MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION -

Aggregate Revenue Requirement for FY 2013-14 -

For

MEGHALAYA POWER GENERATION CORPORATION LIMITED

30.03.2013

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BEFORE THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of: -

Approval of Aggregate Revenue Requirement and Tariff of the Meghalaya Power Generation - Corporation Limited (MePGCL) for the FY 2013-14. -

And -

In the matter of: -

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

CORAM

Shri Anand Kumar, Chairman

Date of Order: 30.3.2013

ORDER

This order relates to the Petition on Aggregate Revenue Requirement and Tariff for Financial Year 2013-14 filed by the Meghalaya Power Generation Corporation Limited (hereinafter referred to as the "Petitioner") on 14.12.2012. 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(hereinafter referred to as "Act").

Section 64(1) read with Section 61 and 62 of the 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) the Meghalaya Energy Corporation Limited (MeECL), which is the holding company, (ii) the Meghalaya Power Generation Corporation Limited (MePGCL), which is the generation utility, (iii)the Meghalaya Power Distribution Corporation Limited (MePDCL), which is the distribution license and (iv) the Meghalaya Power Transmission Corporation Limited (MePTCL), -which is 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 reported that these Companies have not yet commenced commercial operation as independent entities and are in the process of preparing their statement of accounts in accordance with the transfer scheme.

This petition was filed by MePGCL on 14.12.2013 for determining the tariff of their 8 hydro power stations for FY 2013-14 as an independent corporation for the first time. Accordingly, the Commission examined the petition and held a meeting on 20.12.2012 to discuss infirmities in the original petition. Petitioner required time up to 14.01.2013 to submit the essential information. MePGCL submitted some of the information to the Commission on 14.01.2013. Keeping in view the desirability for timely completion of the tariff process for the next year 2013-14, 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 the salient features of the ARR petition and proposals filed by it for financial year 2013-14 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 for the members of the public.

After conducting number of technical sessions with the utilities, members of the advisory committee and public hearing, the Commission on the basis of records submitted by the licensee passed this order for determining annual fixed charges for FY 2013-14 for 8 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

The Meghalaya Power Generation Corporation Limited (MePGCL) filed this tariff petition on 14.12.2013 for determination of tariff of its 8 generating stations. 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, the Meghalaya Energy Corporation Limited (MeECL) which is the holding company, the Meghalaya Power Distribution Corporation Limited (MePDCL), which is the Distribution Utility, the Meghalaya Power Generation Corporation Limited (MePGCL), which is the Generation Utility and the Meghalaya Power Transmission Corporation Limited (MePTCL), which is the Transmission Utility. In a subsequent amendment to the transfer scheme notified on 31.03.2012, the Government has set the date of transfer w.e.f. 01.04.2012.

MePGCL has yet to start its operation independently and all the operations are still being looked after by the holding company i.e. MeECL. 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. However, MeECL provided the Commission the pre-audited balance sheet for 2011-12 for MeECL.

MSERC 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 should be based on audited accounts and in case audited accounts are not available audited accounts of the year immediately preceding the previous year 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 30.11.2012 for financial year 2013-14. The Commission sent a letter to the Board of Directors to file the Petition in time so that timeliness of the issue of tariff order is maintained by the Commission. The intent of the law is to issue the new tariff before the start of financial year i.e. 01.04.2013. Complying with the Commission's directive, MePGCL filed the ARR application and tariff proposal on 14.12.2012. After the preliminary examination the Commission issued deficiency note to the licensee. The petition contains certain information gaps which were discussed in the technical meeting held on 20.12.2012 with officers of MeECL and their subsidiaries. The deficiency note was communicated to their Board of Directors vide Commission's Letter dated 20.12.2012. The information required was as follows:

General comments:-

1) - Audited/pre-audited financial statement of accounts for the year 2011-12.

   In accordance with the regulations, the information in the ARR 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 i.e. 2010-11 should be filed along with un-audited accounts for the previous year i.e. 2011-12.
2) Actual cost and revenue for the period April 2012 onwards for at least 6 months. -
3) Details of equity share capital issued for all subsidiaries of MeECL in accordance with the - provisions of Indian Company Law. -
4) Details of grants received for capital investment made so far. -
5) Details for employees' category wise in each subsidiary of MeECL. -

ARR for Generation Tariff:-

6) - Details of actual Operation & Maintenance expenses for each generating stations for first six months of FY 2012-13 and estimates for the remaining six months (October– March 2013) for FY 2012-13.
7) - As per the regulations tariff has to be determined station wise. MeECL is required to file information station wise for all existing generating stations. This should be based on segregation of data on actual or normative on commercial principles.
8) Details of actual generation from all units in the preceding 5 years. -
9) Proposals for provisional tariff for those generating units where CODs not achieved so far. -

MePGCL submitted some of the required information vide their letter dated 14.1.2013. Keeping in view the desirability for timely completion of the tariff process for the next year 2013-14, the Commission 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. MePGCL was directed to provide such information and clarification to the satisfaction of the Commission within the time frame as may be stipulated by the Commission failing which the petition would be treated as deemed returned. In the admission order the Commission 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 published the notice in the following newspapers and sought comments by 15.02.2013 from the general public.

TABLE 1 – DETAILS OF PUBLIC NOTICE		
Name of the Newspapers	Date of Publication	Languages
The Shillong Times	18.01.2013	English
U Mawphor	18.01.2013	Khasi
Salantini Janera	19.01.2013	Garo
Chitylli	18.01.2013	Jaintia

Subsequently, the Commission after examination of the petition in detailed found that there are numbers of issues which are important in nature and affect the tariff significantly. The first issue is to work out the designed energy from each power station which will give the annual potential of energy from each station and the second issue is the initial cost of project and the actual cost of the project at the time of commissioning. In view of this, the Commission issued a letter to MePGCL to clarify their stand on the following:

1) - Original detailed project report of Stage I of Myntdu Leshka Hydro Project (2x42 MW) shows 372.69 MU as annual energy potential in a 90% dependable year. Explanation for considering lower energy generation from all three units i.e. 486.23 MU in the ARR for 2013-14.
2) Copies of DPR and techno economic clearances issued by Central Electricity Authority for Leshka stage I & II and other hydro projects.
3) - Estimated approved project cost is shown as 358.38 crores for Stage I Leshka (2x42 MW) projects in the DPR. The details of original project cost approved by CEA for Stage I & II of Leshka Project and actual expenditures made so far is required to be furnished. Break up of cost overruns with controllable and uncontrollable factor should also be submitted.

4) 95% availability of Leshka run of the river plant is envisaged in the DPR. In the ARR the - availability factor is shown as 39 %. Explanation for deviation from the original DPR.

5) - As per the DPR of Stage I, Leshka Stage I has been taken as peak hour plant with 84 MW generation from 2 units though out the year in peak hours. Comments if any from MePGCL on this point may be submitted.

6) - Status of commercial agreements/PPA between MePDCL and MePGCL regarding capacity allocated from each plant, annual expected generation and month wise availability of each plant during the year. Date of execution of PPA may be intimated to the Commission.

7) - Gross fixed assets value as on 01.04.2012 is shown as 314.82 crores for old existing plants of MePGCL. Explanation requires for this estimation for existing old plants.

8) - Details of actual O&M costs including employees in each power stations of MePGCL are still awaited. Employees cost separately during 2011-12 and estimated for 2012-13 and 2013-14 may be submitted.

9) - Detailed working sheet for arriving the value of working capital in 2013-14.

10) In case of unavailability of data for old generating stations, segregation of ARR for these plants can be done on per megawatt installed capacity till such time data is separated. Comments of MePGCL are required on this assumption. Single tariff for all old generating station seems to be inefficient and does not project the performance of each plant correctly.

11) MePGCL is required to work out annual availability of each power station based on the actual generation from each power station in the last five years in accordance with the following CERC formula:

$$\text{Percentage Availability} = \frac{U1\,H1 + U2\,H2 + \ldots\ldots\ldots UN\,HN}{UXH} \times 100$$

Where U1, U2……….UN is the sent out capacity in MW of different units during the period under consideration. H1, H2……….HN are hours for which the respective units were under operation during the period. U is the guaranteed output in MW of the plant during the same period H represents the total number of hours of the period.

Time up to 31.01.2013 was given to MePGCL to file the reply on the above issues so that the Commission may take a balance and reasonable view on the tariff proposal. MePGCL vide their letter dated 11.02.2013 replied that date of commercial operation of unit 1 & 2 of Leshka project is 1st April 2012 and unit 3 is yet to be commissioned. The infirm power generated up to the date of commercial operation of unit 1 & 2 was 21.4 MU. MePGCL intimated that their present approved cost of MLHEP is Rs.1173.13 crores. However, they have spent up to December 2012 Rs.1140.98 crores. MePGCL provided techno economic clearances of Leshka project and their brief explanation at the delay in execution of project. Regarding audited statement of account MePGCL informed that audited accounts of MeECL for the year 2010-11 is yet to be done and they have not separated their account for generation till date.

A technical session was held on 8th February, 2013 in the Office of the Commission to discuss important issues relating to the ARR filed by MePGCL in determining the tariff for existing and new power plants. The Commission deliberated on each component of the ARR and its significance in determination of the tariff. A presentation was made by MePGCL showing the details of each component of cost and minimum fund requirement on the basis of projected ARR for 2013-14. The Commission emphasised in the meeting to get the actual costs incurred in last six months on the basis of accounting records for existing plant as well as new plants. MePGCL agreed to give the actual expenses of past six months from April to September 2012 by 13th February, 2013. The Commission explained the provisions of the Tariff Regulations 2011 in determining the annual fixed charges and recovery of the same through two part tariff. He explained that 50% of the cost shall be recovered through fixed charges provided that MePGCL machine if it is available to generate. Remaining 50% of AFC shall be paid by MePDCL on the basis of the unit costs on the total generation. It was emphasised that this kind of tariff shall encourage the generating stations to optimise their plant and generate maximum. MePGCL agreed to this approach. Similarly, to optimise the existing plants, the Commission tried to allocate the total fixed charges on each plant on the basis of their installed capacity and generation so as to give separate tariff for each plant. MePGCL agreed to this approach. It was also agreed in the meeting that designed energy may be worked out on the basis of previous five years data of generation which was made available to the Commission in the tariff proceedings. The Commission pointed out in the meeting that in accordance with Regulation all new projects which are commissioned after notification of the Regulations, tariff shall be fixed only after getting the project costs details duly audited by statutory auditors. Director, MePGCL submitted that after COD of Leshka HEP is achieved they will approach CEA for vetting the capital cost of the project. Till such time MePGCL agreed upon to get an interim tariff of Leshka as may be allowed by the Commission.

After conducting a number of technical sessions with the utilities, staff, Members of the Advisory Committee and public hearing, the Commission on the basis of the records submitted by the generating company passed this order for determining annual fixed charges for FY 2013-14.

ARR for FY 2013-14 – Existing Generating Stations

MePGCL proposed the following for determination of tariffs for generating stations.

Segregation of Financials

The segregation of annual accounts for restructured entities is yet to be finalized and provisional figure of Opening Balance of Gross Fixed Assets is available. The closing balance of GFA of MePGCL as on 31st March, 2012 is Rs 314.82 Crores.

Based on the notification of Government of Meghalaya, Annual Accounts of MeECL are to be restructured and segregated to give effect to the said notified Transfer Scheme. 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 01/04/2012. Transfer of Assets and Liabilities to MePGCL is based on the provisional financials of MeECL.

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) & Micro Hydel, the installed capacity increased by 121.5 MW. All the Generating Stations except Sonapani Micro Hydel Project, as indicated in the 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	6.01.1975
		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.	Micro Hydel (Sonapani)	I	1.5	1.5	27.10.2009
	Total			**186.7**	

New Generation Capacity

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

Details of New Generating Stations

No.	Name & Location	Capacity (MW)	Year of Commencement	Schedule Date of Commissioning / COD
1	Leshka HEP	42 x 3 = 126	2004	Unit I – 1.4.2012 Unit II – 1.4.2012 Unit III – Mar/April 2013
2	Lakroh SHP	1.5	2003	Jan 2013

The computation of energy, provisional capital cost and other costs for the new projects as indicated in Table above are discussed in subsequent sections.

Computation of Generation Energy

The following sections outline details of operational norms for computation of energy generation for FY 2013-14 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*

No.	Station Particular	Norm
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 provided in the table below:

Design Energy

Name of Power Station	Design Energy (MU)
Umiam Stage I	60.70
Umiam Stage II	29.50
Umiam Stage III	115.30
Umiam Stage IV	129.50
Umtru Power Station	82.30
Micro Hydel (Sonapani)	6.43

The month wise and station wise design energy is provided in the Formats HG3 & HG4.

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	Micro Hydel (Sonapani)
1	**Type of Station**						
a	*Surface/ Underground*	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
b	*Purely ROR/ Pondage/ Storage*	ROR	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 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	81.7	75.1	8.06%
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%

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:

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	8.06%	77.7	75.1	68.35%
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:

Pondage type plants where plant availability is significantly affected by silt is 85% is as per norms provided in Tariff Regulations, 2011. Umtru is the only plant under this category and accordingly, MePGCL is projecting NAPAF of **85.00%** as per regulations. However considering further allowance of 5% for difficulties in north east region, the proposed NAPAF for Umtru is **80.00%.**

Computation of NAPAF for Run of River type plants:

As per regulations, 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. From the existing power plants, only Sonapani belongs to purely Run of River project category. Therefore, based on the past records and as per norm given in regulation, the NAPAF works out to **50.00%**. However considering further allowance of 5% for difficulties in north east region, the proposed NAPAF for Sonapani is **45.00%**.

The table below provides the allocation of Others O&M expenses to Generation function in the computed Generation, Transmission & Distribution (GTD) ratio.

Allocation of Other O&M Expenses to Generation (FY 04 to FY08)

Allocation of Others O & M Expenditure to Generation as per GTD Ratio					
Particulars	**FY'04**	**FY'05**	**FY'06**	**FY'07**	**FY'08**
Repairs & Maintenance	0.07	0.04	0.03	0.12	0.03
Employee Costs	4.96	5.37	6.37	9.53	9.29
Administration and General Expenses	0.29	0.28	0.35	0.75	0.50
Total	**5.32**	**5.70**	**6.76**	**10.40**	**9.81**

The total of O&M expenses for Generation function after allocation of others cost for FY 2003-04 to FY 2007-08 is presented in table below:

Total of O&M Expenses for Generation after Allocation (FY 04 to FY08)

Total of O & M Expenditure for Generation after Allocation					
Particulars	**FY'04**	**FY'05**	**FY'06**	**FY'07**	**FY'08**
Repairs & Maintenance	3.50	3.78	4.10	7.10	6.55
Employee Costs	10.54	11.45	13.66	26.52	23.84
Less: Employee Expenses Capitalised	*0.54*	*0.87*	*1.18*	*2.04*	*1.86*
Net Employee Cost	9.99	10.58	12.48	24.49	21.97
Administration and General Expenses	0.68	1.46	1.02	2.11	2.45
Less: A & G Expenses Capitalised	*0.22*	*0.40*	*0.29*	*0.55*	*0.99*
Net A & G Expenses	0.46	1.06	0.74	1.56	1.46
Total	**13.96**	**15.42**	**17.32**	**33.15**	**29.97**

The computation of base value after averaging for above 5 years and escalating by 5.17% to arrive at normalized price level of FY 2007-08 is presented in the table below:

Computation of O&M Expenses for Generation at Base Level FY 2007-08

Computation of Base O&M Expenses for Generation at FY 2007-08 Level							
Particulars	**FY'04**	**FY'05**	**FY'06**	**FY'07**	**FY'08**	**Average of 5 Years**	**Base Value after 5.17% increase**
R&M Expenses	3.50	3.78	4.10	7.10	6.55	5.01	5.27
Employee Costs	9.99	10.58	12.48	24.49	21.97	15.90	16.72
A&G Expenses	0.46	1.06	0.74	1.56	1.46	1.06	1.11
Total	**13.96**	**15.42**	**17.32**	**33.15**	**29.97**	**21.96**	**23.10**

Further the computation of O&M expenses for FY 2013-14 after considering 50% increase in employee cost for FY 2009-10 and escalating by 5.72% every year is computed as per Regulation 55(4) and 55(5) of Tariff Regulations 2011. The table below provides details of O&M expenses for FY 2013-14.

O&M Expenses for Generation for FY 2013-14 (Category A)

Particulars	O&M for FY 09 after 5.72% escalation	50% Increase in Employee Cost for FY 10	Revised figures after increase	O&M for FY 10 after 5.72% escalation	O&M for FY 11 after 5.72% escalation	O&M for FY 12 after 5.72% escalation	O&M for FY 13 after 5.72% escalation	O&M for FY 14 after 5.72% escalation
R&M Expenses	5.57	-	5.57	5.89	6.22	6.58	6.95	7.35
Employee Costs	17.68	8.84	26.52	28.04	29.64	31.34	33.13	35.02
A&G Expenses	1.17	-	1.17	1.24	1.31	1.39	1.47	1.55
Total	**24.42**	**8.84**	**33.26**	**35.16**	**37.17**	**39.30**	**41.55**	**43.93**

MePGCL submitted before the Commission to approve the O&M expenses of Rs. 43.93 Crores for FY 2013-14 for existing generating stations of ‘A’ category.

The O&M expenses for Category ‘C’ of power station i.e. Sonapani (Micro Hydel) is to be computed as per Regulation 55 (7) of Tariff Regulations, 2011.

(7) In case of hydro generating stations declared under commercial operation on or after 01/04/2009, O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and shall be subject to annual escalation at 5.72% for the subsequent years.

The table below provides the computation of O&M expenses for Sonapani for FY 2013-14.

O&M Expenses for Generation for FY 2013-14 (Category C)

Particulars	Rs.Crs
Project Cost	10.86
O&M Expenses for FY 2009-10 (2% of PC)	0.22
O&M Expenses for FY 2010-11 (5.72% escalation over prev. year)	0.23
O&M Expenses for FY 2011-12 (5.72% escalation over prev. year)	0.24
O&M Expenses for FY 2012-13 (5.72% escalation over prev. year)	0.26
O&M Expenses for FY 2013-14 (5.72% escalation over prev. year)	**0.27**

MePGCL submitted before the Hon’ble Commission to approve the O&M expenses - of Rs. 0.27 Crores for Sonapani. -

The table below summarizes O&M expenses for existing generating stations for FY - 2013-14. -

Total O&M Expenses for Existing Stations for FY 2013-14

Particulars	Rs.Crs
O&M Exp - Category A (Old Assets)	43.93
O&M Exp - Category C	0.27
Total O&M Expenses	**44.20**

MePGCL submitted before the Commission to approve the total O&M expenses of Rs. 44.20 Crores for existing generating stations for FY 2013-14.

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 2013-14 as per above regulation is provided in the table below:

Interest on Working Capital for FY 2013-14

Particulars	Old Assets	Sonapani	Total (Rs.Crs)
O & M Expenses for 1 month	3.66	0.023	**3.68**
Maintenance Spares @15% of O&M plus escalated by 6%	6.98	0.043	**7.03**
Receivables @ 2 months of Fixed Cost	12.56	0.214	**12.77**
Total Working Capital requirement	**23.21**	**0.279**	**23.48**
Computation of working capital interest			
SBI PLR as on 1.4.2012 (%)	14.75%	14.75%	
Interest on Working Capital	**3.42**	**0.041**	**3.46**

MePGCL submitted before the Commission to approve Interest on working capital of Rs. 3.46 Crores for FY 2013-14.

Tax on Income

The Regulation 58 of Tariff Regulations 2011 provide for claim of Income Tax as expenses. However MePGCL submitted that since this being first independent filing for generation function and also due to fact that audited accounts of segregated are in process, 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 submitted 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	0.23
2	Umiam Stage II	0.13
3	Umiam Stage III	0.38
4	Umiam Stage IV	0.38
5	Umtru Power Station	0.08
6	Micro Hydel (Sonapani)	0.01

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:

Station Wise Annual Fixed Cost – Existing Stations FY 2013-14

Particulars	Old Assets	Sonapani	Total (Rs.Crs)
Interest on Loan capital	-	-	**-**
Depreciation	14.11	0.50	**14.61**
O&M Expenses	43.93	0.27	**44.20**
Interest on working capital	3.42	0.04	**3.46**
Return on Equity	12.77	0.46	**13.22**
Income Tax	-	-	**-**
SLDC Charge	1.19	0.01	**1.20**
Total Annual Fixed Cost	**75.41**	**1.28**	**76.69**
Less: Non Tariff Income	0.05	-	**0.05**
Net Annual Fixed Cost	**75.36**	**1.28**	**76.64**

MePGCL submitted before the Commission to approve the Annual Fixed Cost of Rs. 76.64 Crores for FY 2013-14 for existing generating stations.

TABLE – 18 ANNUAL FIXED CHARGES PLANTWISE FOR 2013-14							
Sl. No.	Name of Plant	Capacity (MW)	Designed /Annual Energy(MU)	AFC Allocation (Rs. Cr)	Average Tariff (Rs./Unit)	50% as Capacity charges (Rs. Cr.)	50% as energy charges (Rs. /KWH)
1	Umiam Stage I	36	116.29	11.15	0.970	5.575	0.485
2	Umiam Stage II	20	45.51	6.20	1.379	3.10	0.689
3	Umiam Stage III	60	139.4	18.60	1.350	9.30	0.675
4	Umiam Stage IV	60	207.5	18.60	0.910	9.30	0.455
5	Umtru	11.2	39.01	3.47	0.900	1.735	0.450
6	Sonapani	2	5.5	0.62	1.141	0.31	0.570
7	Leshka	126	486.23*	135.54	2.83	67.77	1.415
8	Lakroh	1.5	11.01	0.80	0.738	0.4	0.369
	Total	316.7	1050.45 *	194.98	1.883	97.49	0.941

* Total designed energy for the purpose of tariff only.

Accordingly, in this petition the Commission has determined annual fixed charges for all 8 generating stations separately for 2013-14. 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.97.49 crores in 2013-14 as fixed charges provided their machines are available and energy charges as per the ARR order approved for MePDCL on the rates as approved in the table-18. However, the energy charges payable by MePDCL shall be in accordance with the generation as allowed in their ARR of 2013-14. In case of any variation in energy charges due to less or more generation of energy or availability of plant the Commission will consider the same for truing up in the next ARR for 2014-15. The generating company shall pay Rs.1.31 crores in 2013-14 to SLDC for load despatch and scheduling. This tariff shall be applied from 1st April, 2013 up to 31st March, 2014 or orders.