MSERC

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

Order for Approval of Capital Cost

and

True up of FY 2013-14 &

Provisional True Up of FY 2014-15

and

Annual Fixed Charges and Generation Tariff for MYT Control Period FY 2015-16 to FY 2017-18

for

MYNTDU LESHKA HYDEL ELECTRIC PROJECT (MLHEP)

MEGHALAYA POWER GENERATION CORPORATION LIMITED

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

1st Floor (Front Block Left Wing), New Administrative Building

Lower Lachumiere, Shillong – 793001

East Khasi Hills District, Meghalaya

In the matter of:

Approval of Capital Cost of Myntdu Leskha Hydel Electric Project (MLHEP) and True up of FY 2013-14, Provisional True up of FY 2014-15, Annual fixed charges for MYT Control Period FY 2015-16 to FY 2017-18 and Generation Tariff for FY 2017-18.

AND

Meghalaya Power Generation Corporation Limited - **Petitioner**
(Herein after referred to as MePGCL)

Coram

WMS Pariat, IAS (Retd)

Chairman

ORDER

Date of Order: 30.03.2017

1. Introduction

1.1 Meghalaya Power Generation Corporation Limited filed Petition for approval of capital cost of MYNTDU LESKHA HYDEL ELECTRIC PROJECT (MLHEP) and True up of FY 2013-14, Provisional True up of FY 2014-15, Annual fixed charges for MYT control Period FY 2015-16 to FY 2017-18 and Generation Tariff for FY 2017-18. The Petitioner is, mainly, seeking the approval of capital cost for the 126 MW (3X42 MW) MYNTDU LESKHA HYDEL ELECTRIC PROJECT (MLHEP) and Annual Fixed Charges for the Control Period FY 2015-16 to FY 2017-18 and Generation Tariff for FY 2017-18.

The salient features of the project are;

Capacity	:	126 MW (3X42 MW)
Type of Scheme	:	Run of River (RoR)
Design Energy	:	486 MU

Date of Commercial Operation (CoD);

Unit – I : 1st April, 2012

Unit – II : 1st April, 2012

Unit – III : 1st April, 2013

Capital Cost

(Rs. Crore)

1999	Techno Economic clearance by CEA for 2X42 MW	363.03
2007	Project Revised Cost	671.29
2008	Approval of additions (3rd) Unit	114.49
2008	Project Revised Cost including 3rd Unit	785.88
2009	Further Revision of Project Cost	965.73
2010	Further Revision of Project Cost	1173.13
2013	Final Project Cost after Commissioning of all the three units	1286.53

The Project is in service with all the three units generating power.

1.2 MePGCL has submitted that in the Tariff Order dated 30th March, 2013, the Commission had approved the AFC of MLHEP provisionally and directed MePGCL.

- To request the State Government to constitute an expert Committee for examining the cost of the project and take necessary steps to get approval of CEA after completing the COD of all three units.
- To file a Tariff Petition to determine final Tariff for Leshka Project after COD is achieved in accordance with CERC Regulations.
- The Filing should be based on Audited accounts of expenditure incurred on Leshka Project with these directions. The Commission has allowed an interim tariff of Rs. 2.83/kWh on the basis of normative standards. SLDC charges of Rs. 0.50 Cr shall be payable by MePGCL to SLDC.

1.3 MePGCL had filed a Petition to the Commission on 20.01.2014 for determining the Annual Revenue Requirement (ARR) relating to the MLHEP for the year FY 2014-15 and to fix the Tariff there of;

The Petition was scrutinized by the Commission but has not approved the capital cost of the Project on the grounds that;

(i) The report of the Technical Expert Committee Constituted by the State Government to examine the cost of entire project, the cost and time over-run with reasons thereof etc., is not submitted.

(ii) The 3rd unit did not get the approval from any competent authority. CEA expressed its inability to vet the cost.

(iii) For the Commission to be able to determine the ARR and fix the tariff the completion cost of the project is inevitably required.

(iv) The cost of the 3rd unit has not been vetted or certified yet by any competent authority.

(v) It is understood that the matter is being looked into by the State Government and an expert body is being assigned with the work to look into and assess the cost and time overrun and other financial implications while constructing the project.

On receipt of the report of the expert body and also the audit report on expenditure will be scrutinized by the Commission and final view on the Tariff will be taken. However, the Commission had given an interim order provisionally approving the ARR for FY 2013-14 in the Tariff Order dated 10th April, 2014.

(vi) In regard to the question of the cost escalation and time over run the Commission has quoted Judgment of APTEL dated 27.04.2014 as below:

"Coming to the question of cost escalation and time over-run, the Commission has referred to the judgment dated 27.04.2014 of APTEL in a case which arose from the State of Maharashtra held that the delay in execution could occur due to;

(a) Factors entirely attributable to the generating company itself such as imprudence in selecting contractors, execution of contractual agreements including the terms and conditions, slackness on the part of the project management and such other factor;

(b) Factors beyond the Control of the generating company such as force majeure like natural calamity, or other reasons which clearly establish, beyond doubt, that there has been no imprudence on the part of the company in executing the project; and

(c) Situation not covered by (a) or (b) above.

The expert body appointed by Government can also perhaps look into the principles as enunciated by APTEL while examining the cost and time over-run of the MLHEP".

1.4 MePGCL in its Petition dated 14.08.2015 for approval of capital cost and Annual Revenue Requirement (ARR) for FY 2015-16 to FY 2017-18 has clarified various issues raised by the Commission in its order dated 10th April, 2014 which are given below:

Comments of CEA

As directed by the Commission in the Tariff Order dated 30th March, 2013, MePGCL had approached the Central Electricity Authority (CEA) and requested the State Government to set up a Technical Expert Committee for vetting completion cost of MLHEP. However, the Central Electricity Authority (CEA) stated that as per Electricity Act, 2003, the Tariff of the project is decided by the Regulatory Commission, and therefore CEA has no mandate for vetting revised cost estimate and advised MePGCL to approach the Commission for vetting the same.

1.5 **Appointment of Technical Committee**

As requested by MePGCL, the State Government of Meghalaya has constituted the State level Technical Committee for review of project cost vide its Letter No. PE-85/2008/84, dated 28th November, 2013 for submission of final report on completion cost of MLHEP, stating the terms of reference. The committee constituted is given in Annexure- I.

The Technical Committee included IIT, Roorkee.

The convener of Technical Committee has submitted the report in letter dated 28th February, 2015 and the abstract of the findings of the same are reproduced below:

(i) "The main Project components were generally executed as per construction drawings received from Central Water Commission and Central Electricity Authority.

(ii) The realization of the impact of acidity of water and the preventive measures adopted were in line with the recommendations of authorities like Central Soil and Materials Research Station (CSMRS) and other authorized consultants.

(iii) The payments have been made as per conditions of agreement and sanctions accorded by the competent authorities for the project.

(iv) The project work actually started in 2005 and completed in 2012. Thus it took seven years instead of scheduled 5 years. Extended rainy season in the Project area, poor geology, addition of one more unit and the unprecedented floods of 2009 and 2010 are the major reasons to justify the marginal time overrun.

(v) The road network of almost 44km in the Project area is more or less as per prior projection and has been laid well in the difficult hilly terrain. The stipulated specification has been adhered to and has been done at reasonable rates.

(vi) The specifications and the cost incurred for buildings are not as per the prior projection. This is understood as many buildings were constructed only for the construction phase of the Project and are makeshift in nature. However, the preparation for buildings in the steep terrain was costly as many slope protection walls had to be constructed and these added to the cost.

(vii) The above mentioned station work under the catchment treatment plant did not go well because of rocky landscape. The rates of survival of planted trees are not satisfactory. The aforestation in the catchment will continue till 2018.

(viii) In totality, no intentional wrong doings could be detected in the perused documents and the completion cost of Rs 1286.53 Crore seems to be justified. The Cost/MW came to be Rs 10.20 Crore which is reasonable against the difficult backdrop of the project executed. Rs 10.20 Crore per MW cost can be compared with the other hydroelectric projects of the region.

(ix) Adequate planning and better construction and financial management would have resulted in some savings."

1.6 **PWD (Road & Bldg.)**

(i) The report of the PWD (Road), Govt. of Meghalaya, states that the work has been laid well in difficult hilly terrain within a reasonable rate.

(ii) The report of the PWD (Bldg.) Govt. of Meghalaya states that the construction of building was not as per prior projection. However the difference in cost between the rate adopted at site and the PWD (B) SOR prevailing during issue of Work Order is reasonably within limit. The plinth area rate is 31.66% lower than that of PWD rates. This is due to the temporary nature of the Buildings.

1.7 **Forest Dept**

The Chief Conservator of Forests, Govt. of Meghalaya stated that the survival of the saplings under afforestation work in the barren catchment area appears to be poor due to rocky landscape and shifting cultivation and the resultant fire.

1.8 MePGCL has also submitted the summary of the report of IIT Roorkee on the project and its capital cost as below:

IIT Roorkee

IIT, Roorkee has stated that;

(i) "As mentioned in the report, the project took seven years to complete, started in the year 2005 and completed in 2012. Considering the climatic condition (extended rainy season), poor geology, floods of 2009 and 2010, addition of third Unit in the project in 2008, additional measures adopted to resist the acidic nature of the river water at a later stage, the delay in completion may be accepted. Such delays are normal in projects in Himalayas due to its complex geology and occurrence of flash floods.

(ii) The cost of completion has increased from the revised estimate cost (2006) of project. This increase is due to increase in cost of work (hard cost), due to escalation and IDC. It is seen that hard cost increase is due to poor geological conditions encountered during execution, due to change in design for the addition of 3rd Unit, due to the measures required to mitigate the effect of acidic nature of river water and inadequate or no provision for works which were later found necessary to complete the work.

(iii) Thus per MW cost shall be favourably viewed for the conditions under which the project is constructed such as :

- *The climatic condition (Extended rainy seasons of eight months)*
- *Poor Geology*
- *Unprecedented Floods of 2009 and 2010*
- *Addition of third Unit in the Project in 2008*
- *Additional measures adopted to resist acidity of the water.*
- *Remoteness and backwardness of the area.*

In view of these factors, the cost of Rs. 10.27 Crore per MW at the present price index appears reasonable".

1.9 After submission of report by IIT Roorkee, MePGCL sought comments of the IIT Roorkee for the delay in execution of the project resulting in cost overrun (in monetary terms) separately as desired by the Commission are;

i. Due to factors which are entirely attributable to generation company (imprudence in selecting supplies and contractual agreement, mismanagement of finance, improper coordination etc.)

ii. Due to factors beyond the control of generating company (force majeure like natural calamity or any other factor clearly establish beyond any control that there is no imprudence by the generating company and

iii. For the situations not covered in (i) and (ii) above IIT Roorkee had briefly explained the reasons for the delay in execution of the Project and the result of cost overruns in their Letter No. IITR/WR/DK/MePGCL/1135, dated 01.10.2015

The extracts of the letter are briefly given below:

(i) "Nil, because the investigation of underground strata and geological conditions for design and construction of foundation of any dam, power house or tunnel etc., and site specific parameters like acidity of water in this case, are always concurrent as well as inseparable from corresponding design and construction activities for any Hydro Electric Project.

(ii) Rs. 4.934 Cr, on account of the core hard cost of various activities (like dewatering, removal of silt, construction of protection and river training works, painting and replacement of anodized aluminium etc., which were necessitated due to floods of 2009 and 2010.

(iii) Nil,"

In addition relevant findings as given in the IIT, Roorkee letter cited above to appreciate the increase in cost of project on various accounts are reproduced below:

"The total increase in cost from 2007 to 2013 is Rs. 1286.53 Cr – Rs. 785.88 Cr = Rs. 500 Cr (Approx). The total increase of Rs. 500 Cr mainly comprises of":

- *Increase in core hard cost amounting to approximately Rs. 55 Cr (excluding the cost due to price variation) of main project components (dam, water conductor, penstock, power house and E&M)*
- *Increase due to price variation is Rs. 34 Cr (approx.)*
- *Increase due to escalation is Rs. 47 Cr (Approx.,) and*
- *Payment of Rs. 300 Cr towards IDC during this period.*

- *Rest Rs. 65 Cr would have been due to the increase in cost due to roads, buildings, environment and establishment during this period which have not been looked into by IIT, as per Terms of reference."*

Hence out of an increase of Rs. 500 Cr the increase in Core hard cost is only Rs. 55 Cr. It is found that it is because of change in design to provide measures against acidity of water, changes in design of water conductor and power house and tail race due to addition of 3rd Unit and due to geological problems encountered in execution of penstock anchors and foundation of 3rd Unit in the Power house and so it was considered reasonable and acceptable.

The introduction of 3rd Unit after 2008 required changes in the design of intake, surge tank, tunnel and tail race which delayed the completion of other works. The delay was compounded due to the unprecedented floods in 2009 and 2010. These delays increased the cost escalation which is worked out as per agreement clause. Hence, these were considered acceptable.

The IIT, however, felt that the above increase in cost due to change in design for acidity of water, geology and later addition of 3rd Unit could have been minimized had there been timely and coordinated efforts between various agencies involved in planning, investigation and design in the initial stage of the project because the construction of a hydropower project involves agencies for civil, electrical and mechanical works and the planning requires coordination among the three to complete the project in minimum time. Hence such time and cost overrun happens for various reasons on practically all the hydropower projects and are considered in the backdrop of the circumstances in which it happens. The circumstances in which it has happened on this project have been explained in the report for further consideration.

Similarly, a perusal of the cash flow has revealed that loan was taken from various agencies starting from 2000-01 to 2013-14 whereas the actual construction work started from 2005 and was completed by 2012. The loan was also taken at a high interest rate ranging from 12 to 15% annually. This has increased the share of IDC in the project cost to the extent of Rs 342 crores which is slightly more than 25% of total project cost. Better financial management could possibly have reduced this cost. Nevertheless there are many other factors which govern the availability of loan from various sources.

Our intent in flagging various Issues in the report is to ensure that lesson shall be learnt and recurrence shall be avoided in future for new projects.

1.10 On the basis of the above reports, the MePGCL has submitted the Petition for approval of Capital Cost of the project with the following observations for the consideration of the Commission.

(i) It can be concluded that the project was delayed due to rains, poor geology, floods, addition of third unit and the acidic nature of water.

(ii) The cost is reasonable and comparable with other Projects recently completed or going to be completed in the region.

(iii) There was no major fault and irregularities found by the Technical Committee.

The Petitioner has requested before the Commission to accept the total cost of the project as given in the Table below:

Table 1: Details of Project Cost of MLHEP

(Rs. Crore)

Sl. No.	Particulars	Based on Audited Statement of Accounts for FY 2012-13.				Addition during the year 2013-14(provisional)
		GFA as on 31.03.2013	CWIP (2012-2013)	Total Capital Cost (as on 31.3.2013)	Asset Value as on 1.4.2013	Based on bills received/ Payment made but not accounted in the FY 2012-13 & bills received in the FY 2013-14.
1	Land	15.54	-	15.54	15.54	13.21

Sl. No.	Particulars	Based on Audited Statement of Accounts for FY 2012-13.				Addition during the year 2013-14(provisional)
		GFA as on 31.03.2013	CWIP (2012-2013)	Total Capital Cost (as on 31.3.2013)	Asset Value as on 1.4.2013	Based on bills received/ Payment made but not accounted in the FY 2012-13 & bills received in the FY 2013-14.
2	Buildings	91.52	52.27	143.79	143.79	4.77
3	Hydraulic Works	590.14	29.89	620.03	620.03	15.26
4	Other Civil works	114.10	0.00	114.10	114.10	3.33
5	Plant & Machinery	325.77	19.05	344.82	344.82	23.91
6	Lines & cables	4.32	0.00	4.32	4.32	0.19
7	Vehicles	0.24	0.00	0.24	0.24	-
8	Furniture	0.04	0.00	0.04	0.04	0.04
9	Office	0.16	0.00	0.16	0.16	0.02
10	Adjustment	-	-	-	-	(6.75)
	Total	**1141.83**	**101.21**	**1243.04**	**1243.04**	**53.98**

The total capital cost is certified by the Statutory Auditors. The report concludes that the increase in capital cost due to various reasons is beyond the control of the project executing authority i.e., MePGCL.

MEPGCL has also submitted that the 3rd Unit is added to utilise the water available during Monsoon Season as it is a Run of River Project, otherwise the water would go waste.

1.11 Observations and decision of the Commission

The project cost has been revised four times since 1999, first revision was in 2007 from Rs. 363.03 Cr to 671.29 Cr before actual construction work started and even before the 3rd Unit was contemplated, the second revision was in 2009 after 3rd Unit was added and 4th & final revision was in 2013 at Rs. 1286.53 Cr after all the Units are commissioned.

The Commission has considered the reports of the Chief Engineer, PWD Roads and Buildings, Chief conservation of Forests and IIT, Roorkee are the Members of Technical Committee Constituted by the State Government. The IIT Roorkee having studied various documents provided by MePGCL visited the sites had personal discussions/clarifications and had come to the conclusion that out of increase of Rs. 500 Cr, about Rs. 300 Cr is due to IDC during the construction period. It had also been noted by IIT Roorkee in its report that this is mainly due to taking loans from various sources from 2000-01 whereas the actual construction works started from 2005 and completed by 2012. The loan was taken at high interest rate varying, from 12 to 15% annually which has increased the share of IDC in the project cost. Better financial management could possibly have reduced the cost. Nevertheless there are many other factors which govern the availability of loans from various sources and this is also, easier said than done. It was noted that no comment was made on this aspect in the CAG report.

As observed by the Technical Committee and also IIT Roorkee the increase in cost is not due to mismanagement in the execution of project and also not due to any of the three reasons which the Commission had asked to be examined. It is generally commented by IIT, Roorkee that project cost at Rs. 10.27 Cr/MW is comparable with other ongoing similar Hydro Power Projects in the region. The lists of such projects are given in its report in annexure III.

The True up of FY 2013-14, Provisional True up of FY 2014-15 and approval of Annual Generation Tariff for FY 2015-16 to FY 2017-18 will be considered along with the approval of Generation Tariff for other Generating Stations for FY 2017-18.

Since the project is completed and all the three units are in operation giving satisfactory service and earning substantial revenue, the Commission hereby approves the revised project cost at Rs. 1134.28 Crore as on 01.04.2013 as certified by the Statutory Auditors after deducting the CWIP and value of infirm power for Rs. 7.55 Crore as per Regulation 63, MSERC Regulations, 2011.

2. Petition for True up of MLHEP Business for FY 2013-14 & Provisional true up for FY 2014-15

Introduction

The Power Supply Industry in Meghalaya had been under the control of the erstwhile Meghalaya State Electricity Board (MeSEB) with effect from 21st January 1975. On 31st March 2010, the State Government issued a Notification "The Meghalaya Power Sector Reforms Transfer Scheme 2010" thereby giving effect to the transfer of assets, properties, rights, liabilities, obligations, proceedings and personnel of the erstwhile MeSEB to four successor companies. On 31st March 2012, the Government of Meghalaya issued further amendment to the above mentioned transfer scheme, to transfer Assets and Liabilities including all rights, obligations and contingencies with effect from 1st April, 2012 to, namely:

- Generation: Meghalaya Power Generation Corporation Ltd. (MePGCL)
- Transmission: Meghalaya Power Transmission Corporation Ltd. (MePTCL)
- Distribution: Meghalaya Power Distribution Corporation Ltd. (MePDCL)
- Meghalaya Energy Corporation Limited (MeECL), a holding company.

The Government of Meghalaya has notified the 4th Amendment to the Notified Transfer Scheme dated 31st March 2010 on 29th April 2015, wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.

The MSERC is an independent statutory body constituted under the provisions of the Electricity Regulatory Commissions (ERC) Act, 1998, which was superseded by the Electricity Act (EA), 2003. The Hon'ble Commission is vested with the authority of regulating the power sector in the State, inter alia, including determination of tariff for electricity consumers.

Provisions of Law

The Hon'ble Commission has notified the MYT Regulations, 2014 on 25th September, 2014. As per Regulation 3, 4 & 7 of the MYT Regulations, 2014, the Hon'ble Commission will determine ARR for the Generation Company under Multi Year Tariff framework from 1st April, 2015 onwards. The relevant regulations are reproduced below for reference:

*"**3 Scope of Regulation***

3.1 The Commission shall determine tariff within the Multi-Year Tariff framework, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:

i. Supply of electricity by a Generating Company to a Distribution Licensee:

   Provided that where the Commission believes that a shortage of supply of electricity exists, it may fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating Company and a Distribution Licensee or between distribution licensees, for a period not exceeding one year to ensure reasonable prices of electricity;

ii. *Intra-State transmission of electricity and SLDC charges;*

iii. *Intra-State Wheeling of electricity;*

iv. *Retail supply of electricity:*

   Provided that in case of distribution of electricity in the same area by two or more Distribution Licensees, the Commission may, for promoting competition among Distribution Licensees, fix only maximum ceiling of tariff for retail sale of electricity:

   Provided further that where the Commission has allowed open access to certain consumers under sub-section (2) of Section 42 of the Act, the Commission shall determine the wheeling charges, cross subsidy surcharge, additional surcharges and other open access related charges in accordance with these regulations and MSERC

(Terms and Conditions of Open Access) Regulations 2012 as applicable and as amended through Orders issued by the Commission from time to time

The Commission may also determine the rate at which the Distribution Licensee can supply power to other Distribution Licensees in the State.

3.3 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government pursuant to Section 63 of the Act.

3.4 These regulations shall not apply to renewable sources of energy which shall be governed by separate regulations of the Commission.

4 ***Multi-Year Tariff framework***

4.1 The Commission shall determine the tariff for matters covered under clauses (i), (ii), (iii) and (iv) of regulation 3 above under Multi- Year Tariff framework with effect from April 01, 2015.

Provided that the Commission may, either on suo-moto basis or upon application made to it by an applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.

4.2 The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, and Distribution Business:

a) A detailed Business Plan based on the principles specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval:

7 Applicability

7.1 The Multi-Year Tariff framework shall apply to applications made for determination of tariff for a Generating Company, Transmission Licensee, and Distribution Licensee for Distribution Business."

The Regulation 6 & 41 of the MYT Regulations, 2014, provides the guidelines for filing of Multi Year Tariff. The relevant sections are reproduced below:

*"**6 Accounting statement and filing under MYT***

6.1 The filing under MYT by the Generating Company, Transmission Licensee, and Distribution Licensee, shall be done on or before 30th November each year to the Commission and in compliance with the principles for determination of ARR as specified in these Regulations, in such formats and at such time as may be prescribed by the Commission from time to time. The filing of truing up of petitions prior to MYT period shall be done in the manner and at such time as may be decided by the Commission.

6.2 The filing of MYT Petition for the Control Period under these Regulations shall be as under:

a) MYT Petition shall comprise of:

i. Multi-year Aggregate Revenue Requirement for the entire Control Period with year-wise details;

ii. Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the first year of the Control Period under these Regulations.

iii. Application for determination of tariff for first year of the Control Period.

41 Petition for determination of generation tariff

41.1 A Generating Company is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of Chapter 2 of these Regulations.

41.6 A Generating Company shall file a fresh Petition in accordance with these Regulations, for determination of final tariff based on actual capital expenditure incurred up to the date of commercial operation of the Generating Station duly certified by the statutory auditors based on Annual Audited Accounts.

41.7 Any difference in provisional tariff and the final tariff determined by the Commission and not attributable to the Generating Company may be adjusted at the time of determination of final tariff for the following year as directed by the Commission."

As per Regulation 8 of the MYT Regulations, 2014, MePGCL has to file a Business Plan for the control period of FY 2015-16 to FY 2017-18. The relevant regulation is reproduced below:

*"**8 Business Plan***

8.1 The Generating Company, Transmission licensee, and Distribution Licensee for Distribution Business, shall file a Business Plan for the Control Period of three (3) financial years from 1st April 2015 to 31st March2018, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets, in accordance with guidelines and formats, as may be prescribed by the Commission from time to time:

Provided that a mid-term review of the Business Plan/Petition may be sought by the Generating Company, Transmission Licensee and Distribution Licensee through an application filed three (3) months prior to the specified date of filing of Petition for truing up for the second year of the Control Period and tariff determination for the third year of the Control Period.

8.2 The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will *commence in the Control Period but may be completed within or beyond the Control Period. The Commission shall consider and approve the capital investment plan for which the Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Business, may be required to provide relevant technical and commercial details.*

8.3 The Distribution Licensee shall project the power purchase requirement based on the Merit Order Dispatch principles of all Generating Stations considered for power purchase, the Quantum of Renewable Purchase Obligation (RPO) under Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and Compliance) Regulations, 2010 and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes.

8.4 The Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Business, shall get the Business Plan approved by the Commission.

Since the MSERC MYT Regulations are applicable for the determination of tariff effective from 1st April 2015, the true up of FY 2013-14 and FY 2014-15 have been done in accordance with the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011 notified on 10th February 2011 (hereinafter referred as "Tariff Regulations, 2011"). These Regulations provide the framework under which the licensees shall operate. Accordingly, the key provisions for true up under the said Regulations are reproduced below for reference:

"15. Review and Truing-Up

(1) The Commission may adopt MYT principles for matters relating to calculation of revenue requirements and tariff determination of the Generating companies and the licensees including the extent of investment, deduction of loss levels, other efficiency gains, revision in charges, changes in tariff

structure, and such other matters as the Commission may direct by a general or special order.

(2) After Audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the Audited accounts. This exercise with reference to Audited accounts shall be called 'truing-up'.

(3) 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."

"13. Sharing of Profits and Losses

13. 1 The Commission shall –

(1) cause the generating company or the licensee, as the case may be, to pass on 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, to Consumers, by adjustment in the next years ARR and consequential distribution tariff rates;

(2) allow the generating company or the licensee to retain 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, for their organization; and

(3) cause the generating company or licensee as the case may be to deposit the remaining 30 percent of such profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, into a Contingency Reserve Fund which should be operated in a manner

specified by the Commission for such purpose. No amount from such contingency reserve fund may be drawn without the prior written approval of the Commission, which may be granted on the arising of such contingency conditions as may be specified by the Commission, through issue of suitable guidelines for such purpose;

13.2 The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time, unless it can satisfy the Commission that such losses were incurred after complying with the provisions of these regulations and such Orders as may have been passed by the Commission, for reason which are well beyond normal human control."

Submissions before the Honorable Commission

MePGCL hereby submits the petition under section 61, 62(a) of the Electricity Act, 2003 and the MSERC Tariff Regulations, 2011 and the MSERC MYT Regulations, 2014 as amended from time to time for approval of Capital cost, True up of FY 2013-14, Provisional true up of FY 2014-15, ARR and Tariff of MLHEP for the control period of FY 2015-16 to FY 2017-18.

Capital Cost of MLHEP

The Units I & II of Myntdu Leshka Hydro Electric Plant (MLHEP) was Commissioned on 1st April 2012 and subsequently, the Unit III was commissioned on 1st April 2013. The declaration regarding the same, from the Office of the Director (Generation), MePGCL has been annexed as Annexure – V. The Regulation 52 of the MYT Regulations, 2014 defines the capital cost of a Hydro Power Generating Station. Relevant sections of the regulation are reproduced below for ready reference:

" 52. Capital cost

52.1 The actual capital expenditure on the date of commercial operation in the case of new investment shall be subject to prudence check by the commission.

52.2 Scrutiny of cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financial plan, and interest during construction period, use of efficient technology, and such other matters for determination of tariff.

52.6 The project cost already admitted by the Commission for purpose of tariff determination shall be considered as the original project cost.

52.7 The Commission shall issue guidelines for:

a. Verifying the capital cost of Hydroelectric projects by an independent agency or expert and in such a case, the capital cost as vetted by such agency or expert may be considered by Commission after prudence check while determining the tariff for hydro generating station."

It is submitted that in the Tariff Order dated 30th March, 2013, the Hon'ble Commission had approved the AFC of MLHEP on provisional basis. However, Hon'ble Commission has not approved the project cost of MLHEP.

The direction of the Hon'ble Commission in the Tariff Order dated 30th March, 2013 (Page -84) is produced here for reference:

"Accordingly the Commission is directing MePGCL the following:
(i) to request the State Government to constitute an expert committee for examining the cost of the project and take necessary steps to get the approval of CEA after completing the COD of all three units.'
(ii) to file a tariff petition to determine final tariff for Leshka project after COD is achieved in accordance with CERC Regulations.
(iv) the filing should be based on audited accounts of expenditures incurred on Leshka Project."

"Considering the financial commitments of MePGCL towards repayment of loans along with interest of PFC and GoM, the Commission is allowing an interim tariff of Rs. 2.83/kWh on the basis of normative standards. SLDC charges of Rs.0.5 crores shall be payable by MePGCL to SLDC. This amount shall be recovered from MePDCL separately. This in an interim arrangement till such time final determination of tariff is completed with due public consultation. This tariff shall give MePGCL Rs.135.54 crores in 2013-14 subject to condition that it generates designed energy in 2013-14 and units are available for generation. This interim tariff is allowed for 2013-14 subject to validation after application of final tariff is received. The Commission has already taken a view that without audit records, the Commission is allowing the same ROE as allowed last year to be allotted equally to each company in the State. To enable the MePGCL to ensure that its financial commitments are met, MePDCL is also directed to release the payments against the fixed charges of Rs.67.77 crores distributed equally in 12 monthly installments provided units are available for generation subject to verification by SLDC. Energy charges shall be paid at the rates approved in table 18 @Rs.1.415/unit for the actual energy generated from MLHEP units on monthly basis. Any adjustment on account of final tariff to be determined by the Commission on the petition of MePGCL after approval of the capital cost by CEA shall be made thereafter."

It is further submitted that as directed by the Hon'ble Commission in the Tariff Order dated 30th March, 2013, MePGCL had approached the Central Electricity Authority (CEA) and requested the State Government to set up a technical committee, for vetting of the completion cost of MLHEP. However the Central Electricity Authority (CEA) cited that as per Electricity Act 2003, the tariff of the project is decided by the regulatory commission, and therefore CEA has no mandate of vetting revised Cost estimate and advised MePGCL to approach the Hon'ble Commission for vetting the same. As requested by MePGCL, the State Government of Meghalaya has formed the State level technical committee for review of the project cost.

The Government of Meghalaya vide its letter No. PE – 85/2008/84 dated: 28th November, 2013 constituted the Technical Committee for submission of final reports on completion cost of MLHEP stating the terms of reference for the committee. The notification from the Government of Meghalaya is as Annexure-I

The Hon'ble Commission in the Tariff Order dated 10th April, 2014, gave an interim order provisionally approving the ARR, same as that for FY 2013-14. The statement of the Hon'ble Commission is reproduced below for reference:

"MePGCL has prayed that the Commission to approve the completion cost of the MLHEP at Rs 1286.53 crores. Commission has made its stand known that it is not within its ambit to approve or vet the cost of the project as it also involves factors relating to hydrological and other technical aspects apart from financial consideration as a whole. The Commission will only await the Technical Expert Committee's report and examine if any further information or data is required. To simply approve it for Rs 1286.53 crores as prayed for will be an empty formality with no factual or legal ground. For the present, the ARR is provisionally accepted for Rs 135.54 crores, same as that for 2013-14, which will include Rs.67.77 crores as fixed charges and Rs.1.415 per unit as energy charges. The fixed charges shall be paid by MePDCL in twelve monthly installments provided that machines are available for generation. Similarly, energy charges shall be paid on actual generation. The Commission will take a final view when the report of the independent expert panel and the audited accounts are made available and if necessary, suitable modifications will be made."

The convener of the Technical committee has submitted the report vide letter dated: 23rd Feb, 2015 and the abstract of the findings of the same are produced below:

I. The main Project components were generally executed as per construction drawings received from Central Water Commission and Central Electricity Authority.

II. *The realization of the impact of acidity of water and the preventive measures adopted were in line with the recommendations of authorities like Central Soil and Materials Research Station (CSMRS) and other authorized consultants.*

III. *The payments have been made as per conditions of agreement and sanctions accorded by the competent authorities of the project.*

IV. *The project work actually started in 2005 and completed in 2012. Thus it took seven years instead of scheduled 5 years. Extended rainy season in the Project area, poor geology, addition of one more unit and the unprecedented floods of 2009 and 2010 are the major reasons to justify the marginal time overrun.*

V. *The road network of almost 44km in the Project area is more or less as per prior projection and has been laid well in the difficult hilly terrain. The stipulated specification has been adhered to and has been done in reasonable rates.*

VI. *The specifications and the cost incurred for buildings are not as per the prior projection. This is understood as many buildings were constructed only for the construction phase of the Project and are makeshift in nature. However, the preparation for buildings in the steep terrain was costly as many slope protection walls had to be constructed and these added to the cost.*

VII. *The afforestation work under the catchment treatment plan did not go well because of rocky landscape. The survival rates of planted trees are not satisfactory. The afforestation in the catchment will continue till 2018.*

VIII. *In totality, no intentional wrong doings could be detected in the perused documents and the completion cost of Rs 1286.53 Crore seems to be justified. The Cost/MW came to be Rs 10.20 Crore which is reasonable against the difficult backdrop of the project execution. Rs 10.20 Crore per MW cost can be compared with the other hydroelectric projects of the region.*

IX. *Adequate planning and better construction and financial management would have resulted in some savings.*

The report of the Technical committee is appended as Annexure –VII together with the letter conveying the concurrence of the state Govt. to the report.

The summary of the reports of the committee is as follows:

A. IIT Roorkee

IIT Roorkee, a constituent of the technical Committee has reported as follows:

1) As mentioned in the report, the project took seven years to complete, started in the year 2005 and completed in 2012. Considering the climatic condition (extended rainy season), poor geology, floods of 2009 and 2010, addition of third Unit in the project in 2008, additional measures adopted to resist the acidic nature of the river water at a later stage, the delay in completion may be accepted. Such delays are normal in projects in Himalayas due to its complex geology and occurrence of flash floods.
2) The cost of completion has increased from the revised estimate cost (2006) of project. This increase is due to increase in cost of work (hard cost), due to escalation and IDC. It is seen that hard cost increase is due to poor geological conditions encountered during execution, due to change in design for the addition of III Unit, due to the measures required to mitigate the effect of acidic nature of river water and inadequate or no provision for works which were later found necessary to complete the work.
3) This per MW cost shall be favourably viewed for the conditions under which the project is constructed such as :
   i. The climatic condition (Extended rainy seasons of eight months)
   ii. Poor Geology
   iii. Unprecedented Floods of 2009 and 2010
   iv. Addition of third Unit in the Project in 2008
   v. Additional measures adopted to resist acidity of the water.
   vi. Remoteness and backwardness of the area.

   In view of these factors, the cost of Rs. 10.27 Crores per MW at the present price index appears reasonable.

The detailed report on Cost verification of MLHEP is appended as Annexure- VIII.

B. PWD (Road & Bldg.)

1) The report of the PWD (Road) Govt. of Meghalaya, states that the work has been laid well in difficult hilly terrain within a reasonable rate.
2) The report of the PWD (Bldg.) Govt. of Meghalaya states that the construction of building was not as per prior projection, however the difference in cost between the rate adopted at site and the PWD (B) SOR prevailing during issue of Work Order is reasonably within limit. The plinth area rate is 31.66% lower than that of PWD rates. This is due to the temporary nature of the Buildings.

The reports of the Chief Engineer, PWD (Roads), Govt. of Meghalaya, vide Letter No. PW/TB/RD/13/2013/22 dated: 29th Oct, 2014 and the report of the Chief Engineer (C), PWD (Buildings) Govt. of Meghalaya, for completion Cost of Building Works of MLHEP vide letter No. PW/SE/D8/2006/126 dated: 28th Jan, 2015 are appended as Annexure- IX & X respectively.

C. Forest Dept.

The Chief Conservator of Forests, Govt. of Meghalaya stated that the survival of the saplings under afforestation work in the barren catchment area appears to be poor due to rocky landscape and shifting cultivation and the resultant fire.

The report from the Chief Conservator of Forests-in-charge (M&E) is appended as Annexure – XI.

On the basis of the above report, the MePGCL would like to place the following observations:

1. It can be concluded that the project was delayed due to rains, poor geology, floods, addition of third unit and the acidic nature of the water.

2. The cost is reasonable and comparable with other Projects recently completed or going to be completed.
3. There was no major fault and irregularities found by the Technical Committee.
4. Units I and II were commissioned on 1st April 2012 and subsequently, the third unit of the project was finally commissioned on 1st April 2013.

It is therefore prayed before the Hon'ble Commission to accept the capital cost of the project as given below:

Audited Project Cost of 3 x 42MW MLHEP as on 31st March, 2013

Sl. No.	Particulars	GFA as on 31.3.2013	CWIP (as on 31.03.2013)	Capital Cost (as on 01.04.2013)
		(Rs. Crore)	(Rs. Crore)	(Rs. Crore)
1	Land	15.54	-	15.54
2	Buildings	91.52	52.27	143.79
3	Hydraulic Works	590.14	29.89	620.03
4	Other Civil works	114.10	-	114.10
5	Plant & Machinery	325.77	19.05	344.82
6	Lines & cables	4.32	-	4.32
7	Vehicles	0.24	-	0.24
8	Furniture	0.04	-	0.04
9	Office Equipment	0.16	-	0.16
	Total	**1141.83**	**101.21**	**1243.04**

Audited Project Cost of 3X42MW MLHEP as on 31st March, 2014

Sl. No.	Particulars	GFA as on 31.3.2014	CWIP (as on 31.03.2014)	Total (as on 31.3.2014)	Rebates/ Discount (as on 31.03.2014)	GFA (as on 01.04.2014)
		(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	28.75	-	28.75	-	28.75
2	Buildings	146.43	-	146.43	-	146.43
3	Hydraulic Works	634.26	-	634.26	11.24	623.02
4	Other Civil works	117.43	-	117.43	-	117.43
5	Plant& Machinery	365.09	-	365.09	-	365.09
6	Lines & cables	4.57	-	4.57	-	4.57
7	Vehicles	0.24	-	0.24	-	0.24
8	Furniture	0.08	-	0.08	-	0.08
9	Office Equipment	0.18	-	0.18	-	0.18
	Total	**1297.02**	**0.00**	**1297.02**	**11.24**	**1285.78**

Audited Project Cost of MLHEP 3X42 MW as on 31st March, 2015

S.l No	Particulars	GFA as on 31.03.2015	CWIP (as on 31.03.2015)	Rebates/ Discount (as on 31.03.2015)	GFA (as on 01.04.2015)
		(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	28.79	-	-	28.79
2	Buildings	146.46	-	-	146.46
3	Hydraulic Works	623.10	-	-	623.10
4	Other Civil works	117.57	-	-	117.57
5	Plant & Machinery	365.16	-	-	365.16
6	Lines & cables	4.57	-	-	4.57
7	Vehicles	0.24	-	-	0.24
8	Furniture	0.08	-	-	0.08
9	Office Equipment	0.18	-	-	0.18
	Total	**1286.13**	**0.00**	**0.00**	**1286.13**

Audited Project Cost of MLHEP 3X42 MW as on 31st March, 2016

Sl. No	Particulars	GFA (as on 31.03.3016)	CWIP (as on 31.03.3016)	Rebates/Discount (as on 31.03.2016)	Assets Values (as on 31.03.2016)
		(INR Crore)	(INR Crore)	(INR Crore)	(INR Crore)
1	Land	23.90	0.00	0.00	23.90
2	Buildings	146.68	0.00	0.00	146.68
3	Hydraulic Works	623.60	0.00	0.00	623.60
4	Other Civil works	122.70	0.00	0.00	122.70
5	Plant & Machinery	364.57	0.00	0.00	364.57
6	Lines & cables	4.57	0.00	0.00	4.57
7	Vehicles	0.46	0.00	0.00	0.46
8	Furniture	0.08	0.00	0.00	0.08
9	Office Equipment	0.18	0.00	0.00	0.18
	Total	**1286.74**	**0.00**	**0.00**	**1286.74**

MePGCL submits before the Hon'ble Commission to kindly approve the capital cost of Myndtu Leshka HEP as Rs 1286.74 Crore as on 1st April 2016 as duly certified by the statutory auditors. The Auditors' Certificate of capital cost of MLHEP is attached with the petition.

Additional Capitalization

The regulation 29 of the MYT Regulations, 2014 provides for additional capitalization as reproduced below:

"29 Additional Capitalization

29.1 The following capital expenditure, actually incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to the prudence check:

a) Due to Un-discharged liabilities within the original scope of work;

b) On works within the original scope of work, deferred for execution;

c) To meet award of arbitration and compliance of final and un-appealable order or decree of a court arising out of original scope of works;

d) On account of change in law;

e) On procurement of initial spares included in the original project costs subject to the ceiling norm specified;

f) Any additional works/services, which have become necessary for efficient and successful operation of a generating station or a transmission system or a distribution system but not included in the original capital cost:

Provided that original scope of work along with estimates of expenditure shall be submitted as a part of Business Plan: Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating Unit/Station or transmission system or distribution system. Provided further that the assets forming part of the project but not put to use, shall not be considered."

Therefore, as per the regulation, the works which were within the original scope of works but deferred for execution and works due to un-discharged liabilities within the original scope of work, will form the part of additional capitalization.

As per the details of capital cost submitted in the above section, MePGCL has incurred an additional capitalization of Rs. 43.70 Crore, over the years FY 2013-14 to FY 2015-16, mainly on account of un-discharged liabilities and deferred works.

MePGCL prays before the Hon'ble Commission to allow this amount as additional capitalization and claim this amount within total capital cost.

Funding Pattern of MLHEP

The Myntdu Leshka HEP has been funded by a mix of Loans and Equity as elaborated below.

Loans

Till date, MePGCL has availed loans for a sum of Rs. 801.24 Crore for the construction of the MLHEP from various sources and has also planned for availing an additional loan of Rs. 99.48 Crore as tabulated below:

Loan details of MLHEP

Source	Amount (INR Crore)
Rural Electrification Corporation (REC)	253.04
Power Finance Corporation (PFC)	240.20
BSE Bonds	170.00
Central Bank of India	75.00
Federal Bank of India	50.00
State Government Loan	13.00
Total Loans availed till date for MLHEP	**801.24**
Total Loan Eligibility as per Regulations (70% of Capital Cost)	900.72
Additional Loan to be availed for MLHEP	**99.48**

This additional loan is to be availed by end of FY 2016-17 from Rural Electrification Corporation (REC) at the existing card rate for such loans which is 12.50%.

The details of disbursement schedules of the above mentioned loans along with the respective interest rates of each tranche have been provided as per Format 7 and Annexure - XIII.

Equity

The Govt. of Meghalaya has infused an amount of Rs. 323.57 Crore of Equity for MLHEP vide various notifications which have been provided as Annexure – XIII. Another amount of Rs. 62.45 Crore is in the process of infusion as equity at the beginning of FY 2017-18 and thus, the total equity capital for the project would stand at Rs. 386.02 Crore which is 30% of the final project cost and is commensurate with the provisions of the MSERC MYT Regulations, 2014.

Therefore, the funding pattern of MLHEP can be summarized as below:

Funding Pattern of MLHEP

Source	Amount (INR Crore)	% of Total Project Cost
Loans		
Availed	801.24	
To be Availed	99.48	
Total Loans (A)	**900.72**	**70%**
Equity		
Infused	323.57	
To be Infused	62.45	
Total Equity (B)	**386.02**	**30%**
Total Project Cost (A) + (B)	**1286.74**	**100%**

MePGCL prays before the Honorable Commission to kindly approve the funding pattern for MLHEP as shown above.

Operational Norms and Design Energy

Norms of Operation

The Regulation 58 of the MYT Regulations, 2014 provides the norms for operation of Hydro Generating stations. The regulation is reproduced below for ready reference:

"58 Norms of operation

The norms of operation shall be as under:

58.1 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-da 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.

58.2 Auxiliary energy consumption:

(a) Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft ……………0.7% of energy generated.

(b) Surface hydro electric power generating stations with static excitation system…………………………………………1.0% of energy generated.

(c) Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft ….0.9% of energy generated.

(d) Underground hydro electric power generating stations with static excitation system …………………………………….…1.2% of energy generated.

58.3 Transformation losses

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

Design Energy

In the Tariff Order dated 30th March, 2013, the Hon'ble Commission had approved the design energy of MLHEP as 486.23 MUs. It is submitted that for FY 2017-18 the same Design Energy shall be adopted for computation of Energy charge. The month-wise and station wise design energy is provided in the Format HG3.

Computation of NAPAF for Run of River type plants: As per Regulation 58 (1) (c) of the MYT Regulations, 2014, 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 MLHEP works out to be 44%. Further as per Regulation 58 of the MYT Regulations, 2014, after considering further allowance of 5% for difficulties in North East Region, the NAPAF for MLHEP is proposed as 39%.

Net Generation for FY 2012-13 (Actual), FY 2013-14 (Actual) and FY 2014-15 (Actual) and FY 2015-16 (Actual), FY 2016-17 (Projected) and FY 2017-18 (Projected) are provided in the table below:

Generation from MLHEP

Year	Gross Generation (MU)	Normative Aux Cons @ 1% of Energy Generated (MU)	Normative Transformation Loss @ 0.50% of Energy Generated (MU)	Net Generation (MU)
FY 2013-14	413.30	4.13	2.07	407.10
FY 2014-15	409.38	4.09	2.05	403.24
FY 2015-16	445.90	4.46	2.23	439.21
FY 2016-17	438.83	4.39	2.19	432.25
FY 2017-18	450.00	4.50	2.25	443.25

It is submitted that the above figures of gross generation are actual figures for FY 2013-14, FY 2014-15 and FY 2015-16. The figures of FY 2016-17 are estimated based on the actual figures till October 2016 (402.90 MUs). The figures of FY 2017-18 are projected based on the past years' data.

MePGCL submits before the Hon'ble Commission to kindly approve the net generation from the project as provided in table above for MLHEP.

True up of FY 2013-14 and Provisional True up of FY 2014-15

Components of Tariff

The Regulation 52 of the MSERC Tariff Regulations, 2011, provides the Components of tariff for MePGCL. The relevant regulation is reproduced below for ready reference:

" 52 Components of tariff

52.1 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.

52.2 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.

52.3 The annual capacity charges recoverable shall be worked out by deducting other income from the total expenses.

Based on above provisions, MePGCL computes and provides hereunder, the various cost elements for determination of tariff.

1.2 Gross Fixed Assets

The closing GFA for each year is worked out considering actual capitalization during FY 2012-13, FY 2013-14 based on the auditor's certificate for each year.

Table: Gross Fixed Asset Details

Particulars	FY 2013-14 (Actual in INR Crore)	FY 2014-15 (Actual in INR Crore)
Opening GFA (INR Cr)	1,141.83	1,285.78
Additions during the year (INR Cr)	155.19	0.35
Less: Discount Received (INR Cr)	11.24	-
Closing GFA (INR Cr)	1,285.78	1,286.13

MePGCL submits before the Hon'ble Commission to kindly approve Gross Fixed Assets for MLHEP as submitted in the above table.

1.3 Computation of Return on Equity

The relevant regulations for determination of equity capital and the computation of return on equity 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.*

3) *The debt and equity amounts arrived at in accordance with clause (1) above shall be used for calculating interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.*
4) *Any expenditure incurred or projected to be incurred after notification of these Regulations as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be served on the manner indicated in sub-regulation (1) above."*

"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. 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."*

   Based on the audited total capital cost in FY 2013 and FY 2014-15, the normative debt-equity component for MLHEP is calculated in the table below.

Table Debt Equity of MLHEP as per Project Cost

Particulars	FY 2013-14 (INR Cr)	FY 2014-15 (INR Cr)
Total Project Completion Cost (Audited)	1,285.78	1,286.13
Equity Component (30%)	385.73	385.84
Debt Component (70%)	900.05	900.29

However, in accordance with the above regulations, since the actual infused equity is Rs. 323.57 Crore, which is less than 30% of the project cost, the actual equity is considered for Return on Equity calculation.

The Return on Equity for the project for FY 2013-14 and FY 2014-15 is as computed below:

Return on Equity Computation

Particulars	FY 2013-14	FY 2014-15
Opening Equity (INR Crore)	323.57	323.57
Additions during the year (INR Crore)	-	-
Closing Equity (INR Crore)	323.57	323.57
Equity Considered for RoE (INR Crore)	323.57	323.57
RoE % (Rs. Cr)	14%	14%
RoE (INR Crore)	**45.30**	**45.30**

MePGCL submits before the Hon'ble Commission to kindly approve the amounts computed above as RoE for both FY 2013-14, FY 2014-15 for Myndtu Leshka HEP.

1.4 Interest and Finance Charges

The relevant regulations as per MSERC Tariff Regulations, 2011 are reproduced below:

"54. Interest and finance charges on loan capital

54 (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.

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

54(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.

54 (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.

54 (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."

The various loans availed by MePGCL for the execution of MLHEP has been detailed out in Section 2.3 above. The Interest on loan obligations as per the actual for FY 2013-14 and FY 2014-15 is given in the table below:

Computation of Interest on Loan- MLHEP

Particulars	**FY 2013-14**	**FY 2014-15**
Opening Balance (INR Cr)	715.92	765.65
Addition During the Year (INR Cr)	71.89	-
Repayment During the Year (INR Cr)	22.16	35.45
Closing Balance (INR Cr)	765.65	730.20
Interest on Loan (INR Cr)	**82.78**	**88.85**

The loan details and Interest calculations are provided in Format – 7 of the petition.

MePGCL submits before the Hon'ble Commission to kindly approve the amounts computed above as Interest on Loan for FY 2013-14 and FY 2014-15 for MLHEP.

1.5 Operation and Maintenance Expenses

The Regulation 55 of MSERC Tariff Regulations , 2011 provides for Operation and Maintenance Expenses reproduced as under:

" 55. Operation and Maintenance Expenses

55 (1) Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses.

55 (2) Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

55 (3) The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for 2003-04 to 2007-08 price level. The average normal O&M expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the O&M expenses for the year2009-10.

55(4) The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

55 (5) The O&M expenses for 2009-10 shall be escalated further at the rate of 5.72% per annum as arrive at the operation and maintenance expenses for the subsequent years of the tariff period.

55(6) In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @5.17% per annum up to the year 2007-08 and then averaged to arrive at the O&M expenses at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period. (The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation).

55 (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."

Since MLHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 55 (7) at 2% of Project cost and further escalated at 5.72% to arrive at O & M expenses for FY 2013-14, and FY 2014-15.

O&M Expenditure

Particulars	**Amount (INR Cr)**
Total Project Cost	1,286.74
O&M Expenses for FY 2013-14 (2.00% of Project Cost after C.O.D)	25.73
O&M Expenses for FY 2014-15 (5.72% Escalation over previous years)	27.21

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses of Rs. 25.73 Crore and Rs. 27.21 Crore for FY 2013-14, FY 2014-15 respectively.

1.6 Depreciation

Depreciation is computed as per Regulation 57 of the MSERC Tariff Regulations, 2011and is calculated annually as per straight-line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) Regulations, 2009.

Furthermore, in the distribution tariff order dated 31st March 2016, the Hon'ble Commission has considered only provisional figures for the depreciation of MLHEP for FY 2012-13 due to the petitioner's inability to furnish details pertaining to project completion report together with the capitalization details under the approval of CEA for capital cost increase etc. and had directed the petitioner to file the present petition for the determination of final tariff of MLHEP at the earliest.

Therefore, in this section, the petitioner presents the depreciation of MLHEP for the years FY 2012-13, FY 2013-14 and FY 2014-15 for true up in the following table:

Computation of Depreciation of MLHEP (Rs. Crore)

Particulars	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**
Land & Land rights	-	-	-
Buildings	3.03	4.78	4.89
Hydraulic Works	31.11	32.42	32.75
Other Civil Works	3.79	3.85	3.92
Plant & Machinery	16.92	18.16	19.28
Lines & Cable Network	0.22	0.24	0.24
Vehicles	0.02	0.02	0.02
Furniture & Fixtures	0.00	0.00	0.00
Office Equipment	0.01	0.01	0.01
Total (INR Crore)	**55.11**	**59.49**	**61.12**

The details of depreciation of each asset class for each year have been provided in Format 6.

MePGCL, therefore, submits before the Hon'ble Commission to kindly approve Depreciation as shown above, for FY 2012-13, FY 2013-14 and FY 2014-15 for MLHEP.

1.7 Interest on Working Capital

The determination of working capital requirement and the computation of Interest on Working Capital is governed by Regulation 56 of the MSERC Tariff Regulations, 2011 which is reproduced hereunder for ready reference.

"56. Interest on Working capital

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.

56 (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."

In accordance with the above regulations, the Interest on Working Capital for MLHEP is computed below:

Interest on Working Capital

Particulars	**FY 2013-14**	**FY 2014-15**
O&M expenses for one month (INR Crore)	2.14	2.27
Maintenance spares @ 15% of O&M expenses Escalated by 6% per annum from date of C.O.D (INR Crore)	4.09	4.34
Receivables equivalent to two months of Fixed cost (INR Crore)	36.65	38.26
Total Working Capital Requirements (INR Crore)	42.88	44.87
SBI PLR as on 1st April of the respective Financial Year (%)	14.45%	14.75%
Interest on Working Capital (INR Crore)	**6.20**	**6.62**

MePGCL submits before the Hon'ble Commission to kindly approve the Interest on Working Capital as computed above on normative basis for FY 2013-14 and FY 2014-15 respectively for MLHEP.

1.8 Income Tax

Regulation 58 of the MSERC Tariff Regulations, 2011, provides for claim of Income Tax as expenses. MePGCL submits that no income tax have been claimed during the year FY 2013-14 and FY 2014-14 for MLHEP.

1.9 Connectivity and SLDC Charges

The Regulation 61 of MSERC Tariff Regulations, 2011 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per the approved tariff order of SLDC, the SLDC charges applicable for MLHEP for the FY 2013-14 and FY 2014-15 at Rs. 0.52 Crore and Rs. 0.47 Crore respectively.

1.10 Other Income

All Income other than income from sale of energy and net U I charges gained (after introduction of intra-state ABT) shall be grouped as other income. UI penalties shall not be netted off from other income. The UI penalties shall be borne by the generating company.

As per the audited statement of accounts for FY 2013-14 and Provisional statement of accounts for FY 2014-15, the actual non-tariff income earned by the licensee is Rs. 0.15 crore for FY 2013-14 and nil for FY 2014-15. The details are annexed as per FORMAT 10

1.11 Summary of Annual Fixed Cost – Myndtu Leshka HEP

The summary of the Annual Fixed Cost for FY 2013-14 and FY 2014-15 is provided in the Table below:

Table: Annual Fixed Cost for FY 2013-14 and FY 2014-15 (Rs. Crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Interest on Loan Capital		82.78	88.85
Depreciation	55.11	59.49	61.12
O&M Expenses		25.73	27.21
Interest on working Capital		6.20	6.62
Return on Equity		45.30	45.30
Income Tax		-	-
Connectivity & SLDC Charges		0.52	0.47
Gross Annual Fixed Cost	**55.11**	**220.03**	**229.57**
(-) Other Income		0.15	0.00
Net Annual Fixed cost (INR Cr)	**55.11**	**219.88**	**229.57**

MePGCL submits before the Hon'ble Commission to kindly approve the Annual Fixed Cost for MLHEP as shown above for the years FY 2013-14 and FY 2014-15 respectively.

1.12 Gap between Computed Annual Fixed Cost and Provisional Tariff approved by MSERC

The MSERC had determined the Annual Fixed Charges of Rs. 135.54 Crore as provisional tariff of MLHEP vide generation tariff order 2013-14 dated 30.03.2013. Revenue for sale of power was determined at a provisional tariff rate of Rs.2.83/kWh from MLHEP for FY 2013-14 and FY 2014-15.

The net gap incurred due to difference in actual sale of power at the MSERC determined provisional tariff and actual annual fixed charges to be recovered is given in the table below:

Net Gap for Truing Up of AFC for FY 2013-14 and Provisional Truing Up of FY 2014-15

Particulars	Adjustment of FY 2012-13	True up of FY 2013-14	Provisional True up of FY 2014-15
Net Annual Fixed cost (Actuals in Rs. Crore)	55.11	219.88	229.57
Net Sales in MU	NA	407.10	403.24
Provisional Tariff Rate (Rs/kWh)	NA	2.83	2.83
Revenue Realized from Sales (Rs. Crore)	NA	115.21	114.12
Net Gap for Truing up	**55.11**	**104.67**	**115.45**

It is submitted that MEPGCL is not proposing to recover the holding cost/ interest cost on the above gap and the same shall be borne by MePGCL. This is also in line with the order of Hon'ble Appellate Tribunal in Appeal no. 146 of 2014, dated 1st December 2015, in the matter of MePDCL and MSERC versus the objector, which states:

"We direct the State Commission to carry out the true-up by considering audited figures up to 2013-14 and provisional figures for FY 2014-15 and arrive the gap/surplus before approval of ARR and tariff petition for FY 2015-16. Further, the gap if any arrived in the process of true-up, the State Commission is directed not to levy carrying cost on the gap."

MePGCL, therefore humbly prays before the Hon'ble Commission to kindly approve the net gap as computed above in true up of FY 2013-14 and FY 2014-15 and allow the petitioner to recover the same through tariff in FY 2017-18.

2. Aggregate Revenue Requirement (ARR) for the 1st MYT Control Period from FY 2015-16 to FY 2017-18

2.1 Preamble

In accordance with the provisions of the MYT Regulations, 2014, MePGCL hereby submits ARR for FY 2015-16, FY 2016-17 and FY 2017-18 based on restructured segregated audited financials of FY 2012-13 and the 4th Amendment to the Notified Transfer Scheme.

MePGCL submits that Power Purchase Agreement (PPA) for supply of power from MLHEP to MePDCL was signed and as per the PPA, power will be supplied on cost plus basis. Therefore, MePGCL submits that the tariff for the hydro generating station may be determined on cost plus basis.

2.2 Components of Tariff

The Regulation 54 of the MYT Regulations, 2014, provides the Components of tariff for MePGCL. The relevant regulation is reproduced below for ready reference:

"Regulation 54 Components of tariff

54.1 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.

54.2 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.

54.3 The annual capacity charges recoverable shall be worked out by deducting other income from the total expenses"

Based on above provisions, MePGCL computes and provides herewith various cost elements for determination of tariff.

2.3 Gross Fixed Assets

The closing GFA for each year of the control period is worked out considering actual capitalization during FY 2012-13, FY 2013-14, FY 2014-15 and FY 2015-16 and projected capitalization during control period of FY 2015-16 to FY 2017-18. The details are shown in Format – 6 enclosed

Gross Fixed Assets (GFA) of MLHEP (Rs. Crore)

Particulars	FY 2012-13 (Audited)	FY 2013-14 (Audited)	FY 2014-15 (Actual)	FY 2015-16 (Actual)	FY 2016-17 (Projected)	FY 2017-18 (Projected)
Opening Value of Gross Fixed Assets	-	1,141.83	1,285.78	1,286.13	1,286.74	1,286.74
Additions during the year	1,141.83	155.19	0.36	9.93	-	-

Particulars	FY 2012-13 (Audited)	FY 2013-14 (Audited)	FY 2014-15 (Actual)	FY 2015-16 (Actual)	FY 2016-17 (Projected)	FY 2017-18 (Projected)
Retirements during the year	-	11.24	-	9.32	-	-
Closing Value of Gross Fixed Assets	**1,141.83**	**1,285.78**	**1,286.13**	**1,286.74**	**1,286.74**	**1,286.74**

MePGCL submits before the Hon'ble Commission to kindly approve Gross Fixed Assets for MLHEP as submitted in the above table.

2.4 Return on Equity

The Return on Equity computation for MLHEP for the control period of FY 2015-16 to FY 2017-18 has been computed by considering the actual equity infused and future plans of infusion in the project as elaborated in Section 2.3 above. The Return on Equity (RoE) for MLHEP for the 1st MYT control period is shown in the table below:

Return on Equity (RoE) of MLHEP

Particulars	FY 2015-16 (Actuals)	FY 2016-17 (Projected)	FY 2017-18 (Projected)
Opening Equity (INR Crore)	323.57	323.57	323.57
Additions during the year (INR Crore)	-	-	62.45
Closing Equity (INR Crore)	323.57	323.57	386.02
Average Equity Considered for RoE	323.57	323.57	354.80
Rate of Return %	14%	14%	14%
Return on Equity	**45.30**	**45.30**	**49.67**

MePGCL submits before the Hon'ble Commission to kindly approve the Return on Equity as computed in the above table for MLHEP for the 1st MYT Control Period.

2.5 Interest on Loan and Finance Charges

As per Regulation 32 of the MYT Regulations, 2014, 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 prevailing lending rate of bank and financial institution.

The present loan capital of MLHEP as well as the plan for future loans has been detailed out in Section 2.3 above. The summary of Interest and Finance charge for the Control Period taking into consideration the repayment schedule of the existing loans and projections for loans to be taken in the future is shown below (details are shown in Format- 7):

Interest and Finance Charges for the Control Period

Particulars	FY 2015-16 (Actuals)	FY 2016-17 (Estimated)	FY 2017-18 (Projected)
Opening Balance (INR Crore)	730.20	693.27	622.16
Addition during the Year (INR Crore)	0.00	0.00	99.48
Repayment during the Year (INR Crore)	36.93	71.11	176.89
Closing Balance (INR Crore)	693.27	622.16	544.76
Interest Payable (INR Crore)	82.69	76.06	74.48
Add: Finance Charges (INR Crore)	0.00	0.00	0.00
Total Interest & Finance Charges (INR Crore)	82.69	76.06	74.48

MePGCL prays before the Hon'ble Commission to kindly approve the Interest and Finance Charges as shown above for MLHEP for the Control Period FY 2015-16 to FY 2017-18.

2.6 Operation and Maintenance Expenses

As per Regulation 56 of the MYT Regulations, 2014, the Operation and Maintenance Expenses is a sum of Employee Cost, Repairs and Maintenance (R & M) Expense and Administrative and General (A & G) Expenses. The extract of the regulations is reproduced:

"Regulation 56 Operation and maintenance expenses

56.1 Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses

56.2 Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

56.3 The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for2003-04 to 2007-08 price level. The average normal O&M expenses at2007-08 price level shall be escalated at the rate of 5.72% to arrive at theism expenses for the year 2009-10.

56.4 The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

56.5 The O&M expenses for 2009-10 shall be escalated further at the rate of5.72% per annum as arrive at the operation and maintenance expenses forth subsequent years of the tariff period.

56.6 In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @5.17% per annum up to the year 2007-08and then averaged to arrive at the O&M expenses at 2007-08 price level. It shall be thereafter escalated @ 5.72% per annum to arrive at operation and maintenance expenses in respective year of the tariff period. (The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall *be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation).*

56.7 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"

Since MLHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 56 (7) at 2% of fixed cost and further escalated at 5.72% to arrive at O & M expenses for FY 2015-16, FY 2016-17 and FY2017-18.

O & M Expenditure

Particulars	**Amount (Rs. Crore)**
Project Cost	1286.74
O&M Expenses for FY 2013-14 (2% of Project Cost)	25.73
O&M Expenses for FY 2014-15 (5.72% escalation over previous Year)	27.21
O&M Expenses for FY 2015-16 (5.72% escalation over previous Year)	28.76
O&M Expenses for FY 2016-17 (5.72% escalation over previous Year)	30.41
O&M Expenses for FY 2017-18 (5.72% escalation over previous Year)	32.15

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses as computed above on normative basis for the control period i.e. FY 2015-16, FY 2016-17 and FY 2017-18.

2.7 Depreciation for the Control Period

Depreciation is computed as per Regulation 33 of the MYT Regulations, 2014. The depreciation is computed on the final gross value of the assets by straight line method using depreciation rates as prescribed in Appendix – III of the CERC Tariff Regulations, 2009.

The depreciation of various classes of assets is shown in the table below and the detailed calculations are attached as Format-6.

Depreciation (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Land & Land rights	-		
Buildings	4.89	4.89	4.89
Hydraulic Works	32.71	32.71	32.71
Other Civil Works	3.90	3.90	3.90
Plant & Machinery	19.22	19.22	19.22
Lines & Cable Network	0.24	0.24	0.24
Vehicles	0.02	0.02	0.02
Furniture & Fixtures	0.00	0.00	0.00
Office Equipment	0.01	0.01	0.01
Total	61.00	61.00	61.00

MePGCL submits before the Hon'ble Commission to kindly approve Depreciation of Rs 61.00 Crore for FY 2015-16, FY 2016-17 and FY 2017-18 for MLHEP.

2.8 Interest on Working Capital

Regulation 34.1 (iii) of the MYT Regulations, 2014, is reproduced below:

"34 Interest on Working Capital

34.1 Generation

(iii) In case of hydro power generating stations, working capital shall cover:

- *Operation and maintenance expenses for one (1) month;*
- *Maintenance spares at the rate of 15% of O & M expenses escalated at 6% from the date of commercial operation; and*
- *Receivables equivalent to two (2) month of fixed cost:*

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations."

As per the above mentioned Regulation, the computation of Interest on Working Capital for MLHEP is shown below:

Interest on Working Capital

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
O & M Expenses for 1 month (INR Crore)	2.40	2.53	2.68
Maintenance Spares @15% of O&M plus escalated by 6% from date of COD (INR Crore)	4.85	5.13	5.42
Receivables @ 2 months of Fixed Cost (INR Crore)	37.45	36.61	37.39
Total Working Capital requirement (INR Crore)	44.69	44.26	45.49
Computation of working capital interest			
SBI Advance Bank rate as on 1.4.2015 (%)*	14.60	14.60	14.60
Interest on Working Capital (INR Crore)	6.52	6.46	6.64

*SBI Advance Rate revised on 10th April, 2015, same has been taken for all the years

MePGCL submits before the Hon'ble Commission to kindly approve the Interest on Working Capital as computed above for MLHEP for the Control Period.

2.9 Income Tax

Regulation 35 of the MYT Regulations, 2014, provides for claim of Income Tax as expenses. However, MePGCL submits that income tax shall be claimed in subsequent filings for true-up.

2.10 Connectivity and SLDC Charges

The Regulation 59 of MYT Regulations, 2014 provides for claim of SLDC & Connectivity charges as expenses. MePGCL submits as per the approved tariff order of SLDC, the charges applicable for MLHEP for each year of the control period of FY 2015-16 to FY 2017-18 is Rs.0.40 Crore. It is prayed before the Honourable Commission to kindly approve the same.

2.11 Summary of Annual Fixed Charges of Myndtu Leshka HEP for the Control Period

Based on the above submissions, the summary of the Annual Fixed Cost for MLHEP for the Control Period FY 2015-16 to FY 2017-18 is provided in the Table below:

Annual Fixed Charges – Myndtu Leshka HEP (INR Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Interest on Loan capital	82.69	76.06	74.48
Depreciation	61.00	61.00	61.00

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
O&M Expenses	28.76	30.41	32.15
Interest on working capital	6.52	6.46	6.64
Return on Equity	45.30	45.30	49.67
Income Tax	-	-	-
SLDC Charge	0.40	0.40	0.40
Total Annual Fixed Cost	224.68	219.64	224.35
Less: Non-Tariff Income	-	-	-
Net Annual Fixed Cost	224.68	219.64	224.35

MePGCL prays before the Hon'ble Commission to kindly approve the Annual Fixed Cost of MLHEP for the 1st MYT Control Period FY 2015-16 to FY 2017-18 as submitted above.

3. Computation of Capacity Charge and Energy Charge for the Control Period

3.1 Regulatory Provisions

MePGCL submits that based on the Annual fixed Cost approved by Hon'ble Commission, the capacity charges and energy charge based on following provisions of the MYT Regulations, 2014 are submitted as below:

"57 Computation and payment of capacity charge and energy charge for Hydrogenerating stations.

57.1 Capacity Charges:

(1) The fixed cost of a hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge, which shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the home State:

Provided that during the period between the date of commercial operation of the first unit of the generating station and the date of commercial operation of the generating station, the annual fixed cost shall provisionally be worked out based on the latest *estimate of the completion cost for the generating station, for the purpose of determining the capacity charge and energy charge payment during such period.*

(2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be

= AFC x 0.5 x NDM / NDY x (PAFM / NAPAF) (in Rupees)

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF= Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percentage

(3) The PAFM shall be computed in accordance with the following formula:

PAFM =10000 x Σ DCi / { N x IC x (100 - AUX) } %

i=1

Where,

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the ith day of the Month which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station

N = Number of days in the month

57.2 Energy Charges:

(1) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex power plant basis, at the computed energy charge rate. Total Energy charge payable to the generating company for a month shall be:

= (Energy charge rate in Rs. / kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 – FEHS) / 100.

(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the provisions of clause (4):

ECR = AFC x 0.5 x 10 / { DE x (100 – AUX) x (100 – FEHS)}

Where,

DE = Annual design energy specified for the hydro generating station, In MWh, subject to the provision in clause (6) below.

FEHS = Free energy for home State as fixed from time to time, by competent authority.

(3) In case actual total energy generated by a hydro generating station during a year is less than the design energy for reasons beyond the control of the generating company, the following treatment shall be applied on a rolling basis:

(i) in case the energy shortfall occurs within ten years from the date of commercial operation of a generating station, the ECR for the year following the year of energy shortfall shall be computed based on the formula specified in clause (2) with the modification that the DE for the year shall be considered as equal to the actual energy generated during the year of the shortfall, till the energy charge shortfall of the previous year has been made up, after which normal ECR shall be applicable;

(ii) in case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply:

Suppose the specified annual design energy for the station is DE MWh, and the actual energy generated during the concerned (first) and the following (second) financial years is A1 and A2 MWh respectively, A1 being less than DE. Then, the design energy to be considered in the formula in clause (5) of this Regulation for *calculating the ECR for the third financial year shall be moderated as (A1 + A2 – DE) MWh, subject to a maximum of DE MWh and a minimum of A1 MWh.*

(iii) Actual energy generated (e.g. A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by 100 / (100 – AUX).

(4) In case the energy charge rate (ECR) for a hydro generating station, as computed in clause (5) above, exceeds eighty paise per kWh, and the actual saleable energy in a year exceeds { DE x (100 – AUX) x (100 – FEHS) / 10000} MWh, the Energy charge for the energy in excess of the above shall be billed at eighty paise per kWh only:

Provided that in a year following a year in which total energy generated was less than the design energy for reasons beyond the control of the generating company, the energy charge rate shall be reduced to eighty paise per kWh after the energy charge shortfall of the previous year has been made up.

(6) The concerned Load Despatch Centre shall finalise the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station."

3.2 Net Annual Fixed Cost to be recovered in Each Year of the Control Period

As submitted in the previous sections, the net Annual Fixed Charges to be considered for the determination of final tariff of MLHEP is as shown below:

Table: Annual Fixed Charges – Myndtu Leshka HEP (Rs. Crore)

Particulars	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Net Annual Fixed Cost projected for Control Period	224.68	219.64	224.35
Add: Depreciation of FY 2012-13			55.11
Add: True up of FY 2013-14			104.67
Add: Provisional True up of FY 2014-15			115.45
Net AFC for Computation of Tariff	224.68	219.64	499.58

Now, based on the Regulations, 50% of the Annual Fixed Cost is to be recovered as Capacity Charge and the balance is to be recovered as Energy Charge from the beneficiary. Therefore, the Capacity Charges and Energy Charges for MLHEP for the Control Period FY 2015-16 to FY 2017-18 would be as computed below:

Capacity and Energy Charges for Myndtu Leshka HEP for the Control Period

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Net AFC for Computation of Tariff	224.68	219.64	499.58
Design Energy (MU)	486.23	486.23	486.23
Less: Auxiliary Consumption @ 1%	4.86	4.86	4.86
Less: Transformation Loss @ 0.5%	2.43	2.43	2.43
Net Energy (MU)	478.94	478.94	478.94
Fixed Charge (INR Crore)	112.34	109.82	249.79
Variable Charge (Rs./kWh)	2.35	2.29	5.22

Based on all above submissions, the petitioner humbly prays before the Hon'ble Commission to kindly approve the final tariff of Myntdu Leshka Hydro Electric Project as computed in the above table to be recovered in the 1st MYT Control Period FY 2015-16 to FY 2017-18.

3. Public Hearing Process

BIA has raised the following objections in connection with Public Hearing process on the approval of the capital cost for 3x42MW =126 MW Myntdu Leshka Hydro Electric Project (MLHEP) on 16.03.2017. The names of consumers/consumer organizations those filed their objections and the objectors who participated in the public hearing for presenting their objections are given in the **Annexure-II.**

1. Cost and Time over run for construction of MLHEP due to failure of the Licensee, which took 7 Years instead of 5 years as per the CEA's sanction.
2. The land was allotted in 1999 for construction of MLHEP but the work has been started in 2005.
3. The loans were drawn from 2001 onwards; Interest during construction has to be adjusted from capital cost.

4. The rate of Interest on loans has been 12.15% per annum. The IDC at Rs. 342 Crore, makes more than 25% resulted in cost overrun.
5. An initial spares at 1.5% of project cost was not approved by CEA in the original sanction for unit I and II at Rs. 363.08 Crore.
6. Due to lack of Co-ordination the drawings were revised on addition of III unit and unit I & II were put on hold.
7. Better planning and Co-ordination could have reduced project cost.
8. RoE need not be allowed on the grant sanctioned by Government.
9. NAPAF has to be computed as per the Reg. 58.1 (c) for Run of River based on 10 days Design energy.
10. Comparison of capital cost shall be made only with Run – of – River projects. BIA in their additional submissions filed on 21.3.2017 pleaded that the cost per MW of RoR projects similarly placed commissioned in 2013 are at Rs. 6.63 Crore to Rs. 9.01 Crore. The exorbitant cost claimed by MePGCL may be disallowed.
11. The impact of inefficiency of the licensee should not be charged to public through the tariffs.

Replies for the above objections submitted by the MePGCL are as given in below:

1. **Increase in Project Cost from Rs. 363.08 core in 1999 (approved in Techno-Economic Clearance) to Rs. 671.28 crore in 2007 (vetted by CEA) and subsequently to Rs. 1286.53 crore (final project cost after vetting by IIT, Roorkee)**

   The Project Cost of Rs. 363.08 crore approved during Techno-Economic Clearance (TEC) was based on the cost shown in the Detailed Project Report, which was arrived at on the basis of preliminary design drawings**.** Since the main project works could be stated only after final Forest / Environmental Clearance is obtained in May 2004, the start date of the project may be reckoned from the year 2004.

During the period from 1999 to 2004, the project cost of Rs. 363.08 crore approved during TEC had gone up on account of escalation / increase in the price level and was updated and revised to Rs. 671.29 crore in 2007, after also taking into account the increase in quantities of the Dam due to geological surprises, etc. This was the cost for the first 2 (two) units of the project, which may be considered as the original project cost for these two units.

When the 3rd unit was added at an estimated cost of Rs. 114.59 crore (2008 Price level), the original project cost for all three units may be considered as Rs. (671.29 + 114.59) crore, i.e., Rs. 785.88 core.

The Hon'ble Commission in its Tariff Order dated 30th March, 2013 (Page – 84) directed MePGCL *"to request the State Government to constitute an expert committee for examining the cost of the project and take necessary steps to get the approval of CEA after completing the COD of all three units".*

The project cost of Rs. 1286.53 crore (with an increase of about Rs. 500 crore over Rs. 785.88 crore), was finally examined and vetted by a third party, i.e., IIT Roorkee and by the Technical Committee appointed by the State Government. The project cost recommended by the Technical Committee, i.e., Rs. 1286.53 crore was accepted by the State Government (Annexure – VII & VII of the Tariff Petition filed by MePGCL). After inclusion of additional capitalization, etc., the final project cost came to Rs. 1286.74 crore.

MePGCL approached CEA to take up the examination and approval of the project cost of MLHEP but, however, CEA informed that approval of project cost lies with the State Electricity Regulatory Commission as per Electricity Act, 2003 and declined to take up the matter (Appendix – A)

2. **Report of CEA and Compliance thereof:** The then MeSEB discussed the Report of CEA on the Revised Cost of Rs. 671.29 crore in the Board's meeting and resolved to engage either IIT, Guwahati or IIT, Roorkee to monitor / examine the issues raised by CEA and to make suitable recommendations to the Board (copies of CEA's report on revised cost, agenda note and extracts of Board's resolution are enclosed as Appendices – B,C&D respectively).

   A copy of the letter requesting IIT Roorkee to take up the matter and the report of IIT, Roorkee, are enclosed as Appendices – E & F.

3. **Initial spares @ 1.5% of Project Cost:** Not included in the Project Cost of Rs. 1286.74 crore.

4. **Cost Comparison with other Projects:** BIA did not consider the cost comparison with projects of similar Installed Capacity executed/completed during the period of execution/ completion of MLHEP. By the principle of economy of scale, the cost per MW for a 500 – 1000 MW Project would be lower than that of MLHEP (126MW).

5. **Activities Between 2001 and 2004:** During 2001 to 2004, pre-construction activities such as final survey for location of different project components such as Dam, Tunnel, Power House, etc., construction of roads for access to various project sites, putting in place the infrastructure needed to execute the project, etc., were carried out by MePGCL. In addition, preparation and finalization of tender documents, etc., were also taken up during the period. Without the above preliminary activities, the main project works cannot be taken up even if the final forest / environmental clearance were obtained. Hence, the period from 2001 to 2004 was utilized productively by MePGCL to facilitate the construction of the main project components, as without these activities the main works cannot be started.

6. **High Interest During Construction (IDC):** The average interest rate (including floating rates of interest) of loans / bonds is around 11.58%, which is competitive rate of interest prevailing at that point of time. The interest capitalization prior to start of main works was to the tune of Rs. 3.25 crore only, while the major chunk of IDC was during the main construction period of 7 (seven) years from FY 2004-2015 to FY 2012- 2013 (Appendix – G), and not 10 (ten) years as pointed out by the objector.

7. **Conversion of grant into equity:** Regulation 28.10 of the Meghalaya State Electricity Regulatory Commission., MYT Regulations, 2014, provides that *"any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the capital cost for the purpose of computation of interest on loan, return on equity and depreciation".* It may be pointed out that the state government has notified that all grants for MLHEP should be treated as equity (ref. enclosures with Annexure – XIII of the Tariff Petition). Thus, MePGCL is liable to pay dividends/ return on this equity to the state Government, since the amount was not given as free assistance to the Corporation.

8. **Inconsistency in Gross Fixed Assets (GFA):** The amount of equity and loan infused by the state Government was Rs. 323.57 crore (after conversion from grant) and Rs. 75.45 crore respectively (Annexure – XIII of the Tariff Petition). These amounts were already utilized in the project. MePGCL has requested the state government to convert Rs. 62.45 crore out of the above loan amount of Rs. 75.45 crore into equity, thus reducing the state government loan to Rs. 13 crore only. The amount of equity shown as Rs. 62.45 crore in the GFA statement of 2017-18 is only a proposed conversion from the government loan already

utilized in the project. Therefore, the project cost as on 31.03.2016 stands at Rs. 1286.74 crore.

9. **Infirm Power:** The infirm power of Rs. 7.55 crore calculated by SLDC (Annexure – XXIV of the Tariff Petition) has to be deducted from the Project cost of Rs. 1286.74 crore as shown at Annexure – XXVI of the petition.

10. **Normative Annual Plan Availability Factor (NAPAF) of the Power Station:** "Run – of – river generating station with pondage" is defined as a hydro-generating station with sufficient pondage for meeting the diurnal variation of power demand i.e., a station should be able to meet the peak requirement during 24 hours of the day. During the lean season, MLHEP does not have enough water / pondage level sufficient to meet 3 (three) hours of peaking daily, which is the minimum number of hours required for meeting the peaking requirement for which a station can qualify as a peaking station. As such, the power station is considered as a **"**Run – of – river generating station".

11. **Audited Statements of Accounts:** The Statement of Account for FY 2014-15 was submitted vide letter No. MePGCL/GEN/Misc – 43/2008/Pt – VIII/65 dt. 16.01.2017. However, a copy of the same is enclosed for easy reference (Appendix – H). Comments/ Reports of the AG (Audit) on the accounts of MePGCL for (i) the year ended 31st March, 2013 and (ii) the year ended 31st March, 2014 are also enclosed as Appendices – I&J).

Commission's Views

The response of the Licensee is considered in view of the Government of Meghalaya approval of TEC observations, and IIT Roorkee validations.

4. Commission’s Analysis on the Petition of True up FY 2013-14, Provisional True up FY 2014-15, Annual fixed charges for MYT Control Period FY 2015-16 to FY 2017-18 and Generation Tariff for FY 2017-18.

4.1 Capital Cost and ARR for FY 2013-14 True UP

The MePGCL has sought for approval of capital cost for 3X42=126 MW Myntdu Leshka Hydro Electric Project and also sought for true-up for the business carried out during the FY 2013-14 and FY 2014-15.

The Commission after prudent check of the Petition considering the report of Technical Committee and IIT/Roorkee, considers the capital cost of 3 x 42 MW Myntdu Leshka Hydro Electric Project at Rs. 1141.83 Crore as certified statutory Auditors, as on 31.03.2013. The CWIP projected in the petition vide page 12, for Rs. 101.21 Crore is not considered. The same shall be added to the Capital Cost as and when assets put to commercial use.

Earlier, the Commission had approved a provisional tariff at Rs. 2.83/kWh for the Generation of energy achieved during the FY 2013-14 on the basis of normative standards subject to condition that it generates designed energy in FY 2013-14. Commission had considered Rs. 67.77 Crore as fixed charges to be paid by the beneficiary (MePDCL) in 12 equal monthly installments and Rs. 1.415/kWh energy charges on the energy generated and supplied to the user (MePDCL) pending approval of the final capital cost and determination of Annual Fixed Charges for Myntdu Leshka Hydro Electric Project.

As per Regulation 63 value of the infirm power shall be deducted from the capital cost. The MePGCL has submitted that infirm energy during the trial run has been valued at Rs. 7.55 Crore as certified by SLDC. The Assets value has been approved in the following break-up as on 31.03.2013 as given in the Table below:

(Rs. Crore)

Sl. No	Particulars	Capital cost as per audit	Capital Cost (Excluding Infirm Energy Value)
1	Land	15.54	15.43
2	Buildings	91.52	90.91
3	Hydraulic	590.14	586.24
4	Other Civil Works	114.10	113.35
5	Plant and Machinery	325.77	323.62
6	Lines and Cable Networks	4.32	4.29
7	Vehicles	0.24	0.24
8	Furniture	0.04	0.04
9	Office Equipment	0.16	0.16
	Capital Cost	**1141.83**	**1134.28**

Based on the above approved Capital Cost, Annual Fixed Charges are computed. The Annual Fixed Charges and Generation tariff consisting the following ARR elements to be considered.

Sl.No	Particulars
1	O&M Costs
2	Interest on Loan Capital
3	Depreciation
4	Interest on Working Capital
5	Return on Equity
6	Income Tax
7	SLDC Charges
	Gross Annual Fixed Charges
8	Less Non Tariff Income
9	Net Annual Fixed Charges

4.1.1 O&M Expenses for FY 2013-14 True up

Petitioner's submission:

The Petitioner has claimed Rs. 25.73 Crore towards O&M expenses for the true up of FY 2013-14 business.

Commission's analysis:

As per the Regulation 55 (7) the O&M expenses shall be fixed at 2% of the original project cost in the case of Hydro Generation Station declared under commercial operation on or after 01.04.2009 and shall be subject to annual escalation at 5.72% for the subsequent years.

a. The Capital Cost of Project as approved (Rs. Crore)	1134.28
b. 2% of the Capital Cost (Rs. Crore)	22.69

The Commission approves O&M Expenses at Rs. 22.69 Crore for FY 2013-14.

4.1.2 Interest on loan capital

Petitioner's submission:

The Petitioner has claimed interest charges on loan capital at Rs. 82.78 Crore vide Table No. 12 of the Petition for the true up of FY 2013-14.

Commission's analysis:

As per Regulation 54 (1) Interest on loan capital shall be allowed on the outstanding balance of borrowed loans as given below:

Table 2: Debt – Equity Ratio

(Rs. Crore)

Total project cost	**1134.28**
70 % of the cost to be considered as loan	794.00
30% to be considered as equity	340.28

The licensee had obtained loan for the project from the banks / financial institutions as detailed in the schedule below:

Loans Schedule as per the Books of Accounts for the FY 2013-14 and interest admissible

(Rs. Crore)

Sl. No	Particulars	Opening Balance	Add	Repayments	Closing Balance	Interest
1	13.55% Federal Bank	56.70	-	20.99	35.71	6.26
2	12.75% Central Bank of India	64.84	-	8.33	56.51	7.74
3	13.14% Loan from PFC	168.30	36.65	-	204.95	24.52
4	11.40% BSE Power Bonds	50.00	-	-	50	5.70
5	9.95% BSE Power Bonds	120.00	-	-	120	11.94
6	11.07% Loan from REC	253.04	-	-	253.04	28.01
7	9.30% State Government Loan	-	-	-	-	-
8	**Total**	**712.88**	**36.65**	**29.32**	**720.40**	**84.17**

Interest at actual loans drawn is considered for Rs. 84.17 Crore. Average rate of Interest is works out at 11.75%. Licensee has claimed interest on capital loan at Rs. 82.78 crore which includes Rs. 1.21 Crore interest on State Government loan. As per the statement of accounts the project name is not indicated against which the Government of Meghalaya has sanctioned the loan.

The Commission therefore approves Rs. 81.57 Crore for true-up for FY 2013-14 (Rs. 82.78-1.21=81.57).

4.1.3 Depreciation for MLHEP FY 2013-14

Petitioner's submission:

The Licensee has claimed depreciation at Rs. 59.49 Crore for the true up of FY 2013-14 business.

Commission's analysis:

The Depreciation against the Myntdu Leshka Hydro Electric Project is computed as per the Regulation 57 as given in the Table below:

Table 3: Approved Depreciation for FY 2013-14 True up

(Rs. Crore)

Particulars	Approved for FY 2013-14 True Up
Opening GFA as on 01.04.2013	1134.28
Additions during FY 2013-14	156.16
Deductions as proposed by licensee	11.83
Closing GFA	1278.44
Average GFA excluding land value	1184.32
Depreciation at 4.43%	52.50
Depreciation on grants available (4.43%) at Rs. 288.02 Cr.	12.76
Net Depreciation for FY 2013-14 True Up	**39.74**

The Commission considers depreciation at Rs. 39.74 Crore for FY 2013-14 true up.

4.1.4 Interest on working capital (MLHEP)

Petitioner's submission:

The MePGCL has projected the interest on working capital at Rs. 6.20 Crore for the true up of FY 2013-14 business.

Commission's analysis:

As per Regulation 56, interest on working capital shall be computed on the following methodology as given in the Table below:

Table 4: Approved interest on working capital for FY 2013-14 true up

(Rs. Crore)

Particulars	Approved for FY 2013-14 True Up
O&M expenses for 1 month Rs. 22.69 Cr/12	1.89
Maintenance spares at 15% of O&M expenses	3.40
Receivable of 2 months of fixed costs Rs. 108.35 Cr.	31.39
Working capital requirement	36.68
Interest on working capital at 14.45%	**5.30**

The Commission considers interest on working capital at Rs. 5.30 Crore for FY 2013-14 true up.

4.1.5 Return on Equity for MLHEP for FY 2013-14

Petitioner's submission:

The MePGCL has claimed return on equity at Rs. 45.30 Crore assuming equity capital at Rs. 323.57 Crore for the true up of FY 2013-14 business.

Commission's analysis:

As per Regulation 51 & 53 the Return on Equity shall be computed as detailed below:

(Rs. Crore)

GFA as on 01.04.2013	1134.28
Debt 70%	794.00
Equity 30%	340.28

The Government of Meghalaya vide letter dated 24.03.2015 has considered conversion of grants for Rs. 288.02 Crore as equity for MLHEP.

The approved Return on Equity for FY 2013-14 true up as given in the Table below:

Table 5: Approved Return on Equity for FY 2013-14 true up

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2013-14 true up
1	Opening Equity Capital	288.02
2	Additions during FY 2013-14	156.16
3	30% of Assets cconsidered for Equity	46.85
4	Total Equity	334.87
5	Average Equity	311.45
6	**Return on Equity @ 14%**	**43.60**

The Commission considers RoE at Rs. 43.60 Crore for FY 2013-14 true up.

4.1.6 Connectivity and SLDC Charges for FY 2013-14

Petitioner's submission:

The MePGCL has submitted that Rs. 0.52 Crore has been paid towards connectivity & SLDC charges to the MePTCL for the FY 2013-14.

Commission's analysis:

The Commission considers the submission of Licensee and approves Rs. 0.52 Crore towards SLDC Charges for FY 2013-14 true up.

4.1.7 Non-Tariff Income for FY 2013-14

Petitioner's submission:

MePGCL has submitted that Non-tariff income for MLHEP received at Rs. 0.15 Cr for the FY 2013-14.

Commission's analysis:

The Commission considers the submission of Licensee and approves Rs. 0.15 Crore towards Non Tariff Income for FY 2013-14 true up.

4.1.8 ARR- Annual Fixed Charges and Generation Tariff for FY 2013-14 True Up

Summing up of the above analysis, the ARR- Annual Fixed charges and Generation Tariff for FY 2013-14 true up is considered by the Commission ARE as given in the Tables below:

Table 6: ARR - Annual Fixed Costs for FY 2013-14 true up

Sl. No	ARR Elements	As per MePGCL Petition	Approved for FY 2013-14 True Up
1	O&M Cost	25.73	22.69
2	Interest on loan capital	82.78	81.57
3	Depreciation	59.49	39. 74
4	Return on Equity	45.30	43.60
5	Interest on Working Capital	6.20	5.30
6	Connectivity & SLDC Charges	0.52	0.52
7	**Total ARR**	**220.03**	**193.42**
8	Less :Non Tariff Income	0.15	0.15
9	**Net ARR**	**219.88**	**193.27**

Table 7: Generation Tariff for FY 2013-14 true up and true up Gap

1	Net ARR	Rs. 193.27 Crore
2	Annual Designed Energy as projected	486.23 MU
3	Generation Tariff for MLHEP (1/2)	Rs. 3.97/kWh
4	Gross Generation (Net Generation 407.10)	413.30 MU
5	Interim Tariff	Rs. 2.83/kWh
6	Revenue on Gross Generation (4 x 5)	Rs. 116.96 Crore
7	Net Gap for FY 2013-14 (1-6)	Rs. 193.27 – 116.96 = Rs. 76.31 Crore

The Commission directs the Petitioner to claim the net gap of Rs. 76.31 Crore for FY 2013-14 true up, from the beneficiary (MePDCL) separately.

4.2 Provisional True-up for FY 2014-15

4.2.1 O&M Expenses

Petitioner's submission:

The Petitioner has claimed Rs. 27.21 Crore towards O&M expenses for the provisional true up of FY 2014-15 business.

Commission's analysis

O&M expenses for FY 2013-14 were approved at Rs. 22.69 Crore, as per Regulation 55 (7) of MSERC, 2011 Regulations the same are escalated at 5.72% for 2014-15 at Rs. 23.99 Crore.

The Commission considers O&M Expenses at Rs. 23.99 Crore for FY 2014-15 provisional true up.

4.2.2 Interest on loan capital for provisional true up of FY 2014-15

Petitioner's submission

The Petitioner has claimed interest charges on loan capital at Rs. 88.85 Crore for the true up of FY 2014-15.

Commission's analysis

Licensee has claimed interest on loan capital at Rs. 88.85 Crore, which includes Rs. 1.21 Crore interest on loan drawn from Government of Meghalaya. As per the Statement of Accounts, it is not indicated against which project State Government loan was drawn.

Loans Schedule as per the Books of Accounts for the FY 2014-15 and interest admissible

(Rs. Crore)

Sl. No	Particulars	Opening Balance	Additions	Repayments	Closing Balance	Interest
1	11.07% REC	253.04	-	-	253.04	28.01
2	13.25% PFC	204.95	12.46	-	217.41	27.98
3	13.55% Federal Bank	35.71	-	7.14	28.57	4.35
4	12.75% Central Bank of India	56.51	-	8.34	48.17	6.67
5	11.40% BSE Power Bonds II	50.00	-	-	50	5.70
6	9.95% BSE Power Bonds I	120	-	-	120	11.94
	Total	**720.21**	**12.46**	**15.48**	**717.19**	**84.65**

The Commission approves interest on loan capital at Rs. 83.44 Cr for FY 2014-15 provisional true up after deducting interest on Government loan.

4.2.3 Depreciation for FY 2014-15 provisional true up

Petitioner's submission

The Licensee has claimed depreciation at Rs. 61.12 Crore for the provisional true up of FY 2014-15 business.

Commission's analysis

As per Statement of Accounts, the depreciation for the FY 2014-15 is computed in the Table given below:

Table 8: Approved depreciation for FY 2014-15 provisional true up

(Rs. Crore)

Sl. No	Particulars	Opening Balance	Additions	Retirements	Closing Balance	Depreciation
1	Land	28.65	0.04	-	28.69	-
2	Buildings	145.84	0.03	-	145.87	4.38
3	Hydraulic Works	619.22	0.08	-	619.30	29.43
4	Other Civil Works	116.70	0.14	-	116.84	3.51
5	Plant & Machinery	362.99	0.07	-	363.06	17.25
6	Lines & Cables	4.54	-	-	4.54	0.22
7	Vehicles	0.24	-	-	0.24	0.02
8	Furniture & Fixtures	0.08	-	-	0.08	-
9	Office Equipment	0.18	-	-	0.18	0.01
	Total	**1278.44**	**0.36**	**-**	**1278.80**	**54.32**

The Computation of depreciation for FY 2014-15 provisional true up is as given below:

Particulars	For FY 2014-15
Average Assets (Rs. Crore)	1278.62
Average rate of Depreciation	4.25%
Grants available for FY 2014-15 (Rs. Crore)	288.02
Depreciation (Rs. Crore)	54.32
Less: Depreciation on grants @ 4.25% (Rs. Crore)	12.24
Net Depreciation for true-up for FY 2014-15 (Rs. Crore)	42.08

The Commission considers depreciation at Rs. 42.08 Crore for provisional true-up of FY 2014-15.

4.2.4 Return on Equity for FY 2014-15 provisional true up

Petitioner's submission

The MePGCL has claimed return on equity at Rs. 45.30 Crore for the true up of FY 2014-15.

Commission's analysis

The Commission considers the debt equity ratio of GFA at 70:30 and return on equity is calculated considering 30% of assets addition to equity capital held as 01.04.2014 as given in the Table below:

Table 9: Approved Return on Equity for FY 2014-15 provisional true up

(Rs. Crore)

Particulars	For FY 2014-15
Opening Equity (Rs. Crore)	334.87
30% Assets Additions during the year 2014-15 (Rs. Crore)	0.11
Closing Equity (Rs. Crore)	334.98
Average Equity (Rs. Crore)	334.93
Return on Equity at 14% (Rs. Crore)	46.89

The Commission considers return on equity at Rs. 46.89 Crore for provisional True-up for FY 2014-15.

4.2.5 Interest on Working Capital for FY 2014-15

Petitioner's submission

The MePGCL has claimed interest on working capital at Rs. 6.62 Crore for the true up of FY 2014-15 business.

Commission's analysis

The Commission has computed interest on working capital on the approved ARR elements at 14.75% as per Regulation 56 of MSERC, 2011 Regulations.

(Rs. Crore)

Sl. No	Particulars	For FY 2014-15 Provisional true up
1	One month O&M expenses Rs. 23.99/12	2.00
2	Maintenance spares at 15% of O&M expenses	3.60
3	Two moths receivables	32.81
4	Working Capital Requirement	38.41
5	Interest on Working Capital at 14.75%	5.67

The Commission considers interest on working capital at Rs. 5.67 Crore for provisional true-up for FY 2014-15.

4.2.6 Connectivity and SLDC charges for provisional true up of FY 2014-15

Petitioner's submission

The MePGCL has submitted that the connectivity & SLDC Charges were paid at Rs. 0.47 Crore for FY 2014-15 true up.

Commission's analysis

The Commission considers SLDC charges at Rs. 0.47 Crore as projected by the Petitioner for FY 2014-15 true up.

4.2.7 Non-Tariff Income for provisional true up of FY 2014-15

The Petitioner has not submitted non-tariff income for FY 2014-15 true up.

4.2.8 ARR – Annual Fixed Costs & Generation Tariff for provisional true up of FY 2014-15

Summing up of the above analysis, the ARR- Annual Fixed charges and Generation Tariff for FY 2014-15 true up is considered by the Commission as given in the Tables below:

Table 10: Annual Fixed Costs for FY 2014-15

(Rs. Crore)

Sl. No	ARR Elements	As per MePGCL Petition	Approved for FY 2014-15 provisional true up
1	O&M Cost	27.21	23.99
2	Interest on loan capital	88.85	83.44
3	Depreciation	61.12	42.08
4	Return on Equity	45.30	46.89
5	Interest on Working Capital	6.62	5.67
6	Connectivity & SLDC Charges	0.47	0.47
7	Less : Non-Tariff Income	-	-
8	**Annual Fixed Charges (Net) – ARR**	**229.57**	**202.54**

The Commission has computed the Generation Tariff and True up Gap for FY 2014-15 is as given in the Table below:

Table 11: Generation Tariff and True up Gap for FY 2014-15

1	Net ARR	Rs. 202.54 Crore
2	Annual Designed Energy	486.23 MU
3	Generation Tariff (1/2)	Rs. 4.17/kWh
4	Actual Energy Generated (Net Generation 403.24 MU)	409.38 MU
5	Interim Tariff	Rs. 2.83/kWh
6	Revenue from Tariffs (4 x 5)	Rs. 115.85 @ Rs. 2.83 kWh for 409.38 MU
7	**Net Gap for FY 2014-15 (1-6)**	**Rs. 86.69**

The Commission directs the MePGCL to claim the Gap out of the True up exercise as detailed below for FY 2013-14 and FY 2014-15 from the beneficiary (MePDCL) for Rs. 163.00 Crore separately.

True up Gap for FY 2013-14 (Rs. Crore)	76.31
True up Gap for FY 2014-15 (Rs. Crore)	86.69
Total Gap (Rs. Crore)	**163.00**

4.3 ARR for MYT Control Period for FY 2015-16 to FY 2017-18 (Provisional)

Petitioner's Submission

MePGCL has submitted ARR for the MYT Control Period FY 2015-16 to FY 2017-18 based on the performance achieved during FY 2013-14 and FY 2014-15.

Commission's Analysis

The Commission Considering true up Numbers approved for the FY 2013-14 and FY 2014-15 is computed the GFA and other ARR elements as per the admissibility to fix the ARR provisionally for MYT control period FY 2015-16 to FY 2017-18 is as detailed below:

4.3.1 GFA and depreciation for MYT Period 2015-16 to 2017-18

The Commission has computed the depreciation for the MYT control period FY 2015-16 to FY 2017-17 is given in the Table below:

Table 12: Depreciation for MYT control period FY 2015-16 to FY 2017-18

Sl.No	Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
1	Land	28.69			
2	Buildings	145.87			
3	Hydraulic Works	619.30			
4	Other Civil Works	116.84			
5	Plant & Machinery	363.06			
6	Lines & Cable Networks	4.54			
7	Vehicles	0.24			
8	Furniture& Fixture	0.08			
9	Office equipment	0.18			
	GFA	1278.80	1278.80	1279.41	1279.41
10	Additions	-	9.93*		
11	Retirements	-	9.32*		
12	Closing Assets	1278.80	1279.41	1279.41	1279.41
13	Average assets	1278.98	1279.11		
14	**Depreciation at 4.29% (Prov)****	**42.08**	**42.51**	**42.51**	**42.51**

* break up not furnished   **Net after Grants

4.3.2 Computation of ARR for MYT Period 2015-16 to 2017-18

The Commission has computed other ARR elements considering the approved numbers of the FY 2014-15 is as detailed below:

(Rs. Crore)

Sl. No	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	**O&M Expenses (Escalated at 5.72% YoY)**	**25.36**	**26.81**	**28.35**
2	**Depreciation ***	**42.51**	**42.51**	**42.51**
3	**Interest on Loan Capital**			
	Opening Balance	*717.19*	*680.26*	*609.15*
	Additions during the year	-	-	-
	Repayment during the year	*36.93*	*71.11*	*176.89*
	Closing Balance	*680.26*	*609.15*	*432.26*
	Rate of Interest	*11.34%*	*11.61%*	*11.68%*
	Interest for the year #	**81.48**	**74.85**	**60.84**
4	**Interest on Working Capital**			
	O&M expenses for (1) month	*2.21*	*2.23*	*2.36*
	Maintenance spares 15% on the O&M	*3.80*	*4.02*	*4.25*
	Two months receivables	*32.78*	*31.91*	*29.83*
	Working Capital	*38.69*	*38.16*	*36.44*
	Interest on Working Capital @	**5.71**	**5.63**	**5.37**

Sl. No	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
	14.75%			
5	**Return on equity at 14% on equity capital of Rs. 334.98**	**46.90**	**46.90**	**46.90**
6	**SLDC & Connectivity Charges as projected**	**0.40**	**0.40**	**0.40**
7	**Gross Annual Revenue Requirement**	**202.36**	**197.10**	**184.37**

*Additions and deductions are projected at same level. No break-up of asset wise additions & deductions shown for 2015-16 as per Table 18 of the petition.

New loans are not considered and GoM loan not considered.

The Commission approves the ARR and Generation Tariff for MYT Control period FY 2015-16 to FY 2017-18 is given in the Tables below:

Table 13: Provisional ARR and Generation Tariff for MYT Control period FY 2015-16 to FY 2017-18

(Rs. Crore)

Sl. No	ARR Element	FY 2015-16	FY 2016-17	FY 2017-18
1	O&M Expenses	25.36	26.81	28.35
2	Depreciation	42.51	42.51	42.51
3	Interest on Loan Capital	81.48	74.85	60.83
4	Interest on Working Capital	5.71	5.63	5.37
5	Return on Equity	46.90	46.90	46.90
6	SLDC/Connectivity Charges	0.40	0.40	0.40
7	Annual Revenue Requirement	202.36	197.10	184.36

Table 14: Generation tariff for MYT Control Period for FY 2015-16 to FY 2017-18

Sl. No	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	ARR (Rs. Crore)	202.36	197.10	184.36
2	Designed Energy (MU)	486.23	486.23	486.23
3	Generation Tariff (Rs./kWh)	4.16	4.06	3.79

4.4 **ARR - Annual Fixed Costs for FY 2017-18.**

The Commission has considers ARR – Annual Fixed Costs and Generation tariff for FY 2017-18 is as given in the Tables below:

Table 15: ARR - Annual Fixed Costs for FY 2017-18.

(Rs. Crore)

Sl.No	ARR element	Projection for FY 2017-18	Approved for FY 2017-18
1	Interest on loan capital	74.48	60.83
2	Depreciation	61.00	42.51
3	O&M Expenses	32.15	28.35
4	Interest on Working Capital	6.64	5.37
5	Return on Equity	49.67	46.90
6	SLDC Charges	0.40	0.40
7	ARR Net	224.35	184.36

Table 16: Generation Tariff for FY 2017-18

Sl. No	Particulars	Approved For FY 2017-18
1	ARR for MePGCL FY 2017-18 (Rs. Crore)	184.36
2	Designed energy (MU)	486.23
3	**Generation Tariff (1 ÷ 2) (Rs./kWh)**	**3.79**

The Commission directs the MePGCL to claim the 50% Annual Fixed Costs in 12 monthly installments and 50% energy charges as per actual generation achieved for MLHEP during FY 2017-18.

Shillong **Chairman**

Date:30.03.2017 **MSERC**

5. Directives

5.1 MePGCL is directed to maintain separate asset records of MLHEP and submit to the Commission with next filing.

5.2 MePGCL shall arrange for Audit of Accounts for MLHEP separately from FY 2013-14 onwards.

5.3 MePGCL shall arrange and submit C&AG rep[ort for the statutory auditor's audit report for MLHEP, cost audit and transaction audit report for the project issued by C&AG as required in the Commission's order dated 26.08.2015.

5.4 The Commission directs the MePGCL to claim the Gap, out of the True up exercise for FY 2013-14 and FY 2014-15 as above from the beneficiary (MePDCL) for Rs.163.00 Crore separately. The True up for FY 2013-14 and Provisional True Up for FY 2014-15 has left a gap for a total of Rs 163 Crore, which is to be added to the Fixed Costs of FY 2017-18. If this is done, and the generation tariff arrived at for FY 2017-18, this would not have reflected a realistic Tariff for the MLHEP for FY 2017-18. The gap has arisen because of approval of a provisional tariff of Rs 2.83/unit, and it would be apt for the MePDCL to claim this amount in ARR of FY 2018-19 separately, in lumpsum or which could be spread out in 2 to 3 years by MePDCL in its ARR petitions for FY 2018-19 onwards thus averting a Tariff shock.

Annexure-I

Annexure - I

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GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

ORDERS BY THE GOVERNOR

NOTIFICATION

Dated, Shillong, the 28th November, 2013.

-85/2008/84 - The Governor of Meghalaya is pleased to constitute the Technical Committee for MeECL the following members with immediate effect and until further order.

1.	Shri A. Mahanta, Chief Engineer (HP&HC), MePGCL Shillong	-	Convener
2.	Shri C. Momin, Chief Engineer, PWD (Road), Shillong	-	Member
3.	Shri R.D. Shira, Chief Engineer, PWD (Building), Shillong	-	Member
4.	Shri S.M. Sahai, IFS, Chief Conservator of Forest in-charge (M&E), Shillong	-	Member

The Terms of Reference for the Committee is as follows:-

1. To compile the individual finding of CEA New Delhi, Forest Department, Government of Meghalaya PWD Road/Building, Government of Meghalaya.
2. To compile actual expenditure made on IDC employee cost, land, miscellaneous works etc.
3. To arrive at total cost of work.
4. To submit a detailed report with proper justification for accepting or modifying the Revised Estimate alongwith suggestion and recommendation to the Power Department, Government of Meghalaya.
5. To submit the report within 1(one) month from the date of constitution of the Technical Committee.
6. To conduct site inspection and verification if required.

Sd/- C.M. Syiem
Deputy Secretary to the Govt. of Meghalaya,
Power Department.

No.PE-85/2008/84-A Dated Shillong, the 28th November, 2013.

to -

1. Additional Chief Secretary Power Department.
2. Commissioner & Secretary, Power Department
3. Chairman-cum-Managing Director, Meghalaya Energy Corporation Limited, Shillong.
4. Director,(Finance/Generation/Transmission/Distribution),MeECL/MePGCL/MePDCL/MePTCL, Shillong.
5. All Members concerned.
6. Guard file.

By Order, etc.,

Deputy Secretary to the Govt. of Meghalaya,
Power Department.

5

GOVERNMENT OF MEGHALAYA
POWER DEPARTMENT

CORRIGENDUM

No.PE.85/2008/101 Dated Shillong, the 3rd June, 2014.

In continuation of the Notification No.PE-85/2008/84, dated 28-11-2013, the Terms of Reference of the Committee at No.1 may be read as "I.I.T. Rourkee" instead of 'C.E.A. New Delhi". The other Terms of Reference will remain the same, except for submission of the Report for which extension of time may be sought as per discussion with I.I.T. Rourkee.

Sd/-
Under Secretary,
Government of Meghalaya,
Power Department

Memo No.PE.85/2008/101-A. Dated Shillong, the 3rd June, 2014.

Copy to :-

1. P.S. to Additional Chief Secretary Power Department.
2. Commissioner & Secretary, Power Department.
3. Chairman cum Managing Director, Me.E.C.L., Shillong.
4. Director,(Finance/Generation/Transmission/Distribution),MeECL/MePGCL/MePDCL/MePTCL, Shillong.
5. All Members concerned.
6. Guard file.

Under Secretary,
Government of Meghalaya,
Power Department

Annexure-II

LIST OF PARTICIPANTS PARTICIPATED IN THE PUBLIC HEARING ON 16th MARCH, 2017

On behalf of MePGCL/MeECL

1. Shri S J Laloo, CE(Gen)
2. Shri H Massar, SE, (EI)
3. Shri A Lyngdoh, SE (PM)
4. Shri P Sahkhar, SE (RA & FD)
5. Shri K A Sohtun, SO
6. Shri R. Laloo, SO
7. Shri L Kharpran, SO
8. Shri Piyush Lohya, Consultant , PWC
9. Shri Sanket Sumantary, Consultant , PWC
10. Shri Samanwit Biswal, Consultant , PWC

On behalf of Byrnihat Industries Association

1. Ms. Mandakini Ghosh, Advocate
2. Shri Shyam Sunder
3. Shri Somanta Chand

On behalf of PUBLIC/ GOVT. DEPTT.

1 Shri C Marngar, EE, PHED