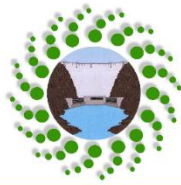


BEFORE
MEGHALAYA STATE ELECTRICITY REGULATORY
COMMISSION
SHILLONG

PETITION
FOR
TRUE UP OF GENERATION
BUSINESS FOR FY 2015-16

FILED BY



MEGHALAYA POWER GENERATION CORPORATION LIMITED
Lum Jingshai, Short Round Road, Shillong - 793 001

BEFORE THE HONOURABLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

At its office at Lower Lachumiere, Shillong – 793001

File/Petition No.: _____

IN THE MATTER OF

TRUE UP OF GENERATION BUSINESS FOR FY 2015-16 UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2014

AND IN THE MATTER OF

MEGHALAYA POWER GENERATION CORPORATION LIMITED, LUMJINGSHAI, SHORT ROUND ROAD, SHILLONG – 793001, MEGHALAYA

PETITIONER

The Petitioner respectfully submits as under:

1. In exercising its powers conferred under sections 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified “The Meghalaya Power Sector Reforms Transfer Scheme 2010” on 31st March 2010 leading to restructuring and unbundling of the erstwhile Meghalaya State Electricity Board (MeSEB) into four entities namely
 - a. **Meghalaya Energy Corporation Limited (MeECL)**: the Holding Company;
 - b. **Meghalaya Power Distribution Corporation Limited (MePDCL)**: the Distribution Utility;
 - c. **Meghalaya Power Generation Corporation Limited (MePGCL)**: the Generation Utility;
 - d. **Meghalaya Power Transmission Corporation Limited (MePTCL)**: the Transmission Utility.
2. However, the holding company – MeECL - carried out the functions of distribution, generation and transmission utilities from 1st April 2010 onwards, even after restructuring. Therefore, through notification dated 31st March 2012, the State Government notified an amendment to The Power Sector Reforms Transfer Scheme 2010 leading to effective unbundling of MeECL into MeECL (Holding Company), MePDCL (Distribution Utility), MePGCL (Generation utility) and MePTCL (Transmission Utility) from 1st April 2012.

3. On 23rd December 2013, the Government of Meghalaya issued the latest transfer scheme notification thereby notifying the Assets and Liabilities as on 1st April 2010 to be vested in MeECL. Subsequently, the Government of Meghalaya 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 were notified.
4. MePGCL has begun segregated commercial operations as an independent entity from 1st April 2013.
5. The expenses of the holding company, MeECL, are apportioned equally among the generation, transmission and distribution utilities since the MeECL is an administrative setup for all the three subsidiaries.
6. The **Meghalaya State Electricity Regulatory Commission** (hereinafter referred to as “MSERC” or “the Hon’ble Commission”) is an independent statutory body constituted under the provisions of Part – X (Sections 76 to 109) of 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 of generating Companies.
7. In accordance with the directives of the Hon’ble Commission and MSERC Tariff Regulations 2014, MePGCL is filing a separate petition for 1) **Old plants & Sonapani** 2) **Myntdu Leshka Power Plant**.
8. In exercise of its powers, MSERC had determined the segregated Aggregate Revenue Requirement (ARR) for MePGCL and tariff for old plants including Sonapani for FY 2015-16 in its tariff order dated 30th March 2015 and Annual Fixed Charges for FY 2015-16 to FY 2017-18 for Myntdu Leshka in its tariff order dated 30th March 2017, in accordance with the MSERC Multi Year Tariff Regulations, 2014 (hereinafter referred to as “MYT Regulations, 2014”).
9. Now, based on the provisions of clause 11 of the MYT Regulations, 2014, MePGCL files this petition for approving the final true-up of FY 2015-16 for 1) Old Plants including Sonapani & 2) Myntdu Leshka Power Plant.
10. The audited accounts for FY 2015-16 are available and are enclosed as Annexure-B₁ & B₂ for MePGCL and MeECL respectively. Based on the Audited Statements of Account for FY 2015-16, the gap / surplus during FY 2015-16 was determined.
11. The Board of Directors of MePGCL has accorded approval for filing of this petition and authorized the undersigned to file the petition accordingly. The copy of the Board’s resolution is hereby enclosed as Annexure-D.

12. The applicant, therefore, humbly prays before the Hon'ble Commission to pass appropriate orders on the following:

- a. To approve the true-up of expenses and revenue for 1) Old Plants including Sonapani
2) Myntdu Leshka Power Plant of MePGCL for FY 2015-16
- b. To pass such orders, as the Hon'ble Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.
- c. To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submissions as required.

(A Lyngdoh)
Superintending Engineer
(Project Monitoring)

For and on behalf
Meghalaya Power Generation Corporation Ltd

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1. Introduction

1.1 Provisions for Multi Year Tariff

- 1.1.1** The Hon'ble Commission 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 & Tariff for the Generation Company under Multi Year Tariff framework from 1st April, 2015. 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

.....

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.”

- 1.1.2** Regulation 6 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.

.....

- 1.1.3** There was an amendment to Regulation 1.4 of MSERC Regulation 2014 as per the order from the Hon'ble Commission dated 28th August, 2017 which states that the same regulations which were applicable for 1st Control period of MYT FY 2015-16 to FY 2017-18 will be applicable for the 2nd control period of MYT FY 2018-19 to FY 2020-21 for the power utilities of Meghalaya.

1.2 Regulatory Provisions for True-up

- 1.2.1** The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 on 25th September 2014. It is submitted that Regulation 1.4 of the Meghalaya State Electricity Regulatory Commission Multi Year Tariff Regulations, 2014 states as under:

“1.4 They shall be applicable for the determination of tariff effective from April 1, 2015 in all cases covered under these Regulations. Provided that for the purpose of review or of truing up of revenues and expenses pertaining to FYs prior to 2015-16, the provisions under MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011 shall apply.”

1.2.2 Further, Regulation 11.3 of the MSERC MYT Regulations 2014 states that the truing up petition shall be accompanied by audited accounts along with audited report. The relevant clause is reproduced below:

“Provided that the Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts including audit report by CA&G, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges:”

1.2.3 MePGCL would like to submit that the accounts of FY 2015-16 have been audited by statutory auditors empaneled under C&AG and the audit reports are also annexed with this petition. The CAG or supplementary audit of the accounts is in process and shall be submitted to the Hon’ble Commission as and when the audit is complete.

1.2.4 Section 61 & 62 of the Electricity Act 2003 empower the Hon’ble Commission to determine tariff for the Generating Company.

1.2.5 It is further submitted that M/s Kiron Joshi & Associates has been appointed as Statutory Auditor of MePGCL, M/s A Paul & Co has been appointed as Statutory Auditor of MePTCL, MePDCL, and M/s Amit O P Sharma & Associates has been appointed as Statutory Auditor of MeECL. The firms are chartered Accountancy firms, appointed as Statutory Auditors for the FY 2015-16 by Comptroller & Auditor General of India (C&AG). M/s Kiron Joshi & Associates, M/s A Paul & Co. and M/s Amit O P Sharma & Associates have audited the Annual Accounts of MePGCL, MePDCL & MePTCL and MeECL, respectively for FY 2015-16 under the Companies Act, 2013.

1.3 Submission before the Hon’ble Commission

As such, MePGCL hereby submits the petition under MSERC (Multi Year Tariff) Regulations, 2014 for Approval of True-up of FY 2015-16, and to pass the Gap/Surplus of FY 2015-16 through appropriate Determination of Generation Tariff in FY 2018-19.

2. Company Profile and Performance Overview

2.1 Company Profile

2.1.1 The Company is a Generating Company within the meaning of Section 2 (28) of the Electricity Act 2003. Further, Section 7 and 10 of the Electricity Act 2003 prescribes the following major duties of the Generating Company:

- To establish, operate and maintain generating stations, tie-lines, sub-stations and dedicated transmission lines connected therewith in accordance with the provisions of this Act or the rules or regulations made there under
- To supply electricity to any licensee in accordance with this Act and the rules and regulations made there under
- To submit technical details regarding its generating stations to the Appropriate Commission and the Authority.
- To co-ordinate with the Central Transmission Utility or the State Transmission Utility, as the case may be, for transmission of the electricity generated by it.

2.1.2 As per Meghalaya Power Sector Transfer Scheme, MePGCL has been vested with the function of generation of power by the State Government of Meghalaya. The Business Scope of the Company falls within the legal framework as specified in the Act and includes:

- To supply electricity to any licensee in accordance with this Act and the rules and regulations made there under,
- To initiate accelerated power development by planning and implementing new power projects,
- To operate the existing generating stations efficiently & effectively,
- To implement Renovation and Modernisation for existing plants to improve performance through constant R & M activities, regular maintenance etc.,
- Achieve high reliability and safety levels in all operational areas,
- Taking appropriate steps towards ensuring safety and adhering to environmental norms
- Adopt best industry practices to become the best and efficient generating company
- Other associated businesses like providing Training, Research and Development activities, Technical consultancy services and O&M related services

2.2 Performance Highlights

2.2.1 MePGCL started functioning as an independent commercial entity from 1st April, 2013. The power generated by the MePGCL stations is sold to MePDCL as per the signed power purchase agreements and transmitted to MePDCL at MePTCL interface points. At

present, MePGCL is having 8 Hydro Generating stations. The details of existing stations are mentioned below:

Table: Details of Existing Stations

Sl. No	Station	Type	No of Units/ Capacity	COD	Capacity (MW)
1	Umiam Stage-I	Storage/ Pondage	4*9 MW	FY 1966	36
2	Umiam Stage-II		2*10 MW	FY 1971	20
3	Umiam Stage-III		2*30 MW	Unit 1: FY 1979 Unit 2: FY 1979	60
4	Umiam Stage-IV		2*30 MW	FY 1993	60
5	Umtru Power Station		4*2.8 MW	Unit 1-3: FY 1958 Unit 4: FY 1969	11.2
6	Sonapani HEP	ROR	1.5 MW	FY 2010	1.5
7	Leshka HEP		3*42 MW	Unit 1& 2:FY 2013 Unit 3: FY 2014	126
8	New Umtru	ROR with pondage	2*20	Units 1& 2 : FY 2018	40
	Total				354.7

2.2.2 Historical energy Generation: All the Generating stations being hydro, the annual generation depends on the rainfall for the year. The yearly generation for the last 5 years for the generating stations is shown in the table below:

Table: Historical Gross Energy Generation (MU)

Sl. No	Station	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
1	Umiam Stage-I	102.88	79.13	90.4	114.06	96.627
2	Umiam Stage -II	50.41	41.32	46.00	58.26	50.229
3	Umiam Stage -III	132.01	133.55	113.11	117.50	65.296
4	Umiam Stage-IV	185.25	174.91	162.72	185.01	166.116
5	Umtru Power Station	30.40	21.01	15.27	1.41	0.00
6	Sonapani HEP	7.21	5.41	5.75	6.29	7.633
7	Leshka HEP	198.38	413.27	409.38	445.93	443.852
	Total	706.54	868.60	842.62	928.46	829.75

3. True up of Generation Business for FY 2015-16

3.1 Performance

3.1.1 Existing Generation Capacity:

The initial installed capacity when the erstwhile Meghalaya State Electricity Board (MeSEB) was bifurcated from the Assam State Electricity Board (ASEB) in 1975 was 65.2 MW. With the commissioning of Stage-III HEP (1979), Stage IV HEP (1992) & Sonapani Mini Hydel and RMU of Umiam Stage-II (from 18MW to 20MW in 2012) and commissioning of MLHEP 3x42 MW in 2013 the installed capacity increased to 314.7 MW

All the Generating Stations except Sonapani Mini Hydel Project and Leshka, as indicated in the Table below are hydel power stations with the main reservoir at Umiam for all the stages. Therefore, all these stages depend mainly on water availability at the Umiam reservoir. The total installed capacity of MePGCL projects as on 31st March 2016, was as under:

Table: Existing Generation Capacity FY 2015-16

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

S.No.	Name of Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
		III	42		01.04.2013
	Total			314.7	

By FY 2015-16 MePGCL had 314.7 MW of Installed Capacity from 7 Power stations. All the units generated in FY 2015-16 except for 1 unit in Umiam Stage III and all 4 (four) units in Umtru Power Station.

There was burning of stator, 11 KV UAT, damage of PRV and overhauling works which prevented one unit of Umiam Stage III from generating. Similarly Umtru Power Station could not generate due to siltation of hydraulic works, draining of penstock and construction of New Umtru HEP

3.1.2 New Generation Capacity:

In July, 2017, the New Umtru H.E. Project (2x20 MW) was put under Commercial Operation and the Generation Capacity of MePGCL becomes 354.7 MW.

In addition to the existing capacity, MePGCL is also currently executing works of Lakroh & Ganol Mini Hydel projects which are proposed for commissioning in FY 2018-19.

Table: Details of Upcoming Stations

Sl No.	New Station	Design Energy (MU)	Capex Outlay (Rs. Crs.)	Debt (Rs.Crs)	Equity (Rs.Crs)	Grant (Rs.Crs)	Year of Commissioning (MM/YY)
1	Ganol SHP	67.09	356.42	146.90	62.96	146.57	2018
2	Lakroh MHP	11.01	20.48	6.46	2.77	11.25	Sept. 2018

3.1.3 Operational Norms:

The following sections outline details of operational norms for computation of energy generation for FY 2015-16 based on MYT Regulations, 2014 or past trend as the case may be.

1) Normative Annual Plant Availability Factor

Table: Normative Annual Plant Availability Factor

No.	Station Particular	Norm
a)	Storage and pondage type plants: where plant availability is not affected by silt and	

No.	Station Particular	Norm
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%

Note:

i) A further allowance may be made by the Hon'ble 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 hydroelectric project the developer shall have the option of approaching the Hon'ble Commission in advance for further above norms.

In the Tariff order for FY 2015-16, the Hon'ble Commission had not approved Normative Annual Plant Availability Factor (NAPAF) of all generating stations without knowing the actual and verified technical details of each plant. For the purpose of capacity charges, the Hon'ble Commission had approved recovery of fixed charges in 12 (twelve) equal monthly instalments.

The NAPAF's for all generating stations including FY 2015-16 calculated by MePGCL as per the MSERC Tariff Regulations, 2014 are summarized below:

Table: Normative Annual Plant Availability Factor FY 2015-16

Station	As per actual
Umiam Stage-I	59.83
Umiam Stage-II	85.00
Umiam Stage-III	63.67
Umiam Stage-IV	61.79
Umtru	80.00
Sonapani	45.00
MLHEP	39.00

2) Auxiliary Consumption and Transformation Loss:

Table: Auxiliary Consumption and Transformation Loss

Sl.	Station Particular	Norm
1	Surface hydroelectric power generating stations with rotating exciters mounted on the generator shaft	0.7% of energy generated

Sl.	Station Particular	Norm
2	Surface hydroelectric power generating stations with static excitation system	1.0% of energy generated
3	Underground hydroelectric power generating stations with rotating exciters mounted on the generator shaft	0.9% of energy generated
4	Underground hydroelectric power generating stations with static excitation system	1.2% of energy generated

The Hon'ble Commission in the Tariff Order for FY 2015-16 has approved auxiliary consumption and transformation losses as per the following table:

Table: Auxiliary Consumption and Transformation Loss approved by the Commission

Name of the Plant	Auxiliary consumption (%)	Transformation losses (%)	Total Loss (%)
Umiam Stage I	0.7	0.5	1.2
Umiam Stage II	0.7	0.5	1.2
Umiam Stage III	0.7	0.5	1.2
Umiam Stage IV	1.0	0.5	1.5
Umtru	0.7	0.5	1.2
Sonapani	0.7	0.5	1.2

The Auxiliary consumption and Transformation losses, as actual for MePGCL for FY 2015-16 are furnished below:

Table: Auxiliary Consumption and Transformation Loss actual FY 2015-16

Name of the Plant	Auxiliary consumption + Transformation losses (%)
Umiam Stage I	1.04%
Umiam Stage II	0.65%
Umiam Stage III	0.71%
Umiam Stage IV	0.66%
Umtru	4.15% (station under shutdown for most part of the year)
Sonapani	0.74%
Leshka	0.68%

Thus, MePGCL has operated its plants efficiently and under the norms specified by the Hon'ble Commission and has been able to limit auxiliary consumption for plants below the limit set by the Hon'ble Commission in the tariff order for FY 2015-16.

3) Design Energy – Existing Generating Stations

The design energy as approved by Hon'ble Commission for MePGCL power stations in FY 2015-16 is provided in the table below:

Table: Design Energy as approved by MSERC in Tariff Order FY 2015-16

Name of Power Station	Design Energy (MU)
Umiam Stage I	116.29
Umiam Stage II	45.51
Umiam Stage III	139.4
Umiam Stage IV	207.5
Umtru	39.01
Mini Hydel (Sonapani)	5.5
Total	553.21

3.1.4 Computation of Net Energy Generation - Existing Stations:

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

Table: MePGL Plant Technical Details

Sl. No	Particulars	Umtru	Umiam I	Umiam II	Umiam III	Umiam IV	Mini Hydel Sonapani	Leshka HEP
1	Type of Station							
1.a	Surface/ Under Ground	Surface	Surface	Surface	Surface	Surface	Surface	Surface
1.b	Purely RoR/ Pondage/ Storage	RoR	Storage	Power Channel (Pondage)	Pondage	Pondage	RoR	RoR
1.c	Peaking/ Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking
1.d	No of Hours Peaking	NA	NA	NA	NA	NA	NA	NA
1.e	Overload Capacity (MW) and Peaking	NIL	NIL	NIL	NIL	NIL	NIL	NIL

Sl. No	Particulars	Umtru	Umiam I	Umiam II	Umiam III	Umiam IV	Mini Hydel Sonapani	Leshka HEP
2	Type of Excitation							
2.a	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	NA	Rotating exciters on Generator	NA
2.b	Static Excitation	NA	NA	NA	NA	Static Excitation	NA	Static Excitation

The station-wise Net Generation Approved for FY 2015-16 and actual of MePGCL for FY 2015-16 are provided in the table below:

Table: Approved and Actual Generation Station-wise

Sl. No.	Name of the Power Station	Approved by the Hon'ble Commission in Tariff Order for FY 2015-16						Actual MePGCL FY 2015-16			
		Gross Generation (MU)	Aux Cons (%)	Transformation Loss (%)	Total Loss (Aux + Transformation) (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)	Gross Generation (MU)	Total Loss (Aux + Transformation) (%)	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam I	116.29	0.70%	0.50%	1.20%	1.40	114.89	114.06	1.04%	1.19	112.87
2	Umiam II	45.51	0.70%	0.50%	1.20%	0.55	44.96	58.26	0.65%	0.38	57.88
3	Umiam III	139.4	0.70%	0.50%	1.20%	1.67	137.73	117.5	0.71%	0.84	116.66
4	Umiam IV	207.5	1.00%	0.50%	1.50%	3.11	204.39	185.01	0.66%	1.22	183.79
5	Umtru Power Station	39.01	0.70%	0.50%	1.20%	0.47	38.54	1.41	4.15%	0.06	1.35
6	Mini Hydel (Sonapani)	5.5	0.70%	0.50%	1.20%	0.07	5.43	6.29	0.74%	0.05	6.24
7	Leshka	486.23	1.00%	0.50%	1.50%	7.29	478.94	445.93	0.68%	3.04	442.89
	Total (excluding Leshka)	553.21				7.26	545.95	928.46		6.77	921.69

3.2 Calculation Methodology

3.2.1 MePGCL has completed the audit of its Statement of Accounts for FY 2015-16 which are attached as Annexure-B₁ and for MeECL as Annexure-B₂. Based on the figures of the Audited Statements of Accounts, MePGCL has computed the Annual Fixed Charges and arrived at net Gap/ Surplus of the AFC components. Further, MePGCL has considered equal proportion of AFC components of the holding company MeECL among the three subsidiary companies, i.e., 1/3rd each in MePGCL, MePTCL and MePDCL.

3.2.2 In accordance with the MSERC MYT Tariff Regulations, 2014, the Tariff for supply of electricity from a Power Generating Station shall comprise of two parts, namely, Annual Capacity Charges and Energy Charges. Fixed charges shall be comprised of following Components:

- 1) Operation and Maintenance Expenses
- 2) Interest on Loan Capital
- 3) Interest on Working Capital
- 4) Depreciation
- 5) Return on Equity
- 6) Taxes on Income.

3.3 Separate Petition for State Generating Plants

As per the recent tariff orders as well as applicable regulations, MePGCL needs to file separate petitions for the different generating plants. In accordance with the directives of the Hon'ble Commission and MSERC Tariff Regulations 2014, MePGCL is filing separate petitions for

- 1) Old Plants including Sonapani
- 2) Myntdu Leshka Power Station

Due to unavailability of segregated accounts for Old Plants and Sonapani, MePGCL is filing a combined petition for all the Old Plants & Sonapani

4. True up of Generation Business for Old plants & Sonapani for FY 2015-16

4.1 Operations and Maintenance Expense

The Hon'ble Commission had approved Rs. 55.00 Crore towards O&M Expenses for ARR of FY 2015-16 for MePGCL's Old Plants and Sonapani including one-third expense of MeECL. As per the Audited Statement of accounts of MePGCL & MeECL, MePGCL requests the Hon'ble Commission to allow Rs 95.34 Crores towards O&M expenses for FY 2015-16.

Table: O&M Expense

Particulars	For MePGCL (a)	For Leshka (b)	MeECL (C)	Total for Old Plants + Sonapani (a + c/3 - b)
Employee Cost	65.70	28.59	11.36	95.34
R&M Expenses	16.44		0.15	
A&G Expenses	36.46		4.4	
Total	118.60		15.91	

The Hon'ble Commission had provisionally estimated the O&M cost for the segregated companies since the final audited figures for the segregated companies were not available during the time of finalization of MYT of first control period. It may be observed that main reason for deviation in the actual and approved O&M expenses is that the actual employee cost is much higher than the approved cost. The deviation in employee expenses can be attributed to arrears from revision of pay order 2010 and 2015.

4.2 Interest & Finance Charges

The Hon'ble Commission had considered Rs. 0.46 Crore as Interest & Finance Charges for ARR of FY 2015-16 for old plants & Sonapani. However based on the Audited Statement of Accounts, MePGCL humbly requests Hon'ble Commission to allow Rs 11.33 Crores towards Interest & Finance Charges for FY 2015-16.

This includes the Other Bank Charges & Guarantee Charges of INR 3.22 Cr.

Table: Interest and Finance Charges Expense

Particulars	For MePGCL (a)	For Leshka (b)	MeECL (C)	Total for Old Plants + Sonapani (a+c/3-b)
Interest & Finance Charges	94.10	82.97	0.003	11.13

Details of loan has been provided as format 7 in Annexure A

4.3 Interest on Working Capital

The Hon'ble Commission had allowed Rs. 3.79 Crore for MePGCL's old plants & Sonapani towards Working Capital for ARR of FY 2015-16. However, based on actual expense as per Audited Statement of Accounts for MePGCL & MeECL and the relevant norms for working capital provided in MSERC MYT regulations 2014, MePGCL humbly requests Hon'ble Commission to allow Rs 7.46 Crores as Interest on Working Capital for true up of FY 2015-16 for old plants & Sonapani.

Table: Interest on Working Capital

Sl. No.	Particulars	Approved by MSERC	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
A	O&M Expense for 1 month	4.59	10.33	2.38	7.95
B	Maintenance Spare at 15% O&M	8.25	18.59	4.29	14.30
C	Receivables for 2 months	12.85	67.11	38.78	28.33
D	Total Working Capital (B+E+F)	25.69	96.03	45.45	50.58
E	SBI short term PLR as on 01 April 2015	14.75%	14.75%	14.75%	14.75%
F	Interest on Working Capital	3.79	14.16	6.70	7.46

4.4 Depreciation

The Hon'ble Commission has considered Rs. 10.64 Crore towards Depreciation for ARR of FY 2015-16.

Now based on the actual figures of actual capital expenditure and assets capitalized, MePGCL humbly requests Hon'ble Commission to allow the actual depreciation of Rs 6.52 Crores for true up of FY 2015-16 for Old Plants & Sonapani.

Table: Depreciation of Assets for FY 2015-16

Particulars	Approved by MSERC	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
Depreciation on Land and land rights				
Depreciation on Buildings		5.17	4.86	0.30
Depreciation on Hydraulic Works		38.89	32.67	6.22
Depreciation on Others Civil Works		4.68	3.87	0.81
Depreciation on Plant and Machinery		29.75	19.11	10.64
Depreciation on Lines and Cable Network		0.30	0.24	0.06
Depreciation on Vehicles		0.13	0.02	0.10
Depreciation on Furniture and Fixtures		0.13	0.00	0.12
Depreciation on Office Equipment		0.10	0.01	0.09
Apportioned Depreciation from MeECL		0.22		0.22
Less: Transfer from Reserve/Amortization of grant	10.64	12.04		12.04
Less:- Depreciation Of Related Costs Charged To Capital Works		0.003		0.003
Total		67.32	60.79	6.52

4.5 Return on Equity

The Hon'ble Commission has approved Rs. 9.43 Crore as Return on Equity for ARR of FY 2015-16 for Old Plants & Sonapani on provisional basis.

As per Audited Statement of Accounts for MePGCL for FY 2015-16, the average equity base has been considered as INR 780.98 (average of opening and closing balance of equity for FY 2015-16) Crores including average equity capital pending allotment of INR 475.79 Crore. Based on this, Equity base for Sonapani and old plants is INR 397.22

Table: Return on Equity for Old Plants & Sonapani

Particulars	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
Equity considered for true up	780.98	383.76	397.22
RoE (%)	14%	14%	14%
Return on Equity (in Rs. Cr.)	109.34	53.73	55.61

The prevalent regulations also do not restrict allowing of return on equity capital pending allotment.

MePGCL would like to submit that the APTEL has pronounced the judgment on the Appeal No 74 of 2015 and Appeal No. 102 of 2015 filed by MePDCL and BIA against the MSERC True up Order for FY 2010-11 on 19.07.17. The Hon'ble Tribunal found that there is no infirmity in the decision of the State Commission while determining the equity base and hence upheld the MSERC's stand on RoE. However, MePDCL is seeking review of the impugned judgment of APTEL on RoE and the matter is sub-judice. Hence the utility would like to retain its methodology as per the past petitions & stand on equity

base determination as per the earlier petitions which is in line with MSERC Regulations and Transfer Notification Scheme.

4.6 SLDC and Connectivity Charges

The Hon'ble Commission had considered Rs. 1.05 Crore towards SLDC Charges for ARR of FY 2015-16 which is also reflected as per the Audited Statement of Accounts of MePGCL for FY 2015-16. Hence MePGCL requests the Hon'ble Commission to also consider the same for True up of FY 2015-16.

4.7 Prior Period Items

The Hon'ble Commission had not approved any amount for Prior Period Expense for MePGCL in the ARR for FY 2015-16. However, according to Audited Statement of Accounts, MePGCL and MeECL both have incurred some prior period Items, details of which are summarized below:

Table: Prior Period Expenses and Income

Particulars	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
Expenses			
Employee costs	0.254		
Depreciation under provided in previous year	0.000		
Interest & Other Finance Charges	0.033		
Others	0.016		
Excess provision on Interest accrued	0.000		
Total Expenses Prior Period	0.304		
Income			
Sale of other stores itmes	0.000		
Excess Provision For Depreciation	0.164	0.10	-0.56
Other Income Related (Power Sale)	0.000		
Excess Provision For Interest & Finance Charges In Prior Periods	0.365		
Other excess provision	0.000		
Total Income Prior Period	0.529		
Net Prior Period Expenses of MeECL Apportioned (actuals)	-0.232		
Net Prior Priod Items	-0.46		

Based on the Audited Statement of Accounts and proportionate components for MeECL, MePGCL humbly requests the Hon'ble Commission to approve the total prior period charges at Rs -0.56 Crores for FY 2015-16 for old plants & Sonapani

4.8 Non-Tariff Income

The Hon'ble Commission had approved Rs. 0.31 Crore as Non-Tariff Income in the ARR of FY 2015-16.

However, based on the Audited SoA for MePGCL & MeECL, MePGCL humbly requests Hon'ble Commission to approve Rs 6.58 Crores as other income for true up of FY 2015-16 for old plants & Sonapani.

Table: Non-Tariff Income

Particulars	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
Discount Received	2.10	0.22	6.58
Miscellaneous receipts	0.51		
Income from Trading	0.13		
Interest on overdue trade receivables	0.00		
Grants From Central Government	0.00		
Revenue Grant for Other Expenditure	0.11		
Interest Income	3.09		
Total Other Income	5.94		
Other Income of MeECL Apportioned	0.86		
Net Actual Other Income for True Up	6.80		

4.9 Revenue from Operations

As per the Audited Statement of Accounts (Note 16), MePGCL has received Revenue of Rs. 75.30 Crore for old plants & Sonapani from MePDCL towards sale of power for FY 2015-16

Table: Revenue from Operations

Particulars	MePGCL (in Rs. Cr) (a)	Leshka (in Rs. Cr) (b)	Old Plants + Sonapani (in Rs. Cr) (a)-(b)
Actual Revenue for True Up	205.75	130.45	75.30

4.10 Aggregate Revenue Requirement and Revenue Gap/Surplus for FY 2015-16

The summary of Annual Fixed Charges approved by the Hon'ble Commission for existing generating stations vis-a-vis actuals as per the Audited Statement of Accounts for FY 2015-16 for MePGCL and proportionate expense of MeECL is given below.

Table: Summary of Annual Fixed Charges (Approved vis-a-vis Actuals) FY 2015-16

Particulars	Approved by MSERC	As per Audited SoA for FY 2014-15			Gap/(Surplus)
	ARR 2015-16 (Old Plants + Sonapani)	True Up of MePGCL for FY 2015-16 (Old+New Plants)	True Up FY 2015-16 Leshka	True Up FY 2015-16 Old Plants + Sonapani	
O&M Expenses	55	123.94	28.59	95.34	40.34
i) Employee Expenses		69.490		69.49	
ii) R&M Expenses		16.49		16.49	
iii)A&G Expenses		37.95		37.95	
Depreciation	10.64	67.32	60.79	6.52	(4.12)
Interest and Finance Charges	0.46	94.10	82.97	11.13	10.67
Interest on working capital	3.79	14.16	6.70	7.46	3.67
Return on Equity	9.43	109.34	53.73	55.61	46.18
SLDC Charges	1.05	1.05		1.05	0.00
Income tax Expense	-	-			
Misc. Expense & Bad Debts	-	-			
Net Prior Period Items: Income(-)/Expense		-0.46	-0.10	-0.56	(0.56)
Total Annual Fixed Cost (AFC)	80.37	409.45	232.89	176.56	96.19
Less: Non Tariff Income	0.31	6.80	0.22	6.58	6.27
Net AFC	80.06	402.65	232.67	169.98	89.92
Revenue from operations	80.06	205.75	130.45	75.30	4.76
Gap/(Surplus)	0	196.90	102.22	94.68	94.68

MePGCL humbly request the Hon'ble Commission to pass through gap of INR 94.68 Crore for Old Stations and Sonapani under the truing up of FY 2015-16 in the ARR of FY 2018-19.

5. True up of Generation Business for Leshka for FY 2015-16

5.1 Capital Cost of Leshka

The Hon'ble Commission in its order for Leshka dated 30th March 2017 had approved a capital cost of Rs. 1134.28 crore after deducting Rs. 7.55 crore (cost of infirm power) from the capital cost of INR 1141.83 as certified by statutory Auditors, as on 31.03.2013. The CWIP has been put into commercial use. Audit certificate of capital cost of MLHEP is attached as Annexure C. Hence the revised capital cost as on 1st April 2016 as duly certified by the statutory auditors for Leshka is given below:

Table: Audited Capital Cost for Leshka

S.I 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

Out of the net capital cost of INR 1286.74, the infirm energy during the trial run is INR 7.55 Cr. Hence the capital cost of Leshka as INR **1279.19** has been used for computation of different components of tariff.

5.2 Operation and Maintenance Expenses

The Hon'ble Commission had approved O&M Expenses of INR 25.36 Cr for FY 2015-16 based on the capital cost of INR 1134.28 and its subsequent escalations. MLHEP has achieved CoD after 1.04.2009, its O & M expenses have been fixed as per Regulation 56 (7) at 2% of project cost and further escalated at 5.72% to arrive at O & M expenses for FY 2015-16 as per the final capital cost.

Table: O&M Expenses for Leshka

Particulars	Amount (INR Crore)
Project Cost	1279.19
O&M Expenses for FY 2013-14 (2% of Project Cost)	25.58
O&M Expenses for FY 2014-15 (5.72% escalation over previous Year)	27.05
O&M Expenses for FY 2015-16 (5.72% escalation over previous Year)	28.59

MePGCL submits before the Hon'ble Commission to kindly approve the O&M expenses of Rs. 28.59 Cr of MLHEP for FY 2015-16.

5.3 Interest & Finance Charges

The Hon'ble Commission had considered Rs. 81.48 Crore as Interest & Finance Charges for ARR of FY 2015-16 for MLHEP. However, based on the Audited Statement of Accounts, MePGCL humbly requests Hon'ble Commission to allow Rs 82.97 crore towards Interest & Finance Charges for FY 2015-16.

The various loans availed by MePGCL for the execution of MLHEP have been detailed out in Format 7 in Annexure A.

5.4 Depreciation

The Hon'ble Commission had approved depreciation of INR 42.51 for FY 2015-16 in its tariff order

The petitioner presents the depreciation of MLHEP for the year FY 2015-16 true up as given below:

Table: Depreciation for Leshka

Particulars	FY 2015-16
Land & Land rights	
Buildings	4.86
Hydraulic Works	32.67
Other Civil Works	3.87
Plant & Machinery	19.11
Lines & Cable Network	0.24
Vehicles	0.02
Furniture & Fixtures	0.00
Office Equipment	0.01
Assets not in Use	-
Total (INR Crore)	60.79

MePGCL, therefore, submits before the Hon'ble Commission to kindly approve Depreciation of INR 60.79 for MHEP for FY 2015-16

5.5 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

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.

The Hon'ble Commission had approved Equity of INR 334.98 as 30% for FY 2015-16 based on the capital cost of INR 1134.28 and a RoE of INR 46.90

The revised capital cost and its funding pattern after converting CWIP into commercial use has been given below:

Table: Debt Equity of MLHEP as per Project Cost

Particulars	FY 2015-16 (INR Cr)
Total Project Completion Cost (Audited)	1,279.19
Equity Component (30%)	383.76
Debt Component (70%)	895.43

The Return on Equity for the MLHEP project for FY 2015-16 is as computed below:

Table: Return on Equity for Leshka

Particulars	FY 2013-14
Capital Cost of MLHEP	1279.19
Equity Considered for RoE (INR Crore)	383.76
RoE % (Rs. Cr)	14%
RoE (INR Crore)	53.73

MePGCL submits before the Hon'ble Commission to kindly approve the amount computed above as RoE for FY 2015-16 for Myndtu Leshka HEP.

5.6 Interest on Working Capital

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

Table: Interest on Working Capital

Particulars	Approved	MLHEP Actual (INR Cr)
O&M expenses for one month (INR Crore)	2.21	2.38
Maintenance spares @ 15% of O&M expenses Escalated by 6% per annum from date of C.O.D (INR Crore)	3.80	4.29
Receivables equivalent to two months of Fixed cost (INR Crore)	32.78	38.78

Total Working Capital Requirements (INR Crore)	38.69	45.45
SBI PLR as on 1st April of the respective Financial Year (%)	14.45%	14.75%
Interest on Working Capital (INR Crore)	5.71	6.70

MePGCL submits before the Hon'ble Commission to kindly approve the Interest on Working Capital of INR 6.70 Cr as computed above for FY 2015-16 MLHEP.

5.7 Revenue from Operations

MePGCL has received Revenue of Rs. 130.45 Crore for MLHEP from MePDCL towards sale of power for FY 2015-16 against the approved amounting of Rs 202.36 Cr by the Hon'ble Commission.

5.8 Summary of Annual Fixed Cost – Myndtu Leshka HEP

The summary of Annual fixed charges approved by the Hon'ble Commission for MLHEP vis-a-vis actuals as per the Audited Statement of Accounts for FY 2015-16 is given below:

Table: Summary of Annual Fixed Charges (Approved vis-a-vis Actual) FY 2015-16

Particulars	Approved for Leshka HEP FY 2015-16	Actual Leshka HEP FY 2015-16	Gap/(Surplus)
O&M Expenses	25.36	28.59	3.23
Depreciation	42.51	60.79	18.28
Interest and Finance Charges	81.48	82.97	1.49
Interest on working capital	5.71	6.70	0.99
Return on Equity	46.9	53.73	6.83
SLDC Charges	0.4		(0.40)
Net Prior Period Items: Income(-)/Expense		0.10	0.10
Total Annual Fixed Cost (AFC)	202.36	232.89	30.53
Less: Non Tariff Income		0.22	(0.22)
Net AFC	202.36	232.67	30.31
Revenue from operations	202.36	130.45	71.91
Gap/(Surplus)		102.22	102.22

MePGCL humbly requests the Hon'ble Commission to pass through the gap of INR 102.22 Crore for MLHEP under the truing up of FY 2015-16 in the ARR of FY 2018-19