing high interest. This document shall be submitted by the Licensee to the Commission within 30 days of issue of this Order***.

The petitioner has projected interest to be charged in the ARR on accounts of loans taken for the purpose of capital investment as well as for meeting working capital requirement. However, they have not included the interest charges payable to the State Government. The MeECL has projected a revenue requirement of Rs. 112.93 crores as the interest cost during 2011-12 which also includes working capital. The Interest on State Government of Rs. 22.44 crores and interest on loan from Central Sponsored schemes of Rs. 0.98 crores is required to be excluded while taking the cost of interest during the year 2011-12. The Commission after careful consideration fixes and approves the interest cost at the level of Rs. 89.51 crores. Similarly, for the year 2012-13 the Petitioner has projected Rs.130.39 crores as interest charges including Rs.9.81 crores as working capital requirement. Therefore, the Commission, at this stage, has allowed an interest charge of Rs.89.51 crores in the year 2011-12. Similarly the same can be escalated by 10% and allowed Rs.98.46 crores in 2012-13. However at the time of truing up and on the basis of audited balance sheet and prudence examination, the Commission shall consider the interest charges.

Table

2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-Audit)	2011-12 (Projections)	2011-12 (Allowed)	2012-13 (Projections)	2012-13 (Allowed)
1	84.20	111.09	112.93	89.51	130.39	98.46

REVENUE REQUIREMENT FOR OTHER DEBTS INCLUDING PROVISION OF BAD DEBTS

Regulations prescribes that Commission may allow provision for bad debt up to a limit of 1% receivables in the Revenue Requirement. The petitioner has projected a revenue requirement of Rs. 10.00 crores for the year 2011-12, with the same amount proposed in the year 2012-13. As per MSERC Regulation 107, the Commission after careful consideration fixes and approves Rs.5.00 crores as bad debts during the current year 2011-12 and 2012-13. ***The Commission further directs the Licensee to provide records to the Commission regarding the position of written off value of bad and doubtful debts after creation of MeECL so that the Commission will consider the audited values for consideration in subsequent tariff petition.***

Table

2008-09	2009-10	2010-11	2011-12 (Projections)	2011-12 (Approved)	2012-13 (Projections)	2012-13 (Approved)
18.48	14.33	10.00	10.00	5.00	10.00	5.00

REVENUE REQUIREMENT FOR PROVISION OF INCOME TAX

The petitioner in the original estimate projected and amount of Rs. 9.33 crores as income tax cost for the year 2011-12. It is observed from Statement of account's of the year 2010-11, no income tax has been paid or provided in their accounts. The petitioner also informed that since the Corporation incurred a loss in 2010-11(as per statement of account's) no income tax is paid, under income tax act 1961. Similarly for the year 2011-12, no such projection of income tax could be made under the said act based on the loss of 2010-11. The Commission's accepted the proposal of the petitioner and no provision would be provided during the year 2011-12. Similarly, for 2012-13 the provision of income tax has been made. The Regulations also prescribes that Income Tax shall be considered in the ARR on the basis of income tax actually paid. Previous year expenses shall be considered at the time of truing up of petition.

Table

2008-09	2009-10	2010-11	2011-12	2011-12 (Allowed)	2012-13 (Allowed)
4.21	-	4.94	-	NIL	NIL

EXPENSES TO BE CAPITALISED AND DEBITED FROM ASSESSED REVENUE REQUIREMENT

Interest & Finance Charges

The petitioner in their original estimate projected an amount of Rs. 49.67 crores as the cost for capitalization of interest. The petitioner based their projection for capitalization upon the anticipated completion & commissioning of the Myntdu Leshka Project. On careful consideration, the Commission's cannot accept capitalization of interest where the date of commissioning of the project (Myntdu Leshka) is yet to be fixed by the petitioner. The Commission therefore expect that the Myntdu Leshka Project may be fully commissioned during the year 2012-13. The MeECL in their Letter No. MeECL/SE/RA/ Vol III/ 2011-12/47 dated 24.11.2011 admitted that the interest attributable to CWIP during 2012-13 is Rs.79.91 crores. On careful examination the commission decides to approve Rs.79.91 crores as interest & finance charges to be capitalized and debited from the revenue requirement during the year 2011-12. Similarly, for the year 2012-13 the total interest to be capitalised is coming around Rs.9.77 crores subject to the condition that Commission shall validate the final figures after commissioning of Leshka Project in the next ARR after prudence examination.

Table

2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-audited)	2011-12 (Projection)	2011-12 (Allowed)	2012-13 (Projection)	2012-13 (Allowed)
48.33	63.85	71.11	79.91	79.91	9.77	9.77

Other expenses to be capitalised

Employees Cost and General Administration

The petitioner projected an amount of Rs. 8.00 crores to be capitalized against employees cost and debited to revenue requirement during 2011-12, with a view that the project (Myntdu) Leshka) will be completed & commissioned during the year 2011-12. Since commissioning of the Myntdu Leshka Project and transfer of assets from capital work- in-progress to asset- in- use will be delayed, the employees cost and General Administration cost needs to be capitalised fully during the year 2012-13. During the year 2010-11 the actual amount capitalised from employee cost was Rs. 12.01 crores, the Commission therefore fixes and approves the same level of capitalisation of employees cost of 10% increase which comes to Rs.13.00 crores during the current year 2011-12.

Table

2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-audited)	2011-12 (Projection)	2011-12 (Allowed)	2012-13 (Projection)	2012-13 (Allowed)
8.47	10.12	10.24	13.00	13.00	6.70	6.70

OTHER INCOME TO BE DEBITED FROM ASSESSED NET REVENUE REQUIREMENT

Other Income

The petitioner projected an amount of Rs. 69.30 crores including other income in their revised petition as other Income to be debited from the assessed net revenue requirement during the year 2011-12. The Commission decides to approve the level of other income of Rs. 87.61 crores as projected by the petitioner for the year 2011-12 and Rs.127.88 during 2012-13.

Table

2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-audited)	2011-12 (Projection)	2011-12 (Allowed)	2012-13 (Projection)	2012-13 (Allowed)
59.78	58.50	79.94	69.30	87.61	127.88	127.88

Rural Electrification Subsidy

The petitioner projected an amount of Rs. 12.31 crores as R.E subsidy during the year 2011-12. The Petitioner in their revised Petition indicated an amount of Rs.13.28 crores as the RE subsidy during the year 2011-12. The Commission decides to note that the likely level of subsidy of Rs.13.28 crores is to be received during 2011-12 as proposed by the Petitioner in the revised petition and Rs.14.0 Crores during 2012-13.

Table

2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-audited)	2011-12 (Projection)	2011-12 (Allowed)	2012-13 (Projection)	2012-13 (Allowed)
11.70	12.31	12.63	12.31	13.28	14.00	14.00

Return on Equity

The petitioner submitted its (MeECL) equity base at Rs. 202.00 crores. As per Regulation 101 of the MSERC(Term & conditions for determination of Tariff) Regulation, 2011, return on equity was calculated at a fixed rate of 14% per annum on equity amounting to Rs.28.28 crores. The Petitioner has assumed this figure for FY 2011-12 and 2012-13 as per table below:

Table: Return on equity. (Rs in crores)

Sl. No	Particulars	2009-10 (Provisional)	2010-11 (Estimated)	2011-12 (Projected)	2012-13 (Projected)
1	Opening balance of Equity	202.00	202.00	202.00	202.00
2	Net Additions during the year	0.00	0.00	0.00	0.00
3	Less: Capitalisation	0.00	0.00	0.00	0.00
4	Closing Balance of Equity	202.00	202.00	202.00	202.00
5	Rate of Return(%)	14%	14%	14%	14%
6	ROE	28.28	28.28	28.28	28.28

The Commission allows Rs. 28.28 crores as ROE in the ARR of 2011-12 and 2012-13.

Truing- up of past expenses

As per Regulation 15 there is a provision that Commission shall undertake a truing-up exercise after audited accounts of the year are made available to it. Generally at the time of ARR determination the Commission takes up the truing-up exercise and try to balance the profit and loss sharing between the consumers and the utilities. The Commission has already done truing-up exercise for the year 2007-08 and 2008-09. MeECL's account for 2009-10 has been audited. The Commission in accordance with the Regulation initiated the exercise but MeECL has informed vide their letter No.MeSEB/SE(RA)/43/Pt-III/4 dt.3.10.2011 that 2009-10 accounts have been audited by CAG however they have submitted that revenue account of MeECL for 2009-10 includes the period from April to November 2009 which was based on the tariff order dated 30.9.2008 and made effective from October 2008 to November 2009. It has been informed to the Commission that a section of the consumers had refused to pay the electricity bills as per the order dt.30.9.2008 but has made only part payment of the electricity bills. MeECL has informed that the matter is subjudice and is pending before the Hon'ble Supreme Court of India. The Commission therefore feels that since the matter is related to previous year's tariff is subjudice, it would not be proper to make any adjustment by way of truing up at this stage. The Commission shall take up the matter in accordance with Regulation at the earliest.

Formula for fuel cost adjustment

The Commission has required the MeECL to furnish the suitable FCA formula as per the requirement of clause 6 of Tariff Regulations so that the same be approved while doing this order. MeECL has vide its letter dated 15.12.2011 responded to the Commission that they require some more time to evolve the appropriate formula and requested the Commission to grant them exemption to file the same in the tariff application for 2012-13. Since the truing up of past expenses may also to be considered at a later date, the Commission shall finalise the FCA mechanism at the earliest in accordance with the regulations. The Commission directs

MeECL to file suitable mechanism of FCA to the Commission for approval with 3 months times.

Solar Energy Certificate

MeECL vide its letter dated 15.12.2011 informed the Commission that they are in process of making action plan to meet out the RPO after registration with the state agency which have been recently appointed by the Commission. Therefore they made a request to the Commission to grant them some more time. The Commission considered their request and shall take up the matter shortly.

After carefully examination of each and every head of ARR, the Commission finally allows the ARR for the year 2011-12 and 2012-13 which are given as below:

ANNUAL REVENUE REQUIREMENT (Rs. in Crores)

Sl. No	Item of expenditure	2008-09 (Audited)	2009-10 (Audited)	2010-11 (Pre-Actual)	2011-12 (Projection)	2011-12 (Approved by Commission)	2012-13 (Projections)	2012-13 (Allowed)
1	2	3	4	5	6	7	8	9
1	Cost of Power Purchase	221.91	240.62	303.63	405.93	347.98	483.02	405.83
2	R & M expenses	16.05	21.54	23.02	23.33	23.33	29.94	29.94
3	Employee costs	96.32	104.80	125.08	184.96	162.91	270.0	191.20
4	Adm. & Genl Expenses	7.92	10.01	11.71	10.54	10.54	11.67	11.67
5	Depreciation	14.12	25.91	27.02	49.44	28.37	55.53	42.68
6	Interest charges	21.87	20.35	39.98	46.81	9.60	130.49	88.69
7	Return on equity	28.28	28.28	28.28	28.28	28.28	28.28	28.28
8	Income Tax	4.21	-	4.94	9.33	-	9.33	-
9	Provision for bad and doubtful debt	18.48	14.33	10.00	10.00	5.00	10.00	5.00
10	Total revenue requirement	429.16	465.84	573.66	768.62	616.01	1028.26	803.29
11	Less: Non tariff income	59.78	58.50	79.94	63.30	81.61	105.55	105.55
	Less: subsidy	11.70	12.31	12.63	12.31	13.28	14.00	14.00
	Less: outside sale	-	-	-	6.00	6.00	22.33	22.33
12	Net revenue requirement (10-11)	357.68	395.03	481.09	687.01	515.12	886.38	661.41
13	Revenue from current tariff	392.51	415.74	380.17	429.36	448.78	594.50	585.99
14	Gap (12-13)	(+)34.83	(+)20.71	100.92	257.65	66.34	291.88	75.42
15	Average cost in	-	-	-	5.62	4.15	5.68	4.15

	MU							
16	Energy sales (MU)	1044.60	978.86	1101.10	1222.56	1240.22	1560.38	1592.96

ARR REQUIREMENT FOR THE YEAR 2011-12 AND 2012-13

After careful examinations of all connecting documents to the ARR, the Commission has finalised the expenditures of MeECL after reasonable and prudence check so as to allow the same in the Tariff for the year 2011-12 and 2012-13. Net Revenue Requirement for 2011-12 has been approved as Rs.515.12 crores against the demand of Rs.687.01 crores by MeECL and for the year 2012-13, the ARR requirement is approved at Rs.661.41 crores against the demand of Rs.886.38 crores.

FORECAST OF REVENUE

In determining gap between cost and Tariff, forecast of revenue for ensuing year is very essential. MSERC's Regulations provides that the Licensee shall submit to the Commission the following:

1. Revenue from Sale of Power i.e. Tariff Income.
2. Non Tariff Income.
3. Income from surcharge and Additional surcharge from Open Access customers.
4. Any grant received from the State Govt. other than subsidy meant for any consumer or class of consumers.
5. Income from other businesses.
    a. Non tariff income comprises of:
    b. Delay payment surcharge
    c. Meter rent
    d. Income from investment
    e. Trading Income
    f. Interest on loans
    g. Recovery of Theft and
    h. Any other Income.

Since the Commission has already considered revenue other than sale in ARR determination, in this part the income from sale is discussed. The Licensee has projected total sales of 1222.56 MU in their business. Sale to consumers within the State, MeECL has projected 1157.27 MU while sales to Electricity traders they have shown as 50 MU and sale outside the State as 50.29 MU. In the year 2012-13 MeECL has projected a sale of 1560.38 MU, out of this sale, sales to consumers shall be 1368.02 MU. MeECL has projected estimated revenue as a sale income in the year 2011-12 as Rs.435.36 crores. The Commission has examined the revenue sheet given in the ARR proposal thoroughly and done an in-house exercise for determining the tariff income from sale of electricity to each and every category according to the Tariff schedule and connected load. Similarly for the year 2012-13 MeECL has projected 520.74 crores revenue from sale. The Commission has done the exercise and work out revenue in the year 2011-12 and for 2012-13 on the current Tariff. The Commission has also worked out efficiency improvement by way of realising 3% additional sale in 2011-12 and 1.5% in 2012-13 in the revenue calculation. The details are given below in the

Table:

Sales and Revenue at current Tariff for Fy - 2011-12 & 2012-13 (In Rs. Lakh)

Consumer category	**2011-12**		**2012-13**	
	Sales	Revenue	Sales	Revenue
LT				
Domestic	261.65	7304.00	278.57	7763.9
Agriculture	0.77	11.144	0.52	7.86
Kutir Jyoti	8.13	263.835	9.89	300
Crematorium	0.22	6.004	0.22	6.004
Employees	37.76	1030.848	38.26	1044.498
Non Domestic	51.34	2278.578	56.40	2490.618
Industry	7.05	300.072	7.56	317.004
Water Supply	6.90	306.837	7.13	316.448
Public Lighting	1.60	70.912	1.63	72.211
General Purpose	14.87	664.595	16.29	721.173
HT				
Industry	310.20	13184.76	463.36	19236.73
Water Supply	35.18	1470.372	45.50	1470.37
Bulk Supply including domestic	84.93		87.19	
Assam	16.44	4282.93	18.25	4445.73
Non Domestic	19.14	809.645	23.37	962.3624
EHT				
Industry	314.12	12293.732	456.80	17444.48
bi-lateral	20.00	600	50.00	2000
Total	1190.28	44878.26	1560.94	58599.39
Eff improvement	49.94	2145.27	32.02	1376.86
Total Inc Eff Imp	1240.22	47023.53	1592.96	59976.25

REVENUE GAP

MSERC regulation specifies that for the Tariff year the difference between the net revenue requirement and the expected revenue at the prevailing tariff shall be known as Revenue Gap. The Revenue gap shall be bridged by measures such as improvement in the internal efficiency, utilisation of reserves and tariff changes. After adjustment of ARR with revenue from the current Tariff, the gap in the year 2011-12 is approved at Rs.66.34 crores and for the year 2012-13, the gap is coming around Rs.75.42 crores. This year the Commission has allowed the T & D losses at the estimated numbers presented by the MeECL while deriving the power purchase quantum and amount. However, to improve the current level of efficiency, the Commission has given a target of 3% & 1.5% reduction in the losses by way of improving the sale resulting in additional revenue in 2011-12 and 2012-13 respectively. The efficiency improvement target for 2011-12 is set at Rs. 21.45 crores and Rs.13.76 crores in the year 2012-13. This efficiency improvement shall reduce the size of the gap in both the years which results in reduction of impact of Tariff increase in the year 2011-12 and 2012-13. The Net gap to be recovered from the Tariff is coming around Rs. 44.89 crores in 2011-12 and Rs.61.66 crores in the year 2012-13. Accordingly, the Commission after strictly complying with the requirement of regulations determines the revenue gap, efficiency improvement and work out the net revenue gap to be met by the Licensee by revising and restructuring the Tariff and Tariff structure. The Commission has tried to make a balance between the consumer's interest, Licensee's interest and the system improvement. Had this Tariff been applied w.e.f. 1st April, 2011 the impact of the Tariff would be only around 9%. Due to unforeseen reasons, the Tariff could not be finalised in time. There are only two options left before the Commission that either design Tariff w.e.f. 1st February, 2012 and continue it up to 31st March, 2013 and leave the gap from 01.04.2011 to 31.01.2012. This will definitely affect the financial health of the Corporation and moreover Regulation also allows for truing-up of expenses which are previously not met. The Second option is to recover the total ARR of two year in 14 months. By this way the Licensee will be compensated of their legitimate claims in order to supply electricity to its consumers. Therefore, the Commission has tried to fix the Tariff in such a way that two years requirement are fully met with the new Tariff. Accordingly, the Commission has considered the average increase in the present tariff by about 13% in the new tariff scenario which will be payable by consumers from 1st February, 2012 till 31st March, 2013. This will meet the revenue gap of the Licensee and in case there is any gap out of change in consumptions mix, assumptions taken in designing the Tariff or any other event the Commission shall review the expenditures and revenues while truing-up the ARR for 2011-12 and 2012-13.

The Commission has tried to balance the ARR requirement for both the years by adopting the following measures:

(i) By improving the efficiency of the Licensee by 3% reduction of commercial losses in 2011-12 and 1.5% in 2012-13. This will give additional revenue of Rs. 35 crores in 2011-12 and 2012-13.

(ii) By re-engineering the Tariff structure for system improvement resulting in additional availability.

(iii) By revising the current Tariff on an average of about 13% for 2011-12 and 2012-13 from 1st February, 2012 to 31st March, 2013.

PART VII

TARIFF RATIONALISATION

Before proceeding with the exercise of determining the category wise Tariff for MeECL and to balance the Revenue and Expenditures, the Commission feels appropriate to take a view on the existing provisions of Electricity Act, Tariff Policy, MSERC-Regulations and Petitioner's own proposal. The Commission also intend to consider the views of other stake holders while deciding the Tariff and its structure.

1. Requirement of Electricity Act

Section 61 provides that Commission shall specify the terms and conditions for determination of Tariff and in doing so shall be guided by the principles specified by the Central Commission for generation and transmission, the National Electricity Policy and Tariff Policy. Further, it provides that while determining the Tariff the Commission shall apply commercial principle, the factors which encourage competition, efficiency, economical use of resources, good performance and optimum investments. The Tariff so determined shall progressively reflect the cost of supply of electricity and also reduces the cross subsidy within the period as specified. The Commission shall not, while determining the Tariff show undue preferences to any consumers but may differentiate according to the Consumers load factor, power factor, voltage, total consumption of electricity during any period or the geographical position of any area, the nature of supply and any other purposes for which electricity use.

2. Requirement of National Tariff Policy

Clause 8.4 of National Tariff Policy requires that two part Tariff featuring separate fixed and variable charges and time differentiated Tariff shall be introduced on top priority for large consumer so that the demand during peak is reduced. It also requires that the State Commission may provide incentive to encourage metering and billing based on metered tariff particularly for consumer's categories which are presently unmetered. The National Tariff Policy provides that consumers below poverty line to consume below a specified level may receive a special support through cross subsidy. This is also in line with the provisions of National Electricity Policy.

3. Requirement of MSERC Tariff Regulations

Regulation 114 requires that distribution tariff will be a two part tariff comprising of fixed charges and energy charges. It also provides that in the event of the licensee being unable to supply electricity to HT/EHT consumers as per contract demand, the fixed charges per KVA shall be determined on the basis of average load supplied to the consumers. Regulation also prescribes that Commission may rationalise the tariff structure so that it is beneficial to the consumer and licensee. The tariff shall be applicable to consumer category as per the slabs determined by the Commission. Regulation also prescribes that a differential tariff for peak and off peak hours may be designed to promote demand side management.

4. Petitioner's Proposal for Tariff Revision

MeECL has in its petition for 2012-13 proposed that while determining the tariff, the Commission may like to consider the provisions of National Tariff Policy under which a cross subsidy of + - 20% has been given for designing the Tariff for every consumer.

5. Commission's Analysis for category wise Tariff Design

While designing the Tariff, the Commission has tried to balance the interest of the consumers as well as financial interest of the utility. The Commission has also tried to adhere to the Commissions' Regulation on Tariff and provisions of Electricity, Act, National Tariff Policy and CERC guidelines. In general, the existing structures of the Tariff is maintained and adjusted according to the revenue gap in the year 2011-12 and the year 2012-13 as per the required level of cross subsidy. Some important changes in the Tariff Order have been done so that the power sector in the Meghalaya is benefited and consumers get quality supply at reasonable rates. These changes are:

a) Introduction of Kvah Tariff in HT & EHT -Industrial/Water Supply consumers:

MeECL in its Petition has proposed to introduce Kvah billing for HT & EHT consumers, the reasons for the proposal was given as below:

- "The alternating current (AC) power consists of two components – Reactive and Active – and it is only the active component that is useful energy. It is, therefore, important that reactive component is minimized as it contributed to the I^2R loss in the system. This requires that the Power Factor (ratio of active to total power) be kept as close to unity as possible.
- Although, the system configuration (i.e. the transmission and distribution system) also influences the power factor, the key determinant is the Load characteristic at the consumer end. Loads such as induction motors and lighting sources using arc tube technology (such as CFLs) which have inherently low power factors. As a result, if 1 MVA of energy is supplied to these loads, they actually use only 0.7 – 0.8 MW and the balance 20-30% represents loss. This not only affects the economics of the utility but in a power-scarcity situation it also deprives others from gainfully using the energy. In other words, if power factor is improved from an average of 0.8 to 0.88 it would imply that MeSEB would be able to supply 0.7 MU per MVA per annum of additional energy to the state without incurring any additional expenditure.
- Power factor may be improved significantly by adding optimum capacitance and is obviously implies that the consumers have to make investment. Although, the MeSEB has been persuading the consumers in this regard, the improvement is not significant as the tariff structure has insufficient incentive to justify the additional investment.
- Kvah Tariff would give an incentive to the consumer to lower their energy bills for a given consumption by improving the power factor through capacitive correction. The concept is also intended to bring about significant improvement in voltage profile and quality and reliability on grid supply. The main advantage will be low reactive power in the system leading to reduced system technical loss.
- The MeECL had received an application from one such HT consumer, i.e., Pioneer Carbide, requesting for incentives for improvement of power factor.
- Proposal for Kvah billing for HT and EHT consumers would be hugely beneficial to both the MeECL and the consumers. KVAH billing for EHT & HT supply has already been introduced in Delhi, Himachal Pradesh, Jammu & Kashmir, AP and Uttarakhand."

The Commission has examined the proposal of MeECL to introduce Kvah tariff so as to reduce the reactive power drawl from the system which is undesirable for better system management. The efficiency of system is improved and losses are reduced if near to unity power factor is achieved. The detailed reasons are available in its ARR filing for 2011-12 and 2012-13. The Proposal was also put on the MeECL and Commission's website on 26/9/2011 and public opinion was invited through news papers. Thus the proposal was in public domain for quite some time and is nothing new. The Commission has also explained about the introduction of Kvah billing in both the public hearings. It is also illustrative to point out that many States have already switched over from kWh based billing to kVAh based billing. The kVAh based billing drives the consumer to reach near to unity power factor. As a result the PF will reach to near unity. This would result in less consumer demand and less demand charges for the consumer. This in turn will lead to reduced demand on the system, reduction in I2R losses, improves the system voltages, increases the available transmission capacity and enhances the margin to voltage collapse. It is a win-win situation for Distribution Company, Transmission Company and Consumers. The present meters are capable of recording kVAh readings and there are no operational issues. The Commission hereby, approves the proposal for kVAh based billing instead of kWh based billing. The kVAh billing shall be applicable in the first phase to all HT/EHT Industrial & Water Supply Consumers for which kVah meters have been provided for. No power factor penalty shall be levied when the energy billing is done based on kVAh. The Commission has accordingly made suitable changes in the present tariff schedule keeping in view the requirement of the System. **The *Commission therefore, directs the MeECL to introduce Kvah billing in HT & EHT industrial and Water Supply consumers in first phase and ensure that all such consumers have Kvah meters before introduction of Kvah bills. They are also directed to collate the information regarding power factors of these consumers after introduction of Kvah billing and place these records for at least 12 months in the next Tariff filing for Commission's consideration for appropriate action in next Tariff Order.***

(b) **Introduction of rebate in bills for all consumers using Solar Water Heater:**

Electricity Act, 2003 under Section 86, provides that the Commission shall promote generation of electricity from renewable sources of energy by providing suitable measures. Accordingly, this year the Commission, in order to promote use of Solar Water Heater, is providing rebate in monthly bills of consumers, If such consumer installs and uses solar water heating system. The rebate shall be of Rs. 50/- p.m. for each 100 litre capacity of the system or actual bill for that month whichever is lower shall be given subject to the condition that consumer gives an affidavit to the licensee to the effect that he has installed and using such system, which the licensee shall be free to verify from time to time. If any such claim is found to be false, in addition to punitive legal action that may be taken against such consumer, the licensee will recover the total rebate allowed to the consumer with 100% penalty and debar him from availing such rebate for the next 12 months. ***The Commission directs MeECL to furnish information regarding consumers who are availing Solar Water Heater rebate in the electricity bills within 3 months of issue of this Order. MeECL is also advised to approach MNRE for release of grant of Rs. 10 Lakh provided to utilities vide their order no.3/1/2007-UICAV Dated 21.4.2010 for offering such rebate to consumer in their electricity bills.***

Low Tension (LT) Supply

Domestic (Low Tension)

(i) Kutir Jyoti/BPL

Kutir Jytoi connections have been covered under Domestic category and there are 2 sub categories within Kutir Jyoti. These are unmetered Kutir Jyoti connection and metered Kutir Jyoti connection.

(a) Unmetered Kutir Jyoti

The existing Tariff for this category of consumers is Rs.65 per connection per month. The MeECL has proposed a rate of Rs.75 per connection per month for this category. The Commission has approved this rate as this is at par with the increase as approved for other categories.

Category	Existing Tariff (Rs/connection/ month)	Proposed Tariff by MeECL for 2011-12 (Rs/connection/ month)	Proposed Tariff by MeECL for 2012-13 (Rs/connection/ month)	Approved Tariff by MSERC (Rs/connection/ month)
Kutir Jyoti (KJ-U)/ BPL U	65	75	75	75

The MeECL has also submitted that no new connections are being given without a meter and hence this Tariff is applicable for existing consumer under Kutir Jyoti unmetered category until they are metered. The Commission accepted their proposal.

(b) Metered Kutir Jyoti

The MeECL has proposed that the Tariff shall be as per consumption at the rate Rs.2.25 per unit for monthly consumption within 0-30 units. They have also proposed that if the monthly consumption in any month exceed the limits of 30 units then their excess consumption over and above 30 units shall be done on the Tariff prescribes for normal domestic consumers. The Commission has allowed Rs.1.80 per unit for BPL metered category up to a consumption of 30 units. In case, they consumes more than 30 Units then the billing of excess unit shall be done on the Tariff prescribed for normal domestic consumers for appropriate slab rates.

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)
Kutir Jyoti (KJ-M)/ BPL M	1.70	2.25	2.60	1.80

Domestic Consumers

The existing Tariff has a structure of 2 part Tariff. The fixed charges is levied on the basis of KW load per month and energy charges are applicable for 3 slabs with different rates for each slab. The Commission has not made any changes in the structure and approved the same. However, the Commission has approved different rate for each slab and fixed charges per KW which are given below in the Tariff.

Fixed Charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Domestic (DLT)	25	35	35	30

Energy Charges

Category	Slabs	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)
Domestic (DLT)	First 100 units	2.25	3.15	3.50	2.45
	Next 100 units	2.50	3.50	3.85	2.75
	Above 200 units	3.00	4.25	4.60	3.50

(ii) MeECL Employees

MeECL has proposed to levy energy charges for all unit consumed by employees of MeECL at Rs.3.75 paisa per unit as against their existing rate of Rs.2.73 per unit. However, rates of MeECL employees has been increased in the same manner as was done for other Domestic Consumers.

Energy charges

Category	Existing Tariff (Rs/KWH) for all units consumed	Proposed Tariff by MeECL for 2011-12 (Rs/KWH) for all units consumed	Proposed Tariff by MeECL for 2012-13 (Rs/KWH) for all units consumed	Approved Tariff by MSERC (Rs/KWH) for all units consumed
Employees of MeECL (EMPL)	2.73	3.75	4.10	3.15

Non-Domestic (Low Tension)

The Commission has examined the proposal and while deciding the Tariff of the Non Domestic Category the Commission feels that a single charge for all unit consumed shall affect those consumers who consumes very less units of electricity but paying a high Tariff. The Commission has studied that in the past MeECL was charging slab rates for Non Domestic consumers like Domestic consumers but in the last Tariff Order single rate was approved. In order to encourage low consumption/conservation of electricity the Commission is reintroducing 2 slab rates in Non Domestic category.

Fixed charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Non Domestic (CLT)	50	75	75	60

Energy charges

Category	Existing Tariff (Rs/KWH) for all units	Proposed Tariff by MeECL (Rs/KWH) for all units for 2011-12	Proposed Tariff by MeECL (Rs/KWH) for all units for 2012-13	Slabs	Approved Tariff by MSERC (Rs/KWH)
Non Domestic (CLT)	3.87	5.20	5.55	First 100 Units	4.25
				Above 100 Units	4.50

Industrial Low Tension

This category is applicable for small and medium industrial consumer who are given supply low tension wires. The Commission has approved the following two parts without changing the structure of the current tariff.

Fixed charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Industrial (ILT)	50	75	75	60

Energy charges

Category	Existing Tariff (Rs/KWH) for all units consumed	Proposed Tariff by MeECL for 2011-12 (Rs/KWH) for all units consumed	Proposed Tariff by MeECL for 2012-13 (Rs/KWH) for all units consumed	Approved Tariff by MSERC (Rs/KWH) for all units consumed
Industrial (ILT)	3.36	4.66	5.01	3.80

Public Service Low Tension

(a) Public Lighting

This category comes under Public Service connections given supply through LT lines. The public lamps are generally unmetered and their Tariff is based on the fixed charges per KW per month. However, since no connection under the Act can be given without meters , the Licensee is required to install meters on all new connections and progressively shall place meters on the existing connections. The Commission has allowed lower increase in the connection having meters. The approved Tariff for metered connections and unmetered connections are given below:

Metered connections

Fixed charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Public Lighting (PL)	50	75	75	60

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)
Public Lighting (PL)	4.33	5.80	6.15	4.50

Unmetered connections

Type of lamp	Existing Tariff (Rs/Lamp/Point/ Month)	Approved Tariff by MSERC (Rs/Lamp/Point/Month)
Incandescent lamps		
• 40 Watts	72.10	80.00
• 60 Watts	112.00	125.00
• 100 Watts	178.00	200.00
Florescent lamps		
• Up to 40 Watts	112.00	125.00
Mercury vapour lamp		
• 80 Watts	151.50	170.00
• 125 Watts	232.00	260.00
• 250 Watts	478.50	540.00
• 500 Watts	897.50	1010.00
Sodium vapour lamp		
• Up to 140 Watts	345.00	390.00
• 250 Watts	545.00	610.00

(b) Public Water Supply /Sewage Treatment Plants

This category is related to Public Water Supply and Sewage Treatment plants and comes under public consumption. The following rates are approved for water supply and sewage treatment plants.

Fixed charges

Category	Existing Tariff (Rs/KW/ Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Mont h)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Public Water Supply (WSLT)/Sewage Treatment Plants	50	75	75	60

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)
Public Water Supply (WSLT)/Sewage Treatment Plants	3.99	5.30	5.65	4.50

(c) General Purpose

This Tariff is made for Government connections which are not covered under any other category of Public connections. The approved Tariff for this category is as follows:

Fixed charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
General purpose (GP)	50	75	75	60

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for	Proposed Tariff by	Approved Tariff by

		2011-12 (Rs/KWH)	MeECL for 2012-13 (Rs/KWH)	MSERC (Rs/KWH)
General Purpose (GP)	3.97	5.25	5.60	4.50

Agriculture

Fixed charges

Category	Existing Tariff (Rs/KW/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KW/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KW/Month)	Approved Tariff by MSERC (Rs/KW/Month)
Agriculture (AP)	30	45	45	35

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)
Agriculture (AP)	1.30	1.75	2.10	1.50

Crematorium

This categories meant for crematorium using electricity for their day to day operation. As per the proposal there is only one consumer in this category. In the last Tariff Order the Commission has considered the nature and purpose of this crematorium which is meant for service to the society and operating on no profit no loss basis. The commission has held that on the basis of their nature of job their rates are considered equivalent to domestic consumers. The similar treatment has been given this year to this category.

Fixed charges

Category	Existing Tariff (Rs/Connection/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/Connection/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/Connection/Month)	Approved Tariff by MSERC (Rs/Connection/Month)
Crematorium (CRM)	4200	5000	5000	4800

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KWH)	Proposed Tariff by MeECL for 2012-13 (Rs/KWH)	Approved Tariff by MSERC (Rs/KWH)

Crematorium (CRM)	2.50	3.50	3.85	2.75

High Tension Supply

As per the supply code this category is meant for those consumers who gets supply from HT wires. The billing of this type of consumers is being done on the basis of provision of supply code. The proposal of the licensee for 2011-12 has made a request to the Commission that MeECL wants to introduce KVAH billing for HT consumers instead of the present system of billing on the basis of KWH. KVAH billing has been popular in several states resulting in improvement in the power factor of the system. The Commission has No Objection to it provided that the licensee starts billing of HT/EHT Industrial/Water works consumers on the basis of meter reading instrument used and billing is done without any human intervention. The Commission directs the licensee to furnish KVAH data for such consumers before and after introduction of this billing. This will give the results out of this new system of billing.

The Commission also intends to introduce time of day Tariff (TOD) for HT consumers so as to flatten the demand curve during peak hours. The National Electricity Policy and National Tariff Policy have also mandated the Commission to introduce time of day Tariff in large consumers. Since proposals of the licensee do not contain time of day tariff for any category and no public consultation has been made so far on the subject, the Commission has decided to defer this tariff up to the next filing. In the meantime licensee is directed to prepare time of day provisions in their existing meters for consumers of HT industrial load and furnish data of the same to the Commission for implementation of time of day tariff from the date of issue of next tariff order. The Commission also directs the licensee to make a proposal to the Commission with regard to peak hours and off peak hours during winter and summer so that the new tariff shall be worked out.

The Commission has tried to recover cost of service within the frame work of regulations, existing level of cross subsidy and system's requirement.

Domestic High Tension

This tariff is applicable to domestic consumer having supply from HT system of the licensee. Their tariff is approved as follows.

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
Domestic HT (DHT)	100	200	200	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL for 2012-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/KWH)
Domestic HT (DHT)	3.70	5.00	5.95	4.15

Non Domestic High Tension

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
Non Domestic HT (CHT)	100	200	200	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL for 2013-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/KWH)
Non Domestic HT (CHT)	3.39	4.30	5.05	4.00

Industrial High Tension

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
Industrial High Tension (IHT)	100	250	250	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL doe 2012-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/KVAH)
Industrial High Tension (IHT)	3.83	5.41		4.24

General Purpose Bulk Supply (BS)

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
General Purpose Bulk Suply (BS)	100	200	200	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL for 2012-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/KWH)

General Purpose Bulk Suply (BS)	3.71	4.90	5.35	4.18

Public Water Supply/Sewage Treatment Plant

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
Public Water Supply (WSHT)	100	200	200	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL for 2012-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/Kvah)
Public Water Supply (WSHT)	3.99	5.40	5.80	4.28

Extra High Tension Supply

Industrial Extra High Tension

Fixed charges

Category	Existing Tariff (Rs/KVA/Month)	Proposed Tariff by MeECL for 2011-12 (Rs/KVA/Month)	Proposed Tariff by MeECL for 2012-13 (Rs/KVA/Month)	Approved Tariff by MSERC (Rs/KVA/Month)
Industrial (IEHT)	100	250	250	115

Energy Charges

Category	Existing Tariff (Rs/KWH)	Proposed Tariff by MeECL for 2011-12 (Rs/KVAH)	Proposed Tariff by MeECL for 2012-13 (Rs/KVAH)	Approved Tariff by MSERC (Rs/KVAH)
Industrial (IEHT)	3.61	5.21	5.80	4.10

Temporary supply (HT & LT)

MeECL has proposed to continue their existing arrangement where the fixed and energy charges shall continue to be double the standard applicable rates for all categories. The Commission has No Objection to it provided that this supply is made for temporary consumption as per the provision of supply code and their amendments if any.

Revenue in 2011-12 & 2012-13 from Revised Tariff and Current Tariff (Rs. Lakh)

	2011-12				2012-13	
Consumer category	10 Months		2 Months		12 Months	
LT	**Sales (MU)**	**Revenue (LAKH)**	**Sales (MU)**	**Revenue (LAKH)**	**Sales (MU)**	**Revenue (LAKH)**
Domestic	218.04	6087.24	43.61	1373.65	278.57	8774.85
Agriculture	0.64	9.29	0.13	2.24	0.52	9.08
Kutir Jyoti	6.78	219.86	1.36	41.92	9.89	306.00
Crematorium	0.64	5.00	0.13	3.84	0.22	6.59
Employees	31.47	859.04	6.29	198.24	38.26	1205.19
Non Domestic	42.78	1898.82	8.56	429.13	56.40	2828.57
Industry	5.88	250.06	1.18	56.40	7.56	362.86
Water Supply	5.75	255.70	1.15	57.94	7.13	359.20
Public Lighting	1.33	59.09	0.27	12.32	1.63	75.31
General Purpose	12.39	553.83	2.48	125.12	16.29	822.40
HT						
Industry	258.50	10987.30	51.70	2498.64	*463.36	22394.15
Water Supply	29.32	1225.31	5.86	274.04	*45.50	2126.59
Bulk Supply inc Domestic	70.78		14.16	614.53	87.19	3785.30
Assam	13.70	3569.11	2.74	186.26	18.25	1240.62
Non Domestic	15.95	674.70	3.19	154.31	23.37	1130.51
EHT						
Industry	261.77	10244.78	52.35	2385.16	*456.95	20818.10
bi-lateral	16.67	500.00	3.33	133.33	50.00	2000.00
Grand Total	992.38	37399.13	198.48	8547.08	1561.09	68245.32
Efficiency Improvement	49.89	2145.27			32.02	1376.86
TOTAL REVENUE	1042.27	39544.40	198.48	8547.08		69622.18
GRAND TOTAL IN 24 MONTHS			48091.48			117713.66

*Revenue is projected as per kvah tariff.

Treatment of Revenue Gap

After Tariff adjustments, MeECL shall get Rs 480.91 crores in 2011-12 and Rs. 696.22 crores in 2012-13 amounting to Rs. 1177.1 Cr in both the year which shall be used to meet the total revenue requirement of Rs. 1176.5 by MeECL. By this tariff revision, ARR requirement of MeECL for Year 2011-12 and 2012-13 is fully met. However, the Commission shall consider the actual revenue at the time of truing up after the accounts of these years are audited and compensate the utility and consumer respectively.

Cross subsidy

National Tariff Policy prescribes the following:

"5.5.1 There is an urgent need for ensuring recovery of cost of service from consumers to make the power sector sustainable.

5.5.2 A minimum level of support may be required to make the electricity affordable for consumers of very poor category. Consumers below poverty line who consume below a specified level, say 30 units per month, may receive special support in terms of tariff which are cross-subsidized. Tariffs for such designated group of consumers will be at least 50 % of the average (overall) cost of supply. This provision will be further re-examined after five years.

5.5.3 Over the last few decades cross-subsidies have increased to unsustainable levels. Cross-subsidies hide inefficiencies and losses in operations. There is urgent need to correct this imbalance without giving tariff shock to consumers. The existing cross-subsidies for other categories of consumers would need to be reduced progressively and gradually."

MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011 provides that the cross subsidy for the consumer means the difference between the average realisation per unit from that category and the combined average cost of supply per unit. The Commission shall determine the tariff to progressively reflect the cost of supply of electricity and also reduce cross subsidies within a reasonable period. It has also mentioned in the Regulation that in the first phase the Commission shall determine Tariff so that it progressively reflects **combined average unit cost of supply** in accordance with the National Tariff Policy. The Commission has tried to adhere with the Regulations of the Commission while determining the Tariff.

In the year 2011-12, the average cost of service after efficiency improvement is around Rs.4.15/- per unit and for the year 2012-13, it is around Rs.4.15/- per unit. By revising the tariff by about 13% from the current one effective from 1.2.2012 and up to 31.3.2013, the licensee shall have a gap of about Rs. 34.22 Cr. in 2011-12. After adding this gap to the ARR of 2012-13 the **average combined cost** shall come to Rs. 4.37 Paise per unit. Therefore, the Commission has worked out the level of cross subsidy by looking at the difference of approved Tariff and the combined average cost for 2012-13. The Commission has compared the current cross subsidy level as given in the tariff order of 2010-11 with the approved tariff for 2011-12 and 2012-13. The Tables given below shows the change of level of cross subsidies from the previous year for LT, HT and EHT category as a whole and for consumer's category individually.

Sl. No	Category	Existing cross subsidy as per Tariff Order for 2010-11 (%)	Approved Cross subsidy as per Tariff Order for 2012-13 (%)
1	LT Domestic Category for Domestic Consumption, Agriculture Consumption, Kutir Jyoti & Crematorium	-30%	-28.0%
2	LT Non Domestic for non domestic purposes including consumption by Industry, commercial, general purpose, water supply & street lighting	16%	14%
3	HT category	11%	10%
4	EHT category	6%	4.0%

Sl.No	Category	Existing cross subsidy as per Tariff Order for 2010-11 (%)	Approved Cross subsidy as per Tariff Order for 2012-13 (%)
1	Domestic	-28%	-27.9%
2	Commercial	16%	14.6%
3	Industrial	16%	9.8%
4	Agriculture	-62%	-60.2%
5	Public Lighting	16%	5.7%
6	Water Works	16%	15.1%
7	General Purpose	16%	15.6%
8	Kutir Jyoti	-94%	-30.7%
9	HT Domestic	11%	8.5%
10	HT Commercial	11%	10.5%
11	HT Industrial	11%	10.5%
12	EHT industry	6%	4.1%

The Commission has tried to follow National tariff policy and Commission's regulation while determining the tariff for 2011-12 (Two months) and 2012-13. The Commission has not projected the cross subsidy for 2011-12 as the revised tariff for the said year is applied for two months only. In this process the level of cross subsidy is partially shifted in the tariff for 2012-13. The cross subsidy level, has improved from the last tariff's figures. Domestic/Agriculture categories are beyond +/- 20% at present for which the Commission shall take appropriate correction in accordance with National tariff policy in ensuing years.

PART VIII
COMMISSION DIRECTIVES

In accordance with the provisions of MSERC (GRANT OF LICENSES FOR DISTRIBUTION OF ELECTRICITY) REGULATIONS 2011, every Licensee has to implement the orders or directions issued by the Commission from time to time in respect of the conditions under the license. In exercising the powers given under the regulations, the Commission in order to protect the interest of the Consumers as well as the State Power Sector would like to issue following directives to MeECL to be completed in the time frame as stipulated therein.

(i) Reduction in AT & C losses

While determining the Tariff, the Commission has analysed that during last 4 years there is no sign of improvement in the T & D Losses in the State. In the year 2007-08, it is started with 34% loss and in the year 2010-11 (as per provisional accounts) it has reached to 32.53%.

The performance of MeECL has not been satisfactory as the T & D Losses continues to be high. It is observed that it has become unjustified to continue to enhance the revenue requirement by increasing the Tariff rate every now and then when the utility refuses to perform. MeECL is handling about 1000 MU per year and a mere loss of 1% amounts to Rs.4 crores. The CEA and for that matter the MOP/Govt. of India has circulated through the R-APDRP that the standard accepted loss level in the country should be 15%. At present the AT & C losses of MeECL is over and above 30%. As per regulation 90A, it is mandatory on the licensee to reduce this loss by 3% if the AT & C Loss level is at or above 30%

The Commission in the Tariff Order of 2011-12 & 2012-13 has provided an efficiency improvement in the form of reduction of Commercial loss by 3% in 2011-12 and 1.5% in 2012-13. This will thus enable the licensee to get additional revenue of about Rs. 35 crores in both the year. This issue has been discussed detailed in Section 5 of this Tariff Order.

Accordingly, the Commission directs the MeECL to do the following:

(a) To submit to the Commission concrete action plan to be undertaken by it in reducing the T & D Loss and the AT & C Loss. The action plan should cover time bound targets in reducing the commercial loses by 3% over and above the normal sale. This can be done by using measures of change of defective meters, improvement in billing and collection and measures to check pilferages or thefts, conducting vigilances and inspection, changing from Electric mechanical meter to Electronic meters etc. This action plan should cover the targets fixed for each and every division or circle of MeECL for collecting additional about Rs.2.5 crores per month over and above the normal sales target.

This action plan should reach to the Commission by 15.02.2012.

(b) To submit an action plan for improvement in metering and billing for 2012-13. In order to improve cases were meters are not read, replacement of defective meters, change of electro mechanical meters in accordance with CEA regulations on revenue yielding consumers in the first phase. This action plan should be made division or circle wise and should have given to the field officers for setting their targets. This action plan should reach to the Commission by 22.02.2012.

(c) MeECL to present a proposal to the Commission for improvement in their existing collection centres in Shillong to have facility of web based payment, payment through banks and development of a computerised data base so that consumer can deposit his bill at any collection centre. This plan should be submitted to the Commission by 28.02.2012.

(d) In the meantime, the MeECL is required to maintain in its collection centres the sufficient numbers of counters on the basis of number of consumers visiting to that centre. MeECL shall open separate counters for Cheques and Cash in every collection centres in the State. Preference should be given to women and senior citizens by opening a separate window for them. MeECL should also ensure that there should be a facility for consumers to wait for their turn in the cover shed and there should be a facility of drinking water, etc. This work should be completed by 31.3.2012.

(e) It has brought to the notice of the Commission that house hold consumers are not getting their bills on time and therefore they are charged with penal charges. The Commission would like to clarify that Supply code has the provision that the ***bills shall be sent to the consumer, giving him not less than fifteen days' time before the due date, for making the payment***. Accordingly the Commission directs MeECL to follow this provision and ensure that bills are delivered in time so that consumers get sufficient time to deposit their bills. The Commission further directs MeECL to verify present billing system and ensure that there should be a gap of “15 days + delivery time” between the bill date(on which date bill is printed) and due date (after which penal charges are imposed). Report of compliance to be received by 1.2.2012.

(f) The MeECL shall start energy audit in each distribution sub station of 33 KV by recording meter reading at all incoming and outgoing feeders. The Licensee has to ensure that each meter shall be read at the end of the month and it should be reconciled with the billing data book so as to find out the losses on each feeder. It is suggested that every meter reader/junior engineer should be made responsible for energy accounting and there should be a system of targets setting for each sub-station for reduction of T&D Losses. To begin with the Commission is directing MeECL to complete the feeder metering in all 33 kv s/s in Shillong and introduce the energy accounting in at least 2 major revenue areas in Shillong within 3 months time. The action plan for this work should be submitted to the Commission by 22.02.2012 and the report of energy accounting should be sent to the Commission by 1st June, 2012.

(g) Similarly, the Licensee require to take 7 Distribution transformers in the State in each circle and put meters on each DT and starts taking reading of that meter and reconcile the same with the energy bill to all consumers connected with that DT. This work has to be done within 3 months time and reports of the same must be submitted to the Commission by 1st June, 2012.

(ii) Energy Availability.

In order to supply electricity to all, MeECL is duty bound to make arrangement for sufficient power in the State. It is therefore directed the MeECL should prepare a Blue Print for next 3 years starting from 2012-13 to 2014-15 wherein it will determine the demand in the State on the basis of pending connections within the State and State Policy and match this demand with the availability of energy in the State in next 3 years from every source. MeECL is also advised to follow Central Government Guidelines and make arrangement for long term power purchase through bidding. In this plan all new generating stations coming in the State shall also be considered for availability. This plan should be given to the Commission by 31st March, 2012.

(iii) Investment Plan.

As per the investment Plan submitted by MeECL the following projects are being proposed to be taken up to ease the frequent interruption in the State.

Sl.	Name of Project	Name of Scheme	Approved cost (Rs. in crore)	Status
1	132 kV sub-station line on D/C Towers from Nangallibra (Meghalaya) to Agia (Assam) line length 92.15 km.	NEC	43.32	LOA placed on 20.12.2007 1. Survey work= 92.15 km 2. Check Survey =92.15 km 3. Stub setting works = 315/316 lac 4. Erection of Towers =315/316 lac 5. Stringing of Conductor =59.12k/92.15 km 6. Stringing of OPGW = 51 km/92.15 km
2	132 kV D/C LILO of Agia-Nangallibra at Mendipathar	NEC	4.9965	LOA placed on 11.02.2011
3	2x20 MVA, 132/33 kv s/s at Mendipathar	NEC	4.71	(i). Land leveling work in progress (ii)Finalization of Tender for boundary wall (iii). Tendering for column foundation and switch yard structure. (iv). Design of Earth mat in progress.
4	Augmentation of 132 kv sub station at Rongkhon (Tura) from 35 MVA to 50 MVA	NEC	4.6907	Process of procurement is going on

Similarly for rural electrification under RGGVY and new BPL connections MeECL has informed the Commission that their target for completing the work shall be March 2012.

The Commission advises the MeECL to take required action in complete the project in time to avoid any cost and time over run in order to make better facilities for supply to consumer of the State. The Commission therefore directs the Licensee to send monthly progress reports to the Commission on the above work by 01.04.2012 onwards.

(iv) Financial planning

The Commission has analysed that the interest cost burden of MeECL is very high and it is mostly taken from the commercial banks. The Commission also like to advise MeECL to separate the accounting system for working capital and capital financing in accordance with Commission's Regulation. The Commission therefore advices the Licensee to consider this issue as the important one and try to swap expensive loans as long as it results in net benefit to MeECL. MeECL shall provide details of loans outstanding, loans created because of non-payment of dues to the financial institutions, rates and action plan for swapping for loans containing high interest. This document shall be submitted by the Licensee to the Commission by 28.02.2012.

(v) Other Directives

(a) The Commission has approved Kvah meters/billing in HT & EHT industrial and Water works consumers in 2011-12 and 2012-13. Accordingly, the Commission would like to direct the MeECL to introduce Kvah billing to such consumers and ensure that all such consumers have Kvah meters before introduction of Kvah bills. They are also directed to collate the information regarding power factors of these consumers for at least 12 months after introduction of Kvah billing and place these records in the next Tariff filing.

(b) The Commission directs MeECL to furnish 1 year data of power factor for other HT consumers to the Commission for consideration.

(c) MeECL is also directed to work out their supply schedule in such a manner that Industrial consumers, may get at least one shift electricity without interruption as per their demand.

(d) The Commission in order to initiate the time of day billing in high yield consumers in industry and commercial categories, directs the Licensee to furnish the peak demand of the system in different hours in a day, in a season etc. and facility of time of day Tariff in the consumer's meters. The data of peak demand and consumption with respect to system frequency for the period 1st April 2012 to 31st December 2012 shall be made available to the Commission. The Commission would like to take appropriate action in the next Tariff Order.

Conclusion

The Commission while determining the Tariff has taken due care to examine the data of the Licensee and has tried to make a balance between the interests of each stakeholder including consumer in the power sector of Meghalaya. Having considered the submissions made by the Petitioner, the responses of various stakeholders and the relevant provisions of the Electricity Act, 2003 and Regulations of the Commission, the Commission hereby approves that:

1. ***MeECL shall be entitled to charge the tariffs from consumers in its licensed area of supply as approved in this order.***

2. ***The revised Tariff shall come in to effect from the 1st day of February, 2012 and shall remain effective till 31st day of March, 2013, or the date of the Commission's Order for fixing Tariff for the Financial Year 2013-14.***

3. ***The Petitioner shall forward a report on compliance of the directions given in this Order within the time stipulated for compliance.***

Finally, the Commission would like to appreciate the response from the MeECL for submitting all relevant information to the Commission as and when required. The Commission also appreciates the response of each and every officer of MeECL who have interacted with the Commission in bringing out this order. The Commission also thank all officers including staff of the Commission for completing this exercise in time.

(Anand Kumar)
Chairman
MSERC, SHILLONG.

ANNEXURE-1

LIST OF PARTICIPANTS IN THE PUBLIC HEARING ON ARR FOR 2011-12 HELD ON 25-11-2011 AT MUDA CONFERENCE HALL

1. M.S.E.R.C.

Shri. Anand Kumar, Chairman.
Shri. J B Poon, Secretary.

2. Representing the Petitioner (MeECL).

1. Shri. P Lyngdoh, CE (D).
2. Shri. Elias Lyngdoh, CPM.
3. Shri. W R Basaiawmoit, C.A.O.
4. Shri. C Kharkrang, ACE.
5. Shri. M.S.S Rawat Dy. C.A.O.
6. Shri. S Nongrum, Sr. A.O.
7. Shri. B C. Lyngdoh, S.E.(D)
8. Shri. A Kharpran, S.E, SLDC.
9. Shri. K N War, S.E. SLDC.
10. Smti P Kharpuri, E.E.

3. Representing Byrnihat Industries Association.

1. Smti. Swapna Seshadri, Advocate.
2. Shri. S Agarwal
3. Shri. R Bajaj
4. Shri. S S Agarwal
5. Shri. V Singhania
6. Shri A Ali Ahmed
7. Shri. R Lal
8. Shri. M Singh

4. Representing Greater Shillong Crematorium & Mortuary Society.

1. Shri. J Malakar.

5. Synjuk ki Rangbah Shnong, Shillong.

1. Shri. D Dkhar.
2. Shri. H.P Oflyn Dohling.
3. Shri J S Basan
4. Shri S B Nongdhar
5. Shri. D Synjri
6. Shri. J Mawrie

6. Meghalaya Pensioner Association.

1. Shri. E U S Lyttan
2. Shri. M Syngai
3. Shri. G W Syngai
4. Shri. B E Wallang
5. Shri. H S Sohlang
6. Smti. A Kharbuli
7. Shri. T Diengdoh

7. N.C.P. State Unit.

1. Shri. B Sangma
2. Shri. C M Nengnong
3. Shri. P Syiem

8. Public Health Engineering (PHE) Department.

1.Shri. S K Sunn, Addl. C.E.

ANNEXURE-2

RECORD NOTE OF THE 6TH MEETING OF THE STATE ADVISORY COMMITTEE HELD AT 11.30 AM ON 28TH NOVEMBER, 2011 AT THE MSERC CONFERENCE HALL AT SHILLONG.

Present:-

1) Shri Anand Kumar, Chairman, Meghalaya State Electricity Regulatory Commission, Shillong.
2) Shri. P W Ingty, Principal Secy, PHE etc., Govt. of Meghalaya.
3) Shri. F.K. Mawlot, Former MLA.
4) Shri. S.K. Lato, Jowai.
5) Shri. Ramesh Bawri, President, Confederation of Industries, Meghalaya.
6) Shri. Sanjeeb Tamuli, RM representing IEX.

Calling the 6th Meeting of the State Advisory Committee (SAC) to order, the Chairman welcomed the members present. He gave a brief presentation highlighting the purpose of the meeting and various legal provisions and responsibility of the Commission. He also briefed the members on the latest order of the Appellate Tribunal on Electricity (APTEL) issued on 11-11-2011 and its implications on timely completion of ARR & Tariff petitions for each financial year. He has also briefed the Hon'ble Members of the SAC about the submission of another tariff petition to be filed by the MeECL for FY 2012-13 by 30.11.2011. The Chairman explained them that in such case there would be frequent tariff revisions in a very short period which may be avoided if both petitions are clubbed together and a single order is issued for 2011-12 and 2012-13.

On the ARR & Tariff Petition for the year 2011-12, the Chairman called upon the Hon'ble Members to participate in the deliberations and invited their suggestions. Members of the SAC raised the following issues:

1. Shri Ramesh Bawri

Shri Ramesh Bawri brought about many pertinent issues relating to the petition and given them in writing too. The complete contents of his suggestions are reproduced below -

<u>GENERAL</u>

1. A **Single Tariff Petition** has been filed by MeECL as the holding Company, whereas separate petitions ought to have been filed by MePDCL, MePGCL and MePTCL as required under the Electricity Act, 2003 ('the Act'). This would have led to a much better understanding of the workings of MeECL. It is suggested that it be made clear that, at least in future, Single Tariff Petitions will not be entertained.

2. It is requested that when finalizing the Tariff, all **earlier orders** passed by this Hon'ble Commission as well as the road-maps and assurances made by the Petitioner be borne in mind.

3. It appears that some of the proposals made by MeECL are not in accordance with the **Regulations**. This leads to an unnecessary exercise of correction on the part of the Commission, besides the Advisory Board and the General Public who may not be aware of the intricacies of law. It is therefore suggested that MeECL be advised to submit their proposals in accordance with the Regulations in future.

4. It is requested that, if possible, another **Meeting** of the Advisory Committee be convened before finalization of the Tariff proposal.

GENERATION

5. At page 11, the projected self generation is 640.63 MU and if the inputs from the new projects i.e. Myntdu-Leshka and Micro Hydels are excluded, projected self-generation is only 490.85 MU. This is far below the generation of 665.38 MU achieved in the year 2007-08 and comprises only 74% of it. It is doubtful that Monsoons are the lone **cause for shortfall** in generation vis-à-vis the installed capacity. Among all States, with Annual Average Rainfall of 2818 mm, Meghalaya ranks in the top 3 states. Meteorological statistics show that the Annual rainfall in East Khasi Hills was almost the same during the years 2007 and 2010 but generation during 2010 was 507.90 MU against 665.38 MU in 2007.

6. As the projected Generation is far below the Installed Capacity, (490.85 MU against an installed capacity of 186.7 MW, excluding Myntdu Leshka and Micro Hydels) the Hon'ble Commission will no doubt keep the **Norms of Operation** specified in Regulation 60 in mind when passing its Tariff Order.

7. It may kindly be noticed from the Energy Balance Chart in Format D-2 that the **'Net Own Generation'** constitutes only 37.5% of the Total Energy and that too if the Myntdu Leshka Project and Micro Hydels are taken into account. 62.5% is Power Purchased from outside. Excluding these projects, the ratio is barely 28.75% : 71.25%. These figures underscore the paramount need for a 3-Part Tariff Proposal.

REVENUE

8. On my part, I have been unable to reconcile the difference in the **Energy Sales figures** (MU) between Pg. 24-25 / Pg 48-50 which show 1308.73 MU while the figures at Pg. 107-109 show 1222.56 MU, as per sheet enclosed. The Hon'ble Commission may kindly reconcile the same, as I may be mistaken in my observation.

9. The Proposed Distribution of available energy in MU's shown in format D-I is as follows:

	No. of Consumers	**2010-11 (MU)**	**2011-12 (MU)**	**% Increase**
LT	279820	364.96	400.95	9.8 %
HT	541	398.07	442.20	11.0 %
EHT	13	205.16	314.12	53.1 %
Others	3	136.35	65.29	(-) 52.1 %

Total	280377	1104.54	1222.56	

From this, there clearly does not appear to be an **equitable distribution of energy** as it inexplicably and discriminatorily favours one class of consumers who number just 13 to whom 53.1% extra power is proposed to be supplied at the cost of other classes which constitutes 99.99% of the total number of consumers and to whom power allotment has been increased only by around 10%. Domestic Consumers are therefore the ultimate sufferers. This is despite the fact that MeECL has stated at Page 10 that the projections are made on CAGR basis. The distribution pattern therefore needs to be corrected truly on CAGR basis, in the interest of the large majority of domestic consumers who are bearing the brunt of load shedding.

10. The Chart showing the Estimated Revenue at proposed Tariff (Anx VI) states that as energy cannot be supplied to the units to the extent of the contracted demand, the **fixed charge for Industrial HT & EHT** consumers has been calculated at 30% of the contract demand, in accordance with the Hon'ble Commission's Notification dated 16.2.11. At the same time, MeECL has categorically stated at Page 22 that "the actual percentage of average monthly supply to contract demand for June 2011 is enclosed at Anx E." Anx E on its part reveals nothing clearly but the average of the figures shown at Page 63 is 38.29%. Therefore, especially in the light of improved power availability, perhaps the revenue from fixed charges for Industrial HT & EHT consumers calculated at 40% of the contract demand would be more realistic.

EXPENDITURE

11. The cost per unit of **Purchased Power** has jumped from Rs 2.63 per unit in 2010-11 to Rs 3.80 in 2011-12, reflecting a 44.5% increase. As purchased power is the largest component of expenditure, the Hon'ble Commission will surely closely verify whether the rates adopted for each energy source are in accordance with their respective Tariffs as approved by the Hon'ble CERC or deemed to have been approved, keeping the 95% factor in mind in the latter cases.

12. The **Depreciation** Schedule at Page 99 (Format – 6) reveals an addition of a huge sum of Rs1032.76 crores in Capital Assets during the year in question. The periods for which depreciation on the various added assets has been claimed has not been shown but it is obvious that the additional assets were not put to user throughout the year. Regulation 57 requires that depreciation be calculated pro-rata, as per the period of operation of an asset. It further lays down that depreciation be worked out on the straight–line method. The rate of depreciation for Hydraulic Works, Plant and Machinery and Line and Cables has been calculated at 5.28%, which appears to be high considering the life-span of then power plants. The Hon'ble Commission may kindly look into these aspects.

13. Regulation 49 requires that the reasonableness of the quantum of **fresh capital investments** be checked by the Commission, as unjustified escalations in capital costs have a deep impact on the Interest burden and Depreciation amount which are major components of the ARR, not only of the current year but on a long-term recurring basis. Besides, unreasonable escalation leads to heavy financial outflow of capital, in itself. The Hon'ble Commission will undoubtedly look into these aspects. It may be noted that, in the current year, as per the Depreciation Schedule (Format – 6), new capital investment is to the tune of Rs 1032.76 crores.

14. In the absence of the accounts for earlier years, it is not possible to comment on the eligibility of Rs 28.28 crores as **Return on Equity**. It is however suggested that the Hon'ble Commission may kindly verify the eligible amount in accordance with Regulations 51 and 53, keeping the Debt-Equity Ratio norms also in mind.

15. The target AT&C loss is 29.47% against the target T&D loss of 28.38 % meaning thereby that the commercial loss is 1.09%, whereas the maximum allowable is 1.00%. Even at the proposed tariff rate the total revenue expected is Rs 687.08 crores (which will come down after the tariff is finalized). Commercial loss calculated @ 1% of the total revenue therefore cannot exceed Rs 6.87 crores whereas provision for **bad and doubtful debts** has been kept @ Rs10 crores. This is extremely high and is clearly avoidable with improved alertness and efficiency on the part of the Board and genuine consumers ought not to bear its brunt.

16. A provision of 9.33 crores has been made for **Income tax** in the ARR. This appears to be disallowable as taxable profits are determined only after deduction of Depreciation etc. Hence it is suggested that this amount be allowed only on actual i.e. upon proof of payment which will also be in accordance with Regulation 58.

17. Out of the total projected revenue of Rs 687.08 crores, since only 37.5 % is MeECL's own generation, Rs 257.62 crores is the revenue component from its own generation. The total number of employees is 3353 and the proposed annual salary bill is Rs184.96 crores. The salary bill would perhaps have been no less even if no power was purchased and sold. In this notional view of the matter, 71.8% of the revenue from self generated energy goes into salaries alone. It is feared that the employees' **productive parameters** as shown in Format 3 might not be within the nationally accepted norms. Particularly significant is the Employee cost of Rs1.51 per Unit of Total Energy sold, which works out to Rs4.03 per unit of total Self-Generated Energy sold. Even if there are compulsions preventing pruning down of expenses on account of salary beyond a point, such high costs surely at least call for a determined effort in improving productivity and efficiency, especially in energy generation output and bringing down T&D losses, including power theft and leakages.

18. The Regulations have been drafted and laid down very clearly and meticulously and, no doubt, the Hon'ble Commission will screen the claimed **Operation and Maintenance expenses** especially under the head 'Employee Costs' very closely and allow only such expenses as are permissible vide Regulation 55. Hence, specific comments are neither necessary nor offered.

19. It may perhaps also be noted that the projected **cost of Solar Energy** need not necessarily be allowed at the Forbearance Price, oblivious of the Floor Price. It is also not known whether tenders have been floated to ensure that Solar Energy is purchased at the lowest possible price.

<u>T & D</u>

20. T&D losses are estimated at 28.38% as against the target of 15.69% as per the road map under the 11th Plan. These T & D losses are resulting in an **exorbitant annual loss** and it needs to be borne in mind that even on purchased power there is a T & D loss of 28.38% which can clearly be avoided if the larger consumers are asked to draw power from the external suppliers directly. Such alarming T&D losses cannot be continued to be allowed, especially in view of the road-maps chalked out by the Petitioner itself and the orders passed by this Hon'ble Commission in the past. It also needs to be borne in mind that such T&D Losses cannot be attributed to Transmission and Distribution alone but, as admitted by the MeECL itself, are also a result of non-metering and Theft / Pilferage of energy, control of which is largely in the hands of MeECL itself.

21. Whereas the percentage of metered consumers has increased annually, the T & D losses have not shown a proportionate improvement which clearly shows that there are reasons other than non- metering such as **power theft, pilferage and meter tampering** leading to such heavy T & D losses, the control of which does not appear to have been suitably addressed by the Petitioner. Hence, in the present year, mere disallowance of 3 % over the T & D losses allowed for FY 2010-11 may not, be adequate in order to coax the Board to put its house in order.

TARIFF

22. Comparison with Tariffs of other States and the need for **social justice**, leaning towards the common man rather than empowered consumers, will show that, by and large, the LT tariffs are and should be lowest and EHT the highest. It must also be borne in mind that consumer-wise 99.8% of consumers fall in the LT category and even a small increase in tariff in this category impacts the entire population of the State. The principle of the larger good of the largest number therefore ought to come into play. Big consumers are in a position to lobby and even contest the tariffs whereas the common man is unable to do so and can only depend upon the Hon'ble Commission to take special notice of his plight. Even amongst the big users, the interests of the HT consumers ought to come before the EHT consumers.

23. Out of the 2.70 lac consumers of the Board, 91.7% are domestic consumers, drawing 53.70% of the connected load. In the matter of fixation of tariff, their situation and interests are paramount as **domestic consumers** represent almost the entire population of Meghalaya and the tariff affects their personal finances in a big way, particularly the overwhelmingly tribal population. In the present inflationary scenario, the public in general and particularly the salaried class are already finding it difficult to make both ends meet owing to rising prices. It is therefore suggested that the rates for the domestic sector be only marginally increased, if at all required. The resultant shortfall in revenue can easily be offset by the cuts in the ARR as suggested.

24. It is also suggested that the **unit slabs** for domestic consumers be revised and the existing Tariff of Rs2.35 per KWHR be applied to the first 200 units instead of 100 units. This will bring immense relief to the domestic users. The resultant shortfall can similarly be easily offset by the cuts in the ARR.

25. It is seen that while Fixed Charges are levied on Domestic and all other categories of consumers, no similar **Fixed Charges** are proposed for MeECL employees.

26. **Cold storages** are being vigorously encouraged by the Govt. of India and, as such, specific tariffs ought to be fixed for them in accordance with the advisory issued by the Govt. of India.

27. At page 34 MeECL has proposed to discontinue the current procedure for compensation charge for **low power factor** for LT supply. Surprisingly there is no mention of compensation by HT and EHT consumers whereas these are the categories to which the proposal is truly applicable and should be made applicable to. It is significant that even in the Tariff Petition for 2010-11 compensation charges for L.P.F were not applied to EHT consumers and it was later stated by the Licensee that it was a mistake on their part. The proposal for changing the existing system of Low Power Factor Compensation perhaps also needs technical review by the Hon'ble Commission whether it would truly benefit both MeECL and the consumers as stated.

28. The proposed tariff has been worked out on the basis of the **'Deviation % of Distribution Tariff from the Cost of Supply'** as per the road-map laid down by the Commission on 23.8.2010.

It is submitted that this road-map perhaps needs reconsideration for the following reasons:

a) Sec 61(g) of the Act only requires that the tariff progressively reflects the cost of supply of electricity and also reduces cross-subsidies in the manner specified by the Appropriate Commission. No time frame seems to have been laid down.

b) If the percentages are ultimately within the parameters of plus / minus 20%, that would be ample compliance of the National Tariff Policy and it is not immediately essential that deviation be totally done away with. In fact the whole purpose of allowing deviation is to give a free hand to the Commission to factor in the prevailing local conditions.

c) Large consumers, who are mostly industrial, are entitled to power subsidies while domestic and commercial users are not.

d) Not only is it that their capacity to bear the burden of an increased tariff higher but such burden can be passed on to consumers by industrial users, whereas the domestic user has to bear it from his own pocket.

As such, this year's Deviation % may kindly be re-considered. Perhaps the following deviations would balance the ground realities, the statutory obligations and justice to all:

LT Domestic	:	(-) 28%
EHT	:	(+) 6 %

Thereafter, the deviations for LT Non Domestic and HT could be worked out keeping the total Revenue in mind while keeping the deviations for both categories at par.

MISC

29. It is stated at Page 5 that the increase in the AT&C loss was because the members of a certain association were making only **part payment** of their electricity bills. Clarification perhaps needs to be sought on the reason for acceptance of such part payment i.e. whether there were any binding orders passed to this effect by this Hon'ble Commission / Judicial Authority or whether these were self-inflicted by MeECL.

30. The Tariff Proposal would have been easier to decipher if a detailed **Index** of the numerous Annexures numbered as pages 36 to 113 had also been enclosed with the Petition.

31. For the sake of the record, at Page 20 the Total Energy Sale was provisionally worked out at 2471.56 MU. The MSERC (Renewal Energy Purchase Obligation and Compliance) Regulation 2010 mandates a minimum purchase of 0.3% Solar Energy during 2011-12 and at this percentage solar energy usage works out to 7.41 MU and not 74.15 MU as claimed. Therefore, there appears to be a whopping **over-calculation of Rs 113.45 crores** in the cost of Solar Energy.

NOTE: The Regulations referred to are the MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011.

2. Shri Sanjeeb Tamuli

Shri Sanjeeb Tamuli raised the following issues:

I. T & D and AT&C Losses

Reduce T&D losses by proper feeder metering and by using TOD meters. He also suggested for improving the collection efficiency.

II. Load balancing & Load distribution

a) Industries should be advised to shift their load from peak period to base period by using Demand Side management

b) Industries should be allowed to buy power from outside sources like IEX in long term or short term basis through open access.

III. Utilisation of Renewable Energy Sources

As per the Tariff Petition MeECL is having SHP, namely:

1) Umiam Umtru Stage II HPS = 18.0 MW

2) Umtru Power Station = 11.2 MW

3) Micro Hydel = 1.5 MW

MeECL needs 5.49 Mu (3.66+1.83 Mu) to meet RPO of Non Solar sources. They are meeting the same by utilizing the micro hydel plant of 1.5 MW itself which gives 11.83 Mu. They also have as pointed out under Sl. 1 & 2 above 29.2 MW which can be brought under REC mechanism.
The energy generated by these plants can be consumed within the state and sell the REC at Exchange (IEX). This will allow extra revenue to the MeECL but for these the following criteria should be met:

a) They are to function as separate companies

b) State nodal agency is to implement the REC mechanism.

3. Shri F K Mawlot

Shri F K Mawlot stated that he fully supported the views expressed by the Hon'ble Members and had nothing more to add.

4. Shri. S.K Lato

Shri S.K.Lato stated that he also fully supported all the views expressed by Mr. Ramesh Bawri and requested the Commission to take these into consideration while deciding the Tariff(D) for the year 2011-12. He wanted that the performance of MeECL needs to be improved in terms of reducing commercial losses and also their efficiency to work.

5. Shri. P W Ingty

Shri P W Ingty insisted on reducing T&D losses and also to consider the issues raised by PHE Department while finalizing the Tariff as the department is not getting any revenue from water supply and is running as no profit no loss organization.

Summing-up the discussions, the Chairman placed on record his profound gratitude to the Hon'ble Members present, for their valuable suggestions and submissions and assured that these would be kept in view, while finalizing the Tariff(D) for the year 2011-12.

ANNEXURE-3

RECORD NOTE OF THE 7th MEETING OF THE STATE ADVISORY COMMITTEE

HELD AT 11.00 AM ON 12th JANUARY, 2012 AT THE MSERC CONFERENCE HALL AT SHILLONG.

Present:-

1) Shri Anand Kumar, Chairman, Meghalaya State Electricity Regulatory Commission, Shillong.

2) Shri. S.K. Lato, Jowai.

3) Shri. Ramesh Bawri, President, Confederation of Industries, Meghalaya.

4) Shri. Sanjeeb Tamuli, RM representing IEX

Calling the 7th Meeting of the State Advisory Committee to order, the Chairman welcomed Mr B K Dev Varma, Additional Chief Secretary i/c Power, Government of Meghalaya as a special guest. He apprised the members about the tariff order that will be issued soon and expected hike in the tariff. Chairman explained about the re-engineering of tariff to improve the system's power factor. Chairman called upon the Hon'ble Members to participate in the deliberations and invited their suggestions. Members of the SAC raised the following issues:

1. Shri. S.K Lato

Shri S.K.Lato wanted that the performance of MeECL to be improved in terms of reducing commercial losses and also their efficiency to work.

2. Shri Ramesh Bawri

Shri Ramesh Bawri stood by his earlier submission in the 6th Advisory Committee meeting and made few observations relating to the petition that are reproduced below -

i. A Single Tariff Petition has been filed by MeECL as the holding Company, whereas separate petitions ought to have been filed by MePDCL, MePGCL and MePTCL as required under the Electricity Act, 2003 ('the Act'). This would have led to a much better understanding of the workings of MeECL. It is suggested that it be made clear that, at least in future, Single Tariff Petitions will not be entertained.

ii. It is requested that when finalizing the Tariff, all earlier orders passed by this Hon'ble Commission as well as the road-maps for AT&C losses is adhered to and improvement shown. At page 69, there is a big jump in the power purchase as projected in ARR. Prior period charges should not come in the current tariff. Capitalization of MLHEP should be properly checked before finalization of the tariff.

iii. The periods for which depreciation on the various added assets has been claimed has not been shown but it is obvious that the additional assets were not put to user throughout the year. Regulation 57 requires that depreciation be calculated pro-rata, as per the period of operation of an asset. It further lays down that depreciation be worked out on the straight–line method. The rate of depreciation MLHEP may be crossed checked and Hon'ble Commission may kindly look into these aspects.

iv. Regulation 49 requires that the reasonableness of the quantum of fresh capital investments be checked by the Commission, as unjustified escalations in capital costs have a deep impact on the Interest burden and Depreciation amount which are major components of the ARR, not only of the current year but on a long-term recurring basis. Besides, unreasonable escalation leads to heavy financial outflow of capital, in itself. The Hon'ble Commission is requested to look into these aspects.

v. The salary bill would perhaps have been no less even if no power was purchased and sold. It is feared that the employees' productive parameters might not be within the nationally accepted norms.

3. Shri Sanjeeb Tamuli

Shri Sanjeeb Tamuli stood by his submission in the 6th SAC Meeting and further referred to opinion expressed by Ministry of Law & Justice on the operationalization of open Access in Power Sector.

Summing-up the discussions, Chairman requested Mr B K Dev Varma to make a closing remark in which Mr Dev Varma stated he has noted and heard from members in which some views will be taken by the department. Chairman then thanked Mr Dev Varma and all the members of the SAC for their valuable suggestions and submissions and assured that these would be kept in view, while finalizing the Tariff.

ANNEXURE-4

RECORD NOTE OF PUBLIC HEARING ON TARIFF (DISTRIBUTION) FOR THE YEAR 2011-12 HELD BY MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION AT 12:00 NOON ON 25TH NOVEMBER 2011 IN THE MUDA CONFERENCE HALL, RAITONG BUILDING, SHILLONG.

RECORD NOTE OF PUBLIC HEARING

01. Initiating the proceeding, the Chairman, MSERC welcomed all the participants who had come to attend the Public Hearing on the ARR & Tariff Determination filing of MeECL for the FY 2011-12. The Chairman has briefly explained the objectives given in the Electricity Act, 2003 and role of the State Commission. He also informed the participants about the purpose of the Public Hearing and chronology of events from the filing of the Petition, invitation of objections from the Public and objections received so far by the Commission. In order to appraise the participants, he has invited MeECL to make a short presentation on the Annual Revenue Requirement and Tariff Proposal for the FY 2011-12 filed by them. The officers of the MeECL has made a presentation in which they have explained each and every component of the expenditures and revenue of MeECL in the year 2011-12 and their Tariff Proposal to meet the gap therein. After the presentation, the Chairman requested the participants to present their view point and suggestion on the ARR.

    Following participants have presented their suggestions which are discussed below:

02. **Synjuk ki Rangbah Shnong's representatives** objected to the proposal of MeECL to raise Tariff for Domestic category by 60%. However, they have also shown their concerned that to meet the power purchase requirement and network cost of the MeECL it is necessary that their must be some raise in the revenue of the Company. They have shown their willingness to accept the Tariff rise up to 25%. They also requested the Commission to revise the tariff with prospective date and not with retrospective.

03. **Meghalaya Pensioner's Association** requested the Commission that since they have limited source of earning, their Tariff should not be increased to the level as proposed by the Distribution Company. They have also suggested that Tariff up to consumption of 300 Units in Domestic category should not be raised and keep it at the same level.

04. **The Byrnihat Industries Association represented by Smt. S. Seshadri, Advocate** objected on the proposed increase in the Industrial Tariff. They have also objected to the rates proposed by the MeECL in KVAH terms for Industrial consumers. However, they have principally accepted the introduction of KVAH based Tariff in order to incentivize the industrial consumers who have better power factor. She also insisted on production of up to date statement of accounts by MeECL. Smti. Sheshadri, on behalf of industrial consumers requested MeECL to either provide them uninterrupted power so that their clients' business run smoothly or permit them to arrange power on their own from outside through open access .

05. **Mr. B Sangma, representing N.C.P. State Unit** also raised the objections to increase the Tariff of Domestic category by about 60%. However, he has also agreed for a raise of 10% in the domestic tariff. Mr. Sangma, has also raised his objections on the delay of execution of project and cost over runs.

06. **Shri. S K Sunn, Addl. Chief Engineer P.H.E. Department** read out the detail representation submitted to the Commission and said that PHE is a no-profit no-loss organisation and hike in tariff should be reasonable and sustaining. He has also deliberated in detail wherein he has explained the year wise inconsistent and unreasonable tariff rise in the water supply category of consumer. He has made a request to the Commission to consider their case considerately and in particular the determination of Tariff for rural water supply.

07. **C.E.Os Shillong and Tura Municipality** did not attend the public hearing but did submit their written representation to the Commission.

08. **Prof . E. D. Thomas, Pro-Vice-Chancellor, NEHU, Tura Campus** could not attend the Public hearing but had submitted a written representation to the Commission.

09. **Greater Shillong Crematorium & Mortuary Society Shillong** did attend the public hearing and stand by their written submission demanding to abolish the fixed charges for Crematorium.

10. The Hearing ended with a vote of thanks from the Chairman MSERC.

ANNEXURE-5

RECORD NOTE OF PUBLIC HEARING ON TARIFF (DISTRIBUTION) FOR THE YEAR 2012-13 HELD BY MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION AT 12:00 NOON ON 10TH JANUARY 2012 IN THE MSERC CONFERENCE HALL, LOWER LACHUMIERE, SHILLONG.

RECORD NOTE OF PUBLIC HEARING

1. Chairman, MSERC welcomed all the participants who had come to attend the Public Hearing on the ARR & Tariff Determination filing of MeECL for the FY 2012-13. He also informed the participants about the purpose of the Public Hearing and chronology of events from the filing of the Petition, invitation of objections from the Public and objections received so far by the Commission. In order to appraise the participants, he has invited MeECL to make a short presentation on the Annual Revenue Requirement and Tariff Proposal for the FY 2012-13 filed by them. The MeECL made a presentation in which they explained each and every component of the expenditures and revenue of MeECL in the year 2012-13 and their Tariff Proposal to meet the gap therein. After the presentation, the Chairman requested the participants to present their view point and suggestion on the ARR.

   Following participants have presented their suggestions which are discussed below:

2. **Meghalaya Pensioner's Association** requested the Commission that since they have limited source of earning, their Tariff should not be increased to the level as proposed by the Distribution Company. They have also suggested that Tariff up to consumption of 300 Units in Domestic category should not be raised and keep it at the same level.

3. **The Byrnihat Industries Association represented by Smt. S. Venkataramani, Advocate** objected on the proposed increase in the Industrial Tariff. They also objected to the rates proposed by the MeECL in KVAH billing introduced for Industrial consumers. However, they have principally accepted the introduction of KVAH based Tariff in order to incentivize the industrial consumers who have better power factor. They also insisted on production of statutory, up to date statement of accounts by MeECL and further requested to provide uninterrupted and quality power supply to run their business smoothly or permit them to arrange power on their own from outside through open access .

4. **Mr. B K Panda, Director, MUDA** talked about JNUR Flagship programme of the Govt. of Meghalaya to provide better service to the public. He said with increase in tariff Local bodies have to pay more on electricity and water and requested for rationalization of tariff for Public utilities.

5. **Shri. YKB Singh,Executive Engineer P.H.E. Department** He represented PHED stand by the earlier representation submitted to the Commission and said that PHE is a no-profit, no-loss organisation and hike in tariff should be reasonable and sustaining. He made a request to the Commission to consider their case and in particular the determination of Tariff for rural water supply.

6. **C.E.Os Shillong Municipality** said that 30% rise in tariff for public lighting will be burden to Municipality and requested for consideration.

7. **President Confederation of Tourism Industries.** Mr E B Blah, President requested for reasonable tariff to stake holders of Tourism industries who are running guest houses in remote villages to encourage tourists.

The Hearing ended with a vote of thanks from the Chairman MSERC.

ANNEXURE-6

LIST OF PARTICIPANTS IN THE PUBLIC HEARING ON TARIFF (DISTRIBUTION) FOR THE YEAR 2012-13 HELD BY MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION AT 12:00 NOON ON 10TH JANUARY 2012 IN THE MSERC CONFERENCE HALL, LOWER LACHUMIERE, SHILLONG.

Present:-

9. **M.S.E.R.C.**
   Shri. Anand Kumar, Chairman.
   Shri. J B Poon, Secretary.
10. **Representing the Petitioner (MeECL).**
    11. Shri. P Lyngdoh, CE (D).
    12. Shri. Elias Lyngdoh, CPM.
    13. Shri. W R Basaiawmoit, C.A.O.
    14. Shri. C Kharkrang, ACE.
    15. Shri. K N War, SE. RA
    16. Shri. S Nongrum, Sr. A.O.
    17. Shri. Edward Syiem, SE.(C)
    18. Shri. L Kharpran, S.E, SLDC.
    19. Shri. K N War, S.E. SLDC.
    20. Smti P Kharpuri, E.E.
11. **Representing Byrnihat Industries Association.**
    9. Smti. Sneha Venkataramani, Advocate.
    10. Shri. S S Agarwal
    11. Shri. R Bajaj
    12. Shri. P Mour
    13. Shri. S Agarwal
    14. Shri U Agarwal
12. **MUDA**
    8. Shri. B K Panda, Director
13. **Shillong Municipality**
    7. Shri. T Lyngwa, CEO
14. **Meghalaya Pensioner Association.**
    8. Shri. B E Wahlang
    9. Shri. G W Syngai
    10. Shri. T D Khonglah
15. **Confederation of Tourism Industries**
    4. Shri. E B Blah
16. **Public Health Engineering (PHE) Department.**
    1.Shri. YKB Singh, EE.

MSERC