MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

Aggregate Revenue Requirement for FY 2014-15

For

MEGHALAYA POWER GENERATION CORPORATION LIMITED

10.04.2014

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BEFORE THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of:

Approval of Annual Revenue Requirement and Tariff of the Meghalaya Power Generation Corporation Limited (MePGCL) within the State of Meghalaya for the FY 2014-15.

And

In the matter of:

Meghalaya Power Generation Corporation Limited, Lumjingshai, Shillong, Meghalaya.

CORAM

Shri Anand Kumar, Chairman

Date of Order: 10.04.2014

ORDER

This order relates to the Petition on Annual Revenue Requirement and Tariff for Financial Year 2014-15 filed by Meghalaya Power Generation Corporation Limited (hereinafter referred to as the "Petitioner") on 16.12.2012. This petition was filed under the MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011 and under section 62 read with section 86 of the Electricity Act 2003.

Section 64(1) read with Section 61 and 62 of the Electricity Act, 2003 (hereinafter referred to as "Act") requires Generation Company to file an application for determination of tariff before the Appropriate Commission in such manner and along with such fee as may be specified by the Appropriate Commission through Regulations. In compliance with Electricity Act 2003 the Commission had notified MSERC (Conduct of Business) Regulations 2007 and MSERC (Terms and Conditions for Determination of Tariff) Regulations 2011. These regulations cover the procedure for filing the tariff application, methodology for determining the tariff and recovery of charges as approved by the Commission from the beneficiaries.

The Government of Meghalaya vide its power sector reforms transfer scheme 2010 transferred the assets, properties, rights, liabilities, obligations and personal of the erstwhile MeSEB into four corporations namely (i) Meghalaya Energy Corporation Limited (MeECL), the holding company, (ii) Meghalaya Power Generation Corporation Limited (MePGCL), the generation utility,

(iii) Meghalaya Power Distribution Corporation Limited (MePDCL), the distribution license and (iv) Meghalaya Power Transmission Corporation Limited (MePTCL), the transmission licensee. This transfer scheme is effective from 01.04.2012 and from that date all companies/licensee had to start independent functioning. However, it is experienced that these Companies have not yet commenced commercial operation as independent entities and still is in the process of preparing their statement of accounts in accordance with the transfer scheme. The petitioner has informed that the Government of Meghalaya issued further notification on 16.09.2013 notifying the revised statement of assets and liabilities as on 01.04.2010 to be vested in MePGCL.

This petition has been filed by MePGCL on 16.12.2013 for determining the tariff of their 5 old power stations and 1 new power station for FY 2014-15. Keeping in view the desirability for timely completion of the tariff process for the next year 2014-15, the Commission provisionally admitted the petition for further processing subject to the condition that the petitioner shall furnish any further information/clarification as deemed necessary by the Commission during the processing of the petition. The Commission further directed the petitioner to publish public notice in accordance with Tariff Regulations detailing their salient features of the ARR petition and proposals filed by it for financial year 2014-15 for comments by all stakeholders and public at large. The petitioner was also directed to place the petition on its website and its Headquarter/other offices for inspection or making relevant extracts by the members of the public.

After conducting technical sessions with the utilities staff, advisory committee meeting and public hearing, the Commission on the basis of records submitted by the licensee passes this order for determining annual fixed charges for FY 2014-15 for 6 generating stations of MePGCL.

For the sake of convenience and clarity, this Order has further been divided into following Chapters:

Chapter 1 – Introduction and brief history

Chapter 2 – Petitioner's Submissions and Proposals

Chapter 3 – Stakeholders' Responses & Petitioner's Comments

Chapter 4 – Commission's Approach

Chapter 5 – Commission's Analysis, Scrutiny and Conclusion.

Chapter 6 – Directives

CHAPTER – 1

INTRODUCTION AND BRIEF HISTORY

This Tariff application has been filed by Meghalaya Power Generation Corporation Limited (MePGCL). The power supply industry in Meghalaya had been under the control of erstwhile MeSEB w.e.f. 21.01.1975. On 31.03.2010, the Government of Meghalaya issued a Notification for the power sector reform and transferred the assets, liabilities, rights and obligations to four companies namely, Meghalaya Energy Corporation Limited (MeECL) the holding company to Meghalaya Power Distribution Corporation Limited (MePDCL), the Distribution Utility, Meghalaya Power Generation Corporation Limited (MePGCL), the Generation Utility and Meghalaya Power Transmission Corporation Limited (MePTCL), the Transmission Utility. In a subsequent amendment to the transfer scheme notified on 31.03.2012 has set the date of transfer w.e.f. 01.04.2012. Subsequently the Government issued further notification amending the structure of assets and liabilities as on 01.04.2010 to be vested in MePGCL. However, these Corporations have still not prepared their Statement of Accounts separately since its inception. This creates a major roadblock in assessing their need for cash for running the operations.

After, the first tariff order of MePGCL in 2013-14, it had to start functioning independently but surprisingly it could not, and all financial transactions are being looked after by its holding company. However a power purchase agreement for supply of power to MePDCL has been signed. The financial statement and the balance sheet for 2012-13 are yet to be prepared and the details of the assets and liabilities are limited to the numbers given in the transfer scheme. MeECL has provided the audited accounts for 2009-10 and agreed to submit accounts for 2010-11 & 2011-12 shortly. However, the audit by the Comptroller of Audit and Accounts has not been done so far for 2010-11 onwards.

The MSERC has notified the terms and conditions for determination of tariff regulation on 10.02.2011 which gives the procedure and requirement of filing of the ARR for ensuing year. Regulation 17 provides that each generating company shall file a tariff petition on or before 30th November each year with the Commission which includes statement containing calculation of the expected aggregate revenue from charges under it currently approved tariff and expected cost of providing service. The information for the previous year (2012-13) should be based on audited accounts and in case audited accounts are not available audited accounts of the year immediately preceding the previous year (2011-12) shall be filed along with an unaudited accounts for the previous year. The tariff application shall also contain tariff proposal so as to fully cover the gap if any between the expected revenue and the expected cost of service.

The proceedings of the tariff are governed under the section 61 and 62 of the Electricity Act 2003 and the regulations made under section 181 of the Act. MePGCL was required to submit the petition by 30.11.2013 for financial year 2014-15. The intent of the law is to issue the new tariff before the start of financial year i.e. 01.04.2014. Complying with the Commission's directive and Regulations, MePGCL has filed the ARR application and tariff proposal on 16.12.2013. After the preliminary examination the Commission has issued deficiency note to the licensee. The petition contains certain information gaps which are as follows:

1. **Statement of Accounts**
   To submit Annual Accounts for 2012-13 duly audited by appropriate authority or provisional accounts as approved by the Board so as to validate the financial of the Corporation.

2. **Fixed assets**
   To substantiate the opening balance of fixed assets by the statement of account for 2012-13. Addition of assets during 2013-14 (up to date) requires the completion certificate from the appropriate authority. Detailed project reports for different new stations may be submitted.

3. **R M & U**
   To submit the details of capital expenditure as per the accounts for Umiam Stage II with details of funding arrangement. A copy of the agreement for the loan may be furnished.

4. **Equity**
   The amount of equity should be substantiated by the Statement of Accounts and should match with the size of assets. As per the Regulation the equity amount appearing in the balance sheet will be considered for the purpose of ROE.

5. **O & M cost**
   There is a substantial variation in the employees cost, R & M cost and A & G cost in the year 2012-13 actually spent and as approved by the Commission. To validate the claims regarding expenses, the Company should submit the actual expenses made in O & M in the period April 2013 to November 2013 separately for employees cost, A & G and R & M. Similarly actual cost incurred in O & M in 2012-13 as per accounts may be submitted. The copy of the trial balances may also be furnished. Justification for increase in employees cost inspite of reduction in employees in 2014-15 may be given.

6. Depreciation

As per the Regulation, the depreciation has to be done in accordance with the rates as specified in the regulation and should be charged on the asset values as admitted by the Commission. For new assets, depreciation shall be chargeable from the first year of operation.

7. **Interest**

Actual interest payment if any in 2012-13 and 2013-14 for the period April to November may be furnished source wise.

8. Computation of NAPAF

As directed in the Commission's order for 2013-14, MePGCL was required to conduct a study for determining the designed energy, availability, generation, water levels and determine NAPAF based on actual data. The status of report and justification for NAPAF shown in the ARR may be presented before the Commission.

9. Status of billing and payment

The Corporation should submit the status of billing and payment thereof by the distribution licensee for 2012-13 and 2013-14 till date.

10. **Details of generation**

MePGCL shall submit the month wise availability of each of its plant and generation in million units from each of its plant for the period 2012-13 and 2013-14 (April to November).

Keeping in view the desirability for timely completion of the tariff process for the next year 2014-15, the Commission has admitted the petition for further processing subject to the condition that the petitioner shall furnish any further information/clarification as deemed necessary by the Commission during the processing of the petition. In the admission order the Commission has directed the generating company to publish a notice in leading newspapers widely circulated in the State and seek comments from general public and other stakeholders. MePGCL has published the Notice in the following newspapers and sought comments within 30 days from the general public.

TABLE 1 – DETAILS OF PUBLIC NOTICE

Name of the Newspapers	Date of Publication	Languages
The Shillong Times, Shillong and Tura	29.12.2013	English
U Mawphor	29.12.2013	Khasi
Salantini Janera	29.12.2013	Garo
Chitylli	29.12.2013	Jaintia

Subsequently, MePGCL has made a detailed presentation on 06.01.2014 before the Commission. The Commission after examination of the petition in detailed has found that there are numbers of issues which are important in nature and affect the tariff significantly. Accordingly, the Commission required MePDCL to file additional information vide its letter dated 10.01.2014. The required information is as follows:

1. **Comments on the ARR of MePDCL for 2014-15**

   MePGCL should give their comments on the ARR proposal of MePDCL for 2014-15 on the power purchase cost from State generating stations.

2. **Equity**

   MePGCL to clarify the issue of share certificates to the State Government in accordance with recent transfer scheme issued by Government of Meghalaya. The entitlement on the return on equity invested by the State Government should be clarified.

3. **Receivables from Government against terminal benefit liabilities**

   In accordance with recent transfer scheme dated 16.09.2013, the status of receivable from Government against terminal benefit liabilities should be informed.

4. **Generation**

   Details of generation from each plant as against the designed energy approved in the tariff order for 2013-14 may be given for 2013-14 up to December 2013. The reasons for estimating lower generation figures for 2014-15 may also be provided. In 2012-13 the generation excluding Leshka was shown at 514 MU, while in 2013-14 it is estimated at 431 MU. MePGCL should substantiate its proposal for 2014-15 with details.

5. **R M & U**

   Details of Umiam Stage II renovation financed by JBIC Loan along with the increase in generation capacity should be provided.

6. **Fixed assets**

   Details of completion certificate by appropriate agency for Umiam Stage II renovation for the investment of Rs.104.75 crores assets added in 2012-13 may be provided. The generation in MUs term before and after R M & U may also be given.

7. **Employees cost**

   Report of Actuarial valuation for terminal benefits should be provided. Actual employees cost in 2013-14, segregation of employees cost and terminal benefit provisions in 2014-15 may also be provided.

8. **Interest on working capital**

   Details of interest paid in 2013-14 for arranging working capital from bank should be provided.

Time up to 20.01.2014 was given to MePGCL to file the reply on the above issues so that the Commission may take a reasonable view on the tariff proposal. MePGCL vide their letter dated 20.01.2014 furnished replies to some of the queries relating to the petition for its old stations and Sonapani. Remaining queries were replied by MePGCL vide its letter dated 31.01.2014.

Accordingly, the Commission proceeded for determination of tariff for 2014-15 on the basis of available information, issues agreed upon in consultation with MePGCL and in accordance with Commission's regulation.

1 ARR for FY 2014-15 – Existing Generating Stations

MePGCL has proposed the following for determination of tariffs for its 6 generating stations.

1.1 Segregation of Financials

- Pursuant to Meghalaya Power Sector Reforms Transfer Scheme 2010 (as amended in 2012), the Assets and Liabilities including rights, obligations and contingencies is transferred to and vested in MePGCL from MeECL on and from 1.4.2012. Transfer of Assets and Liabilities to MePGCL is based on the provisional financials of MeECL for FY2011-12.
- The segregated annual accounts post restructuring and unbundling for FY 2012-13 are being finalized. The accounts for the holding company and its subsidiaries have been segregated by appropriating the Assets, Properties, Liabilities, Expenditures, and Obligations etc. as attributable to the respective companies. The Assets and liabilities of individual functions i.e Generation, Transmission and Distribution were maintained by erstwhile MeSEB and later MeECL, and appropriation of common items to respective companies is being done by taking relevant basis/ methodology

1.2 Existing Generation Capacity

- The initial installed capacity when the erstwhile Meghalaya State Electricity Board (MeSEB) was bifurcated from the Assam State Electricity Board (ASEB) in 1975 was 65.2 MW. With the commissioning of Stage-III HEP (1979), Stage IV HEP (1992) & Mini Hydel, the installed capacity increased by 121.5 MW. All the Generating Stations except Sonapani Micro Hydel Project, as indicated in Table below are hydel power stations with the main reservoir at Umiam for all the stages. Therefore, all these stages depend mainly on water availability at the Umiam reservoir. The total installed capacity of MePGCL projects are as under:

Details of Existing Generation Capacity

No	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
1.	Umiam Stage I	I	9	36	21.02.1965
		II	9		16.03.1965
		III	9		06.09.1965
		IV	9		09.11.1965
2.	Umiam Stage II	I	10	20	22.07.1970
		II	10		24.07.1970
3.	Umiam Stage III	I	30	60	6.01.1979
		II	30		30.03.1979
4.	Umiam Stage IV	I	30	60	16.09.1992
		II	30		11.08.1992
5.	Umtru Power Station	I	2.8	11.2	01.04.1957
		II	2.8		01.04.1957
		III	2.8		01.04.1957
		IV	2.8		12.07.1968
6.	Sonapani	I	1.5	1.5	27.10.2009
7.	Leshka	I	42	126	01.04.2012
		II	42		01.04.2012
		III	42		08.03.2013
	Total			**312.7**	

1.3 Renovation, Modernisation and Upgradation (R M & U) of Umiam Stage-II

- MePGCL has concluded R M & U of Umiam Stage-II on 6th January, 2012. After completing R M & U of Umiam Stage-II, the capacity is upgraded from earlier 18MW to 20MW and the life of the project is increased by 35 years. The completion cost of the project was Rs. 104.75 Cr and it was financed by JBIC loan. The term of the loan is 30 years with a 10 year's grace period and at an annual rate of interest of 1.3%. MePGCL submitted before the Commission to approve R M & U of Stage-II.

1.4 New Generation Capacity

- MePGCL is currently executing works of hydro electric projects which are proposed for commissioning in near future as under:

Details of New Generating Stations

No.	Name & Location	Capacity (MW)	Year of Commencement	Schedule Date of Commissioning / COD
1	Lakroh SHP	1.5	2003	March 2014
2	New Umtru	40 (20*2)	2008	March 2015

- It is submitted that for Lakroh SHP provisional tariff has been approved in the Tariff Order dated 30th March, 2013. The final tariff petition for Lakroh SHP will be filed after commissioning of the same.

1.5 Computation of Generation Energy

The following sections outline details of operational norms for computation of energy generation for FY 2014-15 based on Tariff Regulations, 2011 or past trend as the case may be.

- **Operation Norms**

The following sections provide the extract of the Tariff Regulations, 2011 with respect to computation of generation energy.

a) Normative Annual Plant Availability Factor

No.	***Station Particular***	***Norm***
1	*Storage and pondage type plants: where plant availability is not affected by silt and*	
a	*with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8 %*	*90 %*
b	*with head variation between FRL and MDDL of more than 8%*	*(Head at MDDL/Rated Head) x 0.5 + 0.2*
2	*Pondage type plant*	*where plant availability is significantly affected by silt - 85%*
3	*Run –of- River type plants*	*NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available / relevant.*

Note:

(i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.

(ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.

(iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.

b) Auxiliary Consumption

No	Station Particular	Norm
1	*Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft*	*0.7% of energy generated*
2	*Surface hydro electric power generating stations with static excitation system*	*1.0% of energy generated*
3	*Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft*	*0.9% of energy generated*
4	*Underground hydro electric power generating stations with static excitation system*	*1.2% of energy generated*

c) Transformation Losses

From generation voltage to transmission voltage ……0.5% of energy generated.

- **Design Energy – Existing Generating Stations**

The design energy for MePGCL power stations is approved in the Tariff Order dated 30th March 2013 is provided in the table below:

Table 1: Design Energy

Name of Power Station	Design Energy (MU)
Umiam Stage I	116.29
Umiam Stage II	45.51
Umiam Stage III	139.40
Umiam Stage IV	207.50
Umtru Power Station	39.01
Sonapani	5.50

It is submitted before the Commission that for the FY 2014-15 the approved design energy will be used for computation of energy charge. The month wise and station wise design energy is provided in the Formats in the petition.

- **Computation of Energy Generation - Existing Stations**

The computation of hydro power generation requires Design Energy, Capacity Index, Details of Reservoir levels, Head details, Past Availability details, features of the hydro power plants in terms of type of plant, type of excitation etc which are provided in the table below:

Features of Hydro Power Plants

Sr. No.	Particulars	Umtru	Umiam-I	Umiam-II	Umiam-III	Umiam-IV	Sonapani
1	**Type of Station**						
a	*Surface/ Underground*	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
b	*Purely ROR/ Pondage/ Storage*	PONDAGE	STORAGE	POWER CHANNEL (Pondage)	PONDAGE	PONDAGE	ROR
c	*Peaking/Non Peaking*	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING	NON PEAKING
d	*No. of hours Peaking*	NA	NA	NA	NA	NA	NA
e	*Overload Capacity (MW) & Period*	NIL	NIL	NIL	NIL	NIL	NA
2	**Type of Excitation**						
a	*Rotating exciters on Generator*	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	NA	Rotating exciters on Generator
b	*Static excitation*	NA	NA	NA	NA	Static Excitation	NA

Computation of NAPAF for Storage and Pondage type plants:

Based on the above details and the norms specified by Regulation 60 (1) (a) of the Tariff Regulations, 2011, the computation of NAPAF for Storage and Pondage type hydro generating stations is carried out as under:

Computation of Head Variation for Storage & Pondage plants

Name of Power Station	FRL (mtrs)	MDDL (mtrs)	Maximum Head	Minimum Head	% Head Variation
Umiam Stage I	981.46	960.12	169.0	130.0	23.08%
Umiam Stage II	804.06	800.85	78.5	75.0	4.46%
Umiam Stage III	679.70	672.05	162.0	146.0	9.88%
Umiam Stage IV	503.00	496.00	162.0	131.0	19.14%

As submitted in the above table other than Umiam Stage-II, for all power stations, the head variation between FRL and MDDL is more than 8%. Hence, an allowance is to be provided in NAPAF as indicated in the table below:

Table 2: Computation of NAPAF for Storage & Pondage plants

Name of Power Station	% Head Variation	Rated Head	Head at MDDL (Min Head)	NAPAF (Head at MDDL / Rated head) x 0.5+0.2
Umiam Stage I	23.08%	145.0	130.0	64.83%
Umiam Stage II	4.46%	77.7	75.0	90.00%
Umiam Stage III	9.88%	150.0	146.0	68.67%
Umiam Stage IV	19.14%	140.0	131.0	66.79%

Computation of NAPAF for Pondage type plants: As per Regulation 60 (1) (b) of the Tariff Regulations, 2011 for pondage type plants where plant availability is significantly affected by silt is NAPAF is 85%. Umtru being the only plant under this category and accordingly, NAPAF for Umtru is **85.00%** as per regulations. Further as per Regulation 60 of the Tariff Regulations, 2011, after considering further allowance of 5% for difficulties in north east region, the NAPAF for Umtru is **80.00%.**

Computation of NAPAF for Run of River type plants: As per Regulation 60 (1) (c) of the Tariff Regulations, 2011, the NAPAF for Run of River type plants is to be determined based on 10-day design energy data, moderated by past experience wherever relevant. Therefore, based on the past records and as per norm given in regulation, the NAPAF for Sonapani works out to be **50.00%**. Further as per Regulation 60 of the Tariff Regulations, 2011, after considering further allowance of 5% for difficulties in north east region, the NAPAF for Sonapani is **45.00%**.

As per Regulation 60 of the Tariff Regulations, 2011, the computed NAPAF is shown below:

Table 3: NAPAF as per Operation norms for MePGCL Power Stations

Name of Power Station	NAPAF (%) as per workings	NAPAF (%) with 5% allowance
Umiam Stage I	64.83%	59.83%
Umiam Stage II	90.00%	85.00%
Umiam Stage III	68.67%	63.67%
Umiam Stage IV	66.79%	61.79%
Umtru Power Station	85.00%	80.00%
Sonapani	50.00%	45.00%

Computation of NAPAF based on last year's actual generation

It is further submitted that as per direction of MSERC in the tariff order dated 30th March, 2013, MePGCL has conducted study of last 3year's hourly generation to arrive at the existing level of availability. The computed PAFM based on last 3year's actual hourly generation is mentioned in the table below:

PAFM based on actual hourly generation

Particulars		Umiam Stage I	Umiam Stage II	Umiam Stage III	Umiam Stage IV	Umtru	Sonapani
PAFM	FY 2010-11	56%	45%	42%	68%	17%	47%
	FY 2011-12	57%	15%	49%	60%	41%	59%
	FY 2012-13	58%	53%	50%	65%	36%	67%
	Maximum	58%	53%	50%	68%	41%	67%

MePGCL submitted before the Commission to approve the maximum of last 3 year's actual PAFM as NAPAF for the FY 2014-15.

Proposed NAPAF for FY 2014-15

MePGCL submits before the Commission to approve the following as NAPAF for each station

NAPAF proposed for FY 2014-15

Name of Power Station	NAPAF for FY 2014-15 (%)
Umiam Stage I	58%
Umiam Stage II	53%
Umiam Stage III	50%
Umiam Stage IV	68%
Umtru	41%
Sonapani	67%

The station-wise Net Generation for FY 2012-13 (Actual) and FY 2013-14 (Estimated) are provided in the table below:

Station wise Net Generation FY 2012-13 (Actual)

Sr. No.	Name of Power Station	Gross Generation (MU)	Aux Cons (%)	Transformation Loss (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam Stage I	103.93	0.70%	0.50%	1.25	102.68
2	Umiam Stage II	50.93	0.70%	0.50%	0.61	50.32
3	Umiam Stage III	131.19	0.70%	0.50%	1.57	129.62
4	Umiam Stage IV	190.08	1.00%	0.50%	2.85	187.23
5	Umtru Power Station	30.64	0.70%	0.50%	0.37	30.27
6	Sonapani	7.28	0.70%	0.50%	0.09	7.19
	Total	**514.05**			**6.74**	**507.31**

Station wise Net Generation FY 2013-14 (Estimated)

Sr. No.	Name of Power Station	Gross Generation (MU)	Aux Cons (%)	Transformation Loss (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam Stage I	76.58	0.70%	0.50%	0.92	75.66
2	Umiam Stage II	40.17	0.70%	0.50%	0.48	39.69
3	Umiam Stage III	124.37	0.70%	0.50%	1.49	122.88
4	Umiam Stage IV	162.13	1.00%	0.50%	2.43	159.69
5	Umtru Power Station	21.88	0.70%	0.50%	0.26	21.62
6	Sonapani	6.60	0.70%	0.50%	0.08	6.52
	Total	**431.73**			**5.67**	**426.07**

It is submitted that for the FY 2014-15 the Net Generation from existing stations is estimated to be same as FY 2013-14. The station wise summary of generation for FY 2012-13, FY 2013-14 and FY 2014-15 is presented below:

Table 4: Station wise Summary of Generation FY 12 to FY 14

Sr. No.	Name of Power Station	FY 2012-13 (Actual)	FY 2013-14 (Estimated)	FY 2014-15 (Projected)
1	Umiam Stage I	103.93	76.58	76.58
2	Umiam Stage II	50.93	40.17	40.17
3	Umiam Stage III	131.19	124.37	124.37
4	Umiam Stage IV	190.08	162.13	162.13
5	Umtru Power Station	30.64	21.88	21.88
6	Sonapani	7.28	6.60	6.60
	Gross Generation (MU)	**514.05**	**431.73**	**431.73**
	Auxiliary consumption & Transformation Loss (MU)	6.74	5.67	5.67
	Net Generation (MU)	**507.31**	**426.07**	**426.07**

MePGCL submitted before the Commission to approve the total net generation as shown in table above for existing power stations of MePGCL.

1.6 Components of Tariff

The Regulation 52 provides for components of tariff which is extracted below for reference.

52. Components of tariff

(1) Tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges to be in the manner provided hereinafter.

(2) The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:

(a) Return on equity as may be allowed

(b) Interest on Loan Capital;

(c) Operation and maintenance expenses;

(d) Interest on Working Capital;

(e) Depreciation as may be allowed by the Commission.

(f) Taxes on Income

Accordingly, MePGCL computes and provides herewith various cost elements for determination of tariff.

1.7 Gross Fixed Assets

The provisional Gross Fixed Assets (GFA) of MePGCL as on 31.03.2012 is Rs **327.39** Crores (After allotting GFA of MeECL to MePGCL, MePTCL and MePDCL proportionately).

- **Determination of Station-wise Gross Fixed Assets**

  It is submitted that MePGCL has attempted to bifurcate station wise GFA for existing &

new projects. The table below provides station wise GFA as on 31.03.2012.

Station wise Gross Fixed Assets – Old Stations

Particulars	GFA (Rs.Cr)
Value of Gross Fixed Assets as on 31.03.12	327.39
Less: GFA pertaining to Sonapani	10.86
Net GFA for Old Projects (Umiam Stage I to IV & Umtru)	**316.53**

- **Closing Gross Fixed Assets for FY 2014-15**

  Based on the above computed GFA as on 1.04.2012, the closing GFA for FY 2014-15 are worked out considering additions / R&M for each station. It is submitted that while computing the closing Station-wise GFA for FY 2014-15 the Myntdu Leshka Project is not considered. The table below provides station wise closing GFA for FY 2014-15.

Station wise Closing Gross Fixed Assets – Old Stations

Particulars	Old Projects (Rs.Cr)	Sonapani (Rs.Cr)	Total (Rs.Cr)
Opening GFA as on 1.4.2012	316.53	10.86	**327.39**
Add: Additions to GFA during FY 2012-13 (R & M of Stage-II)	104.75	-	**104.75**
Less: Retirements to GFA during FY 2012-13	-	-	**-**
Closing GFA as on 31.3.2013	**421.28**	**10.86**	**432.14**
Opening GFA as on 1.4.2013	421.28	10.86	**432.14**
Add: Additions to GFA during FY 2013-14	-	-	**-**
Less: Retirements to GFA during FY 2013-14	-	-	**-**
Closing GFA as on 31.3.2014	**421.28**	**10.86**	**432.14**
Opening GFA as on 1.4.2014	421.28	10.86	432.14
Add: Additions to GFA during FY 2014-15	-	-	**-**
Less: Retirements to GFA during FY 2014-15	-	-	**-**
Closing GFA as on 31.3.2015	**421.28**	**10.86**	**432.14**

MePGCL submited before the Commission to approve the computed Gross Fixed Assets of existing stations (excluding Myndtu Leshka) for FY 2014-15.

1.8 Determination of Return on Equity

The relevant regulations for determination of debt-equity ratio are extracted for reference as below:

51. Debt equity ratio

1) For the purpose of determination of tariff, debt-equity ratio in the case of a new generating station commencing commercial operations after the notification of these regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative *loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered.*

2) In the case of existing generating stations the debt equity ratio as per the Balance Sheet on the date of the Transfer notification will be the debt equity ratio for the first year of operation, subject to such modification as may be found necessary upon audit of the accounts if such Balance Sheet is not audited.

- As per the provisional segregated figures, the opening equity for MePGCL as on 1.4.2012 is Rs. **592.33** Cr and the same is considered as equity for calculation of RoE.
- The relevant regulations for computation of return on equity are extracted for reference as below:

53. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with regulation 51 and shall not exceed 14 %.

Provided that incase if projects commissioned after notification of these Regulations an additional return of 0.5 % shall be allowed if such projects are completed within the time line specified in CERC Tariff Regulations, 2009. (Refer Annuxure-1)

Provided that in case of projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any time or cost overrun, whatsoever.

Provided that equity invested in a foreign currency may be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

(2) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(3) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.

(4) Foreign equity will also attract the same rate of return.

- It is submitted that MePGCL has considered the Return on Equity (RoE) at the rate of 14%. The table below provides herewith the station wise computation of RoE for FY 2014-15. It is to be noted that equity added during FY 2012-13 does not include equity pertaining to Leshka.

Return on Equity for FY 2014-15 – Old Stations

Particulars	2012-13	2013-14	2014-15
Opening Equity	592.33	871.17	871.17
Additions during the year	278.84	-	-
Closing Equity	871.17	871.17	871.17
Equity Considered for RoE	126.38	126.38	126.38
RoE %	14%	14%	14%
RoE (Rs Crores)	**17.69**	**17.69**	**17.69**

Return on Equity for FY 2014-15 – Sonapani

Particulars	Rs Cr
Equity	4.11
Grant	6.75
Total	**10.86**
Equity Considered for RoE	3.26
RoE (%)	14%
Return on Equity (Rs Cr)	**0.46**

- MePGCL submited before the Commission to approve the RoE of Rs. **18.15** Cr for FY 2014-15 for existing generating stations including Sonapani.

1.9 Long Term Loans and Interest on Long Term Loans

The relevant regulations for computation of long term loans and interest thereon are extracted for reference as below:

54. Interest and finance charges on loan capital

(1) Interest and finance 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 agreements, bond or debenture and the lending rate prevailing therein.

Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with Regulation 51.

(2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.

(3) The generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

(4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the generating company in a ratio as may be specified by the Commission as envisaged in Regulation 13.2.

(5) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

- It is submitted that, the interest on long term loans is claimed only for projects which have actual loan outstanding. According to the records and information, there is no outstanding loan for Old Projects except for R & M of Umiam Stage I & II. However the loan for R & M of Stage I & II will be paid by Central Government and also Loan Agreement provides for moratorium period of 10 years on both Principal and Interest payment. Therefore no Interest on Loan is claimed for old projects.

1.10 Depreciation

The relevant regulations for computation of deprecation are extracted for reference as below:

Regulation 57 - Depreciation

(a) The asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission where the opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited.

(f) Depreciation shall be calculated annually as per straight – line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) of Regulations, 2009.

(g) The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

(i) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.

- **Determination of Deprecation for old assets:** It is submitted that as shown in table the useful life for old Generating stations except for Sonapani, R & M of Umiam Stage-I, R & M of Umiam Sateg-II and Umiam Stage-IV, is already completed. Therefore depreciation is proposed on below projects/ assets:
  - R & M of Stage I
  - R & M of Stage II
  - Stage IV
  - Sonapani
- **Determination of Depreciation for Sonapani:** It is submitted that the depreciation for Sonapani is computed considering available project cost and depreciation as per Tariff Regulations, 2011. The table below provides depreciation for Sonapani for FY 2014-15.

MePGCL submitted before the Commission to approve Rs. **20.68** Cr as R & M Expense for the FY 2014-15.

- As submitted in the above sections, based on the actual records of O & M Expenditures, MePGCL submitted before the Commission to approve the total O&M expenses of Rs. **97.11** Cr for existing generating stations for FY 2014-15.

Interest on Working Capital

- The relevant regulations for computation of working capital and interest on working capital thereon are extracted for reference as below:

  Regulation 56

  (1) Working Capital shall cover:

  1) Operation and Maintenance expenses for one month;

  2) Maintenance spares at the rate of 15% of operation and maintenance expenses

  specified in Regulation 55 above escalated at the rate of 6% per annum from the date of commercial operation and

  3) Receivables equivalent to two months of fixed cost.

  (2) Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the financial year for which the generating station files petition for annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

- The computation of working capital and interest on working capital for FY 2014-15 as per above regulation is provided in the table below. The computation of working capital is also attached as Format-11.

Interest on Working Capital for FY 2014-15

Particulars	Old Assets	Sonapani	Total (Rs.Cr)
O & M Expenses for 1 month	8.03	0.06	**8.16**
Maintenance Spares @15% of O&M plus escalated by 6%	0.87	0.01	**0.88**
Receivables @ 2 months of Fixed Cost	22.31	0.30	**22.91**
Total Working Capital requirement	**31.20**	**0.370**	**31.94**
SBI PLR as on 1.4.2013 (%)	14.45%	14.45%	
Interest on Working Capital	**4.51**	**0.05**	**4.56**

- MePGCL submited before the Commission to approve Interest on working capital of Rs.

4.56 Cr for FY 2014-15.

Tax on Income

- The Regulation 58 of Tariff Regulations 2011 provide for claim of Income Tax as expenses. However MePGCL submits that income tax shall be claimed in subsequent filings in annual performance review/ true-up.

Connectivity and SLDC Charges

- The Regulation 61 of Tariff Regulations 2011 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per information received from SLDC the SLDC charge applicable to the Existing Generating Stations is as mentioned below:

SLDC Charges applicable to existing generating stations

Sl. No	Particular	Annual SLDC Charge (Rs Cr)
1	Umiam Stage I	0.16
2	Umiam Stage II	0.09
3	Umiam Stage III	0.27
4	Umiam Stage IV	0.27
5	Umtru Power Station	0.06
6	Sonapani	0.01

1.12 Summary of Annual Fixed Cost – Existing Generating Stations

- The summary of the Annual Fixed Cost for the existing generating stations is provided in the table below:

Annual Fixed Cost – Existing Stations FY 2014-15

Particulars	Old Assets	Sonapani	Total (Rs.Cr)
Interest on Loan capital	-	-	-
Depreciation	15.13	0.50	**15.63**
O&M Expenses *	96.34	0.77	**97.11**
Interest on working capital	4.51	0.05	**4.56**
Return on Equity	17.69	0.46	**18.15**
Income Tax	-	-	-
SLDC Charge	0.86	0.01	**0.86**
Total Annual Fixed Cost	**134.52**	**1.79**	**136.31**
Less: Non Tariff Income	0.67	-	**0.67**
Net Annual Fixed Cost	**133.85**	**1.79**	**135.64**

** O & M Expense arrived @ 3.11.15 is alloted to Sonapani proportionately based on capacity*

- MePGCL submitted before the Commission to approve the Annual Fixed Cost of Rs. **135.64** Cr for FY 2014-15 for existing generating stations.
- MePGCL submitted that the Net Annual Fixed Cost of old assets may be allotted to the old

stations as per the capacity of each station. The station wise allotted Net Annual fixed cost is shown in the table below:

Net AFC allotment to old stations

S N	Station	Capacity (MW)	AFC (Rs. Cr)
1	Umiam Stage I	36.00	25.74
2	Umiam Stage II	20.00	14.30
3	Umiam Stage III	60.00	42.90
4	Umiam Stage IV	60.00	42.90
5	Umtru Power Station	11.20	8.01
	Total	**187.20**	**133.85**

- It is further submitted, as submitted in this petition, for the Leshka Hydro Electric station, MePGCL is not filing final tariff petition at present. Therefore it is submitted that as mentioned in the Page 85 of the MePGCL Tariff Order dated 30th March, 2013, till the time final tariff petition for Leshka is filed, MePGCL be allowed to raise monthly bill of Leshka as per provisionally approved AFC of Rs. 135.54 Cr.
- The summarized station wise Net AFC for FY 2014-15 is mentioned in the table below:

Station wise Net AFC for FY 2014-15

S N	Station	AFC (Rs. Cr)
1	Umiam Stage I	25.74
2	Umiam Stage II	14.30
3	Umiam Stage III	42.90
4	Umiam Stage IV	42.90
5	Umtru Power Station	8.01
6	Sonapani	1.79
7	Leshka *(Provisional till final tariff petition is filed)*	135.54
	Total	**271.18**

CHAPTER – 3

STAKEHOLDERS' RESPONSES & PETITIONER'S COMMENTS

The Commission has received objections on the ARR and Tariff proposal of MePGCL for 2014-15. Further the Commission in its Advisory Committee meeting has received suggestions/objections from the members. The Commission has held a public hearing on 25.02.2014 where public were invited to get suggestions on the ARR of all the utilities. In the public hearing, a presentation was made by BIA giving its objections. The Commission has considered all responses received so far on the ARR and tried to make a balance between the interest of utility and consumers. In this chapter the Commission has given the details of the objections made by consumers and responses given by utility.

BIA's Objections on Petition filed by MePGCL for Tariff for FY 2014-15

I. Filing of Petition – Compliance to Regulations

1. Regulation 15(3) of the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2011 {MSERC Tariff Regulations] specifies as under:

   "The generating company or the licensee, as the case may be, shall make an application before the Commission, for 'truing up' of ARR of the previous year by 30th September of the following year, on the basis of audited statement of accounts and the Audit Report, thereon. The generating company or the licensee shall get their accounts audited within a specified time frame, either by the Comptroller & Auditor General of India or by a Statutory Auditor drawn from the panel of Statutory Auditors approved by the Comptroller & Auditor General of India, from time to time, to enable them to file the application for 'truing up' within the specified date, that is 30th September of the following year"

   Further, Regulation 17(1) of the MSERC Tariff Regulations specifies as under:

   "Each generating company and the licensee shall file Tariff Petition on or before 30th November each year with the Commission which shall include statements containing calculation of the expected aggregate revenue from charges under it, currently approved tariff and the expected cost of providing services i.e., Aggregate Revenue Requirement (ARR) during the previous year, current year and ensuring year. The information for the previous year should be based on audited accounts and in case audited accounts are not available, audited accounts for the year immediately preceding the previous year should be filed along with un-audited accounts for the previous year.

The tariff application shall also contain tariff proposals so as to fully cover the gap if any, between the expected aggregate revenue at the prevalent tariff and the expected cost of services including schemes for reduction loss levels and other efficiency gains to be achieved."

BIA objected that the Petitioner in its Petition has not submitted the truing up of past years and the performance review of FY 2013-14. Also, the Petition filed by the Petitioner is not accompanied either by the audited accounts or un-audited accounts for the past years. As a consequence, the numbers of expenses and revenue projected by MePGCL for FY 2014-15 have no sanctity, and cannot be relied upon. It is probable that once truing up of the past years is done based on audited accounts and prudence check by the Commission, MePGCL may have a revenue surplus rather than a revenue gap for the previous years, and the same can be passed on to the consumers through reduction in tariff, which is sorely needed and essential for the continued survival of the industry in the State of Meghalaya including the Members of BIA. Had there been a revenue gap for the previous years, MePGCL would have filed the truing up Petition along with the audited accounts, and would have taken steps to ensure that the audited accounts are available. Since, MePGCL has failed to submit its audited accounts and truing up Petition, it leads BIA to believe that MePGCL actually has a revenue surplus in previous years, which is not being passed on to the consumers, who are the rightful beneficiaries of such surplus.

BIA requested the Commission to reject the Petition filed by MePGCL for want of such critical and essential data, in the absence of which, it is not possible for the Commission as well as the consumers to validate any of the numbers in the Petition.

Notwithstanding the above request of BIA, if the Commission considers it fit and appropriate to determine the ARR and Tariff for FY 2014-15 in the absence of audited and un-audited expenses of the previous years, then BIA has several specific objections on the Petition filed by MePGCL and requests the Commission to consider the same on merit and grant the necessary relief to the long-suffering consumers in the State of Meghalaya.

2. Regulation 17(6) of the MSERC Tariff Regulations specifies as under:

"The petition shall be sent by registered post acknowledgement due or by hand delivery. In addition to the hard copies, the information shall necessarily be submitted in such electronic form, as the Commission may require"

The Petitioner has not submitted the Formats in MS Excel as specified in Regulation 17(6) of the MSERC Tariff Regulations. The Commission is requested to direct the Petitioner to submit the Formats in MS Excel with appropriate formulae and linkages, to enable the Commission and the stakeholders to analyse the Petition properly.

II. Compliance to Directives of the Commission vide Order dated March 30, 2013

3. In the Commission's Order for Annual Revenue Requirement for FY 2013-14 dated March 30, 2013, the Commission issued several directives to the Petitioner and had set timelines for the same. However, the Petitioner has not complied with most of the directives issued by the Commission in the said Order. BIA herein draws attention of the Commission towards the compliance /noncompliance of directions the Petitioner till date and prays that the Commission may please take strict action against the Petitioner for the directives not complied with.

4. The Petitioner has signed PPA with MePDCL and submitted the same before the Commission on September 25, 2013, i.e., six months after the date of issue of the Order as against three month's time given by the Commission.

5. The Commission had approved provisional tariffs of Leshka and Lakroh projects and directed the Petitioner to file a Tariff Petition for these two new projects after their COD is achieved. The Petitioner has not complied with this directive and has failed to file Tariff Petitions for Leshka and Lakroh Projects. According to the Petition, the project cost of Leshka Project is under the scrutiny of CEA and State level technical Committee. On the other hand, the Lakroh Project has not yet achieved COD. It is worth mentioning here that in the Petition for ARR for FY 2013-14, MePGCL had submitted the estimated COD for Lakroh Project as January 2013, but it is yet to achieve the COD of the project till date. In the present Tariff Petition the expected COD of Lakroh project is submitted as March 2014. BIA humbly prays before the Commission that the delay in the achievement of COD of the Lakroh Project may be severely dealt with by the Commission at the time of proceedings of tariff Petition of the plant by not approving the full capitalisation of interest and overhead expenses in accordance with Regulation 49(3) of the Tariff Regulations, 2011, as reproduced below:

   "In case of any abnormal delay in execution of the project causing cost and time overruns attributable due to the failure of the utility, the Commission may not approve the full capitalization of interest and overhead expenses."

6. The Commission had directed MePGCL to conduct a bench marking study of its plants with other efficient utilities to explore further scope of improvement in operational efficiency, optimal utilisation of the sources, man-power rationalisation including incentive/ disincentive schemes. The Commission had stated that this study should give benchmark for each plant in respect of key parameters including cost and directed the Petitioner to

submit a report within six months of issue of the Order dated March 30, 2013. The Petitioner has not complied with this direction of the Commission and merely submitted a report on steps taken by it on efficiency improvement. Hence, it is humbly requested to the Commission to not consider the energy generation proposed by the Petitioner and approve the tariff as per the Designed Energy approved by the Commission in the Tariff Order for FY 2013-14 dated March 30, 2013.

7. Considering the fact that the Petitioner has no loan repayment obligation, the Commission had directed the Petitioner to prepare a Depreciation Reserve account within 30 days of the Order dated March 30, 2013 wherein the depreciation amount against the existing plants shall be deposited. The Commission had observed that the same fund shall be used for renovation and modernisation and other investments. However, the Petitioner has not created a depreciation reserve account yet, and therefore, we request the Commission not to allow any depreciation for the existing plants to the Petitioner until such account is created.

III. Normative Annual Plant Availability Factor (NAPAF)

8. Regulation 60(1) of MSERC Tariff Regulations specifies computation of NAPAF as under:

"60. Norms of operation

The norms of operation shall be as under:

(1) Normative annual plant availability factor (NAPAF)

(a) Storage and pondage type plants where plant availability is not affected by silt and

(i) with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8 % ……………………… 90 %

(ii) with head variation between FRL and MDDL of more than 8%

= (Head at MDDL/Rated Head) x 0.5+0.2

(b) Pondage type plant where plant availability is significantly affected by silt ….. 85%

(c) Run –of- River type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available / relevant.

Note:

(i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.

(ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.

(iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.

9. The Petitioner has proposed the following values of NAPAF in its Petition based on the actual PAFM for last three financial years:

Table 5: NAPAF Proposed by MePGCL

Name of the Power Station	NAPAF for FY 2014-15 (%)
Umiam Stage I	58%
Umiam Stage II	53%
Umiam Stage III	50%
Umiam Stage IV	68%
Umtru Power station	41%
Sonapani	67%

10. From the information furnished by the Petitioner, it is evident that the Petitioner is very inefficient in operating is Hydro Power Stations. Approving such low NAPAF based on past data would mean encouraging the inefficiency of the Petitioner, at the cost of the consumers. According to the Petitioner's own computations, the values of NAPAF computed as per MSERC Tariff Regulations, 2011 are much higher than the NAPAF proposed by the Petitioner, as shown below:

Table 6: NAPAF computed by MePGCL as per Tariff Regulations

Name of the Power Station	NAPAF as per workings	NAPAF with 5% allowance
Umiam Stage I	64.83%	59.83%
Umiam Stage II	90.00%	85.00%
Umiam Stage III	68.67%	63.67%
Umiam Stage IV	66.79%	61.79%
Umtru Power station	85.00%	80.00%
Sonapani	50.00%	45.00%

11. BIA requested the Commission to disallow the NAPAF proposed by the Petitioner, which are not in accordance with the MSERC Tariff Regulations. Further, in the computation of NAPAF shown in the Petition, the Petitioner has computed the NAPAF of Umiam stage I, III & IV based on Regulation 60(1)(a)(ii) of the MSERC Tariff Regulations by considering more than 8% head variations for the Plants. However, the Petitioner has not submitted the basis for the values taken for maximum and minimum heads for the plants. It is prayed to the Commission to consider the NAPAF of 90% for these plants as per Regulation 60(1)(a)(i) of the Tariff Regulations unless the Petitioner produces valid proof of maximum and minimum heads of the plant it has considered in computation of NAPAF. Also, for Umtru Plant, the Petitioner has proposed NAPAF based on Regulation 60(2), considering that it has been significantly affected by silt. However, the Petitioner has not submitted any evidence of the

plant being significantly affected by silt, and hence, the NAPAF for Umtru station may also be considered 90% as per the Regulation 60(1)(a)(i).

12. BIA also prayed to the Commission not to consider the 5% allowance in NAPAF claimed by the Petitioner by virtue of being located in the North East, since the Petitioner has not submitted any details of difficulties faced by it. The 5% allowance on NAPAF mentioned in the Tariff Regulations is to compensate the Hydro Generating Stations for difficulties faced by them in the North-Eastern States, and hence, the Petitioner must elaborate any genuine difficulties faced by it exclusively prevailing in the North-Eastern States for availing the benefit of 5% reduction in NAPAF. Merely being located in the North-East does not entitle the Petitioner to claim this allowance, as had that been the case, the Commission would have specified the base norms itself after factoring in the same, since, all the plants regulated by the Commission are located in the North-East. Since, the Petitioner has not submitted any such information in the Petition, the Petitioner is not eligible for availing such compensation.

13. The NAPAF approved by the Uttarakhand Electricity Regulatory Commission (UERC) for hydro projects of similar capacity is shown below. It can be seen that the NAPAF approved by UERC for these power Hydro Power Projects are much higher than those proposed by the Petitioner:

Table 7: Approved NAPAF for Hydro Power Stations in Uttarakhand

Hydro Power Station	MW Capacity	Approved NAPAF by UERC for FY 2013-14 to 2015-16
Khodri	120 MW	85%
Dhakrani	33.75 MW	77%
Dhalipur	51 MW	77%
Kulhal	30 MW	77%
Chilla	144 MW	76%
Khatima	41.4 MW	78%

14. Therefore, BIA prayed before the Commission to disallow the NAPAF proposed by the Petitioner based on the achieved PAFM for past three years for its stage I, III & IV of Umiam Power Station as well as for Umtru Power Station and 90% NAPAF should be considered in accordance with Regulation 60(1)(a)(i) of the MSERC Tariff Regulations.

15. According to Regulation 60(1)(c), in case of Sonapani Station, which is a run-of-river type plant, NAPAF is to be determined based on 10-day design energy data, moderated by past experience. Without submitting any relevant information in this regard, the Petitioner has submitted that based on the past records, NAPAF for Sonapani station works out to be 50%. BIA respectfully submits that unless the Petitioner furnishes evidence supporting such claim,

the Commission may please set 90% NAPAF for Sonapani Station aligned with the NAPAF for other stations.

16. Hence, BIA requested the Commission to set NAPAF of 90% for all the Stations according to Regulation 60(1)(a)(i). The NAPAF for Umtru and Sonapani Stations may be relaxed as per Regulation 60(1)(b) and 60(1)(c) as and when relevant information is produced by the Petitioner. The Commission is requested to consider the NAPAF proposed by BIA for FY 2014-15 as shown in the Table below:

NAPAF Proposed by BIA

Name of the Power Station	Proposed by MePGCL	Proposed by BIA
Umiam Stage I	58%	90%
Umiam Stage II	53%	90%
Umiam Stage III	50%	90%
Umiam Stage IV	68%	90%
Umtru Power station	41%	90%
Sonapani	67%	90%

IV. Energy Generation

17. The Commission had approved generation of 553.21 MU for FY 2013-14 based on the approved Design Energy. However, the Petitioner has estimated generation of only 426.06 MU for FY 2013-14 and FY 2014-15. While proposing such values, the Petitioner has also not submitted the actual generation in the first half of the FY 2013-14. Further, no reason has been given by the Petitioner for proposing such low values of estimated generation in the present and upcoming years.

18. The Gross generation of past years is consistently much higher than the proposed estimated generation of FY 2013-14 and proposed generation of 2014-15 as well as Designed Energy approved by the Commission in the Tariff Order of FY 2013-14. The proposal in the current Petition shows clear intention of the Petitioner to avoid putting efforts in achieving generation in line with designed energy by achieving efficiency in operation of the Power stations and also to earn unreasonable profits from the consumers of the State. It is hence prayed to the Commission to disallow the proposed generation level for the Petitioner’s plants and set the same target as set for FY 2013-14, i.e., 553.21 MU, based on the approved designed energy.

V. Gross Fixed Assets (GFA)

19. In the Tariff Order for FY 2013-14 dated March 30, 2013, in the absence of audited accounts the Commission had disapproved the GFA proposed by the Petitioner and

machines were available. Therefore at this stage without knowing the details of machines' availability in 2013-14, the Commission has decided to allow only 50% of the required amount i.e.Rs.2.91 crores to be allowed as compensation on account of less generation. This amount shall be paid by MePDCL in 12 equal monthly instalments in 2014-15 which shall be covered in their ARR for 2014-15. The Commission, at this stage allowing this amount on provisional basis subject to correction at the time of truing up petition for 2013-14 as and when filed. The details which are based on load flow issued by SLDC on 01.04.2014 are as follows:

Shortfall in generation in 2013-14 and compensation						
Sl. No.	Name of Plant	Designed/Annual Energy(MU)	Actual generation *(2013-14) (MU)	Difference (MU)	50% as energy charges (Rs. /KWH)	Compensation As Per Regulation (Rs. Cr.)
1	Umiam Stage I	116.29	78.77	37.52	0.58	2.18
2	Umiam Stage II	45.51	41.13	4.38	0.82	0.36
3	Umiam Stage III	139.4	133.01	6.39	0.81	0.52
4	Umiam Stage IV	207.5	174.41	33.09	0.54	1.79
5	Umtru	39.01	20.81	18.2	0.54	0.98
6	Sonapani	5.5	5.38	0.12	0.68	0.01
	Total	**553.21**	**453.51**	**99.7**	0.64	5.83

The Commission has determined annual fixed charges of Rs.69.93 crores for six generating stations separately for 2014-15. MePDCL the sole beneficiary of generated energy shall pay fixed charges monthly i.e. 1/12 of annual fixed charges + energy charges for the total energy generated from each plant monthly. With this methodology MePGCL shall get Rs.69.93 crores in 2014-15 as AFC. 50% of it shall be paid as capacity charges to MePGCL provided their machines are available and 50% shall be paid as energy charges provided they generate the total designed energy. This tariff shall be applied from 1st April, 2014 up to 31st March, 2015 or orders.

Compliance Report on the directives given in the tariff order of 2013-14

Direction 1:

Power purchase agreement: The regulation prescribes that there would be a power purchase agreement or commercial agreement between the company and beneficiary company. It will contain all the terms and conditions for purchase of energy and payment thereof. It would also cover the installed capacity and designed energy and the period of supply. The PPA should be in accordance with the tariff regulation notified by the Commission from time to time. Accordingly, the Commission directs the generating company and MePDCL to have a commercial agreement for purchase of energy from MePGCL plants within three months of issue of this order.

Compliance:

MePGCL submitted that a power purchase agreement has already been signed between MePDCL and MePGCL, copy of which has been sent vide their letter dated 25.09.2013.

Direction 2 :

MePGCL shall file a tariff petition for new projects like Leshka and Lakroh after their COD achieved for determination of final tariff.

Compliance:

MePGCL submitted that revise cost estimate of the MLHEP was sent to CEA for vetting the same. Further it is informed that Government of Meghalaya has also form a state level technical committee for scrutiny of Leshka power project, report of which is awaited. The tariff filing shall be made after getting the project cost approved by CEA and others. For Lakroh project MePGCL submitted that it is yet to achieve commercial operation. MePGCL will be filing the petition as soon as the project is completed.

Direction 3:

Regulation prescribes that norms of operation shall be determined for each plant separately by calculating normative annual plant availability factor (NAPAF), auxiliary consumption and transformation losses. This year the Commission is not satisfied with the assumptions taken by the generating company for working out their NAPAF for each plant without any validated supporting information. The Commission directs MePGCL to conduct a study for determining the designed energy, availability, generation, water levels and determine NAPAF based on actual data and submit a report to the Commission with supporting data within six months time.

Compliance:

MePGCL has submitted a detailed report on the computation of NAPAF and designed energy vide their letter dated 25.09.2013. MePGCL has also studied the station wise hourly generation for the last three financial years and the same is reflected in the ARR petition.

Direction 4:

Performance improvement: The Commission directs MePGCL to conduct a bench marking study of its plant with other efficient utilities to explore further scope of improvement in operational efficiency, optimal utilisation of the sources, man power rationalisation including incentive/disincentive schemes. This study should give bench mark for each plant in respect of key parameters including cost and submit a report within six months of this order.

Compliance:

MePGCL submitted a report on step taken on efficiency improvement vide its letter dated 25.09.2013. However, without segregated details of O & M cost for different station MePGCL is unable to conduct bench marking study by comparing the same with the other utilities.

Direction 5:

Renovation and modernisation of existing plant: The Commission directs MePGCL to make comprehensive RMU schemes for efficiency improvement and life extension of old and existing plants and submit the detailed project report to the Commission within a period of six months giving road map for completing these schemes.

Compliance:

MePGCL submitted that a detailed report on R & M on the existing plant for stage II is already submitted to the Commission vide letter dated 25.09.2013.

Direction 6:

Financial statement of accounts: The Commission directs MePGCL to complete their annual accounts for 2012-13 and get it audited as per the statutory requirement so that in the next year ARR determination the Commission is not handicapped for want of audited data.

Compliance:

MePGCL submitted that statements of account for FY 2010-11 for the combined business of MeECL have been placed before the statutory auditor for its audit. Similarly, the statement of accounts for FY 2011-12 for the MeECL is being placed before the audit committee. For MePGCL, the process of trifurcation is under process and the statement of account for FY 2012-13 shall be prepared after the process is over.

Direction 7:

MePGCL shall open a depreciation reserve fund without 30 days of this order wherein the depreciation amount allowed against the existing plant shall be deposited. This fund shall be used for renovation and modernization work.

Compliance:

MePGCL informed that in absence of sufficient fund it is yet to open a separate depreciation reserve fund.

New Directions

Improvement of Performance

The Commission is concerned about the improvement in the performance of the Corporation so that the generation and the availability of the plants are improved. In order to conduct a bench mark study, the Commission has already directed the Corporation in its order for 2013-14. The Commission reiterate its position and direct the Corporation to conduct a benchmarking study of its plants with other efficient utilities like NHPC, to explore further scope of improvement. The Corporation is further directed to submit an action plan for implementation of efficiency improvement and manpower rationalisation measures giving target dates for completion of each milestone of proposed plan within six months of issuance of this order.

Allocation of Common costs

It is further directed the Corporation to work out the probable alternatives for rationally allocating the common/indirect expenses in the present context as well as considering future scenarios within a period of three months. The Corporation may also examine the practices being followed in similar utilities in other States as well as Centre Sector utilities like NTPC, NHPC, etc. and submit it a report for the consideration of the Commission within 6 months from issuance of this Order.

Control on Expense

The Commission directs the Corporation to prepare an annual budget for FY 2014-15 for each and every plant and submit the same to the Commission within one month of the issuance of this Order so that expenses are made with in the provision of tariff order and regulations.

The Commission expects from MePGCL to ensure compliances on directives issued by the Commission in timely manner and the efficiency at each level shall improve from the current level and will be at par with the best standards in the sector. Finally the Commission would like to appreciate the response from MePGCL for submitting all required information to the Commission as and when required.

(ANAND KUMAR)
CHAIRMAN, MSERC

Annexure-1

RECORD NOTE OF PUBLIC HEARING ON ARR AND TARIFF PETITION FILED BY MEPGCL FOR THE YEAR 2014-15 HELD BY MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION AT 11:00 AM ON 25th FEBRUARY 2014 IN THE MSERC CONFERENCE HALL, LOWER LACHUMIERE, SHILLONG.

Record Note of Public Hearing

01. Chairman, MSERC welcomed all the participants who had come to attend the Public Hearing on the ARR & Tariff Petition filed by MePGCL (Generation) for the FY 2014-15. The Chairman has explained the salient features of the ARR and provisions of the regulation in determining the tariff for ensuing year 2014-15. The Commission explained to the participants that the notices inviting the objections were given in the newspapers. The Commission shall consider the objections with regard to petitions up to 15.03.2014 for consideration in the tariff order. Important issues relating to the petition were explained to the participants. The Commission pointed out that the audit of accounts is not available beyond FY 2009-10. The Commission advised MePGCL and MeECL to get the audit of accounts for FY 2010-11 & 2011-12 immediately so that the proceeding of the current year is completed. Further the Commission advised MeECL to start independent functioning of its subsidiaries so that purpose of reform is completed.

02. Following participants, presented their suggestions which are discussed below:

03. The Byrnihat Industries Association represented by their consultant presented a detailed presentation in the public hearing. First objection they have raised about the non compliance of Company's Law with regard to preparation of statement of accounts for previous year. BIA strongly objected to allowing them expenditure without getting their accounts audited. BIA raised its objection towards the huge expenditure made on Umiam Stage II, RMU and suggested that MePGCL should have taken prior approval by the Commission before spending the huge amount on the renovation and modernization of the unit. BIA also objected to the size of the GFA, equity and return on equity. BIA objected to the proposal of the generating company giving NAPAF for its plant. They suggested that without a detailed study Commission should continue with its practice as done last year. It has also suggested to allow them ROE as done by the Commission for FY 2013-14. BIA made objections on rise in employees cost and suggested the Commission to examine the actual records. Similarly on each component of the ARR, BIA has given its observation and objections.

04. BIA has made an objection that O & M expenses should be decided on normative basis as directed by the Commission in its order for FY 2013-14. On the overall ARR, BIA suggested that the order of the Commission for FY 2013-14 is reasonable and should be continued for future.

05. On the objections raised by BIA, MePGCL responded on each and every issue separately. As regard to completion of the accounts, MePGCL submitted that their accounts for FY 2010-11 & 2011-12 are ready and are being audited by statutory auditor appointed by CAG. They submitted that this work is undertaken on war footing and they will try their best to submit the accounts as soon as possible.

06. MePGCL requested the Commission to consider the return on equity as proposed by them so as to allow GFA as given in the transfer schemes.

07. MePGCL submitted that the employees cost has been increased because of provision of funds for meeting the terminal liability of their employees to be retired in future.

08. The Commission directed BIA to give its feedback on the level of consumption of industries in 2014-15 so that a realistic assumption may be made by the Commission in the ARR. The Commission has also pointed out that the MePDCL's ARR for 2014-15 mentions about the truing up of 2008-09 & 2009-10. However, the treatment of the gap has not been reflected in the ARR for FY 2014-15.

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

(J.B. Poon)
Secretary
Meghalaya State Electricity Regulatory Commission.

LIST OF PARTICIPANTS IN THE PUBLIC HEARING ON 25.02.2014

1. Representing the Petitioner MePGCL

1. Shri S.J. Laloo, CE (Gen)
2. Shri K.N. War, Director HRD
3. Shri G.S. Mukherjee, Company Secretary
4. Shri A. Lyngdoh, SE (PM)
5. Shri L. Shilla, SE (Gen)
6. Shri P. Sahkhar, SE (RA & FD)
7. Shri M.S.S. Rawat, Dy. CAO
8. Shri S. Nongrum, SR. AO
9. Shri M. Tiwari, (Consultant) Feedback Infra Ltd
10. Shri M. Rymbai, SE (P & RM)

2. Byrnihat Industries Association/Other industries.

1. Shri M. Palaniappan
2. Shri Anand Shankar Roy

Annexure-2

RECORD NOTE OF THE 16 TH MEETING OF THE STATE ADVISORY COMMITTEE HELD AT 11 AM ON 20TH FEBRUARY 2014 AT THE MSERC CONFERENCE HALL AT SHILLONG.

Present:-

1) Shri Anand Kumar, Chairman, Meghalaya State Electricity Regulatory Commission, Shillong.
2) Shri. J.B. Poon, Secretary MSERC
3) Shri. D.S. Nongbri, Consultant (F & A), MSERC
4) Shri. W. Langstang, Director of Commerce and Industries.
5) Shri. K. Marbaniang, Chairman Institution of Engineers.
6) Shri. Ramesh Bawri, President Meghalaya Confederation of Industries.
7) Shri. E. N. Marak.
8) Shri. S. K. Lato, Jowai.
9) Shri. A. Goswamy, Regional Manager (North East) IEX.
10) Shri. K.D. Talukdar, Addl. CE. PHE
11) Shri. H.S. Nongkynrih, SE. PHE.
12) Shri. Y. K. B. Singh, EE, PHE.

Calling the 16th Meeting of the State Advisory Committee (SAC) to order, the Chairman welcomed the members of Advisory Committee and special invitees present. He gave a brief idea of the ARRs for 2014-15 filed by Generating Corporation (MePGCL), Distribution Licensee (MePDCL) and Transmission Licensee (MePTCL). The Chairman has also explained the requirement of Electricity Act, 2003 and Regulations made there under. He has explained the process of tariff filing and the time schedule within which the process has to be completed. He has explained important issues relating with the ARR for FY 2014-15 which have its bearing on the consumer's tariff. Members of the Advisory Committee were briefed that the Commission has already admitted ARR petitions for all three utilities and are under process of finalization after completing the due process. The Chairman explained that the Commission welcome all suggestions with regard to present petition and try to incorporate all suggestions up to 15.03.2014. He explained that there will be a public hearing and the Commission may hold another round of meeting if required so. The Chairman has shown his concern on the present level of losses in the State which have bearing on the tariff of the consumers. It was deliberated in the meeting that the control on the losses is must and the

Commission should not allow the licensee over and above the targets fixed by the Commission in its earlier orders. In this meeting, the Commission has also pointed out that due to decrease in the demand of the industries and their consumption there is a revenue shortfall which is also affecting the amount of cross subsidy to be given to those consumers who are paying below the cost of service. The Director Industries has deliberated on the issue of less industrialization in spite of investor friendly policy of the State. In a detailed reply, the industry department has pointed out three reasons for poor industrialization in the State. (1) Scarcity of land, (2) Irregular power supply and (3) Tariff. Due to shortfall in revenue in the current year, the ARR of the licensees also affected. The shortfall in revenue has an impact on the retail tariff of consumers of the State. The Commission has also shown its concern that the licensees statement of accounts are still unaudited and the only audited accounts at the moment is for FY 2009-10. The Chairman has pointed out that MeECL has informed them that accounts for FY 2010-11 & 2011-12 are completed and are being audited. The Chairman invited suggestions from the participants on the ARR. Members of the SAC raised the following issues:

1. **Shri. Ramesh Bawri**

   He objected to the licensee's proposal of increasing abnormally the fixed tariff of all consumers in the State. This will increase the inefficiency in the system and will affect those consumers who are being given short supply and are affected by load shedding. In this scenario, the licensee will not bother to take the meter reading and start getting a fixed income. Shri Bawri raised his objection on the high capital investment on the renovation and modernization of Umiam Stage II Plant. He requested the Commission to examine the matter and allow the reasonable cost only. He has also raised objections on the amount of generation forecasted for 2014-15 and suggested that the generation made during previous years for example 2012-13 may be considered by the Commission. He has objected to the size of the equity shown in the ARR and claiming unreasonable return on equity. He suggested that grant money cannot be converted into equity and be charged from the consumers of the State. He has made a detailed presentation on the high employees cost shown by all these corporations. He objected that per employees cost in all three corporations should match each other and which is unreasonably high. He requested the Commission to allow them the reasonable cost of employees and direct MeECL to use its existing manpower efficiently without wasting money for new employment.