

**BEFORE  
MEGHALAYA STATE ELECTRICITY  
REGULATORY COMMISSION  
SHILLONG**

**PETITION  
FOR**

**DETERMINATION OF GENERATION  
TARIFF FOR FY 2019-20 FOR MYNTDU LESHKA  
POWER STATION & OLD STATIONS INCLUDING  
SONAPANI**

FILED BY



**MePGCL**  
Generating Clean And Green Energy

**MEGHALAYA POWER GENERATION CORPORATION  
LIMITED**

**Lum Jingshai, Short Round Road, Shillong - 793 001**

**BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION**

At its office at Lower Lachumiere, Shillong – 793001

File/Petition No.: \_\_\_\_\_

IN THE MATTER OF

DETERMINATION OF GENERATION TARIFF FOR FY 2019-20 UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2014 AND UNDER SECTIONS 62 & 64 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

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 Company;
  - 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 leading to effective unbundling of MeECL into MeECL (Holding Company), MePDCL (Distribution Utility), MePGCL (Generation Company) 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 4<sup>th</sup> 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 began segregated commercial operations as an independent entity from 1st April 2013.
5. The expenses of the holding company, MeECL, is apportioned equally among the generation, transmission and distribution utilities since the MeECL is an administrative setup for all the three subsidiaries and undertakes common corporate functions of the three companies.
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 82 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 for 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, and 2) Myntdu-Leshka.
8. The Utility is filing a separate petition for New Umtru HEP for approval of capital cost as on 30<sup>th</sup> June 2017 and approval of AFC and tariff for MYT Control period FY 2018-19 to FY 2020-21
9. Now, based on the provisions of Regulation 6) (2) b) of the Tariff Regulations, 2014, MePGCL also files this petition for revision of tariff for FY 2019-20 based on approved ARR of FY 2019-20 in MYT order dated 31<sup>st</sup> March, 2018 and adjustment of true up of previous years.
10. The Board of Directors of MePGCL has accorded approval for filing of this petition and authorized the undersigned to file the petition accordingly. A copy of the Board's resolution is hereby enclosed as **Annexure - A**.
11. The petitioner, therefore, humbly prays before the Hon'ble Commission to pass appropriate orders on the following:
  - a. Approval of tariff for FY 2019-20 for 1) Old Plants including Sonapani & 2) Myntdu- Leshka as proposed in this petition
  - 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 petitioner 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

**Contents**

1. Introduction.....	1
1.1 Provisions of Law for Revision of Tariff .....	1
2. Revision of Tariff for Leshka & Old Plants including Sonapani FY 2019-20.....	2
2.1 Regulatory Provisions.....	2
2.2 Capacity Charge and Energy Charge for Leshka .....	4
2.3 Capacity Charge and Energy Charge for Old Plants including Sonapani .....	5
2.4 Capacity Charge and Energy Charge for New Umtru .....	5

## **1. Introduction**

### **1.1 Provisions of Law for Revision of Tariff**

**1.1.1** The State Government had 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."*

**1.1.2** Regulation 6) (2) b) of the said Regulations lays down the general guiding principles for revision of tariff and the provisions of the said Regulations are reproduced below for reference:

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

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

*b) From the first year of the Control Period and onwards, the Petition shall comprise of:*

*i. Truing Up for previous years under Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011 in accordance with these Regulations;*

*ii. Revenue from the sale of power at existing tariffs and charges for the ensuing year;*

*iii. Revenue gap for the ensuing year calculated based on ARR approved in the Tariff Order or MYT Order and truing up for the previous year;*

*iv. Application for revision of tariff for the ensuing year"*

### **1.1.3 Submissions before the Hon'ble Commission**

MePGCL hereby submits the petition under section 61 and 62 (1) (a) of the Electricity Act, 2003, and MSERC (Multi Year Tariff) Regulations, 2014 for approval of Revision of Tariff for FY 2019-20.

## **2. Revision of Tariff for Leshka & Old Plants including Sonapani FY 2019-20**

### **2.1 Regulatory Provisions**

MePGCL submits that based on the Annual Fixed Cost approved by the Hon'ble Commission, it will calculate the capacity charge and energy charge based on the following provisions of the MYT Regulations, 2014:

#### ***“57 Computation and payment of capacity charge and energy charge for Hydro generating 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*

$$= AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF) \text{ (in Rupees)}$$

*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:*

$$PAFM = 10000 \times \sum_{i=1} DC_i / \{ N \times IC \times (100 - AUX) \} \%$$

*Where,*

*AUX = Normative auxiliary energy consumption in percentage*

*DC<sub>i</sub> = 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:

$$= (\text{Energy charge rate in Rs. / kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh}\} \times (100 - \text{FEHS}) / 100.$$

(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):

$$\text{ECR} = \text{AFC} \times 0.5 \times 10 / \{ \text{DE} \times (100 - \text{AUX}) \times (100 - \text{FEHS}) \}$$

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.”

## 2.2 Capacity Charge and Energy Charge for Leshka

The Hon'ble Commission in its order dated 31<sup>st</sup> March, 2018 had approved the ARR for FY 2019-20 as Rs. 163.27 Cr. for MLHEP. As per the directives of the Hon'ble Commission in the order dated 30<sup>th</sup> March, 2017 for True Up of FY 2013-14 & FY 2014-15 for Leshka, the MePGCL is passing on the gap of Rs 81.50 Cr (Gap of Rs 163 Cr is to be spread over 2 years to minimize consumer shock) in the ARR for FY 2019-20

In the review petition on the true up order for FY 2015-16 dated 25<sup>th</sup> September, 2018, MePGCL has requested the Hon'ble Commission to allow an additional gap of Rs. 182.22 Cr. **The Company has segregated this additional gap among the Old plants and Sonapani, & Myntdu Leshka power plant in proportion to their capacity.**

The true up gap and additional claim as per review petition will have an impact on the ARR requirement for FY 2019-20, and thereby the Company prays before the Hon'ble Commission to allow the revised ARR for FY 2019-20 for MLHEP, which comes to Rs 315.64 crores as shown below:

### Annual Fixed Charges for FY 2019-20 – Myntdu Leshka HEP (Rs. Cr.)

Particulars	FY 2019-20
Annual Fixed Cost Approved by MSERC for FY 2019-20 (Rs. Cr.) (a)	163.27
Gap for True Up FY 2013-14 & True Up FY 2014-15 (b)	81.50
Add: Additional Claim as per review petition for True up of FY 2015-16 (c)	70.83
<b>Net AFC for Computation of Tariff (d=a+b+c)</b>	<b>315.60</b>

Now, based on the Regulations, 50% of the Annual Fixed Charge 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 charge for MLHEP for FY 2019-20 is computed below:

**Table: Fixed and Energy Charges for Myntdu Leshka HEP FY 2019-20**

Particulars	FY 2019-20
<b>Net AFC for Computation of Tariff</b>	<b>315.60</b>
Design Energy (MU)	486.00
Less: Auxiliary Consumption @ 1%	4.86
Less: Transformation Loss @ 0.5%	2.43
<b>Net Energy (MU)</b>	<b>478.71</b>
<b>Fixed Charge (Rs. Cr.)</b>	<b>157.80</b>
<b>Variable Charge (Rs./kWh)</b>	<b>3.30</b>

Based on all the above submissions, the petitioner humbly prays before the Hon'ble Commission to kindly approve the tariff of Myntdu Leshka Hydro Electric Project for FY 2019-20 as computed in the above table.



### 2.3 Capacity Charge and Energy Charge for Old Plants including Sonapani

Following the same approach followed in the previous MYT tariff orders, MePGCL proposes to recover the annual fixed charge for each station based on the capacity of each station for determining energy charge and capacity charge in FY 2019-20.

The net revenue for MePGCL's old plants including gap of previous year to be passed on for FY 2019-20 is summarized below:

#### Annual Fixed Charge for FY 2019-20: Old Plants Including Sonapani

Particulars		FY 2019-20
Annual Fixed Cost (AFC) Approved by MSERC for FY 2019-20 (Rs. Cr.)	a	56.20
Add: Additional Claim as per review petition for True up of FY 2015-16	b	111.39
<b>Total AFC for FY 2019-20 (Rs. Cr.)</b>	<b>c=a+b</b>	<b>167.59</b>

Since the old plants have passed their useful life, MePGCL prays before the Hon'ble Commission to consider the average of actual generation of the last 6 years rather than design energy for computation of tariff in case of old plants to make it more realistic. The station-wise allotted Net Annual Fixed Cost proposed for recovery in FY 2019-20 is shown in the table below:

**Table: AFC, Capacity Charge and Energy Charge for FY 2019-20**

Sl. No	Name of the Power Station	MW	Projected Generation (Avg of last 6 years) (MU)	Annual Fixed Charges (Rs. Cr.)	Capacity Charges (Rs. Cr.)	Energy Charges (Rs./Unit)
1.	Umiam I	36	101.95	31.97	15.99	1.57
2.	Umiam II	20	51.73	17.76	8.88	1.72
3.	Umiam III	60	115.28	53.29	26.64	2.31
4.	Umiam IV	60	182.49	53.29	26.64	1.46
5.	Umtru Power Station	11.2	11.35	9.95	4.97	4.38
6.	Mini Hydrel (Sonapani)	1.5	6.61	1.33	0.67	1.01
	<b>Total</b>	<b>188.7</b>	<b>469.42</b>	<b>167.59</b>	<b>83.79</b>	<b>1.79</b>

The total installed capacity of the power stations is 188.7 MW and the average generation from these plants is 469.42 MU. Following the similar approach adopted in the MYT tariff order, MePGCL proposes to recover the total annual fixed charges from the beneficiary in the Financial Year 2019-20 on these plants on the basis of their installed capacity and target energy as computed above.

Based on all the above submissions, the petitioner humbly prays before the Hon'ble Commission to kindly approve the tariff of Old Plants including Sonapani for FY 2019-20 as computed in the above table.

### 2.4 Capacity Charge and Energy Charge for New Umtru

The Company is claiming the tariff for FY 2019-20 for New Umtru in a separate tariff petition filed by it for Approval of Capital cost, Approval of AFC & Tariff For MYT Control Period FY 2018-19 to FY 2020-21

