Annexure 20

Details of the Ghatghar PSS PPA and the Addendum, Communication between MSEDCL & MSPGCL, regarding deduction of O&M charges and lease rent for FY 2017-18, FY 2018-19, FY 2019-20 & FY 2020-21.



महाराष्ट्र MAHARASHTRA

प्रधान मुद्रांक कार्यालय, मुंबई प. मु. वि. क्र. ८००००११ - 6 MAR 2014 सक्षम अधिकारी विनोद नंदुरकर प्रवाना क्रमांक ८००००११

KT 490385

REGULATORY AND COMMERCIAL DEPT. MSPGCL STATE Pracashaged acher

परवान गरव नुदांव

This Power Purchase Agreement (here in after referred as the Agreement") is made this... 12th day of May, Two Thousand Fourteen (...12..-05 -2014) between

Maharashtra State Power Generation Company Limited (MSPGCL), a Company incorporated under the provisions of the Companies Act, 1956 and having its registered office at Prakashgad, G-9, Anant Kanekar Marg, Bandra (E), off Western Express Highway, Mumbai - 400 051 (hereinafter referred to as MAHAGENCO which expression shall, unless repugnant to the context or meaning thereof include its successors and assigns) of the One Part:

And

Maharashtra State Electricity Distribution Company Limited (MSEDCL), a Company incorporated under the provisions of the Companies Act, 1956, and having its registered office at Prakashgad, G-9, Anant Kanekar Marg Bandra (E), Mumbai - 400 051 (hereinafter referred to as MAHAVITARAN, which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) of the Other part.

> Director (Operations) M.S.P.G.C.L. Mumbai - 51.





प्रधान मुद्रांक कार्यालय, मुंबई प. मू. वि. क. ८००००११ - 6 MAR 2014 सक्षम अधिकारी

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SEC.

परवाना क्रमांक ८००००११ वांद्रे कोर्टासमार, अ. का. पार्ग, वांद्रे (पूर्व), मुंबई - ५१.

श्री/श्रीमती/मसर्म

REGULATORY AND COMMERCIAL DEPT:

परवान गरत द्वांक विक्रेत्य

WHEREAS;

- a) The Maharashtra State Electricity Board, (hereinafter referred to as erstwhile MSEB) a Board constituted under the Electricity (Supply) Act, 1948 as was applicable at the relevant time was the integrated electricity board in the State of Maharashtra undertaking the electricity generation, transmission, distribution and supply in the State;
- b) In terms of section 131, 133 etc. of the Electricity Act, 2003 the Government of Maharashtra (hereinafter referred to as the State Government) has reorganised the erstwhile MSEB by Transfer Scheme notifications issued by the State Government on 4th June 2005;
- Government of Maharashtra Water Resource Department through MoU has handed over the Unit #1 of Ghatghar PSS w.e.f. 17.08.2009 & Unit # 2 w.e.f. 03.01.2011.

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V. P. Singh
Director (Operations)
M.S.P.G.C.L. Mumbai - 51.



- d) MAHAGENCO operates & maintains Ghatghar PSS and supplies electricity to MAHAVITARAN & receive power for pumping & auxiliary consumption from MAHAVITARAN with effect from 17th august 2009;
- e) The Maharashtra State Electricity Transmission Company Limited incorporated as per provisions of Section 131 of the Electricity Act 2003, the deemed licensee as per Section 14 of the said Act and the designated State Transmission Utility (STU) in Maharashtra state as per Section 39 (1) of the said Act and is also at present the State Load Dispatch Centre undertaking the functions as provided in section 32 of the said Act;
- f) The State Load Dispatch Centre (hereinafter the SLDC) shall be responsible for optimum scheduling and dispatch of electricity within a state in accordance with contract entered into with licensees or the generating companies operating in the state;
- g) The Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 provides that electricity purchase and procurement by a Distribution Licensee from a Generating Company or Licensee or from any other source through agreement or arrangement for purchase of power for distribution and supply within the State shall be in accordance with Part-D of regulations. And said MERC Regulations further provide that every agreement or arrangement for long-term power procurement by a Distribution Licensee from a Generating Company or Licensee or from other source of supply entered into after the date of notification of these Regulations shall come into effect only with the prior approval of the Commission in accordance with Part D of said regulations;

NOW THEREFORE, in view of the foregoing premises and in consideration of the mutual covenants and agreements herein after set forth, the MAHAGENCO and the MAHAVITARAN hereby agree as follows:

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Director (Operations)
M.S.P.G.C.L. Mumbai - 51.

(0)

D.D WAVHAL
Director (Finance)
M.S.E.D.C.Ltd.

"Prakashgad" Bandra (E)
Mumbai - 400 051

Abbreviations

ABT	Availability Based Tariff			
ARR	Annual Revenue Requirement			
BPTA	Bulk Power Transmission Agreement			
CERC	Central Electricity Regulatory Commission			
COD	Commercial Operation Date			
CTs	Current Transformers			
DC	Declared Capacity			
EHV	Extra High Voltage			
FO	Forced Outages			
FY	Financial Year			
GCC	Grid Coordination Committee			
GCV	Gross Calorific Value			
GoM	Government of Maharashtra			
GT	Generator Transformer			
HV	High Voltage			
IC	Installed Capacity			
IEGC	Indian Electricity Grid Code			
IRLC	Irrevocable Revolving Letter of Credit			
KV	Kilo Volt			
L/C	Letter of Credit			
MCR	Maximum Continuous Rating			
MERC	Maharashtra Electricity Regulatory Commission			
M.F.	Multiplying Factor			





MSEB	Maharashtra State Electricity Board		
MSEB Holding	MSEB Holding Company Limited		
MSEDCL/ MAHAVITARAN	Maharashtra State Electricity Distribution Company Limited		
MSETCL/MAHATRANSCO	Maharashtra State Electricity Transmission Company Limited		
MSPGCL/MAHAGENCO	Maharashtra State Power Generation Company Limited		
MVA	Mega Volt Ampere		
MVV	Mega Watt		
PLF	Plant Load Factor		
PO	Plant Outages		
PPA	Power Purchase Agreement		
PSS .	Pumped Storage Station		
PTs	Potential Transformers		
SAT	Station Auxiliary Transformer		
SCADA	Supervisory Control And Data Acquisition		
SGC	State Grid Code		
SLDC	State Load Despatch Centre		
STU	State Transmission Utility		
WRLDC	Western Regional Load Despatch Centre		

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1: ARTICLE 1: DEFINITIONS & INTERPRETATIONS

1.1 Definitions

The words/expressions mentioned below unless repugnant to the context shall have the meanings respectively as assigned hereunder;

- (a) "Act" means the Electricity Act 2003 (36 of 2003);
- (b) "Agreement" means this Power Purchase Agreement (PPA) including its schedules, as amended, supplemented or modified from time to time and in accordance with the terms and conditions herein and approved by the Commission thereof:
- (c) "Auxiliary (Energy) Consumption" in relation to a period, means the quantum of energy consumed by auxiliary equipment of the generating station and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the unit(s) of the generating station. And, for the purpose of this Agreement. The auxiliary consumption for a generating station shall include transformer losses within the generating station;
- (d) "Balancing and Settlement Code" refers to such code as may be stipulated by the Commission or as may be published by the State Load Despatch Centre and approved by the Commission, for the balancing of energy accounts and settlement of differences between energy scheduled and actual energy among the users of the grid in the State of Maharashtra;
- (e) "Billing Date" means the date on which the bill is presented to MAHAVITARAN by MAHAGENCO;
- (f) "Billing Month" means the calendar month for which Bill is issued by MAHAGENCO;
- (g) "CERC" means Central Electricity Regulatory Commission;
- (h) "Check Meter" means the meter defined as "Check meter" in the Metering Code for intra-state transmission system approved by the Commission;
- (i) "Commission" means the Maharashtra Electricity Regulatory Commission;
- "Connection Agreement" means an agreement setting out the terms and conditions relating to connection to and / or use of the intra-State transmission system;
- (k) "Date of Commercial Operation" OR "COD" in relation to a unit means the date declared by MAHAGENCO after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run of the unit;

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- "Designated Officer(s)" means the Officer(s) in MAHAGENCO and MAHAVITARAN designated by the respective parties for matters relating to Billing and Payment;
- (m) "Dispatch Instruction" shall have the meaning given to it in the MERC (State Grid Code) Regulations, 2006;
- (n) "Disputed Bill" has the meaning as set forth in Article 7.2;
- (o) "Due Date" means the date falling on the 60th day from the Billing Date in case of a Monthly Bill and means the date falling on the 45th day from the Billing Date in case of a Supplementary Bill;
- (p) "Financial Year" means the period from 1st of April of the year to 31st of March of the next year;
- (q) "Force Majeure" means as defined in Article 9;
- (r) "Generating Station" or "station" means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, cables or other auxiliary equipments, if any used for that purpose and the site thereof, a site intended to be used for the generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station;
- (s) "Installed Capacity" means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating (reckoned at the generator terminals) as approved by the Commission from time to time;
- (t) "Interconnection Point" means the physical point or points where generating Station and the Grid System are connected at which the transfer of electrical power occurs between the MAHAGENCO and Transmission Utility;
- (u) "Interface Meter" means as defined in the Metering Code for intra-state transmission system approved by the Commission;
- (v) "Main Meter" means the meter defined as "main meter" in the Metering Code for intra-state transmission system approved by the Commission;
- (w) "Major investments" means any expenditure incurred for the betterment of the Power Generating unit(s) of MAHAGENCO which involves an amount of more than or equal to Rupees Twenty five (25) Crores.
- "Maximum Continuous Rating" means the normal rated full load MW output capacity of a Generating Unit which can be sustained on a continuous basis at specified conditions;

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- (y) "Metering System" means meters and wherever applicable associated metering apparatus/equipment such as CTs, PTs, communications/SCADA equipment etc, necessary for such recording and communication of metered data and shall also include main meter, check meter and/or standby meters which are provided to enable proper accounting, billing, recording and auditing of energy consumption / energy transfer;
- (z) "Metering Code" means the code and/or the metering section of the Grid Code in force or any amendments approved thereof by the Commission and covering aspects relating to metering equipment, its installations, operation and use;
- (aa) "Monthly Bill" has meaning as set forth in Article 7.1 (a);
- (bb) "Power Station" means the Generating Station as defined above;
- (cc) "Project" means all activities related to construction, erection, testing and commissioning of a Generating Station undertaken prior to commercial Operation Date (COD);
- (dd) "PSS" means Pumped Storage Hydro Power Station
- (ee) "Prudent Utility Practices" means the practices, methods, techniques, and standards that are generally accepted nationally and internationally from time to time and commonly used in the national and international electric utility industry for the operation and maintenance of equipment of a Generating Station in a safe, prudent and reliable manner consistent with the parameters for such operation and maintenance. Such practices, methods, techniques and standards shall be adjusted as necessary to take account of the requirements of Law, physical conditions at the site on which a Generating Station is located and operation and maintenance guidelines of the manufacturers of plant and equipment installed in the Power Station which MAHAGENCO is required to follow in order to maintain in effect any warranties, guarantees or insurance policies relating thereto;
- (ff) "Reactive Power" means the product of root mean square (rms) voltage, root mean square (rms) current and the sine of the electrical phase angle between the voltage vector and current vector, measured in 'Volt – Ampere reactive' (VAr) and in standard multiples thereof;
- (gg) "Start Up" means the preparation and activities carried out for synchronisation and connection of the Generating Station to the Grid System;
- (hh) "State Grid Code (SGC)" means the MERC (State Grid Code) Regulations 2006 issued by Maharashtra Electricity Regulatory Commission through its order dated 15th February 2006 as amended from time to time;

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- (ii) "Supplementary Bill" means the bill raised by MAHAGENCO for any amount due to MAHAGENCO, other than the monthly bill, as stipulated in Article no 7.1 of this agreement;
- (jj) "Transfer Date" means the effective date of transfer of the generating undertakings and facility to MAHAGENCO under the Transfer Scheme notified by the State Government i.e. 6th June 2005;
- (kk) "Transfer Scheme" means the Maharashtra Electricity Reforms Transfer Scheme notified by the Government of Maharashtra under sections 131, 133 and 134 of the Electricity Act, 2003;
- (II) "Unit" means the unit of a generating station;

1.2 Interpretation

The capitalised terms listed in this Article shall have the meanings set forth herein whenever the term appears in this Agreement either in the singular or plural. The References to "Article", "Clauses" or "Schedules" shall be to Article, clauses or schedules of this Agreement.

1.3 The terms not defined herein shall have meaning as per the Electricity Act 2003.

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2: ARTICLE 2: REGULATORY APPROVAL

- 2.1 This power purchase agreement is subject to approval of the Commission under Regulation 25 of the MERC (Terms & Conditions of Tariff) Regulations, 2011 read with section 62 and section 86(1) (b) of the Electricity Act, 2003. An application for approval of the power purchase agreement shall be filed by MAHAGENCO as directed by MERC vide order dated 27.12.2012 in Case No.2 of 2012 to the Commission within a period of 30 days of signing of the PPA. MAHAVITARAN shall participate in the proceedings that may be initiated by the Commission for the approval of PPA between the parties. The terms of this agreement shall stand modified as per the orders passed by the Commission to this power purchase agreement from time to time.
- 2.2 The parties also agree that any subsequent amendment / modification to this power purchase agreement shall be effective subject to the approval to be obtained from the Commission.

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3: ARTICLE 3: TERM OF AGREEMENT

3.1 Effective Date and Term of Agreement

The term of this Agreement come into force from the COD of the Ghatghar PSS (2 X 125 MW) for all purposes and intent and shall remain operative for a period of thirty (35) years from the COD unless extended as per Article 3.3 or terminated earlier as per Article 3.2.

3.2 Early Termination

This Agreement shall terminate before the Expiry Date:

- 3.2.1 if either MAHAVITARAN or MAHAGENCO exercises a right to terminate, pursuant to Article 12; or
- 3.2.2 in such other circumstances as the MAHAGENCO and MAHAVITARAN may subsequently agree, in writing.

3.3 Extension of Term

- 3.3.1 Prior to one hundred and eighty days (180) before the Expiry Date, MAHAVITARAN may give a written notice to the MAHAGENCO that it wishes to extend this Agreement for an additional period.
- 3.3.2 Upon the receipt of the notice from MAHAVITARAN under Article 3.3.1 above, the parties shall in good faith negotiate the terms and conditions for extension of the agreement with the period of extension and if the parties mutually agree on the above, the parties will enter into a supplementary agreement. The Supplementary Agreement shall be subject to regulatory approval in the similar manner as provided in Article 2 above.

3.4 Survival

The expiry or termination of this Agreement shall not affect accrued rights and obligations of the Parties under this Agreement, nor shall it affect any continuing obligations for which this Agreement provides, either expressly or by necessary implication, the survival of, post its expiry or termination.

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4: ARTICLE 4: RIGHTS & OBLIGATIONS FOR SUPPLY AND TAKE

- 4.1 The power (Active & Reactive both) injected in grid by Ghatghar PSS will be treated as power supplied to MSEDCL by MSPGCL. No energy bill will be raised by MSPGCL to MSEDCL for the power supplied to MSEDCL.
- 4.2 The power (Active & Reactive both) consumed by Ghatghar PSS for pumping water & auxiliary consumption will be treated as power supplied to MSPGCL by MSEDCL. No energy bill will be raised by MSEDCL to MSPGCL for such power supplied to MSPGCL.
- 4.3 The Ghatghar PSS will be treated as EHV consumer of MSEDCL. The energy drawl of Ghatghar PSS will be considered as input to concerned division of MSEDCL i.e. Kalyan (R) and will also reflect as sale of that division in IT system. No bill shall be raised by MSEDCL on MSPGCL for this pumping power.
- 4.4 The cost of the net energy supplied for pumping to be computed at the average cost of supply and is to be recovered through ARR along with the O&M charges and Lease Rent and /or any other charges payable to MSPGCL.
- 4.5 MSEDCL will recover the charges against net energy (Energy supplied to Ghatghar for pumping by MSEDCL – Energy supplied by Ghatghar to MSEDCL) at the rate of average cost of supply of MSEDCL through ARR of that financial year subject to approval by MERC.

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5: ARTICLE 5: OPERATION AND MAINTENANCE

- 5.1 Operation and Maintenance of the Power Station
 - 5.1.1 MAHAGENCO shall be responsible at its own expense for ensuring that the generating Stations are operated and maintained in accordance with all statutory requirements, including the terms of all Consents and Prudent Utility Practices so as to meet its obligations under this Agreement. MAHAGENCO shall be responsible at its own expense for obtaining and keeping in force all Consents required for the operation of a Unit, the generating Station and the Project in accordance with this Agreement throughout its Operating Period.
 - 5.1.2 MAHAGENCO shall comply with all the existing provisions of State Grid Code 2006 and any further amendments to the same, from time to time.
- 5.2 Scheduling & Dispatch
- 5.2.1 Both the parties agree to comply with the provisions of the State Grid Code approved by the Commission. MAHAGENCO and MAHAVITARAN shall furnish their generation schedule & drawl schedule respectively in accordance with the Scheduling & Dispatch Procedure specified by the SLDC under the State Grid Code. MAHAGENCO agrees that for the purpose of Scheduling, it shall declare its true plant availability (capacity) to the SLDC and is required to demonstrate the declared capacity of any of its generating station as and when required by the State Load Despatch Centre. Any wrong declaration shall be subjected to provisions of "Regulation no. 51 (Demonstration of Declared Capacity) of Maharashtra Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011 and as amended from time to time".
- 5.2.2 The operation of Ghatghar PHPS will be as per directions issued by MSEDCL.
- 5.2.3 Scheduling of power generation of Ghatghar Station and pumping power required for Ghatghar will be done as per instructions of MSEDCL.
- 5.2.4 The timings of the Peak Power supplied from Ghatghar and off Peak power for Pumping given by MSEDCL will be decided by MSEDCL.
- 5.3 Scheduled Maintenance Outages

MAHAENCO on year-ahead basis shall furnish to SLDC its generation outage programme as per the SLDC Outage Planning Procedure for next financial year under Grid Code. MAHAGENCO shall also give the copy of such outage programme to MAHAVITARAN so that it can plan its power procurement in advance. MAHAVITARAN may request MAHAGENCO to defer/ reschedule its

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V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai - 51. D.D WAVHAL Director (Pinance) M.S.E.D. GLIB "Prakastrgon Bandra (E) Mumbai - 400 051 Annual Outage Programme based on its power requirement. MAHAGENCO based on the technical considerations may accede or reject such request from MAHAVITARAN for re-scheduling outage plan.

5.4 Maintenance of Records

- 5.4.1 Each Party shall keep complete and accurate records of the following:
 - (a) meter records and other records needed to reflect real and reactive power production for each Settlement Period and Electrical Output of the Power Station on a continuous real time basis;
 - (b) records of Available Capacity and Declared Capacity;
 - (c) the results of any tests;
 - (d) changes in operating status, Scheduled Outages, Maintenance Outages and Forced Outages (and any other restrictions or limitations affecting Available Capacity);
 - (e) any unusual conditions found during inspections; and
 - (f) Records of water made available for Hydro Generating Plant.
- 5.4.2 Any other data required by each of them for the purpose of proper administration of this agreement shall be provided with a prior notice of 30 days or such time period as may be necessary to capture the required data.
- 5.4.3 All records maintained pursuant to this Article shall be maintained for minimum of sixty months after the creation of such records or data: Provided that, the Parties shall not dispose of or destroy any such records after such sixty month period without thirty days' prior written notice to the other parties or at any time during the continuation of any dispute in respect of any matter to which such records relate.
- 5.4.4 Every Party shall have the right, upon reasonable prior notice, to examine the records and data of the other Parties relating to this Agreement or the operation and maintenance of the Power Station at any time during normal office hours.

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6: ARTICLE 6: METERING AND ENERGY ACCOUNTING

- 6.1 Installation, Inspection and Testing of Meters
 - 6.1.1 All interface meters installed at the points of interconnection with intra-state transmission system shall be owned, operated and maintained by the MAHATRANSCO (STU) in accordance with the Metering Code approved by the Commission.
 - 6.1.2 The interface meters installed at interconnection points of generating stations embedded into distribution system and injecting power directly into distribution system shall be owned, operated and maintained by the MAHATRANSCO (STU) in accordance with the Metering Code approved by the Commission.
 - 6.1.3 The meters conforming to the specification mentioned in the relevant clauses of the Metering Code shall be suitable to measure and store all pertinent parameters as specified by the commission.
 - 6.1.4 MAHAGENCO & MAHAVITARAN can tap all data stored in the memory of the meters using hand held data collection device (CMRI) or through provision of RS 485 / Ethernet LAN port in the meter MAHAGENCO & MAHAVITARAN can transmit data to remote locations using appropriate communication media.
 - 6.1.5 The parties agree for inspection and testing of meters in accordance with the relevant clause of the Metering Code approved by the Commission. The parties also agree that inaccuracies, failure and discrepancies in the interface meters shall be dealt by MAHATRANSCO in accordance with the relevant provisions of the Metering Code approved by the Commission.
 - 6.1.6 Other provisions regarding metering system, which are not covered specifically in this agreement, shall be governed by the relevant codes and standards approved by the MERC.
 - 6.1.7 "For installation of meters, Meter testing, Meter calibration and Meter reading and all matters incidental thereto, the MSPGCL and MSEDCL shall follow and be bound by the CEA (Installation and Operation of Meters) Regulations 2006, the Grid Code and ABT as amended and revised from time to time".

6.2 Inter-connection point and boundary

6.2.1 The parties agree that the inter-connection boundary between MAHAGENCO's Generating Stations and Mahatransco's transmission system shall be the HV side of the Generator Transformer (GT) and the HV side of Station Auxiliary Transformer (SAT) of the Generating Station. The

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- switchyard associated with the generating station for interconnection with Intra-State transmission shall be under the control of MAHATRANSCO.
- 6.2.2 The parties herein agree that at any subsequent date after signing this agreement any change in above arrangement of inter-connection boundary and/ or in operation and control of switchyard associated with the generating stations, either by the Commission or through mutual agreement between MAHATRANSCO and MAHAGENCO shall automatically apply to this agreement without any further act.

6.3 Interface Metering Points

6.3.1 The Meters for interface tariff shall be provided at inter-connection points between Ghatghar PSS and MAHATRANSCO's transmission system as specified in the Metering Code for intra-state transmission system approved by the Commission.

6.4 Meter Reading

6.4.1 Joint Monthly Meter Reading:

Meters for interface tariff shall be programmed so as to register and store the readings from 00.00 hrs of 1st day of current month to 00.00 hrs of first day of next month. Joint Monthly meter readings of the meters for interface tariff for billing shall be taken / downloaded at 11.00 hrs on the 1st day of the next month and confirmation signed by the authorised representatives of MAHAGENCO, MAHAVITARAN and MAHATRANSCO. No notice is required to be issued for monthly joint meter readings. In case any party not able to attend meter readings at specified time, the meter readings taken by the other party (s) shall be considered conclusive and binding on other parties unless a written objection is filed by the Party, who failed to attend the joint meter readings, within 10 days of communicating such readings to them.

6.4.2 Access to Metering Data

MAHAGENCO, MAHAVITARAN and MAHATRANSCO shall be entitled to have access to metering data from a metering installation through appropriate technology for their use.

6.5 Energy Accounting

6.5.1 State Energy Account: Monthly State Energy Account for intra-State transmission system shall be prepared by the State Load Despatch Centre indicating energy injected into / drawn from intra-State transmission system

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in pursuance with clause (C) sub-section (2) Section 32 of the Act. The SLDC shall prepare such monthly state energy account on the basis of joint meter readings at interface points, Monthly Regional Energy Account and such other information as may be deemed appropriate by SLDC. The monthly State energy account issued by the SLDC shall be basis for accounting and settlement amongst the beneficiaries of intra-State transmission system.

6.5.2 SLDC Charges: The scheduling and SLDC charges as determined by the Commission from time to time shall be applicable and payable to SLDC separately by MAHAVITARAN.

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V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai - 51. D.D. WAVHAL

Director (Finance) M.S.E. u.C.Ltd. "Prakashga / Bandra (E) Mumbal - 400 051

7: ARTICLE 7: BILLING AND PAYMENT

- 7.1 All payments under this Agreement shall be billed and paid in accordance with the following provisions:
 - (a) Monthly Bill: MAHAGENCO raises at monthly interval one or more bills as per Clause 9.1(a) of the PPA dated 01.04.2009 for existing stations between MSPGCL & MSEDCL. MAHAGENCO shall include the amount of Lease Rent, O & M expenses and fixed charges of Ghatghar PSS as approved by MERC, in the monthly bills raised by MSPGCL. The bills shall be raised in the name of officer designated by the MAHAVITARAN.
 - (b) MAHAVITARAN shall arrange payment of such bill(s) within 60(sixty) days from the Billing Date through RTGS/NEFT in the account of MAHAGENCO. The date of realisation to MAHAGENCO shall be considered as the date of payment for computation of rebate or late payment surcharge payable as the case may be.
 - (c) MAHAVITARAN can also make a provisional payment of full amount based on the previous month's bills for which rebate will be applicable at the rate of 1.25% (one and quarter percent) of such advance payment.
 - (d) Supplementary Bills: Any amount due to MAHAGENCO by MAHAVITARAN under this agreement other than amounts set out in a Monthly Bill shall be payable within forty-five (45) days of presentation of the Supplementary Bill by MAHAGENCO to MAHAVITARAN.

7.2 Disputed Bill:

- 7.2.1 The bill(s) of MAHAGENCO shall be paid by MAHAVITARAN in full subject to the condition that:
 - (a) there is no apparent arithmetical error in the bill(s)
 - (b) the bill(s) is /are claimed as per the approved tariff
- 7.2.2 If MAHAVITARAN has any disagreement with the bill(s) raised, they shall file a written objection with MAHAGENCO within 15 days of presentation of the bill(s) giving following particulars:
 - (a) item disputed, with full details/data and reasons of dispute, and
 - (b) amount disputed against each item

V. P. Singh
Director (Operations) 19
M.S.P.G.C.L. Mumbai - 51,

D.D WAVHAL
Director (Finance)
M.S.E.D C.Ltd.
"Prakashgad" Bandra (E)
Mumbai - 400 051

- 7.2.3 MAHAGENCO shall resolve the above dispute with MAHAVITARAN as soon as possible preferably within 30 days of receipt of such objection from MAHAVITARAN. In case the dispute is not resolved, such a bill is to be treated as a "disputed bill" and the matter shall be referred to dispute resolution mechanism as provided in Article 13.
- 7.2.4 Notwithstanding any dispute as to all or any portion of a Bill submitted by MAHAGENCO to MAHAVITARAN, MAHAVITARAN shall pay the 95% (ninety-five percent) amount of the Bill as per order issued by the Commission.
 - 7.2.5 The amount of excess/ shortfall with respect to the said 95% payment based on the final award of arbitration shall be paid/ adjusted with interest at the rate of SBI PLR from the date on which the amount in dispute was payable.
- 7.3 Rebate for prompt payment and Late payment surcharge
 - (a) The rebate for prompt payment shall be governed as per Schedule-1 of this PPA. The rebate will be applicable only if full payment is made by MSEDCL for the respective bill. For payment of bills through a letter of credit on presentation a rebate of 2% (two percent) of amount paid shall be admissible. If the payments are made by MAHAVITARAN within seven days of presentation of the bill a rebate of 1.25% (one and quarter percent) of amount paid shall be admissible, and thereafter rebate shall be reduced gradually till the 59th day as per Schedule 1.
 - (b) In case the payment of bills is delayed by MAHAVITARAN beyond due date of payment of the bill, a late payment surcharge at the rate of 1.25% (one and quarter percent) per month calculated for number of days for which payment delayed shall be levied by MAHAGENCO.

V. P. Singh
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M.S.P.G.C.L. Mumbai - 51.

D.D WAVHAL Director (Finance) M.S.E.D.C.Ltd. "Prakashgad" Bandra (E) Mumbai - 400 051

8: ARTICLE 8: PAYMENT SECURITY MECHANISM

8.1 Letter of Credit

Letter of Credit (L/C): MAHAVITARAN shall establish an Irrevocable Revolving Letter of Credit (IRLC) in favour of MAHAGENCO for an amount equivalent to one point zero five (1.05) times of average monthly bills during previous year towards the payment security. The Letter of Credit shall be opened with any scheduled commercial bank (agreeable to MAHAGENCO) within one month from the date of signing of this agreement

The Letter of Credit established by MAHAVITARAN shall:

- (a) On the date it is issued, have a term equal to one year but revolving for the full term of this agreement.
- (b) The value of the L/C being equal to one point zero five (1.05) times of the average monthly billing computed on the basis of power supplied by MAHAGENCO during previous year.
- (c) Be transferable or assignable to any lender of MAHAGENCO.
- (d) Be payable as a payment security mechanism upon the execution and presentation by the designated officer of MAHAGENCO after the Due Date of Payment provided it is supported by a copy of the Bill for which payment is sought and a certificate by the designated officer of MAHAGENCO that the Bill remains unpaid.
- (e) Be reinstated to its original level after every valid draw by MAHAGENCO.
- (f) The charges for opening, maintaining and operation of Letter of Credit shall be borne by MAHAVITARAN.

8.2 Order of Precedence:

- 8.2.1 MAHAGENCO shall present its monthly Bill(s) and any Supplementary Bill(s) to MAHAVITARAN for direct payment by MAHAVITARAN pursuant to Article 7.1.
- 8.2.2 In case of payment default by MAHAVITARAN, MAHAGENCO has the freedom to proceed for Operation of Letter of Credit

8.3 Quarterly and Annual Reconciliation

Both Parties acknowledge that all payments made against Monthly and Supplementary Bills shall be subject to reconciliation at the end of each quarter and annual reconciliation at the end of each financial year to take into

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Director (Finance)
M.S.E.U.C.Ltd.
"Prakashgad" Bandra (E)

Mumbai - 400 051

account State Energy Account (if applicable), Rebate on prompt payment, Surcharge on delayed Payments, or any other reasonable circumstance provided under this Agreement. The Parties, therefore, agree that within 15 days of end of the quarter and within 30 days of close of financial year the data in respect of any quarter or a full financial year as the case may be has been finally verified and adjusted, the Parties shall jointly sign such reconciliation statement. Within fifteen days of signing of a reconciliation statement, MAHAGENCO shall raise a Supplementary Bill showing credit/debit of payments.

V. P. Singh
Director (Operations)
M.S.P.G.C.L. Mumbal - 51,

D.D WAVHAL
Director /Finance)
M.S.E.D.C.Ltd.
"Prakashgau" Bandra (E)
Mumbai - 400 051

9 ARTICLE 9: FORCE MAJEURE

- 9.1 A force majeure means any event or circumstance or combination of both including those stated below and on which the Affected Party has no control, that wholly or partly prevents or incapacitates the Affected Party in performing its obligations under this Agreement, even after the affected party having taken all reasonable care or it having complied with prudent utility practices:
 - (a) act of God, including, but not limited to lightning, drought, fire and explosion, accident, terrorist activities like sabotage, explosion or criminal damage, strike at National or State level, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado;
 - (b) any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo.
- 9.2 The Affected Party shall give notice to the other Party of any event of force majeure as soon as reasonably practicable, but not later than seven (7) days after the date on which such Party knew or should reasonably have known of the commencement of the event of force majeure. If an event of force majeure results in a breakdown of communications rendering it not reasonable to give notice within the applicable time limit specified herein, then the Party claiming Force majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than one (1) day after such reinstatement. Such notice shall include full particulars of the event of force majeure, its effects on the Party claiming relief and the remedial measures proposed, and the Affected Party shall give the other Party regular (and not less than monthly) reports on the progress of those remedial measures and such other information as the other Party may reasonably request about the situation.
- 9.3 The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of force majeure; and (ii) the cessation of the effects of such event of force majeure on the performance of its rights or obligations under this Agreement, as soon as practicable after becoming aware of each of these cessations.
- 9.4 In case of force majeure conditions prevails more than 100 days both the parties may mutually agree to rescind/ defer the agreement or portion thereof which have been affected due to such force majeure conditions on such terms and conditions between the parties.
- 9.5 To the extent not prevented by a force majeure event pursuant to 9.2, the Affected Party shall continue to perform its obligations pursuant to this Agreement. The Affected Party shall put their best efforts to mitigate the effect of any event of force majeure as soon as practicable.

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V. P. Singh
Director (Operations)
M.S.P.G.C.L. Mumbai - 51.



9.6 Available Relief for a force majeure event shall be limited to and extent that no Party shall be in breach of its obligations pursuant to this Agreement to the extent that the performance of its obligations was prevented hindered or delayed due to a force majeure event.

> V. P. Slingh Director (Operations) M.S.P.G.C.L. Mumbai - 51.

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10 ARTICLE 10: TERMINATION ON EVENT OF DEFAULT

- 10.1 This agreement may be terminated as provided hereunder in the event of failure of MAHAGENCO continuously for 90 days of its obligations under Article 5.2 relating to Scheduling & Dispatch.
- 10.2 This agreement may be terminated as provided hereunder in the event of following defaults by MAHAVITARAN:
 - 10.2.1 MAHAVITARAN fails to pay any portion of a Monthly Bill or Supplementary Bill for a period of 90 days after the Due Date and the MAHAGENCO is unable to recover the amount outstanding to the MAHAGENCO through the Payment Security Mechanism provided in Article 10.
 - 10.2.2 Failure of MAHAVITARAN continuously for more than 90 days to furnish Day Ahead Drawl Schedule as per SLDC Scheduling Procedure under Article 5.2 resulting into non-despatch of declared generation capacity of MAHAGENCO during such period.

10.3 Termination Procedure

- 10.3.1 Upon the occurrence and continuation of Event of Default by any Party as specified above then Other Party shall have the right to deliver to the defaulting Party a Preliminary Termination Notice, which shall specify in reasonable detail the circumstances giving rise to the issue of such notice;
- 10.3.2 Following the issue of Preliminary Termination Notice the Parties shall wait for consultation as to what steps shall be taken to remedy the situation having regard to all the circumstances for consultation period of ninety (90) days or such longer period as the Parties may agree,
- Any time after a period of seven (7) days following the expiry of the Consultation Period and unless the Parties shall have otherwise agreed to the contrary or the Party may terminate this Agreement by delivering a Final Termination Notice, whereupon this Agreement shall terminate on the date of such notice.
- 10.3.4 Till service of final notice of termination, the Parties shall, save as otherwise provided in this Agreement, continue to perform their respective obligations under this Agreement.

10.4 Consequences of Termination

10.4.1 In the event of Termination of this Agreement consequent to default by any Party, the other Party may resort to the remedy as provided under Article 13 for deciding the compensation payable to the non defaulting

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M.S.P.G.C.L. Mumbai - 51.

D.D WAVHAL
Director (Finance)
M.S. 2.0.C.Ltd.
"Prakeshgad" Bandra (E)
Mumbal - 400 051

party on account of Termination of Agreement due to event of default of the defaulting party.

10.4.2 The termination of the Agreement shall not affect the accrued rights and obligations of the parties.

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M.S.P.G.C.L. Mumbai - 51

D.D WAVHAL
Director (Finance)
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Mumbai - 490 051

11 ARTICLE 11: GOVERNING LAW

11.1 This Agreement shall be governed by and construed in accordance with the Laws of India. Any legal proceedings in respect of any matters, claims or disputes under this Agreement shall be under the jurisdiction of appropriate courts of Mumbai".

> V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai - 51.

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Director (Finance)
M.S.E. D.C.Lld.
"Prakashgad" Bandra (E)
Mumbai - 400 051

12 ARTICLE 12: CHANGE IN LAW

- 12.1 "Change in Law" means the occurrence of any of the following after the date of effectiveness of this agreement:
 - (a) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any statute, decree, ordinance or other law, regulation, notice, circular, code, rule or direction by any Governmental Instrumentality or a change in its interpretation by a Competent Court of law, tribunal, government or statutory authority or any of the above regulations, taxes, duties charges, levies, etc., or
 - (b) the imposition by any Governmental Instrumentality of any material condition in connection with the issuance, renewal, modification, revocation or nonrenewal (other than for cause) of any Consent after the date of this Agreement; that in either of the above cases results in any change with respect to any tax or surcharge or cess levied or similar charges by the Competent Government on the generation or sale of electricity;
- 12.2 In the event of change of law as defined above, which affects MAHAGENCO/MAHAVITARAN, then MAHAGENCO / MAHAVITARAN shall send a notice in writing to the other party regarding such event and both parties shall meet and endeavour to agree to an amendment to this agreement to pass on the impact of such an event which shall be settled through a supplementary bill.
- 12.3 If within 90(ninety) days after such notification, the parties are unable to reach agreement on such amendment, or in the event that an agreement to amend has been reached but no amendment has been executed within 30 (thirty) days after reaching of such agreement to amend, either party shall have the right to commence the dispute resolution procedures set forth in Article 15 to determine or implement the appropriate amendment to this agreement.

V. P. Singh
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M.S.P.G.C.L. Mumbai - 51.

D.D WAVHAL
Director (Finance)
M.S.E.D.C.Ltd.
"Prakashgad" Bandra (E)
Mumbai - 400 051

13 ARTICLE 13: DISPUTE RESOLUTION & ARBITRATION

- 13.1 All disputes or differences between the parties herein arising out of or in connection with this Agreement shall be endeavoured to be settled amicably through mutual discussions between the parties, failing which, it shall be referred to the Dispute Resolution Mechanism in accordance with following procedure:
- All disputes #differences between the parties arising out of or in connection with this Agreement shall be resolved by reconciliation through mutual discussions by Senior Officers not below the rank of Executive Directors of respective companies.
- 13.3 If the parties failed to resolve dispute mutually amongst them then such dispute shall be referred to
 - i. the Regulatory Commission for adjudication if the dispute is related to tariff.
 - ii. an Arbitrator for adjudication regarding provisions of PPA other than that related to tariff. The Arbitrator shall be appointed by mutual consent.

In the event of such differences or disputes, any party may send written notice of 30 (thirty) days to the other party. The arbitration proceedings shall be in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications thereto. The decision of the Arbitrator shall be final and binding on the parties. The venue of the arbitration shall be Mumbai. The Courts at Mumbai shall have the exclusive jurisdiction in all matters arising under this Agreement.

- 13.4 The Arbitrators shall reasonably decide in what proportion the fee and cost of arbitration proceedings shall be borne by the parties and shall mentioned the same in their award.
- Notwithstanding the existence of any question, dispute, and differences referred to arbitration, the parties hereto shall continue to perform their respective obligations under this Agreement.

V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai - 51. D.D WAVHAL
Director (Finance)
M.S.E.D.C.Ltd.

"Prakashgad" Bandra (E)
Mumbai - 400 051

14 ARTICLE 14: MISCELLANEOUS PROVISIONS

14.1 Amendment

This Agreement may only be amended or supplemented by a written agreement between the Parties.

14.2 Third Party Beneficiaries

This Agreement is solely for the benefit of the Parties and their respective successors and permitted assigns and shall not be construed as creating any duty, standard of care or any liability to, any person not a party to this Agreement.

14.3 No Waiver

A waiver by a Party shall be in writing and executed by an authorized representative of that Party. Neither the failure by one Party to insist on any occasion upon the performance of the terms, conditions, and provisions of this Agreement nor time or other indulgence granted by one Party to the other shall act as a waiver of such breach or acceptance of any variation or the relinquishment of any such right or any other right under this Agreement, which shall remain in full force and effect.

14.4 Remedies

Where this Agreement provides for any rebate or other remedies for any breach or shortfall in performance, the Parties shall not be entitled to make any other claim or pursue other remedies under law.

14.5 Entirety

- a) This Agreement and the Schedules are intended by the Parties as the final expression of their agreement and are intended also as a complete and exclusive statement of the terms of their agreement.
- b) All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement or the sale or purchase of Electrical Output and Contracted Capacity under this Agreement between the parties stand as abrogated and withdrawn, so far those are inconsistent to the terms of this Agreement.

14.6 Succession and Assignment

- 14.6.1 This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns in the manner prescribed herein this Agreement.
- 14.6.2 In the event of MAHAVITARAN and/or MAHAGENCO rights and obligations under this Agreement are assigned to and/ or succeeded by any other entity(s) through a scheme of reorganisation under section 131 of the Act at a subsequent date during the term of this Agreement, either

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V. P. Singh
Director (Operations)
M.S.P.G.C.L. Mumbai - 51.



by way of formation of subsidiaries or spin-off or splitting off or reconfiguration into one or more entities than MAHAGENCO and MAHAVITARAN shall proceed as under:

- a) The generation capacity contracted under this agreement shall be assigned and allocated amongst the successor distribution companies and/or generation companies in the manner, proportion and from such date as may be specified in the said Scheme of Reorganisation.
- b) This PPA shall be substituted by New Power Purchase Agreement(s) between the successor entities for the capacity allocation as set out in the Scheme of Reorganisation. The terms and conditions of new power purchase agreement(s) shall be same to this agreement except that the capacity charges and energy charges shall be shared by the successor distribution entities in proportion of their new capacity allocation and scheduled energy drawal.
- 14.6.3 The new power purchase agreements shall be subject to approval by the Commission under Section 86 (1) (b) read with regulation 24 of the MERC (Terms & Conditions of Tariff) Regulations, 2005 as amended from time to time.

14.7 Confidential Information

The Parties herein shall at all time during the continuance of this Agreement use their reasonable endeavours to keep all information relating to technical and commercial aspects affecting their business as confidential and accordingly no Party shall disclose the same to any other person unless the information which at the time of disclosure was in the public domain.

14.8 Severability

The invalidity or enforceability, for any reason, of any part of this Agreement shall not prejudice or affect the validity or enforceability of the remainder.

14.9 No Partnership

None of the provisions of this Agreement shall constitute a partnership or agency or any such similar relationship between the MAHAGENCO and MAHAVITARAN.

14.10 Survival

Notwithstanding anything to the contrary herein, the provisions under Article 9 (Force Majeure), Article 11 (Governing Law), Article 13 (Dispute Resolution & Arbitration), Article 10 (Termination on Event of Default), and Article 14 (Miscellaneous) shall continue and survive any expiry or termination of this Agreement.

V. P. Singh
Director (Operations)
M.S.RG.C.L. Mumbai - 51.

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Ellipitor (Finance)
MISIFE C.Ltd.
"Prakashgad" Bandra (E)
Mumbai - 400 051

14.11 Counterparts

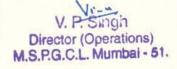
This Agreement may be executed between the parties, each of which shall be deemed an original and all of which collectively shall be deemed one and the same instrument.

IN WITNESS WHEREOF the Parties have executed these presents through their authorized representatives at [place].

For and on behalf of MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED Name & Designation with Seal V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai	For and on behalf of MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED Name & Designation with Seal D.D WAVHAL Director (Finance) M.S.E.O.C.Ltd. "Prakashgad" Bandra (E) Mumbai - 400 051
In the presence of	In the presence of
A.D.PIMPLE SE(RCD)	A. S. CHAVAN Chief Engineer (Power Purchase) M. S. E. D. C. L.
V.P. RATHOD S.E. (RCD)	2 Sharahan Mu Swati P Vyarahan GM(PP) MSEDCL

15 SCHEDULE- 1: SCHEDULE OF REBATE FOR PROMPT PAYMENT

Payment Through L/C		2.00%		
Provisional payment		1.25%		
Payment made in Days from the billing date	% Rebate Applicable	Payment made in Days from the billing date	% Rebate Applicable	
1	1.250	31	0.684	
2	1.250	32	0.660	
3	1.250	33 .	0.637	
4	1.250	34	0.613	
5	1.250	35	0.590	
6	1.250	36	0.566	
7	1.250	37	0.542	
8	1.226	37	0.519	
9	1.203	39	0.495 .	
10	1.179	40	0.472	
11	1.156	41	0.448	
12	1.132	42	0.425	
13	1.108	43	0.401	
14	1.085	44	0.377	
15	1.061	45	0.354	
16	1.038	46	0.330	
17	1.014	47	0.307	
18	0.991	48	0.283	
19	0.967	49	0.259	
20	0.943	50	0.236	
21	0.920	51	0.212	
22	0.896	52	0.189	
23	0.873	53	0.165	
24	0.849	54	0.142	
25	0.825	55	0.118	
26	0.802	56	0.094	
27	0.778	57	. 0.071	
28	0.755	58	0.047	
29	0.731	59	0.024	
30	0.708	60	0.000	





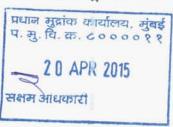


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This Addendum to Power Purchase Agreement between MSPGCL & MSEDCL for Ghatghar pumped storage hydro power station dated 12-05-2014 is made this. 13th day of, August Two thousand fifteen (13-08-2015) between Maharashtra State Power Generation Company Limited (MSPGCL), a Company incorporated under the provisions of the Companies Act, 1956 and having its registered office at Prakashgad, G-9, Anant Kanekar Marg, Bandra (E), off Western Express Highway, Mumbai – 400 051 (hereinafter referred to as MAHAGENCO which expression shall, unless repugnant to the context or meaning thereof include its successors and assigns) of the One Part:

And

Maharashtra State Electricity Distribution Company Limited (MSEDCL), a Company

Addendum to Ghatghar PPA

Page 1/3

V. P. Singh
Director (Operations)
M.S.P.G.C.L. Mumbai - 51

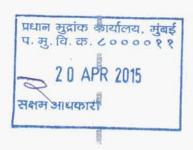
S. L. PIMPALKHUTE
Director (Finance)
M.S.E.D.C. Ltd.,
"Prakashgad", Bandra (E)



महाराष्ट्र MAHARASHTRA

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incorporated under the provisions of the Companies Act, 1956, and having its registered office at Prakashgad, G-9, Anant Kanekar Marg Bandra (E), Mumbai – 400 051 (hereinafter referred to as MAHAVITARAN, which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) of the other part.

Addendum to PPA between MSPGCL and MSEDCL for Ghatghar PSS

As per provisions of Article 14.1 of the Power Purchase Agreement between MSPGCL & MSEDCL for Ghatghar PSS dated 12-05-2014, this Addendum is signed for which both parties agreed.

The original Article no. 4 regarding Rights & Obligations for supply and take, on page no. 13, is amended and shall be read as below.

Addendum to Ghatghar PPA

Page 2/3

V. P. Singh Director (Operations) M.S.P.G.C.L. Mumbai - 51 Director (Finance)
M.S.E.D.C Ltd.,
"I kashgad", Bandra (E)
mutahai - 400 051

ARTICLE 4: RIGHTS & OBLIGATIONS FOR SUPPLY AND TAKE

- 4.1 The power (Active & Reactive both) injected in grid by Ghatghar PSS will be treated as power supplied to MSEDCL by MSPGCL. No energy bill will be raised by MSPGCL to MSEDCL for the power supplied to MSEDCL.
- 4.2 The power (Active & Reactive both) consumed by Ghatghar PSS for pumping water & auxiliary consumption will be treated as power supplied to MSPGCL by MSEDCL. No energy bill will be raised by MSEDCL to MSPGCL for such power supplied to MSPGCL.
- 4.3 The Ghatghar PSS will be treated as EHV consumer of MSEDCL. The energy drawl of Ghatghar PSS will be considered as input to concerned division of MSEDCL i.e. Kalyan (R) and will also reflect as sale of that division in IT system. No bill shall be raised by MSEDCL on MSPGCL for this pumping power.
- 4.4 The O & M charges, Lease rent, and/or any other charges will be payable to MSPGCL by MSEDCL subject to approval of Hon'ble commission.

For and on behalf of	For and on behalf of
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED
Name & Designation with Seal V. P. Singh Director (Operations)	Name & Designation with Seal
M.S.P.G.C.L. Mumbai - 51	S. L. PIMPALKHUTE Director (Finance) M.S.E.D G. Ltd., 'Prakasugag', dendra (E)
In the presence of	In the presence of Munibal - 400 051.
1 St. P. Rothod S.E. RCD	1 Sharaharu S. P. Vyaraharu GM (PP)
2 Vadaller N. J. Padalkar Add Ex. Er.	2 Duames



(A Government of Maharashtra Undertaking)

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD. CIN: U40109MH200SSGC153645

Ref. No. CE/PP/MSPGCL/

No 19413

Date: 1 3 NOV 2020

To.

The Chief Engineer (RCD), 3rd Floor, Prakashgad, Bandra (E), Mumbai – 400 051

Sub: - Deduction of Operation and Maintenance Charges and Lease Rent for Ghatghar PSS.

Dear Sir,

Ghatghar PSS (2 X 125 MW) is an important element of the Grid and plays important role in Grid Security by storing the water and utilizing the same for power generation during peak demand hours. Hence, it is expected that proper maintenance of power plant is needed to ensure maximum availability.

However, it is observed that the availability of Ghatghar was very poor during FY 2019-20 and FY 2019-20 (till August 2020) and sometimes the generating unit 01 and/or 02 of Ghatghar PSS was under force outage for more than a month. The details of the same are as under:

Outage Type	Name	Trip Date	Synch. Date	Reason
Forced	Ghatghar Unit-1	13-Aug-19	09-Sep-19	Water Leakage
Planned	Ghatghar Unit-1	25-Sep-19	08-Feb-20	Withdrawn On Shaft Seal Water Leakage.Converted to AOH From 1 Nov 2019.
Forced	Ghatghar Unit-2	18-Feb-20	26-Feb-20	Severe Hunting In Hydro Conduit Across MIV
Forced	Ghatghar Unit-1	18-Feb-20	26-Aug-20	Severe Hunting In Hydro Conduit Across MIV
Forced	Ghatghar Unit-2	09-Mar-20	30-Aug-20	Expansion joint leakage.
Forced	Ghatghar Unit-1	27-Aug-20	06-Sep-20	Runner band Drainage valve Leakage
Forced	Ghatghar Unit-1	30-Sep-20	Continued.	Turbine Guide Bearing problem

Due to such long forced/planned outage of Ghatghar PSS MSEDCL's power planning is severely affected.

In view of above, MSEDCL has deducted the Operation and Maintenance Charges and Lease Rent for Ghatghar PSS for above mentioned outage period as under:

Name	Trip Date	Synch. Date	No. of Days of Tripping	Lease Rent (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Total (Rs. Crs.)
Ghatghar Unit-1	13-Aug-19	09-Sep-19	27	7.03	2.12	9.15
Ghatghar Unit-1	25-Sep-19	08-Feb-20	136	34.18	11.14	45.31
Ghatghar Unit-2	18-Feb-20	26-Feb-20	8	2.08	0.63	2.71
	18-Feb-20	31-Mar-20	42	10.94	3.29	14.23
Ghatghar Unit-1	01-Apr-20	26-Aug-20	147	36.94	12.04	48.98
	09-Mar-20	31-Mar-20	22	5.73	1.72	7.45
Ghatghar Unit-2	01-Apr-20	30-Aug-20	151	37.94	12.37	50.31
Ghatghar Unit-1	27-Aug-20	06-Sep-20	10	2.51	0.82	3.33
anathia ont		1		137.36	44.12	181.48

Further, considering importance of Ghatghar PSS (2X125 MW) during emergent situation, Grid Security Management and manage deviation/difference between in peak/off peak demand, it is one again requested to expedite the maintenance work and ensure the maximum availability of Ghatghar PSS.

Thanking you,

Ticchief Engineer
Power Purchase, MSEDCL

Copy s.w.r.to:

The Director (Commercial), MSEDCL, Corporate office Mumbai.



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Regulatory & Commercial Dept., Prakashgad, 3rd Floor, Bandra (E) Mumbai 400 051

Ref No: RCD21/45L/LT161

No - 3 120

Date: 12/03/2021

1 2 MAR 2021

To, Chief Engineer (Power Purchase), Maharashtra State Electricity Distribution Company Ltd. 5th Floor, Prakashgad, Bandra (East), Mumbai-400 051.

Sub: - Regarding suo-moto deduction done by MSEDCL in fixed charges and lease rent for Ghatghar PSS for the period August'2019 to September'2020.

Ref.: -

- 1. Power purchase Agreement (PPA) signed between MSPGCL & MSEDCL on dtd. 12.05.2014 along with Addendum dated 13.08.2015
- 2. MERC MYT Regulations, 2019
- 3. Letter No. CE/PP/MSPGCL/19413, Dated 13.11.2020 MSEDCL's letter regarding deduction in fixed charges & lease rental for Ghatghar PSS
- 4. Letter No. RCD19/45L/LT00343/4509 dated 04.05.2019– Letter to CE (PP) regarding reasons for outages during FY 2017-18 & 2018-19 and MSPGCL's objections on unilateral deductions of fixed charges and lease rent

With reference to subject cited above, MSEDCL vide letter under reference 3, has communicated its unilateral decision of deduction of Rs. 181.48 Crs. amount from energy bills claimed by MSPGCL for the Ghatghar PSS for the period FY 2019-20 & FY 2020-21 (O & M costs Rs. 44.12 Crs. and Lease rent Rs. 137.36 Crs.) as disallowance for lower availability of Ghatghar PSS during the period.

As per MSPGCL this action is against the provisions in the PPA dated 12.05.2014 signed between MSPGCL and MSEDCL. There is no provision for such unilateral deduction of any bill amount, until any dispute is raised by MSEDCL.

Also all the outages during Aug'2019 to Sept.'2020, as mentioned in letter from MSEDCL, are outages on account of some severe peculiar problems and were mostly of catastrophic in nature & hence were uncontrollable for MSPGCL. Thus it is wrong to unilaterally carry out deduction of fixed charges and lease rent. MSPGCL's detailed submission in this regard is as below:

MSPGCL is fully aware of the importance of Ghatghar PSS in Grid stabilization, MSPGCL acknowledges the difficulties faced by MSEDCL due to non-availability of Ghatghar PSS units. Therefore MSPGCL finds it necessary to share the factual details regarding the said plant outages and thus is submitting this reply to the objections raised by MSEDCL, even though MSEDCL has not formally communicated anything regarding such dispute within the limit of 15 days from billing date.

Historical background for Ghatgahr PSS problems:

- 1.0 The Ghatghar Hydro Power station is a pump storage hydro Power station with 2 units of 125 MW each, which operate in two modes generation mode and pumping mode.
- 2.0 During generation mode, water stored in the upper dam is used to rotate the turbine- generator and this water is stored in the lower dam. During the pumping mode operation, the water stored in the lower dam is pumped back to upper dam using the energy from grid.
- 3.0 Ghatghar PSS is developed as well as commissioned by Water Resources Department, GoM and is then handed over to MSPGCL under operational lease. This is the first big-size Pumped Storage Power project in Maharashtra as well as in India.
- 4.0 These units are custom made and are designed by M/s Fuji Electric Japan as per specific requirements. All the accessories are designed and supplied by M/s Fuji Electric Japan. For spares of these equipment's, MSPGCL has to depend on the Original Equipment Manufacturers and in most of the cases these spares are to be imported.
- 5.0 The units being unique in nature, many failures related to Civil works have occurred since the units are handed over to MSPGCL for which there was no first-hand experience available with MSPGCL to attend these faults.
- 6.0 Most of the times there have been major outages on account of such major civil system related faults or due to non-availability of critical spares to attend the faults.
- 7.0 Even during FY 2018-19 also, MSEDCL had raised its concern over such long term outages and had communicated to deduct fixed charges and lease rent on suo-moto basis.
- 8.0 In the reply given to MSEDCL, vide letter under ref. 4 above, MSPGCL had explained the peculiar nature of failures, rational & compulsions behind the pro-longed outages and the efforts taken by MSPGCL for early restoration of units. MSPGCL had also explained regarding how the suo-moto action by MSEDCL of deduction of fixed charges and lease rent was against the provisions under PPA as well as MERC Regulations and were thus inappropriateness.

Provisions under PPA and MERC Regulations:

- 9.0 As per the Article 4 of the Addendum dated 13.08.2015 to the PPA dated 12.05.2014 between MSPGCL and MSEDCL, following is stated for the energy billing and charges to be claimed
 - "4.1 The power (Active & Reactive both) injected in grid by Ghatghar PSS will be treated as power supplied to MSEDCL by MSPGCL. No energy bill will be raised by MSPGCL to MSEDCL for the power supplied to MSEDCL.

4.4 The O & M charges, Lease rent, and/or any other charges will be payable to MSPGCL by MSEDCL subject to approval of Hon'ble commission."

Thus treating the power exchange as exchange under barter system, there is no billing of any energy charge between MSPGCL and MSEDCL, on either directions and the O & M charges, Lease rent and/or any other charges are billed as approved by Hon'ble Commission.

The PPA provision in reference to the disputed bill is as below:

- "7.2 Disputed Bill:
- 7.2.1 The bill(s) of MAHAGENCO shall be paid by MAHAVITARAN in full subject to the condition that:

- (a) there is no apparent arithmetical error in the bill(s)
- (b) the bill(s) is /are claimed as per the approved tariff
- (c) they are in accordance with the joint monthly meter reading as in Article 6.4
- 7.2.2 If MAHAVITARAN has any disagreement with the bill(s) raised, they shall file a written objection with MAHAGENCO within 15 days of presentation of the bill(s) giving following particulars:
- (a) item disputed, with full details/data and reasons of dispute, and
- (b) amount disputed against each item
- 7.2.3 MAHAGENCO shall resolve the above dispute with MAHAVITARAN as soon as possible preferably within 30 days of receipt of such objection from MAHAVITARAN. In case the dispute is not resolved, such a bill is to be treated as a "disputed bill" and the matter shall be referred to dispute resolution mechanism as provided in Article 15.
- 7.2.4 Notwithstanding any dispute as to all or any portion of a Bill submitted by MAHAGENCO to MAHAVITARAN, MAHAVITARAN shall pay the 95% (ninety-five percent) amount of the Bill provided that the amount of the Bill is based on a joint meter reading and that the Tariff is as determined by the Commission.
- 7.2.5 The amount of excess/ shortfall with respect to the said 95% payment based on the final award of arbitration shall be paid/ adjusted with interest at the rate of SBI PLR from the date on which the amount in dispute was payable."
- 10.0 The bills raised by MSPGCL are as per the tariff approved by MERC to Ghatghar PSS vide orders for relevant period. The period under dispute is from August'2019 to September'2020. Thus as per PPA provisions the dispute, if any, should have been raised by MSEDCL within 15 days of presentation of each of the concerned monthly bills. In case of the bill for August '2019, the dispute should have been raised by 16th September, 2019 and for the bill for September'2020 the dispute should have been raised by 16th October, 2019. However, there was no communication from MSEDCL in this regard prior to 13th November, 2020.
- 11.0 Thus the action by MSEDCL of deduction of O & M charges and Lease Rent for Ghatghar PSS is not acceptable to MSPGCL, being against the PPA and being purely unilateral. Also as per clause 7.2.4 of the PPA, MSEDCL has to pay 95% of the bill amount notwithstanding any dispute as to all or any portion of a Bill. Hence, in case MSEDCL carries out such unilateral deduction of bill amount and does not pay the bills to that extent, MSPGCL will treat the same as 'payment outstanding' by MSEDCL and will levy Late Payment Surcharge as per the PPA provisions under clause 7.2.
- 12.0 Even there is no such provision under MERC MYT Tariff Regulations.

Specific reasons for the outages during August'2019 to September'2020 and actions taken by MSPGCL:

- In the present case, all the outages during Aug'2019 to Sept.'2020, as mentioned in letter from MSEDCL, are again typical outages and were mostly of catastrophic in nature & hence were uncontrollable for MSPGCL. These outages were result of in-equilibrium in Hydro conduit caused mainly due to wear & tear of MIV seals. Such situation is beyond control and the effects of such in-equilibrium are devastating and catastrophic in nature on power generating system. The outages were declared initially based on prima facie outer damages. But after opening of the system, when actual damages surfaced, the outage dates were rescheduled considering: -
 - Extent of damages
 - Quantum of Repair/ Restoration work involved.

- Location of Repair/Restoration (At site or at remote facility)
- Transportation period involved.
- Difficulties in availability of facilities and manpower especially during the period of COVID-19 lockdown.
- 14.0 Specific event wise reasons for the outages and actions taken by MSPGCL for earliest restoration of the units are as detailed below
 - 1. The water leakage from the MIV Expansion joint Ghatghar Unit 1- Forced Outage- 13.08.2019 to 09.09.2019

The water leakage was observed from the MIV Expansion joint of the draft tube located between draft tube and MIV, the size of the expansion joint is around 2 Mtr. in diameter with water pressure of 50 kg/cm2. The water leakage was massive and to run the machine at this pressure was risky for the nearby electrical panels. Hence, to avoid further damages, the work was carried out during 13.08.2019 to 09.09.2019.

2. Failure of the CW lines embedded in civil / concrete structure – Ghatghar Unit 1-Forced Outage- 25.09.2019 to 08.02.2020

On dt. 25.09.2019 incidence of failure of the CW lines embedded in concrete structure took place. The CW lines had damaged the main concrete structure of the machine and turbine pit liner. Above work was carried out from dt 01.09.2019 to dt 08.02.2020. The planned AOH was between Nov - Dec 2019. Since the CW lines structural work and turbine pit liner work were overlapping with the planned AOH and to avoid separate AOH, the entire work was converted into AOH.

3. Severe hunting in hydro conduit- Unit 2 - Forced Outage- 18-02.2020 to 26.02.2020 and Severe hunting in hydro conduit- Unit 1 - Forced Outage- 18-02.2020 to 26.08.2020

Further, both the units encountered severe hunting in hydro conduit on dt 18.02.2020. This hydro conduit system comprises major component like MIV on 1600 mm diameter penstock, maintenance seal, service seal and expansion joint etc. The hydro conduit is the most crucial part of the complete system. To take-up the work on hydro conduit, the upper dam intake gate was required to be closed. Hence, it was closed in coordination with WRD civil and mechanical divisions. The hunting / heavy vibrations were so severe that unit could not be run under such circumstances. Seals of both MIV's were replaced during the outage to attend the hunting problem from dt 18.02.2020 to dt 26.08.2020. Quantum of work was very huge and availability of manpower & spares was very poor.

It may please be noted that work suffered a lot due to nationwide lockdown imposed after outbreak of covid-19.Please refer T.O. letter CE(RE)/6/No.250 dtd 16.07.2020 addressed to CE(RE), MSEDCL in this regard.

4. MIV expansion joint leakage- Unit 2- Forced Outage-09.03.2020 to 30.08.2020

The severe hunting on hydro conduit had adversely affected on MIV expansion joint of Unit 2 causing water leakage at MIV expansion joint on dt 09.03.2020. The said work was taken up simultaneously with Unit 1 from dt 09.03.2020 to dt 30.08.2020.

After completion of work of unit 1, successful trial was taken on dt. 26.8.2020. On dt. 27.08.2020 as per requirement of LDC Kalwa, unit 1 was started in pumping mode. Synchronization of both the units was delayed by 13 days on account

of agitations by project affected people (PAP) preventing opening of upper dam intake gate.

5. Heavy water leakage noticed from Runner Band Drain Valve (RBDV)- Unit 1-Forced outage- 27.08.2020 to 06.09.2020

While withdrawing the unit from pumping mode, the heavy water leakage was noticed from Runner Band Drain Valve (RBDV). The location of the RBDV is at draft tube manhole which is very difficult to access. The location and the approach to the valve were the major constraints in attending the leakage. As the RBDV is a part of hydro conduit with water pressure of 50 kg/cm2, running the machine with such a leakage was not desirable. Moreover, it was a direct threat to the machine compelling MSPGCL for outage. Hence, the work was carried out from dt 27.08.2020 to dt 06.09.2020.

6. Turbine guide bearing problem- Unit 1- Forced Outage- 30.09.2020 to 05.11.2020 On dtd. 30.09.2020, problem with TGB was noticed. The same was addressed by taking shutdown from dt 30.09.2020 to dt 01.11.2020. The Unit was successfully synchronized on dt. 01.11.2020 in generation mode and pumping mode on dt. 05.11.2020.

Considering the catastrophic nature of outages, which were beyond control, the units have remained out of service during the concerned period. The outages mentioned in the letter were not due to the human error & negligence but due to the unforeseen and uncontrollable circumstances.

However it is also as fact that whenever available, the Ghatghar units are always considered as hot-standbye for grid stability purpose in high demand and low frequency and are operated beyond the operation period as envisaged. In such case MSEDCL has already reaped the benefit of power generation from HPS, by way of attaining grid stability as well as in commercial terms depending on the open market power rates.

Facts regarding overloading of the system and non-availability of adequate breathing period for proper routine maintenance of the units:

Here MSPGCL would like to take this opportunity to share the difficulties faced due to overloading of the PSS systems and non-availability of adequate breathing period for proper routine maintenance of the units. MSPGCL had shared these difficulties earlier also through the letter under ref. 4.

As per submission by WRD, in Case No. 2 of 2012 (refer Sr. .7 (Page 3 of 19) of the MERC order dtd. 27.12.2012 in the matter), the Ghatghar PSS scheme is intended to be operated on weekly cycle with generation of 6 peak hours daily, except on Sundays where only pumping is done. For pumping the plant operates for 7 hours during off peak period from Monday to Saturday and balance pumping is done on Sundays.

The whole plant and its auxiliaries are designed and manufactured according to this principle.

However, factually the Ghatghar PSS units are operated beyond the working principle considered for power plant design.

The deviations in operations observed are as under: -

1. Units are being operated for excess hours in both the modes i.e. Beyond 6 hrs in the generation mode and beyond 7 hours in pumping mode.

2. On Sundays, units are operated in Generation mode like week days.

These practices are affecting the working equilibrium of the plant and following issues are creeping up: -

- 1. As the units and all its auxiliaries are designed to work according to the working principle mentioned above, the excess generation and pumping hours is increasing the wear and tear of the machine. This causes overloading and thus overheating of the machine and auxiliaries and thus frequent breakdowns. This also results inadequate time for routine maintenance activities.
- 2. As the machines are being operated in generation mode on Sundays also due to which MSPGCL is not able to carry out maintenance activities. This has increased forced shut down hours.
- 3. As Ghatghar PSS is an important element of Grid and plays important role in Grid security and its 100 % availability is always sought by State Load Dispatch Centre, Airoli which does not leave scope for to plan proper preventive maintenance of auxiliaries. This is the one of the major reason for breakdowns.
- 4. As the plant is erected and commissioned by M/s Fuji Japan, the auxiliaries are of Japanese make. As such, the delivery period of the spares is very long.

MSPGCL has already raised the concern with SLDC Airoli also, regarding operation of Machine beyond the design parameters, random operation schedule of Ghatghar HPS (2 X 125 MW) and its adverse effects on Machine.

Accordingly it is requested to withdraw the objections raised and instruct the concerned at your end for payment of fixed charges and lease rental for Ghatghar PSS for the period August'19 to Sept'20 as per the bills raised for the period.

Therefore MSEDCL shall arrange for payment of the relevant bills in full. In case MSEDCL carries out any such unilateral deduction of bill amount and does not pay the bills to that extent, MSPGCL will treat the same as 'payment outstanding' by MSEDCL and will levy Late Payment Surcharge as per the PPA provisions under clause 7.2.

MSPGCL is also raising concern against the manner in which MSEDCL has violated the MERC Regulations as well as MERC Orders by taking suo-moto action of deduction of fixed charges through unilateral erroneous interpretation of regulatory provisions.

MSPGCL requests MSEDCL to desist itself from such erroneous actions in future.

Chief Engineer (RCD)

MAHARASHTRA STATE POWER GENERATION CO. LTD.

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Regulatory & Commercial Dept., Prakashgad, 3rd Floor, Bandra (E) Mumbai 400 051p

Ref No: RCD19/45L/LT00343 11-4509

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मध्यवती भ

Date: 03.5.1019

4 MAY 2019.

To

The Chief Engineer, Power Purchase MSEDCL.

Sub: - Regarding unilateral deduction of Operation and Maintenance Cost and Lease rent for Ghatghar HPS and MSPGCL's reply to the written objections raised by MSEDCL regarding outages for Ghatghar PSS.

Ref: - (1) MSEDCL Letter no. CE/PP/Ghatghar/6917/11.03.2019. (2) MSPGCL letter no CE/(RE)/3C/No. -125 to SLDC, Airoli

1.0 With reference to subject cited above, MSEDCL vide letter under reference has communicated its unilateral decision of deduction of Rs. 189.47 Crs amount from energy bills claimed by MSPGCL for the Ghatghar PSS for the period FY 2017-18 & FY 2018-19 (O & M costs Rs. 21.66 Crs. and Lease rent Rs. 167.81 Crs.) as disallowance for lower availability of Ghatghar PSS during the period.

As per MSPGCL this action is against the provisions in the PPA dated 12.05.2014 signed between MSPGCL and MSEDCL. There is no provision for such unilateral deduction of any bill amount, until any dispute is raised by MSEDCL.

As per the Article 4 of the Addendum dated 13.08.2015 to the PPA dated 12.05.2014 between MSPGCL and MSEDCL, following is stated for the energy billing and charges to be claimed

"4.1 The power (Active & Reactive both) injected in grid by Ghatghar PSS will be treated as power supplied to MSEDCL by MSPGCL. No energy bill will be raised by MSPGCL to MSEDCL for the power supplied to MSEDCL.

4.4 The O & M charges, Lease rent, and/or any other charges will be payable to MSPGCL by MSEDCL subject to approval of Hon'ble commission."

Thus treating the power exchange as exchange under barter system, there is no billing of any energy charge between MSPGCL and MSEDCL , on either

directions and the O & M charges , Lease rent and/or any other charges are billed as approved by Hon'ble Commission.

The PPA provision in reference to the disputed bill is as below:

- "7.2 Disputed Bill:
- 7.2.1 The bill(s) of MAHAGENCO shall be paid by MAHAVITARAN in full subject to the condition that:
- (a) there is no apparent arithmetical error in the bill(s)
- (b) the bill(s) is /are claimed as per the approved tariff
- (c) they are in accordance with the joint monthly meter reading as in Article 6.4
- 7.2.2 If MAHAVITARAN has any disagreement with the bill(s) raised, they shall file a written objection with MAHAGENCO within 15 days of presentation of the bill(s) giving following particulars:
- (a) item disputed, with full details/data and reasons of dispute, and
- (b) amount disputed against each item
- 7.2.3 MAHAGENCO shall resolve the above dispute with MAHAVITARAN as soon as possible preferably within 30 days of receipt of such objection from MAHAVITARAN. In case the dispute is not resolved, such a bill is to be treated as a "disputed bill" and the matter shall be referred to dispute resolution mechanism as provided in Article 15.
- 7.2.4 Notwithstanding any dispute as to all or any portion of a Bill submitted by MAHAGENCO to MAHAVITARAN, MAHAVITARAN shall pay the 95% (ninety-five percent) amount of the Bill provided that the amount of the Bill is based on a joint meter reading and that the Tariff is as determined by the Commission.
- 7.2.5 The amount of excess/ shortfall with respect to the said 95% payment based on the final award of arbitration shall be paid/ adjusted with interest at the rate of SBI PLR from the date on which the amount in dispute was payable."

The bills raised by MSPGCL are as per the tariff approved by MERC to Ghatghar PSS vide orders for relevant period i.e. as per order dated 30.08.2016 in case No. 46 of 2016 for bills up to August 2018 and order dated 12.09.2018 in Case No. 196 of 2017 for bills since September 2018.

The period under dispute is July 2017 to December 2018. Thus as per PPA provisions the dispute, if any, should have been raised by MSEDCL within 15 days of presentation of each of the concerned monthly bills. In case of the bill

for December'2018, the dispute should have been raised by 16th January, 2019. However, there was no communication from MSEDCL in this regard prior to 11th March, 2019.

Thus the action by MSEDCL of deduction of O & M charges and Lease Rent for Ghatghar PSS is not acceptable to MSPGCL, being against the PPA and being purely unilateral. Also as per clause 7.2.4 of the PPA, MSEDCL has to pay 95% of the bill amount notwithstanding any dispute as to all or any portion of a Bill. Hence, in case MSEDCL carries out such unilateral deduction of bill amount and does not pay the bills to that extent, MSPGCL will treat the same as 'payment outstanding' by MSEDCL and will levy Late Payment Surcharge as per the PPA provisions under clause 7.2.

2.0 MSPGCL is fully aware of the importance of Ghatghar PSS in Grid stabilization, MSPGCL acknowledges the difficulties faced by MSEDCL due to non availability of Ghatghar PSS units. Therefore MSPGCL finds it necessary to share the factual details regarding the said plant outages and thus is submitting this reply to the objections raised by MSEDCL, even though MSEDCL has not formally communicated anything regarding such dispute within the limit of 15 days from billing date.

A. MSPGCL's reply regarding reasons for the specific outages during FY 2017-18 & FY 2018-19 and efforts by MSPGCL for restoration of units:

It is to state here that these units are custom made and are designed by M/s Fuji Electric Japan as per specific requirements. All the accessories are designed and supplied by M/s Fuji Electric Japan. For spares of these equipments, MSPGCL has to depend on the Original Equipment Manufacturers and in most of the cases these spares are to be imported.

Regarding the specific events mentioned in the said letter from MSEDCL, it is to inform that these failures have occurred for the first time since the units are handed over to MSPGCL. So as such there was no early first-hand experience available with MSPGCL to attend these faults.

i. Stator earth fault events in FY 2018-19:

As per MSPGCL's analysis, the outages of the two units of Ghatghar PSS due to the "stator earth fault" have resulted primarily due to residual mud depositions during the flooding event occurred in 2005 and subsequent weakening of the stator windings due to continuously overloaded operations. Stator earth fault of such kind is a major fault which requires long outage for restoration of the stator winding. Thus after carrying out the necessary works the Unit # 1 was brought in service within 120 days and the Unit # 2 was put into service after 171 days.

- ii. Common pressure shaft event & RBDV leakage event in FY 2017-18: In Ghatghar HPS, there are two units and both units are run by common facilities. These common facilities are.
 - a. Common penstock
 - b. Common static frequency convertor
 - c. Common PLC System (there are 23 PLC in a ring topography)

It is to state here that if any issue arises in any of above facility, both units become inoperative. On this backdrop, it is to state that the two outages during FY 2017-18 (Unit # 1 outage during July'17 to Oct'17 and Unit # 2 outage during July'17 to Mar'18) are inter-related outages. Details for the reasons for these two outages and the actions / efforts taken by MSPGCL are elaborated below

• RBDV leakage event: Unit 1: 28.07.2017 to 05.10.2017.

Reason: - Unit 1 was withdrawn on account of leakage through runner band drain valve. This valve is on main hydro system. To attend this valve, pressure shaft needed to be drained. Draining of pressure shaft led to outage of both units being common pressure shaft. As it was decided to drain pressure shaft, work of repair of Bypass valve of MIV was also under taken.

It is to state here that all main valves on hydro system are custom made and are unique, stand alone in its design. These valves are used only and only at Ghatghar HPS. While handing/taking over of project, WRD Govt. of Maharashtra has not handed over spares of any valves or valve as such.

It is therefore very difficult to repair such valve in case of breakage of spares of valves. These spares are not readily available in market and needs to be manufactured from local market. This is the main reason for delay. The details of issues and extension of outage is as under.

Date	Reason for Outage	Period
26.07.2017	Outage for RBDV	26.07.17to 05.08.17
07.08.2017	Extension of outage to attend RBDV	06.08.17 to 14.08.17
12.08.2017	Extension of outage to attend RBDV on account of spindle break of bypass valve (Spindle needed to be manufactured from local market).	14.08.17 to 28.08.17
04.09.2017	Extension of outage till 20.09.17 on account of "PLC GM link fault, which had occurred on 18.08.17.	28.08.17 to 20.09.17
29.09.2017	Extension till 30.09.17 for GM link fault.	Up to 05.10.17

Efforts taken by MSPGCL:-

- 1) Spares of valves were not readily available and hence were needed to be developed from the local vendors. As the drawings for the same were not available with MSPGCL, the spares were developed as per sample. Thus the outage was extended for around two months. After development of the spares, the valves were attended.
- 2) PLC is proprietary system of M/s Fuji Electric Japan. There are 23 PLCs in ring -topology. These PLCs interact with each other. Whenever this communication fails between any of PLCs, PLC "G/M link fault" appears. During the outage of Unit # 1 on account of RBDV valve problem, the "G/M link fault" had appeared on 18.08.2017.

Initially M/s Fuji Electric, Japan was contacted to provide service for this fault. However due to pre occupation of their service Engineers schedule, M/s Fuji Electric Japan intimated that services could be provided in 3 months' time. In such circumstances, MSPGCL Engineers have sorted out these issue purely based on own experience without drawing and standard operating procedure. Thus after attending the RBDV valve problem and consequent "G/M Link failure", the Unit # 1 was taken into service on 05.10.2017.

Common pressure shaft event: Unit 2: 28.07.2017 to 31.03.18

Reason: - Due to common pressure shaft, unit 2 was out since 28.07.2017 to 20.09.2017. However, on 20.09.2017, B phase bushing of Generator transformer unit 2 ruptured. As such, Unit-2 became unavailable on this account afterward. The bushings used in Generator transformer are 'imported' ones. It has been provided by M/s ABB Switzerland. In this case also, the spare bushing was not readily available with MSPGCL. Thus the order was placed in shortest period of time to procure the same and even though the delivery period was 32 weeks after placement of order, with constant follow-up with the vendors, the bushing was supplied to Ghatghar on 15th March'2018 i.e. within 16 weeks.

Thus after replacement of bushing, the unit was brought back into service by 31st march 2018.

B. Facts regarding overloading of the system and non-availability of adequate breathing period for proper routine maintenance of the units.

Ghatghar Hydro Power station is a pump storage hydro Power station with 2 units of 125 MW each. Units of this power stations works in mainly two modes.

- 1. Generation mode
- 2. Pumping mode

During generation mode, Water stored in the upper dam is used to rotate the turbine- generator and this water is stored in the lower dam. During the pumping mode operation, the water stored in the lower dam is pumped back to upper dam using the energy from grid.

As per submission by WRD, in Case No. 2 of 2012 (refer Sr. .7 (Page 3 of 19) of the MERC order dtd. 27.12.2012 in the matter), the Ghatghar PSS scheme is intended to be operated on weekly cycle with generation of 6 peak hours daily, except on Sundays where only pumping is done. For pumping the plant operates for 7 hours during off peak period from Monday to Saturday and balance pumping is done on Sundays.

The whole plant and its auxiliaries are designed and manufactured according to this principle.

However, factually the Ghatghar PSS units are operated beyond the working principle considered for power plant design.

The deviations in operations observed are as under: -

- 1. Units are being operated for excess hours in both the modes i.e. Beyond 6 hrs in the generation mode and beyond 7 hours in pumping mode.
- 2. On Sundays, units are operated in Generation mode like week days.

These practices are affecting the working equilibrium of the plant and following issues are creeping up: -

- 1. As the units and all its auxiliaries are designed to work according to the working principle mentioned above, the excess generation and pumping hours is increasing the wear and tear of the machine. This causes overloading and thus overheating of the machine and auxiliaries and thus frequent breakdowns. This also results inadequate time for routine maintenance activities.
- 2. As the machines are being operated in generation mode on Sundays also due to which MSPGCL is not able to carry out maintenance activities. This has increased forced shut down hours.
- 3. As Ghatghar PSS is an important element of Grid and plays important role in Grid security and its 100 % availability is always sought by State Load Dispatch Centre, Airoli which does not leave scope for to plan proper preventive maintenance of auxiliaries. This is the one of the major reason for breakdowns.
- 4. As the plant is erected and commissioned by M/s Fuji Japan, the auxiliaries are of Japanese make. As such, the delivery period of the spares is very long.

A case study of the operation of Unit#1 for a period of 53 days. (01.12.2017-22.01.2018) is attached with to substantiate above facts.

MSPGCL vide letter under ref (2) has already raised the concern with SLDC Kalwa -regarding operation of Machine beyond the design parameters ,random operation schedule of Ghatghar HPS (2x125 MW) and its adverse effects on Machine.

From the case study it is clear that plant is operated beyond the agreed terms and condition of PPA.

Apart from above, this power station has a history of submergence in rain flood water in the year 2005. All the auxiliaries were completely submerged in flood. Govt of Maharashtra and Water Resource Department took decision to rejuvenate the plant. So all auxiliaries were cleaned and re commissioned to restore the plant. Due to this, the life expectancy of system cannot be ascertained.

C. Benefits availed by MSEDCL during availability of the units:

As elaborated above, when available, the Ghatghar units are always considered as hot-standbye for grid stability purpose in high demand and low frequency and are operated beyond the operation period as envisaged. In such case MSEDCL has already reaped the benefit of power generation from HPS, by way of attaining grid stability as well as in commercial terms depending on the open market power rates. MSPGCL, not being a part of the settlement mechanism, has not gained anything from such operations and MSPGCL has no regrets for this.

It is further to state that from the experience of these outages, MSPGCL has taken preventive efforts like thorough checking of the PLC system by the OEM (M/s Voith Fuji , Japan) and getting copies of Operation and Maintenance manuals and technical write-ups of all systems from them, as GoM, WRD didn't handover a lot documents, etc.

Based on above, it is highly regretted to state that the deductions claimed by MSEDCL against Operation and Maintenance cost and lease rent for Ghatghar HPS are unilateral. These are not in line with PPA & and also against the relevant tariff orders from MERC i.e. order dated 30.08.2016 in case No. 46 of 2016 & order dated 12.09.2018 in case No. 196 of 2017.

Through this letter, MSPGCL has explained the reasons for these outages and the efforts taken by MSPGCL to bring back the units into service at the earliest for grid stability.

Therefore MSEDCL shall arrange for payment of the relevant bills in full. In case MSEDCL carries out any such unilateral deduction of bill amount and does not pay the bills to that extent, MSPGCL will treat the same as 'payment outstanding' by MSEDCL and will levy Late Payment Surcharge as per the PPA provisions under clause 7.2.

Thanking you.

Chief Engineer (RCD)

Copy w. c. to:

- 1. Chief Engineer (Hydro), WRD, GoM
- 2. Chief Engineer (RE), MSPGCL



(A Government of Maharashtra Undertaking) MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

CIN: U40109MH200SSGC153645

No. CE/PP/Ghatghar/

Date: 1 1 MAR 2019;

To,

The Chief Engineer, Regulatory and Commercial Department, 3rd Floor, Prakashgad, Bandra (East), Mumbai - 400 051

Sub: - Regarding deduction of Operation and Maintenance Cost and Lease Rent for Ghatghar

Dear Sir,

Ghatghar PSS is an important element of the Grid and plays important role in Grid security by storing the water and utilizing the same for power generation during peak demand hours. Hence, it is expected that proper maintenance of power plant is needed to ensure

However, it is observed that the availability of Ghatghar PSS was very poor during FY 2017-18 and FY 2018-19 (till December 2018) and sometimes the generating unit 01 and/or 02 of Ghatghar PSS was under force outage for more than a month. The details of the same are as

Sr. No.	Name	Trip Date	Synchronization Date	Tripping Day	Reason
1	Ghatghar Unit-2	7/28/17, 00:00	3/31/18, 14:00	246.58	Due to common pressure shaft.
2	Ghatghar Unit-1	7/28/17, 00:00	10/5/17, 11:25	69.48	RBDV leakage attending work.
3	Ghatghar Unit-1	4/14/18, 23:45	8/13/18, 02:12	120.10	Stator Earth Fault
4	Ghatghar Unit-2	6/29/18,01:12	9/1/18,00:00	63.95	Stator Earth Fault
5	Ghatghar Unit-2	9/1/18, 00:00	12/17/18, 12:20	107.51	Stator Earth Fault

Due to such long forced outage of Ghatghar PSS, MSEDCL's power planning is severely affected.

Maharashtra State Electricity Distribution Company Limited

In view of above, MSEDCL has deducted the Operation and Maintenance Cost and Lease Rent for Ghatghar PSS for these forced outage period as under:

			1	21.66	167.81	189.47
	Total		12.20		29.14	37.22
5	Ghatghar Unit-2	9/1/18 0:00	12/17/18 12:20	8.08	29.14	
	Unit-2	1:12	0:00	1.74	17.33	19.07
4	Ghatghar	6/29/18	9/1/18		32.33	35.82
3	Unit-1	4/14/18 23:45	8/13/18 2:12	3.27	32.55	
	Unit-1 Ghatghar	0:00	10/5/17 11:25	1.88	19.52	21.40
2	Ghatghar	0:00 7/28/17	14:00	6.69	69.27	75.96
1	Ghatghar Unit-2	7/28/17	3/31/18	OM	Lease Rent	Total
Sr. No.	Name	Trip Date	Syn. Date	Disallowance	Disallowance	

Thanking you,

Chief Engineer (Power Purchase)

Copy s.w.r.to.-

The Director (Commercial), MSEDCL, Mumbai.



MAHARASHTRA STATE POWER GENERATION CO. LTD.

PHONE : 22619100/22619200

22676954

: 022 22695336/22619699

E-mail : cehydro@mahagenco.in
Ref. CE (RE)/3C/No.

m - 105

CHIEF ENGINEER (Renewable Energy)

Hongkong Bank Building, Third Floor, M.G. Road, Fort, MUMBAI-400 001.

Date: 23/02/2018

2 7 FEb 2018

To,

The Chief Engineer

State Load Despatch Centre

Thane-Belapur Rd. P.O. Airoli

Navi Mumbai- 400708

Tele:91-22-27601765,27601766

Email: cesldc@mahasldc.in, cesldc@mahatransco.in

Sub: Regarding random operation schedule of Ghatghar HPS (2X125 MW) under Mahagenco and its adverse effects - Scheduling of the meeting thereof.

With ref. to above, Ghatghar Hydro Power station (2X125 MW) is a Pumped storage scheme to be operated on a weekly cycle with 6 hours daily generation (3 hours in morning peak and 3 hours in evening peak) except on Sundays and pumping for seven hours during the off peak hours from Monday to Saturday as per the working principle of this HPS. The same was considered during the drafting of the Power Purchase Agreement with MSEDCL and thus it is mentioned in Point No, 7 of the Order issued by MERC on Dt. 27.12.2012.

However, deviation in operation schedule of the unit has been observed for Ghatghar HPS. The units should not be operated beyond the design parameters of 3 MUS/day for excess hours in Generation & Pumping mode as the machine goes through extreme stresses when it frequent breakdowns & non-availability of the unit during emergent conditions. Also, no proper Preventive Maintenance can be planned due to random operation schedule of the units by MSLDC, Kalwa.

Therefore, it is necessary to discuss about the operation schedule of Ghatghar HPS & a meeting regarding the same needs to be conducted with concerned authorities at higher level of MSLDC, Kalwa & Mahgenco on priority.

Hence, it is requested to convey this office about earliest scheduling of the meeting to discuss the matter mentioned above. Venue and names of Officers attending the meeting may also please be conveyed.

Submitted for your needful please.

Chief Engineer (Renewable Energy) MSPGCL, Mumbai

Copy s.w.r.to-

- 1. Director (Operations), MSPGCL
- 2. Ex. Director (O & M-I), MSPGCL

Copy to-

- 1. SE, REC Nashik
- 2. Ex. Engineer, Ghatghar HPS

ÚNIT- 1 & 2 TOTAL HOURS (01 Dec 2017 to 22 Jan 2018)

•	UNIT #1 No's of hours GENERATIO exceeding N design criteria as UNIT #1 PUMPING design criteria as Total running Hrs			As per design criteria	Specified in PPA		
Date				maximum Generation in a day= 6 Hrs (Morning Peak=3hrs & Evening	Pumping in a day= 7 Hrs		
	Service hours	Specified in PPA	Service hours	Specified in PPA		Peak= 3Hrs) excluding Sunday	excluding Sunday
1/Dec/17	8:15	2:15	8:05	1:05	16:20	6:00	7:00
2/Dec/17	8:15	2:15	7:05	0:05	15:20	6:00	7:00
3/Dec/17	9:05	9:05	9:20	9:20	18:25	0:00	0:00
4/Dec/17	3:25	0:00	6:55	0:00	10:20	6:00	7:00
5/Dec/17	2:10	0:00	2:10	0:00	4:20	6:00	7:00
6/Dec/17	10:40	4:40	1:25	0:00	12:05	6:00	7:00
7/Dec/17	0:00	0:00	8:05	1:05	8:05	6:00	7:00
8/Dec/17	1:20	0:00	3:15	0:00	4:35	6:00	7:00
9/Dec/17	9:50	3:50	2:55	0:00	12:45	6:00	7:00
10/Dec/17	2:20	2:20	9:40		12:00	0:00	0:00
11/Dec/17	10:05	4:05	4:30	0:00	14:35	6:00	7:00
12/Dec/17	2:20	0:00	6:50	0:00	9:10	6:00	7:00
13/Dec/17		0:00	1:20	0:00	3:00	6:00	7:00
14/Dec/17	10:25	4:25	5:30		15:55	6:00	7:00
15/Dec/17	9:30	3:30	10:30	3:30	20:00	6:00	7:00
16/Dec/17	6:50	0:50	6:55	0:00	13:45	6:00	7:00
17/Dec/17	5:45	5:45	11:45	11:45	17:30	0:00	The sale of the sa
18/Dec/17	4:20	0:00	5:10	0:00	9:30	6:00	0:00
19/Dec/17	9:15	3:15	1:10	0:00	10:25		7:00
20/Dec/17	3:40	0:00	9:05	2:05		6:00	7:00
21/Dec/17	7:30	1:30	8:55	1:55	12:45	6:00	7:00
22/Dec/17	7:35	1:35	4:50		16:25	6:00	7:00
23/Dec/17	6:40	0:40	5:45	0:00 0:00	12:25	6:00	7:00
24/Dec/17	1:00	1:00	4:20		12:25	6:00	7:00
25/Dec/17	6:15	0:15	7:30	4:20 0:30	5:20	0:00	0:00
26/Dec/17	8:00	2:00	7:40		13:45	6:00	7:00
27/Dec/17	1:35			0:40	15:40	6:00	7:00
28/Dec/17	5:50	0:00	6:30	0:00	8:05	6:00	7:00
29/Dec/17	3:00	0:00	1:50	0:00	7:40	6:00	7:00
30/Dec/17	4:30		4:30	0:00	7:30	6:00	7:00
31/Dec/17	6:20	0:00 6:20	3:40	0:00	8:10	6:00	7:00
1/Jan/18	5:55		4:00	4:00	10:20	0:00	0:00
2/Jan/18		0:00	8:40	1:40	14:35	6:00	7:00
	10:05	4:05	4:05	0:00	14:10	6:00	7:00
3/Jan/18	7:25	1:25	5:35	0:00	13:00	6:00	7:00
4/Jan/18	8:40	2:40	10:55	3:55	19:35	6:00	7:00
5/Jan/18	9:30	3:30	9:05	2:05	18:35	6:00	7:00
6/Jan/18	8:23	2:23	8:40	1:40	17:03	6:00	7:00
7/Jan/18	3:50	3:50	11:40	11:40	15:30	0:00	0:00
8/Jan/18	9:40	3:40	7:20	0:20	17:00	6:00	7:00
9/Jan/18	8:15	2:15	9:20	2:20	17:35	6:00	7:00
10/Jan/18	12:35	6:35	6:10	0:00	18:45	6:00	7:00
11/Jan/18	9:05	3:05	10:25	3:25	19:30	6:00	7:00
12/Jan/18	8:40	2:40	9:00	2:00	17:40	6:00	7:00

UNIT- 1 & 2 TOTAL HOURS (01 Dec 2017 to 22 Jan 2018)

	UNIT #1	No's of hours	UNIT #1	No's of hours		As per design criteria	Specified in PPA
Date	GENERATIO N	exceeding design criteria as	PUMPING	l exceeding l		maximum Generation in a day= 6 Hrs (Morning Peak=3hrs & Evening	maximum Pumping in a day= 7 Hrs
ū	Service hours	Specified in PPA				Peak= 3Hrs) excluding Sunday	excluding Sunday
13/Jan/18	8:10	2:10	5:40	0:00	13:50	6:00	7:00
14/Jan/18	1:15	1:15	4:00	4:00	5:15	0:00	0:00
15/Jan/18	10:00	4:00	9:55	2:55	19:55	6:00	7:00
16/Jan/18	9:00	3:00	9:25	2:25	18:25	6:00	7:00
17/Jan/18	8:25	2:25	10:15	3:15	18:40	6:00	7:00
18/Jan/18	10:30	4:30	10:15	3:15	20:45	6:00	7:00
19/Jan/18	9:50	3:50	11:00	4:00	20:50	6:00	7:00
20/Jan/18	9:30	3:30	8:10	1:10	17:40	6:00	7:00
21/Jan/18	8:15	8:15	10:35	10:35	18:50	0:00	0:00
22/Jan/18	7:10	1:10	9:45	2:45	16:55	6:00	7:00
Total	361:33:00		371:05:00		732:38:00	270:00:00	315:00:00

Switching operations data per day (01 Dec2017 to 22 Jan 2018)

DATE	UNIT	MODE OF OPERATION	START TIME	STOP TIME	SERVICE HOURS	NUMBER OF OPERATION S
	UNIT01	GENERATION MODE	9:35:00	17:50:00	8:15:00	
1-Dec-17	UNIT01	PUMPING MODE	0:00:00	3:10:00	3:10:00	3
	UNIT01	PUMPING MODE	19:05:00	0:00:00	4:55:00	
	UNIT01	GENERATION MODE	9:45:00	18:00:00	8:15:00	
2-Dec-17	UNIT01	PUMPING MODE	0:00:00	3:45:00	3:45:00	3
	UNIT01	PUMPING MODE	20:40:00	0:00:00	3:20:00	1000
	UNIT01	GENERATION MODE	7:05:00	16:10:00	9:05:00	
3-Dec-17	UNIT01	PUMPING MODE	0:00:00	5:30:00	5:30:00	3
	UNIT01	PUMPING MODE	18:10:00	22:00:00	3:50:00	
	UNIT01	GENERATION MODE	12:00:00	15:25:00	3:25:00	
4-Dec-17	UNIT01	PUMPING MODE	0:00:00	3:30:00	3:30:00	3
	UNIT01	PUMPING MODE	19:20:00	22:45:00	3:25:00	
	UNIT01	GENERATION MODE	10:35:00	13:45:00	3:10:00	
5-Dec-17	UNIT01	PUMPING MODE	18:35:00	20:45:00	2:10:00	2
	UNIT01	GENERATION MODE	6:50:00	11:45:00	4:55:00	
6-Dec-17	UNIT01	GENERATION MODE	14:20:00	20:05:00		2
6-Dec-17	UNIT01	PUMPING MODE	22:35:00	0:00:00	1:25:00	1
	UNIT01	PUMPING MODE	0:00:00	6:20:00	6:20:00	,
7-Dec-17	UNIT01	PUMPING MODE	22:15:00	0:00:00	1:45:00	2
	UNIT01	PUMPING MODE	0:00:00	2:00:00	2:00:00	
8-Dec-17	UNIT01	GENERATION MODE	10:30:00		1:20:00	3
	UNIT01	PUMPING MODE	22:35:00	23:50:00	1:15:00	
	UNIT01	GENERATION MODE	5:55:00	7:20:00	1:25:00	
9-Dec-17	UNIT01	GENERATION MODE	9:50:00	18:15:00		3
	UNIT01	PUMPING MODE	21:05:00	0:00:00	2:55:00	
	UNIT01	GENERATION MODE	13:20:00	15:40:00		
10-Dec-17	UNIT01	PUMPING MODE	0:00:00	7:00:00	7:00:00	3
	UNIT01	PUMPING MODE	20:35:00	23:15:00	2:40:00	
11 Doc 17	UNIT01	GENERATION MODE	6:50:00		,	, , , , , , , , , , , , , , , , , , , ,
11-Dec-17	UNIT01	PUMPING MODE	19:30:00	0:00:00	4:30:00	2
·	UNIT01	GENERATION MODE	9:00:00	11:20:00	2:20:00	· · · · · · · · · · · · · · · · · · ·
12-Dec-17	UNIT01	PUMPING MODE	0:00:00	6:10:00	6:10:00	3
	UNIT01	PUMPING MODE	23:20:00	0:00:00	0:40:00	
13-Dec-17	UNIT01	GENERATION MODE	8:05:00	9:45:00	1:40:00	2
13-Det-17	UNIT01	PUMPING MODE	0:00:00	1:20:00	1:20:00	2
	UNIT01	GENERATION MODE	6:35:00	17:00:00	10:25:00	
14-Dec-17	UNIT01	PUMPING MODE	1:10:00	3:10:00	2:00:00	3
	UNIT01	PUMPING MODE	20:30:00	0:00:00	3:30:00	
	UNIT01	GENERATION MODE	8:30:00	18:00:00	9:30:00	
15-Dec-17	UNIT01	PUMPING MODE	0:00:00	6:25:00	6:25:00	3
	UNIT01	PUMPING MODE	19:55:00	0:00:00	4:05:00	
	UNIT01	GENERATION MODE	10:55:00	17:45:00	6:50:00	
16-Dec-17	UNIT01	PUMPING MODE	0:00:00	4:45:00		3
	UNIT01	PUMPING MODE	21:50:00	0:00:00	2:10:00	
	UNIT01	GENERATION MODE	11:55:00	17:40:00	5:45:00	
17-Dec-17	UNIT01	PUMPING MODE	0:00:00	6:45:00		3
	UNIT01	PUMPING MODE	19:00:00	0:00:00	5:00:00	

Switching operations data per day (01 Dec2017 to 22 Jan 2018)

DATE	UNIT	MODE OF OPERATION	START TIME	STOP TIME	SERVICE HOURS	NUMBER OF OPERATION S
	UNIT01	GENERATION MODE	6:35:00	8.00.00	1,25,00	
	UNIT01	GENERATION MODE	10:20:00	8:00:00		1
18-Dec-17	UNIT01	PUMPING MODE	0:00:00	13:15:00	2:55:00	4
	UNIT01	PUMPING MODE	20:20:00	1:30:00	1:30:00	
	UNIT01	GENERATION MODE	6:15:00	0:00:00	3:40:00	
	UNIT01	GENERATION MODE	11:45:00	9:15:00	3:00:00	
19-Dec-17	UNIT01	PUMPING MODE	0:00:00	18:00:00		4
	UNIT01	PUMPING MODE	23:50:00	1:00:00 0:00:00	1:00:00	
	UNIT01	GENERATION MODE	11:20:00		0:10:00	
	UNIT01	GENERATION MODE	14:55:00	12:20:00	1:00:00	
20-Dec-17	UNIT01	PUMPING MODE	0:00:00	17:35:00	2:40:00	4
-	UNIT01	PUMPING MODE		5:55:00	5:55:00	
	UNIT01	GENERATION MODE	20:50:00 10:45:00	0:00:00	3:10:00	
21-Dec-17	UNIT01	PUMPING MODE	0:00:00	18:15:00	7:30:00	2
21 000 17	UNIT01	PUMPING MODE	20:05:00	5:00:00	5:00:00	3
	UNIT01	GENERATION MODE	11:25:00	0:00:00	3:55:00	
22-Dec-17	UNIT01	PUMPING MODE	0:00:00	19:00:00	7:35:00	2
22 000 17	UNIT01	PUMPING MODE	23:10:00	4:00:00	4:00:00	3
	UNIT01	GENERATION MODE	11:05:00	0:00:00	0:50:00	
23-Dec-17	UNIT01	PUMPING MODE	0:00:00	17:45:00	6:40:00	2
20 000 17	UNIT01	PUMPING MODE	23:15:00	5:00:00 0:00:00	5:00:00	3
	UNIT01	GENERATION MODE	10:45:00	10:55:00	0:45:00 0:10:00	
24-Dec-17	UNIT01	GENERATION MODE	22:10:00	23:00:00	0:50:00	3
	UNIT01	PUMPING MODE	0:00:00	4:20:00	4:20:00	3
	UNIT01	GENERATION MODE	10:45:00	12:50:00	2:05:00	· · · · · · · · · · · · · · · · · · ·
	UNIT01	GENERATION MODE	14:55:00	19:05:00	4:10:00	
25-Dec-17	UNIT01	PUMPING MODE	0:25:00	4:30:00	4:05:00	4
	UNIT01	PUMPING MODE	20:35:00	0:00:00		
	UNIT01	GENERATION MODE	10:15:00	18:15:00	8:00:00	
26-Dec-17	UNIT01	PUMPING MODE	0:00:00	4:00:00	4:00:00	3
	UNIT01	PUMPING MODE	20:20:00	0:00:00	3:40:00	3
	UNIT01	GENERATION MODE	8:45:00	10:20:00	1:35:00	
27-Dec-17	UNIT01	PUMPING MODE	0:00:00	5:00:00	5:00:00	3
	UNIT01	PUMPING MODE	21:45:00	23:15:00	1:30:00	J
20 D 17	UNIT01	GENERATION MODE	10:45:00	16:35:00	5:50:00	
28-Dec-17	UNIT01	PUMPING MODE	22:10:00	0:00:00	1:50:00	2
	UNIT01	GENERATION MODE	10:50:00	13:50:00	3:00:00	
29-Dec-17	UNIT01	PUMPING MODE	0:00:00	4:05:00	4:05:00	3
	UNIT01	PUMPING MODE	23:35:00	0:00:00	0:25:00	J
	UNIT01	GENERATION MODE	14:30:00	19:00:00	4:30:00	
30-Dec-17	UNIT01	PUMPING MODE	0:00:00	3:05:00	3:05:00	3
	UNIT01	PUMPING MODE	23:25:00	0:00:00	0:35:00	J
21 Dec 17	UNIT01	GENERATION MODE	7:50:00	14:10:00	6:20:00	
31-Dec-17	UNIT01	PUMPING MODE	0:00:00	4:00:00	4:00:00	2
	UNIT01	GENERATION MODE	7:40:00	13:35:00	5:55:00	
1-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:35:00	5:35:00	3
	UNIT01	PUMPING MODE	20:55:00	0:00:00	3:05:00	3

Switching operations data per day (01 Dec2017 to 22 Jan 2018)

DATE	UNIT	MODE OF OPERATION	START TIME	STOP TIME	SERVICE HOURS	NUMBER OF OPERATION S
2.1 10	UNIT01	GENERATION MODE	7:30:00	17:35:00	10:05:00	
2-Jan-18	UNIT01	PUMPING MODE	0:00:00	4:05:00	4:05:00	2
2 lass 40	UNIT01	GENERATION MODE	7:00:00	14:25:00	7:25:00	
3-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:35:00	5:35:00	2
	UNIT01	GENERATION MODE	7:55:00	16:35:00	8:40:00	
4-Jan-18	UNIT01	PUMPING MODE	0:10:00	6:40:00	6:30:00	3
	UNIT01	PUMPING MODE	19:35:00	0:00:00	4:25:00	
	UNIT01	GENERATION MODE	7:10:00	16:40:00	9:30:00	
5-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:20:00	5:20:00	3
	UNIT01	PUMPING MODE	20:15:00	0:00:00	3:45:00	
	UNIT01	GENERATION MODE	6:52:00	15:15:00	8:23:00	-
6-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:10:00	5:10:00	3
	UNIT01	PUMPING MODE	20:30:00			
	UNIT01	GENERATION MODE	9:35:00	13:25:00	3:50:00	,
7-Jan-18	UNIT01	PUMPING MODE	0:00:00	7:35:00	7:35:00	3
	UNIT01	PUMPING MODE	19:55:00	0:00:00	4:05:00	
	UNIT01	GENERATION MODE	6:40:00	16:30:00	9:50:00	
8-Jan-18	UNIT01	PUMPING MODE	0:00:00	4:00:00	4:00:00	3
	UNIT01	PUMPING MODE	20:40:00	0:00:00		
	UNIT01	GENERATION MODE	8:00:00			
9-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:30:00		3
	UNIT01	PUMPING MODE	20:10:00	0:00:00		= 1
	UNIT01	GENERATION MODE	8:05:00	20:40:00	12:35:00	
10-Jan-18	UNIT01	PUMPING MODE	0:00:00	5:30:00		3
	UNIT01	PUMPING MODE	23:20:00	0:00:00		
11-Jan-18	UNIT01	GENERATION MODE	8:00:00	17:05:00	9:05:00	
	UNIT01	PUMPING MODE	0:00:00	6:40:00		3
	UNIT01	PUMPING MODE	20:15:00	0:00:00	3:45:00	9
12-Jan-18	UNIT01	GENERATION MODE	8:00:00	16:40:00	8:40:00	
	UNIT01	PUMPING MODE	0:00:00	6:35:00	6:35:00	3
	UNIT01	PUMPING MODE	21:35:00	0:00:00	2:25:00	
13-Jan-18	UNIT01	GENERATION MODE	8:45:00	16:55:00	8:10:00	2
	UNIT01	PUMPING MODE	0:00:00	5:40:00	5:40:00	2
14-Jan-18	UNIT01	GENERATION MODE	12:00:00	13:15:00	1:15:00	
	UNIT01	PUMPING MODE	20:00:00	0:00:00	4:00:00	2
15-Jan-18	UNIT01	PUMPING MODE	0:00:00	6:10:00	6:10:00	
	UNIT01	PUMPING MODE	20:15:00	0:00:00	3:45:00	3
	UNIT01	GENERATION MODE	7:30:00	17:30:00	10:00:00	
16-Jan-18	UNIT01	GENERATION MODE	7:00:00	16:00:00	9:00:00	
	UNIT01	PUMPING MODE	0:00:00	5:20:00	5:20:00	3
	UNIT01	PUMPING MODE	19:55:00	0:00:00	4:05:00	
17-Jan-18	UNIT01	GENERATION MODE	6:30:00	14:55:00	8:25:00	
	UNIT01	PUMPING MODE	0:00:00	4:30:00	4:30:00	3
	UNIT01	PUMPING MODE	18:15:00	0:00:00	5:45:00	
18-Jan-18	UNIT01	GENERATION MODE	7:15:00	17:45:00	10:30:00	
	UNIT01	PUMPING MODE	0:00:00	5:30:00	5:30:00	3
	UNIT01	PUMPING MODE	19:15:00	0:00:00	4:45:00	



MAHARASHTRA STATE POWER GENERATION CO. LTD.

PHONE: 022-22619100/22619200

22676954

FAX : 022-22695336/22619699

E-mail: cehydro@mahagenco.in

No. CE (RE)/GHPS/O&M Charges/No. 0 04 3 5

CHIEF ENGINEER (RE)

Hongkong Bank Building, Third Floor, M.G. Road,

Fort, MUMBAI–400 001.

To.

The Chief Engineer (RCD),

MSPGCL, Prakashgad, Bandra (E)

Mumbai 400051

Sub:-Deduction of Operation & maintenance Charges and Lease Rent for Ghatghar PSS by MSEDCL

Ref:- 1. Letter no. CE/ PP/MSPGCL/19413 dtd.13.11.2020 from MSEDCL.

2. Letter no. EE/ GHPS/TECH/Mahadiscom/00437 Date: 09.12.2020

3. Letter no. SE/REC/NSK/0938 dtd. 11.12.2020

With reference to above subject and letter under ref. (1), MSEDCL have unilaterally deducted O&M and lease rent charges in respect of Ghatghar PSS on account of unavailability of units. In this regard, it is to inform that Mahagenco has taken all possible efforts to restore the units even in Covid-19 pandemic situation. The detailed reasons and clarification on all outages is as under: -

Efforts taken by Mahagenco

1. The water leakage from the MIV Expansion joint – Ghatghar Unit 1- Forced Outage-13.08.2019 to 09.09.2019

The water leakage was observed from the MIV Expansion joint of the draft tube located between draft tube and MIV, the size of the expansion joint is around 2 Mtr. in diameter with water pressure of 50 kg/cm². The water leakage was massive and to run the machine at this pressure was risky for the nearby electrical panels. Hence, to avoid further damages, the work was carried out during 13.08.2019 to 09.09.2019.

Failure of the CW lines embedded in civil / concrete structure – Ghatghar Unit 1-Forced Outage- 25.09.2019 to 08.02.2020

On dt. 25.09.2019 incidence of failure of the CW lines embedded in concrete structure took place. The CW lines had damaged the main concrete structure of the machine and turbine pit liner. Above work was carried out from dt 01.09.2019 to dt 08.02.2020. The planned AOH was between Nov - Dec 2019. Since the CW lines structural work and turbine pit liner work were

overlapping with the planned AOH and to avoid separate AOH, the entire work was converted into AOH.

3. Severe hunting in hydro conduit- Unit 2 - Forced Outage- 18-02.2020 to 26.02.2020 and Severe hunting in hydro conduit- Unit 1 - Forced Outage- 18-02.2020 to 26.08.2020

Further, both the units encountered severe hunting in hydro conduit on dt 18.02.2020. This hydro conduit system comprises major component like MIV on 1600 mm diameter penstock, maintenance seal, service seal and expansion joint etc. The hydro conduit is the most crucial part of the complete system. To take-up the work on hydro conduit, the upper dam intake gate was required to be closed. Hence, it was closed in coordination with WRD civil and mechanical divisions. The hunting / heavy vibrations were so severe that unit could not be run under such circumstances. Seals of both MIV's were replaced during the outage to attend the hunting problem from dt 18.02.2020 to dt 26.08.2020. Quantum of work was very huge and availability of manpower & spares was very poor.

It may please be noted that work suffered a lot due to nationwide lockdown imposed after outbreak of covid-19.Please refer T.O. letter CE(RE)/6/No.250 dtd 16.07.2020 addressed to CE(RE), MSEDCL in this regard.

4. MIV expansion joint leakage- Unit 2- Forced Outage-09.03.2020 to 30.08.2020

The severe hunting on hydro conduit had adversely affected on MIV expansion joint of Unit 2 causing water leakage at MIV expansion joint on dt 09.03.2020. The said work was taken up simultaneously with Unit 1 from dt 09.03.2020 to dt 30.08.2020.

After completion of work of unit 1, successful trial was taken on dt. 26.8.2020. On dt. 27.08.2020 as per requirement of LDC Kalwa, unit 1 was started in pumping mode. Synchronization of both the units was delayed by 13 days on account of agitations by project affected people (PAP) preventing opening of upper dam intake gate.

5. Heavy water leakage noticed from Runner Band Drain Valve (RBDV)- Unit 1- Forced outage- 27.08.2020 to 06.09.2020

While withdrawing the unit from pumping mode, the heavy water leakage was noticed from Runner Band Drain Valve (RBDV). The location of the RBDV is at draft tube manhole which is very difficult to access. The location and the approach to the valve were the major constraints in attending the leakage. As the RBDV is a part of hydro conduit with water pressure of 50 kg/cm², running the machine with such a leakage was not desirable. Moreover, it was a direct threat to the machine compelling MSPGCL for outage. Hence, the work was carried out from dt 27.08.2020 to dt 06.09.2020.

6. Turbine guide bearing problem- Unit 1- Forced Outage- 30.09.2020 to 05.11.2020

On dtd. 30.09.2020, problem with TGB was noticed. The same was addressed by taking shutdown from dt 30.09.2020 to dt 01.11.2020. The Unit was successfully synchronized on dt. 01.11.2020 in generation mode and pumping mode on dt. 05.11.2020.

The reason for the outages of unit 1 & 2 mentioned in the letter under reference, are of catastrophic nature. These outages were result of in-equilibrium in Hydro conduit caused due to wear & tear of MIV seals. Such situation is beyond control; however the effects of such in -

equilibrium are devastating and catastrophic in nature on power generating system. The outages were declared initially based on prima facie outer damages. But after opening of the system, when actual damages surfaced, the outage dates were rescheduled considering: -

- Extent of damages
- Quantum of Repair/ Restoration work involved.
- Location of Repair/Restoration (At site or at remote facility)
- Transportation period involved.
- Availability of facilities and manpower during the period of CORONA complete countrywide lockdown.

Nevertheless, it is proud to mention that the GHPS, MAHAGENCO Unit 2 was synchronized on dt. 12.10.2020; 11:30hrs, within 10 to 15 mins from the receipt of call from LD Kalwa and supported the system by providing generation for approximately 10 hrs continuously during the blackout incidence. Now, both the units are working normal and in continuous operation (Unit 2 from dt 08.09.2020 and Unit 1 from dt 01.11.2020). All major works have been completed successfully in spite of the restrictions of Covid-19 pandemic situation.

Considering the catastrophic nature of outages, which were beyond control, it is unfair on MSEDCL part, to deduct O&M charges and lease rent. Further, it is to state that the outages mentioned in the letter were not due to the human error & negligence but due to the unforeseen and uncontrollable circumstances. GHPS, MAHAGENCO is bound to provide quality generation/pumping to meet the requirement of SLDC, Kalwa.

It is therefore requested to reverse the unilateral deduction of O&M charges and lease rent in respect of Ghatghar PSS. It may please be noted that MSEDCL is availing the benefit of surplus generation at Koyna & other small HPS within the same O&M cost and lease rent. MSPGCL is not expecting additional cost for surplus generation.

Submitted for information and further necessary action please.

Chief Engineer (RE)

Copy s.w.r. to:

Executive Director (O&M)-I

Copy to:

- 1) SE(RE), REC, Nashik
- 2) EE, Ghatghar Division

MAHAGENCO Astronasia Suda Money Gameraton San In

महाराष्ट्र राज्य बीज निर्मिती कंपनी मर्यादित MAHARASHTRA STATE POWER GENERATION CO. LTD.

दूरध्वनी / Phone: 0253-2810185, 2810485

वैयक्तिक / Personal: 0253 -2810487

फॅक्स /Fax: 0253 - 2810486

इ.मेल /E-mail:

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Office Of the Superintending Engineer

नवीकरणीय ऊर्जा मंडळ, नाशिक

Renewable Energy Circle, Nashik .

मु - पो - एकलहरे, नाशिक ४२२ १०५ PO- Eklahare, Nashik 422105

SE/REC/NSK/

No-0938

Date: [1 1 DEC 2020

To,
The Chief Engineer (RE)
Renewable Energy,
HSBC Building, Fort Mumbai.

Sub: -Deduction of Operation & maintenance Charges and Lease Rent for

Ghatghar PSS

Ref: Letter no. CE/ PP/MSPGCL/19413/13.11.2020

With reference to above, it is to submit here that Mahagenco has taken all out efforts to restore the

Efforts taken by Mahagenco

 The water leakage from the MIV Expansion joint – Ghatghar Unit 1- Forced Outage- 13.08.2019 to 09.09.2019

The water leakage from the MIV Expansion joint of the draft tube located between draft tube and MIV, the size of the expansion joint is around 2mtr in diameter with water pressure of 50kg/cm². The water leakage was massive and to run the machine at this pressure was a risk to the nearby system panels. Hence, to avoid further damage, the work was carried out during 13.08.2019 to 09.09.2019.

2. Failure of the CW lines embedded in civil/concrete structure - Ghatghar Unit 1- Forced Outage- 25.09.2019 to 08.02.2020

On dt. 25.09.2019 incidence of failure of the CW lines embedded in civil/concrete structure was happened. The CW lines had damaged the main concrete structure of the machine and turbine pit liner. The above work was carried out from dt 01.09.2019 to dt 08.02.2020. The planned AOH was between Nov - Dec 2019. Since the CW lines structural work and turbine pit liner work were overlapping with the planned AOH and to avoid separate AOH, the entire work was converted into AOH.

 Severe hunting in hydro conduit- Unit 2 - Forced Outage- 18-02.2020 to 26.02.2020 and Severe hunting in hydro conduit- Unit 1 - Forced Outage- 18-02.2020 to 26.08.2020

Further, both the units were experienced severe hunting in hydro conduit on dtd 18.02.2020. This hydro conduit system comprises major component like MIV on 1600mm diameter penstock, maintenance seal, service seal and expansion joint etc. The hydro conduit is the most crucial part of the complete system. To take-up the work on hydro conduit, he upper dam intake gate was required to be closed. Hence, it was closed in coordination with WRD civil division and mechanical division. The hunting/ heavy vibration was severe and unavoidable, so the work was carried out to attend the hunting problem from dt 18.02.2020 to dt 26.08.2020.

MIV expansion joint leakage- Unit 2- Forced Outage-09.03.2020 to 30.08.2020

P1. Put. up

The severe hunting on hydro conduit had adversely affected on MIV expansion joint of Unit 2 and had started water leakage at MIV expansion joint on dtd 9.03.2020. The said work was taken up simultaneously with hunting problem from dt 09.03.2020 to dt 30.08.2020.

After completion of work of unit 1, the successful trial was taken on dtd 26.8.2020. On dtd 27.08.2020 as per requirement of LDC Kalwa, unit 1 was taken on pumping mode.

 Heavy water leakage was noticed from Runner Band Drain Valve (RBDV)- Unit 1- Forced outage- 27.08.2020 to 06.09.2020

While withdrawing the unit from pumping mode, the heavy water leakage was noticed from Runner Band Drain Valve (RBDV). The location of the RBDV is at draft tube manhole very difficult to approach. The location and the space of the valve was the major constraint in attending the leakage. As the RBDV is a part of hydro conduit with water pressure of 50kg/cm², to run the machine with leakage was not advisable moreover it was direct threat to the machine. Hence, the work was carried out from dt 27.08.2020 to dt 06.09.2020.

Turbine guide bearing problem- Unit 1- Forced Outage- 30.09.2020 to 05.11.2020

On dtd. 30.09.2020, problem with TGB was noticed. The same was addressed by taking force shutdown from dt 30.09.2020 to dt 01.11.2020. The Unit was successfully synchronized on dtd 01.11.2020 on generation mode and pumping mode on dtd 05.11.2020.

The reason for the outages of unit 1&2 mentioned in the letter under reference, are of catastrophic nature. These outages were result of momentary un-equilibrium in Hydro conduit. Momentary un-equilibrium in hydro conduit is beyond control; however the effects of such un-equilibrium are devastating and catastrophic in nature on power generating system. The outages were declared initially based on prima facie outer damages. But after opening of system, when actual damages surfaced, the outage dates were rescheduled considering: -

Extent of damages

Quantum of Repair/ Restoration work involved.

Location of Repair/Restoration (At site or at remote facility)

Transportation period involved.

Availability of Facility and manpower during the period of CORONA complete countrywide lockdown.

Nevertheless, it is proud to mention that the GHPS, MAHAGENCO Unit 2 was synchronized on dtd 12.10.2020; 11:30hrs, within 10 to 15 mins from the receipt of call from LD Kalwa and supported the system by providing generation for approximately 10 hrs continuously during the blackout incident. Now, both the units are working normal and in continuous operation (unit 2 from dt 08.09.2020 and unit 1 from dt 01.11.2020).

Considering the catastrophic nature of outages, which are beyond control, it is unfair on MSEDCL part, to deduct O&M charges and lease rent.

It is therefore proposed to waive off the deduction of O&M charges and lease rent with respect to Ghatghar PSS.

Supot, Engineer (RE) REC, Nashik





GHATGHAR HYDRO POWER STATION

Office of The Executive Engineer Ghatghar Hydro Power station At Post Chondhe Tal Shahapur, Dist. Thane

Phone No.-02527 235308

E-mail-eeghatghar@gmail.com eeghatghar@mahagenco.in

Ref: EE/ GHPS/TECH/Mahadiscom/00437

Date: 09.12.2020

To, The Superintending Engineer, REC, Nashik

Sub: - Regarding poor availability of GHPS during FY 2019-2020 (till Aug 2020)

Ref: - CE/PP/MSPGCL/No.19413 Dt. 13th Nov, 2020

With respect to the above subject, the GHPS had faced force/planned outages during the period mentioned in the letter from CE, PP, MSEDCL under reference above for various unavoidable reasons as under.

The water leakage from the MIV Expansion joint of the draft tube located between spiral casing and MIV, the size of the expansion joint is around 2mtr in diameter with water pressure of 50kg/cm². The water leakage was massive and to run the machine at this pressure was a risk to the nearby system panels. Hence, to avoid further damage, the work was carried out during 13.08.2019 to 09.09.2019.

On dt. 25.09.2019 incidence of failure of the CW lines embedded in civil/concrete structure was happened. The CW lines had damaged the main concrete structure of the machine and turbine pit liner. The above work was carried out from dt 01.09.2019 to dt 08.02.2020. The planned AOH was between Nov - Dec 2019. Since the CW lines structural work and turbine pit liner work were overlapping with the planned AOH and to avoid separate AOH, the entire work was converted into AOH.

Further, both the units were experienced severe hunting in hydro conduit on dtd 18.02.2020. This hydro conduit system comprises major component like MIV on 2000mm diameter penstock, maintenance seal, service seal and expansion joint etc. The hydro conduit is the most crucial part of the complete system. To take-up the work on hydro conduit, the upper dam intake gate was required to be closed. Hence, it was closed in coordination with WRD civil division and mechanical division. The hunting/ heavy vibration was severe and unavoidable, so the work was carried out to attend the hunting problem from dt 18.02.2020 to dt 26.08.2020. Moreover, the severe hunting on hydro conduit had adversely affected on MIV expansion joint of Unit 2 and had started water leakage at MIV expansion joint on dtd 9.03.2020. The said work was taken up simultaneously with hunting problem from dt 09.03.2020 to dt 30.08.2020.

After completion of work of unit 1, the successful trial was taken on dtd 26.8.2020. On dtd 27.08.2020 as per requirement of LDC Kalwa, unit 1 was taken on pumping mode. While

3E,40 104/12/20 withdrawing the unit from pumping mode, the heavy water leakage was noticed from Runner Band Drain Valve (RBDV). The location of the RBDV is near to draft tube manhole very difficult to approach. The location and the space of the valve was the major constraint in attending the leakage. As the RBDV is a part of hydro conduit with water pressure of 50kg/cm², to run the machine with leakage was not advisable moreover it was direct threat to the machine. Hence, the work was carried out from dt 27.08.2020 to dt 06.09.2020.

On dtd. 30.09.2020, problem with TGB was noticed. The same was addressed by taking force shutdown from dt 30.09.2020 to dt 01.11.2020. The Unit was successfully synchronized on dtd 01.11.2020 on generation mode and pumping mode on dtd 05.11.2020.

The reasons stated above for the outages are self-explanatory. The leakages due to hunting in hydro conduit, expansion joint, RBDV, and CW lines failure damaged to the machine structure were very serious in nature and unavoidable though. GHPS, MAHAGENCO had taken corrective measures to avoid further damage to the system. In addition, the major period of the outages mentioned in the letter was during the lockdown of Covid-19 pandemic situation. During this, the GHPS faced acute shortage of man, machine & material to carry out work. Therefore, the works were delayed mostly due to the crunch of man, machine & material factor though.

Nevertheless, it is proud to mention that the GHPS, MAHAGENCO Unit 2 was synchronized on dtd 12.10.2020; 11:30hrs, within 10 to 15 mins from the receipt of call from LD Kalwa and supported the system by providing generation for approximately 10 hrs continuously during the blackout incident. Now, both the units are working normal and in continuous operation (unit 2 from dt 08.09.2020 and unit 1 from dt 01.11.2020).

Therefore it is to state that the outages mentioned in the letter were not due to the human error and but the unseen and beyond control/unavoidable circumstances. GHPS, MAHAGENCO is bound to provide quality generation/pumping to meet the requirement of LDC.

Submitted for information and further necessary action please.

Executive Engineer Ghatghar HPS.

Copy s.w.r.to:-The Chief Engineer, REC, Mumbai.



(A Government of Maharashtra Undertaking)

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD. CIN: U40109MH200SSGC153645

Ref. No. CE/PP/MSPGCL/

No 1 9 4 1 3

Date: 1 3 NOV 2020

To,

The Chief Engineer (RCD), 3rd Floor, Prakashgad, Bandra (E), Mumbai – 400 051

Sub: - Deduction of Operation and Maintenance Charges and Lease Rent for Ghatghar PSS.

Dear Sir,

Ghatghar PSS (2 X 125 MW) is an important element of the Grid and plays important role in Grid Security by storing the water and utilizing the same for power generation during peak demand hours. Hence, it is expected that proper maintenance of power plant is needed to ensure maximum availability.

However, it is observed that the availability of Ghatghar was very poor during FY 2019-20 and FY 2019-20 (till August 2020) and sometimes the generating unit 01 and/or 02 of Ghatghar PSS was under force outage for more than a month. The details of the same are as under:

Outage Type	Name	Trip Date	Synch. Date	Reason
Forced	Ghatghar Unit-1	13-Aug-19	09-Sep-19	Water Leakage
Planned	Ghatghar Unit-1	25-Sep-19	08-Feb-20	Withdrawn On Shaft Seal Water Leakage.Converted to AOH From 1 Nov 2019
Forced	Ghatghar Unit-2	18-Feb-20	26-Feb-20	Severe Hunting In Hydro Conduit Across MIV
Forced	Ghatghar Unit-1	18-Feb-20	26-Aug-20	Severe Hunting In Hydro Conduit Across MIV
Forced	Ghatghar Unit-2	09-Mar-20	30-Aug-20	Expansion joint leakage.
Forced	Ghatghar Unit-1	27-Aug-20	06-Sep-20	Runner band Drainage valve Leakage
Forced	Ghatghar Unit-1	30-Sep-20	Continued.	Turbine Guide Bearing problem

Due to such long forced/planned outage of Ghatghar PSS MSEDCL's power planning is severely affected.

In view of above, MSEDCL has deducted the Operation and Maintenance Charges and Lease Rent for Ghatghar PSS for above mentioned outage period as under:

Maharashtra State Electricity Distribution Company Limited
5th floor, Prakashgad, Plot No.G-9, Bandra (East), Mumbai – 400 051 % (P) 26478643, % (O) 26474211,

@Fax- 26475012Email: cepp@mahadiscom.in Website: www.mahadiscom.in

Name	Trip Date	Synch. Date	No. of Days of Tripping	Lease Rent (Rs. Crs.)	Fixed Cost (Rs. Crs.)	Total (Rs. Crs.)
Ghatghar Unit-1	13-Aug-19	09-Sep-19	27	7.03	2.12	9.15
Ghatghar Unit-1	25-Sep-19	08-Feb-20	136	34.18	11.14	45.31
Ghatghar Unit-2	18-Feb-20	26-Feb-20	8	2.08	0.63	2.71
Ghatghar Unit-1	18-Feb-20	31-Mar-20	42	10.94	3.29	14.23
	01-Apr-20	26-Aug-20	147	36.94	12.04	48.98
Ghatghar Unit-2	09-Mar-20	31-Mar-20	22	5.73	1.72	7.45
	01-Apr-20	30-Aug-20	151	37.94	12.37	50.31
Ghatghar Unit-1	27-Aug-20	06-Sep-20	10	2.51	0.82	3.33
	8	•		137.36	44.12	181.48

Further, considering importance of Ghatghar PSS (2X125 MW) during emergent situation, Grid Security Management and manage deviation/difference between in peak/off peak demand, it is one again requested to expedite the maintenance work and ensure the maximum availability of Ghatghar PSS.

Thanking you,

JICChief Engineer Power Purchase, MSEDCL

Copy s.w.r.to:

The Director (Commercial), MSEDCL, Corporate office Mumbai.

Annexure 21

MoM between MSPGCL and MSETCL for CT replacement events.

MOM held between MSETCL, MSEDCL & MSPGCL on dtd.19.12.2023 for commissioning of dedicated metering CT, IVT, Main and Check meters for 270 X 3 MVA 400/20 kV Generating Transformer 08 (Bay 425,Dia 9) at 400KV Koradi 2 S/S

1) Meter details

Meter	Main	Check
Make	L&T	L&T
Туре	ER300P	ER300P
Serial no	MSETCL003772	MSETCL003771
CTR	-/1A	-/1A
PTR	3X63.5V	3X63.5V
Class	0.2s	0.2s
Initial import reading	1371966.4 wh	1371951.60 wh
Initial export reading	63.4 wh	63.50 wh
Seal no		

2) Metering CT details

	R Phase	Y Phase	B Phase
Make	Luster	Luster	Luster
Serial no	LEC-CT-4-0024	LEC-CT-4-0027	LEC-CT-4-0021
Ratio	1500/1	1500/1	1500/1
Burden	15VA	15VA	15VA
Class	0.2s	0.2s	0.2s
Seal no	Paper seal	Paper seal	Paper seal

3) Metering IVT details

	R Phase	Y Phase	B Phase
Make	CROMPTON GREAVES	CROMPTON GREAVES	CROMPTON GREAVES
Serial no	64069	64075	64056
Ratio	400,000/v3/110/v3V	400,000/v3/110/v3V	400,000/v3/110/v3v
Class	0.2	0.2	0.2
Seal no	Paper seal	Paper seal	Paper seal
Burden	50 VA	50 VA	50 VA

Commissioning activities were carried out in presence of following representatives.

MSPGCL

19112123. 3×660 MW KTPS EMIT, DYEE.

EE 19/123

MSEDCL

MOM held between MSETCL, MSEDCL & MSPGCL on dtd.12.03.2024 for commissioning of dedicated metering CT, IVT, Main and Check meters for 270 X 3 MVA 400/20 kV Generating Transformer D9 (Bay 413,Dia 5) at 400KV Koradi 2 S/S

1) Meter details

Meter	Main	Check
Make	1.8.1	L&T
Type	ER300P	ER300P
Serial no	MSETCL003774	MSETCL003773
CTR	-/1A	/10
PTR	3X63.5V	3X63.5V
Class	0.2s	0.25
Initial import reading	1571791.5 wh	1571625.1 wh
Initial export reading	67.4 wh	66.9 wh
Seal no		

2) Metering CT details

	R Phase	Y Phase	B Phase
Make	CGL	CGL	CGL
Serial no	750025	750030	750028
Ratio	1500/1	1500/1	1500/1
Burden	20 VA	20 VA	20 VA
Class	0.25	0.25	0.2s
Seal no	Paper seal	Paper seal	Paper seal

3) Metering IVT details

	R Phase	Y Phase	B Phase
Make	CROMPTON GREAVES	CROMPTON GREAVES	CROMPTON GREAVES
Serial no	64059	64055	64058
Ratio	400,000/v3/110/v3V	400,000/v3/110/v3V	400,000/v3/110/v3V
Class	0.2	0.2	0.2
Seal no	Paper seal	Paper seal	Paper seal
Burden	50 VA	50 VA	50 VA

Commissioning activities were carried out in presence of following representatives.

MSPGCL

MSETCL

MSEDCL

N.S. Damle DJ. EE EMT 3x CLOMW TARINDONE EMT DYEE. EMT 3x660MW KTES

Abdul Adted

MOM held between MSETCL, MSEDCL & MSPGCL on dtd.21.03.2024 for commissioning of AMR meter CT, IVT, Main and Check meters for 270 X 3 MVA 400/20 kV Generating Transformer 10 (Bay 401,Dia 1) at 400KV Koradi 2 S/S

1) Meter details

Meter	Main	Check				
Make	L&T	L&T				
Type	ER300P	ER300P				
Serial no	MSETCL002528	MSETCL002527				
CTR	-/1A	-/1A				
PTR	3X63.5V	3X63.5V				
Class	0.2s	0.2s				
Initial import reading	1521592.3 wh	1521292.9 wh				
Initial export reading	87.1 wh	4.2 wh				
Seal no						

2) Metering CT details

	R Phase	Y Phase	B Phase
Make	CGL	CGL	CGL
Serial no	750024	750023	750026
Ratio	1500/1	1500/1	1500/1
Burden	20 VA	20 VA	20 VA
Class	0.2s	0.2s	0.2s
Seal no	Paper seal	Paper seal	Paper seal

3) Metering IVT details

	R Phase	Y Phase	B Phase
Make	CROMPTON GREAVES	CROMPTON GREAVES	CROMPTON GREAVES
Serial no	64061	64054	64047
Ratio	400,000/v3/110/v3V	400,000/v3/110/v3V	400,000/v3/110/v3V
Class	0.2	0.2	0.2
Seal no	Paper seal	Paper seal	Paper seal
Burden	50 VA	50 VA	50 VA

Commissioning activities were carried out in presence of following representatives.

MSPGCL

MSEDCL

Annexure 22

Certifications in regard to AVF and PLF from MSLDC for 2023-24.





MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.

CIN NO. U40109MH2005SGC153646

Maharashtra State Load Dispatch Center

Tele: 91-22-27601765/1766/1931/2937 Office of The Chief Engineer
Fax: 91-22-27601769/2936 Maharashtra State Load Disp

Email: cesldc@mahasldc.in website: http://www.mahasldc.in

Office of The Chief Engineer

Maharashtra State Load Dispatch Center
Thane-Belapur Road, P.O. Airoli
Navi Mumbai Pin – 400 708.



No. CELD/Tech-SO/

Date:

To.

The Chief Engineer, Regulatory & Commercial Dept., 3rd Floor, Prakashgarh MSPGCL, Bandra (E), Mumbai.

Sub: Certification of Availability & PLF data of MSPGCL's TPS for FY 2023-24.

Ref: Email from MSPGCL dtd 15.07.2024

Dear Sir,

In context with the above subject, please find enclosed herewith the certificate of availability & Plant Load Factor (PLF) of MSPGCL's thermal Power Station for FY 2023-24 i.e. (Apr-2023 to Mar-2024).

This is for your information please.

Thanking You,

Encl: Annexure A to N.

Yours faithfully,

	J			Month	Monthly AVE & PLF Certification Data FY- 2023-24	PLF Cert	ification	Data FY	- 2023-24				
						Bhusa	Bhusawal U-3						
Month	inst Cap (MW)	Norm APC (%)	ExBus Cap (MW)	DC (Peak) (MW)	DC (Off- Peak) (MW)	Peak AVF	Off Peak AVF	AVF	Schedule Gen. (Peak) (MW)	SG (Off- Peak) (MW)		Peak PLF	
!				0		High Dem	High Demand Season	on			1		
Apr-23	210.00	0.11	186.98	69590.0	354255.9	77.536%	78,941%	78.707%	59461.63	328685.04		66.251%	66.251% 73.243%
May-23	210,00	0.11	186.98	66075.0	327759.5	71.244%	70.680%	70.774%	62550.87	319708.56		67,445%	67,445% 68.944%
Mar-24	210.00	0.11	186.98	81530.0	412325.9	87.909%	88.917%	88.749%	53423,45	316730.67		57.603%	57.603% 68.302%
Average	210,00	0.11	186.98	217195.00	1094341.15	78.911%	79.519%	79.418%	175435.95	965124.27		63,739%	63,739% 70.130%
				1,100		Low Dem	Low Demand Season	on					
Jun-23	210.00	0.11	186.98	46965.0	237521.0	52.327%	52.928%	52.828%	43036.78	228290.04	-	47.951%	47.951% 50.871%
Jul-23	210.00	0.11	186.98	53893.0	269488.9	58.109%	58,115%	58.114%	50299.88	258341.10	-	54.235%	54.235% 55.711%
Aug-23	210.00	0.11	186.98	0.56895	280725.0	61.346%	60.538%	60.672%	55558.03	277935.96	-	59.905%	59.905% 59.936%
Sep-23	210.00	0.11	186.98	47710.0	235968.5	53.157%	52,582%	52,678%	46938.24	233191.42	-	52.298%	52.298% 51.963%
Oct-23	210.00	0.11	186.98	50195.0	251569.0	54.122%	54.250%	54.229%	48788.74	249479.29	_	52.606%	52.606% 53.800%
Nov-23	210.00	0.11	186.98	20366.0	107197.6	22.691%	23.887%	23.688%	17442.63	95099,83	_	19.434%	19.434% 21.192%
Dec-23	210.00	0.11	186.98	72428.0	352088.0	78.094%	75.927%	76.288%	56121.77	268841,49		60.513%	60.513% 57.975%
Jan-24	210.00	0.11	186.98	37258.0	194370.4	40.173%	41,915%	41,625%	35702.22	146256.47		38.495%	38.495% 31.540%
Feb-24	210.00	0.11	186.98	75368,0	376908.9	86.869%	86.885%	86,882%	57478.58	291490.36		66,250%	66,250% 67.194%
Average	210.00	0.11	186,98	461078.0	2305837.2	56.247%	56.258%	56.256%	411366.88	2048925.95		50.183%	50.183% 49.990%

- 1) The availability of Bhusawal U-3 is 79.418 % during high demand season for FY 23-24.
- 2) The availability of Bhusawal U-3 is 56.256% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

rep-24	1	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		,	
	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00		1000.00	1000.00	1000.00	1000.00		Inst Cap (MW)			
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06		0.06	0.06	0.06	0.06		Norm APC			
940.00	940.00	940.00	940.00	940.00	940.00	940.00	940.00	940.00	940.00		940.00	940.00	940.00	940.00		ExBus Cap (MW)			
3391956.00	347391.00	442643.00	424300.00	357998.00	334346.00	340424.00	355495.00	394556.00	394803.00		1101228.00	362458.00	345335.00	393435.00		DC (Peak) (MW)			
16850408.0	1690530.00	2228502.05	2152090.50	1790075.10	1666632.55	1631776,55	1762505.60	1938096.15	1990199.50		5377702.80	1752282.50	1712532.40	1912887.90		DC (Off-Peak) (MW)		Mont	
82.611%	79.648%	94.939%	91.005%	79.344%	71.711%	75.449%	76.247%	84.625%	87.501%	Lov	79.587%	77.741%	74.068%	87.197%	Hig	Peak AVF	60	Monthly AVF & PLF	
82.079%	77.519%	95.595%	92.317%	79.347%	71.492%	72.331%	75,605%	83.137%	88.218%	Low Demand Season	77.730%	75.167%	73.461%	84.791%	High Demand Season	Off Peak AVF	8husawal U4 &5	Certification Data FY- 2023-24	
82 167%	77.874%	95,485%	92.098%	79.347%	71.529%	72.850%	75.712%	83.385%	88.098%	on	78.040%	75.596%	73,563%	85,192%	חסח	AVF		Data FY- 202	
3076067.46	294869.58	432315.42	339172.25	323839.56	312737.88	302766.86	337064.86	349329,43	383971.62		987161.46	271537.04	334869,63	380754.79		Schedule Gen. (Peak) (MW)		13-24	
15272045.47	1496399.52	1830435.55	1614645.10	1646237.21	1629212.85	1558827.53	1720244.61	1825822.17	1950220.93		5141622,44	1563797.63	1694944.24	1882880,57		SG (Off-Peak) (MW)			
74.918%	67.606%	92.724%	72.746%	71.773%	67.077%	67.103%	72.294%	74.925%	85.100%		71.343%	58.240%	71.823%	84.387%		Peak PLF			
74.390%	68.617%	78.519%	69.262%	72.972%	69.887%	69.097%	73.792%	78.321%	86.446%		74.318%	67.081%	72.707%	83,461%		Off Peak PLF			
74.478%	68.448%	80.886%	69.843%	72.772%	69.419%	68.765%	73.543%	77.755%	86,222%		73.822%	65.608%	72.560%	83.615%		PLF			

- 1) The availability of Bhusawal U-4&5 is 78.040 % during high demand season for FY 23-24.
- 2) The availability of Bhusawal U-4&5 is 82.167 % during low demand season for FY 23-24.
- Certification is based on data submitted by MSPGCL.

	T		Τ	T	T		T												1
	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23	1	Average	Mar-24	May-23	Apr-23		Month			
840.00	840.00	840.00	840.00	840.00	840.00	840,00	840.00	840.00	840.00		840.00	840.00	840.00	840.00		Inst Cap (MW)		JF.	
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0,10	0.10	0.10		0.10	0.10	0.10	0.10		Norm APC (%)			
758.52	758.52	758.52	758.52	758.52	758.52	758.52	758.52	758.52	758.52		758.52	758.52	758.52	758.52		ExBus Cap (MW)			
2089849.0	246500.00	252400,00	272291.00	224775.00	237370.00	198165.00	239110.00	198585.00	220653.00		822285.00	307110.00	258290.00	256885.00		DC (Peak) (MW)			
10394570.8	1209870.29	1276100.00	1360900.61	1113661,61	1188942.58	964756.29	1181082.58	992628.87	1106628.00		4114182.78	1521557.78	1302605.00	1290020.00		DC (Off-Peak) (MW)		Monthly AVF & PLF Certification Data FY- 2023-24	
63.076%	70.038%	67.087%	72.374%	61.736%	63.092%	54,428%	63,555%	52,783%	60.604%	Low D	73.646%	81.629%	68.653%	70.555%	High D	Peak AVF	Khaper	VF & PLF C	
62.746%	68.752%	67.837%	72.345%	61.175%	63.204%	52,996%	62.786%	52.768%	60.789%	Low Demand Season	73.695%	80.885%	69.246%	70.863%	High Demand Season	Off Peak AVF	Khaperkheda U-1 to 4	ertification	
62.801%	68.966%	67.712%	72.350%	61.269%	63,185%	53.234%	62.914%	52,770%	60.758%	on	73.687%	81.009%	69.147%	70.812%	son	AVF	0.4	Data FY-	
1984509.23	240536.42	252294.27	244631.07	218097.42	230681.56	187320.47	225828.67	174037.19	211082.18		775825.97	286605.85	246678.01	242542.11		Schedule Gen. (Peak) (MW)		2023-24	
9892524.23	1175220.80	1157050,57	1185073.64	1083004.92	1180890.67	947118.17	1152390.09	928470.15	1083305,21		4024317.35	1488306.41	1276889,43	1259121.51		SG (Off-Peak) (MW)			
59.897%	68.343%	67.059%	65.022%	59.902%	61.315%	51.449%	60.025%	46.259%	57,975%		69.485%	76,179%	65,566%	66.616%		Peak PLF			
59.716%	66,783%	61.508%	62.998%	59.491%	62.776%	52.027%	61.261%	49.357%	59,508%		72.085%	79.118%	67.879%	69.165%		Off Peak			
59.746%	67.043%	62.433%	63,335%	59.560%	62.532%	51,930%	61.055%	48.841%	59,252%		71.652%	78.628%	67.493%	68.741%		יי מי			

- 1) The availability of Khaperkheda U-1 to 4 is 73.687 % during high demand season for FY 23-24.
- 2) The availability of Khaperkheda U-1 to 4 is 62.801 % during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

_	Π			T		Г	Τ				_					_		
Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		
500.00	500.00	500.00	500.00	500,00	500.00	500.00	500.00	500.00	500.00		500.00	500.00	500.00	500.00		Inst Cap (MW)		· ·
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06		0.06	0.06	0.06	0.06		Norm APC (%)		
470.00	470.00	470.00	470.00	470,00	470,00	470.00	470.00	470.00	470.00		470.00	470.00	470.00	470.00		ExBus Cap (MW)		
1741217.00	209711.00	203075.00	203176.00	180285.00	210510.00	164836.00	194331.00	173409.00	201884.00		568963.00	215212.00	180408.00	173343.00		DC (Peak) (MW)		
8602416.00	1028856.00	994631.00	1014071.00	910488.00	1041269.00	801276.00	964134.00	835657.00	1012034.00		2872301.00	1052229.00	912227.00	907845.00		DC (Off-Peak) (MW)	f	Monthly AVF & PLF Certification Data FY- 2023-24
84.815%	96.162%	87.112%	87.155%	79.914%	90.301%	73.066%	83.361%	74.386%	89,488%	Low Dem	82.239%	92.318%	77.388%	76.836%	High Dem	Peak AVF	Khaperi	& PLF Cert
83.805%	94.356%	85.332%	87.000%	80.717%	89.333%	71.035%	82.716%	71,693%	89.719%	Low Demand Season	83.034%	90.274%	78.262%	80.483%	High Demand Season	Off Peak AVF	Khaperkheda U-S	ification I
83.973%	94.657%	85,629%	87.026%	80.583%	89.495%	71,374%	82.823%	72.142%	89.681%		82.901%	90.614%	78.117%	79.875%		AVF		Data FY- 2
1687084.05	207392.66	199202.14	193122.78	178835.82	206602,50	154071.95	187246.56	158766.23	201843.41		562747.88	212710.87	178118.63	171918.38		Schedule Gen. (Peak) (MW)		023-24
8352615.38	1013184.09	943313.66	907794.00	901156.45	1037478.44	790414.29	950715.52	801696,78	1006862.16		2858419,06	1045991.26	908511.65	903916.15		SG (Off-Peak) (MW)		
82.178%	95.099%	85.450%	82.843%	79.271%	88.625%	68.294%	80.322%	68.105%	89,470%		81,341%	91,245%	76.406%	76.205%		Peak PLF		
81.371%	92.919%	80.929%	77.882%	79.890%	89.008%	70,072%	81.564%	68.780%	89.261%		82.632%	89.738%	77.944%	80.134%		Off Peak PLF		
81,506%	93.282%	81.683%	78,709%	79.787%	88.944%	69.776%	81.357%	68,667%	89.296%		82,417%	89.990%	77.687%	79.480%		PLF		

- 1) The availability of Khaperkheda U-5 is 82.901% during high demand season for FY 23-24.
- 2) The availability of Khaperkheda U-5 is 83.973% during low demand season for FY 23-24.
- Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		4
630.00	630.00	630.00	630.00	630.00	630,00	630.00	630.00	630.00	630.00		630.00	630.00	630.00	630.00		inst Cap (MW)		
0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.11	0.11	0.11	0.11		Norm APC (%)		
562,28	562.28	562,28	562.28	562.28	562.28	562,28	562.28	562.28	562.28		562.28	562.28	562.28	562.28		ExBus Cap (MW)		
1981082.5	205365.00	238126.28	205390.00	209359.00	220167.00	230105.20	223539.00	233011.00	216020.00		686981.26	234933.26	212783.00	239265.00		DC (Peak) (MW)		
9874547	1031393,44	1188662.56	1040654.00	1038531,00	1093427.86	1151930.76	1095773.00	1156909.58	1077265.00		3456809,33	1172028.33	1090228,00	1194553.00		DC (Off-Peak) (MW)		Monthly A
80.662%	78.715%	85.384%	73.646%	77.571%	78.944%	85.258%	80.154%	83.550%	80.039%	Low	83,002%	84.239%	76.297%	88.652%	High	Peak AVF	Z	VF & PLF
80.411%	79.066%	85.243%	74.629%	76.959%	78.413%	85.362%	78,581%	82.966%	79.829%	Low Demand Season	83.531%	84.050%	78.184%	88.521%	Demand Season	Off Peak AVF	Nashik U-3 to 5	Certificat
80.453%	79.007%	85.266%	74.465%	77.061%	78.502%	85,345%	78,843%	83.063%	79.864%	eason	83.443%	84.082%	77,869%	88.543%	eason	AVF	0.5	ion Data
1115214.51	101795.79	146522.89	98452.13	114623.61	145128.20	132188.09	126765.60	116999.02	132739.19		381490,47	105386.16	136110.01	139994,30		Schedule Gen. (Peak) (MW)		Monthly AVF & PLF Certification Data FY- 2023-24
5624417.13	512606.46	629269.17	489287.39	567027.45	750507.78	692438.36	652965.10	627303.79	703011.63		2057600.73	590489.78	731428.30	735682.65		SG (Off-Peak) (MW)		
45.407%	39.018%	52.538%	35.302%	42.470%	52.038%	48.978%	45.454%	41.952%	49.182%		46.092%	37.788%	48.804%	51.870%		Peak PLF		
45.801%	39.296%	45.127%	35.088%	42,019%	53.821%	51,312%	46.826%	44.986%	52.096%		49.720%	42.346%	52,453%	54.517%		Off Peak		
45.736%	39.250%	46.362%	35.124%	42.094%	53.524%	50.923%	46.598%	44.480%	51.610%		49.116%	41.586%	51.845%	54.076%		PLF		

- 1) The availability of Nashik U-3 to 5 is 83.443% during high demand season for FY 23-24.
- 2) The availability of Nashik U-3 to 5 is 80.453% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Feb-24 1920.00		Jan-24 1920.00	Dec-23 1920.00	Nov-23 1920.00	Oct-23 1920.00	Sep-23 1920.00	Aug-23 1920.00	Jul-23 1920.00	Jun-23 1920.00		Average 1920.00	Mar-24 1920.00	May-23 1920.00	Apr-23 1920,00		Month Inst Cap (MW)		000	
	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08		0.08	0.08	0.08	0.08		Norm APC (%)			
	1770.24	1770.24	1770.24	1770.24	1770.24	1770.24	1770.24	1770.24	1770.24		1770.24	1770.24	1770.24	1770.24		ExBus Cap (MW)			
	573795.00	566317.00	505704.00	570288.00	391888.00	260592.00	303321.00	337219.00	436995.00		1970789.95	749139,00	590526.00	631124.95		DC (Peak) (MW)		7	
40045033 73	2875457.14	2944724.02	2615488.95	2819715.00	1946916.10	1291860.95	1496425.05	1668496.57	2186849.95		9768767.07	3659718.07	2957579.00	3151470.00		DC (Off-Peak) (MW)	F	Monthly AVF & PLF Certification Data FY- 2023-24	
K1 024%	69.856%	64.498%	57.595%	67.115%	44.632%	30.668%	34.545%	38,406%	51,428%	Low Dei	75.631%	85.320%	67.255%	74.275%	High De	Peak AVF	Chandra	& PLF Cei	
51.332%	70.014%	67.075%	59.576%	66.368%	44.347%	30,407%	34.086%	38.005%	51.473%	Low Demand Season	74.977%	83.361%	67,368%	74.177%	High Demand Season	Off Peak AVF	Chandrapur U-3 to 7	tification	
51.282%	69.988%	66.645%	59.246%	66.493%	44.394%	30,450%	34.162%	38.072%	51.465%	on	75.086%	83.688%	67.349%	74.193%	SON	AVF	07	Data FY	
3644838.89	462512.82	551940.84	446004.00	542923.71	389635.23	251527.11	296338.67	308656.19	395300.32		1669541.86	522361.52	564573.09	582607,25		Schedule Gen. (Peak) (MW)		- 2023-24	
18166976.12	2335377.53	2434695,44	2277164.29	2720687.66	1940347.02	1284954.31	1482705.10	1601153.81	2089890.97		8948314.85	3021679.24	2895808.77	3030826.83		SG (Off-Peak) (MW)			
47.137%	56.308%	62.861%	50,795%	63.895%	44.376%	29.601%	33.750%	35.153%	46,522%		64.070%	59.492%	64.299%	68.565%		Peak PLF			
46.989%	56.864%	55.458%	51.869%	64.038%	44.197%	30.244%	33.773%	36.471%	49.190%		68.680%	68.828%	65.961%	71,337%		Off Peak PLF			
47.014%	56.771%	56.691%	51.690%	64.014%	44.227%	30.137%	33.769%	36,251%	48.746%		67.912%	67.272%	65.684%	70.875%		البارة عالم			

- 1) The availability of Chandrapur U-3 to 7 is 75.086% during high demand season for FY 23-24.
- 2) The availability of Chandrapur U-3 to 7 is 51.282% during low demand season for FY 23-24,
- Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		
1000.00	1000.00	1000,00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00		1000.00	1000.00	1000,00	1000.00		inst Cap (MW)		3
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	2	0.06	0.06	0.06	0.06		Norm APC (%)		
940.00	940.00	940,00	940.00	940.00	940.00	940.00	940.00	940.00	940.00		940.00	940.00	940.00	940.00		ExBus Cap (MW)		
3545253.00	392518.00	391171.00	389352.00	415666.00	395129.00	342630.00	401800.00	399703.00	417284.00		1201892.00	414428.00	415228.00	372236.00		DC (Peak) (MW)		
17605229,10	1941779.00	1973003.00	1955245.00	2069284.00	1952010.00	1678612.55	1979373.00	1972932.55	2082990.00		5974899,45	2054911.45	2062155.00	1857833.00		DC (Off-Peak) (MW)		Monthly AVF & PLF Certification Data FY- 2023-24
86.345%	89.994%	83.899%	83.509%	92.125%	84.748%	75,938%	86.179%	85.729%	92.483%	Low	86.862%	88.887%	89.059%	82.499%	High I	Peak AVF	Chan	F & PLF C
85.755%	89,040%	84.635%	83.873%	91.724%	83.734%	74,407%	84.908%	84,632%	92.331%	Low Demand Season	86.362%	88.148%	88.459%	82.351%	High Demand Season	Off Peak AVF	Chandrapur U-8 & 9	ertificati
85.854%	89.199%	84.512%	83.812%	91.790%	83.903%	74.662%	85,120%	84.815%	92.356%	ason	86,446%	88.271%	88.559%	82.375%	ason	AVF	9 8 9	on Data F
3336257.90	365637.48	389529.51	343561.00	392435.07	377184.46	312832.11	395385.10	369812.53	389880.65		1138888.58	366060.75	406193.12	366634,70		Schedule Gen. (Peak) (MW)		Y- 2023-24
16767428.37	1834334.02	1800050.33	1674753.62	1989588.75	1932035,70	1641196.68	1966146.80	1903179.95	2026142.54		5854081.71	1968228.12	2044390.57	1841463.02		SG (Off-Peak) (MW)		
81.255%	83.831%	83.547%	73.688%	86.976%	80.899%	69.333%	84.803%	79.318%	86.410%		82.309%	78.513%	87.121%	81,258%		Peak PLF		
81.674%	84.113%	77.216%	71.841%	88.191%	82.877%	72.748%	84.341%	81.639%	89,811%		84.616%	84.430%	87.697%	81.625%		Off Peak		
81.604%	84.066%	78.271%	72.149%	87.988%	82.548%	72.179%	84.418%	81.253%	89.244%		84.232%	83.444%	87.601%	81.564%		Ę		

- 1) The availability of Chandrapur U-8 & 9 is 86.446% during high demand season for FY 23-24.
- 2) The availability of Chandrapur U-8 & 9 is 85.854% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Wonth		38
500.00	500.00	500.00	500.00	500.00	500.00	500,00	500.00	500.00	500.00		500.00	500.00	500.00	500.00		inst Cap (MW)		
0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		0.09	0.09	0.09	0.09		Norm APC (%)	-	
453.50	453.50	453,50	453,50	453.50	453.50	453.50	453.50	453.50	453.50		453.50	453.50	453.50	453.50		ExBus Cap (MW)		
1630940.8	202257.50	206949.75	189120.50	197818.00	190376.00	167076.00	168039.00	148836.00	160468.00		576505.50	217497.50	182936.00	176072.00		DC (Peak) (MW)		2
8103892.75	1004052.75	1021423.00	928556.50	980572.00	945468.00	827152.00	834031.00	745365,00	817272.50		2886343.50	1070498.00	938985.00	876860.50		DC (Off-Peak) (MW)	f	Monthly AVF & PLF Certification Data FY- 2023-24
82.334%	96.119%	92.004%	84.077%	90.876%	84.636%	76.753%	74.705%	66,168%	73.717%	Low D	86.361%	96.693%	81.328%	80.886%	High D	Peak AVF	Pa	& PLF C
81.821%	95.431%	90.819%	82.562%	90,093%	84.066%	75.997%	74.157%	66.274%	75.089%	Low Demand Season	86.475%	95.182%	83.489%	80.564%	High Demand Season	Off Peak AVF	Paras U-3 & 4	ertificatio
81.906%	95.546%	91.016%	82.814%	90.223%	84.161%	76.123%	74.249%	66.256%	74.861%	nosi	86,456%	95.434%	83.129%	80.618%	ROP	AVF		n Data F
1572121.69	198806.18	204207.64	185216.79	195825.18	184960.38	152348.61	160463.42	136235.10	154058,40		548807.43	196145.64	177622.50	175039.29		Schedule Gen. (Peak) (MW)		r- 2023-24
7966685.51	981338.09	1006023.98	926509.27	977560.04	938446.48	801170.67	824164.24	714514.90	796957.84		2846372.57	1040655.88	930849.07	874867.61		SG (Off-Peak)		
79.364%	94.479%	90.785%	82.342%	89.960%	82.228%	69.987%	71.337%	60.566%	70.773%		82.212%	87.201%	78.966%	80.411%		Peak PLF		
80.435%	93.272%	89.450%	82.380%	89.816%	83.441%	73.610%	73,280%	63.531%	73.223%		85.278%	92.529%	82.766%	80.381%		Off Peak PLF		
80.257%	93.474%	89.672%	82.374%	89,840%	83,239%	73.006%	72.956%	63.036%	72.815%		84.767%	91.641%	82.132%	80.386%		PLF		

- 1) The availability of Paras U-3 & 4 is 86.456% during high demand season for FY 23-24.
- 2) The availability of Paras U-3 & 4 is 81.906% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		39
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00		500.00	500.00	500.00	500.00		Inst Cap (MW)		
0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		0.09	0.09	0.09	0.09		Norm APC (%)		
453.50	453.50	453.50	453.50	453.50	453.50	453.50	453.50	453,50	453.50		453.50	453.50	453.50	453.50		ExBus Cap (MW)		
1781966.27	204657.50	206321.32	207743.52	194314.50	191266.59	173951.41	201596.48	207900,45	194214.50		580721.25	209205.25	160097.75	211418.25		DC (Peak) (MW)		3
8951972.07	1025833,46	1045229.50	1090164.51	979872.94	936726.14	873768.10	990995.28	1031418.39	977963.75		2895631.35	1035125.33	808959.30	1051546.72		DC (Off-Peak) (MW)	f	Monthly AVF & PLF Certification Data FY- 2023-24
89,958%	97.260%	91.724%	92.357%	89.266%	85.032%	79.912%	89.624%	92.426%	89.220%	Low De	86.993%	93.007%	71,175%	97.123%	High De	Peak AVF	Par	& PLF Ce
90.383%	97.502%	92.936%	96.931%	90,029%	83.288%	80.280%	88.114%	91.708%	89.853%	Low Demand Season	86,754%	92.037%	71.928%	96.614%	High Demand Season	Off Peak AVF	Parli U-6 & 7	rtification
90.313%	97.461%	92.734%	96,169%	89.902%	83.579%	80.219%	88.365%	91.828%	89.748%	son	86.794%	92.199%	71.802%	96.699%	son	AVF		n Data FY
1162054,70	134159.32	187075.30	97768.40	146638.34	158804.74	134412.38	124989.73	52634.61	125571.89		408706.52	120035.73	123830.31	164840.48		Schedule Gen. (Peak) (MW)		- 2023-24
5985076.85	673866.81	731739.32	468632.03	760040.99	871339,49	741895.04	680392.19	296043.21	761127.77		2373881.94	700487.94	732045.49	941348.52		SG (Off-Peak) (MW)		
58.663%	63,757%	83.168%	43,465%	67.364%	70.600%	61.748%	55.567%	23,400%	57.686%		61.225%	53.364%	55.051%	75.726%		Peak PLF		
60.428%	64.048%	65.062%	41.668%	69.831%	77.474%	68.164%	60.497%	26.322%	69.931%		71.122%	62.283%	65.089%	86.489%		Off Peak PLF		
60.134%	64.000%	68.080%	41.968%	69.420%	76.329%	67.094%	59.675%	25,835%	67.890%		69.472%	60.797%	63.416%	84.695%		PLF		

- 1) The availability of Parli U-6 & 7 is 86,794% during high demand season for FY 23-24.
- 2) The availability of Parli U-6 & 7 is 90.313% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		F
250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00		250.00	250.00	250.00	250.00		inst Cap (MW)		
0.09	0,09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		0.09	0.09	0.09	0.09		Norm APC (%)		
228,75	228.75	228.75	228.75	228,75	228.75	228.75	228.75	228.75	228.75		228.75	228.75	228.75	228.75		ExBus Cap (MW)		
726899.0	103462.25	91614.25	110766.00	104141.50	85348.00	72424.00	83169.00	31325.00	44649.00		259623,25	94646.25	88578.00	76399.00		DC (Peak) (MW)		~
3650677.6	522840.24	476326.88	554739.80	523044.24	418380.73	369250.00	404194.22	160769,50	221132.00		1318660.71	480808.99	450002.48	387849.24		DC (Off-Peak)	f	Monthly AVF
72.750%	97.477%	80.746%	97.626%	94.847%	75,223%	65.960%	73.302%	27.609%	40.664%	Low De	77.104%	83.418%	78.070%	69.580%	High D	Peak AVF		20
73.073%	98.519%	83.964%	97.786%	95,272%	73.749%	67.259%	71.249%	28.339%	40.279%	Low Demand Season	78.324%	84.754%	79.324%	70.646%	High Demand Season	Off Peak AVF	Parli U-8	rtificatio
73,019%	98.345%	83,428%	97.759%	95.201%	73.995%	67.042%	71.591%	28.218%	40.343%	son	78,120%	84.531%	79.115%	70.469%	nos	AVF		n Data FY
537984.25	66471.35	82053.98	48351.39	83897.25	74628.81	64119.01	57350.76	22649.00	38462.70		195584.34	53787.11	75901.73	65895.50		Schedute Gen. (Peak) (MW)		PLF Certification Data FY- 2023-24
2695699.46	341064.26	325705.28	228706.60	424368.07	401074.71	339076.81	305447.74	119646.84	210609.15		1115384.03	329295.35	420342.47	365746.22		SG (Off-Peak) (MW)		
53,843%	62,626%	72.320%	42.615%	76.409%	65.775%	58.396%	50.547%	19.962%	35.030%		58.085%	47.406%	66.897%	60.014%		Peak PLF		
53,958%	64,267%	57.413%	40.315%	77.298%	70.699%	61.763%	53.842%	21.091%	38.362%		66,250%	58,046%	74.095%	66.620%		Off Peak		
53.939%	63.993%	59.898%	40.698%	77.150%	69,878%	61.202%	53.293%	20.902%	37.807%		64.889%	56.273%	72.896%	65,519%		4.7d		

- 1) The availability of Parli U-8 is 78.120% during high demand season for FY 23-24.
- 2) The availability of Parli U-8 is 73.019% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

#				Mor	Monthly AVF & PLF Certification Data FY- 2023-24 Koradi U-6 & 7	PLF Certification Koradi U-6 & 7	ication D	ata FY- 20		3-24	<u> </u>	<u> </u>	<u> </u>
Month	Inst Cap (MW)	Norm APC (%)	ExBus Cap (MW)	DC (Peak) (MW)	DC (Off-Peak) (MW)	Peak AVF	Off Peak AVF	AVF	711	Schedule Gen. (Peak) (MW)		Schedule Gen. (Peak) (MW)	Schedule Gen. (Peak) (MW) (MW)
						High Demand Season	nd Season		П				
Apr-23	210.00	0.11	187.30	72394.00	354543.28	80.524%	78.872%	79.	79.147%	147% 72394.00		72394.00	72394.00 354543.28
May-23	210.00	0.11	187,30	69513.00	352390.00	74.825%	75,864%	75	75,691%	.691% 68808.06		68808.06	68808.06 351951.24
Mar-24	210.00	0.11	187.30	71169.00	352394.00	76.608%	75.865%	7	75.989%	5.989% 69798.66		69798.66	69798.66 350217.03
Average	210.00	0.11	187.30	213076.00	1059327.28	77.284%	76.845%		76,918%	76,918% 211000.72		211000.72	211000.72 1056711.55
						Low Demand Season	nd Season						
Jun-23	210.00	0.11	187.30	77419.00	387788.00	86.113%	86.268%		86.242%	86.242% 77156.40		77156.40	77156.40 385775.07
Jul-23	210.00	0.11	187.30	63938.00	326289.20	68,824%	70.245%	70	70.008%	.008% 62824,16		62824,16	62824,16 323933.45 6
Aug-23	210.00	0.11	187.30	57445.00	294965.00	61.835%	63,501%	63	63.224%	224% 56834.32	-	56834.32	56834.32 292529,15
Sep-23	210.00	0.11	187.30	59505.00	296251.00	66.188%	65.904%	65	65.951%	951% 55235.00	-	55235.00	55235.00 292395.90 6
Oct-23	210.00	0.11	187.30	75797.00	378393.00	81.590%	81.462%	81	81.483%	483% 71227.60		71227.60	71227.60 375222.30
Nov-23	210.00	0.11	187.30	71826.00	361631.00	79.892%	80.449%	80	80.356%	356% 70315.49	-	70315.49	70315.49 358355.90
Dec-23	210.00	0.11	187.30	56323,00	274215.90	60.627%	59,034%	59	59.300%	300% 54403.60	-	54403.60	54403.60 263888.53
Jan-24	210.00	0.11	187.30	80380.00	400714.90	86.523%	86.268%	86	86,310%	310% 80639.00		80639.00	80639.00 394034.33
Feb-24	210.00	0.11	187.30	74432.00	373326.00	85,646%	85,914%	85	85,869%	,869% 74652.00	-	74652.00	74652.00 372586.77
Average	210.77	0.11	187.99	617065.00	3093574,00	74.875%	75,075%	75.	75.042%	042% 603287.57	_	603287.57	603287.57 3058721.40

- 1) The availability of Koradi U-6 & 7 is 76.918% during high demand season for FY 23-24.
- 2) The availability of Koradi U-6 & 7 is 75.042% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month			
1980.00	1980.00	1980.00	1980.00	1980.00	1980,00	1980.00	1980.00	1980.00	1980.00		1980.00	1980.00	1980.00	1980.00		Inst Cap (MW)		¥	
0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06		0.06	0.06	0.06	0.06		Norm APC (%)			
1861.20	1861.20	1861.20	1861.20	1861,20	1861.20	1861.20	1861.20	1861.20	1861.20		1861.20	1861.20	1861.20	1861.20		ExBus Cap (MW)			
5661748.70	759538.00	779755.40	755095.00	695430,20	650876.20	453923,90	432195.00	507255.00	627680.00		1820252.80	660802.80	620465.00	538985.00		DC (Peak) (MW)			
28129187.07	3697210.57	3825953.68	3808754.74	3480062.94	3251839.40	2265209.63	2125485.00	2527582.11	3147089.00		9004265.23	3214100.23	3097060.00	2693105.00		DC (Off-Peak) (MW)	P	Monthly AVF & PLF	
69.643%	87.951%	84.466%	81.795%	77.843%	70.506%	50.810%	46.817%	54.948%	70.259%	Low De	66.440%	71.581%	67.211%	60.331%	High De	Peak AVF	Kora	& PLF Ce	
69.201%	85.624%	82.889%	82.516%	77.908%	70.451%	50.711%	46.048%	54.760%	70.454%	Low Demand Season	65.732%	69.633%	67.097%	60,291%	High Demand Season	Off Peak AVF	Koradi U-8 to 10	rtificatio	
69.274%	86.011%	83.152%	82.396%	77.897%	70.460%	50.728%	46.176%	54.791%	70.421%	nos	65.850%	69.958%	67.116%	60.297%	nos	AVF	0	n Data Fy	
5474272.46	752029.11	774212.56	719429.99	664068.87	632954.26	420670.78	419523.77	475981.29	615401.83		1799735.14	642852.50	618018.28	538864.36		Schedule Gen. (Peak) (MW)		Certification Data FY- 2023-24	
27470993.98	3683657,10	3732721.43	3504386.63	3406841.28	3231194.59	2221621,03	2106844.79	2458005.12	3125722.00		8963314.82	3179742.51	3091713.69	2691858.62		SG (Off-Peak) (MW)			
67.337%	87.081%	83.866%	77.932%	74.333%	68.564%	47.088%	45.445%	51.560%	68.885%		65,691%	69.636%	66.946%	60.318%		Peak PLF			
67.582%	85.310%	80.869%	75.922%	76.269%	70.003%	49.735%	45.644%	53.252%	69.976%		65,433%	68.889%	66.981%	60.263%		Off Peak PLF			
67.541%	85.605%	81.368%	76.257%	75.946%	69.763%	49.294%	45.611%	52.970%	69.794%		65.476%	69.013%	66.976%	60.272%		PL	-		

- 1) The availability of Koradi U-8 to 10 is 65.850% during high demand season for FY 23-24.
- 2) The availability of Koradi U-8 to 10 is 69.274% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Average	Feb-24	Jan-24	Dec-23	Nov-23	Oct-23	Sep-23	Aug-23	Jul-23	Jun-23		Average	Mar-24	May-23	Apr-23		Month		y
672.00	672.00	672.00	672.00	672.00	672.00	672.00	672.00	672.00	672.00		672.00	672.00	672.00	672.00		Inst Cap (MW)		
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03		0.03	0.03	0.03	0.03		Norm APC (%)		
651.17	651.17	651.17	651,17	651.17	651,17	651.17	651.17	651,17	651.17		651.17	651.17	651.17	651.17		ExBus Cap (MW)	-	
957669,0	125608.00	135326.00	131452.00	109691.00	104657.00	101197.00	85400.00	78615.00	85723.00		336348.00	131116.00	98145.00	107087.00		DC (Peak) (MW)		2
4881417.0	645022.00	695474.00	655190.00	557672.00	530248.00	513829.00	427335.00	399227.00	457420.00		1769750.00	690507.00	536508.00	542735.00		DC (Off-Peak)	P	Monthly AVF & PLF Certification Data FY- 2023-24
33,670%	41.573%	41.899%	40.700%	35.094%	32.404%	32.377%	26.441%	24,341%	27.426%	Low D	35.090%	40.596%	30.387%	34.261%	High D	Peak AVF		& PLF Co
34.324%	42.697%	43.066%	40.572%	35.684%	32.835%	32.879%	26.462%	24.722%	29.269%	Low Demand Season	36.927%	42.759%	33.222%	34.728%	High Demand Season	Off Peak AVF	Uran	ertificatio
34.215%	42.509%	42.872%	40.593%	35.586%	32.763%	32,795%	26.459%	24.658%	28.962%	SON	36,621%	42.398%	32.750%	34.650%	nos	AVF		n Data F
827668.00	126220.00	137473.00	130525.00	109140.00	104988.00	101745.00	44261.00	0.00	73316.00	8	292695.00	131116.00	98145.00	63434.00		Schedule Gen. (Peak) (MW)		- 2023-24
4221340.00	644410.00	693327.00	656057.00	558223.00	529917.00	513281.00	246241.00	7077.00	372807.00		1555709.00	690507.00	536508.00	328694.00		SG (Off-Peak) (MW)		
29.099%	41.775%	42.564%	40.413%	34.918%	32.506%	32.552%	13.704%	0.000%	23,457%		30.536%	40.596%	30.387%	20.295%		Peak PLF		
29.683%	42.656%	42.933%	40.625%	35.719%	32.814%	32.844%	15.248%	0.438%	23.855%		32.461%	42.759%	33.222%	21.032%		Off Peak PLF		
29,586%	42.509%	42.872%	40.590%	35.586%	32.763%	32.795%	14.991%	0.365%	23.789%		32.140%	42.398%	32.750%	20.909%		만		

- 1) The availability of Uran plant is 36.621% during high demand season for FY 23-24.
- 2) The availability of Uran plant is 34.215% during low demand season for FY 23-24.
- 3) Certification is based on data submitted by MSPGCL.

Monthly AVF & PLF Certification Data FY- 2023-24

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	HIGH DEMAND SEASON	
STATION NAME	Peak AVF	Off Peak AVF
BHUSAWAL (Unit 3)	78.911%	79.519%
BHUSAWAL (Unit 4-5)	79.587%	77.730%
KHAPARKHEDA (Unit 1-4)	73.646%	73.695%
KHAPARKHEDA U # 5	82.239%	83.034%
NASHIK (Unit 3-5)	83.002%	83.531%
CHANDRAPUR (Unit 3-7)	75.631%	74.977%
CHANDRAPUR (Unit- 8 & 9)	86.862%	86.362%
PARAS (Unit 3-4)	86.361%	86.475%
PARALI (UNIT 6-7)	86.993%	86.754%
PARALI (UNIT 8)	77.104%	78.324%
KORADI (Unit 6-7)	77.284%	76.845%
KORADI (Unit- 8, 9 & 10)	66.440%	65.732%
GTPS URAN (Unit 5 -10)	35.090%	36.927%

LOW DEMAND SEASON			
Peak AVF	Off Peak AVF		
56.247%	56.258%		
82.611%	82.079%		
63.076%	62.746%		
84.815%	83.805%		
80.662%	80.411%		
51.034%	51.332%		
86.345%	85.755%		
82.334%	81.821%		
89.958%	90.383%		
72.750%	73.073%		
74.875%	75.075%		
69.643%	69.201%		
33.670%	34.324%		

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PLF

	PLF	
	HIGH DEMAN	D SEASON
STATION NAME	Peak PLF	Off Peak PLF
BHUSAWAL (Unit 3)	63.739%	70.130%
BHUSAWAL (Unit 4-5)	71.343%	74.318%
KHAPARKHEDA (Unit 1-4)	69.485%	72.085%
KHAPARKHEDA U # 5	81.341%	82.632%
NASHIK (Unit 3-5)	46.092%	49.720%
CHANDRAPUR (Unit 3-7)	64.070%	68.680%
CHANDRAPUR (Unit- 8 & 9)	82.309%	84.616%
PARAS (Unit 3-4)	82.212%	85.278%
PARALI (UNIT 6-7)	61.225%	71.122%
PARALI (UNIT 8)	58.085%	66.250%
KORADI (Unit 6-7)	76.532%	76.655%
KORADI (Unit- 8, 9 & 10)	65.691%	65.433%
GTPS URAN (Unit 5 -10)	30.536%	32.461%

PLF			
LOW DEMANE	SEASON !		
Peak PLF	Off Peak PLF		
50.183%	49.990%		
74.918%	74.390%		
59.897%	59.716%		
82.178%	81.371%		
45.407%	45.801%		
47.137%	46.989%		
81.255%	81.674%		
79.364%	80.435%		
58.663%	60.428%		
53.843%	53.958%		
73.203%	74.229%		
67.337%	67.582%		
29.099%	29.683%		





MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD. CIN NO. U40109MH2005SGC153646

Maharashtra State Load Dispatch Center

Tele: 91-022-27601762 (P) 91-022-27601931 (O) Extn.1003

Email: cesldc@mahasldc.in website: www.mahasldc.in

Office of The Chief Engineer Maharashtra State Load Dispatch Center Thane-Belapur Road, P.O. Airoli

Navi Mumbai Pin - 400 708.





No. CELD/Tech-SO/

No 9 2 3 6 7

Date:

1.8 NOV 2024

To.

The Chief Engineer, Regulatory & Commercial Dept., 3rd Floor, Prakashgarh MSPGCL, Bandra (E), Mumbai.

Sub: Certification for Mean Time Between Failure (MTBF) of MSPGCL Generating stations for FY 2023-24.

Ref: MSPGCL Letter No. -RCD22/18E/LT0955 dated 15th Jul 2024.

In context with the above subject and reference, please find enclosed herewith the Certificate for Mean Time Between Failure (MTBF) of MSPGCL Generating Stations for FY 2023-24.

Certificate is issued based on data submitted by MSPGCL and verified as per MSLDC's Daily System Report (DSR) outage records.

Thanking You,

Encl: Annexure-1 to 9

Yours faithfully,

(Girish Pantoji) Chief Engineer (I/C), MSLDC, Airoli.

Tele: 91-22-27601765,27601766

Fax: 91-22-27601769

website: http://www.mahasldc.in Email: cesldc@mahasldc.in, scheduling@mahasldc.in

Mean Time Between Failure (MTBF) Computation for Bhusawal U-3 to 5

	FY 202	23-24		
	Bhusawa	l U-3 to 5		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.3	Total hrs in FY 2023-24	8784.00		
	Forced Outages	1174.07	18	
	Effective Running of unit	7609.93		17.62
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.4	Total hrs in FY 2023-24	8784.00		
	Forced Outages	899.22	20	
	Effective Running of unit	7884.78		16.43
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.5	Total hrs in FY 2023-24	8784.00		
	Forced Outages	410.23	14	
	Effective Running of unit	8373.77		24.92

Mean Time Between Failure (MTBF) Computation for Chandrapur U-3 to 9

	FY 20	23-24		
	Chandrap	ur U-3 to 9		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.3	Total hrs in FY 2023-24	8784.00		7.700.0359
	Forced Outages	312.75	8	
	Effective Running of unit	8471.25		44.1
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.4	Total hrs in FY 2023-24	8784.00		
	Forced Outages	1179.62	18	
	Effective Running of unit	7604.38		17.6
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.5	Total hrs in FY 2023-24	8784.00		
	Forced Outages	676.72	12	
	Effective Running of unit	8107.28		28.1
A CONTRACTOR OF THE CONTRACTOR	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.6	Total hrs in FY 2023-24	8784.00		
	Forced Outages	897.87	19	
	Effective Running of unit	7886.13		17.2
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.7	Total hrs in FY 2023-24	8784.00		
	Forced Outages	439.68	6	
	Effective Running of unit	8344.32		57.9
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.8	Total hrs in FY 2023-24	8784.00		
	Forced Outages	116.90	3	
	Effective Running of unit	8667.10		120.3
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.9	Total hrs in FY 2023-24	8784.00		
	Forced Outages	546.17	10	
	Effective Running of unit	8237.83		34.3

Annexure-3

Mean Time Between Failure (MTBF) Computation for Khaperkheda U-1 to 5

**************************************	FY	2023-24			
	Khaperi	kheda U-1 to 5			
	Particulars	Hrs	No. of Outages	MTBF	(Days)
Unit No.1	Total hrs in FY 2023-24	8784.00			
	Forced Outages	301.65	13		
	Effective Running of unit	8482.35			27.19
	Particulars	Hrs	No. of Outages	МТВЕ	(Days)
Unit No.2	Total hrs in FY 2023-24	8784.00			
	Forced Outages	210.88	14		
	Effective Running of unit	8573.12			25.52
	Particulars	Hrs	No. of Outages	МТВБ	(Days)
Unit No.3	Total hrs in FY 2023-24	8784.00			
	Forced Outages	370.53	22		
	Effective Running of unit	8413.47			15.93
	Particulars	Hrs	No. of Outages	MTBF	(Days)
Unit No.4	Total hrs in FY 2023-24	8784.00			
	Forced Outages	397.82	12		
	Effective Running of unit	8386.18			29.12
	Particulars	Hrs	No. of Outages	MTBF	(Days)
Unit No.5	Total hrs in FY 2023-24	8784.00			
	Forced Outages	489.33	11		
	Effective Running of unit	8294.67			31.42

Mean Time Between Failure (MTBF) Computation for Koradi U-6 to 10

	FY 202	23-24		
	Koradi U	-6 to 10		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.6	Total hrs in FY 2023-24	8784.00		
	Forced Outages	461.62	11	
	Effective Running of unit	8322.38		31.52
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.7	Total hrs in FY 2023-24	8784.00		
	Forced Outages	Retir	ed (04/08/2021 At	00.00)
	Effective Running of unit	,		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.8	Total hrs in FY 2023-24	8784.00		
	Forced Outages	1239.18	14	
	Effective Running of unit	7544.82		22.4
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.9	Total hrs in FY 2023-24	8784.00		
	Forced Outages	1080.88	12	
	Effective Running of unit	7703.12		26.7
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.10	Total hrs in FY 2023-24	8784.00		
	Forced Outages	586.57	10	
	Effective Running of unit	8197.43		34.1

Annexure-5

Mean Time Between Failure (MTBF) Computation for Nashik U-3 to 5

	FY 20	23-24					
	Nashik U-3 to 5						
	Particulars	Hrs	No. of Outages	MTBF (Days)			
Unit No.3	Total hrs in FY 2023-24	8784.00					
	Forced Outages	3108.65	24				
	Effective Running of unit	5675.35		9.85			
	Particulars	Hrs	No. of Outages	MTBF (Days)			
Unit No.4	Total hrs in FY 2023-24	8784.00					
	Forced Outages	1046.32	11				
	Effective Running of unit	7737.68		29.31			
	Particulars	Hrs	No. of Outages	MTBF (Days)			
Unit No.5	Total hrs in FY 2023-24	8784.00					
	Forced Outages	1644.15	15				
	Effective Running of unit	7139.85		19.83			

(Girish Pantoji)

Superintending Engineer (Op), MSLDC, Airoli.

Mean Time Between Failure (MTBF) Computation for Paras U-3 & 4

	FY 202	3-24		
	Paras U	-3 & 4	***	
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.3	Total hrs in FY 2023-24	8784.00		
	Forced Outages	347.95	7	
	Effective Running of unit	8436.05		50.21
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.4	Total hrs in FY 2023-24	8784.00		
J	Forced Outages	182.35	3	
	Effective Running of unit	8601.65		119.47

Mean Time Between Failure (MTBF) Computation for Parli U-6 to 8 for FY 2022-23

	FY 202	23-24		
	Parli U-	6 to 8		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.6	Total hrs in FY 2023-24	8784.00		
(A.2012)	Forced Outages	313.60	15	
	Effective Running of unit	8470.40		23.53
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.7	Total hrs in FY 2023-24	8784.00		
	Forced Outages	412.52	16	
	Effective Running of unit	8371.48		21.80
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.8	Total hrs in FY 2023-24	8784.00		
	Forced Outages	291.57	10	
	Effective Running of unit	8492.43		35.39

Mean Time Between Failure (MTBF) Computation for GTPS, Uran

	FY 202	23-24		
77	GTPS,	Uran		
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.5	Total hrs in FY 2023-24	8784.00		
	Forced Outages	Unit is und	ler shutdown since 1	12/11/2022
	Effective Running of unit			
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.6	Total hrs in FY 2023-24	8784.00		
	Forced Outages	8.55	1	
	Effective Running of unit	8775.45		365.64
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.7	Total hrs in FY 2023-24	8784.00		
	Forced Outages	702.53	14	
	Effective Running of unit	8081.47		24.0
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.8	Total hrs in FY 2023-24	8784.00		
	Forced Outages	1308.87	6	
	Effective Running of unit	7475.13		51.9
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.A0	Total hrs in FY 2023-24	8784.00		
	Forced Outages	Unit is un	der shutdown since	07/09/2022
	Effective Running of unit			
	Particulars	Hrs	No. of Outages	MTBF (Days)
Unit No.BO	Total hrs in FY 2023-24	8784.00		
SE MERON SETTO TESTO VENEZOS.	Forced Outages	1654.13	8	
	Effective Running of unit	7129.87		37.1

Mean Time Between Failure (MTBF) Computation of MSPGCL stations for FY 23-24

Sr. No.	Total hrs in FY 23-24 (366*24)	Unit Name	outage hrs	Total Effective running hrs	No. of forced outages	MTBF in days Σ (Dti-Uti)/N
1	8784	BHUSAWAL_U3	1174.07	7609.93	18	17.62
2	8784	BHUSAWAL_U4	899.22	7884.78	20	16.43
3	8784	BHUSAWAL_U5	410.23	8373.77	14	24.92
4	8784	CHANDRAPUR_U3	312.75	8471.25	8	44.12
5	8784	CHANDRAPUR_U4	1179.62	7604.38	18	17.60
6	8784	CHANDRAPUR_U5	676.72	8107.28	12	28.15
7	8784	CHANDRAPUR_U6	897.87	7886.13	19	17.29
8	8784	CHANDRAPUR_U7	439.68	8344.32	6	57.95
9	8784	CHANDRAPUR_U8	116.90	8667.10	3	120.38
10	8784	CHANDRAPUR_U9	546.17	8237.83	10	34.32
11	8784	KHAPERKHEDA_U1	301.65	8482.35	13	27.19
12	8784	KHAPERKHEDA_U2	210.88	8573.12	14	25.52
13	8784	KHAPERKHEDA_U3	370.53	8413.47	22	15.93
14	8784	KHAPERKHEDA_U4	397.82	8386.18	12	29.12
15	8784	KHAPERKHEDA_U5	489.33	8294.67	11	31.42
16	8784	KORADI_U6	461.62	8322.38	11	31.52
17	8784	KORADI_U7	Retired (04/08/2021 At 00.00)			
18	8784	KORADI_U8	1239.18	7544.82	14	22.45
19	8784	KORADI_U9	1080.88	7703.12	12	26.75
20	8784	KORADI_U10	586.57	8197.43	10	34.16
21	8784	NASHIK_U3	3108.65	5675.35	24	9.85
22	8784	NASHIK_U4	1046.32	7737.68	11	29.31
23	8784	NASHIK_U5	1644.15	7139.85	15	19.83
24	8784	PARAS_U3	347.95	8436.05	7	50.21
25	8784	PARAS_U4	182.35	8601.65	3	119.47
26	8784	PARLI_U6	313.60	8470.40	15	23.53
27	8784	PARLI_U7	412.52	8371.48	16	21.80
28	8784	PARLI_U8	291.57	8492.43	10	35.39
29	8784	URAN_U5	Unit is under shutdown since 12/11/2022			
30	8784	URAN_U6	8.55	8775.45	1	365.64
31	8784	URAN_U7	702.53	8081.47	14	24.05
32	8784	URAN_U8	1308.87	7475.13	6	51.91
33	8784	URAN_UA0	Unit is under shutdown since 07/09/2022			
34	8784	URAN_UB0	1654.13	7129.87	8	37.13

Annexure 23

Pay revision Circulars of MSPGCL - Circulars No. 546, 548 & 549 Dtd. 09.08.2024.





Estrella Batteries Expansion Compound Building, Ground Floor, Labour Camp, Dharavi Road, Matunga, Mumbai - 400 019. Telephone No. 022-24029053

Fax: 022-24029013 Website: www.mahagenco.in Email ID- eohr2@mahagenco.in

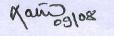
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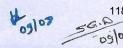
Sub:- Revision of existing pay scales prescribed for the various categories of posts whose minimum of existing pay scale is upto Rs. 68,780/- per month and also prescribing the method of fixation of pay in the revised pay scales, payment of arrears, etc.

The revision of existing pay scales for various categories was due w.e.f. 01.04.2023 and the issue regarding revision of pay scales for the employees upto the rank of Addl. Executive Engineer whose minimum pay scale is Rs. 68,780/- and below was under consideration.

- 2. Now, the Board of Directors under its resolution No. MSPGCL/CS/Cir Resln-112 Dtd 07.08.2024 has taken following decision in the matter of revision of pay scales, method of fixation of pay, payment of arrears in the respect of Categories of posts, the minimum of whose existing pay scale is upto and including Rs. 68,780/- per month.
- 3. The existing pay scales indicated in Column No. 3 of the table setout below: (In force under Administrative Circular No.449 dated 05.10.2019) are revised, with retrospective effect from 01.04.2023, as specified in column No. 4 respectively.

S.N.	Category of Posts	Existing Pay Scales	Revised Pay Scales
1	2	3	4
1.	Helper/Peon & Equivalent	25880-505-28405-610- 34505-710-50835	30800-605-33825-730- 41125-845-60560
2.	Daftary & Equivalent	27130-610-30180-710- 37280-955-61155	32285-730-35935-845- 44385-1140-72885
3.	Technician-III / LDC & Equivalent	29035-710-32585-955- 42135-1060-72875	34555-845-38780-1140- 50180-1265-86865
4.	Technician-II/Driver & Equivalent	29935-955-34710-1060- 45310-1160-82430	35625-1140-41325-1265- 53975-1385-98295
5.	Technician-I/UDC & Equivalent	30810-1060-36110-1160- 47710-1265-88190	36665-1265-42990-1385- 56840-1510-105160
6.	Asst. Acct./Head Clerk & Equivalent	33980-1265-40305-1650- 56805-1740-100305	40440-1510-47990-1965- 67640-2075-119515
7.	Asst. Security Officer & Equivalent	36415-1675-44790-1740- 62190-1830-102450	43335-1995-53310-2075- 74060-2180-122020
8.	Jr.Engineer/Jr.Officer (Sec) /J.F.O/CM-II/Jr.Chemist & Equivalent	37340-1675-45715-1740- 63115-1830-103375	44435-1995-54410-2075- 75160-2180-123120
9.	LCF/Head Foreman & Equivalent	42325-1740-51025-1830- 69325-2060-108465	50370-2075-60745-2180- 82545-2455-129190
10.	Dy. Manager (HR/F&A)/ Hospital Administrator & Equivalent	45800-2165-56625-2280- 115905	54505-2580-67405-2715- 137995
11.	Asst. Engineer/CM-I/A.F.O/ Asstt.Programmer/Asst. Chemist & Equivalent	49210-2165-60035-2280- 119315	58560-2580-71460-2715- 142050





S.N.	Category of Posts	Existing Pay Scales	Revised Pay Scales	
1	2	3	4	
12.	Asst. Welfare Officer/ Asst. Medical Officer & Equivalent	55015-2165-65840-2280- 120560	65470-2580-78370-2715- 143530	
13.	Dy.Exe. Engineer/ Dy Executive Chemist & Equivalent	61830-2515-74405-2730- 139925	73580-2995-88555-3250- 166555	
14.	Manager (HR/F&A) /Programmer & Equivalent	63770-2515-76345-2730- 141865	75890-2995-90865-3250- 168865	
15.	Sr. Manager (HR)/Medical Officer/Welfare Officer & Equivalent	68150-2730-81800-2900- 154300	81100-3250-97350-3455- 183725	
16.	Addl.Exe.Engineer/Fire Officer Dy Sr. Mgr. (Sec)/Addl Exe.Chemist & Equivalent	68780-2730-82430-2900- 154930	81850-3250-98100-3455- 184475	

Class-IV Technical employees who are getting Rs.500/- as ad-hoc pay will be entitled for payment of Rs. 1000/- per month as ad-hoc pay in lieu of Rs 500/- per month.

Note:-The term 'Equivalent' in the above table implies all officers whose existing pay – scales are the same.

- 4. The details regarding method of fixation of pay in the revised pay scales, payments of arrears, etc. are embodied in the Annexure 'A' & Annexure 'C-I' to 'C-XVI' and option Form as per Annexure 'B' enclosed to this Administrative Circular.
- 5. Further, the payment of arrears due to revision of pay scales and allowances accruing w.e.f. 01.04.2023 shall be paid in 3 (Three) installments in the following manner:-
- a) **First Installment:-** 1st installments of arrears period from April-2023 to August -2023 shall be paid to the employees in the month of October- 2024.
- b) Second & Third Installment:- 2nd installments of arrears from September -2023 to January-2024 shall be paid to the employees in the month of March-2025 and 3rd installments of arrears from February-2024 to July-2024 shall be paid to the employees in the month of September-2025, depending on cash flow position.
- 6. The Board of Directors also delegated powers to the Hon'ble Chairman & Managing Director (MSPGCL) in consultation with Director (Finance), Executive Director (HR) to interpret any of the relating to revision of pay and removal of anomalies.
- 7. All the Concerned Drawing & Disbursing Officers are requested to take immediate steps to fix the pay of the officers in the revised pay scales and effect of the revised pay scales shall be given in the month of August -2024. Further, action to work out arrears and audit scrutiny (before payment) should be taken on immediately, so as to send the requirement of funds to General Manager (F&A) Mahagenco, Prakashgad, Mumbai-400051 for disbursement of arrears.
- 8. All the concerned Officers are also requested to display this Administrative Circular on the Notice Board to enable the officers to exercise the option as stated in Para 'J' of ANNEXURE-'A' of this administrative Circular.
- 9. This Administrative Circular is available on Company's website i.e. www.mahagenco.in

Encl: ANNEXURE-'A'
ANNEXURE - 'B'
ANNEXURE-C-I to C-XVI

(Dr. Dhananjay Sawalkar) Executive Director (HR)

(To Administrative Circular No.546 Dtd.09.08.2024)

A) COVARAGE, SCOPE & APPLICABLITY OF REVISED PAY SCALES & PROVISIONS THEREOF

- i. The revision of pay scales as shown under para 2 of this Administrative Circular and provisions thereof which shall come into force w.e.f. 01.04.2023 shall be applicable to all Technical & Non- Technical employees/Officer working against regular, permanent, temporary & supernumerary posts, the minimum of whose existing pay scales is Rs.68,780/- per month and below. In this revision of pay-scale some of the employees or categories of employees/Officer have been included only for the purpose of granting benefits of revision of pay scales etc. though they are not covered under the definition of 'workman' under Section 2 (S) of the industrial Disputes Act, 1947 and this shall not be construed as an admission or precedent in any other context or cases.
- ii. All employees/officers drawing pay in any of the pay scales, shown in Column No. 3 of the table in Para 3 of this Administrative Circular & who were/are on deputation or on Foreign Service as on 01.04.2023 were/are drawing Company's scales, are also covered.

B) FIXATION OF INITIAL PAY IN THE REVISED PAY SCALES WITH EFFECT FROM 01.04.2024

The initial basic pay of an employees/officer appointed or promoted prior to dtd. 01.04.2023 shall be fixed in the revised pay scale of the post held by him on officiating or permanent or temporary basis or in the revised pay scale corresponding to the higher pay scale or grade allowed to him as personal due, to grant of the benefit under the provisions of the G.O. No. 74 (P) dtd. 30.04.1974 read with Head Office Order No. GAD/E-VII/STF/Gen/A/232/9203, dtd. 27.02.1975 or benefit of de-stagnation measure under the G.O. No. 111 (P) dtd. 13.05.1982 in the following manner:

An amount equivalent to 19% (Nineteen percent) of pre-revised basic Pay, as on 31.03.2023 shall be added to the pre-revised basic pay as on 31.03.2023 and then the basic pay in the revised scale shall be fixed as follows:-

- If the sum total of above is less than that of minimum of revised pay scale, the Basic Pay shall be fixed at the minimum of the revised Pay scale.
- ii. If the sum total is a stage in the revised pay scale, the Basic pay shall be fixed at that stage.
- iii. If the sum total is not a stage in the revised pay scale, the Basic Pay shall be fixed at the next higher stage in the revised pay scale.
- iv. If the sum is more than the maximum of the revised scale, the Basic Pay shall be fixed at the maximum of that pay scale.

V. If an employee draws less pay on 01.04.2023 in the revised pay scale in the promoted post/higher scale due to grant of G.O. 74/111 (P) than the pay he would have drawn on 01.04.2023 in the lower post/scale in the revised pay scale, his pay is to be fixed in the lower post/scale in the revised pay scale in the first instance and thereafter at the next immediate stage in the higher post/pay scale as on 01.04.2023 as per S.R. 29 (a). His/her future increments may be drawn as per normal rules by applying the provisions as per S.R. 32 (b) if such re-fixation of pay is to his/her advantage.

Note: Ready reckoner showing the fitment stages in the revised pay scales has been shown in the Annexure-C-I to C-XVI.

C) FIXATION OF PAY AS ON 01.04.2023 WHEN THE NORMAL DATE OF INCREMENT IS ALSO 01.04.2023

In case of employees/officer whose normal date of increment is also 1st April, 2023, the initial pay shall be fixed in the revised pay scale mentioned in Para (B) above on the basic pay drawn by him in the existing pay scale as on 31.03.2023 & then the increment should be allowed on 1st April, 2023 in the revised pay scale.

D) FIXATION OF PAY OF AN EMPLOYEE/OFFICER APPOINTED OR PROMOTED TO HIGHER POST ON OR AFTER 01.04.2023

In case of departmental employee/officer appointed by way of direct recruitment or promoted to a higher post on or after 01.04.2023, the pay in the revised pay scale should be fixed with reference to the lower post held by him prior to appointment/promotion & then the pay fixed in the revised pay scale of the higher post as provided under normal regulations. This will also be applicable to an employee/Officer, who has been granted the benefit of the next higher pay scale or grade under the provisions of G.O. 74, dtd.30.04.1974 read with Head Office Order No. GAD/STF/Gen/A/232/9203 dtd. 27.02.1975 or of de-stagnation measures under the G.O. No. 111(P) dtd. 13.05.1982.

E) FIXATION OF PAY OF AN EMPLOYEE/OFFICER OFFICIATING IN A HIGHER POST BUT REVERTED THEREAFTER & SUBSEQUENTLY RE-PROMOTED.

In case of an employee/officer officiating in a higher post on 01.04.2023, but reverted thereafter & subsequently re-promoted, if his/her pay on the revised pay scale of the higher post under Regulation No. 29 (a) of MSPGCL Employees' Service Regulations, 2015 works out to less than the pay in the revised pay scale of the higher post immediately prior to reversion, he/she should be allowed on the date of pre-promotion. The same pay instead of the pay strictly admissible under regulation No. 29 (a) of MSPGCL Employees' Service Regulations, 2015.

F) FIXATION OF PAY TO AN EMPLOYEE/OFFICER PLACED UNDER SUPENSION.

An employee/officer who has been placed under suspension before 01.04.2023 will continue to draw Subsistence Allowance as admissible to him under existing normal rules and his/her pay would not be fixed in the revised pay scale till he/she is reinstated in the Company's service.

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G) DATE OF NEXT INCREMENT IN THE REVISED PAY SCALE.

i. The next increment of an Employee/Officer whose pay is fixed in the revised pay scale in accordance with the provision of Para (B) above, shall be granted on the date he/she would have drawn his/her increment, had he/she continued in the existing pay scale; Provided further that in cases where the employee/Officer reached the maximum of the existing pay scale prior to 31.03.2023, the next increment in the revised pay scale shall be allowed on 1st April 2023.

Provided further that in case where the employee/officer reached the maximum of the existing pay scale during the period from 01.04.2022 to 31.03.2023, the next increment in the revised pay scale shall be granted on completion of 12 months service (for the purpose of full incremental period), counting from the date on which he/she reached the maximum of the existing pay scale.

Provided also that in cases other than those covers by the preceding provision, the next increment of the employee whose pay is fixed on the 1st day of April 2023 at the same stage as the one fixed for another employee junior to him in the same cadre and drawing pay at lower stage in the existing pay scale, shall be granted on the same date as admissible to his/her junior, if the date of increment of the junior happens to be earlier.

ii. Where as a result of departmental enquiry an employee/officer is/was awarded punishment of withholding of increment(s) with or without cumulative effect, as the case may be, he/she shall cease to draw the increment(s) in the revised pay scale, for the period for which it is/was withheld as a result of disciplinary action.

H) PROTECTING THE PAY OF AN EMPLOYEE/OFFICER

In cases, where a senior employees/officer promoted to higher post before 1st April 2023, draws less pay in the revised pay scale than his/her junior who is promoted to the higher post on or after 1st day of April 2023, the pay of the senior employee/officer should be stepped up to an amount equal to the pay as fixed for his/her junior in that higher post with effect from the date of promotion of the junior employee/officer, subject to the fulfillment of the following conditions viz.:

- i) Both the junior and the senior employee/officer should belong to the same Cadre and the posts in which they have been promoted should be identical in the Cadre.
- ii) The pre-revised and revised pay scales of the lower and higher posts in which they are entitled to draw pay shall be identical; and
- iii) The anomaly should be a direct result of the application of the revision of pay scale

 If, even in the lower post, the junior was drawing more pay in pre-revised pay scale
 than the senior by virtue of any advance increments granted to him or any such
 reason, provision of this clause will not be applicable to step up the pay of the senior
 employee/officer.

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This shall be applicable to the cases of employees/officer who have been granted benefit of next higher pay scale/grade under the provision of G.O. 74(P) dtd. 30.04.1974 or G.O. 111(P) dtd. 13.05.1982.

Such employee/Officer will be entitled to the next increment on completion of his/her required qualifying service w.e.f. the date of re-fixation of Pay.

I) FIXATION OF PAY OF THE NEW ENTRANTS APPOINTED ON OR AFTER 1st APRIL 2023

An employee/officer recruited by way of direct recruitment on or after 01.04.2023 to any post mentioned in Para 3 of this Administrative Circular, shall be eligible to draw the minimum pay in the revised pay scale only w.e.f. the date of his/her joining the said post.

J) OPTION FOR RETAINING THE EXITING PAY SCALE.

If any employee/officer is of the opinion that he/she is not benefited by the above revision of pay scales and fixation of pay w.e.f. 01.04.2023 in the revised pay scale, he/she my at his/her option, retain his/her pay in the present pay scale until the date on which he/she may earn his/her net increment or any subsequent increment in the pay scale, or until he/she vacate his/her post or cases to draw pay in the existing pay scale. The option once exercised shall be final. Those who do not exercise the option in the form appended here to as Annexure 'B', on or before 31.08.2024 shall be deemed to have elected to draw pay in the revised pay scale w.e.f. 01.04.2023.

In the cases referred to above, the pay of the employee/officer from the later date mentioned in his/her Option in the revised pay scale shall be fixed in accordance with Para (B) above, except that the Basic Pay in the existing Pay scale (pre-revised) to be take into account for calculation of 'Sum Total' for fixation of pay will be the basic pay as on the said later date.

K) DEARNESS ALLOWANCE PAYBLE WITH EFFECT FROM 1ST APRIL 2023 ONWANRED.

The Dearness Allowance shall be payable / applicable w.e.f 01.04.2023 onwards on the revised basic pay as per the rates applicable to the State Government employees from time to time. Accordingly, the rates of Dearness Allowance payable on revised Basic shall be as under (Copies enclosed):-

Period	Rate of DA per month	Admin Cir.No & Date
01.04.2023 to 30.06.2023	42%	ADM Cir No 522 dt 12.07.2023
01.07.2023 to 31.12.2023	46%	ADM Cir No 535 dt 24.11.2023
01.01.2024 to Present	50%	ADM Cir No 544 dt 12.07.2024

Further, the policy in respect of Dearness Allowance shall generally be in tune with that adopted by the Government of Maharashtra. However, the Company shall take independent decision in the matter, on each occasion regarding release of installment of Dearness Allowance to its employees.

L) RECOVERY OF RENT FROM THE EMPLOYEES/OFFICER OCCUPYING THE COMPANY'S QUARTERS OR FLATS LEAVE AND LIICENCE AT VARIOUS PLACES.

Recovery of quarter rent shall be made as per the prevailing rules.

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M) ENTITLEMENT TO TRAVEL BY FIRST CLASS.

The minimum of the pay scale/Basic pay (wherever applicable) and the entitlement of the officer/employees as modified as per provision laid down in Chapter-VI of MSPGCL Employees' Service Regulations, 2015.

N) PAYMENT OF ARREARS

- a) The payment of arrears accruing due to revision of pay scale shall be paid in Three installments as per the instruction given under Para 5 of this Administrative Circular.
- b) The cases of payment of House Building Advance and payment towards Leave Travel Concession, Charge Allowance [Special Pay for additional charge under S.R.36 and 9(26)] T.A., Daily Allowance,/HRA/CLA Overtime and Bonus shall not be reopened and consequently no arrears on these accounts in respect of the period from 01.04.2023 till 31.07.2024 shall be payable.
- c) The arrears on account of revision of pay scales should be drawn in the office where the employee is working presently irrespective of the fact whether he had worked in that office or some other office/officers in the past.

O) PAYMENT OF H.R.A. AND C.L.A

The H.R.A & C.L.A shall be payable from time to time as per the decision of the Government of Maharashtra on subject communicated vide GoM G.R. No. HRA-2019/C.No.2/Service-5 dt 05.02.2019.(Copy enclosed) The H.R.A & C.L.A shall be paid prospectively on revised basic pay w.e.f dated 01.08.2024.

P) ANCILLARY

- i) The provisions in the Board's/Company's various Service Regulations, General Orders, like G.O. 14(P), 26(P), 65(P), 68(P), 89(P), 90(P), 93(P), etc. wherein various entitlements/conditions are based on pay scales/basic pay shall have stood suitably revised corresponding to the revised pay scales.
- ii) In the case of staff on deputation to the Company, the revision of pay scales under this Administrative Circular will not have automatic effect in the revision of their pay scales. The Company may decide to refer such case back to the cadre Controlling Authority (Parent Department) of such staff on deputation and take appropriate decision.
- iii) The employees/officers fulfilling all the relevant conditions, but who have resigned/retired/expired after 01.04.2023 shall also be entitled to the benefits under this Administrative Circular till their date of resignation / retirement/death as the case may be.

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To Administrative Circular No. 546 Dtd. 09 .08.2024

FORM OF OPTION (See Para - 'J')

* i. I <u></u>	hereby elect the
Revised pay scale with effect from 01.0-	4.2023.
* ii L	hereby elect the
	f may Temporary /Permanent /Officiating and Supernumerary post
The date of my next increment	
The date of my subsequent inci-	rement raising my pay to Rs
 I hereby vacate the post or cea 	se to draw pay in the existing scale of Rs
Date:	Signature :
	Name :
	Designation :
	CPF No. :
	Office in which employed :
	*(To be striked out if not applicable)
To be forwarded on or before 31 08 2	024 to date will be changed after publishing of this ADM

Head of Power Station / Circle in field

OR

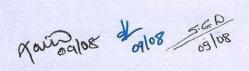
General Manager (HR) / Chief General Manager (HR) in Corporate Office.

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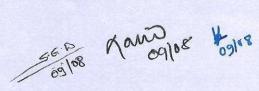
		ANNEXURE Helper/Peon & E		
EXISTING PA	AY SCALE		-505-28405-610-34505	5-710-50835
NEW PAY SO	CALE	30800	-605-33825-730-41125	5-845-60560
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	25880	4918	30798	30800
2	26385	5014	31399	31405
3	26890	5110	32000	32010
4	27395	5206	32601	32615
5	27900	5301	33201	33220
6	28405	5397	33802	33825
7	29015	5513	34528	34555
8	29625	5629	35254	35285
9	30235	5745	35980	36015
10	30845	5861	36706	36745
11	31455	5977	37432	37475
12	32065	6093	38158	38205
13	32675	6209	38884	38935
14	33285	6325	39610	39665
15	33895	6441	40336	40395
16	34505	6556	41061	41125
17	35215	6691	41906	41970
18	35925	6826	42751	42815
19	36635	6961	43596	43660
20	37345	7096	44441	44505
21	38055	7231	45286	45350
22	38765	7366	46131	46195
23	39475	7501	46976	47040
24	40185	7636	47821	47885
25	40895	7771	48666	48730
26	41605	7905	49510	49575
27	42315	8040	50355	50420
28	43025	8175	51200	51265
29	43735	8310	52045	52110
30	44445	8445	52890	52955
31	45155	8580	53735	53800
32	45865	8715	54580	54645
33	46575	8850	55425	55490
34	47285	8985	56270	56335
35	47995	9120	57115	57180
36	48705	9254	57959	58025
37	49415	9389	58804	58870
38	50125	9524	59649	59715
39	50835	9659	60494	60560

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		ANNEXURE C-	· · · · · · · · · · · · · · · · · · ·		
		Daftary & Equiva			
EXISTING PAY SCALE		27130-610-30180-710-37280-955-61155			
NEW PAY SO			0-35935-845-44385-11		
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	PITMENT IN THE NEW SCALE	
1	2	3	4	5	
1	27130	5155	32285	32285	
2	27740	5271	33011	33015	
3	28350	5387	33737	33745	
4	28960	5503	34463	34475	
5	29570	5619	35189	35205	
6	30180	5735	35915	35935	
7	30890	5870	36760	36780	
8	31600	6004	37604	37625	
9	32310	6139	38449	38470	
10	33020	6274	39294	39315	
11	33730	6409	40139	40160	
12	34440	6544	40984	41005	
13	35150	6679	41829	41850	
14	35860	6814	42674	42695	
15	36570	6949	43519	43540	
16	37280	7084	44364	44385	
17	38235	7265	45500	45525	
18	39190	7447	46637	46665	
19	40145	7628	47773	47805	
20	41100	7809	48909	48945	
21	42055	7991	50046	50085	
22	43010	8172	51182	51225	
23	43965	8354	52319	52365	
24	44920	8535	53455	53505	
25	45875	8717	54592	54645	
26	46830	8898	55728	55785	
27	47785	9080	56865	56925	
28	48740	9261	58001	58065	
29	49695	9443	59138	59205	
30	50650	9624	60274	60345	
31	51605	9805	61410	61485	
32	52560	9987	62547	62625	
33	53515	10168	63683	63765	
34	54470	10350	64820	64905	
35	55425	10531	65956	66045	
36	56380	10713	67093	67185	
37	57335	10894	68229	68325	
38	58290	11076	69366	69465	
39	59245	11257	70502	70605	
40	60200	11438	71638	71745	
41	61155	11620	72775	72885	



		ANNEXURE C-I		
EVICTING DA		Technician-III / LDC & E		200 72075
EXISTING PA		W	0-32585-955-42135-10	
NEW PAY SO	CALE	34555-845	-38780-1140-50180-1	265-86865
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
i	2	3	4	5
1	29035	5517	34552	34555
2	29745	5652	35397	35400
3	30455	5787	36242	36245
4	31165	5922	37087	37090
5	31875	6057	37932	37935
6	32585	6192	38777	38780
7	33540	6373	39913	39920
8	34495	6555	41050	41060
9	35450	6736	42186	42200
10	36405	6917	43322	43340
11	37360	7099	44459	44480
12	38315	7280	45595	45620
13	39270	7462	46732	46760
14	40225	7643	47868	47900
15	41180	7825	49005	49040
16	42135	8006	50141	50180
17	43195	8208	51403	51445
18	44255	8409	52664	52710
19	45315	8610	53925	53975
20	46375	8812	55187	55240
21	47435	9013	56448	56505
22	48495	9215	57710	57770
23	49555	9416	58971	59035
24	50615	9617	60232	60300
25	51675	9819	61494	61565
26	52735	10020	62755	62830
27	53795	10222	64017	64095
28	54855	10423	65278	65360
29	55915	10624	66539	66625
30	56975	10826	67801	67890
31	58035	11027	69062	69155
32	59095	11229	70324	70420
33	60155	11430	71585	71685
34	61215	11631	72846	72950
35	62275	11833	74108	74215
36	63335	12034	75369	75480
37	64395	12236	76631	76745
38	65455	12437	77892	78010
39	66515	12638	79153	79275
40	67575	12840	80415	80540
41	68635	13041	81676	81805
42	69695	13243	82938	83070
43	70755	13444	84199	84335
44	71815	13645	85460	85600
45	72875	13847	86722	86865





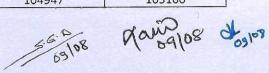
ANNEXURE C-IV Technician-II/Driver & Equivalent **EXISTING PAY SCALE** 29935-955-34710-1060-45310-1160-82430 **NEW PAY SCALE** 35625-1140-41325-1265-53975-1385-98295 Total of COL. No. **FITMENT IN THE** SR. NO. 19% OF COL.NO.2 STAGES (OLD) 2 & 3 **NEW SCALE**



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		ANNEXURE C-			
EXISTING PA	Y SCALE		0-36110-1160-47710-1	265-88190	
NEW PAY SO		36665-1265-42990-1385-56840-1510-105160			
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	3	4	5	
1	30810	5854	36664	36665	
2	31870	6056	37926	37930	
3	32930	6257	39187	39195	
4	33990	6459	40449	40460	
5	35050	6660	41710	41725	
6	36110	6861	42971	42990	
7	37270	7082	44352	44375	
8	38430	7302	45732	45760	
9	39590	7523	47113	47145	
10	40750	7743	48493	48530	
11	41910	7963	49873	49915	
12	43070	8184	51254	51300	
13	44230	8404	52634	52685	
14	45390	8625	54015	54070	
15	46550	8845	55395	55455	
16	47710	9065	56775	56840	
17	48975	9306	58281	58350	
18		9546		59860	
	50240		59786	-	
19	51505	9786	61291	61370	
20	52770	10027	62797	62880	
21	54035	10267	64302	64390	
22	55300	10507	65807	65900	
23	56565	10748	67313	67410	
24	57830	10988	68818	68920	
25	59095	11229	70324	70430	
26	60360	11469	71829	71940	
27	61625	11709	73334	73450	
28	62890	11950	74840	74960	
29	64155	12190	76345	76470	
30	65420	12430	77850	77980	
31	66685	12671	79356	79490	
32	67950	12911	80861	81000	
33	69215	13151	82366	82510	
34	70480	13392	83872	84020	
35	71745	13632	85377	85530	
36	73010	13872	86882	87040	
37	74275	14113	88388	88550	
38	75540	14353	89893	90060	
39	76805	14593	91398	91570	
40	78070	14834	92904	93080	
41	79335	15074	94409	94590	
42	80600	15314	95914	96100	
43	81865	15555	97420	97610	
44	83130	15795	98925	99120	
45	84395	16036	100431	100630	
46	85660	16276	101936	102140	
47	86925	16516	103441	103650	
47	88190	16757	103441	105160	





	^	ANNEXURE C-\ sst. Acct./Head Clerk &		,
EXISTING PA			-40305-1650-56805-1	740 100205
NEW PAY SC			-47990-1965-67640-2	
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	33980	6457	40437	40440
2	35245	6697	41942	41950
3	36510	6937	43447	43460
4	37775	7178	44953	44970
5	39040	7418	46458	46480
6	40305	7658	47963	47990
7	41955	7972	49927	49955
8	43605	8285	51890	51920
9	45255	8599	53854	53885
10	46905	8912	55817	55850
11	48555	9226	57781	57815
12	50205	9539	59744	59780
13	51855	9853	61708	61745
14	53505	10166	63671	63710
15	55155	10480	65635	
16	56805	10480	67598	65675 67640
17	58545	11124	69669	69715
18	60285	11124	71740	71790
19	62025	11785	73810	73865
20	63765	12116	75881	75940
21	65505	12446	77951	78015
22	67245	12777	80022	80090
23	68985	13108	82093	82165
24	70725	13438	84163	84240
25	72465	13769	86234	86315
26	74205	14099	88304	88390
27	75945	14430	90375	90465
28	77685	14761	92446	92540
29	79425	15091	94516	94615
30	81165	15422	96587	96690
31	82905	15752	98657	98765
32	84645	16083	100728	100840
33				
34	86385 88125	16414 16744	102799 104869	102915 104990
35	89865	17075	104869	107065
36	91605	17405	109910	109140
37	93345	17736	111081	111215
38	95085	18067	113152	113290
39	96825	18397	115132	115365
40	98565	18728	117293	117440
41	100305	19058	119363	119515

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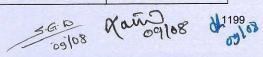
		ANNEXURE C-\ Asst. Security Officer &		
XISTING PA			740-62190-1830-1024	50
NEW PAY SO	CALE	43335-1995-53310-2	075-74060-2180-1220	20
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	36415	6919	43334	43335
2	38090	7238	45328	45330
3	39765	7556	47321	47325
4	41440	7874	49314	49320
5	43115	8192	51307	51315
6	44790	8511	53301	53310
7	46530	8841	55371	55385
8	48270	9172	57442	57460
9	50010	9502	59512	59535
10	51750	9833	61583	61610
11	53490	10164	63654	63685
12	55230	10494	65724	65760
13	56970	10825	67795	67835
14	58710	11155	69865	69910
15	60450	11486	71936	71985
16	62190	11817	74007	74060
17	64020	12164	76184	76240
18	65850	12512	78362	78420
19	67680	12860	80540	80600
20	69510	13207	82717	82780
21	71340	13555	84895	84960
22	73170	13903	. 87073	87140
23	75000	14250	89250	89320
24	76830	14598	91428	91500
25	78660	14946	93606	93680
26	80490	15294	95784	95860
27	82320	15641	97961	98040
28	84150	15989	100139	100220
29	85980	16337	102317	102400
30	87810	16684	104494	104580
31	89640	17032	106672	106760
32	91470	17380	108850	108940
33	93300	17727	111027	111120
34	95130	18075	113205	113300
35	96960	18423	115383	115480
36	98790	18771	117561	117660
37	100620	19118	119738	119840
38	102450	19466	121916	122020
			5.6.09/01	alegand

Jr.Er	ngineer / Jr.Offic	cer (Sec)/J.F.O/CN	I-II/ Jr. Chemist	& Equivalent	
EXISTING PA	Y SCALE	37340-1675-45715-1740-63115-1830-103375			
NEW PAY SO	CALE	44435-1995	-54410-2075-75160-2	180-123120	
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	3	4	5	
1	37340	7095	44435	44435	
2	39015	7413	46428	46430	
3	40690	7732	48422	48425	
4	42365	8050	50415	50420	
5	44040	8368	52408	52415	
6	45715	8686	54401	54410	
7	47455	9017	56472	56485	
8	49195	9348	58543	58560	
9	50935	9678	60613	60635	
10	52675	10009	62684	62710	
11	54415	10339	64754	64785	
12	56155	10670	66825	66860	
13	57895	11001	68896	68935	
14	59635	11331	70966	71010	
15	61375	11662	73037	73085	
16	63115	11992	75107	75160	
17	64945	12340	77285	77340	
18	66775	12688	79463	79520	
19	68605	13035	81640	81700	
20	70435	13383	83818	83880	
21	72265	13731	85996	86060	
22	74095	14079	88174	88240	
23	75925	14426	90351	90420	
24	77755	14774	92529	92600	
25	79585	15122	94707	94780	
26	81415	15469	96884	96960	
27	83245	15817	99062	99140	
28	85075	16165	101240	101320	
29	86905	16512	103417	103500	
30	88735	16860 .	105595	105680	
31	90565	17208	107773	107860	
32	92395	17556	109951	110040	
33	94225	17903	112128	112220	
34	96055	18251	114306	114400	
35	97885	18599	116484	116580	
36	99715	18946	118661	118760	
37	101545	19294	120839	120940	
38	103375	19642	123017	123120	

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		ANNEXURE	C-IX		
	LCF	Head Foreman 8	& Equivalent		
EXISTING	PAY SCALE	42325-1740-51	025-1830-69325-2	060-108465	
NEW PAY	SCALE	50370-2075-60745-2180-82545-2455-129190			
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	3	4	5	
1	42325	8042	50367	50370	
2	44065	8373	52438	52445	
3	45805	8703	54508	54520	
4	47545	9034	56579	56595	
5	49285	9365	58650	58670	
6	51025	9695	60720	60745	
7	52855	10043	62898	62925	
8	54685	10391	65076	65105	
9	56515	10738	67253	67285	
10	58345	11086	69431	69465	
11	60175	11434	71609	71645	
12	62005	11781	73786	73825	
13	63835	12129	75964	76005	
14	65665	12477	78142	78185	
15	67495	12825	80320	80365	
16	69325	13172	82497	82545	
17	71385	13564	84949	85000	
18	73445	13955	87400	87455	
19	75505	14346	89851	89910	
20	77565	14738	92303	92365	
21	79625	15129	94754	94820	
22	81685	15521	97206	97275	
23	83745	15912	99657	99730	
24	85805	16303	102108	102185	
25	87865	16695	104560	104640	
26	89925	17086	107011	107095	
27	91985	17478	109463	109550	
28	94045	17869	111914	112005	
29	96105	18260	114365	114460	
30	98165	18652	116817	116915	
31	100225	19043	119268	119370	
32	102285	19435	121720	121825	
33	104345	19826	124171	124280	
34	106405	20217	126622	126735	
35	108465	20609	129074	129190	

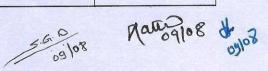




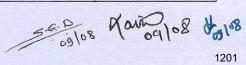


		ANNEXURE	C-X		
	Dy. Manager (HF	R/F&A)/Hospital A	dministrator & Equiva	alent	
EXISTING P	AY SCALE	4580	00-2165-56625-2280-1	15905	
NEW PAY SCALE		54505-2580-67405-2715-137995			
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	3	4	5	
1	45800	8702	54502	54505	
2	47965	9114	57079	57085	
3	50130	9525	59655	59665	
4	52295	9937	62232	62245	
5	54460	10348	64808	64825	
6	56625	10759	67384	67405	
7	58905	11192	70097	70120	
8	61185	11626	72811	72835	
9	63465	12059	75524	75550	
10	65745	12492	78237	78265	
11	68025	12925	80950	80980	
12	70305	13358	83663	83695	
13	72585	13792	86377	86410	
14	74865	14225	89090	89125	
15	77145	14658	91803	91840	
16	79425	15091	94516	94555	
17	81705	15524	97229	97270	
18	83985	15958	99943	99985	
19	86265	16391	102656	102700	
20	88545	16824	105369	105415	
21	90825	17257	108082	108130	
22	93105	17690	110795	110845	
23	95385	18124	113509	113560	
24	97665	18557	116222	116275	
25	99945	18990	118935	118990	
26	102225	19423	121648	121705	
27	104505	19856	124361	124420	
28	106785	20290	127075	127135	
29	109065	20723	129788	129850	
30	111345	21156	132501	132565	
31	113625	21589	135214	135280	
32	115905	22022	137927	137995	

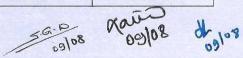




		ANNEXURE C	C-XI	
	gineer/CM-I/A.F.C	* ***		
EXISTING	S PAY SCALE	49210-2	2165-60035-2280	-119315
NEW PAY	YSCALE	58560-2	2580-71460-2715	-142050
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	49210	9350	58560	58560
2	51375	9762	61137	61140
3	53540	10173	63713	63720
4	55705	10584	66289	66300
5	57870	10996	68866	68880
6	60035	11407	71442	71460
7	62315	11840	74155	74175
8	64595	12274	76869	76890
9	66875	12707	79582	79605
10	69155	13140	82295	82320
11	71435	13573	85008	85035
12	73715	14006	87721	87750
13	75995	14440	90435	90465
14	78275	14873	93148	93180
15	80555	15306	95861	95895
16	82835	15739	98574	98610
17	85115	16172	101287	101325
18	87395	16606	104001	104040
19	89675	17039	106714	106755
20	91955	17472	109427	109470
21	94235	17905	112140	112185
22	96515	18338	114853	114900
23	98795	18772	117567	117615
24	101075	19205	120280	120330
25	103355	19638	122993	123045
26	105635	20071	125706	125760
27	107915	20504	128419	128475
28	110195	20938	131133	131190
29	112475	21371	133846	133905
30	114755	21804	136559	136620
31	117035	22237	139272	139335
32	119315	22670	141985	142050



		ANNEXURE (C-XII		
	Asst. Welfare Of	ficer/Asst. Med	ical Officer & Equi	valent	
EXISTING PAY SCALE NEW PAY SCALE		55015-2165-65840-2280-120560			
		65470-	2580-78370-2715-	-143530	
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	. 3	4	5	
1	55015	10453	65468	65470	
2	57180	10865	68045	68050	
3	59345	11276	70621	70630	
4	61510	11687	73197	73210	
5	63675	12099	75774	75790	
6	65840	12510	78350	78370	
7	68120	12943	81063	81085	
8	70400	13376	83776	83800	
9	72680	13810	86490	86515	
10	74960	14243	89203	89230	
11	77240	14676	91916	91945	
12	79520	15109	94629	94660	
13	81800	15542	97342	97375	
14	84080	15976	100056	100090	
15	86360	16409	102769	102805	
16	88640	16842	105482	105520	
17	90920	17275	108195	108235	
18	93200	17708	110908	110950	
19	95480	18142	113622	113665	
20	97760	18575	116335	116380	
21	100040	19008	119048	119095	
22	102320	19441	121761	121810	
23	104600	19874	124474	124525	
24	106880	20308	127188	127240	
25	109160	20741	129901	129955	
26	111440	21174	132614	132670	
27	113720	21607	135327	135385	
28	116000	22040	138040	138100	
29	118280	22474	140754	140815	
30	120560	22907	143467	143530	
30	120560	22907	143467	143530	







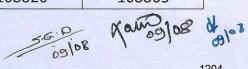
		ANNEXURE (C-XIII	
	Dy.Exe. Engine	er/Dy Executive	Chemist & Equiva	alent
EXISTING	EXISTING PAY SCALE 61830-2515-74405-2730-139925			
NEW PAY	SCALE	73580-2995-88555-3250-166555		
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	61830	11748	73578	73580
2	64345	12226	76571	76575
3	66860	12704	79564	79570
4	69375	13182	82557	82565
5	71890	13660	85550	85560
6	74405	14137	88542	88555
7	77135	14656	91791	91805
8	79865	15175	95040	95055
9	82595	15694	98289	98305
10	85325	16212	101537	101555
11	88055	16731	104786	104805
12	90785	17250	108035	108055
13	93515	17768	111283	111305
14	96245	18287	114532	114555
15	98975	18806	117781	117805
16	101705	19324	121029	121055
17	104435	19843	124278	124305
18	107165	20362	127527	127555
19	109895	20881	130776	130805
20	112625	21399	134024	134055
21	115355	21918	137273	137305
22	118085	22437	140522	140555
23	120815	22955	143770	143805
24	123545	23474	147019	147055
25	126275	23993	150268	150305
26	129005	24511	153516	153555
27	131735	25030	156765	156805
28	134465	25549	160014	160055
29	137195	26068	163263	163305
30	139925	26586	166511	166555



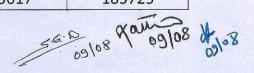
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	Manager (H	ANNEXURE (C-XIV mmer & Equivaler	nt
EXISTING	S PAY SCALE		2515-76345-2730-	
NEW PA	Y SCALE	75890-2995-90865-3250-168865		
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	63770	12117	75887	75890
2	66285	12595	78880	78885
3	68800	13072	81872	81880
4	71315	13550	84865	84875
5	73830	14028	87858	87870
6	76345	14506	90851	90865
7	79075	15025	94100	94115
8	81805	15543	97348	97365
9	84535	16062	100597	100615
10	87265	16581	103846	103865
11	89995	17100	107095	107115
12	92725	17618	110343	110365
13	95455	18137	113592	113615
14	98185	18656	116841	116865
15	100915	19174	120089	120115
16	103645	19693	123338	123365
17	106375	20212	126587	126615
18	109105	20730	129835	129865
19	111835	21249	133084	133115
20	114565	21768	136333	136365
21	117295	22287	139582	139615
22	120025	22805	142830	142865
23	122755	23324	146079	146115
24	125485	23843	149328	149365
25	128215	24361	152576	152615
26	130945	24880	155825	155865
27	133675	25399	159074	159115
28	136405	25917	162322	162365
29	139135	26436	165571	165615
30	141865	26955	168820	168865





		ANNEXURE (C-XV	
	Sr. Manager (HR)	/Medical Office	r/Welfare Officer	& Equivalent
EXISTING PAY SCALE		68150-2730-81800-2900-154300		
NEW PAY	SCALE	81100-	3250-97350-3455-	-183725
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	68150	12949	81099	81100
2	70880	13468	84348	84350
3	73610	13986	87596	87600
4	76340	14505	90845	90850
5	79070	15024	94094	94100
6	81800	15542	97342	97350
7	84700	16093	100793	100805
8	87600	16644	104244	104260
9	90500	17195	107695	107715
10	93400	17746	111146	111170
11	96300	18297	114597	114625
12	99200	18848	118048	118080
13	102100	19399	121499	121535
14	105000	19950	124950	124990
15	107900	20501	128401	128445
16	110800	21052	131852	131900
17	113700	21603	135303	135355
18	116600	22154	138754	138810
19	119500	22705	142205	142265
20	122400	23256	145656	145720
21	125300	23807	149107	149175
22	128200	24358	152558	152630
23	131100	24909	156009	156085
24	134000	25460	159460	159540
25	136900	26011	162911	162995
26	139800	26562	166362	166450
27	142700	27113	169813	169905
28	145600	27664	173264	173360
29	148500	28215	176715	176815
30	151400	28766	180166	180270
31	154300	29317	183617	183725



		ANNEXURE (C-XVI			
	Addl. Exe.Engineer/Fire Officer/Dy Sr. Mgr. (Sec)/ Addl Exe.Chemist & Equivalent					
EXISTING	6 PAY SCALE		2730-82430-2900	-154930		
NEW PAY SCALE 81850-3250-98100-3455-18			-184475			
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE		
1	2	3	4	5		
1	68780	13069	81849	81850		
2	71510	13587	85097	85100		
3	74240	14106	88346	88350		
4	76970	14625	91595	91600		
5	79700	15143	94843	94850		
6	82430	15662	98092	98100		
7	85330	16213	101543	101555		
8	88230	16764	104994	105010		
9	91130	17315	108445	108465		
10	94030	17866	111896	111920		
11	96930	18417	115347	115375		
12	99830	18968	118798	118830		
13	102730	19519	122249	122285		
14	105630	20070	125700	125740		
15	108530	20621	129151	129195		
16	111430	21172	132602	132650		
17	114330	21723	136053	136105		
18	117230	22274	139504	139560		
19	120130	22825	142955	143015		
20	123030	23376	146406	146470		
21	125930	23927	149857	149925		
22	128830	24478	153308	153380		
23	131730	25029	156759	156835		
24	134630	25580	160210	160290		
25	137530	26131	163661	163745		
26	140430	26682	167112	167200		
27	143330	27233	170563	170655		
28	146230	27784	174014	174110		
29	149130	28335	177465	177565		
30	152030	28886	180916	181020		
31	154930	29437	184367	184475		

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Estrella Batteries Expansion Compound Building, Ground Floor, Labour Camp, Dharavi Road, Matunga, Mumbai - 400 019. Telephone No. 022-24029053

Fax: 022-24029013 Website: www.mahagenco.in Email ID- eohr2@mahagenco.in

ADMINISTRATIVE CIRCULAR NO.548 DATE 09.08.2024

Sub: Revision of existing pay scales prescribed for the various categories of posts whose minimum of existing pay scale is Rs. 81,695/- per month and above also prescribing the method of fixation of pay in the revised pay-scales, payment of arrears, etc.

The revision of existing pay scales for various categories was due w.e.f. 01.04.2023 and the issue regarding revision of pay scales for the employees in the rank of Executive Engineer and above whose minimum pay scale is Rs.81,695/- and above was under consideration.

Now, the Board of Directors under its resolution no. MSPGCL/CS/Cir Resln-112 Dtd 07.08.2024 has taken the following decision in the matter of revision of pay scales, method of fixation of pay, payment of arrears in the respect of Senior Officers of the rank of Executive Engineers, equivalent and above, whose minimum of existing pay scale is Rs.81,695/- per month and above.

2. The existing pay scales indicated in Column No. 3 of the table of below: (In force under Administrative Circular No. 451 dated 05.10.2019 shall be revised, with retrospective effect from 01.04.2023, as specified in column No. 4 thereof respectively.

Sr. No.	Category of Posts	Existing Pay Scales	Revised Pay Scales
1	2	3	4
1	E.E/System Analyst/ Dy.CFO/ Exe. Chemist/ Sr.Mgr. (F&A)/ Sr.Business Analysist/ Dy CIRO/APRO & Equivalent	81695-3145-97420- 3570-175960	97220-3745-115945- 4250-209445
2	Asst. General Manager (HR)/F&A & Equivalent	86460-3570-104310- 3980-191870	102890-4250- 124140-4740-228420
3	Suptdg. Engineer/Dy GM (HR/IT)/Medical Supdtg, PRO, Supdtg Chemist & Equivalent	92380-3980-112280- 4405-204785	109935-4740- 133635-5245-243780
4	Dy. Chief Engineer / General Manager (HR/F&A/IT)/CIRO/Fire Advisor & CFO & Equivalent	105035-4610-215675	124995-5490-256755
5	Chief Engineer/CGM (HR/F&A)/Chief Legal Advisor/Company Secretary/Environment Advisor & Equivalent	118195-5025-228745	140655-5980-272215
6	ED (HR)/(Operations)/(Projects) & Equivalent	125895-5540-242235	149820-6595-288315

Note:- The terms 'Equivalent' in the above table implies all officers whose existing pay – scales are the same.

- 3. The details regarding method of fixation of pay in the revised pay scales, payments of arrears, etc. are embodied in the Annexure 'A' & Annexure 'C-I' to 'C-VI' and option Form as per Annexure 'B' enclosed to this Administrative Circular.
- 4. Further, the payment of arrears due to revision of pay scales accruing w.e.f. 01.04.2023 shall be paid in 3 (Three) installments in the following manner:-

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- a) First Installment:- 1st installments of arrears period from April-2023 to August -2023 shall be paid to the employees in the month of October- 2024.
- b) Second & Third Installment:- 2nd installments of arrears from September -2023 to January-2024 shall be paid to the employees in the month of March-2025 & 3rd installments of arrears from February-2024 to July-2024 shall be paid to the employees in the month of September-2025, depending on cash flow position.
- 5. The Board of Directors also delegated powers to the Hon' Chairman & Managing Director (MSPGCL) in consultation with Director (Finance), Executive Director (HR) to interpret the above provisions/clauses and to issue clarification/guidance wherever necessary and to refer to anomaly Committee.
- 6. All Concerned Drawing & Disbursing Officers are requested to take immediate steps to fix the pay of the officers in the revised pay scales and effect of the revised pay scales shall be given in the month of August -2024. Further, action to work out arrears and audit scrutiny (before payment) should be taken immediately, so as to send the requirement of funds to General Manager (F&A) Mahagenco, Prakashgad, Mumbai-400051 for disbursement of arrears.
- 7. All the concerned Officers are also requested to display this Administrative Circular on the Notice Board to enable the officers to exercise the option as stated in Para 'J' of ANNEXURE-'A' of this administrative Circular.
- 8. This Administrative Circular is also available on Company's website i.e. www.mahagenco.in

Encl: ANNEXURE-'A'
ANNEXURE - 'B'
ANNEXURE-'C-I to C-VI'

(Dr.Dhananjay Sawalkar) Executive Director (HR)

ANNEXURE - 'A'

[To Administrative Circular No. 548 Dtd.09.08.2024]

- A) COVARAGE, SCOPE & APPLICABLITY OF REVISED PAY SCALES & PROVISIONS THEREOF.
- i. The revision of pay scales as shown under para 2 of this Administrative Circular & provisions thereof which shall come into force w.e.f. 01.04.2023 shall be applicable to all Technical & Non-Technical employees / Officer working against regular, permanent, temporary & supernumerary posts, the minimum of whose existing pay scales is Rs. 81,695/- per month & above.
- ii. All officers drawing pay in any of the pay scales, shown in Column No. 3 of the table in Para 2 of this Administrative Circular & who were/are on deputation or on Foreign Service as on 01.04.2023 were/are drawing Company's scales, are also covered.
- B) FIXATION OF INITIAL PAY IN THE REVISED PAY SCALES WITH EFFECT FROM 01.04.2024.

The initial basic pay of an employees/officer appointed or promoted prior to dtd. 01.04.2023 shall be fixed in the revised pay scale of the post held by him on officiating or permanent or temporary basis or in the revised pay scale corresponding to the higher pay scale or grade allowed to him as personal due, to grant of the benefit under the provisions of the G.O. No. 74 (P) dtd. 30.04.1974 read with Head Office Order No. GAD/E-VII/STF/Gen/A/232/9203, dtd. 27.02.1975 or benefit of de-stagnation measure under the G.O. No. 111 (P) dtd. 13.05.1982 in the following manner:

An amount equivalent to 19% (Nineteen percent) of pre-revised basic Pay, as on 31.03.2023 shall be added to the pre-revised basic pay as on 31.03.2023 and then the basic pay in the revised scale shall be fixed as follows:-

- If the sum total of above is less than that of minimum of revised pay scale, the Basic Pay shall be fixed at the minimum of the revised Pay scale.
- ii. If the sum total is a stage in the revised pay scale, the Basic pay shall be fixed at that stage.
- iii. If the sum total is not a stage in the revised pay scale, the Basic Pay shall be fixed at the next higher stage in the revised pay scale.
- iv. If the sum is more than the maximum of the revised scale, the Basic Pay shall be fixed at the maximum of that pay scale.
- v. If an employee draws less pay on 01.04.2023 in the revised pay scale in the promoted post/higher scale due to grant of G.O. 74/111 (P) than the pay he would have drawn on 01.04.2023 in the lower post/scale in the revised pay scale, his pay is to be fixed in the lower post/scale in the revised pay scale in the first instance and thereafter at the next immediate stage in the higher post/pay scale as on 01.04.2023 as per S.R. 29 (a). His/her future increments may be drawn as per normal rules by applying the provisions as per S.R. 32 (b) if such re-fixation of pay is to his/her advantage.

Note: Ready reckoner showing the fitment stages in the revised pay scales has been shown in the Annexure-C-I to C-VI.

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C) FIXATION OF PAY AS ON 01.04.2023 WHEN THE NORMAL DATE OF INCREMENT IS ALSO 01.04.2023

In case of employees/officer whose normal date of increment is also 1st April, 2023, the initial pay shall be fixed in the revised pay scale mentioned in Para (B) above on the basic pay drawn by him in the existing pay scale as on 31.03.2023 and then the increment should be allowed on 1st April, 2023 in the revised pay scale.

D) FIXATION OF PAY OF AN EMPLOYEE/OFFICER APPOINTED OR PROMOTED TO HIGHER POST ON OR AFTER 01.04.2023

In case of departmental employee/officer appointed by way of direct recruitment or promoted to a higher post on or after 01.04.2023 the pay in the revised pay scale should be fixed with reference to the lower post held by him prior to appointment/promotion and then the pay fixed in the revised pay scale of the higher post as provided under normal regulations. This will also be applicable to an employee/Officer, who has been granted the benefit of the next higher pay scale or grade under the provisions of G.O. 74, dtd.30.04.1974 read with Head Office Order No. GAD/STF/Gen/A/232/9203 dtd. 27.02.1975 or of de-stagnation measures under the G.O. No. 111(P) dtd. 13.05.1982.

E) FIXATION OF PAY OF AN EMPLOYEE/OFFICER OFFICIATING IN A HIGHER POST BUT REVERTED THEREAFTER & SUBSEQUENTLY RE-PROMOTED.

In case of an employee/officer officiating in a higher post on 01.04.2023, but reverted thereafter & subsequently re-promoted, if his/her pay on the revised pay scale of the higher post under Regulation No. 29 (a) of MSPGCL Employees' Service Regulations works out to less than the pay in the revised pay scale of the higher post immediately prior to reversion, he/she should be allowed on the date of pre-promotion. The same pay instead of the pay strictly admissible under regulation No. 29 (a) of MSPGCL Employees' Service Regulations 2015.

F) FIXATION OF PAY TO AN EMPLOYEE/OFFICER PLACED UNDER SUPENSION.

An employee/officer who has been placed under suspension before 01.04.2023 will continue to draw Subsistence Allowance as admissible to him under existing normal rules and his/her pay would not be fixed in the revised pay scale till he/she is reinstated in the Company's service.

G) DATE OF NEXT INCREMENT IN THE REVISED PAY SCALE.

i. The next increment of an Employee/Officer whose pay is fixed in the revised pay scale in accordance with the provision of Para (B) above, shall be granted on the date he/she would have drawn his/her increment, had he/she continued in the existing pay scale;

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Provided further that in cases where the employee/Officer reached the maximum of the existing pay scale prior to 31.03.2023, the next increment in the revised pay scale shall be allowed on 1st April 2023.

Provided further that in case where the employee/officer reached the maximum of the existing pay scale during the period from 01.04.2022 to 31.03.2023, the next increment in the revised pay scale shall be granted on completion of 12 months service (for the purpose of full incremental period), counting from the date on which he/she reached the maximum of the existing pay scale.

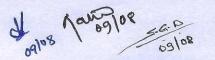
Provided also that in cases other than those covers by the preceding provision, the next increment of the employee whose pay is fixed on the 1st day of April 2023 at the same stage as the one fixed for another employee junior to him in the same cadre and drawing pay at lower stage in the existing pay scale, shall be granted on the same date as admissible to his/her junior, if the date of increment of the junior happens to be earlier.

ii. Where as a result of departmental enquiry an employee/officer is/was awarded punishment of withholding of increment(s) with or without cumulative effect, as the case may be, he/she shall cease to draw the increment(s) in the revised pay scale, for the period for which it is/was withheld as a result of disciplinary action.

H) PROTECTING THE PAY OF AN EMPLOYEE/OFFICER

In cases, where a senior employees/officer promoted to higher post before 1st April 2023, draws less pay in the revised pay scale than his/her junior who is promoted to the higher post on or after 1st day of April 2023, the pay of the senior employee/officer should be stepped up to an amount equal to the pay as fixed for his/her junior in that higher post with effect from the date of promotion of the junior employee/officer, subject to the fulfillment of the following conditions viz.:

- i) Both the junior and the senior employee/officer should belong to the same Cadre and the posts in which they have been promoted should be identical in the Cadre.
- ii) The pre-revised and revised pay scales of the lower and higher posts in which they are entitled to draw pay shall be identical; and
- The anomaly should be a direct result of the application of the revision of pay scale If, even in the lower post, the junior was drawing more pay in pre-revised pay scale than the senior by virtue of any advance increments granted to him or any such reason, provision of this clause will not be applicable to step up the pay of the senior employee/officer.



iv) This shall be applicable to the cases of employees/officer who have been granted benefit of next higher pay scale/grade under the provision of G.O. 74(P) dtd. 30.04.1974 or G.O. 111(P) dtd. 13.05.1982.

Such employee/Officer will be entitled to the next increment on completion of his/her required qualifying service w.e.f. the date of re-fixation of Pay.

I) FIXATION OF PAY OF THE NEW ENTRANTS APPOINTED ON OR AFTER 1ST APRIL 2023

An employee/officer recruited by way of direct recruitment on or after 01.04.2023 to any post mentioned in Para 3 of this Administrative Circular, shall be eligible to draw the minimum pay in the revised pay scale only w.e.f. the date of his/her joining the said post.

J) OPTION FOR RETAINING THE EXITING PAY SCALE.

If any employee/officer is of the opinion that he/she is not benefited by the above revision of pay scales and fixation of pay w.e.f. 01.04.2023 in the revised pay scale, he/she my at his/her option, retain his/her pay in the present pay scale until the date on which he/she may earn his/her next increment or any subsequent increment in the pay scale, or until he/she vacate his/her post or cases to draw pay in the existing pay scale. The option once exercised shall be final. Those who do not exercise the option in the form appended here to as Annexure 'B', on or before 31.08.2024 shall be deemed to have elected to draw pay in the revised pay scale w.e.f. 01.04.2023.

In the cases referred to above, the pay of the employee/officer from the later date mentioned in his/her Option in the revised pay scale shall be fixed in accordance with Para (B) above, except that the Basic Pay in the existing Pay scale (pre-revised) to be take into account for calculation of 'Sum Total' for fixation of pay will be the basic pay as on the said later date.

K) DEARNESS ALLOWANCE PAYBLE WITH EFFECT FROM $1^{\rm ST}$ APRIL 2023 ONWANRED.

The Dearness Allowance shall be payable / applicable w.e.f 01.04.2023 onwards on the revised basic pay as per the rates applicable to the State Government employees from time to time. Accordingly, the rates of Dearness Allowance payable on revised Basic shall be as under (Copies enclosed):-

Period	Rate of DA per month	Admin Cir.No & Date
01.04.2023 to 30.06.2023	42%	ADM Cir No 522 dt 12.07,2023
01.07.2023 to 31.12.2023	46%	ADM Cir No 535 dt 24.11.2023
01.01.2024 to Present	50%	ADM Cir No 544 dt 12.07.2024

Further, the policy in respect of Dearness Allowance shall generally be in tune with that adopted by the Government of Maharashtra. However, the Company shall take independent decision in the matter, on each occasion regarding release of installment of Dearness Allowance to its employees.

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L) RECOVERY OF RENT FROM THE EMPLOYEES/OFFICER OCCUPYING THE COMPANY'S QUARTERS OR FLATS LEAVE AND LIICENCE AT VARIOUS PLACES.

Recovery of quarter rent shall be made as per the prevailing rules.

M) ENTITLEMENT TO TRAVEL BY FIRST CLASS.

The minimum of the pay scale/Basic pay (wherever applicable) and the entitlement of the officer/employees as modified as per provision laid down in Chapter-VI of MSPGCL Employees' Service Regulations, 2015.

N) PAYMENT OF ARREARS

- a) The payment of arrears accruing due to revision of pay scale shall be paid in Three installments as per the instruction given under Para 5 of this Administrative Circular.
- b) The cases of payment of House Building Advance and payment towards Leave Travel Concession, Charge Allowance [Special Pay for additional charge under S.R.36 and 9(26)] T.A., Daily Allowance,/HRA/CLA Overtime and Bonus shall not be re-opened and consequently no arrears on these accounts in respect of the period from 01.04.2023 till 31.07.2024 shall be payable.
- c) The arrears on account of revision of pay scales should be drawn in the office where the employee is working presently irrespective of the fact whether he had worked in that office or some other office/officers in the past.

O) PAYMENT OF H.R.A. AND C.L.A

The H.R.A & C.L.A shall be payable from time to time as per the decision of the Government of Maharashtra on subject communicated vide GoM G.R. No. HRA-2019/C.No.2/Service-5 dt 05.02.2019.(Copy enclosed) The H.R.A & C.L.A shall be paid prospectively on revised basic pay w.e.f dated 01.08.2024.

P) ANCILLARY

- i) The provisions in the Board's/Company's various Service Regulations, General Orders, like G.O. 14(P), 26(P), 65(P), 68(P), 89(P), 90(P), 93(P), etc. wherein various entitlements/conditions are based on pay scales/basic pay shall have stood suitably revised corresponding to the revised pay scales.
- ii) In the case of staff on deputation to the Company, the revision of pay scales under this Administrative Circular will not have automatic effect in the revision of their pay scales. The Company may decide to refer such case back to the cadre Controlling Authority (Parent Department) of such staff on deputation and take appropriate decision.
- iii) The employees/officers fulfilling all the relevant conditions, but who have resigned/retired/expired after 01.04.2023 shall also be entitled to the benefits under this Administrative Circular till their date of resignation / retirement/death as the case may be.

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Annexure 'B'

To Administrative Circular No. ----- Dtd. .08.2024

FORM OF OPTION (See Para – 'J')

elect the Revised pay scale with effect from 01.04.2	hereby
pay scale with effect from 01.04.2	2023.
* ii. 1	
elect the Continue on the existing scale of pay of m Supernumerary post mentioned below until The date of my next increment The date of my subsequent increment raisi	nay Temporary /Permanent /Officiating and
Date:	
Station /Place :	Signature :
	Name :
	Designation :
	CPF No. :
	Office in which employed :
	*(To be striked out if not applicable)
To be forwarded on or before 31.08.2024 to date will	be changed after publishing of this ADM
Head of Power Station / Circle in field	
OR	
General Manager (HR) / Chief General Manager (HR) ir	n Corporate Office.

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E.E/Sy	stem Analyst/ D Analys	y. CFO/ Exe. Che	mist/ Sr.Mgr. (F&/RO & Equivalent	A)/ Sr.Business
EXISTING	G PAY SCALE		-3145-97420-3570	-175960
NEW PA	Y SCALE		3745-115945-4250	
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	81695	15523	97218	97220
2	84840	16120	100960	100965
3	87985	16718	104703	104710
4	91130	17315	108445	108455
5	94275	17913	112188	112200
6	97420	18510	115930	115945
7	100990	19189	120179	120195
8	104560	19867	124427	124445
9	108130	20545	128675	128695
10	111700	21223	132923	132945
11	115270	21902	137172	137195
12	118840	22580	141420	141445
13	122410	23258	145668	145695
14	125980	23937	149917	149945
15	129550	24615	154165	154195
16	133120	25293	158413	158445
17	136690	25972	162662	162695
18	140260	26650	166910	166945
19	143830	27328	171158	171195
20	147400	28006	175406	175445
21	150970	28685	179655	179695
22	154540	29363	183903	183945
23	158110	30041	188151	188195
24	161680	30720	192400	192445
25	165250	31398	196648	196695
26	168820	32076	200896	200945
27	172390	32755	205145	205195
28	175960	33433	209393	209445

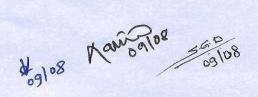


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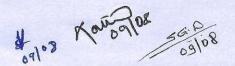
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		ANNEXURE	C-II	
	Asst. Gene	ral Manager (HR	(F&A) & Equivale	nt
EXISTING	EXISTING PAY SCALE 86460-3570-104310-3980-191870			0-191870
NEW PAY SCALE 102890-4250-124140-4740-2284				
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	86460	16428	102888	102890
2	90030	17106	107136	107140
3	93600	17784	111384	111390
4	97170	18463	115633	115640
5	100740	19141	119881	119890
6	104310	19819	124129	124140
7	108290	20576	128866	128880
8	112270	21332	133602	133620
9	116250	22088	138338	138360
10	120230	22844	143074	143100
11	124210	23600	147810	147840
12	128190	24357	152547	152580
13	132170	25113	157283	157320
14	136150	25869	162019	162060
15	140130	26625	166755	166800
16	144110	27381	171491	171540
17	148090	28138	176228	176280
18	152070	28894	180964	181020
19	156050	29650	185700	185760
20	160030	30406	190436	190500
21	164010	31162	195172	
22	167990	31919	199909	195240
23	171970	32675	204645	199980
24	175950	33431	209381	204720
25	179930	34187	214117	214200
26	183910	34943	218853	214200
27	187890	35700	223590	223680
28	191870	36456	228326	228420



		ANNEXURE	C-III	
	Suptdg. Engine Su	er/Dy GM (HR/I updtg Chemist &	T)/Medical Supdtg	g, PRO,
EXISTING	G PAY SCALE		3980-112280-440	5-204785
NEW PA	W PAY SCALE 109935-4740-133635-5245-243780			
SR. NO.	STAGES (OLD)	19% OF COL.NO.2	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	92380	17553	109933	109935
2	96360	18309	114669	114675
3	100340	19065	119405	119415
4	104320	19821	124141	124155
5	108300	20577	128877	128895
6	112280	21334	133614	133635
7	116685	22171	138856	138880
8	121090	23008	144098	144125
9	125495	23845	149340	149370
10	129900	24681	154581	154615
11	134305	25518	159823	159860
12	138710	26355	165065	165105
13	143115	27192	170307	170350
14	147520	28029	175549	175595
15	151925	28866	180791	180840
16	156330	29703	186033	186085
17	160735	30540	191275	191330
18	165140	31377	196517	196575
19	169545	32214	201759	201820
20	173950	33051	207001	207065
21	178355	33888	212243	212310
22	182760	34725	217485	217555
23	187165	35562	222727	222800
24	191570	36399	227969	228045
25	195975	37236	233211	233290
26	200380	38073	238453	238535
27	204785	38910	243695	243780



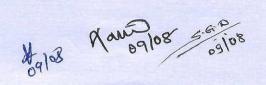
ANNEXURE C-IV Dy. Chief Engineer / General Manager (HR/F&A/IT)/ CIRO/Fire Advisor & CFO & Equivalent **EXISTING PAY SCALE** 105035-4610-215675 **NEW PAY SCALE** 124995-5490-256755 FITMENT IN 19% OF SR. NO. STAGES (OLD) Total of COL. THE NEW COL.NO.2 No. 2 & 3 SCALE

9-108 Kon 30/08

		ANNEXURI	E C-V	
C	hief Engineer/Co		nief Legal Advisor/	Company
	Secretary	/Environment A	dvisor & Equivaler	nt
EXISTING	EXISTING PAY SCALE 118195-5025-228745			
NEW PA	Y SCALE		L40655-5980- 2722	
SR. NO.	100/ 0-	Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE	
1	2	3	4	5
1	118195	22458	140653	140655
2	123220	23412	146632	146635
3	128245	24367	152612	152615
4	133270	25322	158592	158595
5	138295	26277	164572	164575
6	143320	27231	170551	170555
7	148345	28186	176531	176535
8	153370	29141	182511	182515
9	158395	30096	188491	188495
10	163420	31050	194470	194475
11	168445	32005	200450	200455
12	173470	32960	206430	200435
13	178495	33915	212410	212415
14	183520	34869	218389	218395
15	188545	35824	224369	224375
16	193570	36779	230349	230355
17	198595	37734	236329	236335
18	203620	38688	242308	
19	208645	39643	248288	242315 248295
20	213670	40598	254268	254275
21	218695	41553	260248	
22	223720	42507	266227	260255
23	228745	43462	-	266235
		73402	272207	272215



		ANNEXURE	C-VI	
	ED (HR)/(O	perations)/(Pro	jects) & Equivalen	t
EXISTING	EXISTING PAY SCALE 125895-5540-242235			35
NEW PA	Y SCALE	1	49820-6595-2883	15
SR. NO.	NO. STAGES (OLD) 19% OF COL.NO.2		Total of COL. No. 2 & 3	FITMENT IN THE NEW SCALE
1	2	3	4	5
1	125895	23921	149816	149820
2	131435	24973	156408	156415
3	136975	26026	163001	163010
4	142515	27078	169593	169605
5	148055	28131	176186	176200
6	153595	29184	182779	182795
7	159135	30236	189371	189390
8	164675	31289	195964	195985
9	170215	32341	202556	202580
10	175755	33394	209149	209175
11	181295	34447	215742	215770
12	186835	35499	222334	222365
13	192375	36552	228927	228960
14	197915	37604	235519	235555
15	203455	38657	242112	242150
16	208995	39710	248705	248745
17	214535	40762	255297	255340
18	220075	41815	261890	261935
19	225615	42867	268482	268530
20	231155	43920	275075	275125
21	236695	44973	281668	281720
22	242235	46025	288260	288315







Estrella Batteries Expansion Compound Building, Ground Floor, Labour Camp, Dharavi Road, Matunga, Mumbai - 400 019. Telephone No. 022-24029053 Fax: 022-24029013 Website: www.mahagenco.in Email ID- eohr2@mahagenco.in

ADMINISTRATIVE CIRCULAR NO.549 DATE 09.08.2024

Subject: Revision of existing rate of allowances in respect of employees up to the rank of Executive Engineers equivalent and above.

The revision of existing rates of allowances of various categories was due w.e.f. 01.04.2023 and the issue regarding revision of rates of allowances for the employees upto the rank of Executive Engineers and above whose minimum pay scale is Rs. 81,695/- and above was under consideration.

Now, the Board of Directors under its resolution No. MSPGCL/CS/Cir Resln-112 Dtd 07.08.2024 has decided to revise the existing rates of allowances with retrospective effect from 01.04.2023 for the employees upto the rank of Executive Engineers whose minimum pay scale is Rs. 81,695/- and above.

A) Allowances as per G.O. 95 (P) dtd 21.03.1980 read with Admn Cir. No. 452 dt 05.10.2019.

Existing rates of Fringe Benefit Allowances applicable to Executive Engineer equivalent and above category viz.Fringe Benefit Administrative Office and Fringe Benefit Field Office shall be revised as under:-

i) Fringe Benefit (Admin) :-

Sr. No.	Category of post	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Executive Engineer/Asstt.General Manager & equivalent	790/-	990/-
2	Supdtg. Engineer/Dy.General Manager /General Manager & equivalent	930/-	1165/-
3	Chief Engineer/Chief General Manager/ Executive Director & equivalent	1020/-	1275/-

ii) Fringe Benefit (Field):-

Sr. No.	Category of post	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Executive Engineer & equivalent	1580/-	1975/-
2	Supdtg. Engineer/Dy Chief Engineer & equivalent	1780/-	2225/-
3	Chief Engineer / Executive Director & equivalent	1980/-	2475/-

Note:- Each employee will get only one Fringe Benefit i.e Admin OR Field.

B) Allowances as per G.O.124 (P) dated 06.04.1990 read with Admn Cir.No 452 dt 05.10.2019.

i) Electricity Charge Allowance:-

The existing rate of Rs.1100/- per month is revised to Rs.1375/-per month.

ii) Transport Assistance Allowance:-

Sr. No.	Category	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Officers of the rank of Executive Engineers equivalent and above working in Municipal Corporation area.	380/-	475/-
2	Officers of the rank of Executive Engineers equivalent and above working in other than Municipal Corporation area.	250/-	315/- 1221

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iii) Special Duty Allowance:-

The existing rate of Rs. 880/- per month is revised to Rs. 1100/- per month.

iv) Night Shift Allowance:-

The existing rate of Rs. 380/- per night duty is revised to **Rs. 475/-** per night duty w.e.f. 01.04.2023 to the category of Executive Engineer equivalent who are performing night shift duty.

C) Orderly Allowances (G.O.103 (P) dated 12.02.1981 read with Admn Cir.No 452 dt 05.10.2019:-

Sr. No.	Categories	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Executive Engineer/Asst. General Manager (HR/F&A) & equivalent	8750/-	10,940/-
2	Supdtg. Engineer/Dy. General Manager & equivalent	11250/-	14065/-
3	Dy Chief Engineer/General Manager & equivalent	12000/-	15000/-
4	Chief Engineer & equivalent	13750/-	17190/-
5	Executive Director & equivalent	16000/-	20000/-

D) Book Allowances for senior Officer (G.O.125 (P), dated 06.04.1990 read with Admn Cir.No 452 dt 05.10.2019.

Sr. No.	Categories	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Executive Engineer/Asst. General Manager (HR/F&A) & equivalent	1520/-	1900/-
2	Supdtg. Engineer / Dy. General Manager & equivalent	2000/-	2500/-
3	Dy Chief Engineer/General Manager & equivalent	2500/-	3125/-
4	Chief Engineer & equivalent	3000/-	3750/-
5	Executive Director & equivalent	3500/-	4375/-

E) System Allowance for Management Cadre (Admin. Cir.No.458 dt 29.01.2020

Sr. No	Categories	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Executive Engineer/Asst. General Manager (HR/F&A) & equivalent	3490/-	4365/-
2	Supdtg. Engineer / Dy. General Manager & equivalent	3930/-	4915/-
3	Dy Chief Engineer/General Manager & equivalent	4320/-	5400/-
4	Chief Engineer / Chief General Manager & equivalent	4650/-	5815/-
5	Executive Director & equivalent	6000/-	7500/-

F) Entertainment Allowance (G.O. 138(P) dated 28.12.1995 read with Admn Cir.No 452 dt 05.10.2019:-

Sr. No	Categories	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Sr. Officers of the rank of Executive Engineers equivalent and above	1300/-	1625/-

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G) Non Practicing Allowance (Administrative Circular No. 83 dated 27.08.2009 & Admn Cir.No 452 dt 05.10.2019:-

Sr. No	Name of category	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Medical Superintendent	4850/-	6065/-

F) Professional Pursuit Allowance (As per Administrative Circular No. 415 dtd. 19.08.2014 & Administrative Circular No. 452 dtd. 05.10.2019)

Sr. No	Name of category	Existing Rates (p.m.) (Rs.)	Revised Rates (p.m.) (Rs.)
1	Ex. Engineer / AGM (HR/F&A) & equivalent	4000/-	5000/-
2	Supdtd. Engineer/ Dy General Manager & equivalent	6000/-	7500/-
3	Dy Chief Engineer/General Manager & equivalent	8000/-	10000/-
4	Chief Engineer & equivalent	10000/-	12500/-
5	Executive Engineer & equivalent	12000/-	15000/-

- 2) The effect of the revised rate of allowances as mentioned above shall be given in the month of August, 2024. Further, the payment of arrears accruing w.e.f. 01.04.2023 shall be paid as per the instructions given in Administrative Circular No. 548 dated 09.08.2024.
- 3) All other provision of the allowances contained in the respective General Orders/ Administrative Circular enumerated in this Administrative Circular shall remain unchanged.
- 4) All the concerned Officers are also requested to display this Administrative Circular on the Notice Board.
- 5) This Administrative Circular is also available on company's website i.e. www.mahagenco.in

(Dr. Dhananjay Sawalkar) Executive Director (HR)

Annexure 24

Documents related to alternate power supply -MSPGCL BR No.
MSPGCL/BM225 / Item 225.13 Dtd.
28.08.2024, GoM direction Dtd. 23.09.2024 with Corrigendum Dtd. 25.09.2024.

Maharashtra State Power Generation Co. Ltd.
Prakashgad, 2nd Floor,
Prof. Anant Kanekar Marg,
Bandra (East), Mumbai-400 051.
Tel.Nos.022-26472131/4211

Date: 28.08.2024

CIN U40100MH2005SGC153648

Ref.No.:- MSPGCL/BM225 /Item 225.13

Copy of Resolution passed in the Meeting of Board of Directors held on 19.08.2024

Item no 225.13: Procurement of power as Alternate power, as per MSEDCL request to mitigate the expected supply shortfall in Maharashtra Grid:-

- Appraisal of MSEDCL Request, relevant provisions under PPA and extant MERC/ CERC Regulations and deliberations thereof.

Resolution no. 2024/3916: The Board noted the appraisal on curtailed exchange access of MSEDCL, MSEDCL request for arranging alternate supply of power by procurement from Power Exchange in the larger public interest against the MSPGCL's unit under statutory outages. Hence to mitigate the situation of supply short fall in the state of Maharashtra, as an extra-ordinary measure the Board approved following:

- 1. The Board considered the deliberations on details like provisions under PPA, prevailing MERC Regulations and MSPGCL's DoP and it was resolved that to utilise the provision of CERC IEGC regulation provision, there is the need for directions from GoM in this regard / MERC approval by MSEDCL,
- 2. "RESOLVED further that Chairman & Managing Director, MSPGCL be and is hereby authorized to give the effect to the above said resolution and to make & do all such acts and deeds and things necessary if any, to carry out Procurement of power on Power Exchange for supply of the same to MSEDCL at cost to cost basis as alternate supply & as per direction from GoM / MERC approval".

Me ou

Company Secretary MSPGCL



Abha Shukla, I.A.S.

Additional Chief Secretary (Energy)

INDUSTRIES, ENERGY, LABOUR AND MINING DEPARTMENT

GOVERNMENT OF MAHARASHTRA Hutatma Rajguru Chowk, Madam Cama Road, Mantralaya, Mumbai 400 032

Tel. (Off.): (+91-22) 22026767 /22048238 E-mail: psec.energy@maharashtra.gov.in

Date:

D.O.No.-2024/C.R.166/Energy-5 Date: 23 September, 2024

To,

The Chairman and Managing Director,

Maharashtra State Power Generation Company Limited (MSPGCL), Prakashgad, Bandra (E), Mumbai – 51.

Subject: Directions under Section 11 of the Electricity Act, 2003

The demand for power in the State has gone up by almost 20% in energy terms. At present the peak electricity demand of State stands at approximately 25,500 -26,000 MW. Approaching the months of October-2024 and November-24, the monsoon is expected to start withdrawing. This will likely to lead to an increased need for water pumping to support continued agricultural activities. Additionally, the post-monsoon period coupled with the "October Heat Effect" typically drives up electricity consumption. In addition to this, upcoming festive season (Navratri, Diwali) will also increase the demand of State. Consequently, State peak demand is projected to rise to approximately 27,500 MW during these months.

In view of upcoming assembly elections, it is necessary in the public interest to maintain the supply to avoid Law & Order situation/public unrest.

At present, the generation availability from the MSPGCL's thermal generating stations is about 6,300 MW against contracted capacity of 9,540 MW. Less availability from MSPGCL stations has resulted in a generation shortfall to meet the State demand. Further, some of MSPGCL generating stations are under planned/ forced outages and not declaring capacity in full. This results load shedding situation in the state and if MSPGCL not available with full capacity then situation may goes worse and create law and order issue.

In the light of the present emergent circumstances, the following directions are issued in the public interest under Section-11 of the Electricity Act:

a) MSPGCL is directed to ensure operation and generation of electricity from all its operational power plants to their full capacity to meet the immediate demand in the state as per requirement of PPA holder. This includes optimizing the operation of thermal, hydro, and renewable energy plants.

- b) Utilization of Available Resources: MSPGCL should explore all available resources, including Indigenous fuel procurement and maintenance scheduling, to enhance generation capacity wherever feasible.
- c) Power from alternate source: In case of any technical glitches in supply of sufficient coal/ quality of coal or any force outage of plants, MSPGCL shall arrange power in consultation with PPA holder from all available alternate sources for declaration of full availability. It is instructed that MSPGCL to submit reasons for opting to deliver power from alternate source. It may be noted that the pass-through of the actual additional burden due to such alternate power would be allowed by the appropriate Commission. The payment shall be made to the MSPGCL on a weekly basis by DISCOMs. Further, for computation of fixed charges, the availability on account of alternate source will not be considered.
- d) **Reporting:** MSPGCL must provide daily updates on generation status, fuel availability, and any operational challenges encountered to the Department of Energy, SLDC and PPA holder.
- e) **Compliance:** All necessary steps should be taken to comply with these directions promptly and effectively, keeping in mind the importance of ensuring a stable power supply for the citizens of Maharashtra.

This order is to be followed with immediate effect and shall remain valid upto 31.12.2024.

This directive is issued in the interest of public safety and welfare, and compliance is to be done with immediate effect.

This issue with the approval of the Competent Authority.

Additional Chief Secretary (Energy) Government of Maharashtra

Copy to:

- 1) The Secretary, Maharashtra Electricity Regulatory Commission, Mumbai 05.
- 2) The Chairman and Managing Director, MSEDCL, Prakashgad, Bandra (E), Mumbai 51.



Abha Shukla, I.A.S.

Additional Chief Secretary (Energy)

INDUSTRIES, ENERGY, LABOUR AND MINING DEPARTMENT

Government of Maharashtra Hutatma Rajguru Chowk, Madam Cama Road, Mantralaya, Mumbai 400 032

Tel. (Off.): (+91-22) 22026767/22048238 E-mail: psec.energy@maharashtra.gov.in

Date: 25/09/2024

To,
The Chairman and Managing Director,
Maharashtra State Power Generation Company Limited (MSPGCL),
Prakashgad, Bandra (E),
Mumbai – 51.

Subject: Corrigendum to Directives under Section 11 of the Electricity Act, 2003

Reference: D.O. No. -2024/C.R.166/Energy-5 dated 23.09.2024

This is in continuation with the letter under reference. The Sr. No. (c) of directives issued vide letter under reference under Section-11 of the Electricity Act is clarified as follows:

c) Power from alternate source: Alternate power supply is allowed for all units of MSPGCL which are under forced outage only, as per Indian Electricity Grid Code, 2023 Regulation No. 48 (1).

This order shall remain valid upto 31.12.2024.

This directive is issued in the interest of public safety and welfare, and compliance is to be done with immediate effect.

Additional Chief Secretary (Energy) Government of Maharashtra

Copy to:

1) The Secretary, Maharashtra Electricity Regulatory Commission, Mumbai – 05.

2) The Chairman and Managing Director, MSEDCL, Prakashgad, Bandra (E), Mumbai - 51.

3) The Chief Engineer (SLDC), MSETCL, Airoli, Navi Mumbai - 400708

Annexure 25

Revised Labour Wage Circulars.



महाराष्ट्र राज्य वीज निर्मिती कंपनी मर्यादित

महाराष्ट्र शासन उपक्रम (सीआयएन: यु४०१००एमएच२००५एसजीसी१५३६४८) एच.डी.आय.एल टॉवर, 'ए' विंग, ४ था मजला, बांद्रा (पुर्व), मुंबई - ४०० ०५१.

दूरध्वनी क्र. ९१-२२-२६५८२४२४ विस्तारीत क्र.३५२ website:www.mahagenco.in Email ID-ciro@mahagenco.in



क्र. औसवि/कंका/वेतन/ 4 64

m10720

दिनांक:-

1 4 OCT 2024

परिपत्रक

विषय:— महानिर्मिती कंपनीच्या विद्युत केंद्रात कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनात (बेसिकमध्ये) १९% वाढ दि. ०१.०४.२०२४ पासून लागू करणेबाबत.

संदर्भ :— कक्ष अधिकारी, उद्योग, ऊर्जा, कामगार व खनिकर्म विभाग, मंत्रालय, मुंबई, महाराष्ट्र शासन यांचे पत्र क्र. संकिर्ण—२०२४/प्र.क्र.१२६/ऊर्जा—२ दि. १४.१०.२०२४

कक्ष अधिकारी, महाराष्ट्र शासन, उद्योग, ऊर्जा, कामगार व खनिकर्म विभाग, मंत्रालय, मुंबई यांचे पत्र क्र. संकिर्ण—२०२४/प्र.क्र.१२६/ऊर्जा—२ दि. २४.०९.२०२४ अन्वये, वीज कंत्राटी कामगारांच्या विविध मागण्यांच्या अनुषंगाने मा. उपमुख्यमंत्री तथा मंत्री (ऊर्जा) यांच्या अध्यक्षतेखाली दि.०९.०९.२०२४ रोजी मुंबई येथे बैठक आयोजित करण्यात आली होती. सदर बैठकीत महानिर्मिती, महापारेषण व महावितरण कंपनीमधील बाहयस्त्रोतामधून काम करणाऱ्या कंत्राटी कामगारांच्या मुळ वेतनामध्ये (बेसिकमध्ये) १९% इतकी वाढ दि. ०१.०४.२०२४ पासून करण्याचा निर्णय घेण्यात आला असल्याने त्याची अंमलबजावणी तिन्ही कंपन्यांनी करणेबाबत कळविण्यात आले आहे.

त्यानुषंगाने, मा. अध्यक्ष व व्यवस्थापकीय संचालक, महानिर्मिती यांनी संचालक (वित्त/संचलन/प्रकल्प/इंधन) व कार्यकारी संचालक (मासं) यांच्याशी विचारविनिमय करुन महानिर्मिती कंपनीच्या विद्युत केंद्रात कंत्राट्दाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनात (बेसिकमध्ये) १९% इतकी वाढ लागू करण्यास मंजुरी प्रदान केलेली असून मुळ वेतनाचे दर खालीलप्रमाणे राहतील.

महानिर्मिती कंपनीत कार्यरत बाहयस्त्रोत कंत्राटी कामगारांचे किमान वेतन दर (अनुसूची— कारखाने अधिनियमांतर्गत)

अ. क्र	कामगारांची वर्गवारी	मूळ	किमान वेतन (दरमहा रु	पये)
	1	परिमंडळ—१	परिमंडळ-२	परिमंडळ-३
8	कुश:ल	१५,०००/—	१४,००६/-	१३,३९३/—
7	अर्धकुशल	१३,६२०/—	१२,८५२/-	१२,०९०/-
3	अकुशल	१२,३१७/—	११,4४९/-	१०,७१०/—

सबब, महानिर्मिती कंपनीत कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना वरीलप्रमाणे मुळ वेतन (बेसिक) खालील निकषानुसार लागू करण्यात येत आहेत.

- १. महानिर्मिती कंपनीने घेतलेल्या निर्णयानुसार कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ देण्यात येत आहे.
- २. बाहयस्त्रोत कंत्राटी कामगारांना फक्त मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ करावयाची असल्याने कायदेशीर देणी व्यतिरीक्त इतर भत्त्यांमध्ये कोणतीही वाढ करण्यात येणार नाही.

- ३. सद्यस्थितीत कंत्राटी कामगारांना देण्यात येणारा पुरक भत्ता हा पूर्वीच्या मुळ वेतनावर आधारीत २०% देण्यात येत असल्याने त्यामध्ये १९% ची वाढ न करता सदर पूरक भत्त्याची सद्यस्थितीत असलेली रक्कम कायमस्वरुपी स्थिर करण्यात येत आहे.
- ४. महाराष्ट्र शासनाकडून मुंबई दुकाने व आस्थापना अनुसूची व कारखाने अधिनियमांतर्गत सुधारीत किमान वेतनाची मसुदा अधिसूचना दि. १२.०८.२०२४ रोजी निर्गमित करण्यात आलेली आहे. भविष्यात कामगार विभागाकडून कंपनीतील कंत्राटी कामगारांना लागू असलेल्या किमान वेतनामध्ये १९ टक्क्याहून अधिक वाढ करणारी अधिसूचना निर्गमित झाल्यास जास्तीच्या वेतनामधील फक्त फरक कंत्राटी कामगारांना देय राहील. त्यामुळे ज्यावेळेस महाराष्ट्र शासनाकडून किमान वेतनाचे दर निश्चित केल्या जातील त्या दिवसापासून कंत्राटी कामगारांना सदर अधिसूचनेमधील मुळ किमान वेतनाचे दर लागू करण्यात येतील.

५. महानिर्मिती कंपनीतील कंत्राटी कामगारांना उपरोक्त १९% मुळ वेतनातील वाढ ही दि. ०१.०४.२०२४ पासून महाराष्ट्र शासनाची सुधारीत किमान वेतनाची अधिसूचना मुंबई दुकाने व आस्थापना/कारखाने अधिनियम अनुसूची अंतर्गत जारी होईपर्यंत लागू राहील.

६. महानिर्मिती कंपनीच्या विद्युत केंद्रात कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना वरीलप्रमाणे सुधारीत मुळ वेतनाचा (बेसिकमध्ये) लाभ सोबत जोडलेल्या तक्त्यानुसार ऑक्टोबर, २०२४ च्या वेतनात देण्यात यावा व केलेल्या कार्यवाहीचा अहवाल सांधिक कार्यालयास सादर करण्यात यावा.

सोबत: मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ दिल्यास किमान वेतनाचे दर, कायदेशीर देणी व इतर भत्ते अदा करण्याचा तक्ता

(डॉ. नितीन वाघ)

कार्यकारी संचालक (मासं)(प्र.)

प्रित, (ई—मेलद्वारे) सर्व मुख्य अभियंता, विद्युत केंद्रे, महानिर्मिती. व महानिर्मिती कंपनीच्या प्रेषण यादिप्रमाणे.

परिपत्रक क्र. औसंवि/कंका/वेतन/४६४/१०७२० दि. १४.१०.२०२४ यांस सुधारीत तक्ता

महानिर्मिती कंपनीत विद्युत निर्मिती केंद्रात कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना कारखाने अधिनियमांतर्गत सद्यस्थितीत अदा करण्यात येणाऱ्या मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ दिल्यास किमान वेतनाचे दर, कायदेशीर देणी व इतर भत्ते खालीलप्रमाणे राहतील.

अक्र	बाब	%		परिमंडळ -	8		परिमंडळ -	2		परिमंडळ —:	3
			कुशल	अर्धकुशल	अकुशल	कुशल	अर्धकुशल	अकुशल	कुशल	अर्धकुशल	अकुशल
8	मूळ वेतन (GoM)		१२६०५	११४४५	१०३५०	११७७०	80600	9904	११२५५	१०१६०	9000
२	मूळ वेतनात १९% वाढ		२३९५	२१७५	१९६७	२२३६	२०५२ ,	१८४४	२१३८	१९३०	१७१०
3	एकूण नवीन मूळ वेतन		84000	१३६२०	१२३१७	१४००६	१२८५२	११५४९	१३३९३	१२०९०	१०७१०
8	विशेषभत्ता (GoM)		2040	२७५०	2040	2040	2940	2040	2040	2040	2940
	एकूण किमान वेतन (३ + ४)		१७७५०	१६३७०	१५०६७	१६७५६	१५६०२	१४२९९	१६१४३	१४८४०	१३४६०
4	भविष्य निर्वाह निधी	१२	२१३०	१९६४	१८०८	२०११	१८७२	१७१६	१९३७	१७८१	१६१५
Ę	भविष्य निर्वाह निधी प्रशासकीय खर्च	8	१७८	१६४	१५१	१६७	१५६	१४३	१६१	१४८	१३५
9	घरभाडे भत्ता	4	666	८१९	७५३	636	960	७१५	200	७४२	६७३
٥	रजेचे रोखीकरण	8	७१०	६५५	६०३	६ ७०	६२४	402	६४६	488	436
9	बोनस	८.३३	१४७९	१३६४	१२५५	१३९६	१३००	११९१	१३४५	१२३६	११२१
१०	कपात नुकसान भरपाई (उपदान)	4	666	८१९	७५३	८३८	920	७१५	600	982	£93
११	कामगार सुरक्षितता विमा योजना	2.40	888	४०९	300	४१९	390	340	४०३	3.08	३३६
१२	गणवेश भत्ता		309	२८४	२६२	२९०	२७१	२४९	२८०	246	234
१३	धुलाई भत्ता		309	२८४	२६२	290	२७१	289	260	246	234
88	सुरक्षितता साधने		300	268	२६२	290	२७१	२४९	260	246	234
१५	शिक्षण भत्ता		309	268	२६२	290	२७१	288	260	246	234
१६	सायकल आणि वाहन भत्ता	स्थिर	309	२८४	२६२	२९०	२७१	.586	२८०	246	234
१७	जोखीम भत्ता		१५३६	१४२०	१३१०	१४५२	१३५५	१२४६	१४०१	१२९१	११७५
१८	पाळी भत्ता		७६८	७१०	६५५	७२६	६७८	६ २३	900	£8£	466
88	साईट भत्ता		२६१०	२४१३	२२२७	२४६८	२३०४	2880	२३८१	7884	
२०	पूरक भत्ता (फक्त मूळ किमान वेतन अ.क्र. १वर)		२५२१	२२८९	2000	2348	२१६०	8888	2248	2032	१९९८ १८००
	एकूण वेतन	433.1	33830	३०८१६	२८३३९	38484	२९३५६	२६८८०	३०३८२	20906	24260

मुख्य औद्योगिक संबंध अधिकारी सांधिक कार्यालय, मुंबई.



महाराष्ट्र राज्य वीज निर्मिती कंपनी मर्यादित

महाराष्ट्र शासन उपक्रम (सीआयएन: यु४०१००एमएच२००५एसजीसी१५३६४८) एच.डी.आय.एल टॉवर, ए' विंग, ४ था मजला, बांद्रा (पुर्व), मुंबई - ४०० ०५१.

दूरध्वनी क्र. ९१-२२-२६५८२४२४ विस्तारीत क्र.३५२ website:www.mahagenco.in Email ID-ciro@mahagenco.in



क्र. औसवि/कंका/वेतन/465 10 7 2 1

दिनांक:- 1 4 001 2024

परिपत्रक

विषय:— महानिर्मिती कंपनीच्या सांधिक कार्यालय, मुंबई/विभागीय कार्यालयांमध्ये कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनात (बेसिकमध्ये) १९% वाढ दि. ०१.०४.२०२४ पासून लागू करणेबाबत.

संदर्भ :- कक्ष अधिकारी, उद्योग, ऊर्जा, कामगार व खनिकर्म विभाग, मंत्रालय, मुंबई, महाराष्ट्र शासन यांचे पत्र क्र. संकिर्ण-२०२४/प्र.क्र.१२६/ऊर्जा-२ दि. १४.१०.२०२४

कक्ष अधिकारी, महाराष्ट्र शासन, उद्योग, ऊर्जा, कामगार व खनिकर्म विभाग, मंत्रालय, मुंबई यांचे पत्र क्र. संकिर्ण—२०२४/प्र.क्र.१२६/ऊर्जा—२ दि. २४.०९.२०२४ अन्वये, वीज कंत्राटी कामगारांच्या विविध मागण्यांच्या अनुषंगाने मा. उपमुख्यमंत्री तथा मंत्री (ऊर्जा) यांच्या अध्यक्षतेखाली दि.०९.०९.२०२४ रोजी मुंबई येथे बैठक आयोजित करण्यात आली होती. सदर बैठकीत महानिर्मिती, महापारेषण व महावितरण कंपनीमधील बाहयस्त्रोतामधून काम करणाऱ्या कंत्राटी कामगारांच्या मुळ वेतनामध्ये (बेसिकमध्ये) १९% इतकी वाढ दि. ०१.०४.२०२४ पासून लागू करण्याचा निर्णय घेण्यात आला असल्याने त्याची अंमलबजावणी तिन्ही कंपन्यांनी करणेबाबत कळविण्यात आले आहे.

त्यानुषंगाने, मा. अध्यक्ष व व्यवस्थापकीय संचालक, महानिर्मिती यांनी संचालक (वित्त/संचलन/प्रकल्प/इंधन) व कार्यकारी संचालक (मासं) यांच्याशी विचारविनिमय करुन महानिर्मिती कंपनीच्या सांधिक कार्यालय, मुंबई/विभागीय कार्यालयांमध्ये कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनात (बेसिकमध्ये) १९% इतकी वाढ लागू करण्यास मंजुरी प्रदान केलेली असून मुळ वेतनाचे दर खालीलप्रमाणे राहतील.

महानिर्मिती कंपनीत कार्यरत बाहयस्त्रोत कंत्राटी कामगारांचे किमान वेतन दर (अनुसूची— मुंबई दुकाने व आस्थापना अधिनियमांतर्गत)

अ. क्र	कामगारांची वर्गवारी	मूळ	किमान वेतन (दरमह	ा रुपये)
		परिमंडळ-१	परिमंडळ२	परिमंडळ-३
8	कुशल	१३,८४२/—	१३,१३३/—	१२,४२४/—
2	अर्धकुशल	१२,९१९/—	१२,२०९/—	११,400/-
3	अकुशल	११,९२५/—	११,२१६/-	१०,५०५/-

सबब, महानिर्मिती कंपनीच्या सांधिक कार्यालय, मुंबई/विभागीय कार्यालयांमध्ये कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना वरीलप्रमाणे मुळ वेतन (बेसिक) खालील निकषानुसार लागू करण्यात येत आहेत.

१. महानिर्मिती कंपनीने घेतलेल्या निर्णयानुसार कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ देण्यात येत आहे.

- २. बाहयस्त्रोत कंत्राटी कामगारांना फक्त मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ करावयाची असल्याने कायदेशीर देणी व्यतिरिक्त इतर भत्त्यांमध्ये कोणतीही वाढ करण्यात येणार नाही.
- ३. सद्यस्थितीत कंत्राटी कामगारांना देण्यात येणारा पुरक भत्ता हा पूर्वीच्या मुळ वेतनावर आधारीत २०% देण्यात येत असल्याने त्यामध्ये १९% ची वाढ न करता सदर पूरक भत्त्याची सद्यस्थितीत असलेली रक्कम कायमस्वरुपी स्थिर करण्यात येत आहे.
- ४. महाराष्ट्र शासनाकडून मुंबई दुकाने व आस्थापना अनुसूची व कारखाने अधिनियमांतर्गत सुधारीत किमान वेतनाची मसुदा अधिसूचना दि. १२.०८.२०२४ रोजी निर्गमित करण्यात आलेली आहे. भविष्यात कामगार विभागाकडून कंपनीतील कंत्राटी कामगारांना लागू असलेल्या किमान वेतनामध्ये १९ टक्क्याहून अधिक वाढ करणारी अधिसूचना निर्गमित झाल्यास जास्तीच्या वेतनामधील फक्त फरक कंत्राटी कामगारांना देय राहील. त्यामुळे ज्यावेळेस महाराष्ट्र शासनाकडून किमान वेतनाचे दर निश्चित केल्या जातील त्या दिवसापासून कंत्राटी कामगारांना सदर अधिसूचनेमधील मुळ किमान वेतनाचे दर लागू करण्यात येतील.
- ५. महानिर्मिती कंपनीतील कंत्राटी कामगारांना उपरोक्त १९% मुळ वेतनातील वाढ ही दि. ०१.०४.२०२४ पासून महाराष्ट्र शासनाची सुधारीत किमान वेतनाची अधिसूचना मुंबई दुकाने व आस्थापना/कारखाने अधिनियम अनुसूची अंतर्गत जारी होईपर्यंत लागू राहील.
- इ. महानिर्मिती कंपनीच्या सांधिक कार्यालय मुंबई/विभागीय कार्यालयांमध्ये कंत्राटदाराच्या अधिनस्थ कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना वरीलप्रमाणे सुधारीत मुळ वेतनाचा (बेसिकमध्ये) लाभ सोबत जोडलेल्या तक्त्यानुसार ऑक्टोबर, २०२४ च्या वेतनात देण्यात यावा व केलेल्या कार्यवाहीचा अहवाल सांधिक कार्यालयास सादर करावा.

सोबत:— मुळ वेतनामध्ये (बेसिकमध्ये) १९% वाढ दिल्यास किमान वेतनाचे दर, कायदेशीर देणी व इतर भत्ते अदा करण्याचा तक्ता

(डॉ. नितीन वाघ)

कार्यकारी संचालक (मासं)(प्र.)

प्रति, (ई—मेलद्वारे) महानिर्मिती कंपनीच्या प्रेषण यादिप्रमाणे महानिर्मिती कंपनीतील सांधिक कार्यालय व सर्व विभागीय कार्यालये (परिमंडळ—१/२/३) येथे कार्यरत बाहयस्त्रोत कंत्राटी कामगारांना मुंबई दुकाने व आस्थापना अधिनियमांतर्गत सद्यस्थितीत अदा करण्यात येणाऱ्या किमान वेतनामध्ये (बेसिकमध्ये) १९% वाढ दिल्यास किमान वेतनाचे दर, कायदेशीर देणी व इतर भत्ते खालीलप्रमाणे राहतील.

अक्र	बाब	%		परिमंडळ -१			परिमंडळ - इ	2		परिमंडळ —	}
			कुशल	अर्धकुशल	अकुशल	कुशल	अर्धकुशल	अकुशल	कुशल	अर्धकुशल	अकुशल
8	मूळ वेतन (GoM)		११६३२	१०८५६	१००२१	११०३६	१०२६०	9824	१०४४०	९६६४	८८२८
2	मूळ वेतनात १९% वाढ		२२१०	२०६३	१९०४	२०९७	-8888	१७९१	१९८४	१८३६	१६७७
ą	एकूण नवीन मूळ वेतन		१३८४२	१२९१९	११९२५	१३१३३	१२२०९	११२१६	१२४२४	११५००	१०५०५
8	विशेषभत्ता (GoM)		3240	3240	3240	3240	3240	३२५०	3240	3240	3240
	एकूण किमान वेतन (३ + ४)		१७०९२	१६१६९	१५१७५	१६३८३	१५४५९	१४४६६	१५६७४	१४७५०	१३७५५
4	भ.नि.नि	88	२०५१	१९४०	१८२१	१९६६	१८५५	१७३६	१८८१	१७७०	१६५१
Ę	भ.नि.नि प्रशासकीय खर्च	8	१७१	१६२	१५२	१६४	१५४	१४५	१५७	१४७	१३७
9	घरभाडे भत्ता	4	244	٥٥٤	७५९	८१९	७७३	७२३	७८४	७३८	६८८
۷	रजा रोखीकरण	8	६८४	६४७	६०७	६५५	६१८	409	६२७	490	440
9	उपदान	8	६८४	६४७	६०७:	६५५	६१८	409.	६२७	490	440
१०	ई.एस.आय.सी.	3.24	444	424	893	432	407	890	409	899	889
११	बोनस	८.३३	१४२४	१३४७	१२६४	१३६५	१२८८	१२०५	१३०६	१२२९	११४६
१२	पूरक भत्ता (फक्त मूळ किमान वेतन अ.क्र.१ वर)	स्थिर	२३२६	२१७१	२००४	२२०७	२०५२	१८८५	२०८८	१९३३	१७६६
	एकूण वेतन		२५८४२	२४४१६	२२८८२	२४७४६	२३३१९	२१७८८	२३६५३	२२२२६	२०६९०

मुख्य ओद्योगिक संबंध अधिकारी सांघिक कार्यालय, मुंबई.

Annexure 25 (a)

Supporting documents related to claim of Legacy charges raised by SLDC



ग्रेड कंट्रोलर ऑफ इंडिया लिमिटेड

GRID CONTROLLER OF INDIA LIMITED

(A Government of India Enterprise)

[formerly Power System Operation Corporation Limited (POSOCO)]

पश्चिम क्षेत्रीय भार प्रेषण केन्द्र / Western Regional Load Despatch Centre

कार्यालय : एफ-3, एम. आई. डी. सी. क्षेत्र, मरोल, अंधेरी (पूर्व), मुंबई-400093 Office : F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai- 400093

CIN: U40105DL2009GOI188682, Website: www.wrldc.in, E-mail: wrldc@grid-india.in, Tel.: 022 28202690, Fax: 022 28235434, 28202630

Ref: WRLDC/MO/DSM-2024/1250

11th November'2024

To

As per the distribution list.

Subject: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for the period prior to 16.09.2024 (Statement for Legacy Dues).

Ref: CERC Approved "Detailed Procedure for recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Account" dated 15.10.2024

Sir,

The CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 came into effect from 16.09.2024. In compliance of the Regulation No. 9(7), NLDC was required to prepare a procedure for Recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Accounts.:

Quote

"9(7)Provided further that the NLDC shall prepare, with the approval of the Commission, a detailed procedure for recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Accounts....."

Unquote

Accordingly, a procedure was submitted by NLDC to Hon'ble CERC incorporating the methodology for legacy dues recovery with reference to the Deviation and Ancillary Services pool accounts for the period prior 16.09.2024. The said procedure has been approved by the Hon'ble CERC with effect from 15.10.2024.

In line with the said procedure, the statement namely "NLDC: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for period prior 16.09.2024" has been prepared by NLDC. Same is enclosed as Annexure-1. All input details used for computation of the above statement are also enclosed (ref. Annexure-2 to 6).

Accordingly, you are requested to make the payment as per the enclosed Statement within the due date in the WR Deviation and Ancillary Services Pool account. If payments by the drawee DICs are delayed beyond ten (10) days from the instalment date, the drawee DICs shall be liable to pay simple interest @ 0.04% for each day of delay.

Further, it may please be noted that the amounts pertaining to legacy dues instalments shall not be adjusted or net off with any other statements pertaining to the Deviation and Ancillary Services pool or any such other amounts.

Thanking You, Sincerely yours,

(V. Balaji) Head of WRLDC

Page 1 of 2

Subject: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for the period prior to 16.09.2024 (Statement for Legacy Dues).

Enclosures:

- 1. Annexure-1: NLDC Statement for Legacy Dues dated 11.11.2024
- 2. Annexure-2: Instalment details and due date of payment
- 3. Annexure-3: Details of average GNA value for the period Oct'23 to Sept'24
- 4. Annexure-4: Details of GNA for the period Oct'23 to Sept'24
- 5. Annexure-5: Details of Drawl (excluding injection) for the period 16.09.2023 to 15.09.2024
- 6. Annexure-6: Details of legacy dues shortfall in the Deviation and Ancillary Service pool accounts

Distribution List: Drawee Designated ISTS Customers (DICs) of WR (Through email)

- 1. Gujarat
- 2. Madhya Pradesh
- 3. Maharashtra
- 4. Chhattisgarh
- 5. Goa WR
- 6. DNHDDPDCL
- 7. AMNSIL
- 8. PG-HVDC-WR
- 9. BARC
- 10. BALCO-LOAD-WR

Copy for kind information:

- 1. The Secretary, CERC
- 2. Member Secretary, WRPC
- 3. CMD, Grid-India
- 4. Director (SO), Grid-India
- 5. Director (MO), Grid-India
- 6. CGM (I/C), NLDC

Enotypin



ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)





(A Government of India Enterprise)

[formerly Power System Operation Corporation Limited (POSOCO)] राष्ट्रीय भार प्रेषण केन्द्र/National Load Despatch Centre

कार्यालय: बी-9, प्रथम एवं द्वितीय तल, कुतुब इंस्टीट्रयूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016 Office: 1st and 2nd Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016 CIN: U40105DL2009GOI188682, Website: www.grid-india.in, E-mail: gridindiacc@grid-india.in, Tel.: 011-42785855

Ref: NLDC/MO/DSM-2024/170

11th November'2024

To

Heads of RLDCs

Subject: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for period prior 16.09.2024 (Statement for Legacy Dues)

Sir,

The CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 came into effect from 16.09.2024. In compliance of the Regulation No. 9(7), NLDC has prepared a procedure for Recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Accounts which has been approved by the Hon'ble Commission on 15.10.2024.

The procedure also incorporates methodology for recovery of legacy dues with reference to the Deviation and Ancillary Service pool accounts for the period prior to 16.09.2024... Relevant extracts from the procedure are quoted below:

Quote

"9(2) NLDC shall publish the net deficit recovery statement for the period prior to 16.09.24 as per Format_Net shortfall Recovery_Legacy Dues. The net shortfall shall be recovered in equal instalments on a weekly basis in such a way that the total shortfall for the period prior to 16.09.2024 shall be recovered by the end of the financial year 2024-25."

In line with the detailed procedure, the statement for legacy dues namely, "NLDC: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for period prior 16.09.2024" has been prepared and enclosed as Annexure-1. The instalment details and due date of payment for each instalment is enclosed as Annexure-2.

As mentioned in the procedure, apportionment of legacy dues amongst the drawee DICs has been made in the ratio of [50% in proportion to their drawal at the ISTS periphery] and [50% in proportion to their

Accordingly, details of average GNA value and GNA for the period Oct'23 to Sept'24 as per notification of Transmission charges payable by DICs is enclosed as Annexure-3 and Annexure-4 respectively. Details of Drawl (excluding injection) for Drawee DICs for the period 16.09.2023 to 15.09.2024 is enclosed as Annexure-5.

Details of legacy dues shortfall in the Deviation and Ancillary Service pool accounts is enclosed as

You are kindly requested to intimate this to all the concerned DSM pool members and convey the Drawee DICs to pay the amount in time as mentioned in Annexure-2. If payments by the drawee DICs are delayed beyond ten (10) days from the instalment date, the drawee DICs shall be liable to pay simple interest @ 0.04% for each day of delay.

Page 1 of 2

पंजीकृत कार्यालय : प्रथम तल, बी-9, कृतुब इंस्टीट्रयूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016 1239 Registered Office: First Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016

Further, it may be conveyed that the Drawee DICs shall not net off amounts pertaining to legacy dues instalments with any other statements pertaining to the Deviation and Ancillary Services pool or any such other amounts.

Thanking You, Sincerely yours,

(S Usha) CGM I/C, NLDC

Enclosed within:

- 1. Annexure-1: NLDC Statement for Legacy Dues dated 11.11.2024
- 2. Annexure-2: Instalment details and due date of payment
- 3. Annexure-3: Details of average GNA value for the period Oct'23 to Sept'24
- 4. Annexure-4: Details of GNA for the period Oct'23 to Sept'24
- 5. Annexure-5: Details of Drawl (excluding injection) for the period 16.09.2023 to 15.09.2024
- 6. Annexure-6: Details of legacy dues shortfall in the Deviation and Ancillary Service pool accounts

Copy for kind information:

- 1. CMD, Grid-India
- 2. Director (SO), Grid-India
- 3. Director (MO), Grid-India



NLDC: Net Deviation & Ancillary Services Pool Account Deficit Recovery Statement for period prior 16.09.2024 (Legacy Dues)

Date:

11-11-2024

Net shortfall Amount in all regional Deviation & Ancillary Services Pool Accounts prior to 16.09.2024 (Rs) (A)	31,42,05,43,772.00
50% Recovery in proportion to the drawl at the ISTS periphery (Rs) (B):	15,71,02,71,886:00
50% Recovery in proportion to the GNA (Rs) (C):	15,71,02,71,886.00
Period considered for Actual drawl at the ISTS periphery:	16.09.2023 to 15.09.2024
Period considered for averaging GNA from notification of Transmission charges payable by DICs:	Oct'23 to Sept'24
Number of instalments to be divided into (D):	20

S. No.	State/Drawee DIC	Region	Actual Drawl (MU) (E)	Average GNA (MW) (F)	50% in proportion to Actual Drawl (Rs.) (G = B *Ε, / Σ Ε)	50% in proportion to average GNA (Rs.) (H = C * $F_1/\Sigma F$)	Total Recovery (Rs.) (I = G + H)	Per Instalment Amount (Rs.) (J=1/D)
1	GUJARAT	WR	58,152.47	11,741.34	1,17,17,14,325.00	1,55,79,73,409.00	2,72,96,87,734.00	13,64,84,387.00
2	UP	NR	65,361.14	10,312.70	1,31,69,61,788.00	1,36,84,05,625.00	2,68,53,67,413.00	13,42,68,371.00
3	MAHARASHTRA	WR	69,520.16	9,624.22	1,40,07,61,934.00	1,27,70,49,737.00	2,67,78,11,671.00	13,38,90,584.00
4	TAMIL NADU	SR	68,419.22	9,177.00	1,37,85,79,117.00	1,21,77,07,601.00	2,59,62,86,718.00	12,98,14,336.00
5	MP	WR	55,606.23	10,318.31	1,12,04,10,046.00	1,36,91,49,895.00	2,48,95,59,941.00	12,44,77,997.00
6	TELANGANA	SR	43,947.65	6,140.00	88,55,01,365.00	81,47,24,275.00	1,70,02,25,640.00	8,50,11,282.00
7	HARYANA	NR NR	47,283.10	5,418.00	95,27,07,225.00	71,89,21,193.00	1,67,16,28,418.00	8,35,81,421.00
8	RAJASTHAN	NR	35,212.05	5,757.67	70,94,87,628.00	76.39,91,988.00	1,47,34,79,616.00	7,36,73,981.00
9	PUNJAB	NR	36,649.98	5,499.98	73,84,60,579.00	72,97,99,735.00	1,46,82,60,314.00	THE RESIDENCE AND ADDRESS OF THE PARTY OF TH
10	BIHAR	ER	39,577.89	5,043.00	79,74,55,041.00	66,91,61,974.00	1,46,66,17,015.00	7,34,13,016.00
11	KARNATAKA	SR	34,511.91	4,978.06	69,53,80,588.00	66,05,44,783.00	The state of the s	7,33,30,851.00
12	DELHI	NR NR	32,546.43	4,810.00	65,57,78,205.00		1,35,59,25,371.00	6,77,96,269.00
13	ANDHRA PRADESH	SR	26,602.44	4,516.00	53,60,12,724.00	63,82,44,913.00 59,92,33,685.00	1,29,40,23,118.00	6,47,01,156.00
14	WB	ER	20,235.61	3,528.00	40,77,27,281.00		1,13,52,46,409.00	5,67,62,320.00
15	CSEB	WR	20,263.40		40,77,27,281.00	46,81,34,730.00	87,58,62,011.00	4,37,93,101.00
16	KERALA	SR	23,666.08	3,453.00 2,679.00	47,68,47,918.00	45,81,82,887.00	86,64,70,277.00	4,33,23,514.00
17	ODISHA	ER ER	14,290.61	2,157.75	28,79,41,469.00	35,54,79,859.00 28,63,14,545.00	83,23,27,777.00	4,16,16,389.00
18	JK & LADAKH	NR NR	The second division is not a second division in the second division	1,977.00		The second secon	57,42,56,014.00	2,87,12,801.00
19		NER	14,276.12 10,386.87		28,76,49,510.00	26,23,30,601.00	54,99,80,111.00	2,74,99,006.00
20	Assam UTTARAKHAND	NEK NR		1,714.50	20,92,85,104.00	22,74,99,148.00	43,67,84,252.00	2,18,39,213.00
			10,194.44	1,402.00	20,54,07,764.00	18,60,33,133.00	39,14,40,897.00	1,95,72,045.00
21	JHARKHAND	ER	10,170.88	1,345.00	20,49,33,010.00	17,84,69,731.00	38,34,02,741.00	1,91,70,137.00
22	DNHⅅ	WR	10,571.98	1,166.00	21,30,14,777.00	15,47,17,998.00	36,77,32,775.00	1,83,86,639.00
23	HIMACHAL	NR	6,002.52	1,134.21	12,09,44,873.00	15,04,99,522.00	27,14,44,395.00	1,35,72,220.00
24	GOA_WR	WR	4,202.35	503.00	8,46,73,175.00	6,67,43,699.00	15,14,16,874.00	75,70,844.00
25	PONDICHERRY	SR	3,340.19	540.00	6,73,01,489.00	7,16,53,275.00	13,89,54,764.00	69,47,738.00
26	AMNSIL_WR	WR	2,964.62	563.00	5,97,34,228.00	7,47,05,174.00	13,44,39,402.00	67,21,970.00
27	DVC	ER	-	956.00	-	12,68,52,835.00	12,68,52,835.00	63,42,642.00
28	BALCO_LOAD_WR	WR	4,567.10		9,20,22,538.00	-	9,20,22,538.00	46,01,127.00
29	CHANDIGARH	NR	1,976.03	342.00	3,98,15,045.00	4,53,80,408.00	8,51,95,453.00	42,59,773.00
30	Tripura	NER	1,655.82	311.00	3,33,63,139.00	4,12,66,979.00	7,46,30,118.00	37,31,506.00
31	Meghalaya	NER	1,107.30	238.00	2,23,11,022.00	3,15,80,518.00	5,38,91,540.00	26,94,577.00
32	Manipur	NER	1,017.40	204.00	2,04,99,580.00	2,70,69,015.00	4,75,68,595.00	23,78,430.00
33	Railways-NR-ISTS-UP	NR	1,405.52	130.00	2,83,19,753.00	1,72,49,863.00	4,55,69,616.00	22,78,481.00
34	Arunachal	NER	967.68	179.50	1,94,97,860.00	2,38,18,079.00	4,33,15,939.00	21,65,797.00
35	Nagaland	NER	864.74	139.50	1,74,23,672.00	1,85,10,429.00	3,59,34,101.00	17,96,705.00
36	GOA_SR	SR	911.54	102.50	1,83,66,636.00	1,36,00,853.00	3,19,67,489.00	15,98,374.00
37	Mizoram	NER	452.40	137.61	91,15,343.00	1,82,59,790.00	2,73,75,133.00	13,68,757.00
38	SIKKIM	ER	540.69	111.00	1,08,94,348.00	1,47,28,729.00	2,56,23,077.00	12,81,154.00
39	ECR	ER	51.52	20.00	10,38,057.00	26,53,825.00	36,91,882.00	1,84,594.00
40	PG-HVDC-NR	NR	57.28	8.00	11,54,098.00	10,61,530.00	22,15,628.00	1,10,781.00
41	HVDCSR	SR	48.28	6.14	9,72,810.00	8,14,393.00	17,87,203.00	89,360.00
42	PG_HVDC_WR	WR	40.70	5.00	8,20,087.00	6,63,456.00	14,83,543.00	74,177.00
43	BARC	WR	37.65	5.00	7,58,548.00	6,63,456.00	14,22,004.00	71,100.00
44	NFF	NR	26.41		5,32,116.00	-	5,32,116.00	26,606.00
45	HVDC_BNC	NER	8.08	1.20	1,62,783.00	1,59,230.00	3,22,013.00	16,101.00
46	HVDC_APD	ER	5.95	1.20	1,19,797.00	1,59,230.00	2,79,027.00	13,951.00
47	HVDC_SASARAM	ER	6.26	0.80	1,26,101.00	1,06,153.00	2,32,254.00	11,613.00
	Total		7,79,704.69	1,18,397.20	15,71,02,71,886.00	15,71,02,71,886.00	31,42,05,43,772.00	1,57,10,27,194.00

Note:

- 1. Prepared in compliance with the CERC DSM Regulations, 2024 (w.e.f. 16.09.2024) & CERC approved "Detailed Procedure for recovery of charges in case of deficit in the Deviation and Ancillary Service Pool Account" (w.e.f. 15.10.2024) available at https://cercind.gov.in/Regulations/Approved-Procedure-deficit-DSM-Pool.pdf
- 2. Instalment details and due date of payment for each instalment is enclosed as Annexure-2.
- 3. Instalments not to be net off with any other statement pertaining to the DSM pool or any such other amounts.
- 4. Details of average GNA value and GNA over Oct'23 to Sept'24 as per notification of Transmission charges payable by DICs is enclosed as Annexure-3 & Annexure-4 respectively.
- 5. Details of Drawl (excluding injection) for Drawee DICs for the period 16.09.2023 to 15.09.2024 is enclosed as Annexure-5.
- 6. Details of legacy dues shortfall (A) region-wise is enclosed as Annexure-6.
- 7. GNA of GOA have been divided between GOA_WR & GOA_SR based on GNA Inside Region & GNA Outside Region respectively as per details available on CTU website (https://ctuil.in/gna2022updates) as the same is used for RLDC Fees & Charges calculations.
- 8. PG_HVDC_ER's 2 MW GNA is combinedly used by HVDC_APD & HVDC_SASARAM, the same is bifurcated into 1.2 MW & 0.8 MW GNA respectively, as the same ratio of 60:40 is used for RCDC/Fees & Charges calculations for both HVDCs.

(S. Usha)
Chief General Manager
NLDC

Annexure-2

Instalment	date and due date of	of payment by Drawee DICs
Instalment Number	Instalment Date	Due date of payment by Drawee DICs
1	11-11-2024	21-11-2024
2	18-11-2024	28-11-2024
3	25-11-2024	05-12-2024
4	02-12-2024	12-12-2024
5	09-12-2024	19-12-2024
6	16-12-2024	26-12-2024
7	23-12-2024	02-01-2025
8	30-12-2024	09-01-2025
9	06-01-2025	16-01-2025
10	13-01-2025	23-01-2025
11	20-01-2025	30-01-2025
12	27-01-2025	06-02-2025
13	03-02-2025	13-02-2025
14	10-02-2025	20-02-2025
15	17-02-2025	27-02-2025
16	24-02-2025	06-03-2025
17	03-03-2025	13-03-2025
18	10-03-2025	20-03-2025
19	17-03-2025	27-03-2025
20	24-03-2025	03-04-2025

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		orges payable by DIC	
. No.	Drawee DIC	Region	Average GNA over Oct'23 to Sept'24
1	Delhi	NR	4810.00
2	UP	NR	10312.70
3	PUNJAB	NR	5499.98
4	Haryana	NR	5418.00
5	Chandigarh	NR	342.00
6	Rajasthan	NR	5757.67
7	HIMACHAL	NR	1134.21
8	JK & LADAKH	NR	1977.00
9	Uttarakhand	NR	1402.00
10	Railways-NR-ISTS-UP	NR	130.00
11	PG-HVDC-NR	NR	8.00
12	Gujarat	WR	11741.34
13	MP	WR	10318.31
14	Maharashtra	WR	9624.22
15	CSEB	WR	3453.00
16	GOA_WR	WR	503.00
17	DNHⅅ	WR	1166.00
18	AMNSIL_WR	WR	563.00
19	PG_HVDC_WR	WR	5.00
20	BARC	WR	5.00
21	Andhra Pradesh	SR	4516.00
22	Telangana	SR	6140.00
23	Tamil Nadu	SR	9177.00
24	Kerala	SR	2679.00
25	Karnataka	SR	4978.06
26	Pondicherry	SR	540.00
27	HVDCSR	SR	6.14
28	GOA_SR	SR	102.50
29	WB	ER	3528.00
30	Odisha	ER	2157.75
31	Bihar	ER	5043.00
32	Jharkhand	ER	1345.00
33	Sikkim	ER	111.00
34	DVC	ER	956.00
35	ECR	ER	20.00
36	PG_HVDC_ER	ER	2.00
37	Arunachal	NER	179.50
38	Assam	NER	1714.50
39	Manipur	NER	204.00
10	Meghalaya	NER	238.00
11	Mizoram	NER	137.61
12	Nagaland	NER	139.50
13	Tripura	NER	311.00
14	HVDC_BNC	NER	1.20

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		Average GNA value		46.10.00	Sales de	5418.00	342.00	5757.67	1134.21	1977.00	1402.00	138.00	2.00	22742.24	there are	165.7.00	501.00	1154.00	163.00	5.00	5.00	4516.00	03.40,00	9377.00	28,719,00	4978,06	\$40,00	6.16	100000	2552.75	5043.00	1348.00	111.00	956.00	20.00	2,00	178.50	1714.50	200.000	137.61	139.60	321.00	110397.20
	l	Total GNA (C=A+8)		0199	6419	5418	342	5787	1180.5	1977	1402	130	8	18739.17	1000/.10	2000	893	1206	563	9	19	4516	6140	9177	2679	5413.45	340	6.15	010	2166	5043	1580	111	858	20	04	223	1900	230	150	148	311	121015.4
		CNAC		386	+	275	H	66					-	777	0 000	+						317	339	Н			1		Į	I	196						17	133	,		9	П	1 2792
	l	CHA-RI CHA-RI (MM)	3	10053	6619	5143	342	5721	1180.5	1877	1402	130	9		10307 TO	3276	683	1206	563	15	45	4199	5801	8765	2679	ry.	240	6.15	100	2166	1947	1580	1111	956	20	2	208	1767	956	150	139	311	1.2
		Total GNA (C=A+B)		10430	5612	\$418	342	\$255	1136	1977	1402	130	S. Constant	4000004	66.66.78	15.96	1999	1206	563	s		4516	61.40	91.77	2679	5413.45	540	6,25	20.00	2157	5043	1580	111	926	20	2	225	1900	288	350	145	313	120921.9
		GRAMA (PMW)		388	+	275		99				1	100	-	20 20	+	⊢					Н	339	Н		90	1	-	-		196					-	t	2		F	9	H	1.9 2792
	ŀ	A GRAL	W.	+	1	-	H	6899		+	1402	+	2 40544 47	Ŧ	+	-	553	1206	563	9	2		Н	8785	+	iñ.	+	6.19	Ŧ	+	H	Н	Н	986	8	+	BOZ .	1/10	238	150	138	322	1.2
	l	Total ING	9189	10345 4516	5502 808a5	5418	342	5755	1130	1977	1402	130	4333347	L	Tatal TR	16.36	553	1206	863	10	10	4516	6140	9177	2679	5413.45	540	6.19	25.40	2157	5043	1580	111	998	20	2	9	1900	232	150	145	311	120819.1
	20.00	1000000	٠	386 386	1	275	Н	99		-		+	200	+	8 228	+	H						339	Ħ	-	9	+	+	-	H	196				-	1	1	312	-		9	+	68 2792
		GNA+CNA RE(PUV)	4840	9959.45167	5502.8064	5143	342	5689	1130	1977	1402	130	1001110	F	+	3276	863	1206	583	10	un	4159	5801	8265	2679	5413.45	540	440	SEAR	2157	4847	1580	111	998	20	re i	2002	127	238	150	139	311	1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2
	l	Tetal GNA (C - A - B)	4810	10339	5497	5418	342	5755	1130	1377	1402	130	12219 8967	10587.16	86.65.78	3536	553	1206	563	5	16	4516	6140	9177	2679	5413.45	940	110	SEAM	2157	5043	1580	111	888	20	2	0000	200	238	150	145	311	120793.577
	Bro.24	7 E		386		275		98		1	Ī	ļ	133		228	280						317	339	412		-	ļ	I			196					1		3.5			w	1	7 2792
Cs	ı	GNA + GN RE (MW)	4850	9953	5497	6143	342	5689	1130	1977	1402	130	12592 8367	1	Ш	3226	683	1206	563	ın	10	4199	5801	8755	2878	5413.45	240	110	25.40	2157	4847	1580	1111	996	30	200	4.18.4	177	238	150	139	111	114001.57
ole by D		Total GHA (C=A+B)	4810	10339	5497	5418	342	5265	1130	1977	1402	130	12633.17	10587 16	9845.78	3536	553	1206	599	×n	9	4516	6140	9177	2679	5413.45	240	130	25.60	2157	5043	1580	111	998	20	3000	1000	204	238	150	145	311	120706.8
s payat	Manch	E GNAd	8	386		275		99		1	I	ļ	123	₩.	-	260							339	+	I		I	I			196		1	1	1	t	t	27			10	Į	2792
charge		COURT COURT	4810	H	Н	5143	-	-	+	+	+	130	2 1251117	-	-	3278	553	1206	200	wit	40	4199	+	+	-	7	24.0	₽	-	Н	4847		1	956	20	+	1767	+	238	150	139	313	1.2
noissin	124	M Tatal	281(356 10339	5497	275 5418	-	66 575	1130	1977	7007	130	122 12331.2	-	228 9845.78	280 3536	553	1206	563	m	-	317 4516	4	-	2879	5413.45	340	110	3540	2157	196 5043	1580	111	956	200	200 4	188 1910	H	238	110	145	311	120405
Transn	A. A.	SHARE OF SHARE	4810	Н	5497		+	5689 6	1130	1977	1.00	8	122092 1	-		3276 20	553	1206	563	0	-	7	+	8765 4	5679	2413.45	240 E 1K	110	3540	2157		1580	111	926	8	200	٠	177 2	238	150	139	311	117613 2792
ation of		Tintat Chia (C-A-B)	810	10339			+	+	+	+	t	t	1 6280.87801	10587.16 1		3536	H	+	+	+	+	1	+	t	Ť	Ť	t	88		Н	1	1110	1	356	50	t	1529	t		135	134	311	
notifica	Hay-24			386		275	4	18	1	-	+	+	122 108			260			+		1	317	1	1	1	1	-	-	-	<u> </u>	196	1	+	+	+	1		27			10	+	2782 117
as ber		NA+SNA REIMWI (A)	4810	56653	5497	5143	342	5689	1130	1977	130	8	10756.0829	10587.16	9409,78	3276	453	1126	563	un	7	1	Ť	1	6/97	640	6.15	95	3516	2157	4847	1110	1111	906	02	117	1396	177	238	133	128	311	114445.373 2792 117237.373
is of GNA dyer Oct 23 to Sept 24 as per notification of Transmission charges payable by DICs	Ì	Total SNA GN	810	10339	497	418	77	755	730	1977	900	80	10625.47 10	10587.16 10		556	453	126	63		+	+	+	+	+	ł	╀	H	518	2157	DAG.	110	1111	90	200	34	528	90	38	35	75	311	71.038 114
01 55 10	Fab-26	De Si	ľ	386 1	4	275	4	99	1	Ŧ	-		122 108	101	236 863				1	+	4	317	1	1	1	1			-	Ц	196	1	1	1	+	╀	133				9	+	2792 117171.036
Overo	Ī	REIMW)	4810	8863		1	342	5888	1330	1402	130	00	-	10587.15		3276	453	1126	262	10	Ť	1	Ť	†	26,07	640	6.15	36	3516	2157	4847	1110	111	000	9 .	117	1396	177	238	136	821	112	114379.036
20160	Š	Tetal GNA GI	4810	10326	5497	5418	342	9229	11.80	1402	130		10828.47 1	10587.15 1	-	3636	453	1126	583	0	0	4516	6240	9277	4478	5,40	6.15	98	3516	2157	5043	1110	1111	900	200	134	1529	202	238	135	134	311	5624.8
=6	fan-24	GHAM TA		386	4	275	+	8	1	İ			122	10	236 9	-		1		1		+	+	211	1					-	196	1	1	t	t	22	\$33	27			9	İ	2792 11
		CNA-SE CNA-SE (MW)	4810	9953	5497	6143	342	6889	44.00	1402	130	8	10826.47 10704.47	10587.15 10587.18	9348.78	3276	453	1126	263		-	4199	2090	2676	4376	540	6.15	9.6	3516	2157	4847	1110	111	30	2 2	117	1396	177	238	135	128	311	113832.8
		Total GNA (C=A+B)	4810	10165	5497	8418	242	5755	2000	1402	130	90	10826.47	10587.15	9584.78	3536	453	1126	983	9	0	4518	0770	2070	4176	540	6.15	9.9	3516	2157	5043	1110	1111	300	2 2	134	1529	204	238	135	134	1.2	116450.6
	Dec-23	DOOM (SEE		386	+	275	+	8	I	I			122		-	260	1	1	1	ļ	+	317	T	+	ļ						236	ļ	I			17	133	27			0	Ī	8 2792
į	The state of	GRA+ GNA-RE (PRM)	4810	9779	5497	5143	240	2009	*600	1402	130	00	10704.47	-	7	3276	453	1138	563		0	4195	2007	3670	4376	540	6.15	35	3516	2157	464/	1110	910	28	-	117	1356	177	4	1	178	112	3 113658
	i	Tetal dita	4810	10165	3487	5418	342	27.05	4877	1402	130	00	10826.47	10537.16	9584.78	3536	453	1126	283	10 4	0	4018	0540	3670	4376	540	6.15	98	3616	2157	2042	1110	96.6	20	2	134	1529	204	238	116.333333	134	1.2	109396.5 2792 112188.5 113840.093 2792 116432.083 113858.8 2792 116450.0 113832.8 2792 11
	Nov-23	A CHANGE		386		275	2	g	F	ļ			7 122	7	238	360	I	Ŧ	ļ	ļ	1	377	444	-					-	1	8	ļ	ļ	F	L	13	133	27	1	22	0	I	93 2792
	I	CNA - CNA REDYNI (A)	4810	9779	2693	5143	780	1150	1077	1402	130	ш	4	10587.16	9348.78	3278	423	1128	100	-	2000	4100	1000	2679	4376	540	6.15	8	3516	2157	1000	ner.	958	30	-	117	1396	177	238	116 333333	87.1	1.2	113640.0
		Total CHA (C=A+8)	4810	10165	5497	3418	200	1135	*6377	1402	130	00	10026.47			1	453	1120	2002			4070	01.10	2679	4376	540	9	95	3516	2157	3000	1110	97.0	30	7	134	1529	200	238	35	138	12	112188.5
	Oct	* W C	Н	388	+	275	+	98				-	47 122	-	78 236	+			+	-	t	200	t	t	9				9	+	R				-	Н		23		1	P	H	8.5 2792
		Region COLLAGE (Print)	NR 4810	+	MR 0497	+	200 ON	+	H	NR 3402	NR 130	\rightarrow	WR 10704.47	-	-	WH 2280	4	1	202	1	1000	5000	+	H	SR 4376	58 SE	SR fi	+	+	ER 2157	+	1110	H			NER 117	NER 1396	4	1	4	NER 344	┸	10938
1		The V	2	1	1	t	t		t	H		Н	=	1	1	-	1	t	t	t	t	t	t	t				un I	-	10	1	1	1 4	14		N	2	1	1	t	t	t	
		ă	Dette	di di	Home	Chandister	Rainethan	HEMACHAL	AC LADAKH	Uttanakhand	Raibways-NR-ISTS-UP	PG-HVDC-NR	Gujaret	dW.	Manarashtra	2001	DANAMA	AMACE NO	BC HUDO WE	RARC	Andhra Prantash	Telangana	Tamil Nadu	Kerala	Karnataka	Pondicherry	HVDCSR	BOA \$8	WB	1	Bachhand	Sikem	DVC	EC#	PG_HVDC_ER	Arunachal	Assem	Manjeur	Pregnativa Market	Mezoram	Trimma	HVDC, BNC	
1		N N		7	9		8	1	9	0	10	#	12	13	27	9	-		0	30	21	33	23	24	25	2	27	88	2	31 30	22	23	25	35	36	37	2	8	3 :	2	1 27	4	

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		Deta	ills of Dr	Details of Drawl (exclu		ction) fo	ding injection) for Drawee DICs for the period 16.09.2023 to 15.09.2024 (in MU	DICs for	the perio	d 16.09.	2023 to 1	5.09.202	4 (in MU)				
S. No.	State/Dic		Region	16 to 30 Sept'23	Oct*23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24	Apr'24	May'24	June'24	July'24	Aug'24	1 to 15	Total Drawl
1	BIHAR		ER	1907.113	3213.403	2364.883	2413.131	2689.828	2231.921	2593.846	3530.858	3852.552	4228.182	4343.482	4081.994	2126.698	39577.891
2	JHARKHAND		EB	421.921	740.465	692.282	739.419	739.253	646.143	744.485	920.595	996.790	1095.832	998.016	930.305	505.369	10170.876
m -	DVC		8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0000
4 .	UDISHA		EB	745.508	1098.896	810,657	1004.203	513,409	602.950	1527.596	1491.286	1656.349	1620.038	1190.434	1337,901	691.380	14290.606
0 4	ND SIVVIN		H C	988.441	1541.186	503.195	586.495	691.880	536.783	900.563	2754.226	2337.120	2884.366	2680.199	2419.972	1411.182	20235.606
0 1	UNDO CACADAM		E C	17.768	29.447	38.496	51.792	60.512	57.020	53.879	46.615	48.644	41.479	39.235	37.257	18.546	540.689
	HVDC_SASARAM		# 1	0.295	0.571	0.512	0.519	0.486	0.470	0.522	0.570	0.312	0.431	0.635	0.625	0.312	6.258
0	HVDC_APD		E 6	0.353	0.651	0.395	0.335	0.355	0.306	0.349	0.362	0,402	0.550	0.756	0.761	0.371	5.946
5	Animarkat		H.	2.455	4.912	3.520	3.782	3.681	4.123	4.082	3.890	4.350	4.961	5.084	4.328	2.351	51.519
1	Assam		NEB	40.505	/6.03/	/5.423	86.687	91.011	86.752	86.661	76.880	78.546	76.891	74.267	76.628	41,296	967.684
12	Manimum		NEW	246.521	854.513	654.846	652.180	691.746	659.600	719.778	814.476	921.790	954.180	1140.454	1178.429	598.357	10386.872
77	Menhalan		NER.	39.546	81.678	80.213	95.523	96.936	86.290	86.216	74.621	73.865	82.809	88.418	87,397	43.888	1017.399
70	megnaraya		NER	19.603	85.057	136,230	152.292	151.147	152.470	156.901	122.573	75.557	9.793	6.208	19.281	20.188	1107.302
4	Mizoram		NER	18.557	32.144	44.835	50.697	48.989	46.609	46.186	49.396	45,336	31.874	16.860	14.653	6.263	452.397
07	regarand		NER	35.939	71.131	62.586	68.903	67.492	65.861	67.546	65.746	78.963	80.033	83.706	79.238	37.595	864.741
19	Inpura		NER	84.994	150.979	103.664	97.253	90.930	97.643	126.861	179.230	157.340	159.610	177.751	145.726	83.841	1655.821
17	HVDC_BNC		NER	0.406	0.722	0.594	0.576	0.541	0.519	0.610	0.636	0.723	0.737	0.825	0.781	0.409	8.079
188	100		Z.	3134.068	4560.831	3262.636	3311.924	3796.875	2343.801	2796.229	5017.601	8156.349	9175.274	8271.990	7959.339	3574.222	65361.140
13	HARYANA		ď	2202.239	3483.785	2735.968	2867.486	2968.683	2792.344	3120.295	2857.142	4823.537	5700.333	6199.475	5290.289	2241.522	47283.096
70	HIMACHAL		æ	141.298	584.956	712.763	914.978	1004.948	908.401	692.837	509.948	194.794	138.039	70.981	103.228	25.352	6002.524
21	DELHI		N.	1611.218	2302.651	1821.713	1899.580	2310.826	1844.847	1950.359	2529.266	3449.433	3798.582	3883.200	3533.996	1610.763	32546.435
22	UTTARAKHAND		NB RB	369.034	833.230	818.772	912.714	1067.375	913.096	788.146	741.519	930.605	926.101	805.862	747.910	340.073	10194,438
23	RAJASTHAN		Z,	1211.644	2661.861	3356.071	3566.896	3816.758	3042.407	2273.674	1801.504	3602.561	3427.345	3233.766	2088.143	1129.415	35212.047
24	PUNIAB		NR	1873.296	2079.874	1341.719	1383.755	1805.132	1832.112	1801.242	1343.186	3386.243	4964.360	6353.656	5916.164	2569.243	36649.982
25	CHANDIGARH		NR.	89.016	129.646	103.546	120.554	161.174	118.830	111.544	133.089	211.732	240.937	242.710	216.976	96.276	1976.031
26	JK & LADAKH		N.	407.273	1177.310	1403.485	1672.251	1871.226	1558,963	1453.978	1123.882	887.269	815.688	792.784	723.303	388.704	14276.116
77	NFF	DRAWAL OF NFL AT BHAKRA	N.	1.092	1.803	1.673	2.072	2.326	2.055	2.182	2.295	2.586	2.472	2.054	2.558	1.240	26,409
20 00	PO TRINGS-INF-ISTS-UP		X !	51.588	109.186	111.223	106.108	103.901	104.187	117.289	118.674	131.526	127.193	133.276	127.253	64.112	1405.516
50	PO-TOTAL STATE OF THE STATE OF	ALIVILLIDY CONFIGNATION OF TANCO PILLAND	NR.	2.746	4.306	3.744	3.246	3.542	3.558	4.268	4.714	5.884	6.138	5.724	5.672	3.736	57.278
000	AUNITIES OF	ALIVILLIBY CONSTITUTION OF HYDIC RITIAND	HN.	0.206	0.360	0.321	0.318	0.317	0.320	0.424	0.465	0.535	0.563	0.537	0.459	0.226	5.052
10 6	AUXILURY CA	ALIVILLIBY CONSTINUTION OF TANDO ACES	N. S.	0.272	0.467	0.389	0.375	0.360	0.368	0.488	0.546	0.656	0.680	0.581	0.490	1.325	6.997
20 00	AUNITOR	AUXILIAN CONSUMPTION OF HADO BARRA	NR C	0.799	1.369	1.030	1.063	1.032	0.918	1.004	0.971	1.215	1.224	1.687	1.679	0.887	14.877
8 8	ALIXII LIBY CO	ALIXII LIBY CONSTINUIND OF LIVE BRIDGE	NA S	0.287	0.413	0.464	0.483	0.449	0.489	0.512	0.530	0.581	0.578	0.253	0.538	0.247	5.825
38	AUXILURY CON	AUXILURY CONSUMPTION OF HVDC Kumkshetra	UN ON	0.001	0.400	0.433	0.332	0.312	0.349	0.438	0.488	0.668	0.686	0.622	0.597	0.270	5.964
36	ANDHRA PRADESH		go o	1447 222	000 4 400	200 - 000	0.000	1.072	1.114	1.402	1./15	2.229	2.407	2.044	1.908	0.780	18,563
37	TELANGANA		5 0	1047 267	4010 014	2000 400	2106.756	2362.417	2460.850	2632.917	2421.367	2100.939	1472.945	1021.518	1970.031	606.110	26602.444
88	KARNATAKA		8	11/3 003	3027 461	2006.133	2377.230	3/08.645	2000,040	5207.401	3623.248	2488.021	2899.267	4191.999	4339.411	1295.820	43947.652
39	KERALA		SS	969.099	1892.607	1990 296	2008 725	2086 991	2003.340	24010.030	4410,448	3141.5/1	1531.345	629.110	1085.612	765.665	34511.911
40	TAMIL NADU		SR	2226.247	6118.831	5025.805	5225.931	5362,932	5349.658	7300.376	7962 440	6845.423	4918 238	A622 411	1432.433	7972.269	23666.080
41	PONDICHERRY		SR	136.820	285.885	244.002	243.568	240.784	255.234	283.178	303.412	314.876	293.354	297.779	295,650	145.648	3340 190
42	GOA_SR		SR	32.984	68,654	67.326	60.783	59.879	64.708	71.266	112.358	126.665	98.878	53.821	62.958	31.259	911 541
43	HVDCSR		SR	2.049	4.335	3.904	3.794	3.419	3.840	4.627	4.636	4.358	3.885	3.929	3.905	1.599	48.281
44	CSEB		WR	677.708	1570.536	998.705	1016.594	1392.053	1615.718	2032.842	2220.784	1858.170	1793.622	2107.706	1970.526	1008.441	20263.404
45	GUJARAT		WR	2468.374	5435.694	5172,366	5106.620	4418.325	4412.568	5493.024	5086.884	4667.821	4597.315	4269.377	4409.586	2614.519	58152.472
46	Mp		WR	1715.306	5186.345	5613.236	5232.273	5791.603	5282.676	4214.918	4179.929	4790.576	4196.347	4040.108	3594.692	1768.218	55606.228
47	MAHARASHTRA		WR	2935,629	7258.024	6461.605	5456.412	5411.833	5264.509	6298.936	6167.187	6060.013	5471.299	4725.564	5485.216	2523.935	69520.162
48	GOA WR		WR	154.717	363.872	347.497	354.258	343.759	341.676	378.185	361.035	371.926	321.186	346.179	354.305	163.758	4202.351
24 0	BALCO CAN ME		WR	435.610	896.934	799.648	881.327	881.558	843,969	867.776	865.540	923.499	907.581	923.635	899.303	445.594	10571.976
51 50	PG HVDC WR		WR	186.326	385.475	372.993	385.562	385.942	361.249	386.002	374,264	386.825	375.195	389.765	388.495	189.008	4567.101
	AMNSIL WR		WB	128 355	242 254	267.730	2,440	2.709	3.014	3.768	4.058	4.182	3.934	3.676	3.519	1.618	40.701
	BARC		WB	1 487	2 123	3 006	200.022	7,877	257.648	277.930	203.846	236.129	202.329	185.679	256.131	139.725	2964.625
15				41404	0.105	2,000	7.314	771.7	2.641	3.081	3.195	3.681	3.486	3.520	3.343	1.644	37.647

(8hm)

					All amounts in Rs.
	Total shortfall am	mount payable to the for RPCs statem	nount payable to the regional entities excluding IR on Accrual Basis for RPCs statements period prior 16.09.2024	xcluding IR on Accr	ual Basis
Region	DSM Charges (A)	AS-SCUC (as per Format SCUC_BB & SCUC_CC) (B)	Reactive Charges (C)	Congestion charge (D)	Net (E= A+B+C+D)
NR	-96,41,70,896.00	-8,35,64,62,646.00	-13,40,37,277.00	٠	-9,45,46,70,819.00
WR	-1,77,60,25,862.00	-17,03,44,17,588.00	-1,31,73,58,687.00	-1,12,67,354.00	-20,13,90,69,491.00
SR	-32,97,61,737.00	-3,96,80,00,393.00	٠	٠	-4,29,77,62,130.00
ER	2,52,27,58,913.00		7,19,761.00	t	2,52,34,78,674.00
NER	-5,25,20,006.00			•	-5,25,20,006.00
Total	-59,97,19,588.00	-29,35,88,80,627.00	-1,45,06,76,203.00	-1,12,67,354.00	-31,42,05,43,772.00

Recievable (+) in / Payable (-) from the pool account



MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD. CIN NO. U40109MH2005SGC153646





MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD. CIN NO. U40109MH2005SGC153646

Maharashtra State Load Dispatch Center

Tele: 91-022-27601762 (P)

Email: cesldc@mahasldc.in website: www.mahasldc.in

Office of The Chief Engineer 91-022-27601931 (O) Extn.1003 Maharashtra State Load Dispatch Center

Thane-Belapur Road, P.O. Airoli Navi Mumbai Pin - 400 708.



Date

Ref: CE/MSLDC/EA/

No 0 2 3 8

To.

As per the mailing list

Sub: Apportionment of Legacy Charges for the period from Oct 2023 to Sept 2024

Ref: WRLDC/MO/DSM-2024/1250 dated 11/11/2024

Dear Sir,

This office is in receipt of above mentioned letter from WRLDC as regards Net Deviation and Ancillary Service Pool Account Deficit Recovery Statement for the period prior to 16.09.2024 (Statement of Legacy Dues)

In this context, the methodology for apportionment of Legacy dues amongst the corresponding State Entities was discussed by conducting an emergency meeting on 18.11.2024. The methodology for apportionment of Legacy dues is as below-

- > The charges under the head '50% in proportion to Actual Drawl (Rs)' in WRLDC Statement are apportioned on the basis of DSM payable to the State DSM Pool A/c by respective State Entities for the weeks when the State DSM Pool A/c is under deficit.
- The charges under the head '50% in proportion to GNA granted (Rs)' are apportioned to the State Entities on the basis of respective GNA granted.

Accordingly, the legacy dues are apportioned and attached herewith as an Annexure-I. The Legacy due amount corresponding to the State Entity pertains to the 1st installment of a total nos. of 20 such equal installments. If payments are delayed beyond ten (10) days from the installment due date, then the defaulting State Entities shall be liable to pay a simple interest @ 0.04% for each day of delay. Installment date and due date of payment is attached as Annexure-II.

The DSM Pool A/c details are as below-A/c Name: MSLDC DSM Pool A/c Bank Name: Bank of Maharashtra

A/c No.: 604096305880 IFSC Code: MAHB0001283 It is requested to make the payments within the due date of each installment so as to make timely payments to WRLDC.

Thanking you.

Yours faithfully

(Girish Pantoji) Chief Engineer-I/C, MSLDC, Airoli

Copy s.w.r.to-

Copy s.w.r.toThe Executive Director, MSLDC, Airoli

Apportionment of Net Deviation and Ancillary Services Pool Account Deficit Recovery (Legacy Dues of WRLDC) for the period from 16/09/2023 to 15/09/2024

Cr No State Orange DIC Actual Drawel (MII) (MW) Actual drawal (Re) Granted (Re) Total Recovery (Re) Amount (Re)
GNA granted 50% in proportion to 50% in proportion to Per Instalment
《陈传》,《陈传》,《陈传》,《陈传》,《《陈传》,《陈传》,《陈传》,《陈传》

	ס שמנה בוונונוהש וסו נווה	period itorii o	מומים בסבם ום פכלובווום	1 202+ 13 d3 below:		
	DSM Payable to Pool under					
Sr.No. State Entity	Supplementary Bill (Rs)	GNA granted (MW)	50% in proportion to DSM Payable (Rs)	50% in proportion to GNA Granted (Rs)	Total Recovery (Rs)	Per Instalment Amount (Rs)
1 ADTPS	₹ 1,09,39,032.00		₹ 1,16,02,910.01	₹ 0.00	₹1,16,02,910.01	₹5,80,145.50
2 APML	₹2,32,17,311.00		₹ 2,46,26,344.46	€ 0.00	₹2,46,26,344.46	₹ 12,31,317.22
3 AEML	₹13,04,37,971.00	728.33	₹ 13,83,54,110.21	₹9,64,27,000.71	₹ 23,47,81,110.93	₹1,17,39,055.55
4 AEML SEEPZ Ltd(ASL)	₹22,13,875.00		₹ 23,48,232.68	€ 0.00	₹23,48,232.68	₹1,17,411.63
5 BEST	₹ 2,16,75,458.00		₹ 2,29,90,918.07	€ 0.00	₹ 2,29,90,918.07	₹11,49,545.90
DAUND SUGAR PRIVATE						
6 LIMITED	₹ 1,49,25,114.00		₹ 1,58,30,903.01	₹ 0.00	₹1,58,30,903.01	₹7,91,545.15
7 EON KHARADI (Ph-1)	₹ 9,59,302.00		₹ 10,17,521.00	€ 0.00	₹10,17,521.00	₹ 50,876.05
8 EON KHARADI (Ph-2)	₹7,18,720.00		₹7,62,338.34	€ 0.00	₹7,62,338.34	₹38,116.92
9 GEPL SEZ	₹7,41,777.00		₹7,86,794.64	€ 0.00	₹ 7,86,794.64	₹ 39,339.73
10 HADAPSAR SEZ	₹ 4,04,508.00		₹ 4,29,057.15	€ 0.00	₹ 4,29,057.15	₹21,452.86
IDEAL ENERGY PROJECTS						
11 LIMITED	₹ 34,91,221.00		₹ 37,03,099.42	₹ 0.00	₹ 37,03,099.42	₹1,85,154.97
12 JINDAL POWER LIMITED	₹ 1,03,85,335.00		₹ 1,10,15,609.74	€ 0.00	₹ 1,10,15,609.74	₹ 5,50,780.49
13 JNPT	₹ 51,091.00		₹ 54,191.66	00.0 ₹	₹ 54,191.66	₹2,709.58
14 JSW ENERGYLIMITED	₹ 4,07,62,675.00		₹ 4,32,36,517.60	€ 0.00	₹ 4,32,36,517.60	₹ 21,61,825.88
15 KRC	₹ 25,25,699.00		₹ 26,78,980.94	€ 0.00	₹ 26,78,980.94	₹ 1,33,949.05
16 LBSCML	₹ 1,28,842.00		₹ 1,36,661.28	€ 0.00	₹ 1,36,661.28	€ 6,833.06
LLOYDS METALS AND						
17 ENERGY LIMITED	₹ 86,17,604.00		₹ 91,40,597.05	₹ 0.00	₹ 91,40,597.05	₹4,57,029.85
18 M/s Grace Industries Ltd.	₹ 1,28,196.00		₹ 1,35,976.08	₹ 0.00	₹ 1,35,976.08	₹ 6,798.80
M/s. Omsairam Steels &						
19 Alloys Pvt Ltd.	₹ 2,14,216.00		₹ 2,27,216.54	₹ 0.00	₹ 2,27,216.54	₹ 11,360.83
20 MADC	₹ 23,30,768.00		₹ 24,72,219.79	₹ 0.00	₹ 24,72,219.79	₹1,23,610.99

ē	n e ins	DSM Payable to					
Sr.No. State Entity	e Entity	itary Bill	GNA granted (MW)	50% in proportion to DSM Payable (Rs)	50% in proportion to GNA Granted (Rs)	Total Recovery (Rs)	Per Instalment Amount (Rs)
21 MSPGCL	OCL.	₹ 22,25,67,692.00		₹ 23,60,75,084.21	00.0	₹23,60,75,084.21	₹ 1,18,03,754.21
22 MAN	22 MANJARI SEZ	₹ 1,85,341.00		₹1,96,589.14	€ 0.00	₹1,96,589.14	₹ 9,829.46
23 MBPPPL SEZ	PPL SEZ	₹ 11,65,849.00		₹ 12,36,603.11	€ 0.00	₹12,36,603.11	₹ 61,830.16
24 MSEDCL	DCT	₹ 28,66,87,306.00	8384.13	₹ 30,40,86,048.15	₹ 1,11,00,14,017.68	₹1,41,41,00,065.84	₹7,07,05,003.29
25 NIDAR SEZ	AR SEZ	₹ 9,90,715.00		₹ 10,50,840.42	00.0 ₹	₹ 10,50,840.42	₹ 52,542.02
26 RAILWAY	WAY	₹ 23,37,71,888.00	158.32	₹ 24,79,59,250.74	₹2,09,60,722.14	₹ 26,89,19,972.87	₹ 1,34,45,998.64
27 RATT	27 RATTANINDIA POWER	₹ 8,38,125.00		06.686,88,989.90	00.0 ₹ 0.00	€ 8,88,989.90	₹ 44,449.49
SAIM	SAI WARDHA POWER						
28 GENE	28 GENERATION PRIVATE	₹ 9,62,442.00		₹ 10,20,851.56	₹ 0.00	₹ 10,20,851.56	₹ 51,042.58
29 SASPI	7	₹ 14,617.00		₹ 15,504.09	€ 0.00	₹ 15,504.09	₹775.20
SHRE	SHREE SIDDHESHWAR						
SAHA	SAHAKARI SAKHAR						
30 KARK	30 KARKHANA LTD, KUMATHE	₹ 1,38,884.00		₹1,47,312.72	€ 0.00	₹1,47,312.72	₹ 7,365.64
31 TPC-D	O	₹ 9,72,49,939.00	375	₹ 10,31,51,932.49	₹ 4,96,47,996.47	₹15,27,99,928.96	₹ 76,39,996.45
32 TPCL		₹ 20,11,68,164.00		₹ 21,33,76,842.03	00:0 ≩	₹ 21,33,76,842.03	₹ 1,06,68,842.10
Topw	Topworth Urja & Metals						
33 Limited	pa.	₹ 5,549.00		₹ 5,885.76	€ 0.00	₹ 5,885.76	₹ 294.29
	Sub-Total	₹ 1,32,06,15,226.00	9645.78	₹ 1,40,07,61,934.00	₹ 1,27,70,49,737.00	₹ 2,67,78,11,671.00	₹13,38,90,583.55

Note: Only those weeks for the period from Oct 2023 to Sept 2024 are considered in which the State DSM Pool is in Deficit (i.e. Week 31,39,40,46,47,49,52 and 53 of FY 2023-24 and Week 1,6,25,26 and 27 of FY 2024-25)

ANEXURE-II

Inst		of payment by each State Entities
Instalment Number	Instalment Date	Due date of payment by State Entities
1	11-11-2024	21-11-2024
2	18-11-2024	28-11-2024
3	25-11-2024	05-12-2024
4	02-12-2024	12-12-2024
5	09-12-2024	19-12-2024
6	16-12-2024	26-12-2024
7	23-12-2024	02-01-2025
8	30-12-2024	09-01-2025
9	06-01-2025	16-01-2025
10	13-01-2025	23-01-2025
11	20-01-2025	30-01-2025
12	27-01-2025	06-02-2025
13	03-02-2025	13-02-2025
14	10-02-2025	20-02-2025
15	17-02-2025	27-02-2025
16	24-02-2025	06-03-2025
17	03-03-2025	13-03-2025
18	10-03-2025	20-03-2025
19	17-03-2025	27-03-2025
20	24-03-2025	03-04-2025

			됴	Entity wise GNA in Maharashtra	GNA in N	Maharash	ıtra					(In MW)
Entity/Distribution Licensee	Inside Region PPA	Outside Region PPA	Total PPA	Inside Region Deemed GNA	Outside Region Deemed GNA	Total Deemed GNA (A)	Inside Region Additional GNA	Outside Region Additional GNA	Additional GNA (B)	Inside Region Total GNA	Outside Region Total GNA	Total GNA Granted (A+B)
Maharashtra State Electricity Distribution Company Ltd (MSEDCL)	7988.57	1778.05	9766.62	6857.77	1526.36	8384.13	0.00	0.00	0.00	6857.77	1526.36	8384.13
Adani Electricity Mumbai Limited- Distribution (AEML-D	0.00	33	33	0.00	28.33	28.33	0.00	700.00	700.00	0.00	728.33	728.33
The Tata power Company Ltd- Distribution (TPC-D)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	375.00	375.00	0.00	375.00	375.00
Central Railway	2.32	95	97.32	1.99	81.55	83.54	61.33	13.45	74.78	63.32	95.00	158.32
Brihanmumbai Electricity Supply and Transport (BEST)	00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.00	0.00
Total	7990,89	1906,05	9896,94	6859.76	1636,24	8496	61.33	1088.45	1149.78	6921.09	2724.69	9645.78

Annexure 26

Fuel Utilisation Plan station-wise Details in Excel formats.

FUEL REQUIREMENT OF EACH STATION

Bhusawal 3 MT

Dilasawa		EV/2025 26			E) /2.00.C 0.T			51/2027 22			E) /2.00.0 0.0			E)/2022 22	1711
Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
WIOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	75,792	50,000
May	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	75,792	50,000
Jun	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	ı	-	1,18,425	ı	50,000	1,18,425	75,792	50,000
July	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	66,697	-
Aug	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	66,697	-
Sep	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	ı	-	1,04,214	66,697	-
Oct	1,18,425	-	-	1,18,425	-	50,000	1,18,425	-	-	1,18,425	-	50,000	1,18,425	75,792	50,000
Nov	1,18,425	-	-	1,18,425	-	50,000	1,18,425	-	-	1,18,425	-	50,000	1,18,425	75,792	50,000
Dec	1,18,425	-	-	1,18,425	-	50,000	1,18,425	-	-	1,18,425	-	50,000	1,18,425	75,792	50,000
Jan	1,32,636	-	-	1,32,636	-	50,000	1,32,636	-	-	1,32,636	-	50,000	1,32,636	84,887	50,000
Feb	1,32,636	-	-	1,32,636	-	50,000	1,32,636	-	-	1,32,636	-	50,000	1,32,636	84,887	50,000
Mar	1,32,636	=	-	1,32,636	-	50,000	1,32,636	-	-	1,32,636	-	50,000	1,32,636	84,887	50,000
Total	14,21,099	-	-	14,21,099	-	4,50,000	14,21,099		-	14,21,099	-	4,50,000	14,21,099	9,09,500	4,50,000

Bhusawal 4-5 MT

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
MOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
May	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
Jun	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
July	2,93,413	66,697	-	2,93,413	66,697	-	2,94,147	66,697	-	2,94,147	66,697	ı	2,94,147	66,697	-
Aug	2,93,413	66,697	-	2,93,413	66,697	-	2,94,147	66,697	-	2,94,147	66,697	ı	2,94,147	66,697	-
Sep	2,93,413	66,697	-	2,93,413	66,697	-	2,94,147	66,697	-	2,94,147	66,697	-	2,94,147	66,697	-
Oct	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
Nov	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
Dec	3,33,424	75,792	50,000	3,33,424	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000	3,34,258	75,792	50,000
Jan	3,73,435	84,887	50,000	3,73,435	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000
Feb	3,73,435	84,887	50,000	3,73,435	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000
Mar	3,73,435	84,887	50,000	3,73,435	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000	3,74,368	84,887	50,000
Total	40,01,091	9,09,500	4,50,000	40,01,091	9,09,500	4,50,000	40,11,091	9,09,500	4,50,000	40,11,091	9,09,500	4,50,000	40,11,091	9,09,500	4,50,000

Chandrapur 3-7 MT

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
MOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,792	50,000
May	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,792	50,000
Jun	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,792	50,000
July	7,14,377	39,050	-	7,14,377	39,050	-	7,14,377	39,050	-	6,99,710	50,783	-	7,01,177	66,697	-
Aug	7,14,377	39,050	-	7,14,377	39,050	-	7,14,377	39,050	-	6,99,710	50,783	-	7,01,177	66,697	-
Sep	7,14,377	39,050	-	7,14,377	39,050	-	7,14,377	39,050	-	6,99,710	50,783	-	7,01,177	66,697	-
Oct	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,792	50,000
Nov	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,792	50,000
Dec	8,11,792	44,375	72,222	8,11,792	44,375	50,000	8,11,792	44,375	72,222	7,95,125	57,708	50,000	7,96,792	75,79 2 5	⁴ 50,000

Jan	9,09,207	49,700	72,222	9,09,207	49,700	50,000	9,09,207	49,700	72,222	8,90,540	64,633	50,000	8,92,407	84,887	50,000
Feb	9,09,207	49,700	72,222	9,09,207	49,700	50,000	9,09,207	49,700	72,222	8,90,540	64,633	50,000	8,92,407	84,887	50,000
Mar	9,09,207	49,700	72,222	9,09,207	49,700	50,000	9,09,207	49,700	72,222	8,90,540	64,633	50,000	8,92,407	84,887	50,000
Total	97,41,500	5,32,500	6,50,000	97,41,500	5,32,500	4,50,000	97,41,500	5,32,500	6,50,000	95,41,500	6,92,500	4,50,000	95,61,500	9,09,500	4,50,000

MT

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Chandrapur 8-9

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
IVIOIILII	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
May	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
Jun	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
July	3,39,130	16,837	-	3,38,397	16,837	-	3,33,997	16,837	-	3,79,097	16,837	-	3,80,857	66,697	-
Aug	3,39,130	16,837	-	3,38,397	16,837	-	3,33,997	16,837	-	3,79,097	16,837	-	3,80,857	66,697	-
Sep	3,39,130	16,837	-	3,38,397	16,837	-	3,33,997	16,837	-	3,79,097	16,837	-	3,80,857	66,697	-
Oct	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
Nov	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
Dec	3,85,375	19,133	50,000	3,84,542	19,133	50,000	3,79,542	19,133	50,000	4,30,792	19,133	50,000	4,32,792	75,792	50,000
Jan	4,31,620	21,429	50,000	4,30,687	21,429	50,000	4,25,087	21,429	50,000	4,82,487	21,429	50,000	4,84,727	84,887	50,000
Feb	4,31,620	21,429	50,000	4,30,687	21,429	50,000	4,25,087	21,429	50,000	4,82,487	21,429	50,000	4,84,727	84,887	50,000
Mar	4,31,620	21,429	50,000	4,30,687	21,429	50,000	4,25,087	21,429	50,000	4,82,487	21,429	50,000	4,84,727	84,887	50,000
Total	46,24,500	2,29,600	4,50,000	46,14,500	2,29,600	4,50,000	45,54,500	2,29,600	4,50,000	51,69,500	2,29,600	4,50,000	51,93,500	9,09,500	4,50,000

Khaperkh	neda 1-4														MT
Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
MOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
May	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
Jun	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
July	2,92,804	58,813	-	2,92,804	58,813	-	2,94,271	58,813	-	3,15,538	38,221	-	1,47,879	66,697	-
Aug	2,92,804	58,813	-	2,92,804	58,813	-	2,94,271	58,813	-	3,15,538	38,221	-	1,47,879	66,697	-
Sep	2,92,804	58,813	-	2,92,804	58,813	-	2,94,271	58,813	-	3,15,538	38,221	-	1,47,879	66,697	-
Oct	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
Nov	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
Dec	3,32,732	66,833	27,778	3,32,732	66,833	50,000	3,34,399	66,833	27,778	3,58,566	43,433	50,000	1,68,044	75,792	50,000
Jan	3,72,660	74,853	27,778	3,72,660	74,853	50,000	3,74,527	74,853	27,778	4,01,594	48,645	50,000	1,88,209	84,887	50,000
Feb	3,72,660	74,853	27,778	3,72,660	74,853	50,000	3,74,527	74,853	27,778	4,01,594	48,645	50,000	1,88,209	84,887	50,000
Mar	3,72,660	74,853	27,778	3,72,660	74,853	50,000	3,74,527	74,853	27,778	4,01,594	48,645	50,000	1,88,209	84,887	50,000
Total	39,92,788	8,02,000	2,50,000	39,92,788	8,02,000	4,50,000	40,12,788	8,02,000	2,50,000	43,02,788	5,21,200	4,50,000	20,16,530	9,09,500	4,50,000

Khaperkheda 5

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
IVIOIILII	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
May	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
Jun	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
July	1,48,612	29,759	-	1,48,612	29,759	-	1,47,879	29,759	-	1,47,879	29,759	-	1,47,879	29,759	-
Aug	1,48,612	29,759	-	1,48,612	29,759	-	1,47,879	29,759	-	1,47,879	29,759	-	1,47,879	29,759	-
Sep	1,48,612	29,759	-	1,48,612	29,759	-	1,47,879	29,759	-	1,47,879	29,759	-	1,47,879	29,7 9 95	5 -

Oct	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
Nov	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
Dec	1,68,877	33,817	27,778	1,68,877	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778	1,68,044	33,817	27,778
Jan	1,89,143	37,875	27,778	1,89,143	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778
Feb	1,89,143	37,875	27,778	1,89,143	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778
Mar	1,89,143	37,875	27,778	1,89,143	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778	1,88,209	37,875	27,778
Total	20,26,530	4,05,800	2,50,000	20,26,530	4,05,800	2,50,000	20,16,530	4,05,800	2,50,000	20,16,530	4,05,800	2,50,000	20,16,530	4,05,800	2,50,000

Koradi 6															MT
Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
WOITH	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	77,167	-	8,889	77,167	-	8,889	78,000	ı	8,889	78,000	•	8,889	78,000	-	8,889
May	77,167	-	8,889	77,167	-	8,889	78,000	-	8,889	78,000	ı	8,889	78,000	-	8,889
Jun	77,167	-	8,889	77,167	-	8,889	78,000	-	8,889	78,000	ı	8,889	78,000	-	8,889
July	67,907	-	-	67,907	-	-	68,640	-	-	68,640	ı	-	68,640	-	-
Aug	67,907	-	-	67,907	-	-	68,640	-	-	68,640	ı	-	68,640	-	-
Sep	67,907	-	-	67,907	-	-	68,640	-	-	68,640	-	-	68,640	-	-
Oct	77,167	-	8,889	77,167	-	8,889	78,000	-	8,889	78,000	-	8,889	78,000	-	8,889
Nov	77,167	-	8,889	77,167	-	8,889	78,000	-	8,889	78,000	-	8,889	78,000	-	8,889
Dec	77,167	-	8,889	77,167	-	8,889	78,000	-	8,889	78,000	-	8,889	78,000	-	8,889
Jan	86,427	-	8,889	86,427	-	8,889	87,360	-	8,889	87,360	-	8,889	87,360	-	8,889
Feb	86,427	-	8,889	86,427	-	8,889	87,360	-	8,889	87,360	-	8,889	87,360	-	8,889
Mar	86,427	-	8,889	86,427	-	8,889	87,360	-	8,889	87,360	ı	8,889	87,360	-	8,889
Total	9,26,000	-	80,000	9,26,000	-	80,000	9,36,000	-	80,000	9,36,000	-	80,000	9,36,000	-	80,000

Koradi 8,9,10 MT

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29		FY2029-30		
WIGHT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
May	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
Jun	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
July	62,333	6,19,505	-	61,600	6,19,505	-	94,600	5,90,832	-	2,09,000	4,86,171	-	3,65,933	3,36,094	-
Aug	62,333	6,19,505	-	61,600	6,19,505	-	94,600	5,90,832	-	2,09,000	4,86,171	-	3,65,933	3,36,094	-
Sep	62,333	6,19,505	-	61,600	6,19,505	-	94,600	5,90,832	-	2,09,000	4,86,171	-	3,65,933	3,36,094	-
Oct	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
Nov	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
Dec	70,833	7,03,983	5,556	70,000	7,03,983	5,556	1,07,500	6,71,400	5,556	2,37,500	5,52,467	5,556	4,15,833	3,81,925	5,556
Jan	79,333	7,88,461	5,556	78,400	7,88,461	5,556	1,20,400	7,51,968	5,556	2,66,000	6,18,763	5,556	4,65,733	4,27,756	5,556
Feb	79,333	7,88,461	5,556	78,400	7,88,461	5,556	1,20,400	7,51,968	5,556	2,66,000	6,18,763	5,556	4,65,733	4,27,756	5,556
Mar	79,333	7,88,461	5,556	78,400	7,88,461	5,556	1,20,400	7,51,968	5,556	2,66,000	6,18,763	5,556	4,65,733	4,27,756	5,556
Total	8,50,000	84,47,800	50,000	8,40,000	84,47,800	50,000	12,90,000	80,56,800	50,000	28,50,000	66,29,600	50,000	49,90,000	45,83,100	50,000

Nashik 3	.5														MT
Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
WOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	2,96,167	-	45,556	2,96,167	ı	45,556	2,97,000	-	45,556	2,96,167	ı	45,556	2,96,167	-	45,556
May	2,96,167	-	45,556	2,96,167	-	45,556	2,97,000	-	45,556	2,96,167	ı	45,556	2,96,167	-	45,556
Jun	2,96,167	-	45,556	2,96,167	-	45,556	2,97,000	-	45,556	2,96,167	-	45,556	2,96,167	_125	⁶ 45,556

July	2,60,627	-	-	2,60,627	1	-	2,61,360	-	-	2,60,627	1	-	2,60,627	-	-
Aug	2,60,627	-	-	2,60,627	-	-	2,61,360	-	-	2,60,627	-	-	2,60,627	-	-
Sep	2,60,627	-	-	2,60,627	-	-	2,61,360	-	-	2,60,627	-	-	2,60,627	-	-
Oct	2,96,167	-	45,556	2,96,167	-	45,556	2,97,000	-	45,556	2,96,167	-	45,556	2,96,167	-	45,556
Nov	2,96,167	-	45,556	2,96,167	-	45,556	2,97,000	-	45,556	2,96,167	-	45,556	2,96,167	-	45,556
Dec	2,96,167	-	45,556	2,96,167	-	45,556	2,97,000	-	45,556	2,96,167	-	45,556	2,96,167	-	45,556
Jan	3,31,707	-	45,556	3,31,707	-	45,556	3,32,640	-	45,556	3,31,707	-	45,556	3,31,707	-	45,556
Feb	3,31,707	-	45,556	3,31,707	ı	45,556	3,32,640	-	45,556	3,31,707	ı	45,556	3,31,707	-	45,556
Mar	3,31,707	-	45,556	3,31,707	1	45,556	3,32,640	-	45,556	3,31,707	1	45,556	3,31,707	-	45,556
Total	35,54,000	-	4,10,000	35,54,000	-	4,10,000	35,64,000	-	4,10,000	35,54,000	-	4,10,000	35,54,000	-	4,10,000

Parli 6,7															MT
Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
IVIOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	2,40,398	-	-	2,40,398	ı	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
May	2,40,398	-	-	2,40,398	ı	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
Jun	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
July	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-
Aug	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-
Sep	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-	2,11,550	-	-
Oct	2,40,398	-	-	2,40,398	ı	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
Nov	2,40,398	-	-	2,40,398	ı	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
Dec	2,40,398	-	-	2,40,398	ı	-	2,40,398	-	-	2,40,398	-	-	2,40,398	-	-
Jan	2,69,246	-	-	2,69,246	ı	-	2,69,246	-	-	2,69,246	-	-	2,69,246	-	-
Feb	2,69,246	-	-	2,69,246	·	-	2,69,246	-	-	2,69,246	-	-	2,69,246	-	-
Mar	2,69,246	-	-	2,69,246	·	-	2,69,246	-	-	2,69,246	-	-	2,69,246	-	-
Total	28,84,775	•	-	28,84,775	•	-	28,84,775	-	-	28,84,775	-	-	28,84,775	-	•

Parli 8 MT

Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
MOTILIT	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	1,19,040	-	-	1,19,040	-	-	1,19,456	=	-	1,19,456	-	-	1,19,456	-	-
May	1,19,040	-	-	1,19,040	-	-	1,19,456	-	-	1,19,456	-	-	1,19,456	-	-
Jun	1,19,040	-	-	1,19,040	-	-	1,19,456	-	-	1,19,456	-	-	1,19,456	-	-
July	1,04,755	-	-	1,04,755	-	-	1,05,122	-	-	1,05,122	-	-	1,05,122	-	-
Aug	1,04,755	-	-	1,04,755	-	-	1,05,122	-	-	1,05,122	-	-	1,05,122	-	-
Sep	1,04,755	-	-	1,04,755	-	-	1,05,122	-	-	1,05,122	-	-	1,05,122	-	-
Oct	1,19,040	-	-	1,19,040	-	-	1,19,456	-	-	1,19,456	-	-	1,19,456	-	-
Nov	1,19,040	-	-	1,19,040	-	-	1,19,456	-	-	1,19,456	-	-	1,19,456	-	-
Dec	1,19,040	-	-	1,19,040	-	-	1,19,456	-	-	1,19,456	-	-	1,19,456	-	-
Jan	1,33,324	-	-	1,33,324	-	-	1,33,791	-	-	1,33,791	-	-	1,33,791	-	-
Feb	1,33,324	-	-	1,33,324	-	-	1,33,791	-	-	1,33,791	-	-	1,33,791	-	-
Mar	1,33,324	-	-	1,33,324	=	-	1,33,791	-	-	1,33,791	=	-	1,33,791	-	-
Total	14,28,475	-	-	14,28,475	-	-	14,33,475	-	-	14,33,475	-	-	14,33,475	-	-

Paras 3,4 MT

Month	FY2025-26				FY2026-27			FY2027-28			FY2028-29			FY2029-30
WOITH	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washel ²⁵⁷ Imported

Total	27,53,000	-	-	27,53,000	-	-	27,53,000	-	-	27,53,000	-	-	27,53,000	-	-
Mar	2,56,947	-	=	2,56,947	-	-	2,56,947	-	=	2,56,947	-	-	2,56,947	-	-
Feb	2,56,947	-	=	2,56,947	-	-	2,56,947	-	-	2,56,947	-	-	2,56,947	-	-
Jan	2,56,947	-	-	2,56,947	-	-	2,56,947	-	-	2,56,947	-	-	2,56,947	-	-
Dec	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-
Nov	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-
Oct	2,29,417	-	=	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-
Sep	2,01,887	-	=	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-
Aug	2,01,887	-	=	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-
July	2,01,887	-	=	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-	2,01,887	-	-
Jun	2,29,417	-	=	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-
May	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	1
Apr	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-	2,29,417	-	-

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Month		FY2025-26			FY2026-27			FY2027-28			FY2028-29			FY2029-30	
IVIOIILII	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported	Raw	Washed	Imported
Apr	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	-	53,333
May	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	-	53,333
Jun	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	ı	53,333	2,22,750	-	53,333	2,22,750	-	53,333
July	1,96,020	-	-	1,96,020	-	-	1,96,020	-	1	1,96,020	-	-	1,96,020	-	-
Aug	1,96,020	-	-	1,96,020	-	-	1,96,020	-	1	1,96,020	-	-	1,96,020	-	-
Sep	1,96,020	-	-	1,96,020	-	-	1,96,020	-	1	1,96,020	-	-	1,96,020	-	-
Oct	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333
Nov	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333
Dec	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333	2,22,750	-	53,333
Jan	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333
Feb	2,49,480	ı	53,333	2,49,480	-	53,333	2,49,480	ı	53,333	2,49,480	-	53,333	2,49,480	-	53,333
Mar	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333	2,49,480	-	53,333
Total	26,73,000	•	4,80,000	26,73,000	-	4,80,000	26,73,000	•	4,80,000	26,73,000	-	4,80,000	26,73,000	-	4,80,000

Annexure 27

CEA - Methodology for Flexibility in Utilization of Domestic Coal to Reduce the Cost of Power Generation (08.06.2016).



सं.5/3/2015-ओएम

भारत सरकार

Government of India विद्युत मंत्रालय

Ministry of Power श्रम शक्ति भवन, रफी मार्ग, नई दिल्ली-110001

Shram Shakti Bhawan, Rafi Marg, New Delhi - 110001 टेलीफैक्स संख्या 23719229

Telefax No. 23719229

dated 20th February, 2017

To,

1. Chairperson, Central Electricity Authority, New Delhi

- 2. Principal Secretary/Secretary (Energy) of State Govts./UTs
- 3. Chairman, State Power Utilities/SEBs
- 4. Chairman, CPSUs under Ministry of Power.
- 5. Member Secretary, Regional Power Committees

Subject:- Flexibility in utilization of domestic coal and other measures for reducing the cost of power generation – reg.

Sir/Madam,

In continuation to this Ministry's letter of even number dated 10th June, 2016 wherein it was suggested that the methodology for use of transferred coal in Independent Power Producers (IPPs) Generating Stations will be done separately (Page-8 of previous methodology issued on 10th June, 2016). The same has now been finalized after detailed discussion with all the stakeholders to bring in further efficiency in utilisation of domestic coal. The same is enclosed.

All the stakeholders are requested to take necessary action in this methodology.

Yours faithfully,

Encl: As above.

(D. Guha)

Under Secretary to Govt. of India

Copy to:

1. CEO, NITI Aayog, New Delhi.

- 2. Secretary, Department of Economic Affairs, North Block, New Delhi
- 3. Secretary, Ministry of Home Affairs, North Block, New Delhi
- 4. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
- 5. Secretary, Ministry of Railways, Rail Bhawan, New Delhi
- 6. Secretary, Department of Atomic Energy, Anushakti Bhawan, Chatrapati Shivaji Maharaj Marg, Mumbai-400001
- 7. Secretary, CERC, Chanderlok Building, 36, Janpath, New Delhi
- 8. Secretary, State Electricity Regulatory Commissions
- 9. Director General, Association of Power Producers, 501-502, 5th Floor, Mohan Dev Building
- 13, Tolstoy Marg, New Delhi-110001

METHODOLOGY FOR

USE OF COAL BY STATE IN PRIVATE GENERATING STATIONS (IPPS)

Under Case-4, the State ("Buyer") supplying coal will invite Tariff Bids from the prospective IPP Generating Stations ("Seller") for use of domestic coal out of aggregated coal allocated to respective State and supplying power in lieu of transfer of such coal. The methodology as finalized after consultation with stakeholders is as under:-

1. GENERAL PRINCIPLES

- i. The energy generated under this arrangement would be treated as transfer of coal.
- ii. The landed cost of power from IPP generating station at the Buyer's periphery should be lower than the variable cost of generation of the State generating station whose power is to be replaced by generation from IPP. The landed cost of power shall be inclusive of the transmission charges (injection and drawl charges as amended from time to time by the appropriate commission) and transmission losses.
- iii. The IPP will make their own assessment about the availability of transmission corridor for the quantum of power offered and the period of supply before submitting their price bids during e-reverse bidding.
- iv. A reference will be made by the Buyer to the Ministry of Railways regarding operational feasibility of the rail transportation of coal to the IPPs (shortlisted after opening of the RFQ bids). The details of the quantum of coal to be moved and the time frame during which this transportation is required would be conveyed to Traffic Transportation Directorate of Railway Board (Ministry of Railways) by the concerned State notified agency. Based on the operational considerations, Ministry of Railways would convey their consent or otherwise within 7 days of the receipt of the reference. The IPP where the transfer of coal is not feasible as conveyed by the Railways, would not be eligible to participate in RFP stage. The tariff will be charged by the Railways as per the prevalent tariff rates of the Railways. The Bidder may also assess the transportation charges from the Freight Operations Information System of the Railways (www.fois.indianrail.gov.in).
- v. Techno-commercial feasibility for such an arrangement may be worked out before-hand subject to transmission system availability. This need to be examined by IPP generating company. For power transfer across the region, an early decision is required to be taken. As STOA are granted three months in advance, such an arrangement should be finalized at least 3 months in advance.
- vi. State notified agency shall be nodal agency to coordinate all the activities related to implementation of the scheme.
- vii. Buyer would transfer coal to Seller only after ensuring that there is no transmission constraint for power transfer.
- viii. Use of coal by Central Generating Company in Private Generating Stations (IPP) would be taken up separately.

2. E-BIDDING PROCESS

- i. The Buyer(s) shall procure power in lieu of domestic coal using the e-Bidding portal (or through an Authorized Representative (AR)). The link for the e-Bidding portal shall be available on the website of Ministry of Power (www.powermin.nic.in).
- ii. The Buyers shall publish a NIT notice in at least two national newspapers and upload the same on the portal and on their website to accord it wide publicity. The bidding shall necessarily be by way of e- reverse bidding.
- iii. The perspective Bidders and Buyers or their AR shall have to be registered with the e-Bidding portal to create their own user id and password. For registration, Bidders shall pay onetime non-refundable registration fee as applicable.
- iv. All the Bidders would be able to participate in the e-Bidding events on making payment of the requisite fees of Rs. 500 per MW for the maximum capacity; a bidder is willing to bid, to Buyer/ AR. The requisite fee plus applicable taxes shall be deposited through the portal by e-Payment Gateway to the company assigned to carry out the bidding process. After the completion of the bidding process, only successful Bidder(s) will have to pay these charges for the quantum allocated to each bidder. The balance amount will be refunded within working days without any interest. The fee deposited by non-Selected Bidder(s) will also be refunded within working days of completion of the event without any interest.
- v. All the users of the e-Bidding portal shall require valid digital signatures to have access to the portal.
- vi. Buyers shall provide only written interpretation of the tender document to any Bidder/participant and the same shall be made available to all other Bidders. All parties shall rely solely on the written communication. In addition, the same shall be uploaded in the e-Bidding portal.
- vii. The successful bidder shall be selected through a reverse bidding process. The Bidding process shall consist of Request for Qualification (RFQ) and Request for Proposal (RFP). Both the RFQ and RFP Bids shall be invited at the same time under two envelops in one stage bidding. RFP Bids of only those Bidders who have qualified in RFQ Stage shall be opened. Bidders qualified in RFQ stage shall be eligible to participate in next stage of bidding which is e-reverse auction.

3. BIDDING REQUIREMENT

While inviting the Bids from prospective Bidders, the Buyer shall specify the following information:

3.1. Power Requirement

- i. Quantum of Power required:MW
- ii. Duration of power required:Months*

 (Minimum duration: One Month, Maximum Duration: One year, which shall be reviewed based on experience gained.)
- iii. Hours of supply: Round the Clock (RTC) or from ...-... Hrs to ..-.. Hrs
- iv. Delivery point: Procuring State Periphery
- v. Commencement of Supply: From ../../ (DD/MM/YYYY)

3.2. Coal Availability

- i. Source of coal:(Name of Coal company) with probable sources (coal mine)
- ii. Estimated quantity of coal available for transfer:MT
- iii. Estimated quality of coal (loading end):
 - a. GCV:(Kcal/Kg) (Grade Range)
 - b. Ash content (range): (%)
 - c. Moisture (range): (%)
 - d. Sulphur (range): (%)
 - e. Carbon (range):(%)

3.3. Ceiling Tariff

i. Quoted Tariff (Rs/kWh) to be less than ceiling tariff.

The ceiling tariff shall be the variable cost of generation of the State generating station whose power is to be replaced by generation from IPP.

4. PREPARATION OF BIDS

The Bidding process shall consist of Request for Qualification (RFQ) and Request for Proposal (RFP). Both the RFQ and RFP Bids shall be invited at the same time under two envelops in one stage bidding. RFP Bids of only those Bidders who have qualified in RFQ Stage shall be opened. Bidders qualified in RFQ stage shall be eligible to participate in next stage of bidding which is e-reverse auction.

4.1. RFQ Bids

The Bidders shall fulfill the following qualifying criteria during RFQ stage:

4.1.1. Technical:

- a) Bidder must be an IPP Generating Company and shall own a coal based Thermal Power Generating Station which has achieved commercial operation at the time of Bidding.
- b) The available operating capacity of the Thermal Plant must be equal to or more than the required quantum of power as requisite by the Buyer. The available operating capacity shall be either:
 - i) Capacity (MW) with no firm Power Purchase Agreements; or
 - (ii) Unutilized capacity (with the consent of original Beneficiaries) for which PPA exists.
- c) The Installed Capacity of the operating Units from which power is proposed to be generated, shall be equal to or more than 200 MW.

4.1.2. Bid Validity

Validity period of offer of Bidder shall be till the time of signing of Power Purchase Agreement (PPA).

4.1.3. Bid Security (Earnest Money Deposit (EMD))

- i. The Bidders are required to submit Bid Security for the capacity which they wish to offer @ Rs. 30,000/- per MW on RTC (30 days, 24 hours) basis and same shall be reduced on pro-rata basis in case bids are invited on hourly basis, in the form of Bank Guarantee / eBank Guarantee issued by any Nationalized/Scheduled Bank or Electronically Transfer through payment gateway provided by in the portal. For Example: For a requirement of 1 MW, 45 days, 4 hours, the EMD shall be Rs. 30,000 x (45 days/30 days) x (4 hours / 24 hours) = Rs. 7,500/-
- ii. The EMD shall be forfeited:
 - If Bidder withdraws bid during Bid Validity Period.
 - For non-submission of Contract Performance Guarantee by Successful Bidder(s).
- iii. The EMD shall be refunded to the unsuccessful Bidders within 10 days of expiry of Bid validity period.
- iv. The EMD of the Successful Bidder(s) shall be refunded after furnishing the Performance Guarantee (PG).

4.2. RFP Bids

4.2.1. Bidding parameters

- i. The Bidders shall quote the Tariff (Rs per unit) for the quantum of power offered by the Bidder. The Quoted Tariff should be the landed cost of power at the Delivery Point including Transmission charges and Transmission losses. The Delivery Point shall be the State Periphery.
- ii. A Bidder shall quote for a minimum Bid quantity of 100 MW or 50 % of the quantity required by the Buyer, whichever is lower.

4.2.2 Bid Evaluation

- i. The Bidders who have quoted Tariff more than the Ceiling Tariff shall be disqualified during RFP Stage and their Bids shall not be considered.
- ii. Bidders shall be arranged in the order of least quoted tariff to next higher Quoted Tariff. The Bidder with the least quoted Tariff shall be the 1st Selected Bidder. If the power offered by the 1st Selected Bidder is equal to or more than the Power required by the State then he will be the Successful Bidder. If the power offered by the 1st Selected Bidder is less than the Power required by the State, then he will be the 1st Successful Bidder and the balance power requirement will be procured from the 2nd Selected Bidder at the tariff quoted by them and so on.
- iii. If the Buyer's balance power requirement after Bucket filling is less than the available quantum offered by next Bidder, then the Bidder may accept or reject that quantum of balance power being offered. In case the Bidder rejects, successful Bidders in order of least quoted tariff shall be requested to provide balance power.

iv. The Buyer can accept or reject the tariff being discovered through e-Reverse bidding and annul the Bidding process without assigning any reason.

4.3. E-AUCTION PROCESS:

- i. The process of bidding shall be conducted electronically. For this purpose, provisions like registration, log in, downloading and uploading etc. in the e-Bidding portal shall be specified in the Bid document. The link for the e-Bidding portal shall be available on the website of Ministry of Power (www.powermin.nic.in). An event involves both e-Tender and e-Reverse auction process. Each event of the auction would require independent Digital Signature of the Bidder. An event may have requirement of power at different time and period.
- ii. The process of e-Bidding shall be conducted online, in accordance with the provisions laid herein. Each e-Bidding event shall comprise of two parts i.e. e-Tender and e-Reverse Auction. An event may have multiple requisitions (i.e. independent requirements of power at different time or places). To participate in the event each Bidder will have to specify the source(s) of power for that particular bid. Each bid will have only one price per requisition accompanied by total quantum of power, the Bidder intends to supply and minimum threshold quantum acceptable to the Bidder. However, the Bidder shall have the option to choose the requisition of an event in which it intends to participate. Each of the bid will have to be signed by the Digital Signature of the Bidder.
- iii. To ensure competitiveness, the minimum number of Bidders should be at least two for each requisition. If the number of Bidders responding to the RFP is less than two, and Procurer still wants to continue with the selection process, the selection of that single Bidder may be done with the consent of the Appropriate Commission.
- iv. RFP bids submitted along with RFQ shall be considered as the Initial Price Offer (IPO) by the bidders.
- v. After the opening of Initial Price Offers, the system will rank the Bidders according to their price bids.
- vi. The Bidder with the highest price bid in IPO stage will be called the H1 Bidder. If the total quoted quantity is greater than twice the Requisitioned Quantity, the Highest Bidder(H1) will be eliminated provided that the total quoted quantity after elimination is not less than or equal to twice the Requisitioned Quantity.
- vii. The shortlisted Bidder after elimination will be intimated individually by system generated emails only. The Reverse auction should start within 120 minutes of opening of Initial Price Offers The Bidding will not close after 120 minutes and there shall be automatic extension by another 15 minutes if a revised bid is received in the last 15 minutes of the 120 minutes auction slot. During the Reverse Auction the Bidders will have the option of reducing the tariff quoted by them in decrements of one paise or multiples thereof and to increase the quantum quoted by them by 1 MW or multiples thereof. During the Reverse Auction the prevailing Lowest Tariff would be visible to all the Bidders.
- viii. The Bidders will have the option to increase the quantum of power upto corresponding to the value of **EMD submitted along with RFP (IPO)**, but decrease the Tariff during the e-Reverse Auction process.
- ix. The Bidder after the e-RA process will be ranked in accordance with the tariff offered in ascending order. The list would also include the name, quantum offered and tariff quoted by those qualified Bidder(s) who have not changed the quantum of power and

tariff from IPO stage to e-RA stage. The Bidder(s), in order of their rankings, offering the quantum of power upto the requisitioned capacity would be the Successful Bidder(s). The Buyer shall procure power from the Successful Bidders in the order of their rankings decided on the basis of tariff quoted by them until the entire Requisitioned Capacity is met. In case of a tie at any stage, the successful bidder shall be selected through draw of lots amongst the tied bidders.

- x. The Buyer shall have the right to issue Letter of Award (LoA) to the Successful Bidder(s) [Selected Bidder(s)] in the same order to fulfil its requirement, which can be lower than the Requisitioned Capacity but not less than the quantum of Lowest Bidder. In the event Buyer rejects or annuls all the Bids, it may go for fresh Bids hereunder. In case the Buyer fails to issue the LoA within a period of 15 days from the close of e-Reverse Auction, the Successful Bidder(s) shall have the option to exit without forfeiting the EMD.
- xi. In case the LOA is issued but Selected Bidder(s) is/are not in a position to fulfil the requirement, the EMD/PG shall be forfeited as the case may be.
- After selection, a Letter of Award (the "LOA") shall be issued, in duplicate, by the Buyer to the Selected Bidder(s) and the Selected Bidder(s) shall, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder(s) is not received by the stipulated date, the Procurer may, unless it consents for extension of time for submission thereof, forfeit the EMD of such Bidder as Damages on account of failure of the Selected Bidder(s) to acknowledge the LOA.
- xiii. After acknowledgement of the LOA by the Selected Bidder(s), the Buyer shall cause the Selected Bidder(s) to execute the PPA within the prescribed period in the Bid document i.e. within 15 days from the close of the e-Reverse Auction. The Selected Bidder(s) shall not be entitled to seek any deviation, modification or amendment in the PPA. The Buyer would appropriate the EMD of such Bidder as Damages on account of failure of the Selected Bidder(s) to execute the PPA. In case the Buyer fails to sign the PPA within the period prescribed above, the Selected Bidder(s) shall have the option to exit without forfeiting the EMD/PG as the case may be.

5. TIMELINES FOR BIDDING PROCESS

SN	Event	Timeline
1.	Notice inviting RFQ/RFP Bids	Zero date
2.	Submission of RFQ/RFP Bids	30 Days
3.	Opening of RFQ Bids	31 Days
4.	Announcement of successful Bidders for RFP Stage	38 Days
5.	Simultaneously, intimating the names of successful bidders at RFQ stage to the Railways and getting the consent of the Railways for feasibility of transportation of coal	45 Days
6.	Opening of RFP Bids	46 Days
7.	Announcement of Successful Bidders	53 Days
8.	Issuance of Letter of Award to successful Bidders	60 Days
9.	Signing of Power Purchase Agreement	67 Days

6. PERFORMANCE SECURITY (PS)

- i. The Seller shall, for the performance of its obligations under this arrangement, provide to the Buyer no later than 30 (thirty) days from the date of signing of Power purchase Agreement, an irrevocable and unconditional guarantee from a Schedule Bank for a sum equivalent to Rs. ***** crore (Rupees ***** crore) (the "Performance Security") for a period of (***) months.
- ii. Until such time the Performance Security is provided by the Seller pursuant hereto and the same comes into effect, the Bid Security shall remain in force. In the event Performance Security is not provided by the Seller within a period of {30 (thirty)} days from the date of this Agreement, the Buyer may encash the Bid Security and appropriate the proceeds thereof as Damages and the PPA, shall be deemed to have been terminated with the consent of the Seller.
- iii. The Successful Bidder(s) may be required to furnish Bank Guarantee (BG) within 10 days from the date of selection of Successful Bidder(s) for an amount calculated at Rs. 2 lakh per MW per month (30 days, 24 hours) of contract period or part thereof. The PG for the procurement of power on hourly basis shall be calculated on pro-rata basis as per the example given above for calculating EMD.
- iv. The PS shall be in the form of Bank Guarantee issued by any Nationalized/Scheduled Bank and valid for the period of Contract with a claim period of 1 month after the expiry of contract period.
- v. In the event, the BG is not furnished within the stipulated date, the EMD submitted against the Notification shall be forfeited.
- vi. The BG provided by the Successful Bidder(s) shall be forfeited for non-performing the contractual obligations. The BG should be released within 30 days after completion of Contract Period.

7. APPROVAL OF TARIFF

The quantum of power procured and tariff discovered through the bidding process shall be within the approved Annual Revenue Requirement (ARR) / Tariff Orders of the respective year by the appropriate commission, and the same will be considered to have been deemed approved by the said Commission.

8. RESPONSIBILITIES OF EACH PARTY

8.1. SELLER (IPP)'s Responsibility

- i. Obtaining Open Access as per the relevant regulations of the appropriate commission for the quantum and duration of power supply under this arrangement. However, the situation such as Non-grant of Open Access/quantum not granted open access to the successful Bidder shall be treated as "Force majeure" and there will be no liability on either parties. The open access shall be as per CERC Regulations as amended from time to time.
- ii. Signing of Agreement for use of coal and supply of required power by the Seller (Between Buyer and Seller)

- iii. Responsible for making available the contracted quantum of electricity
- iv. Coordination with State, Railways regarding Mine end management, transportation of coal from mine to plant site
- v. Making regular advance upfront payment to the Buyer against the estimated quantum of coal to be transferred, as communicated by the Buyer to the Seller. Buyer shall then make payment to the Coal Company (CIL Subsidiary/SCCL).
- vi. RLDC/SLDC charges to be borne by the Seller.
- vii. Providing Performance Security to the Buyer as per requirement
- viii. All Excise Duty/Cess/Taxes on coal as applicable on the date of bidding shall be paid by Buyer and reimbursed by Seller.
- ix. Making regular payments to the transporter (Railways/Shipping/Road) including demurrages, etc. for transportation of coal from Mine to IPP generating station.
- x. Any increase in freight charges on account of transfer of coal or in transmission charges shall be borne by the Seller during the contract period.
- xi. To intimate the concerned SLDC/RLDC/RPC about such arrangement as and when finalized.

8.2 BUYER (STATE)'s Responsibility

- i. Arrangement for supply of coal to Seller from Coal Company (CIL/SCCL)
- ii. Signing of Agreement for use of coal and supply of required power by the Seller (Between Buyer and Seller)
- iii. Procuring power up to the contracted quantity.
- iv. Assisting Seller for procuring statutory clearances as per requirement.
- v. Making regular payments to the coal companies (CIL Subsidiary/SCCL).
- vi. Buyer to provide necessary assistance to Seller for coordination with coal company and transporter. The details of the quantum of coal to be moved and the time frame during which this transportation is required would be conveyed to Traffic Transportation Directorate of Railway Board (Ministry of Railways)
- vii. The Buyer shall bear the third party sampling charges of the quantum of coal being transferred.
- viii. Any increase in cost of coal, duties and taxes on coal shall be borne by the Buyer during the contract period.
- ix. Buyer shall ensure that actual schedule shall not fall below on an average 80% of the contracted power on monthly basis and not below technical minimum as specified by the CERC for each time block as per approved open access. Buyer shall pay compensation at 10% of Tariff per kWh for the quantum of shortfall below 80% on monthly basis.

9. TARIFF PAYMENT

- i. The tariff discovered through competitive bidding would be paid corresponding to the energy scheduled subject to Force Majeure.
- ii. Payments will be made on month to month basis and there will be no escalation in Tariff during the period of the contract.

- iii. The Power will normally be scheduled at the bidded tariff for the purpose of its consideration in the merit-order dispatch.
- iv. Seller shall have the flexibility to offer tariff less than the bidded tariff on day-ahead basis in order to ensure increase scheduling of power.

10. SCHEDULING AND DESPATCH

i. The scheduling and despatch by RLDCs/SLDCs under this arrangement shall also be as per relevant regulations of the appropriate commission.

11. BILLING AND PAYMENTS

- i. The Seller shall raise the Bills for the energy supplied under this arrangement and scheduled by the Buyer/beneficiary on monthly basis based on the Regional Energy Accounts (REA) issued by the concerned Regional Power Committee within 2 days of issuance of REA.
- ii. The Buyer shall pay the Bills within 30 days of receipt of the Bill for the respective month ("Payment Due Date"). In the event the Buyer pays the Bill within 5 (five) days of the date of receipt of the Bill thereof, it shall be entitled to deduct 1% (one per cent) of the amount comprising the Tariff by way of discount for early payment. A late payment surcharge at a rate of 1.5% per month shall be payable in case the Bills are not settled within 30 days from the receipt of Bill.
- iii. Buyer shall secure to Seller monthly bill payment by way of an unconditional, irrevocable and revolving Letter of Credit (LC) in favor of Seller.

12. PAYMENT SECURITY MECHANISM

12.1. Letter of Credit

Buyer to open an unconditional, irrevocable and revolving Letter of Credit (LC) in favour of Seller valid for a period of contract period or 12 months whichever is lower. The amount in the letter of credit shall be two (2) times average monthly billing. The LC shall be opened not later than 30 days before the Scheduled Delivery Date i.e. date from which supply need to be commenced as per PPA. The Buyer has to renew the LC at least one month before the expiry of existing LC. Delay in Opening of LC/ Renewal of by seven (7) days shall be considered an Event of Default by Buyer.

13. ASSESSMENT OF COAL QUANTITY AND RECONCILIATION

13.1 Coal Quantity Evaluation

- i. Buyer will evaluate the amount of coal to be allocated to the successful bidder for producing the quantum of power specified in the bid.
- ii. For this evaluation, the GCV of coal to be used will be corresponding to the grade of coal specified by Coal Company and vetted by Third Party sampling for the mine/linkage source.
- iii. Gross Station Heat Rate (kcal/kWh) shall be used for coal quantity calculation. The following may be considered for Gross Heat Rate:

The Bidder may indicate the unit size and the Gross Heat Rate from which they propose to supply power. The Gross Heat Rate to be considered for coal quantity calculations shall be the Gross Heat Rate specified by the Bidder or as specified by CERC for equivalent unit capacity which ever is lower.

13.2. Reconciliation of Coal Quantity

- i. The coal quantity shall be reconciled every quarter with respect to coal consumed for generation and supply of electricity to the Buyer corresponding to quality and quantity of coal at loading end. Normative transit losses as per prevailing CERC Regulations shall be applicable.
- ii. Any excess/shortfall quantity of coal transferred to the Seller shall be adjusted in the next quarter. The quality of coal at loading end shall be as vetted by Third Party sampler.
- iii. After reconciliation, if extra coal remains after the contract period, Bidder will supply equivalent energy to the Buyer at the same terms & conditions within 25% of the contracted period.
- iv. Any consequence due to shortfall in the supply of coal, as a result of factors solely attributable to the Seller, will be borne by the Seller.
- v. In the event of shortfall in the supply of fuel from the coal company as reported by the Seller, Buyer will have the option of either asking for a reduced quantum of supply to the extent of fuel availability or Seller can use other sources which may be available at the time with the consent of Buyer. Any such excess fuel utilized from other sources for generating power towards the contracted capacity will be intimated to Buyer in advance and is to be reimbursed at actuals as agreed between the parties.

14. EVENTS OF DEFAULT

14.1. Treatment in case of Transmission constraint

The parties are at liberty to extend the duration of supply of power for the quantity of coal transferred at the same Tariff corresponding to the duration of transmission constraints.

14.2. Sellers event of default

- i. Delay in commencement of supply within 7 days from the Scheduled Delivery Date.
- ii. Shortfall in quantity of agreed supply of power for the factors attributable to the Seller
- iii. Use of Buyer coal for supply to third party without consent of Buyer.

14.3. Treatment in case of Sellers event of default

- i. Upon occurrence of a Seller Default, the Buyer shall be entitled to terminate this Agreement by issuing a Termination Notice to the Seller. Provided that before issuing the Termination Notice, the Buyer shall, by a notice, inform the Seller through post/e-mail of its intention/reason to issue such Termination Notice and grant 15 (fifteen) days time to the Seller to make a representation, and may after the expiry of such 15 (fifteen) days, on consideration of the reply submitted by the Seller, if any, issue the Termination Notice.
- ii. Upon Termination on account of a Seller Default, the Seller shall pay to the Buyer, by way of Termination Payment, an amount equal to 10% of the energy that would have

- been scheduled at the quoted rate for a period of [1 (ONE) month]18or the balance period of contract, whichever is higher.
- iii. Termination Payment shall be due and payable within 15 (fifteen) days of a demand being made with the necessary particulars, and in the event of any delay, the defaulting Party shall pay interest at a rate equal to 3% (three per cent) above the Bank Rate on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days.
- iv. Upon termination of this arrangement, the Performance Security of the Seller shall be forfeited. Buyer shall inform the Coal Company about termination and subsequently Coal Company shall cease supply of coal to the Seller.

14.4. Buyer event of default

- i. Default in payment to the Seller
- ii. Opening of LC of requisite amount within 30 days from the due date.
- iii. Default in payment of coal cost to the coal company (if any)

14.5. Treatment in case of Buyer event of default

Upon Termination on account of a Buyer Default, the Buyer shall pay to the Seller, by way of Termination Payment, an amount equal to 10% of the energy that would have been scheduled at the quoted rate for a period of [1 (ONE) month]18or the balance period of contract, whichever is higher.

15. FORCE MAJEURE

- 15.1. Force Majeure Events shall mean the occurrence of any of the following events:
 - i. Any restriction imposed by RLDC/SLDC in scheduling of power due to breakdown of Transmission/Grid constraint shall be treated as Force Majeure without any liability on either side.
 - ii. Any of the events or circumstances, or combination of events and circumstances such as act of God, exceptionally adverse weather conditions, lightning, flood, cyclone, earthquake, volcanic eruption, fire or landslide or acts of terrorism causing disruption of the system.
- iii. The contracted power will be treated as deemed reduced for the period of transmission constraint. The non/part availability of transmission corridor should be certified by the concerned RLDC/SLDC.
- 15.2. During the period of Force Majeure, no coal transfer shall be made to the Seller.

16. DISPUTE RESOLUTION

- i. The inter-ministerial sub group constituted under the similar scheme of flexible utilization of coal amongst State/Central Gencos, would also look into various operational issues arising during the implementation of this scheme.
- ii. Commercial dispute, if any would be decided by appropriate commission and only buyer and seller shall be party to that. CEA, POSOCO, Ministry of Coal, Railways shall not be made party to any bilateral dispute between buyer and seller. Issues regard coal and transportation charges would be between parties whom it is billed.
- iii. Any other disputes arising out of this arrangement shall be dealt as per clause 16 of this document.

17. ARBITRATION

- i. The Buyer and the Seller shall make every effort to resolve amicably by direct informal negotiations, any disagreement or disputes, arising between them under or in connection with the Contract.
- ii. If, after Thirty (30) days from the commencement of such direct informal negotiations, the Buyer and the Seller have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanism specified in Clauses 17 (iii) and 17 (iv).
- iii. In the case of a dispute or difference arising between the Buyer and the Seller relating to any matter arising out of or connected with this Contract, such dispute or difference shall be referred to the award of two Arbitrators having relevant technical background, one Arbitrator to be nominated by the Buyer and the other to be nominated by the Seller or in case of the said Arbitrators not agreeing, then to the award of an Umpire to be appointed by the Arbitrators in writing before proceeding with the reference, and in case the Arbitrators cannot agree to the Umpire, he may be nominated by the Secretary, Indian Council of Arbitration, New Delhi. The award of the Arbitrators, and in the event of their not agreeing, of the Umpire appointed by them or by the Secretary, Indian Council of Arbitration, New Delhi shall be final and binding on the parties.
- iv. The Arbitration & Conciliation Act 1996, the rules there under and any statutory modification or re-enactments thereof, shall apply to the arbitration proceedings.
- v. The venue of the arbitration shall be *Delhi*.
- vi. During the arbitration proceedings the Seller shall continue to work under the Contract unless otherwise directed in writing by the Buyer or unless the matter is such that the work cannot possibly be continued until the decision of the arbitrator or the umpire, as the case may be, is obtained.
- vii. The Buyer may terminate this contract, by giving a written notice of termination of minimum 30 days, to the Seller, if the Seller fails to comply with any decision reached consequent upon arbitration proceedings pursuant to Clause 17 (iv).

18. AMENDMENTS

Amendments in the scheme may be made, if any, based on the operational experience gained during its implementation.

244089/2018/OPERATION AND MONITORING SECTION

सं.5/3/2015-ओएम भारत सरकार विद्युत मंत्रालय श्रम शक्ति भवन, रफी मार्ग, नई दिल्ली-110001 टेलीफैक्स संख्या 23719229

dated 15th June, 2018

To,

- 1. Chairperson, Central Electricity Authority, New Delhi
- 2. Principal Secretary/Secretary (Energy) of State Govts./UTs
- 3. Chairman, State Power Utilities/SEBs
- 4. Chairman, CPSUs under Ministry of Power.
- 5. Member Secretary, Regional Power Committees

Subject:- Flexibility in utilization of domestic coal and other measures for reducing the cost of power generation – reg.

Sir/Madam.

In continuation to this Ministry's letter of even no. dated 10/06/2016 and 28/02/2017, the methodology for use of transferred coal in Independent Power Producers (IPPs) has been amended as per the decision taken during the meeting taken by Secretary (Power) on 28/05/2018 with the representatives of State Governments, IPPs, CEA, Ministry of Coal, CIL, etc. The amendment in the methodology for use of coal by state in Private Generating Stations (IPPs) under Case – 4 "Flexibility in Utilization of Coal in IPPs stations" was also discussed in CEA under the Chairmanship of Member (Planning), CEA with the stakeholders on 05/06/2018. The minutes of this meeting was circulated by CEA separately.

- 2. The amendment in methodology for use of coal by state in Private Generating Stations (IPPs) under Case -4 "Flexibility in Utilization of Coal in IPPs stations" is enclosed. All the stakeholders are requested to take necessary action as per the methodology.
- 3. This issues with the approval of Hon'ble MoS (I/C) for Power and NRE.

Yours faithfully,

Encl: As above.

(Binod Kumar) Section Officer (OM)

Copy to:

- 1. CEO, NITI Aayog, New Delhi.
- 2. Secretary, Department of Economic Affairs, North Block, New Delhi
- 3. Secretary, Ministry of Home Affairs, North Block, New Delhi
- 4. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
- 5. Secretary, Ministry of Railways, Rail Bhawan, New Delhi
- 6. Secretary, Department of Atomic Energy, Anushakti Bhawan, Chatrapati Shivaji Maharaj Marg, Mumbai-400001
- 7. Secretary, CERC, Chanderlok Building, 36, Janpath, New Delhi
- 8. Secretary, State Electricity Regulatory Commissions
- 9. Director General, Association of Power Producers, 501-502, 5th Floor, Mohan Dev Building
- 13, Tolstoy Marg, New Delhi-110001

1273

Changes in Methodology for use of coal by State in Private Generating Stations (IPPs) 244089/2018/OPERATION AND MONITORING SECTION IPP stations"

Sr. No.	Existing Clause in MoP's Methodology for use of Coal by State in IPPs dated 20.02.2017	Revised Clause
1.	Clause 1 (iv) - General Principles "A reference will be made by the Buyer to the Ministry of Railways regarding operational feasibility of the rail transportation of coal to the IPPs (shortlisted after opening of the RFQ bids). The details of the quantum of coal to be moved and the time frame during which this transportation is required would be conveyed to Traffic Transportation Directorate of Railways Board (Ministry of Railways) by the concerned State notified agency. Based on the operational considerations, Ministry of Railways would convey their consent or otherwise within 7 days of the receipt of the reference. The IPP where the transfer of coal is not feasible as conveyed by the Railways, would not be eligible to participate in RFP stage. The tariff will be charged by the Railways as per the prevalent tariff rates of the Railways. The Bidder may also assess the transportation charges from the Freight Operations Information System of the Railways (www.fois.indianrail.gov.in)."	Clause 1 (iv) - General Principles may be modified and replaced as under: "A reference will be made by the Buyer to the Ministry of Railways regarding operational feasibility of the rail transportation of coal to the IPPs (shortlisted after opening of the RFQ bids). The details of the quantum of coal to be moved and the time frame during which this transportation is required would be conveyed to Traffic Transportation Directorate of Railway Board (Ministry of Railways) by the concerned State notified agency. Based on the operational considerations, Ministry of Railways would convey their consent or otherwise within 7 days of the receipt of the reference. The tariff will be charged by the Railways as per the prevalent tariff rates of the Railways. The Bidder may also assess the transportation charges from the Freight Operations Information System of the Railways (www.fois.indianrail.gov.in). Where the transfer of coal is not feasible as conveyed by the Railways, the bidders / IPPs may choose any other suitable mode of transportation of coal. Provided that the bidders/ IPPs who are not willing to choose any other suitable mode of transportation, where the transfer of coal is not feasible as conveyed by the Railways, such IPPs would not be eligible to participate in RFP stage. Further, where the transfer of coal is feasible as conveyed by the Railways but during operationalisation, if there are problems in transportation of coal by Railways and the materialisation is less than the quantity to be transferred, the bidder/IPPs may choose any other suitable mode of transportation of coal without affecting the bid tariff of power.
2.	Clause 1 - General Principles	Following provision may be added as Clause 1 (ix) "The IPPs selected through Competitive Bidding under Case-4 shall be "treated at par with State Utilities" for use of coal as the coal to be transferred is the linkage coal of the State Utility and the power generated using

this coal by these IPPs shall be purchased by 244089/2018/OPERATION AND MONITORING SECTION State Utilities." Clause 3.1 (ii) Duration of power Clause 3.1 (ii) Duration of power required:

- required: Months* (Minimum duration: One Month, Maximum Duration: One year, which shall be reviewed based on experience gained.)
- Months*

(Minimum duration: One Month, Maximum Duration: One year, which may be mutually extended for an additional period upto one year so as to optimize the benefits under the methodology. This shall be further reviewed based on the experience gained)

Clause 4.1.3 Bid Security (Earnest 4. Money Deposit)

"The Bidders are required to submit Bid Security for the capacity which they wish to offer @ Rs. 30,000/- per MW on RTC (30 days, 24 hours) basis and same shall be reduced on pro-rata basis in case bids are invited on hourly basis, in the form of Bank Guarantee / e-Bank Guarantee issued by any Nationalized / Scheduled Bank Electronically or Transfer through payment gateway

For Example: For a requirement of 1 MW, 45 days, 4 hours, the EMD shall be Rs. 30,000 x (45 days/30 days) x (4 hours / 24 hours) = Rs. 7,500/-"

provided by in the portal.

Clause 4.1.3 (i) Bid Security (Earnest **Money Deposit)**

"The Bidders are required to submit Bid Security for the capacity which they wish to offer @ Rs. 15,000/- per MW on RTC (30 days, 24 hours) basis and same shall be reduced on pro-rata basis in case bids are invited on hourly basis, in the form of Bank Guarantee / e-Bank Guarantee issued by any Nationalized Scheduled Bank / Electronically Transfer through payment gateway provided by in the portal.

For Example: For a requirement of 1 MW, 45 days, 4 hours, the EMD shall be Rs. 15,000 x $(45 \text{ days} / 30 \text{ days}) \times (4 \text{ hours} / 24 \text{ hours}) =$ Rs. 3,750/-"

5. Clause 5 - Timelines for Bidding Process

Clause 5 - Timelines for Bidding Process

"Provided, the above mentioned timelines are indicative timelines. The State Utilities may modify / alter the timelines while inviting tender depending upon their requirements."

Clause 6 (iii) – Performance Security 6.

> "The Successful Bidder(s) may be required to furnish Bank Guarantee (BG) within 10 days from the date of selection of Successful Bidder(s) for an amount calculated at Rs. 2 lakh per MW per month (30 days, 24 hours) of contract period or part thereof. The PG for the procurement of power on hourly basis shall be calculated on pro-rata basis as per the example given above for calculating EMD."

Clause 6 (iii) – Performance Security

"The Successful Bidder(s) may be required to furnish Bank Guarantee (BG) within 10 days from the date of selection of Successful Bidder(s) for an amount calculated at Rs. 1 lakh per MW per month (30 days, 24 hours) of contract period or part thereof. The PG for the procurement of power on hourly basis shall be calculated on pro-rata basis as per the example given above for calculating EMD."

Clause 8.1 (x) – Seller 7. (IPP's) Responsibility

"Any increase in freight charges on account of transfer of coal or in transmission charges shall be borne by the Seller during the contract period."

Clause 8.1 (x) –deleted

244089/2018/OPERATION AND MONITORING SECTION Following clause is added as Clause 8.2 (x) – Buyer (State's) Responsibility:-"Any increase in railway freight charges on account of transfer of coal or in transmission charges shall be borne by the Buyer during the contract period." 9. Clause 13.2 - Reconciliation of Coal Clause 13.2 - Reconciliation of Coal Quantity **Ouantity** "(i) The coal quantity shall be reconciled "(i) The coal quantity shall be reconciled every quarter with respect to coal every month with respect to coal consumed consumed for generation and supply of for generation and supply of electricity to the electricity to the Buyer corresponding to Buyer corresponding to quality and quantity quality and quantity of coal at loading of coal at loading end. Normative transit end. Normative transit losses as per losses as per prevailing CERC Regulations prevailing CERC Regulations shall be shall be applicable. (ii) Any excess / shortfall quantity of coal applicable. transferred to the Seller shall be adjusted in (ii) Any excess / shortfall quantity of coal transferred to the Seller shall be the next **month**. The quality of coal at loading end shall be as vetted by Third Party sampler. adjusted in the next quarter. The quality The result of Third Party sampler shall be of coal at loading end shall be as vetted used for issuance of debit/credit notes. by Third Party sampler. ,, ,,,



सं. 5/3/2014-ओएम भारत सरकार Government of India विद्युत् मंत्रालय Ministry of Power

श्रम शक्ति भवन, रफ़ी मार्ग, नयी दिल्ली-110 001 Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001

dated 25th October, 2018

To

The Chairman Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110066

Subject:- Amendment in the methodology for use of coal by State in Private Generating Stations (IPPs) (Case-4).

Sir,

I am directed to refer to CEA's letter no. CEA/Plg/FM/1/37/2018/5447-62 dated 1/10/2018. The following proposal as discussed in the meeting taken by Member (Planning), CEA regarding reconciliation clause (Clause 13) in the Methodology for use of coal by State in Private Generating Stations (IPPs) under "Case 4: Flexibility in utilisation of coal in IPP stations" and forwarded to this Ministry have been approved by Competent Authority as below:

Original	Amended Clause
ii. For this evaluation, the GCV of coal to be used will be corresponding to the grade of coal specified by Coal Company and yetted by Third	
linkage source.	arrived by third party sampler may be corrected for moisture loss to arrive at GCV at unloading point as per the formula given as under: $GCV_{ARB} = GCV_{ADB} \times (1-TM) / (1-M_{eq})$

Where: GCV ARB = Gross Calorific value of coal after moisture correction,

GCV _{ADB} = Gross Calorific Value at Equilibrated Condition (60% RH and 40° C), TM=Total moisture, M _{eq} =Equilibrated Moisture at 60% RH and 40° C

ii (b): Till CERC specifies any norm, a margin of 85-100 kCal/kg in GCV for pit head station and a margin of 105-120 kCal/kg in GCV for non-pit head station may be allowed. In case CERC specifies a norm the same may be used. However, in case respective SERC specifies any norms, the same may be used instead of norms as specified above or CERC norm.

2. CEA is requested to issue the above modified methodology at the earliest.

Illende

(D. Guha) Under Secretary to Govt. of India

Telefax: 23719229

Email:opmonitor-power@gmail.com

Copy to:

Chief Engineer (FM), CEA, Sewa Bhawan, R. K. Puram, New Delhi-110066



Shram Shakti Bhawan, Rafi Marg, New Delhi, dated 18.11.2020

To,

- 1. Chairperson, Central Electricity Authority, New Delhi
- 2. Principal Secretary/Secretary (Energy) of State Govts./UTs
- 3. CERC
- 4. SERCs

Sub: Amendment in the methodology for use of coal by State in Private Generating Stations (IPPs) (Case-4) - reg.

Sir/Madam

In continuation to this Ministry's letter no. 5/3/2015-OM dated 20.02.2017 & 15.06.2018 and letter no. 5/3/2014-OM dated 25.10.2018, the methodology for use of coal by state in Private Generating Stations (IPPs) under Case - 4 "Flexibility in Utilization of Coal in IPPs stations" has been amended based on stakeholder consultation done by Central Electricity Authority (CEA), comments sought by Ministry of Power (MoP) from State Govt.s/UTs & Power Associations and the discussions held in different meetings in MoP. Based on these consultation and meetings, following modifications are made:

Sr no.	Existing provisions	Amendments approved
	Porformance Socurity (Clause 6)	Clause 6(vii) may be added after Clause 6 (vi) as under: "Clause 6 (vii): If the reconciliation of coal is pending due to un-availability of results of the samples referred to the referee, the contract may be closed by the Buyer after taking a payment security in the form of additional Bank Guarantee @8% of Performance Security, from the Seller and the Performance Security taken at the time of signing of contract shall be released to the Seller. The Additional Bank Guarantee shall be settled after receiving the
		results of pending referee samples."

11. Buyer's (State) (Clause 8.2 (x))

Responsibility The clause 8.2 (x) may be amended as below:

or in transmission charges shall be contract period" borne by the Buyer during the contract period"

"Anv increase/decrease in railway freight charges "Any increase in railway freight|on account of transfer of coal or in transmission charges on account of transfer of coal charges shall be borne by the Buyer during the

Coal Quantity Evaluation (Clause Clause 13.1 (ii)(a) & (b) may be read as under: III. 13.1)

Clause 13.1 (ii)(a). For company and vetted by Third Party Sampling for the mine/linkage source.

this Clause 13.1 (ii): For this evaluation, the GCV of evaluation, the GCV of coal to be coal to be used will be corresponding to the grade used will be corresponding to the of coal specified by Coal company and vetted by grade of coal specified by Coal Third Party Sampling for the mine/linkage source.

Further, for reconciliation of equilibrated GCV coal. sol arrived by third party sampler may be corrected for moisture loss to arrive at GCV at unloading point as per the formula given as under:

 $GCV_{ARB} = GCV_{ADB} \times (1-TM) / (1-M_{eq})$

Where: GCV_{ARB} = Gross Calorific coal of after moisture value correction,GCV_{ADB} = Gross Calorific Value at Equilibrated Condition (60% RH and 40° C), TM=Total moisture, M_{eg} =Equilibrated Moisture at 60% RH and 40° C

(ii)(b): Clause 13.1 Till CERC specifies any form, a margin of 85-100 kCal/kg in GCV for pit head station and a margin of 105-120 kCal/kg in GCV for non-pit head station may be used. However, in case respective SERC specifies any norms, the same may be used instead of norms as specified above or CERC norm.

IV. Reconciliation of Coal Quantity (Clause 13.2)

Clause 13.2(ii):

Any excess/ shortfall quantity of coal transferred to the Seller shall be adjusted in the next month. The quality of coal at loading end shall be as vetted by Third Party sampler. The result of Third Party sampler shall be used for issuance of debit/credit notes.

Clause 13.2 (ii) may be read as:

Clause 13.2 (ii) (a):

Any excess/ shortfall quantity of coal transferred to the Seller shall be adjusted in the next month. The quality of coal at loading end shall be as vetted by Third Party sampler. The result of Third Party sampler shall be used for issuance of debit/credit notes.

Further, for reconciliation of coal, equilibrated GCV so arrived by third party sampler may be corrected for moisture loss to arrive at GCV at unloading point as per the formula given as under:

$$GCV_{ARB} = GCV_{ADB} \times (1-TM) / (1-M_{eq})$$

Where: GCV_{ARB} = Gross Calorific value of coal after moisture correction,

GCV_{ADB} = Gross Calorific Value at Equilibrated Condition (60% RH and 40° C), TM=Total moisture, M_{eq} =Equilibrated Moisture at 60% RH and 40° C

Clause 13.2 (ii) (b): A margin may be allowed in GCV for storage loss as per CERC norms. However, in case respective SERC specifies any norms, the same may be used.

- 2. All the stakeholders are requested to take necessary action as per the methodology.
- 3. This issues with the approval of Hon'ble Minister of State (IC) (Power and New & Renewable Energy).

Yours faithfully,

(S. Majumdar) Under Secretary to the Govt. of India Tele# 2335 6938

Copy to:

- I. Association of Power Producers (APP)
- II. Domestic Coal Based Power Producers Association (DCPPA)
- III. Dhariwal Infrastructure Limited

No. 05/03/2015-OM Government of India Ministry of Power

Shram Shakti Bhawan, Rafi Marg, New Delhi, the 13th April, 2022

To

- 1. Secretary, Ministry of Coal, New Delhi
- 2. The Chairperson, Central Electricity Authority, R. K. Puram, New Delhi.
- 3. The Secretary, CERC, Chanderlok Building, Janpath, New Delhi.
- 4. Principal Secretaries/Secretaries (Power/Energy) of all State Governments/UTs.
- 5. Secretaries of all State Electricity Regulatory Commissions/JERCs
- 6. Chairman/CMDs of all PSUs under administrative control of Ministry of Power.
- 7. CMDs/MDs of Discoms/Gencos of all State Governments.
- 8. DG, Association of Power Producers (APP), New Delhi
- 9. DG, DCPPA
- 10. CEO, PFCCL, New Delhi
- 11. CMD, CIL/SCCL,

Sub: Amendment on Methodology for use of coal allocated to States by Private Generating Stations (IPPs) (Case-4) – Reg.

Sir / Madam,

I am directed to refer to this Ministry's letter of even number dated 20-02-2017 forwarding therewith a methodology for use of coal allocated to states by Private Generating Stations (IPPs) (Case-4) and subsequent amendments issued on 15-06-2018, 25-10-2018 and 18-11-2020 (copy enclosed).

- 2. In this regard, the following amendments are hereby made in the above said methodology:-
- (i) Proposed Amendments in the timeliness of bidding process (i.e. Clause 5 of existing methodology).

" 5. TIMELINES FOR BIDDING PROCESS

S.N	Event	Timeline
1.	Notice inviting RFQ/RFP Bids	Zero date
2.	Submission of RFQ/RFP Bids	30 Days
3.	Opening of RFQ Bids	31 Days
4.	Announcement of successful Bidders for RFP Stage	38 Days
5.	Simultaneously, intimating the names of successful bidders at RFQ stage	45 Days
	to the Railways and getting the consent of the Railways for feasibility of	
	transportation of coal	
6.	Opening of RFP Bids	46 Days
7.	Announcement of Successful Bidders	53 Days
8.	Issuance of Letter of Award to successful Bidders	60 Days
9.	Signing of Power Purchase Agreement	67 Days

Provided, the above mentioned timelines are indicative timelines. The State Utilities may modify / alter the timelines while inviting tender depending upon their requirements."



This may be read as

"5. TIMELINES FOR BIDDING PROCESS

S. N	Event	Timeline
1.	Notice inviting RFQ/RFP Bids	Zero date
2.	Submission of RFQ/RFP Bids	21 Days
3.	Opening of RFQ Bids	22 Days
4.	Announcement of successful Bidders for RFP Stage	26 Days
5.	Simultaneously, intimating the names of successful bidders at RFQ stage to the Railways and getting the consent of the Railways for feasibility of transportation of coal	30 Days
6.	Opening of RFP Bids	31 Days
7,	Announcement of Successful Bidders	34 Days
8.	Issuance of Letter of Award to successful Bidders	35 Days
9.	Signing of Power Purchase Agreement	37 Days

Provided, the above mentioned timelines are indicative timelines. The State Utilities may modify / alter the timelines while inviting tender depending upon their requirements."

(ii) Proposed Amendments in Clause 13.2 (ii) (a) Reconciliation of Coal Quantity.

"13.2. Reconciliation of Coal Quantity

(ii)(a) Any excess/shortfall quantity of coal transferred to the Seller shall be adjusted in the next month. The quality of coal at loading end shall be as vetted by Third Party sampler. The result of Third Party sampler shall be used for issuance of debit/credit notes."

Further, for reconciliation of Coal, equilibrated GCV so arrived by third party sampler may be corrected for moisture loss to arrive at GCV at unloading point as per formula given as under:

 $GCV_{ARB} = GCV_{ADB} X (1-TM)/(1-M_{eq})$

Where, $GCV_{ARB} = Gross\ Calorific\ value\ of\ coal\ after\ moisture\ correction,$

 $GCV_{ADB} = Gross\ Calorific\ Value\ at\ Equilibrated\ Condition\ (60\%\ RH\ and\ 40^{\circ}\ C),$

TM =*Total Moisture*

 M_{eq} = Equilibrated Moisture at 60% RH and 40° C."

This may be read as

"13.2. Reconciliation of Coal Quantity

(ii)(a) Any excess/shortfall quantity of coal transferred to the Seller shall be adjusted in the next month. The quality of coal at loading end shall be as vetted by Third Party sampler. Third party Coal sampling may be done through Central Institute of Mining and Fuel Research (CIMFR) or any other third party agency empanelled in accordance with



Guidelines issued by the Central Government in this regard. The result of Third Party sampler shall be used for issuance of debit/credit notes.

Further, for reconciliation of Coal, equilibrated GCV so arrived by third party sampler may be corrected for moisture loss to arrive at GCV at unloading point as per formula given as under:

 $GCV_{ARB} = GCV_{ADB} X (1-TM)/(1-M_{eq})$

Where, $GCV_{ARB} = Gross\ Calorific\ value\ of\ coal\ after\ moisture\ correction,$

 $GCV_{ADB} = Gross\ Calorific\ Value\ at\ Equilibrated\ Condition\ (60\%\ RH\ and\ 40^{\circ}\ C),$

TM =Total Moisture

 M_{eq} = Equilibrated Moisture at 60% RH and 40° C."

3. This issues with the approval of Hon'ble Minister of Power & NRE.

Yours faithfully,

Encl:- As above

(Ghanshyam Prasad)

Joint Secretary to the Govt. of India Email: g.prasad67@nic.in

Ph: 011-2371 0389

Copy to:

All ASs, JSs,/CE/Economic Adviser, Ministry of Power

Copy for information to: PS to Hon'ble Minister, Sr. PPS to Secy.(P), Sr.PPS to JS(R&R, OM), PPS to Dir(R&R).

<u>Copy to</u>: <u>Technical Director, NIC</u>- With a request to upload in Ministry of Power website under New Notices.

No. 05/03/2015-OM Government of India Ministry of Power

Shram Shakti Bhawan, Rafi Marg, New Delhi, the 20th April, 2022

To,

- 1. Secretary, Ministry of Coal, New Delhi
- 2. The Chairperson, Central Electricity Authority, R. K. Puram, New Delhi.
- 3. The Secretary, CERC, Chanderlok Building, Janpath, New Delhi.
- 4. Principal Secretaries/Secretaries (Power/Energy) of all State Governments/UTs.
- 5. Secretaries of all State Electricity Regulatory Commissions/JERCs
- 6. Chairman/CMDs of all PSUs under administrative control of Ministry of Power.
- 7. CMDs/MDs of Discoms/Gencos of all State Governments.
- 8. DG, Association of Power Producers (APP), New Delhi
- 9. DG, DCPPA
- 10. CEO, PFCCL, New Delhi
- 11. CMD, CIL/SCCL,

Sub: Amendment on Methodology for use of coal allocated to states by Private Generating Stations (IPPs) (Case-4) - Reg

Sir/Madam,

I am directed to refer to this Ministry's letter of even number dated 20-02-2017 forwarding therewith a methodology for use of coal allocated to states by Private Generating Stations (IPPs) (Case-4) and subsequent amendments issued on 15-06-2018, 25-10-2018, 18-11-2020 and 13-04-2022 (copy enclosed).

2. In this regard, the following amendments are hereby made in the above said methodology:-

S.N	Existing Clause	Amended Clause
1.	Clause 3.1 (ii) Duration of power	Clause 3.1 (ii) Duration of power required:
	required: Months*	- Months*
	(Minimum duration: One Month,	(Minimum duration: One Month, Maximum
	MaximumDuration: One year, which may	Duration: Three years, which may be mutually
	be mutually extended for an additional	extended for an additional period up to one year
	period upto oneyear so as to optimize the	so as to optimize the benefits under the
	benefits underthe methodology. This shall	methodology. This shall be further reviewed
	be furtherreviewed based on the experience	based on the experience gained)
	gained)	
2.	8.1. SELLER (IPP)'s Responsibility	8.1. SELLER (IPP)'s Responsibility
	iii. Responsible for making available the	iii. Responsible for making available 100%
	contracted quantum of electricity.	power scheduled by the buyer, subject to



		corresponding reduction in power due to
		unavailability of the generating unit (s) on
		account of forced outage. Seller shall pay
		compensation at 20% of Tariff per kWh for
	*	the quantum of shortfall below 80% on
	*	monthly basis.
3.	8.2 BUYER (STATE)'s Responsibility	8.2 BUYER (STATE)'s Responsibility
	ix. Buyer shall ensure that actual schedule	ix. Buyer shall ensure that actual schedule shall
	shall not fall below on an average 80% of	not fall below on an average 80% of the
	the contracted power on monthly basis and	contracted power on monthly basis and not below
	not below technical minimum as specified	technical minimum as specified by the CERC for
	by the CERC for each time block as per	each time block as per approved open access.
	approved open access. Buyer shall pay	Buyer shall pay compensation at 20% of Tariff
	compensation at 10% of Tariff per kWh	per kWh for the quantum of shortfall below 80%
	for the quantum of shortfall below 80% on	on monthly basis.
	monthly basis.	•

3. This issues with the approval of Hon'ble Minister of Power & NRE.

Encl:- As above

Yours faithfully,

(Ghanshyam Prasad) JointSecretary to the Govt. of India Email.G.prasad@nic.in

Ph: 011-2371 5250

Copy to:

All ASs, JSs,/CE/Economic Adviser, Ministry of Power

Copy for information to: PS to Hon'ble Minister, Sr. PPS to Secy.(P), Sr.PPS to JS(R&R, OM), PPS to Dir(R&R).

Copy to: Technical Director, NIC- With a request to upload in Ministry of Power website under New Notices.



भारत सरकार Government of India केन्द्रीय विदयत प्राधिकरण **Central Electricity Authority**

ईंधन प्रबंधन प्रभाग



Fuel Management Division

तीसरी मंजिल, सेवा भवन, आर.के.पुरम, नई दिल्ली -110066 3rd Floor, Sewa Bhawan, R.K. Puram, New Delhi - 110066

No. CEA/Plg/FM/1/37/2016/779-836

Date: 8th June, 2016

To,

As per list attached.

Subject: Methodology for flexibility in utilization of domestic coal for reducing the cost of power generation.

Sir,

The Union Cabinet has approved the proposal of the Ministry of Power for flexibility in utilization of domestic coal on 04.05.2016. As per approval of the Cabinet, Central Electricity Authority (CEA) shall in consultation with all the stakeholders issue the methodology for utilization of domestic coal in generating stations in a flexible manner including any other related issues. Accordingly, a committee under the Chairmanship of Chairperson, CEA was constituted with members from Ministry of Power, Ministry of Coal, Ministry of Railways, CERC, NTPC, CIL, POSOCO.

The Committee has finalized the methodology in consultation with stakeholders which has further been approved by Ministry of Power vide letter No. 5/3/2015-OM dated 08.06.2016. Accordingly, the "methodology for flexibility in utilization of domestic coal for reducing the cost of power generation" is enclosed for information and necessary action.

Encl: As above.

Yours faithfully,

Chief Engineer

6/20/6

List of addressee:

- 1. The Chairman & Managing Director, NTPC Ltd., Core 7, Scope Complex, Lodhi Road, New Delhi 110003.
- 2. The Chairman, Coal India Ltd., Coal Bhawan, Plot No. AF-III, Action Area-IA, New Town, Rajarhat, Premise No. 04 MAR, Kolkata-700156
- 3. The Chairman, Damodar Valley Corporation, DVC Tower, Ultadanga, VIP Road, Kolkata 700054.
- 4. The Managing Director, Haryana Power Generation Corp. Ltd., Room No.411, 3rd Floor, Urja Bhawan, C-7, Sector-6, Panchkula, Haryana.
- 5. The Chairman, Punjab State Power Corporation Ltd, The Mall, Patiala 147 001.
- 6. The Chairman & Managing Director, Rajasthan Rajya Vidyut Utpadan Nigam Ltd., Vidyut Bhawan, Jyoti Nagar, Janpath, Jaipur 302 005
- 7. The Managing Director, Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. Shakti Bhawan, 14 Ashok Marg, Lucknow 226 001.
- 8. The Chairman, Chhattisgarh State Power Generation Company Ltd, Dangania, P.O. Sunder Nagar, Raipur 492013.
- 9. The Chairman & Managing Director, Gujarat State Electricity Corporation Ltd., Sardar Patel Vidyut Bhawan, Race Course, Vadodara 390 007.
- 10. The Chairman & Managing Director, M.P. Power Generating Co. Ltd., Shakti Bhawan, Vidyut Nagar, Jabalpur 482008
- 11. The Managing Director, Maharashtra State Power Gen. Co. Ltd.6th Floor, Prakashgad, Plot No. G 9, Bandra (East), Mumbai 400 0051.
- 12. The Managing Director, Andhra Pradesh Power Generation Corpn. Ltd. Vidyut Soudha, Khairatabad Hyderabad 500082.
- 13. The Managing Director, Karnataka Power Corporation Ltd., Shakti Bhavan, No. 82, Race Course Road, Bangaluru 560 001.
- 14. The Chairman & Managing Director, Tamil Nadu Generation and Distribution Ltd., IInd Floor, NPKRR Maaligai, 144, Anna Salai, Chennai. (044-28520131).
- 15. The Chairman & Managing Director, Telangana State Power Generation Corporation Ltd, Vidyut Soudha, Khairatabad, Hyderabad-500082. Fax No. 040-2349166
- 16. The Chairman, Jharkhand State Electricity Board, Engineering Building, P.O. Dhurwa, Ranchi, Jharkhand 834004.
- 17. The Managing Director, Odisha Power Generation Corp. Ltd., Zone A, 7th Floor, Fortune Tower, Chandrashekharpur, Bhubaneshwar 751022
- 18. The Managing Director, The West Bengal Power Development Corp. Ltd., Bidyut Unnayan Bhawan, 3/C LA Block, Sector-III, Salt Lake City, Kolkata 700 098.
- 19. The Managing Director, Torrent Power Ltd, Torrent House, Off Ashram Road, Ahmedabad 380009.
- 20. The Managing Director, Tenughat Vidyut Nigam Ltd, Hinoo, Doranda, Ranchi-834002.
- 21. The Chairman, Durgapur Projects Ltd., 1593, Rajdanga Main Road, Kolkata-700 107, West Bengal.
- 22. The Chairman Cum-Managing Director, Reliance Energy Ltd., Reliance Energy Centre, Santa Cruz (E), Mumbai 400055.
- 23. The Managing Director, M/s Adani Power Ltd., Achalraj,Opp Mayor Bungalow,Law Garden,Ahmedabad 380 006 ,Gujarat,.
- 24. The Director, LANCO Amarkantak Power Private Limited, Lanco House, Plot# 397, Udyog Vihar, Phase-3, Gurgoan-122016. Ph-0124-4741000.

- 25. The General Manager (CA &PM), Aravali Power Co. Pvt. Ltd., 1st floor, Pawan Hans towers, C-14, Sector-1, NOIDA -201301 (UP).
- 26. The Managing Director, CLP India Private Limited, 15th Floor, Oberoi Commerz International Business Park, Goregaon (East), Mumbai- 400 063.
- 27. The Chief Executive Officer, Sterlite Energy Limited, Jharsuguda, Orissa.
- 28. The Chief Executive Officer, NTPC SAIL Power Co. Pvt. Ltd.,4th floor, 15, NBCC Tower, Bhikaji Cama Place, New Delhi-110066.
- 29. The Chairman & Managing Director, Kanti Bijlee Utpadan Nigam Ltd., NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003
- 30. The Vice President, Bajaj Energy Pvt. Ltd., Bajaj Bhawan, Jamnalal Bajaj Marg, B-10, Sector-3, Noida-201301 (UP).
- 31. The Head (Fuel), LANCO Anpara Power Ltd., LANCO HOUSE, Plot No. 397, Udyog Vihar, Ph-3, Gurgaon-122016.
- 32. The Director, Rosa Power Supply Co. Ltd., 1st floor, I-Block, Dhirubhai Ambani Knowledge City, Kopar Khairana, Navi Mumbai 400710.
- 33. The AGM (Coal), Maithon Power, A-5 Govana Maithon Dam 828207, Dhanbagh, Jharkhand.
- 34. The Vice President (Generation & Fuel Management), CESC Ltd., Statesman House, 4 Chowringee Square, Kolkata-700001.Ph:033-22129890, Fax: 033-22129875.
- 35. The Director, EMCO Energy Ltd., 9th & 10th floor, IBC Knowledge Park, 4/1, Bannerghatta Road, Bangalore- 560029. Fax- 80 40432180.
- 36. The Associate Vice President (Commercial), Talwandi Sabo Power Ltd Village Banawala, Mansa Talwandi Sabo Road, Distt. Mansa, Punjab 151302
- 37. The Executive Director, M/s Jindal India Thermal Power ltd.(Derang), Plot No. 12, Local Shopping Complex, Sector B-1, Vasant Kunj, New Delhi-110070.
- 38. The Vice President (Thermal Projects), MB Power Limited. 235, Okhla Industrial Estate, Phase-III, New Delhi-110020.
- 39. The Managing Director, Thermal Powertech Corporation Ltd, 6-3-1090, 2nd & 3rd Floors, C- block, TSR Towers, Rajbhavan Road, Somajiguda, Hyderabad-500082.
- 40. The Managing Director, Avantha Power & Infrastructure Limited, Thapar House, 124 Janpath, New Delhi-110001.
- 41. The Managing Director, NTECL, Vallur Thermal Power Project, Vellivoyal Chavadi Post, Ponneri Taluk, Thiruvellur Dist., Chennai 600 103
- 42. The Managing Director, Jaypee Bina Thermal Power Plant, Sector-128, Noida-201304, Uttar Pradesh.
- 43. The Managing Director, L&T Ltd, Ambadeep Building, 9th Floor, 14, Katurba Gandhi Marg, New Delhi-01.
- 44. The Managing Director, KSK Energy (Wardha Warora), 307 Silver Arch Apartments, 22 surkasha road, New Delhi-01 (Fax No. 41505802)
- 45. The Managing Director, GMR Kamalanga Energy Ltd., HIG-28, Gangadhar Meher Marg, Jaydev Vihar, Bhubaneswar, Odisha.
- 46. Sr. Vice President, RattanIndia Nashik Power Limited, 5th Floor, East Wing, Tower B, Worldmark 1, Aerocity, New Delhi-110037
- 47. Director General, Association of Power Producers, 501-502, 5th Floor, Mohan Dev Building, 13, Tolstoy Marg, New Delhi 110001

Copy for information to:

- 1. Joint Secretary (OM), Ministry of Power, Shram Shakti Bhawan, New Delhi
- 2. Joint Secretary (Thermal), Ministry of Power, Shram Shakti Bhawan, New Delhi
- 3. Joint Secretary (LA), Ministry of Coal, Shastri Bhawan, New Delhi
- 4. Additional Member (Traffic Transportation), Ministry of Railways, Rail Bhawan, New Delhi

Copy also for information to:

- Director (Operation), NTPC Ltd., Core 7, Scope Complex, Lodhi Road, New Delhi - 110003
- 2. Chief (Engg.), CERC, 3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi-110001
- 3. CEO, POSOCO, B-9, Qutub Institutklional Area, Katwaria Sarai, New Delhi 110016
- 4. Chief Engineer (GM), CEA, Sewa Bhawan, New Delhi
- 5. Chief Engineer (IRP), CEA, Sewa Bhawan, New Delhi
- 6. Director (CPD), Ministry of Coal, Shastri Bhawan, New Delhi- 110001
- 7. Director (TT (G)), Ministry of Railways, Rail Bhawan, New Delhi-110001

Methodology

for

flexibility in utilization of domestic coal

for

reducing the cost of power generation

Methodology for flexibility in utilization of domestic coal for reducing the cost of power generation

The Cabinet has approved the proposal for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation on 04.05.2016. As per approval given by the Cabinet, the Central Electricity Authority shall in consultation with all the Stakeholders issue the methodology for implementation of proposal for allowing utilization of domestic coal in a flexible manner including any other related issues. The flexibility in utilization of domestic coal would result in reduction of cost of electricity to the consumers.

A committee under the Chairmanship of Chairperson, CEA was constituted with members from Ministry of Power, Ministry of Coal, Ministry of Railways, CERC, NTPC, CIL and POSOCO to finalize the methodology.

The methodology as finalized after consultation with Stakeholders, for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation is as follows:

- 1. The methodology detailed herein shall be implemented for use of domestic coal by States/ Central Generating Company in State Generating Stations and / or Central Generating Stations only. Based on the experience gained during the implementation process, Ministry of Power shall separately notify the methodology for use of transferred coal in Independent Power Producers (IPPs) generating Stations.
- 2. All the source wise-coal company wise long term coal linkages of individual States (States would include UTs) or Centre owned generating stations to be aggregated and consolidated with respective States / (or State notified agency (to be notified from among the existing power utilities)) or company owning the Central Generating Stations (CGSs), as the case may be, instead of individual Thermal Power Stations, to enable efficient coal utilization amongst end use generating stations.
- 3. The coal company wise Annual Contracted Quantity (ACQ) of each individual coal linkages (as per Fuel Supply Agreement, FSA) to be aggregated as consolidated ACQ for each State and company owning the Central generating stations as the case may be, instead of individual generating stations. The terms and conditions of coal company wise FSA will be applicable on the aggregate ACQ of State as a whole or Company owning Central generating stations as the case may be. However, the FSAs of IPPs would not be aggregated.
- 4. The utility-wise (Central Generating Company or State notified agency) supplementary agreement would be signed with the CIL and SCCL.

- 5. To achieve the objective of reduced energy charges the Generating company / State shall communicate to CIL/SCCL its station wise requirement from different coal sources within the ambit of overall ACQ allotted to the Company/ State. If supply from the identified source is not possible/feasible, CIL/SCCL shall have the flexibility of offering coal supply from its various subsidiaries to facilitate assured level of supply for that State and CGS and for meeting MOEF stipulations regarding transportation etc. As far as possible, alternate source of supply of coal of CIL/SCCL shall be of similar landed cost and quality as sought by the Generating company/State.
- 6. The existing practice of determination of Station-wise energy charges as per applicable Tariff Regulations shall be continued based on station-wise coal accounting with respect to coal quantity, quality and price.
- 7. The requisition for transfer/supply of coal would be given by the State/Central generating company to the coal companies at least one month in advance from the agreed date of commencement of supply of electricity. The Coal companies will give their consent / response within 15 days from the receipt of requisition, else it will be deemed to be approved. The State notified agency/ Central Gencos having supplementary agreement will be responsible to ensure supply of transferred coal at the generating stations.
- 8. The Ministry of Railways would be conveyed for transportation of coal at least one month in advance from the agreed date of commencement of supply of electricity by the State notified agency /Central generating company and the Ministry of Railways would convey their approval or otherwise within 15 days from the date of receipt of request. The Ministry of Railways would endeavor to transport coal as per the requirement given by the State notified agency / Central generating company. However, in case there are some constraints in movement of rakes by the Ministry of Railways, an alternative plan would be made by the State/ Central generating company in consultation with the Ministry of Railways. The State notified agency / Central Gencos would ensure overall optimization of the cost while going for alternative plan.
- 9. To enable utilities identify Stations for transfer of coal, the State/ Central generating company will display information on their respective website and the web portal being developed for this purpose, related to normative fixed and variable charges of electricity for the previous month as well as the margin available for additional generation.
- 10. There will be one energy charge rate of the power station based on coal received from all sources including the coal transferred by the other State notified agency /Central Generating company.
- 11. The equivalent quantum of power calculated based on normative operating parameters of the station specified by the appropriate Electricity Regulatory Commission against the quality and quantity of coal received by the

- Generating Company at the Generating station will be worked out and agreed to by the concerned parties well in advance for the purpose of scheduling and billing. After meeting the state power requirement, the surplus power, if any, would be sold as per the tariff policy/ regulations of CERC.
- 12. The Coal transferring State shall make the payment to Coal companies as per existing FSA and the supplementary agreement for the coal being transferred under this arrangement to other State's Generating stations and/ or Central Generating Stations. The other State's Generating company or Central Generating Company shall reimburse the payment made based on quantity and quality of coal received at Power Station to the State supplying coal as per mutually agreed terms and conditions after adjusting any freight charges paid to Indian Railways including demurrages etc, if any.
- 13. The transfer of coal between one State to another State as well as between any State and Central Generating companies will be implemented as per mutually agreed terms and conditions, in the ambit of the regulations of CERC/SERC so as to reduce the cost of power generation. This transfer of coal and energy generated and supply in lieu thereof, would not be treated as trade or barter arrangement for taxation purpose. The agreement will specify the source, quantity, quality and duration of supply of coal, identified generating station for use of this coal, estimated quantum and duration of electricity to be supplied in lieu of the coal, payment security mechanism and any other terms and conditions as agreed for this transaction. The Agreement will be for a minimum duration of one month at a stretch and maximum duration of the agreement shall be as mutually agreed between the parties. The agreement can be extended for further period of time, as mutually agreed between the parties. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions between the State supplying coal and the other State's Generating Stations or Central Generating Station(s), as the case may be. There will be no pre-mature termination of this arrangement and both the parties to abide by the terms and conditions of the agreement during its tenure.
- 14. The State/Central generating company using the additional coal, will intimate the concerned SLDCs/RLDCs/ RPC about such arrangement as and when finalized. Necessary Open access application needs to be filed for this purpose by the beneficiary State supplying the coal.
- 15. The scheme of diversion of additional coal to/ from Central generating stations will be implemented subject to the consent of the original beneficiaries of the respective power station(s) to the extent of agreed quantum of power from additional coal. The State supplying additional coal under this arrangement shall be treated as original beneficiary for all purposes during the period of this agreement.

- 16. Reconciliation of the quantity of coal transferred and the equivalent quantum of power received, including deviations etc. would be done as per the mutually agreed terms and conditions preferably on quarterly basis.
- 17.An inter-ministerial sub-group consisting of representatives from Ministry of Power, Ministry of Coal, Ministry of Railways, CEA and POSOCO would be constituted to look into various operational issues arising during implementation of this scheme. The sub-group would meet at least quarterly and the methodology will be reviewed periodically for amendments, if any, based on the experience gained during the process.
- 18. Any disputes arising out of this arrangement shall be referred to Chairperson, CEA for a decision.

19. Utilization of Coal amongst generating stations of the State/Central Generating Companies

The coal would be used in an optimal manner in different stations of the Central/ State generating companies. Central/ State generating companies may utilize coal in its own generating stations by considering various factors such as operational efficiency of the generating stations, transportation logistic / feasibility depending upon location of generating stations, fixed and variable charges including transportation cost, relative merit order dispatch of power etc. However, generating company to ensure availability of coal to each generating station corresponding to its normative availability.

- 20. There are five cases envisaged for allowing flexibility of utilization of coal under this arrangement:
 - a) Case-1: Use of Coal aggregated with the State in its own State Generating Stations
 - b) Case-2: Use of Coal aggregated with the one State in Generating Stations of other state's utilities
 - c) Case-3: Use of Coal aggregated with State in Central Generating Stations and vice versa
 - d) Case-4: Use of Coal by any State/ Central generating company in Private Generating Stations (IPPs)
 - e) Case-5: Use of coal assigned to the Central Generating Company in their own plants or any other more efficient plants.

The case specific methodologies are specified as below:

Case 1: Flexibility of utilization of coal aggregated with the State in its own State Generating Stations

(i) The States would use their coal optimally in the power stations of the state power utility within the limits of overall coal company wise ACQ aggregated with them for all FSAs.

(ii) The guiding objective, in this process would be to reduce the transportation cost thereby reducing the variable charges of its plants and also ensure adequate availability of coal to all power plants as per their optimized requirement starting from most efficient to least efficient in terms of total variable charges.

Case-2: Flexibility of utilization of Coal aggregated with one State in Generating Stations of other state's utilities

- (i) The state will be allowed to transfer their coal to the more cost efficient power stations of other state's power utilities for generation and supply of cheaper power to the State transferring coal.
- (ii) The landed cost of power generated and delivered to the State transferring coal shall include corresponding fixed charges, variable charges and transmission charges at coal transferring State periphery and should be cheaper than the variable charge for generation of electricity from the existing options of using the coal in their own State power stations.
- (iii) Techno-commercial feasibility for such an arrangement will be worked out beforehand subject to transmission system availability. This need to be coordinated with POSOCO by the State transferring coal. For power transfer across the region, an early decision is required to be taken. As Short Term Open Access (STOA) are granted three months in advance, such an arrangement should be finalized at least 3 months in advance, so that before clearing STOA applications for a month, POSOCO may consider request under this scheme. The open access shall however, be as per CERC Regulations as amended from time to time.
- (iv) The State supplying this additional coal will have to schedule the power generated from this coal as agreed under this arrangement and will be obligated to pay the corresponding tariff and all other related charges as per prevailing regulations.

Case-3: Flexibility of utilization of Coal aggregated with State in Central Generating Stations and vice versa

- (i) In case of availability of additional margin for generation at any Central generating station and sufficient coal is not available, any state utility (including other than original beneficiaries also) having unused/ surplus coal can approach the Central generating company for supplying coal and availing the electricity generated from this coal. The state would divert their coal to central generating company for use in cost effective central generating stations.
- (ii) In case of availability of additional margin for generation at any Central generating station and sufficient coal is not available, the generating company may also approach the original beneficiaries for supply of

- additional coal and availing the electricity generated from the coal. In case of their inability to supply additional coal, with the consent of the original beneficiaries, the generating company will have the option to approach any other willing states for additional coal supply and availing the electricity generated from the coal.
- (iii) If the enabling state is the original beneficiary of the CGS, then it would have the first right /priority to provide additional coal to CGS to generate and receive additional power subject to consent of other original beneficiaries of the power Station. For this CGS would obtain the consent of all other original beneficiaries of the generating stations.
- (iv) If the enabling state is other than the original beneficiary of the CGS, then CGS would first obtain the consent of the original beneficiaries of that generating stations for use of additional coal from a non-beneficiary state and supply of power to that state for the period as identified.
- (v) Techno-commercial feasibility for such an arrangement may be worked out before-hand subject to transmission system availability. This need to be coordinated with POSOCO by coal providing State. For power transfer across the region, an early decision is required to be taken. As STOA are granted three months in advance, such an arrangement should be finalized at least 3 months in advance, so that before clearing STOA applications for a month, POSOCO may consider request under this scheme. The open access shall however, be as per CERC Regulations as amended from time to time.
- (vi) While transferring its coal, state utilities need to compare variable charge for the electricity generated at their own stations where such coal is being used with the applicable fixed charges, variable charges of power to be procured from CGSs alongwith the transmission charges etc for delivery of such power at the coal providing State periphery. The landed cost of power from CGS should be cheaper than the variable cost of power at the State generating station.
- (vii) The tentative equivalent quantum of energy calculated based on normative operating parameters, corresponding to the quality and quantity of coal received by the Generating Company at the Generating station will be worked out and quantum of power as well as period of requirement of state/ beneficiary supplying the additional coal, will be deemed to be reallocated from the generating station to the concerned State transferring the additional coal. The allocation of power to the original beneficiaries will be reallocated to that extent, as consented to for that time period.
- (viii) The transmission constraints, if any, will be taken into consideration for such temporary reallocation of the power by CEA in consultation with

- POSOCO. However, already approved STOA transactions will not be curtailed.
- (ix) The State/ beneficiary supplying this additional coal will have to schedule the power generated from this coal as per mutually agreed terms & conditions and will be obligated to pay the corresponding Tariff and all other related charges as per applicable Regulations.
- (x) The generating company will intimate CEA who in-turn will intimate will intimate RLDCs/RPC about such arrangement as and when finalized for accounting purposes. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions.

Case-4: Flexibility in utilization of Coal by any State/ Central generating company in Private Generating Stations (IPPs)

Ministry of Power shall separately notify the methodology for use of transferred coal in Independent Power Producers (IPPs) generating Stations.

Case-5: Flexibility in utilization of coal assigned to the Central Generating Company in their own plants or any other more efficient plants.

- (i) The central generating company will have the flexibility to use their coal optimally in their more efficient plant including their Joint Venture companies and subsidiary companies within the limits of overall ACQ assigned to them.
- (ii) In case of availability of additional margin for generation at any Central generating station, it may approach other central generating companies for supply of additional coal.
- (iii) The consent of the original beneficiaries of the concerned generating stations will be taken before making such an arrangement.
- (iv) The Central Generating Company would ensure that there is savings in coal transportation cost and reduction in energy charge of electricity generated on account of diversion of coal.
- (v) Transmission constraints, if any, will be taken into consideration. However, already approved STOA transactions will not be curtailed.
- (vi) The generating company will intimate CEA who in-turn will intimate will intimate RLDCs / RPC about such arrangement as and when finalized for accounting purposes. The scheduling of power will be done by the concerned RLDC and accounting would be done by the concerned RPC. The RLDCs/SLDCs will facilitate scheduling of power under this arrangement as per mutually agreed terms & conditions.

Annexure 28

MoP vide Letter Dtd. 27.06.2024 revised Coal Blending Advisory.

File No.FU-21/2020-FSC (Vol-IV) Government of India Ministry of Power

Shram Shakti Bhawan, Rafi Marg, New Delhi, the 27th June, 2024

To,

- I. Principal Secretaries/Secretary (Power/Energy) of all State Governments/ UTs
- II. CMDs, Thermal Generating Stations (Central, State GENCOs/IPPs)

Subject: Advisory to all GENCOs including Independent Power Producers (IPPs) for timely Import of Coal for blending purposes and maximizing production in captive coal mines reg.

Sir/Madam,

As you are already aware, Ministry of Power issued an advisory dated 04.03.2024 regarding blending of imported coal @ 6% (by weight) till June' 2024 (copy enclosed).

- 2. The position of coal stocks at the domestic coal based (DCB) plants was reviewed in the meeting dated 13.06.2024 under the chairmanship of Hon'ble Minister of Power and Housing & Urban Affairs. It was observed that power demand in the country is witnessing a robust growth and recently the highest ever peak demand of 250 GW has been touched in the month of May'24. Further, although there is a significant improvement in rake loading as well as receipt of domestic coal in Q1 of FY 25 compared to Q1 of FY 24, there is still a gap between receipt and consumption of coal at the level of domestic coal based (DCB) plants of around 130,000 tonnes per day. This gap is partly made up with import of coal.
- 3. It is also pertinent to note here that historically, due to various logistical issues, the domestic coal supply declines during monsoons. This year also, while the average rake loading in Q1 till date is around 432 rakes per day, Railways have informed about the likely availability of around 403 rakes per day in Q2.
- 4. In order to meet the power demand during the crucial monsoon months and to ensure uninterrupted power supply across the country, adequate coal reserves in domestic coal based plants (DCBs) need to be maintained by all the Central/State GENCOs and IPPs. The Ministry of Power has therefore decided to extend the advisory dated 04.03.2024 (copy enclosed) by modifying the blending requirement to 4% (by weight) till 15.10.2024. The said advisory will not be applicable to domestic coal based (DCB) plants located within a radius of 200 kms from the linked mine/ coal source.

- 5. Accordingly, all the GENCOs (Central/State and IPPs) are to firm up their imported coal contracts for ensuring supplies till 15 Oct'2024. Further, GENCOs must also continuously review the stock positions of their domestic coal based (DCBs) plants and opt for blending as per the requirements so that the adequate coal stocks are maintained at the thermal power plants.
- 6. This issues with approval of Hon'ble Minister of Power and Housing & Urban Affairs.

(Anoop Singh Bisht)

Deputy Secretary to the Government of India

Ph 011-23752497

Email: anoopsingh.bisht@nic.in

Copy to:

- 1. Chairman, Railway Board
- 2. Secretary, Ministry of Coal
- 3. Chairman, Central Electricity Authority
- 4. Secretary (CERC)/ All SERCs

(Anoop Singh Bisht)

Deputy Secretary to the Government of India Ph 011-23752497

Email: anoopsingh.bisht@nic.in

Copy also to: NIC with the request to upload the same on MoP Portal



File No.FU-21/2020-FSC (Vol-IV) Government of India (भारतसरकार) Ministry of Power (विदयुतमंत्रालय)

Shram Shakti Bhawan, Rafi Marg, New Delhi, the 4th March, 2024

To,

- I. Principal Secretaries/Secretary (Power/Energy) of all State Governments/ UTs
- II. CMDs, Thermal Generating Stations (Central, State GENCOs/IPPs)

Subject: Advisory to all GENCOs including Independent Power Producers (IPPs) for timely Import of Coal for blending purposes and maximizing production in captive coal mines — reg.

Sir/Madam,

As you are already aware, Ministry of Power issued an advisory dated 25.10.2023 regarding blending of imported coal @ 6% (by weight) till March' 2024(copy enclosed).

- 2. The status of Power Supply position has been reviewed by Ministry and as per the projections, the peak demand is likely to reach upto 250 GW in summer season (April-June'2024). It has been further observed that despite the increase in loading of domestic coal rakes, the supplies of domestic coal will remain constrained due to various logistical issues associated with railway network.
- 3. In order to meet the power demand during the crucial summer months and to ensure un-interrupted power supply across the country, adequate coal reserves in domestic coal based plants (DCBs) need to be maintained by all the Central/State GENCOs and IPPs. The Ministry of Power has therefore decided to extend the advisory dated 25.10.2023 till June'2024.
- 4. Accordingly, all the GENCOs (Central/State and IPPs) are to firm up their imported coal contracts for ensuring supplies till June'2024. Further, GENCOs must also continuously review the stock positions of their domestic coal based (DCBs) plants and opt for blending as per the requirements so that the adequate coal stocks are maintained at the thermal power plant level.

5. This issues with the approval of Hon'ble Minister of Power & New and Renewable Energy.

(Anoop Singh Bisht/ अनूप सिंह बिष्ट) Deputy Secretary to the Government of India

उपसचिव, भारतसरकार

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Email: anoopsingh.bisht@nic.in

Copy to:

- 1. Secretary, Ministry of Coal,
- 2. Chairman, Railway Board,
- 3. Chairman, Central Electricity Authority,
- 4. Secretary (CERC)/ All SERCs

(Anoop Singh Bisht/ अनूपसिंहबिष्ट) Deputy Secretary to the Government of India

उपसचिव, भारतसरकार

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Copy also to: NIC with the request to upload the same on MoP Portal



File No. FU-21/2020-FSC (Vol-IV) Government of India

(भारत सरकार)

Ministry of Power (विद्यत मंत्रालय)

नई दिल्ली, दिनांक 25 अक्टूबर, २०२३

New Delhi, dated the 25th October, 2023

To

- I. Principal Secretaries/Secretary (Power/Energy) of all State Governments/
- II. CMDs, Thermal Generating Stations (Central, State GENCOs/IPPs)

Subject: Direction to all GENCOs including Independent Power Producers (IPPs) for timely Import of Coal for blending purposes and maximizing production in captive coal mines — reg.

Sir/Madam,

As you are already aware, Ministry of Power issued an advisory dated 01.09.2023 regarding blending of imported coal @ 4% by weight till March, 2024.

- 2. The status of Power Supply position has been reviewed by Govt and it has been observed that there is consistent rising trend in the Power demand in the country coupled with inadequate supply of domestic coal which has resulted in rapid depletion of coal stocks at Domestic Coal Based (DCB) Plants across the country. The gap between receipt of domestic coal and consumption of coal (domestic + equivalent domestic of imported coal) during 01st September to 09th October, 2023 was to the tune of 12 MT.
- 3. About 11% fall of Hydro Generation has been recorded in H1 of FY 24 compared to the corresponding period of FY 23 due to variable monsoon rainfall. Approximately 2 GW of hydro capacity is out because of recent floods in Sikkim. The Reservoir levels in Northern, Eastern and Southern regions are less compared to the previous year as on 9th Oct' 2023, which has resulted in lower reservoir energy content at pan India level. This has put additional burden on Coal Based Thermal Generation.
- 4. Therefore, in order to ensure uninterrupted power supply across the country, after careful consideration and in consultation with Central Electricity Authority (CEA) and Grid India, it has been decided blending of imported coal @ 6% (by weight) minimum

Contd/-

may be continued till March 2024. The Gencos may continuously review their stock position and opt for blending as per the requirements if the shortfall in domestic coal supply is more than 6 per cent.

- 5. The other conditions mentioned at Para 3 & 4 of advisory dated 01.09.2023 will remain the same.
- 6. This issues with the approval of Hon'ble Minister of Power & NRE.

Yours Faithfully,

(Anoop Singh Bisht)

Deputy Secretary to the Government of India

Ph. 011-23752497

Email: anoopsingh.bisht@nic.in

@Endorsement No. FU-21/2020-FSC (Vol-IV)

Copy to,

- 1. Secretary, Ministry of Coal
- 2. Chairman, Railway Board
- 3. Chairman, Central Electricity Authority
- 4. Secretary (CERC)/All SERCs

(Anoop Singh Bisht)

Deputy Secretary to the Government of India

Ph. 011-23752497

Email: anoopsingh.bisht@nic.in

Copy also to: NIC with the request to upload the same on MoP Portal

Annexure 29

MoEF Notification Dtd. 02.01.2014 & Dtd. 21.05.2020.

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99



सी.जी.-डी.एल.-अ.-21052020-219495 CG-DL-E-21052020-219495

असाधारण EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं. 1400] No. 1400] नई दिल्ली, बृहस्पतिवार, मई 21, 2020/वैशाख 31, 1942 NEW DELHI, THURSDAY, MAY 21, 2020/VAISAKHA 31, 1942

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली. 21 मई. 2020

का.आ. 1561(अ).—जबिक केन्द्रीय सरकार ने पर्यावरण (संरक्षण) नियमावली, 1986 के नियम 5 के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, धारा 6 और धारा 25 के तहत अपनी शक्तियों का प्रयोग करते हुए, ऐश सामग्री (ऐश कंटेंट) को 34% तक की सीमा सहित कोयले का उपयोग करने के लिए ताप विद्युत संयंत्रों की कितपय श्रेणियों को अधिदेशित करते हुए भारत के राजपत्र, असाधारण में सा.का.नि. 02 (अ), तारीख 2 जनवरी, 2014 द्वारा पर्यावरण (संरक्षण) नियमावली, 1986 के नियम 3 के उपनियम 8 का संशोधन प्रकाशित किया।

और जबिक सा.का.नि. 02 (अ), तारीख 2 जनवरी, 2014 द्वारा उक्त अधिसूचना द्वारा निम्नलिखित समय-सीमा तक कच्चे अथवा मिश्रित अथवा लाभकारी कोयले (बेनिफिसिएटिड कोल), जिसमें ऐश सामग्री चौंतीस प्रतिशत (34%) से अधिक ना हो, का उपयोग करने के लिए त्रैमासिक आधार पर कोयला आधारित ताप विद्युत संयंत्रों को अधिदेशित किया गया है:

2143 GI/2020 (1)

1307

क्रम सं.	विद्युत संयंत्र की श्रेणी	गर्तमुख(पिट-हैड)/कोयला खान से ताप	समय-सीमा
		विद्युत संयंत्र के अवस्थान की दूरी	
(क)	एकल ताप विद्युत संयंत्र (किसी भी क्षमता के) और कैटिप्व ताप विद्युत	गर्तमुख विद्युत संयंत्रों को छोड़कर गर्तमुख से दूरी पर ध्यान दिए बिना शहरी	_
	संयंत्र (100 मेगावाट और अधिक	क्षेत्रों,या परिस्थितिकीय रूप से	प्रभावी।
	क्षमता सहित)	संवेदनशील क्षेत्रों या अत्यधिक प्रदूषित	
		क्षेत्रों में अवस्थित	
(ख)		1000 किमी से अधिक दूर	2 जून, 2014 से
			प्रभावी।
(ग)		750-1000 किमी के बीच	1 जनवरी, 2015 से
			प्रभावी।
(ঘ)		500-749 किमी के बीच	5 जून, 2016 से
			प्रभावी।

और जबिक, केंद्रीय सरकार ने पर्यावरण (संरक्षण) नियमावली के नियम 5 के उप-नियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 के अधीन अपनी शक्तियों का प्रयोग करते हुए भारत के राजपत्र, असाधारण में स.का.आ. 3305 (अ), तारीख 7 दिसंबर, 2015 और सा.का.नि.593 (अ), तारीख 28 जून, 2018 द्वारा विद्युत उत्पादन की क्षमता और विद्युत संयंत्र की संस्थापना की तारीख और समय-बद्ध रीति से प्राप्त किए जाने के आधार पर ताप विद्युत संयंत्रों की विभिन्न श्रेणियों के लिए उत्सर्जन मानकों और विनिर्दिष्ट जल उपभोग को प्रकाशित किया था।

और जबिक, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ने विद्युत मंत्रालय द्वारा दिनांक 13 अक्तूबर, 2017 को प्रस्तुत की गई यथा संशोधित योजना के अनुसार विभिन्न ताप विद्युत संयंत्रों को वर्ष 2022 तक प्रदूषण नियंत्रण उपकरण संस्थापित करने के लिए पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 5 के तहत निर्देश जारी करने के लिए केंद्रीय प्रदूषण नियंत्रण बोर्ड को दिनांक 7 दिसंबर, 2017 के फा.सं. क्यू-15017/40/2007-सीपीडब्ल्यू द्वारा निदेश दिए।

और जबिक, विद्युत मंत्रालय ने अन्य बातों के साथ-साथ यह अभ्यावेदन किया है कि प्रदूषण नियंत्रण प्रौद्योगिकियों के उन्नत होने के साथ ही ताप विद्युत संयंत्र दहन प्रक्रिया से उत्पन्न फ्लाई-ऐश का पता लगाने में बेहतर उपकरणों से सुसज्जित हुए हैं और बिना धुला कोयला अधिक कुशलता और मितव्ययता से प्रयोग किया जा सकता है; ताप विद्युत संयंत्रों को राख अवयवों की विभिन्न किस्मों के साथ कोयले के लिए डिजाइन किया गया है और इनमें सूखी राख (ड्राई ऐश) निकालने, उसका रखरखाव करने और राख के उपयोग के लिए आपूर्ति प्रणालियों को उपलब्ध कराया गया है; धुले कोयले के उपयोग से बिजली उत्पादन महंगा हो जाता है; ताप विद्युत संयंत्रों में उत्पन्न फ्लाई-ऐश सीमेंट निर्माण, ईंटें बनाने, सड़क बिछाने, खनन के उपरांत रिक्त हुए स्थलों और निचले क्षेत्रों को भरने के लिए बैक-फिल सामग्री जैसे कई लाभकारी उपयोगों के लिए प्रयोग की जा रही है; औसतन ऐश की मात्रा 34% तक बनाए रखने की आवश्यकता उद्योगों को कोयले का आयात करने के लिए प्रेरित करती है जिससे विदेशी मुद्रा इत्यादि का बहिर्वाह (आऊटफ्लो) होता है।

और जबिक, कोयला मंत्रालय ने अन्य बातों के साथ-साथ अभ्यावेदन किया है कि कोयला खानें वर्षों से कच्चे कोयले की गुणवत्ता, आकार और बाहरी सामग्री में सुधार के लिए निरंतर कड़े प्रयास कर रही हैं जिससे सभी संबंधित उपकरणों की टूट-फूट में उल्लेखनीय कमी आई है, कोयला धुलाई प्रक्रिया में कई प्रकार का रखरखाव होता है और कोयला खानों से धुलाई-स्थलों (वाशरीज़) तक कोयले की बड़ी मात्रा को सड़क द्वारा ले जाने और फिर आगे

विद्युत संयंत्रों तक ले जाने के लिए रेल साइडिंग्ज़ तक ले जाने से बचना; धुलाई की प्रक्रिया केवल कोयले को धुले हुए कोयले और वाशरी अवशिष्ट में बॉंटती है जबिक खिनत कोयले की राख की मात्रा वही रहती है; निम्न श्रेणी कोयला वाशरी अवशिष्ट कई छोटे उपयोगकर्ता उद्योगों में, अधिक प्रदूषण आदि सृजित करते हैं।

और जबिक, कोयला मंत्रालय और विद्युत मंत्रालय ने इसलिए अनुरोध किया है कि दिनांक 2 जनवरी, 2014 की अधिसूचना पर पुन: विचार द्वारा, विद्युत संयंत्रों को धुले हुए कोयले के प्रयोग के लिए अधिदेशित करने पर गौर किया जाना अपेक्षित है जिससे पर्यावरण पर प्रतिकूल प्रभाव डाले बिना कोयले की लंबी दूरी की ढुलाई के लिए बिजली के उत्पादन में आसानी होगी।

और जबिक, नीति आयोग ने अपनी रिपोर्ट में वाशरीज़, कोयला खनन, परिवहन और विद्युत संयंत्रों में कोयले की खपत की दृष्टि से इस विषय का विश्लेषण करने के बाद अन्य बातों के साथ-साथ संक्षिप्त में यह अभ्यावेदन किया है कि समीपवर्ती उद्योगों में वाशरी अविषष्ट का इस्तेमाल अधिक प्रदूषण पैदा करता है; चूंकि वाशरी अविषष्ट अनेक छोटे उद्योगों में वितरित होते हैं, इसिलए विद्युत संयंत्र पर उत्पन्न प्रदूषण की तुलना में अनेक स्थलों पर उत्पन्न प्रदूषण को नियंत्रित करना अधिक किन होता है; धुलाई प्रक्रिया में उत्पन्न राख (ऐश) कोयला कणों के साथ-साथ पानी को भी प्रदूषित करती है और इसका लाभकारी उपयोग नहीं किया जा सकता, कोयला धुलाई प्रक्रिया में पानी का अधिक प्रयोग होता है, अपिषष्ट सृजन होता है; वाशरी अविषष्ट के निपटान का पर्यावरण पर प्रतिकूल प्रभाव होता है क्योंकि इसमें बड़ी मात्रा में निम्न श्रेणी कोयला अविषष्ट, तरल अपिष्ट प्रवाह, कोयला भण्डारण, कोयला मिट्टी का रखरखाव, अपवाह और उड़ने वाली धूल का रखरखाव और निपटान करना होता है, कोयला धुलाई का स्थलाकृति, जल निकास स्वरूप और गुणवत्ता, जल निकायों, बड़े पैमाने पर प्रतिवेशी वायु गुणवत्ता पर भी प्रतिकूल प्रभाव पड़ता है; धुलाई प्रक्रिया से विद्युत उत्पादन की लागत में भी वृद्धि होती है जिसका कोई पर्यावरणीय लाभ इत्यादि भी नहीं होता।

और जबिक, नीति आयोग ने इसलिए सिफारिश की है कि पर्यावरणीय और प्रदूषण मानकों का निर्धारण करना और उन्हें लागू करना विवेकपूर्ण होगा, जिन्हें कोयले में ऐश की मात्रा प्रतिबंधित किए जाने के बजाए, परिवहन दूरी के आधार पर विद्युत उत्पादकों के साथ जोड़ा जाना चाहिए।

और जबिक, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ऊर्जा मंत्रालय, कोयला मंत्रालय के अभ्यावेदनों, नीति आयोग और कई हितधारकों की रिपोर्ट पर विवेचन करने तथा सावधानीपूर्वक विचार करने के बाद एवं जनहित में निम्नलिखित निष्कर्ष पर पहुंचा है—

- i) खिनत कोयले में ऐश सामग्री की मात्रा समान रहती है। वाशरी से ऐश सामग्री दो स्थानों (वाशरी और विद्युत संयंत्र) में विभाजित हो जाती है जबिक बिना धुला कोयला विद्युत संयंत्र में प्रयोग किया जाता है, ऐश सामग्री का निपटान केवल एक स्थान अर्थात विद्युत संयंत्र में किया जाता है;
- ii) ताप विद्युत संयंत्र प्रदूषण नियंत्रण, ऐश प्रबंधन के लिए तकनीकी रूप से सुसज्जित होते हैं क्योंकि उनमें फ्लाई-ऐश का निराकरण करने के लिए उच्च क्षमता वाले उपकरण होते हैं, ड्राई ऐश निष्क्रमण और हैंडलिंग सिस्टम, ऐश उपयोग के लिए सप्लाई सिस्टम और फ्लू गैसों को तितर-बितर करने के लिए बड़े टाल (स्टैक) होते हैं;
- iii) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ने उत्सर्जन मानक अधिसूचित किए हैं जिनमें क्रमश: ताप विद्युत संयंत्रों को समयबद्ध रीति से इन मानकों का पालन करने के लिए अधिदेशित किया गया है:

और जबिक, फ्लाई ऐश प्रबंधन और विभिन्न स्तरों पर बिना धुले कोयले के संसाधन के दौरान उत्पन्न अन्य संबंधित पर्यावरणीय पहलुओं सहित बिना धुले कोयले की हैंडलिंग के लिए यथासंभव उत्कृष्ट कार्यढांचे को अपनाना समयोचित है।

और जबिक, कोयला मंत्रालय ने अभ्यावेदन किया है कि मौजूदा अप्रत्याशित कोविड-19 महामारी और इसके फलस्वरूप देश में ऊर्जा उत्पादन के लिए कोयला क्षेत्र की मांग को प्रोत्साहित कर घरेलू कोयले के उपयोग की तत्काल आवश्यकता को देखते हुए यह वांछनीय है कि तत्काल अधिसूचना जारी की जाए।

अब, इसलिए, केंद्रीय सरकार पर्यावरण (संरक्षण) नियमावली, 1986 के नियम 5 के उपनियम (4) के साथ पठित पर्यावरण संरक्षण अधिनियम, 1986 (1986 का 29) की धारा 3, धारा 6 और धारा 25 के तहत अपनी शक्तियों का प्रयोग करते हुए, उक्त नियमावती के नियम 5 के उपनियम (3) के भाग (अ) के तहत सूचना देने की अनिवार्यता को हटा देने के उपरांत जनहित में पर्यावरण (संरक्षण) नियमावली, 1986 को आगे संशोधित करते हुए एतद्वारा निम्नलिखित नियम बनाती है, अर्थातु:

- 1. (1) इन नियमों को पर्यावरण (संरक्षण) संशोधन नियमावली, 2020 कहा जाएगा।
 - (2) ये सरकारी गज़ट में प्रकाशित होने की तारीख से लागू होंगे।
- 2. पर्यावरण (संरक्षण) नियमावली, 1986 में, नियम 3 में, उपनियम (8) के लिए निम्नलिखित उपनियम प्रतिस्थापित होगा, अर्थात् :-
 - "(8) ताप विद्युत संयंत्रों को, ऐश सामग्री अथवा दूरी संबंधी अनुबंधों के बिना, निम्नलिखित शर्तों के अध्याधीन कोयले के प्रयोग की अनुमित होगी:
 - (1) उत्सर्जन मानदण्डों के लिए प्रौद्योगिकीय समाधान निर्धारित करना:
 - वर्तमान अधिसूचनाओं और केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा समय-समय पर जारी अनुदेशों के अनुसार विविक्त सामग्री के लिए विनिर्दिष्ट मानदंडों का अनुपालन करना।
 - ii. वाशरी के मामले में मिडलिंग और अविशष्टों का एफबीसी(तरलीकृत तल दहन) प्रौद्योगिकी आधारित विद्युत संयंत्रों में उपयोग किया जाए। एफबीसी संयंत्रों में मिडलिंग और अविशष्टों के लिए वाशरी में संयोजन (लिंकेज) होना चाहिए।

2. ऐश पॉन्ड का प्रबंधन:

- i. ताप विद्युत संयंत्र धुले हुए कोयले से बिना धुले हुए कोयले पर स्विच करने के कारण फ्लाई-ऐश पॉन्ड(मौजूदा विद्युत उत्पादन क्षमता) की अतिरिक्त क्षमता की पात्रता प्राप्त किए बिना, समय-समय पर जारी की गई अधिसूचनाओं में यथा-अधिसूचित शर्तों का पालन करें।
- ii. ऐश प्रबंधन के लिए जल की खपत को अनुकूल करने हेतु समुचित प्रौद्योगिकी समाधान लागू हों;
- iii. यदि आवश्यक हो तो फ्लाई-ऐश का अधिकतम उपयोग सुनिश्चित करने के लिए स्थल विशिष्ट स्थितियों के आधार पर ऐश का पृथक्करण इलैक्ट्रो-स्टेटिक अवक्षेपक (प्रेसीपिटेटर) स्तर पर किया जाए।
- iv. ताप विद्युत संयंत्र उपर्युक्त 2(i) के अध्याधीन, छोड़ी हुई अथवा चालू खानों (वर्किंग माइन्स) में (खान मालिकों द्वारा सुविधाजनक बनाया जाए) पर्यावरणीय सुरक्षा उपायों के साथ फ्लाई-ऐश का निपटान करें।

3. परिवहन:

- i. ढके हुए रेलवे वैगन (तिरपाल अथवा किसी अन्य माध्यम से ढके हुए रेलवे वैगन) और/अथवा खान-क्षेत्र से परे ढके हुए वाहक (कन्वेयर) द्वारा ही कोयले का परिवहन किया जाए। तथापि, जब तक रेल परिवहन/वाहक इन्फ्रास्ट्रक्चर उपलब्ध नहीं हो जाता, सड़क परिवहन ट्रकों द्वारा किया जाए जो तिरपाल अथवा किसी अन्य माध्यम से ढके हुए हों।
- ii. ताप विद्युत संयंत्र द्वारा सुनिश्चित किया जाए कि
 - (क) रेल अथवा कन्वेयर द्वारा परिवहन के लिए विद्युत संयंत्र में अथवा इसके समीप रेल साइडिंग सुविधा अथवा कन्वेयर सुविधा स्थापित हो; और
 - (ख) यदि रेल अथवा कन्वेयर सुविधा की अनुपलब्धता के कारण परिवहन न हो पाए, तो यह सुनिश्चित किया जाए कि संबंधित खान के डिलीवरी स्थान से कोयले का परिवहन ढके हुए ट्रकों (तिरपाल अथवा किसी अन्य माध्यम द्वारा), अथवा किसी अन्य यंत्रीकृत बंद ट्रक से सड़क द्वारा हो।
- (4) इसे वित्तीय वर्ष 2020-21 और उसके बाद के लिए संबंधित परियोजनाओं हेतु संगत पर्यावरणीय स्वीकृति की अतिरिक्त शर्तें भी समझा जाएगा। मौजूदा पर्यावरणीय स्वीकृतियों को संशोधित किया जाएगा ताकि संगत क्षेत्रों के लिए उपरोक्त शर्तों को प्रवर्तनशील बनाया जा सके। तदनुसार संबंधित राज्य प्रदूषण नियंत्रण बोर्ड द्वारा प्रचालन की अनुमति जारी की जाएगी।

[फा.सं. 13014/01/2020–आईए-।(टी)] गीता मेनन, संयुक्त सचिव

टिप्पण—मूल नियम भारत के राजपत्र में सं.का.आ. 844(अ), तारीख 19 नवंबर 1986 द्वारा प्रकाशित किए गए थे और पश्चातवर्ती संशोधन सं.का.आ. 82(अ), तारीख 16 फरवरी, 1987; का.आ. 64(अ), तारीख 18 जनवरी, 1988; सा.का.नि. 931(अ), तारीख 27 अक्तूबर,1989; का.आ. 23(अ), तारीख 16 जनवरी, 1991; सा.का.नि. 95(अ), तारीख 12 फरवरी, 1992; सा.का.नि. 329(अ), तारीख 13 मार्च, 1992; सा.का.नि. 562(अ), तारीख 27 मई, 1992; सा.का.नि. 884(अ), तारीख 20 नवंबर, 1992; सा.का.नि. 386 (अ), तारीख 22 अप्रैल, 1993; सा.का.नि. 422 (अ), तारीख 19 मई, 1993; सा.का.नि. 801 (अ), तारीख 31 दिसंबर, 1993; सा.का.नि. 320 (अ), तारीख 16 मार्च, 1994; सा.का.नि. 560 (अ), तारीख 19 सितंबर, 1997; सा.का.नि. 378 (अ), तारीख 30 जून, 1998; सा.का.नि. 07 (अ), तारीख 22 दिसंबर, 1998; सा.का.नि. 407 (अ), तारीख 31 मई, 2001; सा.का.नि. 826 (अ), तारीख 16 नवंबर, 2009; सा.का.नि. 513 (अ), तारीख 28 जून, 2012; सा.का.नि. 593 (अ), तारीख 28 जून, 2018; और का.आ. 3305 (अ), तारीख 16 जनवरी, 2020 द्वारा किए गए।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFICATION

New Delhi, the 21st May, 2020

S.O. 1561(E).—Whereas the Central Government had, in exercise of its powers under Section 3, Section 6 and Section 25 of Environment (Protection) Act, 1986 (29 of 1986) read with rule 5 of Environment (Protection) Rules, 1986, published draft rules further to amend sub-rule (8) of rule 3 of Environment (Protection) Rules, 1986, in the Gazette of India, Extraordinary, *vide* number G.S.R. 02(E), dated the

 2^{nd} January, 2014 mandating certain categories of thermal power plants to use coal with ash content restricted to 34%

And whereas, the said Notification *vide* number G.S.R. 02(E) dated the 2nd January, 2014, mandated coal based thermal power plants to use raw or blended or beneficiated coal with ash content not exceeding thirty-four percent (34%), on quarterly basis, by the time lines given below:

Sl. No.	Category of Power Plant	Distance of location of Thermal Power Plant from pit-head/coal mine	Time lines
(a)	Stand-alone Thermal Power Plants (any capacity), and Captive Thermal Power Plants (with capacity of 100 MW and above)	Located in urban areas, or ecologically sensitive areas or critically polluted areas, irrespective of distance from pit-head, except pit-head power plants.	With effect from 2 nd June, 2014.
(b)		beyond 1000 km	With effect from 2 nd June, 2014.
(c)		between 750-1000 km	With effect from 1 st January, 2015.
(d)		between 500-749 km	With effect from 5 th June, 2016.

And whereas, the Central Government had, in exercise of its powers under sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, in the Gazette of India, Extraordinary, *vide* number S.O. 3305 (E), dated the 7th December, 2015 and G.S.R. 593 (E), dated the 28th June, 2018 published the emission standards and specific water consumption for various category of thermal power plants, based on capacity of power generation and date of installation of power plant and to be achieved in time bound manner.

And whereas, the Ministry of Environment, Forest and Climate Change directed the Central Pollution Control Board vide F.No.Q-15017/40/2007-CPW dated the 7th December, 2017 to issue Directions under Section 5 of Environment (Protection) Act, 1986, to various Thermal Power Plants to install pollution control equipment as per the revised plan submitted by the Ministry of Power dated the 13th October, 2017 by 2022.

And whereas, the Ministry of Power has, *inter alia*, represented that with advancement in pollution control technologies, thermal power plants are better equipped to capture fly-ash generated in combustion process and unwashed coal can be used more efficiently and economically; thermal power plants are designed for coal with wide variety of ash content and are equipped with dry ash evacuation, handling and supply systems for ash utilisation; using washed coal makes power generation costlier; fly ash generated in thermal power plants is being used in several beneficial uses like cement manufacturing, brick making, road laying, back-fill material for reclamation of mine voids and low lying areas; requirement of maintaining average ash content to 34% prompts industries to undertake import of coal, resulting in outflow of foreign exchange etc.

And Whereas, the Ministry of Coal has, *inter alia*, represented that the coal mines are constantly striving to improve raw coal in terms of quality, size and extraneous material over the years which has considerably reduced wear and tear of all related equipment, coal washing process involves multiple handling and avoidable road transportation of huge quantities of coal from coal mines to washeries and then to rail sidings for onward transport to power plants; the washing process only divides the coal into washed coal and washery rejects while the ash content of mined coal remains the same; use of low grade coal washery rejects, in the multiple small user industries, generates more pollution etc.

And Whereas, the Ministry of Coal and Ministry of Power have, therefore, represented that the mandating power plants to use washed coal requires to be revisited by reconsidering the notification dated the 2^{nd} January, 2014 which will help ease power generation for long distance haulage of coal without adverse impact on the environment.

And Whereas, the NITI Aayog, in its report after analysing the issue from the perspective of washeries, Coal mining, transportation and consumption of coal at power plants has, *inter alia*, summed up that use of washery rejects in nearby industries generates more pollution; since washery rejects are distributed in number of smaller industries, the pollution control at numerous points is more difficult than controlling the

pollution at power plant end; Ash generated in the washing process pollutes water along with coal particles and cannot be gainfully utilised; Coal washing process involves increased water use, effluent generation; Disposal of washery rejects has negative environmental impact as it has to handle and dispose huge quantity of low grade coal washery rejects, liquid effluent streams, coal storage, handling coal dust, runoff and fugitive dust; Coal washing also adversely impacts topography, water drainage pattern and quality, water bodies, surrounding air quality at large scale; Washing process increases the cost of power generation with no commensurate environmental advantages etc.

And Whereas, NITI Aayog has, therefore, recommended that it may be prudent to determine and enforce the environmental and pollution norms, to be complied with by the power generators, rather than restricting the ash content in coal, based on distance of transportation.

And Whereas, the Ministry of Environment, Forest and Climate Change, after deliberating the representations from Ministry of Power, Ministry of Coal, report of NITI Aayog and various stakeholders and after careful considerations & in larger public interest, arrived at the following:

- (i) The extent of ash content in mined coal remains the same. With washeries, the ash content gets divided at two places (washeries and the power plant), whereas if unwashed coal is used in power plant, the ash content is handled at only one place viz. the power plant;
- (ii) Thermal power plants are technologically equipped to address pollution control, ash management as they have high efficiency equipment to capture fly ash, dry ash evacuation and handling systems, ash supply systems for ash utilisation and tall stacks for wider dispersal of flue gases;
- (iii) The Ministry of Environment, Forest and Climate Change has notified emission norms, mandating respective thermal power plants to adhere to such norms in a time bound manner;

And Whereas, it is expedient to adopt best possible framework towards handling of unwashed coal including management of fly ash and other associated environmental aspects arising out of processing of unwashed coal at different stages.

And Whereas, the Ministry of Coal has represented that in view of the existing unprecedented COVID-19 pandemic and the resultant immediate requirement of utilization of domestic coal by stimulating coal sector demand for power generation in the country, it is desirable to issue the notification at the earliest.

Now, therefore, in exercise of the powers conferred by Section 3, Section 6 and Section 25 of the Environment Protection Act, 1986 (29 of 1986) read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of rule 5 of the said rules, in public interest, hereby makes the following rules to further amend the Environment (Protection) Rules, 1986, namely:-

- 1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2020
 - (2) They shall come into force on the date of their publication in the Official Gazette.
- 2. In the Environment (Protection) Rules, 1986, in rule 3, for sub-rule (8), the following sub-rule shall be substituted, namely:-
- "(8) Use of coal by Thermal Power Plants, without stipulations as regards ash content or distance, shall be permitted subject to following conditions:

(1) Setting Up Technology Solution for emission norms:

- (i) Compliance of specified emission norms for Particulate Matter, as per extant notifications and instructions of Central Pollution Control Board, issued from time to time.
- (ii) In case of washeries, Middling and rejects to be utilized in FBC (Fluidised Bed Combustion) technology based thermal power plants. Washery to have linkage for middling and rejects in Fluidised Bed Combustion plants.

(2) Management of Ash Ponds:

- (i) The thermal powers plants shall comply with conditions, as notified in the Fly Ash notification issued from time to time, without being entitled to additional capacity of fly ash pond (for existing power generation capacity) on ground of switching from washed coal to unwashed coal.
- (ii) Appropriate Technology solutions shall be applied to optimise water consumption for Ash management;

- (iii) The segregation of ash may be done at the Electro-Static Precipitator stage, if required, based on site specific conditions, to ensure maximum utilization of fly ash;
- (iv) Subject to 2(i) above, the thermal power plants to dispose flyash in abandoned or working mines (to be facilitated by mine owner) with environmental safeguards.

(3) **Transportation:**

- (i) Coal transportation may be undertaken by covered Railway wagon (railway wagons covered by tarpaulin or other means) and/or covered conveyer beyond the mine area. However, till such time enabling Rail transport/conveyer infrastructure is not available, road transportation may be undertaken in trucks, covered by tarpaulin or other means.
- (ii) It shall be ensured by the thermal power plant that
 - a. Rail siding facility or conveyor facility is set up at or near the power plant, for transportation by rail or conveyor; and
 - b. If transportation by rail or conveyor facility is not available, ensure that the coal is transported out from the Delivery Point of the respective mine in covered trucks (by tarpaulin or other means), or any mechanized closed trucks by road.
- (4) This shall also be deemed to be additional conditions of the relevant Environmental Clearances for respective projects for financial year 2020-21 and onwards. The existing Environmental Clearances shall stand modified so as to make the above conditions operative for relevant sectors. The Consent to Operate shall be issued by respective State Pollution Control Boards accordingly."

[F.No.13014/01/2020-IA.I(T)]

GEETA MENON, Jt. Secy.

Note:-The principal rules were published in the Gazette of India *vide* number S.O. 844(E), dated the 19th November,1986 and subsequently amended *vide* numbers S.O. 82(E), dated 16th February, 1987; S.O. 64(E), dated18th January, 1988; G.S.R. 931(E), dated 27th October, 1989; S.O. 23(E), dated 16th January, 1991; G.S.R. 95(E), dated 12th February, 1992; G.S.R.329(E), dated 13th March, 1992; G.S.R. 562(E), dated 27th May, 1992; G.S.R. 884(E), dated 20th November, 1992; G.S.R. 386(E), dated 22nd April, 1993; G.S.R. 422(E), dated 19th May, 1993; G.S.R. 801(E), dated 31st December, 1993; G.S.R. 320(E), dated 16th March, 1994; G.S.R. 560(E), dated 19th September, 1997; G.S.R. 378(E), dated 30th June, 1998;G.S.R. 7(E), dated 22nd December, 1998; G.S.R. 407(E), dated 31st May, 2001; G.S.R. 826(E), dated 16th November, 2009; G.S.R. 513(E), dated 28th June, 2012; G.S.R. 02(E) dated 2nd January, 2014; S.O. 3305 (E), dated 7th December, 2015; G.S.R. 593(E), dated 28th June, 2018 and S.O. 236 (E), dated 16th January, 2020.

B-33014/7/2007/PCI-IL

February 04, 2014

To

As per list enclosed

Sub.: Notification G.S.R. 02(E), dated January 02, 2014 in respect of Use of washed, blended or beneficiated coal in Thermal Power Plants -reg

Sir,

Vide Notification G.S.R. 02(E), dated January 02, 2014, Ministry of Environment & Forests has amended Rules in respect of use of washed/ blended or beneficiated coal with ash content not exceeding thirty four percent on quarterly average basis in Thermal Power Plants. A copy of the same is enclosed. As per the amended rules power located between 500-750, 750-1000 shall be supplied with and shall use raw or blended or beneficiated coal with ash content not exceeding thirty four percent on quarterly average basis w.e.f January 01, 2016 & 2015 respectively while power located beyond 1000 kms from pit head shall be supplied with and use raw or blended or beneficiated coal with ash content not exceeding thirty four percent on quarterly average basis with immediate effect. It is therefore, requested that power plants which are covered under the provisions of the said notification shall be supplied with washed/ blended or beneficiated coal with ash content not exceeding thirty four percent on quarterly average basis and report compliance shall be sent to this office on quarterly basis.

Yours faithfully

J.J. R.J. (Dr. S.S. Bala) Addl Director & I/c PCI-II

Encl: as above

Copy to

Sh. R.N Jindal, Addl Director (CP Division)
Ministry of Environment& Forests
Paryavaran Bhawan
CGO Complex
New Delhi - 110003

X/c IT Division – with a request to upload on CPCB web site

Managing Director Central coalfields Limited Darbhanga House, Cutchery Road, Ranchi-834001, Jharkhand

Managing Director Eastern Coalfields Limited Sanctoria, Dishergarh, WB-713333, India

Managing Director Mahanadi Coalfields Limited Jagritibihar, Sambalpur, Orissa, India Pin- 768020

Managing Director Northern Coalfields Limited Singarauli, Sidhi, MP

Managing Director South Eastern Coalfields Limited Seepat Road, Bilaspur, Chhattisgarh

Managing Director Western Coalfields Limited Civil Lines, Nagpur, Maharastra

Managing Director The Singareni Collieries Company Ltd. Kothagudem Collieries Khammam Dist (AP) Pin- 507101



असाधारण

EXTRAORDINARY

भाग II--खण्ड 3--उप-खण्ड (i)

PART II—Section 3—Sub-section (i) प्राधिकार से प्रकाशित

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सं. 02]

नई दिल्ली, बृहस्पतिवार, जनवरी 2, 2014/पौष 12, 1935

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NEW DELHI, THURSDAY, JANUARY 2, 2014/PAUSHA 12, 1935

पर्यावरण और वन मंत्रालय

अधिसूचना

नई दिल्ली, 2 जनवरी, 2014

सा.का.नि. 02(अ).—केन्द्रीय सरकार ने, पर्यावरण (संख्क्षण) नियम, 1986 के नियम 5 के साथ पठित पर्यावरण संख्क्षण अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (2) और धारा 25 का प्रयोग करते हुए, पर्यावरण (संख्क्षण) नियम, 1986 का और संशोधन करने के लिए भारत के राजपत्र, असाधारण में सं. सा.का.नि. 552(अ), तारीख 11 जुलाई, 2012 द्वारा समी व्यक्तियों तथा संगठनों की जानकारी के लिए जिनके उनसे प्रभावित होने की संभावना थी, प्रारूप नियम प्रकाशित किए थे और यह सूचना दी थी कि उक्त प्रारूप नियमों पर उस तारीख से जिसको राजपत्र की प्रतियां, जिसमें सूचना प्रकाशित की जाती है, जनता को उपलब्ध करा दी जाती हैं, साठ दिनों की अविध की समाप्ति के पश्चात् विचार किया जाएगा;

और जनता को उक्त राजपत्र की प्रतियां 31 जुलाई, 2012 को उपलब्द करा दी गई थी;

और केन्द्रीय सरकार द्वारा उपर वर्णित प्रारूप नियमों पर प्राप्त सुझावों या आक्षेपों पर सम्यक्तः विचार किया गया है;

अतः अब केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के साथ पठित पर्यावरण संरक्षण अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (2), धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :—

- 1. (1) इन नियमों का संक्षिप्त नाम पर्यावरण (संस्क्षण) संशोधन नियम, 2014 है ।
 - (2) ये राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे ।
- 2. पर्यादरण (संरक्षण) अधिनियम, 1986 में, नियम 3 के उप-नियम (8) के स्थान पर निम्नलिखित उप-नियम रखा जाएगा, अर्थात् : —

22 GI/2014

- "(8) इसमें नीचे विनिर्दिष्ट तारीख से निम्नलिखित कोयला आधारित ताप ऊर्जा संयंत्र त्रैमासिक औसत आधार पर कच्चा अथवा मिश्रित अथवा सज्जीकृत कोयले का जिसमें मध्म अंतर्वस्तु 34% से अनिधक हो, उपयोग करेंगे, अर्थात् : —
- (क) एकल ताप विद्युत संयंत्र (किसी भी क्षमता का) या 100 मेगावाट या अधिक प्रतिष्ठापित क्षमता का या उससे अधिक क्षमता का प्रतिष्ठापित कैप्टिव ताप विद्युत संयंत्र जो गर्तमुख से 1000 किलोमीटर से अधिक दूरी पर या किसी शहरी क्षेत्र या किसी पारिस्थितिकीय रूप से संवेदनशील क्षेत्र में या गंभीर रूप से प्रदूषित औद्योगिक क्षेत्र में आवस्थित है, गर्तमुख से उसकी दूरी पर ध्यान दिए बिना सिवाय किसी गर्तमुख विद्युत संयंत्र के, तुरंत प्रभाव से,;
- (ख) एकल ताप विद्युत संयंत्र (किसी भी क्षमता का) या 100 मेगावाट या उससे अधिक प्रतिष्ठापित क्षमता का कैप्टिव ताप विद्युत संयंत्र जो गर्तमुख से 750-1000 किलोमीटर के बीच की दूरी पर अवस्थित है, 1 जनवरी, 2015 से;
- (ग) एकल ताप ऊर्जा संयंत्र (किसी भी क्षमता का) या 100 मेगावाट या उससे अधिक प्रतिष्ठापित क्षमता का कैप्टिव ताप विद्युत संयंत्र जो गर्तमुख से 500-749 किलोमीटर के बीच की दूरी पर अवस्थित है, 5 जून, 2016 से;

परंतु यह कि ऐसे किसी ताप ऊर्जा संयंत्र के संबंध में, जो परिसंचारी तरल-तर दहन या वायुमंडलीय तरल-तर दहन या संपीड़ित द्रवित तरल-तर दहन या समाकलित गैसीकरण संयुक्त आवर्तन चक्र प्रौद्योगिकियों का या ऐसी कोई स्वच्छ प्रौद्योगिकियों का, जो केन्द्रीय सरकार द्वारा राजपत्र में अधिसूचित की जाएं, प्रयोग कर रहा है, खंड (क), (ख) और (ग) लागू नहीं होंगे।

स्पष्टीकरण: -- इस नियम के प्रयोजन के लिए, --

- (i) 'सज्जीकृत कोयला' से ऐसा कोयला अभिप्रेत है जिसमें उच्चतर कैलोरी मान अंतर्विष्ट है किंतु मौतिक पृथक्करण या धोवन प्रक्रिया के माध्यम से अभिप्राप्त कच्चे कोयले में अंतर्विष्ट मूल भष्म से निम्नतर भष्म अंतर्विष्ट है;
- (ii) 'कैप्टिव ताप ऊर्जा संयत्र' से ऐसा ताप ऊर्जा संयत्र अभिप्रेत हैं जो किसी उद्योग द्वारा उसके अनन्य उपयोग के लिए विद्युत सृजन के लिए स्थापित किया गया है;
- (iii) 'अत्यधिक प्रदूषित औद्योगिक क्षेत्र' से ऐसा औद्योगिक समूह या क्षेत्र अभिप्रेत है, जहां प्रदूषण गंभीर स्तर पर पहुंच चुका है या पहुंच जाने की संमावना है और जिसकी केन्द्रीय सरकार या राज्य सरकार या केन्द्रीय प्रदूषण नियंत्रण बोर्ड या राज्य प्रदूषण नियंत्रण बोर्ड द्वारा ऐसे क्षेत्र के रूप में पहचान की जा चुकी है;
- (iv) 'पारिस्थितिकीय रूप से संवेदनशील क्षेत्र' से, ऐसा क्षेत्र अभिप्रेत है, जहां पारिस्थितिकीय संतुलन आसानी से विक्षुब्ध होने की संभावना है और जिसकी केन्द्रीय सरकार द्वारा पहचान की गई है और उसे अधिसूचित किया गया है;
- (v) 'प्रतिष्ठापित क्षमता' की संगणना किसी सीमा के भीतर सभी इकाईयों की व्यष्टिक क्षमता को जोड़कर की जाएगी;
- (vi) 'गर्तमुख विद्युत संयंत्र' से कोई केपटिव या एकल विद्युत केन्द्र अभिप्रेत है जिसका खनन क्षेत्र से लदाई बिन्दु तक विद्युत केन्द्र में सामान्य लोक परिवहन प्रणाली का उपयोग किए बिना विद्युत केन्द्र में कोयले के परिवहन के लिए उसके अनन्य उपयोग के लिए केपटिव परिवहन प्रणाली है;
- (vii) 'एकल ताप विद्युत संयत्र' से ऐसा विद्युत संयत्र अभिप्रेत है जिसकी स्थापना विद्युत ग्रिंड में विद्युत आपूर्ति के लिए विद्युत के सृजन के लिए या उन अवस्थानों पर जिन्हें विद्युत वितरण प्रणाली के साथ सुसज्जित नहीं किया गया है, विद्युत आपूर्ति के लिए की गई है; और
- (viii) 'शहरी क्षेत्र' से ऐसे शहर की क्षेत्र सीमा अभिप्रेत जिसकी जनसंख्या नवीनतम जनगणना के अनुसार दस लाख से अधिक हो ।"।

[फा. सं. क्यू-15017/11/2011-सी.पी.डब्ल्यू.]

सुशील कुमार, अपर सचिव

टिप्पण.—मूल नियम भारत के राजपत्र में सं. का. आ. 844(अ), तारीख 19 नवम्बर, 1986 द्वारा प्रकाशित किए गए थे और पश्चात्वर्ती संशोधन सं. का.आ. 82(अ), तारीख 16 फरवरी, 1987; का.आ. 64(अ), तारीख 18 जनवरी, 1988;

सा.का.नि., 931(अ), तारीख 27 अक्तूबर, 1989; का.आ. 23 (अ), तारीख 16 जनवरी, 1991; सा.का.नि. 95(अ), तारीख 12 फरवरी, 1992; सा.का.नि. 329(अ), तारीख 13 मार्च, 1992; सा.का.नि. 562(अ), तारीख 27 मई, 1992; सा.का. नि. 884(अ), तारीख 20 नवम्बर, 1992; सा.का.नि. 386(अ), तारीख 22 अप्रैल, 1993; सा.का.नि. 422(अ), तारीख 19 मई, 1993; सा.का.नि. 801(अ), तारीख 31 दिसंबर, 1993; सा.का.नि. 320(अ), तारीख 16 मार्च, 1994; सा.का.नि. 560(अ), तारीख 19 सितंबर, 1997; सा.का.नि. 378(अ), तारीख 30 जून, 1998; सा.का.नि. 07(अ), तारीख 22 दिसंबर, 1998; सा.का.नि. 407(अ), तारीख 31 मई, 2001; और सा.का.नि. 826(अ), तारीख 16 नंवंबर, 2009 और सा.का.नि. 513(अ), तारीख 28 जून, 2012 द्वारा किए गए।

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 2nd January, 2014

G.S.R. 02(E).—Whereas the Central Government had, in exercise of its powers under sub-section (2) of Section 3 and Section 25 of the Environment (Protection) Act, 1986 (29 of 1986), read with rule 5 of the Environment (Protection) Rules, 1986, published draft rules further to amend the Environment (Protection) Rules, 1986, in the Gazette of India, Extraordinary, vide number G.S.R. 552(E), dated 11th July, 2012 for information of all persons and organizations likely to be affected thereby; and notice was given that the said draft rules would be taken into consideration by the Central Government on or after the expiry of a period of sixty days from the date on which copies of the Gazette containing this notification are made available to the public;

And whereas, the copies of the said Gazette notification were made available to the public on the 31st July, 2012;

And whereas, the suggestions or objections received in response to the above mentioned draft rules have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by Section 3, Section 6 and Section 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

- 1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2014.
 - (2) They shall come into force on the date of their publication in the Official Gazette.
- 2. In the Environment (Protection) Rules, 1986, in rule 3, for sub-rule (8), the following sub-rule shall be substituted, namely:—
 - "(8) With effect from the date specified hereunder, the following coal based thermal power plants shall be supplied with, and shall use, raw or blended or beneficiated coal with ash content not exceeding thirty-four per cent, on quarterly average basis, namely:—
 - (a) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located beyond 1000 kilometres from the pit-head or, in an urban area or an ecologically sensitive area or a critically polluted industrial area, irrespective of its distance from the pit-head, except a pit-head power plant, with immediate effect;
 - (b) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located between 750 1000 kilometres from the pit-head, with effect from the 1st day of January, 2015;
 - (c) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located between 500-749 kilometres from the pit-head, with effect from the 5th day of June. 2016:

Provided that in respect of a thermal power plant using Circulating Fluidised Bed Combustion or Atmosphere Fluidised Bed Combustion or Pressurized Fluidised Bed Combustion or Integrated Gasification Combined Cycle technologies or any other clean technologies as may be notified by the Central Government in the Official Gazette, the provisions of clauses (a), (b) and (c) shall not be applicable.

Explanation: For the purpose of this rule,—

- (i) 'beneficiated coal' means coal containing higher calorific value but lower ash than the original ash content in the raw coal obtained through physical separation or washing process;
- (ii) 'captive thermal power plant' means a power plant which is set up by an industry to generate electricity for its exclusive use;
- (iii) 'critically polluted industrial area' means an industrial cluster or area where pollution levels have reached or likely to reach critical level, and has been identified as such by the Central Government or the State Government or the Central Pollution Control Board or a State Pollution Control Board;
- (iv) 'ecologically sensitive area' means an area whose ecological balance is prone to be easily disturbed and has been identified and notified by the Central Government;
- (v) 'installed capacity' shall be calculated by adding, individual capacity of all units within a boundary;
- (vi) 'pit-head power plant' means any captive or stand-alone power station having captive transportation system for its exclusive use for transportation of coal from the loading point at the mining end, up to the uploading point at the power station without using the normal public transportation system;
- (vii) 'stand-alone thermal power plant' means a power plant which is set up to generate electricity for feeding to electricity grid or for locations that are nor fitted with an electricity distribution system; and
- (viii) 'urban area' means an area limit of a city having a population of more than one million according to the last census.".

[F. No. Q-15017/11/2011-CPW]

SUSHEEL KUMAR, Addl. Secv.

Note:—The Principal rules were published in the Gazette of India vide number S.O. 844(E), dated the 19th November, 1986 and subsequently amended vide numbers S.O. 82(E), dated 16th February, 1987; S.O. 64(E), dated 18th January, 1988; G.S.R. 931(E), dated 27th October, 1989; S.O. 23(E), dated 16th January, 1991; G.S.R. 95(E), dated 12th February, 1992; G.S.R. 329(E), dated 13th March, 1992; G.S.R. 562(E), dated 27th May, 1992; G.S.R. 884(E), dated 20th November, 1992; G.S.R. 386(E), dated 22nd April, 1993; G.S.R. 422(E), dated 19th May, 1993; G.S.R. 801(E), dated 31st December, 1993; G.S.R. 320(E), dated 16th March, 1994; G.S.R. 560(E), dated 19th September, 1997; G.S.R. 378(E), dated 30th June, 1998; G.S.R. 7(E), dated 22nd December, 1998; G.S.R. 407(E), dated 31st May, 2001; G.S.R. 826(E), dated 16th November, 2009 and G.S.R. 513(E), dated 28th June, 2012.

Annexure 30

GoI, MoP Notification F.No.11/86/2017-Th-II (C.NO. 238797) Dtd. 16.06.2023.



F. No.11/86/2017-Th.II (C.No 238797)

Government of India Ministry of Power

> Shram Shakti Bhawan, Rafi Marg, New Delhi, dated the 16th June, 2023.

To,

- 1. Principal Secretary/Secretary in-charge of Energy/Power Departments, All States/UTs
- 2. Chairman, CEA
- 3. CMDs of all CGSs/IPPs

Subject: Modification of Revised Policy for Biomass Utilization for Power Generation through Co-firing in Coal based Power Plants dated 08.10.2021- reg.

Sir/Madam,

I am directed to refer to this Ministry's "Revised Policy for Biomass Utilization for Power Generation through Co-firing in Pulverized Coal Fired Boilers" issued in 08.10.2021 and its Addendum issued on 03.05.2023(copies enclosed).

- 2. Keeping in view that the supply chain of biomass-based pellets is still in the process of development in the country and to further promote use of biomass pellets in coal based thermal power plants, the above Policy stands further modified as under:
- (a) Existing Clause No.3- (i), (ii), (iii) to be replaced by the following clauses:
 - 3(i) All coal based thermal power plants of power generation utilities with **bowl mills**, shall on annual basis mandatorily use minimum 5% blend of biomass pellets made, primarily , of agro residue along with coal with effect from FY 2024-25. The obligation shall increase to 7% with effect from FY 2025-26.



- 3(ii) All coal based thermal power plants of power generation utilities with **ball & race mills**, shall on annual basis mandatorily use 5% blend of biomass pellets(torrefied only) made, primarily, of agro residue along with coal with effect from FY 2024-25. The obligation shall increase to 7% with effect from FY 2025-26.
- 3(iii) All coal based thermal power plants of power generation utilities with **ball & tube mills**, shall on annual basis mandatorily use 5% blend of torrefied biomass pellets with volatile content below 22%, primarily made of agro residue along with coal with effect from FY 2024-25.

(b) Addition of Para 5, after Para 4 of ibid policy, as under:

A Committee shall be constituted under the leadership of CEA with members from MNRE, MoAFW, MoPNG, Forum of Regulators, SAMARTH, State Governments, Power Utilities etc. for **price** benchmarking of biomass pellets considering the business viability, impact on electricity tariff and efficient & faster pellet procurement by power utilities.

The Price benchmarking would be carried out region-wise for a period of 5 years with the provision for periodic escalation. The benchmark price will not include the transportation cost from the pellet manufacturing unit to the Thermal Power Plants (TPPs). TPPs shall determine the transportation cost from pellets manufacturing units to TPPs in a fair and transparent manner. The procurement of benchmark-priced pellets shall be carried out on a first-come, firstserve basis. If TPPs are unable to procure biomass pellets at the benchmark price, they have the option to go for a short-term tender. However, it is important for TPPs to ensure that the price discovered in the short-term tender is determined in a fair and transparent manner. The price discovered should also be comparable to the benchmarked prices. The recommendation of Price Benchmarking Committee will be The existing tendering process shall effective from 01.01.2024. continue till the implementation of the Benchmarking Committee recommendations. Meanwhile, the power utilities shall go for short term tenders for meeting the immediate requirement of biomass pellets for their TPPs.

(c) Addition of Para 6, after Para 5 of ibid policy, as under

It has been observed that the availability of torrefied biomass pellets is much lower in the market. Therefore, those power plants which can



use non-torrefied pellets should utilize the same only. Hence, TPPs having Bowl mill will issue tenders for non-torrefied biomass pellets only, while TPPs having either Ball & Race mill or Ball & Tube mill will issue tenders for Torrefied biomass pellets. This practise will continue till further notification on this issue.

3. This issues with the approval of Hon'ble Minister of Power & NRE.

Yours sincerely

Encl: as above.

(J.Misra)

Under Secretary to the Government of India

Tele: 23063746

Copy to:

- (i) PS to Hon'ble Minister of Power & NRE.
- (ii) PS to Hon'ble MoS for Power
- (iii) Sr PPS to Secretary(Power)
- (iv) PPS to SS&FA ,PPS to AS(AT)
- (v) All Joint Secretaries/EA/Chief Engineer, Ministry of Power
- (vi) In-charge, NIC, Ministry of Power- with a request to upload this document on the website of MoP.

Annexure 31

Capital Investment plan (with Excel file for station -wise scheme details).















ROLLING CAPITAL INVESTMENT PLAN

CONTROL PERIOD – FY 2025-26 TO FY 2029-30

SUBMITTED BY

MAHARASHTRA STATE POWER GENERATION COMPANY LTD

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1.BACKGROUND

1.1. REGULATORY FRAMEWORK

MSPGCL has prepared this Capital Expenditure Rolling Plan for the approval of capital expenditure (Capex) for its various generating stations for the Control Period - FY 2025-26 to FY 2029-30, in compliance of the MERC (Approval of Capital Investment Schemes) Regulations, 2022 (herein after "Capex Regulations, 2022").

Regulation 7.1 of the MERC (Approval of Capital Investment Schemes) Regulations, 2022 provides as under:

"7.1 All Generating Business/Companies, Transmission Business/Licensees, Distribution Business/Licensees and MSLDC shall submit the Rolling Capital Investment Plan for FY 2023-24 and FY 2024-25, within six (6) months of notification of these Regulations in accordance with the format specified in Appendix 2:

Provided that no new Scheme shall be taken up for consideration till the Rolling Capital Investment Plan is submitted:

Provided further that Applicants shall submit the Rolling Capital Investment Plan for each five (5) year period thereafter, with the Rolling Capital Investment Plan from FY 2025-26 to FY 2029-30 to be submitted latest by May 2024"

The Hon'ble Commission has notified MYT Regulations, 2024 with effect from 1, April, 2025. As per Regulation 6.2 and 6.3 of the MYT Regulations, 2024, the capital investment plan is required to be submitted as per Capex Regulations, 2022. The capital investment plan is one of the major constituents for the forecast of Aggregate Revenue Requirement for the Control Period - FY 2025-26 to FY 2029-30. Regulation 6.3 of the MYT Regulations, 2024 is reproduced as under for ready reference:

"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 it,

for which relevant technical and commercial details shall be provided as per the provisions of the Maharashtra Electricity Regulatory Commission (Approval of Capital Investment Schemes) Regulations, 2022 and amendments thereof."

In compliance of aforesaid provisions, MSPGCL has prepared the Rolling Capital Investment Plan for the Control Period FY 2025-26 to FY 2029-30. In this regard, MSPGCL begs pardon for the delayed submission of the Rolling Capital Investment Plan for the Control Period FY - 2025-26 to FY 2029-30. There was delay in view of the extensive efforts taken by MSPGCL for detailed study to prepare the Rolling Capital Investment Plan for five years. Therefore, MSPGCL prays for condonation of the delay and requests the Hon'ble Commission to accept the Rolling Capital Investment Plan from FY 2025-26 to FY 2029-30.

1.2. OBJECTIVE

The Objectives of the Rolling Capital Investment Plan expenditure are as given below:

- a) Improve the operational efficiency and reliability of existing generating units.
- b) Ensure compliance with environmental and regulatory standards.
- c) Upgradation with the technology (HMI, DCS, IT) in view of the Obsolescence of the technology. Design upgradation, material upgradation with the technological upgradation.
- d) Life extension of the major assets through selective part of the asset replacement
- e) Enhance capacity through modernization and refurbishment of existing plants.
- f) Meet the future demand for electricity while maintaining cost-effective operations.
- g) To enhance security systems in view of the threats and compliance of the directives from the national security agenesis.
- h) To make inventory of Insurance spares, Modern tools and tackle.
- i) Upgradation of the system for flexi-operations.
- j) Hydro asset life extension and supporting asset creations, including essential work in Water Resources Department area in the hydro power plant.
- k) Employee welfare Facilities development, employee essential facilities development

2. MSPGCL'S CAPITAL INVESTMENT PLAN

The Rolling Capital Investment Plan is prepared in accordance with the operational and strategic needs of MSPGCL, aimed at ensuring optimal performance, efficiency, extend the operational life of aging assets of the plants, compliance with statutory requirement and ensure reliable power supply to the Distribution Licensee of the Maharashtra. The proposed investments are critical for the continued operation and modernization of MSPGCL's aging units and for the development of newer, state-of-the-art plants to meet the growing energy demand in Maharashtra.

MSPGCL has prepared the Capex Rolling Plan for FY 2025-26 to FY 2029-30 as per the provisions of the Capex Regulations, 2022, in terms of the following parameters:

- a) The projected capital expenditure and capitalisation is based on realistic estimates, and adequate justification has been provided for any anomalous increase in capital expenditure and capitalisation projected by MSPGCL.
- b) Mechanism put in place for monitoring the physical progress of projects with respect to their original schedule.
- c) Optimum drawl of loans in accordance with the physical progress of the capital expenditure schemes, and efficient utilisation of such loans.
- d) Compliant to the provisions of the MERC (Approval of Capital Investment Schemes) Regulations, 2022.

MSPGCL's endeavours to maintain the adequate generation capacity that meets the entire requirement and builds adequate reserves in the system in all its Capital Investment proposals so that the Units are able to meet all the demand during any of the times. MSPGCL strives to sustain efforts to maintain and improve its generating Units for providing the best service to the Distribution Licensee by maintaining the healthy and adequate generation capacity in the network.

The old generating stations of MSPGCL have been instrumental in meeting the electricity demands of Maharashtra for several decades. However, these aging power plants now face

multiple challenges that necessitate significant capital expenditure to ensure their continued operation.

The MYT Regulations, 2024 provides that the Utility may project the capital expenditure and capitalisation plan for each year of the Control Period as per its projected capital investment outlay and annual phasing plan with due justifications in accordance with provisions outlined under Capex Regulations, 2022, as amended from time to time.

2.1. ROLLING CAPITAL INVESTMENT PLAN

MSPGCL has followed the provisions of the MYT Regulations, 2024 and Capex Regulations, 2022. The total outlay of the Capital Investment in the 5th Control Period as proposed by MSPGCL is of Rs. 25,846 Crores.

While preparing the Rolling Capital Investment Plan, MSPGCL has considered various factors including the previous trend in capital investment. MSPGCL has prepared the Rolling Capital Investment Plan in accordance with the format specified in Appendix 2 of the MERC (Approval of Capital Investment Schemes) Regulations, 2022 in Excel sheet and the same is annexed hereto. (*Soft Copy*).

Accordingly, the MSPGCL has proposed the Capital Investment Plan for the 5th Control Period for FY 2025-26 to FY 2029-30 as under:

Table 1: Plant wise Capital Outlay for MSPGCL for MYT Control Period

Sr.	Amount in Rs. Crores						
No No	Station	FY 2025- 26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30	Total
1	Bhusawal U-3 (210 MW)	0.00	398.00	0.00	0.00	0.00	398.00
2	Bhusawal U-4 & 5 (2x 500 MW)	197.24	1108.25	243.00	257.00	145.00	1950.49
3	Chandrapur STPS U-3 to 7 (1920 MW)	1907.50	1627.64	832.96	879.16	236.02	5483.29
4	Chandrapur STPS U-8 & 9(2x500 MW)	480.50	645.05	338.45	107.00	212.50	1783.50

Sr.	Amount in Rs. Crores						
No	Station	FY 2025-	FY 2026-	FY 2027-	FY 2028-	FY 2029-	Total
110	Suiton	26	27	28	29	30	10001
5	Khaperkheda TPS U-1 to 4 (4 x 210 MW)	580.10	1119.32	777.49	214.92	180.80	2872.63
6	Khaperkheda TPS U-5 (500 MW)	523.44	707.17	91.03	215.60	37.00	1574.24
7	Koradi U-6 (210 MW)	104.04	73.53	28.99	21.29	77.90	305.75
8	Koradi TPS U-8 to 10 (3 x 660 MW)	1376.54	1377.37	820.50	219.95	122.86	3917.22
9	Nashik TPS U-3 to 5 (3 x 210 MW)	711.38	1040.70	89.24	9.10	0.50	1850.93
10	Paras TPS U-3 & 4 (2 x 250 MW)	625.48	203.08	201.51	59.35	46.45	1135.88
11	Parli TPS U-6 & 7 (2 x 250 MW)	584.90	444.86	163.59	534.30	100.72	1828.37
12	Parli TPS U-8 (250 MW)	309.99	203.08	161.25	11.50	65.00	750.82
13	GTPS Uran (672 MW)	200.07	307.40	267.10	133.67	131.80	1040.04
14	KGSC, Pophali (1956 MW)	198.57	131.50	77.50	56.00	55.43	519.00
15	SHPC Nashik	98.26	68.00	68.50	0.00	0.00	234.76
16	SHPC Pune	86.13	27.35	27.44	25.00	35.00	200.92
17	Total MSPGCL	7984.1	9482.3	4188.6	2743.8	1447.0	25845.8

2.2. CAPEX ANALYSIS

The figure below highlights the aforementioned capex outlay for MSPGCL during the Control Period with year wise breakup:

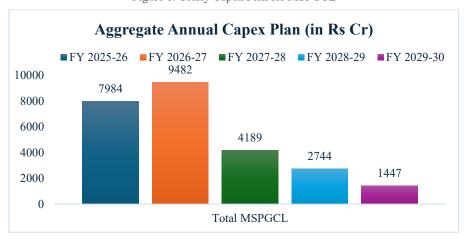


Figure 1: Yearly Capex Plan for MSPGCL

The figure herein below highlights the plant wise yearly capital outlay proposed by MSPGCL for the aforesaid Control Period:

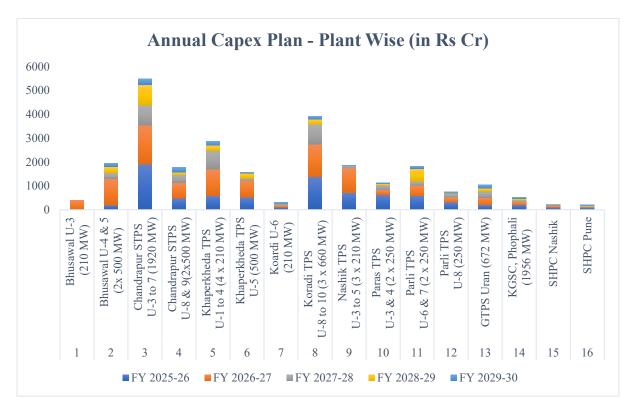


Figure 2: Plant wise Annual Capex Plan for MSPGCL

Accordingly, the Plant wise aggregated capex for the aforesaid MYT Control Period is as herein below:

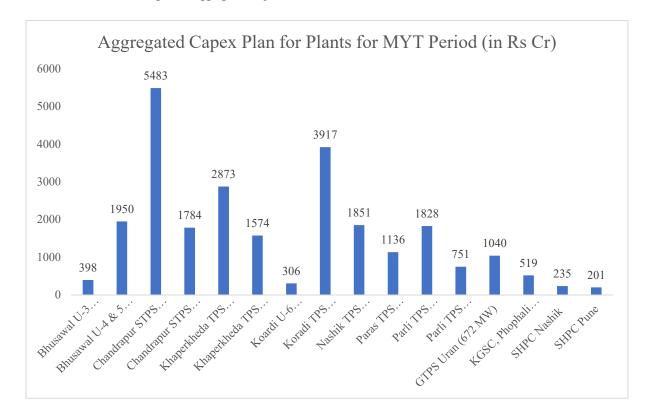


Figure 3: Aggregated Capex Plan MSPGCL Plants for MYT Control Period

2.3. CAPEX JUSTIFICATION

MSPGCL has proposed these schemes in the following Categories as specified in the Regulation 3.2 of the Capex Regulations, 2022:

- a) Improvement in operational performance parameters of Generating Unit/Station.
- b) Compliance with environmental norms notified by the concerned Indian Governmental Instrumentality and requires setting up additional assets that qualify under the criteria specified for Capital Investment Schemes.
- c) Renovation & Modernization in accordance with the provisions of the MERC (Multi-Year Tariff) Regulations, 2019, as amended from time to time.

- d) Replacement of Asset on account of inter-alia, completion of Useful Life and in beyond repairable condition, performance degradation, need for induction of new efficient technology.
- e) Civil work such as office building, approach road, etc.
- f) Obsolescence of assets and absence of support from Original Equipment Manufacturer.
- g) Replacement of Battery Sets and battery charger after completion of Useful Life and assets becoming irreparable.
- h) Construction of ash bund and raising height of ash bund.
- i) Installation or upgradation of control and/or protection equipment.
- j) Interface metering and communications.

Accordingly, the MSPGCL has projected its capital outlay plan considering various schemes eligible under the Capex Regulations, 2022 as hereunder:

Table 2: MSPGCL's breakup of Capital Outlay Plan (in Rs Cr)

S.No.	Station	Performance Improvement	Statutory compliance	Asset replacement on life completion or obsolesce	Renovation and Modernisation	Civil & Ash Bund	Control system and others	Total
1	Bhusawal U-3 (210 MW)	-	-	-	398	-	-	398
2	Bhusawal U-4 & 5 (2x 500 MW)	619	841	440	-	-	50	1950
3	Chandrapur STPS U-3 to 7 (1920 MW)	1147	506	1842	593	1099	295	5483
4	Chandrapur STPS U-8 & 9(2x500 MW)	534	60	929	-	76	184	1784
5	Khaperkheda TPS U-1 to 4 (4 x 210 MW)	376	328	1503	97	348	222	2873
6	Khaperkheda TPS U-5 (500 MW)	427	478	168	-	404	98	1574
7	Koradi U-6 (210 MW)	243	-	63	-	-	-	306
8	Koradi TPS U-8 to 10 (3 x 660 MW)	945	2	2944	-	0	27	3917

S.No.	Station	Performance Improvement	Statutory compliance	Asset replacement on life completion or obsolesce	Renovation and Modernisation	Civil & Ash Bund	Control system and others	Total
9	Nashik TPS U-3 to 5 (3 x 210 MW)	60	60	407	1180	105	40	1851
10	Paras TPS U-3 & 4 (2 x 250 MW)	464	483	138	-	51	ı	1136
11	Parli TPS U-6 & 7 (2 x 250 MW)	487	151	522	-	611	58	1828
12	Parli TPS U-8 (250 MW)	318	99	307	-	11	16	751
13	GTPS Uran (672 MW)	264		775	-		-	1040
14	KGSC, Pophali (1956 MW)	56	17	259	-	30	158	519
15	SHPC Nashik		-	181		54	-	235
16	SHPC Pune	-	-	201	-		-	201
17	Total MSPGCL	5940	3024	10679	2268	2789	1146	25846

From the aforementioned table it can be inferred that the key major capex planned by MSPGCL belong to following categories

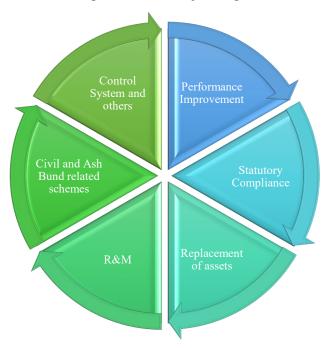


Figure 4: MSPGCL Capex Categories

MSPGCL submits that the Capex related schemes belong to aforementioned six categories.

- The Asset replacement capital works are of almost 41% of aggregate Capex.
- The performance improvement schemes are around 23% of aggregate Capex.
- R& M Schemes are of 9% and the Control System related schemes are 4% of aggregate Capex.
- Expenses to meet Statutory Compliance are 12% of aggregate Capex.
- Civil and Ash Bund related expenses contributes to 11% of aggregate Capex.

There are various statutory compliances such as FGD, ESP, and other measures to deal with the environmental issues. Further, certain regulatory and government policies mandate certain safety, operational, and environmental standards that must be met such as Firefighting equipment and security enhancement. The highest capex schemes are for partial asset replacement, part replacement due to life completion of the part of the asset and obsolesce of the technology.

The aforementioned capex categories are deliberated in subsequent paragraphs

2.3.1. PERFORMANCE IMPROVEMENT

The Plants with growing age often suffer from reduced efficiency due to aging equipment, leading to higher coal/ fuel consumption and increased operating costs. Modernizing and upgrading these units through capital expenditure can result in:

- a) Improved heat rate, reducing coal consumption per unit of electricity generated.
- b) Lowered auxiliary power consumption by upgrading auxiliary systems like pumps, motors, and compressors.
- c) Enhanced overall operational efficiency, contributing to cost savings and better performance.
- d) By enhancing the operational efficiency and reducing the downtime of older power plants, Capex can contribute to keeping generation costs under control. This, in turn, helps in:
- e) Ensuring tariff stability for consumers by avoiding the need for high-cost power purchases from other sources.

f) Reducing the burden on the state and consumers through optimized fuel consumption and improved operational efficiencies.

Therefore, in the Rolling Plan, MSPGCL has proposed various schemes for the performance improvement. The indicative list of such schemes is as under:

- i. Performance Improvement CHP
- ii. Performance Improvement Boiler
- iii. Performance Improvement AHP
- iv. Performance Improvement Turbine
- v. Performance Improvement Electrical Work
- vi. Performance Improvement WTP (Water Treatment Plant)

2.3.2. STATUTORY CLEARANCES

The Environmental Regulations governing thermal power plants have become increasingly stringent, particularly regarding emissions and waste management. Many of MSPGCL's older stations do not meet current emission norms without significant upgrades. Capex is required for:

- a) Installation of Flue Gas Desulfurization (FGD) systems to control sulphur oxide (SOx) emissions.
- b) Upgrading Electrostatic Precipitators (ESPs) to reduce particulate matter (PM) emissions.
- c) Compliance with NOx emission limits through selective catalytic reduction (SCR) or other technologies.
- d) Improvement in ash handling systems for better management and disposal of fly ash in accordance with environmental guidelines.

Apart from this, the Regulatory bodies and government policies mandate certain safety, operational, and environmental standards that must be met. Many older plants were built before these standards were established and now require Capex to:

- i. Comply with the latest safety and operational guidelines.
- ii. Installation of the free Governors
- iii. Installation of Fire-Fighting systems as per the standards

- iv. Installation of the Surveillance System for security purpose on the recommendations of the national agencies.
- v. Implement dam safety measures for hydropower plants.
- vi. Upgrade control systems and safety mechanisms to meet current industry standards.

Therefore, in the Rolling Plan, MSPGCL has proposed various schemes against the Statutory compliance. The indicative list of such schemes is as under:

- a) Installation of Flue Gas Desulfurization (FGD) systems.
- b) Upgrading Electrostatic Precipitators (ESPs).
- c) Installation of Firefighting Systems.
- d) Installation of the Free Operations Governors

2.3.3. REPLACEMENT OF ASSETS (ON OUTLIVING LIFE OR ON OBSOLESCENCE)

MSPGCL's old thermal power plants play a critical role in ensuring grid stability and reliability, especially during peak demand periods. Retaining and upgrading these older units through Capex investments will:

- a) Ensure that the state's power grid remains stable and that MSPGCL continues to meet the growing electricity demand.
- b) Avoid dependency on short-term, more expensive alternatives such as power purchases from external sources during outages or peak periods.

Constructing new power plants to replace the capacity of older generating units is not only time-consuming but also capital-intensive. Extending the life of existing assets through renovation and modernization is a more cost-effective alternative. The Capex required for refurbishing older plants is significantly lower than building new capacity, which provides a financially prudent approach for maintaining generation capacity in the near term. As the old generating stations age, the frequency of forced outages and unscheduled maintenance increases, leading to reduced availability and higher maintenance costs. By investing in capital improvements:

a. MSPGCL can reduce the frequency of breakdowns and unscheduled downtime, ensuring reliable power generation.

- b. Refurbishment and modernization can lower maintenance costs by reducing wear and tear on key plant components.
- c. Reduction in Forced Outages and Maintenance Costs.

Therefore, in the Rolling Plan, MSPGCL has proposed various schemes for replacement of the overlived and obsolete Assets. The indicative list of such schemes is as under:

- i. Replacement due to Obsolescence / or Useful life is over-Boiler schemes
- ii. Replacement of the critical parts of the APH
- iii. Replacement of Air Pre-heater Baskets
- iv. Replacement of the critical parts of the Coal Handling Plants.
- v. Refurbishment of Boiles and related schemes
- vi. Refurbishment of the Turbine related parts
- vii. Capacity enhancement of the LTSH Coils, Superheater Coils, Economiser, etc.
- viii. Replacement of the electrical Auxiliaries in the Plant.
 - ix. Replacement of the Steam Turbines critical parts.

2.3.4. RENOVATION AND MODERNISATION

MSPGCL's older generating units have been operating for more than 40 years and have reached or exceeded their designed operational life. Without capital investment in renovation and modernization (R&M), these plants will face imminent breakdowns and shutdowns due to wear and tear of critical equipment. In these Units the Capital expenditure is required to:

- a. Replace and refurbish key components like boilers, turbines, and generators to extend the operational life of these units.
- b. Reduce the risk of breakdowns, avoid forced outages, and maintain operational reliability.

Investing in the refurbishment and modernization of MSPGCL's old generating stations is key to ensuring energy security for the state of Maharashtra. These plants are integral to maintaining a stable and affordable power supply, particularly during periods of high demand or supply shortages. Capital expenditure on these plants is necessary for:

a. Ensuring sustainable, uninterrupted power generation for Maharashtra's consumers and industries.

b. Maintaining MSPGCL's strategic role in the state's energy mix and reducing dependence on costly external power sources.

It is submitted that Renovation and Modernisation Schemes are prepared in accordance with relevant guidelines of the CEA and the recommendations of CPRI studies. Therefore, in the Rolling Plan, MSPGCL has proposed R&M works. The indicative list of such schemes is as under:

- i. R&M Bhusawal Unit No. 3
- ii. R&M Chandrapur Unit No. 3 to 7
- iii. R&M Nashik Unit No. 3 to 5
- iv. R& M Khaparkheda Unit No. 1 to 4

2.3.5. CIVIL AND ASH BUND RELATED CAPEX

The office building, Plant civil related works, ash pipelines, drainage works, water pipelines employee staff quarters and various civil related schemes are part of the Capex proposals. In view of the continuous operations, the capacity of Ash Bund is gets exhausted hence, sometimes it becomes necessary to raise the height of Ash bund. If the height of Ash bund not raised, there is the possibility of breach of Ash bund. Environmental issues may arise as the ash mixed water overtop from the waste weir & mix the natural flow and contamination of natural resources such as Erai River is also possible. Therefore, in the Rolling Plan, MSPGCL has proposed various schemes for Civil and Ash Bund related schemes. The indicative list of such schemes is as under:

- a. Raising the height of Ash Bund,
- b. Capacity enhancement of the Ash Bund,
- c. Construction of the Office Building,
- d. Construction of Roads, approach roads, and allied facilities,
- e. Ash Disposal Pipelines,
- f. Construction/ refurbishment of the water Pipelines,
- g. Refurbishment of the staff quarters.

2.3.6. CONTROL SYSTEM AND OTHER RELATED SCHEMES

The control system is the heart of the process. This system ensures safe and effective operation of all the auxiliaries by executing logic implementation for starting interlocks protection circuit & control analogy. Human Machine Interface (HMI) plays a crucial role in control and monitoring of PLC in power plant and empowers the plant operators and engineers with critical data for better control, to make informed decisions, thereby improving reliable operation of the Plant. The critical nature of HMI makes it essential that HMI systems are updated all the time as and when the latest technology is available. This will ensure safe and better response of PLC.

Therefore, in the Rolling Plan, MSPGCL has proposed various schemes for Control System and System Automation related schemes. The indicative list of such schemes is as under:

- i. Installation of I&C (Instrumentation and Controls),
- ii. HMI Upgradation of Distributed Control System (DCS),
- iii. Upgradation of DCS,
- iv. Upgradation of PLC Systems,
- v. Development & Upgradation of DSM software system,
- vi. Upgradation of Analysis & Diagnostics system (A&D) for VMS and TSI system.

2.3.7. CAPACITY BUILDING

It is submitted that MSPGCL has also initiated a series of capacity-building efforts to strengthen its executives' ability to manage capital expenditure and achieve better capitalisation results. Recognizing the complexities of handling large-scale projects and the need for financial prudence, MSPGCL organizes workshops and training programs that cover key aspects of capital expenditure, such as project planning, budgeting, risk analysis, and cost control. By equipping executives with these critical competencies, MSPGCL aims to improve project timelines, avoid cost overruns, and ensure projects are capitalized more efficiently.

MSPGCL has introduced advanced technological tools for project monitoring and execution. These tools offer real-time updates on project progress, expenditure tracking, and financial performance metrics. These initiatives also help in identifying bottlenecks early and mitigating risks before they escalate into significant issues, leading to smoother execution and faster

capitalisation of new assets. Furthermore, MSPGCL encourages a collaborative approach to capital expenditure by fostering knowledge-sharing among its teams. MSPGCL encourages its employees to share best practices, lessons learned from previous projects, and innovative ideas for improving efficiency. This culture of knowledge exchange enables cross-functional learning and ensures that the organization builds institutional memory around capital projects. Overall, MSPGCL's strategic emphasis on capacity building, technology integration, and collaborative learning is geared toward achieving better capitalisation results. These initiatives not only enhance the skill sets of its employees but also ensure that capital is deployed more effectively, leading to more reliable and efficient power generation infrastructure.

2.3.8. OTHER SUBMISSIONS

MSPGCL submits that investments proposed to enable power plants to operate more flexibly in response to fluctuating grid demands, especially with the increasing share of renewable energy sources. This can include improvements to ramp rates, load-following capabilities, and faster startup and shutdown times. It is proposed to modify equipment to maintain high efficiency even when operating below design capacity, reducing fuel consumption and emissions during part-load operations. By incorporating flexibilization measures, MSPGCL can better align its generation capacity with the dynamic needs of the power grid, especially as renewable energy penetration grows.

MSPGCL submits that as per Regulation 44 of MYT Regulations, 2024, the generating companies can opt to avail of a 'Special Allowance' as compensation for meeting the requirement of expenses towards additional capital expenditure for the thermal as well as hydro units which have completed their useful life. The Special allowance allowed under the MYT Regulations, 2024 is Rs. 10.75 Lakh/MW. The Generating Company need to submit the details of all work to be undertaken through special allowance, with the MYT petition. However, the Regulations also provide that in case of unit opting for such "Special Allowance", the performance norms and the O & M cost norm will be as per the norm for new units. Thus, availing such "Special Allowance" may prove detrimental for MSPGCL, unless Hon'ble Commission provides relaxation in parameters and also allows normative O & M as per prevailing method. Hence, no such special allowance is considered at present for projections. The request for relaxation is being made with further submissions that if Hon'ble Commission

allows such relaxation, MSPGCL may raise claim for special allowance along with segregated plan for works to be undertaken against such "Special Allowance"

It is submitted that as per Capex Rolling Plan for the 5th Control Period includes individual schemes for renovation & modernization of various systems / sub-systems for different units as well as major LE R & M schemes. Moreover, these are based on projected schemes going forward. Considering the historical experience of execution not all of the proposed schemes will reach the DPR preparation stage and the actual capitalisation from the proposed schemes will be lower than projected costs. Thus, in the present petition only part of the yearly proposed capex is considered for asset addition and further ascertaining the impact in tariff (depreciation, interest on loan, RoE etc.)

3. MSPGCL'S PRAYER

The Capital Investment Plan is designed to ensure cost-efficient operations in the long run, benefiting consumers by:

- a. Extend the operational life of its old generating stations, thus avoiding the need for expensive replacement power plants.
- b. Lowering the overall cost of electricity generation through operational efficiencies.
- c. Reducing emissions, leading to better environmental quality.
- d. Ensuring a reliable supply of power, minimizing outages and disruptions.
- e. Maintaining tariff stability by controlling operating and maintenance costs.

The need for Capex at MSPGCL's generating stations is critical to extend plant life, improve efficiency, comply with environmental norms, and ensure continued reliable power generation. This investment will enhance the financial viability of the company, reduce operational risks, and ensure that MSPGCL continues to play a pivotal role in meeting Maharashtra's growing power needs.

In view of the above, MSPGCL prays to the Hon'ble Commission to consider its Rolling Capital Investment Plan for the 5th Control Period from FY 2025-26 to FY 2029-30.

Annexure 32

Details of works undertaken against Special Allowance.

MYT 2024 - Special allowance for Hydro Generating station as per MERC regulation- 5YR Budget utilization for 60MW VHPS

		2025-26		2026-27		2027-28		2028-29		2029-30	
		Supply/Work	Amount in Cr.	Supply/Work	Amount in Cr.	Supply/Work	Amount in Cr.	Supply/Work	Amount in Cr.	Supply/Work	Amount in Cr.
1	Transformers	Station Transformer replacement	1.00								
1	iransiormers	EAT capacity upgradation	0.50								
		UAT capacity upgradation	0.50								
2	Breakers	Station 11 KV breaker replacement at 60 MW power house	0.25	Station 11 KV breaker replacement at 60 MW Switchyard	0.25	132 KV station breaker replacement work	0.25	LT incomer Breakers (02 Nos)	0.25	132 KV Generator breaker replacement work	0.25
3	Guide Vane Assembly or its spares.			Guide vane operating pump (02 Nos)	0.50					Guide vane assembly spares	0.60
4	Turbine Runner					Turbine Runner	1.00				
	Generator/ Turbine	Thrust Bearing Pump replacement	0.15	Thrust bearing assembly	1.00	Turbine guide bearing assembly	1.00	upper guide bearing assembly	1.00	Lower guide bearing assembly	1.00
5	Bearings & associated equipments.			VFD for Tubine OPU (01 No.)	0.10	VFD for Spherical OPU (01 No.)	0.10	VFD for Thrust bearing pump (01 No.)	0.10		
		Battery charger	0.25								
6	Electrical Control Panels of diff systems.	Unit Control System	1.00					Battery Bank Replacement	0.25	power house lighting and illumination system	0.45
	oi uiii systeilis.	Governor control system	1.00								
		Unit protection system	0.50								
		CW system pipe line & valves replacement	0.75	Thrust Bearing oil cooler repalcement (03 Nos)	0.25	CW Pump (210 KW) replacement (02 Nos)	0.5	CW stainer system replacement	0.10		
7	Procurement of auxiliaries Viz Pumps/ Compressors/ Hydraulic	Dewatering system pump upgradation upto 15 HP (3 Nos.)	0.3	Generator Air cooler replacement (06 Nos.)	0.5	VFD for cw pump (01 No.)	0.15	Spherical OPU pump Replacement (02 Nos.)	0.25		
	Systems/ DG Sets			Procurement of DG Set (750 KVA) with ditribution panel	1.00	Turbine OPU pump Replacement (02 Nos.)	0.25				
8	Ventilation & AC Systems					Air Exhaust fan Replacement (02 Nos)	0.25	AHU reconditioning (02 Nos)	0.25	Reconditioning of chiller unit (02 Nos) and air duct system	1.00
9	Fire Fighting Systems	Fire Fighting Systems	0.25								
10	Power & Control Cables			132 KV XLPE cable extention from portal to switchyard	1.00	Power & Control Cables	0.2	Power & Control Cables	0.10	Power & Control Cables	0.10
11	Mechanical & Electrical Spares			Mechanical & Electrical Spares	0.3	Mechanical & Electrical Spares	0.15	Mechanical & Electrical Spares	0.15	Mechanical & Electrical Spares	0.15
12	Cranes & Lifts							Provision of Lift from Service bay to 290 Floor	1.50	Provision of Lift from Service bay to control room	1.50
13	Tools & Testing Equipments			Tools & Testing Equipments	0.25	Tools & Testing Equipments	0.15	Tools & Testing Equipments	0.15	Tools & Testing Equipments	0.15
14	Vehicles			Truck/ Goods carrier	0.30			New LMV jeep for VHPS	0.15	Ambulance	0.25
15	Repair of Quarters & Roads			Repair/ Renewal of Guest House for VHPS	0.55	Repair/ Renewal of Quarters for VHPS	2.20	Repair of road colony to 60 MW (14 KM)	1.70	Renovation of power house store at main gate and switchyard	0.50
				Painting at 60 MW	0.45	Renovation of PCR at 60 MW	0.25	Renovation of recreation club	0.50	Repairing of VHPS colony internal road	0.50
	Total		6.45		6.45		6.45		6.45		6.45

MYT 2024 - Special allowance for Hydro Generating station as per MERC regulation- 5YR Budget utilization for 1.5MW VDTHPS

		FY:25-26		FY:26-27		FY:27-28		FY:28-29		FY-29-3	0
	Scheme	Supply/Work	Amount in Lac	Supply/Work	Amoun t in Lac	I Sunnly/Work	Amount in Lac	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac
1	Transformers										
2	Breakers							Supply & installation of CT/PT/LA at 1.5MW DTHPS	3		
3	Guide Vane Assembly or its spares.										
4	Turbine Runner										
5	Generator/ Turbine Bearings & associated equipments.					Supply of TG bearing sets	8	Lube oil cooler replacement	2		
6	Electrical Control Panels of diff systems.			Replacemeny of 415V LT panel at 1.5MW DTHPS	6						
		Dewatering Pump	1.5								
	Procurement of auxiliaries Viz	Portable COP for oil filtration	3								
7		Renovation Upgradation of Battery bank & Charger for 1.5MW DTHPS	11.75								
8	Ventilation & AC Systems			Replacement of AC & Ventilation system	2						
9	Fire Fighting Systems										
10	Power & Control Cables							Replacement of NGR & Power cable replacemet	11.125	Generator cable replacemnt	5
11	Mechanical & Electrical Spares			Various relay replacement at 1.5MW DTHPS	8.125	AVR replacement	8.125				
12	Cranes & Lifts									Renovation & upgradtion of Over Head crane	11.125
	Tools & Testing Equipments										
	Vehicles										
15	Repair of Quarters & Roads		16.25	0	16.125	0	16.125	0	16.125	0	16.125

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MYT 2024 - Special allowance for Hydro Generating station as per MERC regulation- 5YR Budget utilization for 15MW BHPS

		FY:26-27		FY:27-28		FY:28-29		FY-29-30	
	Scheme	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac
1	Transformers			GTR and UAT overhaul works supply	75				
2	Breakers			110KV and 11KV breaker Supply	35				
3	Guide Vane Assembly or its spares.			,		Guide vane assembly and spare supply	60		
4	Turbine Runner							Turbine Runner	60
5	Generator/ Turbine Bearings & associated equipments.	Bearing supply for Generator and Turbine	50			Generator and Turbine bearing supply and work	40		
6	Electrical Control Panels of diff systems.	Electrical Control panel Supply and works	30						
7	Procurement of auxiliaries Viz Pumps/ Compressors/ Hydraulic Systems/ DG Sets			Pump, compressor and Hydraulic system supply	40				
8	Ventilation & AC Systems					Ventilation system Supply	15		
9	Fire Fighting Systems							Fire Fighting system supply and works	30
10	Power & Control Cables							Power and Control cable supply	50
11	Mechanical & Electrical Spares	Mechanical & Electrical Spares supply	25.25	CT PT spares and works	11.25				
12	Cranes & Lifts					Crane and Lift supply and work	30		
13	Tools & Testing Equipments							Tool and testing equipments	21.125
14	Vehicles					Vehicle supply	16.125		
15	Repair of Quarters & Roads	Colony Road repairing and Quarter repairing wwork	56						
			161.25	0	161.25	0	161.125	0	161.125

				Yeldari D	ivision						
		FY:25-26		FY:26-27		FY:27-28					
	Scheme	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac	Supply/Work	Amount in Lac				
1	Repair of Quarters at Yeldari HPS	Work	0.30								
2	Design, Supply, testing, erection and commissioning of Numerical protection system at Yeldari HPS.	Supply & Work	2.10								
4	Design, supply, testing, erection and commissioing of Power cables for GT and control cables at Yeldari HPS			Supply & Work	1.00						
5	Design, Supply ,testing ,erection and commissioning of C&I control & measurement with SCADA at Yeldari HPS.			Supply & Work	1.00						
6	Design, supply ,testing ,erection and commissioning of Automated Co2 fire extinguishers system			Supply & Work	0.40						
8	Design, supply, errection, testing & commissioning of digital governing system at Yeldari HPS.					Supply & Work	2.10				
9	Design, supply ,testing ,erection and commissioning of Automated Co2 fire extinguishers system					Supply & Work	0.20				
10	Design, Supply ,testing ,erection and commissioning of DAVR system at Yeldari HPS										
11	Design, supply, errection, testing & commissioning of digital governing system at Yeldari HPS.										
12	Design, supply, testing, erection and commissioing of UAT capacity 250 KVA ratio 6.6KV/415V with ACDB, DCDB, auto change over system										
	Paithan HPS 1X12MW										
	Restoration of Paithan HPS	Work	1.29								

Design, supply, errection, testing & commissioning of digital governing system at Yeldari HPS.		Supply & Work	1.25		
Design, Supply, testing, erection and commissioning of DAVR system at Paithan HPS.				Supply & Work	1.25
Design, supply ,testing ,erection and commissioning of Automated Co2 fire extinguishers system at Paithan HPS.					
Design, supply, testing, erection and commissioning of DCS control system at Paithan HPS.					
Design, Supply, testing, erection and commissioning of DAVR system at Paithan HPS.					

FY:28-29		FY-29-30	
Supply/Work	Amount	Supply/Work	Amount
	in Lac		in Lac
Supply & Work	2.40		
		Supply & Work	1.05
		Supply & Work	1.35
		Juppiy & Work	1.55
	<u> </u>		
	<u> </u>		

Supply & Work	0.35		
Supply & Work	0.93		
		Supply & Work	1.25

			Category I Projects w	hich alread	ly have completed life of 3	5 years &	which will remain with M	ISPGCL		
			<u> </u>		na Generating station Con		hali			
Sr No.	2025-26		2026-27		2027-28		2028-29		2029-30	
	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)
1	Expert/Consultant charges for RLA/LE studies for Stage-III & KDPH (6 units x 2 Cr.)	12	Upgradation of Brake Jack System (Double Acting type) at MM, St-III	2.5	Turbine Runner Unit (4 Nos) at MM, St-III	44	Upgradation of Main Inlet Valves (BFV) at MM, St-III	15	Upgradation of EOT Cranes at MM, St-III	12
2			Upgradation of Lub Oil Coolers at MM, St- III	10	Upgradation of Governing Oil Pumps at MM, St-III	15	Upgradation of Air Compressors at MM, St- III	5	Upgradation of LT supply system at MM, St- III	
3			Upgradation of Generator fire suppression system at MM, St-III	1.5	Upgradation of Lubricating Oil Pumps at MM, St-III	9	Modification of Unit Control boards at Power House , Switchyard and Transformer Yard at TIC Stage-III	5	Upgradation of Excitation System from Semistatic to Static mode at TIC Stage-III	15
4			Design, Supply & commissioning of of PLC & SCADA System (DCS based) for all 04 units at 4X80 MW Units at TIC Stage III Alore.	30	Replacement of Analog instruments to Digital competable to future SCADA system at TIC Stage-III	2	Replacement Isolators , EM-III	6	Replacement 25 MVA Transformers , EM-III	20
5			Design, Supply & commissioning of Auto Synchronizer scheme at TIC Stage	2	Replacement of 220 V & 48 V Battery Systems, EM-III	3	Replacement 245 KV, 110 KV, & 33 KV Breakers , EM-III	25	Replacement 16 MVA Transformers , EM-III	10
6			Replacement Compressed Air System, EM-III	2	Replacement of Ilumninatioin of Yards , EM-III	2	Replacement Lightening Arrestors, EM-III	1	Replacement of 1.5 MVA, 0.5 MVA & 3 MVA Transformer, EM-III	5
7			Replacement Workshop Equipments , EM-III	2	Replacement 11 KV Breakers, EM-III	5	Replacement Wave Trap, Coupling Capacitor & Conductors, EM-III	4	11 KV Auxiliary Supply Lines, EM-III	10

					dy have completed life of 3 rna Generating station Com					
Sr No.	2025-26		2026-27	1109	2027-28	.р.с., г ор.	2028-29		2029-30	
	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)
8			Replacement Air Conditioning Systems, EM-III	12	Replacement Generator Transformers, EM-III	160	Replacement 50 MVA Transformers , EM-III	40	Provision of 11 KV SF6 Synchronization breaker, EM-III	8
9			Replacement EOT Crane , EM-III	2	Intake gate PLC system at KDPH	0.25	Replacement of drainage & dewatering system at KDPH	0.5	Replacement of Unit-1 Generator oil coolers and piping at KDPH	0.6
10			Replacement Power house Winches, EM- III	3	Auto synchronizer at KDPH	0.1	Repairs to Runner, draft tube, D.T. gate, spiral Casing, guide vanes, brake, jacking oil system and dewatering System at KDPH	0.6	Modification of Generator air cooling system of 2nos. of units at KDPH	0.2
11			Modifications of Generator stator insulation from class B to class F insulation at KDPH	30	Upgradation of Ganesh mandir GOD (RAT supply) at KDPH	0.1	Replacement of Pressure oil system Unloaders with its valves at KDPH	0.2	Overhauling of EOT crane at KDPH	0.3
12			Supply of 1 no. of spare generator transformer at KDPH	15	Colony, Navja, powerhouse and S/y streetlighting work at KDPH	0.5	Installations of online vibration monitoring system at KDPH	0.2	Repairs to Penstock and intake gate at KDPH	0.2
13			Overhauling of Generator Transformer (2 nos) at KDPH	1	Fire hydrant system upgardation at P/H, FF Section	2	Replacement of HVWS for trannformer-T/Y, FF Section	6	HVWS at S/yard, FF Section	4
14			Replacement of Field suppression cubical at KDPH	0.3	Fire hydrant system upgardation at T/Y, FF Section	1	Fire hydrant system at S/Yard along with water source, FF Section	3	Fire station along with fire tender, FF Section	5
15			Fire alarm & detetion system at stage III (Adresable), FF Section	5	Replacement of fire pumps at P/H(Disesel-1 and New Electrical) & T/Y(Diesel- 1/Electrical -2), FF Section	2	Co2 flooding system old & needs to be upgaradtion, FF Section	5	Fire station along with fire tender, FF Section	5

			Category I Projects w	hich alread	dy have completed life of 3	5 years &	which will remain with M	ISPGCL		
				Koy	na Generating station Com	ıplex, Popl				
Sr No.	2025-26		2026-27		2027-28		2028-29		2029-30	
	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)
16			Upgradation of MVWS for oil tank in P/H, FF Section	2.5	MVWS for oil tank in P/H, FF Section	3	Garage building Alore at St-III, CIVIL	0.25	Fire hydrant system reapalcement at P/H & S/yard, FF Section	1
17			Co2 flooding system old & needs to be upgaradtion, FF Section	5	Steps/Staircase tiling work at Power House at St- III, CIVIL	0.05	Penstock relaled works at St-III, CIVIL	0.3	Providing industrial tiles at stage III, CIVIL	0.7
18			Fire alarm & detetion system at KDPH, FF Section	4	Painting and repair work of interiors of approach tunnel and area of assembly point in power house and approach gate to approach tunnel gardening and painting at stage - III, CIVIL	0.7	Construction of new building at St-III, CIVIL	8	Providing ACP panelling work at stage III , CIVIL	1.2
19			Sedimention tank, Water tank and allied work - 3 Nos. at St-III, CIVIL	0.35	Celling at S.Y. and T.Y. control room at St-III, CIVIL	0.1	tunnel grouting/guniting work at St-III, CIVIL	0.5	Office renovation work at St-III, CIVIL	0.5
20			Replacement of concrete over/slippers at S.Y. Pedhambe and T.Y. at St-III, CIVIL	0.07	Pipeline from Dam to T.Y. at St-III, CIVIL	0.18	epoxy painting, stage III, CIVIL	0.25	Package shed at stage- III, CIVIL	2
21			Renovation & construction of security chocky at S.Y. Pedhambe and T.Y. at St-III, CIVIL	0.3	Repair & Construction road at Power House Stage III, CIVIL	0.05	New class-III renovation of Garage colony at St- III, CIVIL	0.7	Retaining wall and gutter at T.Y. alore at St- III, CIVIL	0.5
22			Renovation of toilet at Stage- III alore, CIVIL	0.3	Ground preparation along with compound wall at St-III, CIVIL	0.6	Repair of road, gutter at St-III, CIVIL	1.5	chainlink fencing and road at weigh bridge, CIVIL	0.35
23			Painting work at Stage III, T.Y., S.Y. at St-III, CIVIL	0.7	Repair work of steps in colony premises at St-III, CIVIL	0.2	Providing playing equipment at colony at St-III, CIVIL	0.1	Retaining wall and gutter colony, CIVIL	0.8

Category I Projects which already have completed life of 35 years & which will remain with MSPGCL										
Koyna Generating station Complex, Pophali										
Sr No.			2026-27	T	2027-28		2028-29		2029-30	
	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)	Description	Amount (Cr.)
24			Stone metel filling work at T.Y. at St-III, CIVIL	0.35	Repair work of building gates at St-III, CIVIL	0.15	Providing ceiling and paneling at club at St-III, CIVIL	0.2	Painting of all class buildings at colony, CIVIL	3
25			Stone metaling at S.Y. Pedhambe at St-III, CIVIL	2	Culvert, bridges at St-III, CIVIL	6	Garage building at KDPH , CIVIL	0.25	Metal spreading work, CIVIL	0.2
26			Swimming tank at St- III, CIVIL	0.5	Drainage/sewer line system at St-III, CIVIL	6	Penstock relaled works at KDPH , CIVIL	0.25	Providing Ceilling at KDPH, CIVIL	0.65
27			Badminton court with painting at St-III	0.2	Renovation of mechanical Maint. Room at Navaja intake tower, CIVIL	0.05	Epoxy painting work at KDPH , CIVIL	0.2	Office renovation at KDPH, CIVIL	0.25
28			HR account renovation at St-III	0.7	Providing gutter at Navaja intake tower, KDPH, CIVIL	0.25	building & roads at KDPH, CIVIL	0.8		
29			Sr. Bunglow toilet bath kitchen renovation at St-III	0.35	Chummery renovation- Toilet suits at KDPH, CIVIL	0.5				
30			Renovation of Class I Jr Bldg no.9 & 10 at St- III	0.5	Dormetory renovation, CIVIL	0.15				
31			Renovation of Class III toilet bath room at St-III	2.5	Provide RCC cover/sliper at S.Y. KDPH, CIVIL	0.05				
32			External & Internal Painting at KDPH, CIVIL	0.35	Road work colony & Chemmury at KDPH, CIVIL	0.1				
33			Colony area, chemmury area Compound wall & fencing repair work at Stage-III, CIVIL	0.5						
34			Water filter plant at KDPH colony, CIVIL	0.15						

Category I Projects which already have completed life of 35 years & which will remain with MSPGCL										
Koyna Generating station Complex, Pophali										
Sr No.	2025-26 2026-27		2027-28		2028-29		2029-30			
	Description	Amount	Description	Amount	Description	Amount	Description	Amount	Description	Amount
		(Cr.)		(Cr.)		(Cr.)		(Cr.)		(Cr.)
35			Providing & fixing	0.05						
			water tank at KDPH,							
			CIVIL							
36			Providing & fixing	0.05						
			entrace shutter of							
			building at KDPH,							
			CIVIL							
37			Chainlink fencing at	0.75						
			Navaja, KDPH Power							
			House & Switch Yard,							
			CIVIL							
38			Playing equipement	0.08						
			and benches at KDPH							
			colony, CIVIL							
			, <u></u>							
TOTA	Ĺ	12		140.55		264.08		129.8		118.45

Annexure 33

Ash Utilisation - MoEF Notification Dtd. 31.12.2021 & subsequent MoP Advisory Notification Dtd. 22.02.2022.



'F' Wing, Nirman Bhawan, New Delhi, 22ndFebruary, 2022

To,

- i. CMD/MD of coal/lignite based Thermal Power Plants(Central/State/Private)
- ii. Principal Secretary (Power/Energy) of All States/UTs
- iii. Chairperson, Central Electricity Authority,

Sub: Supply of Ash to the prospective user agencies as stipulated in the MoEF&CC Notification dated 31.12.2021 by the power plants to increase Ash utilization generated by Thermal Power Plants (TPPs).

Sir,

Ministry of Environment, Forest & Climate Change in super-session of the erstwhile Ministry of Environment and Forest Notification S.O. 763(E), dated the 14th September 1999 issued under the Environment (Protection) Act, 1986 has now issued a new Notification S.O. 5481(E) dated 31st December, 2021 on ash utilization from coal or lignite based Thermal Power Plants.

- 2. As per the relevant clause B(1) of the said Notification dated 31.12.2021 (**copy attached**), thermal power plants may charge for ash cost and transportation, in case the thermal power plant is able to dispose the ash through other means. The provisions of ash free of cost and free transportation is to be applicable; only if the thermal power plant serves a notice on the construction agencies/mine owner for the same.
- 3. It is pertinent to note that the objective of the Government is to provide **affordable power to consumers**. Any Extra costs without making efforts to monetize disposal of ash by TPPs lead to increase in electricity tariff, which is to be borne by the consumers.
- 4. Ash is emerging as a valuable commodity and so giving it free, and also meeting the transportation costs will **lead to malpractices.** Therefore, providing such a valuable commodity through bidding process would help in providing the cheaper power to the consumers. In order to maintain transparency and to restrict malpractices, competitive bidding process is the most suitable method to determine the rate of supply of goods and services. Therefore, it is necessary to streamline the procedure to dispose off the ash by TPPs in a transparent manner and also to monetize the sale of ash so as to reduce the tariff burden on the consumers.

5. In view of above, all coal/lignite based TPPs are hereby **advised** to provide Ash to the prospective user agencies for all new commitments for supply of Ash as per following guidelines which have been framed in accordance with MoEF&CC Notification dated 31.12.2021:-

Procedure to be followed to dispose of ash:

5.1 The Power plants shall provide ash to user agencies as stipulated in the MoEF&CC Notification dated 31.12.2021 through a transparent bidding process only.

- 5.2 If after bidding/ auction some quantities of ash still remains un-utilized, then only, as one of the options, it could be considered to be given free of cost on first come first serve basis, if the user agency is willing to bear the transportation cost.
- 5.3 If ash remains un-utilized even after the steps taken in paras 5.1 and 5.2 above, TPP shall bear the cost of transportation of ash to be provided free to the eligible projects/mine owners.
- 5.4 Even after steps taken in Paras 5.1 to 5.3 above, if the ash remains un-utilized, TPPs shall serve notice on the construction agencies/mine owners located within 300 kms from TPPs to use ash mandatorily in their projects /filling of mine voids.
- 5.5 The Ash shall be offered to the prospective user agencies as stipulated in the MoEF&CC Notification dated 31.12.2021 on competing demand basis, i.e. user agency who offers the highest price and meets the transportation cost will be offered the ash on priority. This will reduce the tariff of electricity and burden on the consumers. It will also be in accordance with sound vigilance practices.
- 5.6 The power plant may offer Ash subject to their technical restrictions such as precautions required for Dyke stability and safety etc. The power plants having lower Ash utilization shall make all efforts to increase its Ash Utilization.
- 5.7 In case, ash is provided free of cost and free transportation; prospective consumers shall be obliged to source the Ash from the nearest TPPs, to reduce the cost of ash transportation. If the nearest TPP refuses to do so, the prospective consumers shall approach Ministry of Power for appropriate directions.

Procedure to be followed for transportation cost to be borne by TPPs:

5.8 The transportation cost wherever required to be borne by the TPPs, shall be discovered on a competitive bidding process basis only. TPPs shall prepare a panel of transportation agencies every year based on competitive bidding for transportation in slabs of 50 Kms, which may be used for the period. The TPPs shall call for bids well in advance, so that the transportation panel is in place as soon as the previous panel expires. There should be no gap between the expiry of existing panel and the finalization of the fresh panel.

- 5.9 TPPs are advised to invite open bids by keeping a lower bid threshold of minimum 50 tonnes so that even small and medium commercial enterprises can also take part in the bid process.
- 6. The Appropriate Commission shall scrutinize any expenses regarding ash utilization proposed to be passed through in tariff by the Generation Company in accordance with these guidelines to ensure that the least possible burden is passed on to electricity consumers and full transparency is ensured by Generating Company as envisaged in these Guidelines.
- 7. **Applicability of this Advisory**: This advisory may be followed by every coal or lignite based TPP (i.e including captive or co-generating stations or both), mentioned at para A(1) of the MOEF&CC notification dated 31.12.2021. Further, it is clarified that above guidelines apply **prospectively**. TPPs are **advised** to honour their existing commitments of selling/transportation of fly ash on the basis of rates arrived through a transparent competitive bidding/ State Schedule of rates only, till the expiry of their existing commitment. For the remaining quantity and new commitments, both fly ash and pond ash shall invariably be disposed off through a transparent bid process.
- 8. This letter supersedes the earlier letters issued in this regard vide File No 9/7/2011-S.Th (Vol. IV) dated 22.09.2021 and File No 9/7/2011-S.Th(Vol. IV) dated 08.11.2021.
- 9. All concerned are requested to take necessary action in this regard.
- 10. This issues with the approval of Hon'ble Minister for Power, New & Renewable Energy.

£; '

Enclosed: As above

Deputy Secretary to the Govt. of India

Tel: 2371 4367

Copy to:

- i. Secretary (MoEF&CC), Government of India
- ii. Secretary (MoRTH), Government of India
- iii. Secretary (MoHUA), Government of India
- iv. All Chief Secretaries of States/ Union Territories
- v. Secretary, CERC
- vi. Secretaries of all SERCs/JERCs

Copy for kind information to:

PS to MoP& NRE, PS to MoSP, Sr PPS to Secretary (Power), All Additional Secretaries/Joint Secretaries/E.^A/CE(Thermal), Directors/DS, MoP

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99



सी.जी.-डी.एल.-अ.-01012022-232336 CG-DL-E-01012022-232336

असाधारण EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं. 5075] No. 5075] नई दिल्ली, शुक्रवार, दिसम्बर 31, 2021/पौष 10, 1943 NEW DELHI, FRIDAY, DECEMBER 31, 2021/PAUSHA 10, 1943

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 31 दिसम्बर, 2021

का.आ. 5481(अ).—केन्द्रीय सरकार ने भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से तीन सौ किलोमीटर के विनिर्दिष्ट व्यास के भीतर ईंटों के विनिर्माण के लिए उपजाऊ मिट्टी के उत्खनन को प्रतिबंधित करने के लिए और भवन निर्माण सामग्री के विनिर्माण में और संनिर्माण क्रियाकलाप में फ्लाई-राख के उपयोग को बढ़ावा देने के लिए निदेश जारी किए हैं:

और, प्रदूषणकर्ता भुगतान सिद्धांत (पीपीपी) के आधार पर, ऐसा करके कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा फ्लाई-राख का 100 प्रतिशत उपयोग सुनिश्चित करते हुए और फ्लाई-राख प्रबंधन प्रणाली की संधारणीयता के लिए पूर्वोक्त अधिसूचना को और अधिक प्रभावकारी ढंग से कार्यान्वित करने हेतु, केंद्रीय सरकार ने मौजूदा अधिसूचना की समीक्षा की;

और प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर पर्यावरणीय प्रतिकर निर्धारित किए जाने की आवश्यकता है;

और, विनिर्माण को बढ़ावा देकर तथा निर्माण कार्य के क्षेत्र में राख आधारित उत्पादों तथा भवन निर्माण सामग्रियों के प्रयोग को अनिवार्य करके उपजाऊ मिट्टी को संरक्षित करने की आवश्यकता है;

7703 GI/2021 (1)

1362

और, सड़क बनाने, सड़क एवं फ्लाई ओवर के रेलिंग बनाने, तटरेखा की सुरक्षा का उपाय करने, अनुमोदित परियोजनाओं के निचले क्षेत्रों को भरने, खनित स्थलों को फिर से भरने में मिट्टी की सामग्रियों से भरने के विकल्प के रूप में राख उपयोग को बढ़ावा देकर उपजाऊ मिट्टी और प्राकृतिक संसाधनों को संरक्षित करने की आवश्यकता है;

और, पर्यावरण को सुरक्षित करना तथा कोयला अथवा लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई राख के निक्षेपण तथा निपटान की रोकथाम करना आवश्यक है:

और, उक्त अधिसूचना में जो 'राख' शब्द का प्रयोग किया गया है उसमें कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई-राख और बॉटम-राख दोनों शामिल हैं;

और, केंद्रीय सरकार प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर, पर्यावरणीय प्रतिकर की प्रणाली सहित राख के उपयोग के लिए एक व्यापक ढांचा लाना चाहती है:

अत: पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के पर्यावरण एवं वन मंत्रालय की अधिसूचना जो का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा भारत के राजपत्र, असाधारण भाग ।।, खंड 3, उप खंड (i) में प्रकाशित का अधिक्रमण करते हुए, कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्रों द्वारा राख के उपयोग के संबंध में प्रारूप अधिसूचना जो सा.का.नि. 285 (अ) तारीख 22 अप्रैल, 2021 द्वारा भारत के राजपत्र, असाधारण, भाग-2, धारा 3, उप धारा (i) में प्रकाशित की गई थी जिसमें उन सभी व्यक्तियों से जिनका इससे प्रभावित होना सामान्य है उस तारीख से, जिसको उक्त प्रारूप उपबंधों की शासकीय राजपत्र में अंतर्विष्ट प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिनों के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे।

और उक्त प्रारूप अधिसूचना के संबंध में उससे संभावित तौर पर प्रभावित होने वाले सभी व्यक्तियों से प्राप्त आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा सम्यक रूप से विचार कर लिया गया है;

अत: पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और अधिसूचना का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 का उन बातों के सिवाय अधिकांत करते हुए जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने का लोप किया गया है, केन्द्रीय सरकार कोयलों या लिग्नाईट आधारित ताप विद्युत संयंत्रों से राख के उपयोग के संबंध में निम्नलिखित अधिसूचना जारी करती है, जो इस अधिसूचना के प्रकाशन की तिथि से प्रवृत्त होगी, अर्थात्

क. फ्लाई-राख और बॉटम-राख का निपटान करने हेतु ताप विद्युत संयंत्रों (टीपीपी) के उत्तरदायित्व.-

- (1) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र (जिनमें कैप्टिव और/या सह-उत्पादन केंद्र शामिल हैं या दोनों) की यह प्राथमिक जिम्मेदारी होगी कि वह अपने द्वारा सृजित राख (फ्लाई-राख और बॉटम-राख) का उप पैरा (2) में दिए गए पारि-अनुकुल तरीके से 100 प्रतिशत उपयोग सुनिश्चित करे;
- (2) कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित राख का उपयोग केवल निम्नलिखित पारि-अनुकूल प्रयोजनों के लिए किया जाएगा, अर्थात्:-
 - (i) फ्लाई राख पर आधारित उत्पाद अर्थात्: ईंट ब्लॉक टाइल, फाइबर सीमेंट शीट, पाइप, बोर्ड, पैनल का विनिर्माण;
 - (ii) सीमेंट विनिर्माण, रेडी-मिक्स कंक्रीट;

- (iii) सड़क निर्माण और फ्लाई-ओवर के रेलिंग का निर्माण, राख और जिओ-पॉलीमर आधारित निर्माण सामग्री;
- (iv) बांध का निर्माण;
- (v) निचले क्षेत्र को भरना:
- (vi) खनन कार्य से रिक्त हुए स्थान को भरना;
- (vii) सिंटर्ड या शीत-बद्ध राख संचय का विनिर्माण;
- (viii) मृदा परीक्षण के आधार पर नियंत्रित तरीके से कृषि;
- (ix) तटीय जिलों में तटरेखा संरक्षण संरचनाओं का निर्माण;
- (x) अन्य देशों को राख का निर्यात;
- (xi) समय-समय पर यथाधिसूचित किसी अन्य पारि-अनुकूल प्रयोजन के लिए।
- (3) अध्यक्ष, केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति गठित की जाएगी जिसमें पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी), विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय, कृषि अनुसंधान एवं शिक्षा विभाग, सड़क कांग्रेस संस्थान तथा राष्ट्रीय सीमेंट एवं भवन सामग्री परिषद के प्रतिनिधियों को सदस्यों के रूप में शामिल किया जाएगा, जिसका प्रयोजन राख के उपयोग के पारि-अनुकूल तौर-तरीकों की जांच करना, उनकी समीक्षा एवं अनुशंसा करना तथा प्रौद्योगिकीय विकासों तथा पणधारी से प्राप्त अनुरोधों के आधार पर उप-पैरा (2) में यथोल्लिखित ऐसे तौर-तरीकों की सूची में समिति द्वारा सुझाए गए तौर-तरीकों को शामिल करना या किसी तौर-तरीके को सूची से हटाना या उसमें संशोधन करना है। जब भी इस प्रयोजन के लिए अपेक्षित हो, यह समिति राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति, ताप विद्युत संयंत्र और खानों के प्रचालकों को आमंत्रित कर सकती है। इस समिति सिफारिश के आधार पर, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ऐसे पारि-अनुकूल प्रयोजन प्रकाशित करेगा।
- (4) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र उस वर्ष के दौरान सृजित राख (फ्लाई-राख और बॉटम-राख) का 100 प्रतिशत उपयोग करने हेतु उत्तरदायी होगा; तथापि, किसी भी स्थिति में, किसी वर्ष में राख का उपयोग 80 प्रतिशत से नीचे नहीं होगा और साथ ही, उस ताप विद्युत संयंत्र को तीन वर्ष की अविध में 100 प्रतिशत औसत राख के उपयोग का लक्ष्य प्राप्त करना होगा:

परंतु, यह और कि पहली बार के लिए लागू तीन वर्ष के चक्र को ऐसे ताप विद्युत संयंत्रों, जहां राख का उपयोग 60-80 प्रतिशत के बीच होता है, एक वर्ष के लिए और ऐसे संयंत्रों, जहां राख का उपयोग 60 प्रतिशत से कम है, दो वर्ष के लिए बढ़ाया जा सकता है, और राख के उपयोग की प्रतिशतता की गणना के प्रयोजन के लिए वर्ष 2021-2022 में उपयोग की प्रतिशत प्रमात्रा को नीचे दी गई तालिका के अनुसार ध्यान में रखा जाएगा:

तापीय विद्युत संयंत्रों के उपयोग की प्रतिशतता	100 प्रतिशत उपयोगिता प्राप्त करने के लिए प्रथम अनुपालन चक्र	100 प्रतिशत उपयोगिता प्राप्त करने के लिए द्वितीय अनुपालन चक्र		
>80 प्रतिशत	3 वर्ष	3 वर्ष		
60-80 प्रतिशत	4 वर्ष	3 वर्ष		
<60 प्रतिशत	5 वर्ष	3 वर्ष		

परन्तु, ताप विद्युत संयंत्रों के लिए 80 प्रतिशत न्यूनतम उपयोग प्रतिशतता, क्रमश: 60-80 प्रतिशत और <60 प्रतिशत की उपयोगिता की श्रेणी के तहत आने वाले ताप विद्युत संयंत्रों के लिए प्रथम अनुपालन चक्र के पहले वर्ष और पहले दो वर्षों पर लागू नहीं होगी।

परन्तु, अनुपालन चक्र के अंतिम वर्ष में सृजित 20 प्रतिशत राख को अगले चक्र में भी ले जाया जाएगा जिसका उपयोग उस अनुपालन चक्र के दौरान सृजित राख के साथ अगले तीन वर्षों में किया जाएगा।

(5) अप्रयुक्त संचित राख अर्थात् लीगेसी राख, जिसका इस अधिसूचना के प्रकाशन से पहले भंडारण किया गया है, को ताप विद्युत संयंत्र (टीपीपी) द्वारा इस रीति से क्रमिक रूप से उपयोग में लाया जाएगा, कि लीगेसी राख को इस अधिसूचना के प्रकाशन की तिथि से दस वर्षों के भीतर पूरी तरह उपयोग कर लिया जाएगा और यह उस विशिष्ट वर्ष के चालू संचालनों के माध्यम से राख उत्सर्जन के लिए निर्धारित उपयोग लक्ष्यों से अतिरिक्त होगा।

परन्तु, निम्नलिखित प्रतिशतताओं में यथा उल्लिखित लीगेसी राख की न्यूनतम मात्रा का उपयोग तास्थानी वर्ष के दौरान कर लिया जाएगा और लीगेसी राख की न्यूनतम मात्रा की ताप विद्युत संयंत्र की संस्थापित क्षमता के अनुसार वार्षिक राख उत्सर्जन के आधार पर की जानी है।

प्रकाशन की तिथि से वर्ष	पहला	दूसरा	तीसरा-दसवां
लीगेसी राख का उपयोग	कम से कम 20	कम से कम 35	कम से कम 50 प्रतिशत
(वार्षिक राख की प्रतिशतता)	प्रतिशत	प्रतिशत	

परन्तु, यह और कि लीगेसी राख का उपयोग वहां अपेक्षित नहीं है, जहां राख के तालाब या डाइक स्थिर हो गए हैं और हरित पट्टी के निर्माण या पौध रोपण से पुनरूद्धार किया गया है और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड इस संबंध में प्रमाणित करेगा। किसी राख तालाब या डाइक के स्थिरीकरण और भूमि-उद्धार का कार्य, जिसमें केन्द्रीय प्रदूषण नियंत्रण बोर्ड या राज्य प्रदूषण नियंत्रण बोर्ड द्वारा प्रमाणन शामिल है, इस अधिसूचना के प्रकाशन की तारीख से एक वर्ष के भीतर किया जाएगा। अन्य सभी राख के कुंड या डाइक में शेष बचे राख का उपयोग ऊपर उल्लिखित समय-सीमाओं के अनुसार क्रमिक रूप से किया जाएगा।

टिप्पण: राख के उपयोग के लक्ष्यों को हासिल करने के लिए उप पैरा (4) और (5) के अधीन दायित्व 01 अप्रैल, 2022 की तारीख से लागू होंगे।

- (6) किसी भी नए तापीय विद्युत संयंत्र (टीपीपी) में 0.1 हेक्टेयर प्रित मेगावाट (एमडब्ल्यू) क्षेत्रफल के साथ आपातकालीन या अस्थायी राख कुंड की अनुमित दी जा सकती है। राख के तालाब या डाइकों का तकनीकी विनिदेश, केन्द्रीय विद्युत प्राधिकरण (सीईए) के परामर्श से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा बनाए गए दिशानिर्देशों के अनुसार होगा और ये दिशानिर्देश राख के कुंड या डाइक के संबंध में इसकी सुरक्षा, पर्यावरणीय प्रदूषण, उपलब्ध प्रमात्रा, निपटान का तरीका, निपटान में जल की खपत या संरक्षण, राख जल पुनर्चक्रण और ग्रीन बेल्ट आदि के वार्षिक प्रमाणन के लिए कार्यविधि भी निर्धारित करेंगे और इस अधिसूचना के प्रकाशन की तारीख से तीन महीनों के भीतर प्रस्तुत किए जाएंगे।
- (7) प्रत्येक कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्र यह सुनिश्चित करेगा कि राख की लदाई, उतराई, ढुलाई, भंडारण और निपटान पर्यावरणीय दृष्टि से अनुकूल रीति से किया गया है और वायु और जल प्रदूषण की रोकथाम के लिए सभी ऐहितयात किए गए हैं और इस संबंध में स्थिति की सूचना इस अधिसूचना में संलग्न अनुबंध में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को दी जाएगी।
- (8) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, संस्थापित क्षमता पर आधारित राख के कम से कम 16 घंटों के भंडारण के लिए समर्पित शुष्क फ्लाई राख साइलोस प्रतिष्ठापित करेगा, जिनके पास पृथक पहुंच मार्ग होंगे, जिससे कि राख पहुंचाने के कार्य को सुगम बनाया जा सके। इसकी सूचना संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को उपाबंध में दी जाएगी और केन्द्रीय प्रदूषण नियंत्रण

बोर्ड (सीपीसीबी) या राज्य केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति द्वारा समय-समय पर निरीक्षण किया जाएगा।

- (9) प्रत्येक कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैप्टिव या सह उत्पादन केन्द्र भी है या दोनों), वास्तविक उपयोगकर्ता (उपयोगकर्ताओं) के हित के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड के वेब पोर्टल या मोबाईल फोन एप्प का लिंक उपलब्ध कराकर ताप विद्युत संयंत्र के पास राख की उपलब्धता के वास्तविक आंकड़े प्रदान करेगा।
- (10) राख के 100 प्रतिशत उपयोग का वैधानिक दायित्व, जहां भी लागू हो, विधि में बदलाव के रूप में माना जाएगा।
- ख. राख के उपयोग के प्रयोजनार्थ, उत्तरवर्ती उप पैराग्राफ लागू होंगे .-
- (1) ऐसे सभी अभिकरण (सरकारी, अर्द्धसरकारी और निजी), जो सड़क बिछाने, सड़क और फ्लाई ओवर के किनारों, तटीय जिलों में तटरेखा की सुरक्षा संरचनाओं और लिग्नाईट या कोयला आधारित ताप विद्युत संयंत्र से 300 किमी के भीतर बांधों जैसे निर्माण संबंधी कार्यकलापों में लगे हुए हैं, इन कार्यकलापों में अनिवार्य रूप से राख का उपयोग करेंगे:

परंतु इसको परियोजना स्थल पर निशुल्क पहुंचाया जाए और परिवहन लागत, ऐसे कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्रों द्वारा वहन की जाए।

परंतु यह और कि ताप विद्युत संयंत्र पारस्परिक सहमत हुई शर्तों के अनुसार राख की लागत और परिवहन के लिए शुल्क ले सकता है उस मामले में जहां ताप विद्युत संयंत्र अन्य माध्यम से राख का निपटान करने में समर्थ है और ये अभिकरण इसके लिए प्रर्थाना कर सकते हैं और बिना लागत और बिना परिवहन शुल्क के राख उपलब्ध कराने के प्रावधान तभी लागू होंगे यदि उसके लिए ताप विद्युत संयंत्र उस निर्माण अभिकरण को नोटिस जारी करता है।

- (2) उक्त कार्यकलापों में राख का उपयोग भारतीय मानक ब्यूरो, भारतीय रोड कांग्रेस, केन्द्रीय भवन अनुसंधान संस्थान, रूड़की, केन्द्रीय सड़क अनुसंधान संस्थान, दिल्ली, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभागों और अन्य केन्द्रीय और राज्य सरकार के अभिकरणों द्वारा निर्धारित किए गए विनिर्देशों और दिशानिर्देशों के अनुसार किया जाएगा।
- (3) तापीय विद्युत संयंत्र की 300 किलोमीटर की परिधि के भीतर अवस्थित सभी खानों के लिए विस्तारित उत्पादक उत्तरदायित्व (ईपीआर) के तहत खुली आवर्त खानों में राख का पृष्ठ भंडारण करना या अधिक भार के ढेरों के साथ राख का मिश्रण करना बाध्यकारी होगा। सभी खान के स्वामी या प्रचालक (चाहे सरकारी, सार्वजनिक और निजी क्षेत्र के हो) कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्रों से तीन सौ किलोमीटर (सड़क द्वारा) के भीतर, महानिदेशक, खान सुरक्षा (डीजीएमएस) के दिशानिर्देशों के अनुसार ओवर बर्डन के बाह्य निक्षेप खान की बैकिफिलिंग अथवा स्टोविंग (प्रचालित या छोड़ी गई खानों, जैसा भी मामला हो) के लिए उपयोग की गई सामग्रियों के भार-दर-भार के आधार पर कम से कम 25 प्रतिशत राख को मिश्रित करने के लिए उपाय करेंगे:

परंतु ऐसे तापीय विद्युत केन्द्र नि:शुल्क राख प्रदान करके और परिवहन की लागत को वहन करके या पारस्परिक सहमत हुई शतेों पर लिए गए निर्णय के अनुसार लागत या परिवहन व्यवस्था करके राख की अपेक्षित मात्रा की उपलब्धता को सुकर बनायेंगे और खानों के खाली स्थानों और ढेरो में अधिकभार के साथ राख को मिश्रित करना, सृजित अधिभार के लिए इस अधिसूचना के प्रकाशन की तिथि से लागू होगा और उक्त कार्यकलापों में राख का उपयोग, केंद्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक खान सुरक्षा और भारतीय खदान ब्यूरो द्वारा निर्धारित दिशानिर्देशों के अनुसार किया जाएगा।

स्पष्टीकरण .- इस उप-पैरा के प्रयोजन के लिए यह भी स्पष्ट किया जाता है कि लागत मुक्त राख और नि:शुल्क परिवहन के उपबंध केवल तभी लागू होंगे यदि ताप विद्युत संयंत्र इसके लिए खान मालिक को नोटिस देते हैं और अधिभार वाले ढेर के साथ मिश्रित करने और खान में खाली स्थान को भरने के लिए राख के 25 प्रतिशत हिस्से के उपयोग का अधिदेश तब तक लागू नहीं होगा जब तक कि ताप विद्युत संयंत्र द्वारा खान मालिक को नोटिस न दिया गया हो।

- (5) (i) सभी खान मालिकों को खान में खाली स्थानों में राख को समायोजित करने के लिए खान बंद योजना (प्रगामी और अंतिम) तैयार करनी होगी और खान में खाली स्थान में राख के निपटान और अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खान योजनाओं को संबंधित प्राधिकारी अनुमोदित करेगा। पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा ताप विद्युत संयंत्रों और कोयला खदानों की पर्यावरणीय मंजूरी की अपेक्षा से छूट देने के साथ-साथ ऐसे निपटान के लिए अपनाए जाने वाले दिशानिर्देशों के संबंध में तारीख 28 अगस्त, 2019 को दिशानिर्देश जारी किए गए।
 - (ii) मंत्रालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक, खान सुरक्षा (डीजीएमएस) और भारतीय खान ब्यूरो (आईबीएम) के साथ परामर्श करके, खानों में खाली स्थानों में राख के निपटान करने तथा अधिभार वाले ढेरो में इसे मिश्रित करना सुगम बनाने के लिए समय-समय पर आगे भी दिशानिर्देश जारी कर सकता है और यह खान मालिकों की जिम्मेदारी होगी कि वे ऐसी खानों को अभिज्ञात करने की तिथि से एक वर्ष के भीतर विभिन्न विनियामक प्राधिकरणों द्वारा जारी की गई अनुमतियों में आवश्यक संशोधन या परिवर्तन प्राप्त करेंगे।
- (6) (i) पर्यावरणीय प्रदूषण के संदर्भ में सुरक्षा, व्यवहार्यता (आर्थिक व्यवहार्यता नहीं) और पहलुओं की जांच सिहत राख से खान में खाली स्थान को वापस भरने/अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खानों की पहचान करने के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, महानिदेशक खान सुरक्षा और भारतीय खान ब्यूरो से प्रतिनिधियों को शामिल करते हुए अध्यक्ष, केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक सिमित का गठन किया जाएगा और यह सिमित पणधारी मंत्रालयों या विभागों के लिए अभिज्ञात खानों (भूमिगत और खुली, दोनों) के संबंध में तैयार की गई तिमाही रिपोर्टों को अद्यतन करेगी और यह सिमिति, इस अधिसूचना के प्रकाशन के तुरंत पश्चात उपयुक्त खानों की पहचान करना आरंभ करेगी।
 - (ii) ताप विद्युत संयंत्र या खानें, उपरोक्त अनुसार अधिदेशित उपयोग लक्ष्यों को पूरा करने के लिए उपर्युक्त समिति द्वारा पहचान किए जाने तक राख के निपटान हेतु प्रतीक्षा नहीं करेंगी।
- (7) राख से निचले क्षेत्र को भरने का कार्य, अनुमोदित परियोजनाओं के लिए राज्य प्रदूषण नियंत्रण बोर्ड की पूर्व अनुमित से और केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा और राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा अनुमोदित स्थलों, अवस्थान, क्षेत्र और अनुमत मात्रा को अपनी वेबसाइट पर प्रतिवर्ष प्रकाशित किया जाएगा।
- (8) केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संगत पणधारी के साथ मिलकर, राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा अनुमित प्रदान करने के लिए समयबद्ध ऑनलाइन आवेदन प्रक्रिया प्रस्तुत करने के साथ-साथ इस अधिसूचना के अधीन परिकल्पित सभी प्रकार के कार्यकलापों के लिए एक वर्ष के भीतर दिशानिर्देश प्रस्तुत करेगा।
- (9) कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र से तीन सौ किलोमीटर के दायरे में स्थित सभी भवन निर्माण परियोजनाएं (केंद्रीय, राज्य और स्थानीय प्राथिकरणों सरकारी उपक्रमों, अन्य सरकारी अभिकरणों तथा सभी निजी अभिकरणों) राख की ईटों, टाईल्स, धातुमल राख अथवा अन्य राख आधारित उत्पादों का उपयोग करेंगी बशर्ते कि वे वैकल्पिक उत्पादों की कीमत से अधिक कीमत पर उपलब्ध न हो।
- (10) राख आधारित उत्पादों के विनिर्माण और ऐसे उत्पादों में राख के उपयोग में भारतीय मानक ब्यूरो, भारतीय सड़क कांग्रेस और केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित विनिर्देशों और दिशानिर्देशों की अनुपालना होगी।
- ग. गैर-अनुपालन के लिए पर्यावरणीय प्रतिकर .-
- (1) तीन वर्ष के चक्र के प्रथम दो वर्षों में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव और/ या सह-उत्पादक स्टेशनों या दोनों सहित) ने कम-से-कम 80 प्रतिशत राख (फ्लाई-राख और बॉटम-राख) उपयोग नहीं की है तो ऐसे गैर-अनुपालन ताप विद्युत संयंत्रों पर प्रस्तुत की गई वार्षिक रिपोर्टों के आधार पर वित्तीय वर्ष के

अंत में अप्रयुक्त राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि यह तीन वर्ष के चक्र के तीसरे वर्ष में 100 प्रतिशत राख का उपयोग करने में असमर्थ रहता है, तो वह अप्रयुक्त मात्रा पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर के भुगतान का पात्र होगा, जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगायी गयी है।

परंतु पर्यावरणीय प्रतिकर को पैरा क के उप-पैरा (4) में उल्लिखित विभिन्न उपयोगी श्रेणियों के अनुसार प्रथम अनुपालन चक्र के अंतिम वर्ष के अंत में अनुमान लगाया जाएगा और अधिरोपित किया जाएगा।

- (2) अधिकारियों द्वारा एकत्रित पर्यावरणीय प्रतिकर को केन्द्रीय प्रदूषण नियंत्रण बोर्ड के निर्दिष्ट खाते में जमा किया जाएगा।
- (3) लैगेसी राख के मामले में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव या सह-उत्पादक स्टेशनों या दोनों सिहत) ने स्थापित क्षमता पर आधारित उत्पन्न राख का कम-से-कम 20 प्रतिशत (प्रथम वर्ष के लिए), 35 प्रतिशत (द्वितीय वर्ष के लिए), 50 प्रतिशत (तीसरे से दसवें वर्ष तक) उपयोग के बराबर लक्ष्य प्राप्त नहीं किया है तो उस वित्तीय वर्ष के दौरान अप्रयुक्त लैगेसी राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि 10 वर्ष के अंत में लैगेसी राख का उपयोग नहीं किया जाता है तो 1000 रुपए प्रति टन की दर से शेष अप्रयुक्त मात्रा पर पर्यावरणीय प्रतिकर लगाया जाएगा जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगाया गया है।
- (4) अधिकृत खरीददारों या उपभोक्ता अभिकरणों तक राख भेजने की जिम्मेदारी परिवाहकों या वाहन मालिक की जिम्मेदारी है और यदि इसका अनुपालन नहीं किया जाता है, तो अनिधकृत उपयोगकर्ताओं अथवा गैर-अधिकृत उपयोगर्ताओं को ऐसी मात्रा गलत तरीके से वितरित करने पर 1500 रूपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगायी, इसके अतिरिक्त राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा गैर अनुपालनकर्ता परिवाहकों पर अभियोजन लागू होगा।
- (5) इस अधिसूचना के पैरा ख में विहित पर्यावरण अनुकूल तरीके में राख के उपयोग की जिम्मेदारी खरीददार या उपभोगकर्ता एजेंसियों की है और ऐसा नहीं करने पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा 1500 रूपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा।
- (6) यदि उपयोगकर्ता अधिकरण पैरा ख के अधीन निर्धारित सीमा तक अथवा पैरा घ के उप-पैरा (1) के अधीन, दिए गए नोटिस के माध्यम से सूचित की गई सीमा, इनमें से जो भी कम हो, तक राख का उपयोग नहीं करती है, वे अतिरिक्त राख की मात्रा का 1500 रूपए प्रति टन की दर से भुगतान करने के लिए उत्तरदायी होंगी। परंतु भवन निर्माण के संबंध में पर्यावरणीय प्रतिकर निर्मित क्षेत्र के 75 रूपये प्रति वर्ग फीट की दर से वसूल किया जाएगा।
- (7) (i) ताप विद्युत संयंत्रों अन्य बकायादारों से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा लगायी गई का पर्यावरणीय प्रतिकर उपयोग अप्रयुक्त राख के सुरक्षित निपटान हेतु किया जाएगा और राख आधारित उत्पादों सहित राख के उपयोग के संबंध में और अधिक अनुसंधान करने के लिए भी निधि का उपयोग किया जा सकता है।
 - (ii) अप्रयुक्त मात्रा पर लगाए गए पर्यावरणीय प्रतिकर के पश्चात भी राख के उपयोग का उत्तरदायित्व ताप विद्युत संयंत्रों की होगी और यदि पश्चातवती चक्रों में पर्यावरणीय प्रतिकर लगाने के पश्चात ताप विद्युत संयंत्र, किसी विशेष चक्र की राख के उपयोग के लक्ष्य को प्राप्त करता है तो अगले चक्र के दौरान अप्रयुक्त मात्रा पर एकत्र की गई पर्यावरणीय प्रतिकर में 10 प्रतिशत कटौती के पश्चात उक्त रकम ताप विद्युत संयंत्र को वापस कर दी जाएगी और पश्चातवती चक्रों में राख के उपयोग के मामले में एकत्र की गई पर्यावरणीय प्रतिकर की 20 प्रतिशत, 30 प्रतिशत और उसी क्रम में कटौती की जानी है।

घ. राख या राख आधारित उत्पादों की आपूर्ति हेतु प्रक्रिया ._

- (1) ताप विद्युत संयंत्रों के स्वामी अथवा राख की ईटों या टाईल्स या धातुमल आधारित राख के विनिर्माता उन व्यक्तियों या अभिकरणों को लिखित सूचना देंगे जो बिक्री या परिवहन या दोनों के लिए प्रस्तुत राख या राख आधारित उत्पादों के उपयोग के लिए उत्तरदायी हैं।
- (2) ऐसे व्यक्ति या उपयोगकर्ता अभिकरणों जिन्हें ताप विद्युत संयंत्रों के स्वामी द्वारा या राख की ईंटों या टाईल्स या धातुमल आधारित राख के उत्पादकों द्वारा सूचना दी गई है, यदि वे पहले ही राख या राख उत्पादों के उपयोग के प्रयोजन से अन्य अभिकरणों के साथ जुड़े हुए हैं, यदि वे किसी भी राख/राख उत्पादों का उपयोग नहीं कर सकते हैं अथवा कम मात्रा का उपयोग कर सकते हैं, तदनुसार ताप विद्युत संयंत्र को सूचित करेंगे।

ड. प्रवर्तन, निगरानी, लेखा परीक्षा और प्रतिवेदन करना

- (1) केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी), उपबंधों के अनुपालना सुनिश्चित करने के लिए प्रवर्तन और निगरानी प्राधिकरण होंगे। सीपीसीबी या एसपीसीबी या पीसीसी तिमाही आधार पर राख के उपयोग की निगरानी करेंगे और सीपीसीबी इस प्रयोजन के लिए अधिसूचना की प्रकाशन की तारीख से छ: माह के भीतर एक पोर्टल विकसित करेगा। संबंधित जिला अधिकारी के पास इस अधिसूचना के उपबंधों को लागू करने और निगरानी करने के लिए समवर्ती अधिकारिता होगी।
- (2) (i) ताप विद्युत संयंत्र, राख उत्सर्जन और उपयोग से संबंधित मासिक सूचना वेब पोर्टल पर अगले महीने की 5 तारीख तक अपलोड करेगा। कोयला या लिग्नाइट आधारित ताप ऊर्जा संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति (पीसीसी), केंद्रीय विद्युत प्राधिकरण (सीईए) और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के संबंधित एकीकृत क्षेत्रीय कार्यालयों को इस अधिसूचना के उपबंधों के अनुपालन संबंधी सूचना उपलब्ध कराते हुए वार्षिक कार्यान्वयन रिपोर्ट प्रत्येक वर्ष (1 अप्रैल से 31 मार्च तक की अविध के लिए) अप्रैल माह के 30वें दिन तक प्रस्तुत की जाएगी। सीपीसीबी और सीईए द्वारा सभी ताप विद्युत संयंत्रों द्वारा प्रस्तुत वार्षिक रिपोर्टों का समेकन किया जाएगा और उसे पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को 31 मई तक प्रस्तुत किया जाएगा।
 - (ii) सभी अन्य उपयोगकर्ता अधिकरण पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय या राज्य स्तरीय पर्यावरण प्रभाव आकलन प्राधिकरण (एसईआईएए) द्वारा जारी पर्यावरणीय मंजूरी (ईसी) अथवा राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा जारी संचालन की सहमति (सीटीओ), जो भी लागू हो, की अनुपालना रिपोर्ट में इस अधिसूचना में आज्ञापकता के अनुसार राख के उपभोग या उपयोग या निस्तारण तथा राख आधारित उत्पादों के उपयोग संबंधी सूचना प्रस्तुत करेंगे। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) या राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) अधिसूचना के उपबंधों के प्रभावी कार्यान्वयन की समीक्षा करने हेतु ताप विद्युत संयंत्रों के अतिरिक्त अन्य सभी अधिकरणों की राख उपयोग की वार्षिक रिपोर्ट प्रकाशित करेंगे।
- (3) इस अधिसूचना के उपबंधों की निगरानी और कार्यान्वयन के प्रयोजन के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक सिमित का गठन किया जाएगा जिसके सदस्य विद्युत मंत्रालय, कोयला मंत्रालय, खनन मंत्रालय, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय और भारी उद्यम विभाग से होने के साथ-साथ सिमित के अध्यक्ष द्वारा नामित किए जाने वाले कोई संबंधित पणधारी होंगे। यह सिमित संगत पणधारी को आमंत्रित कर सकती है। यह सिमित इस अधिसूचना के उपबंधों के प्रभावी और दक्ष कार्यान्वयन के लिए सिफारिशें कर सकती है। यह सिमित छ: माह में कम से कम एक बार एक बैठक करेगी और वार्षिक कार्यान्वयन रिपोर्टों की सिमीक्षा करेगी और यह सिमित, इस अधिसूचना द्वारा आजापक किए गए अनुसार छ: महीनों में कम से कम एक बार संगत पणधारी (को) को आमंत्रित करके राख के उपयोग की निगरानी करने के लिए पणधारी से साथ परामर्शदात्री बैठकें आयोजित करेगी। यह सिमिति पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी) को छ: मासिक रिपोर्ट प्रस्तुत करेगी।

- (4) ताप विद्युत संयंत्रों और राख के उपयोगकर्ताओं या राख आधारित उत्पादों के विनिर्माताओं के बीच के विवाद का समाधान करने के प्रयोजन से राज्य सरकारें या संघ राज्यक्षेत्र की सरकारें इस अधिसूचना के प्रकाशन की तारीख से तीन माह के भीतर राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) की अध्यक्षता में एक समिति का गठन करेंगी जिसमें विद्युत विभाग के प्रतिनिधि और एक प्रतिनिधि उस विभाग का होगा. जो विवाद वाले संबंधित अभिकरण का कार्य देख रहे हैं।
- (5) केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा प्राधिकृत लेखा परीक्षकों द्वारा ताप विद्युत संयंत्रों और उपयोगकर्ता अभिकरणों द्वारा किए गए राख के निपटान की अनुपालन लेखा परीक्षा संचालित की जाएगी और लेखा परीक्षा की रिपोर्ट प्रत्येक वर्ष 30 नवम्बर तक केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को प्रस्तुत की जाएगी। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) लेखा परीक्षा की रिपोर्ट प्राप्त होने के पंद्रह दिनों के भीतर अनुपालन न करने वाले ताप विद्युत संयंत्रों के विरूद्ध कार्रवाई प्रारंभ करेगें।

[फा. सं. एचएसएम-9/1/2019-एचएसएम] नरेश पाल गंगवार, संयुक्त सचिव

उपाबंध

31 मई तक अथवा उससे पहले प्रस्तुत की जाने वाली राख संबंधी उपबंधों की अनुपालन रिपोर्ट (01 अप्रैल से 31 मार्च की अवधि के लिए)।

क्र.सं.	ब्यौरा	
1.	विद्युत संयंत्र का नाम	
2.	कंपनी का नाम	
3.	जिला	
4.	राज्य	
5.	पत्राचार के लिए डाक का पता :	
6.	ई-मेल :	
7.	विद्युत संयंत्र की संस्थापित क्षमता (मेगा वॉट) :	
8.	संयंत्र लोड फैक्टर (पीएलएफ) :	
9.	उत्पादित यूनिटों की संख्या (एमडब्ल्यूएच) :	
10.	विद्युत संयंत्र के अंतर्गत कुल क्षेत्र (हेक्टेयर)	
	(राख कुंडों के अधीन क्षेत्र सहित) :	
11.	रिपोर्टिंग की अवधि के दौरान कोयला खपत की मात्रा	
	(प्रति वर्ष मीट्रिक टन) :	
12.	औसत राख सामग्री प्रतिशतता में (%) :	
13.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख की मात्रा	
	(प्रति वर्ष मीट्रिक टन) :	
	फ्लाई राख (प्रति वर्ष मीट्रिक टन) :	
	बॉटम राख (प्रति वर्ष मीट्रिक टन) :	
14.	ड्राई फ्लाई राख भंडारण गड्ढा (गड्ढों) की क्षमता (मीट्रिक टन) :	
15.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख के उपयोग का ब्यौरा:	
	(क) रिपोर्टिंग की अवधि के दौरान वर्तमान में उपयोग की गई राख की	

		कुल मात्रा (एमटीपीए) :	
	(ख)	उपयोग की गई फ्लाई राख की मात्रा (एमटीपीए) :	
	(ਖ਼ <i>)</i> i.		
	ı.	सीमेंट शीट या पाइप या बोर्ड/पैनल) :	
	ii.	0.21 0.00 1	
		रेडी मिक्स कंक्रीट :	
		राख और जीओ-पॉलिमर आधारित निर्माण सामग्री :	
		सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण :	
		सड़कों, सड़क और फ्लाई ओवर के पुश्तों का निर्माण :	
		. बांधों का निर्माण :	
	viii	i. निम्न भू-क्षेत्र का भराव :	
		खनिज क्षेत्रों का भराव :	
		अधिभार वाले डम्पों में उपयोग :	
		कृषि :	
		. तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण :	
		i. अन्य देशों को राख का निर्यात :	
	xiv	v. अन्य (कृपया विनिर्दिष्ट करें) :	
		,	
	(ग) उप	योग किए गए तल के राख की मात्रा (एमटीपीए) :	
	i.	फ्लाई-एश आधारित उत्पाद (ईंट या ब्लॉक या टाइल्स या फाइबर	
		सीमेंट शीट या पाइप या बोर्ड या पैनल) :	
	ii.	सीमेंट विनिर्माण :	
	iii.		
	iv.		
	٧.	3	
	vi.	सड़कों, सड़क और फ्लाईओवर के पुश्तों का निर्माण :	
	vii.	बांधों का निर्माण :	
	viii.	निम्न भू-क्षेत्र का भराव :	
	ix.	खनिज क्षेत्रों का भराव :	
	х.	अधिभार वाले डम्पों में उपयोग :	
	xi.	कृषि :	
	xii.	तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण :	
	xiii.	अन्य देशों को राख का निर्यात :	
	xiv.	अन्य (कृपया विनिर्दिष्ट करें) :	
		ग की अवधि के दौरान वर्तमान में अप्रयुक्त राख की कुल मात्रा	
16.	(एमटीर्प क्रिकेटिं क	गिए : ग की अवधि के दौरान वर्तमान में उत्पादित राख का प्रतिशतता	
10.	ारपाट ः उपयोग		
17.		ा ^७ । . डों में राख के निपटान का ब्यौरा	
17.	_	डा म राख का निपटान का ब्यारा ारीख 31 मार्च तक (रिपोर्टिंग की अवधि को छोड़कर) राख कुण्ड	
		कृण्डों) में निपटान किए गए राख की कुल मात्रा (मीट्रिक टन):	

- ख) रिपोर्टिंग की अवधि के दौरान राख कुण्ड (कुण्डों) में निपटान किए गए राख की मात्रा (मीट्रिक टन):
- ग) रिपोर्टिंग की अविध के दौरान राख कुण्डों में गारा निस्सरण हेतु खपत हुए जल की कुल मात्रा (मी³):
- घ) राख कुण्डों की कुल संख्या:
- (i) सक्रिय:
- (ii) खाली किए गए (पुन: भरा जाना है)
- (iii) पुन: भरे गए:
- ड.) राख कुण्डों के अधीन कुल क्षेत्र (हेक्टेयर):

18. अलग-अलग राख कुण्ड का ब्यौरा

राख कुण्ड 1,2 आदि (यदि राख कुण्डों की संख्या एक से अधिक हो, तो कृपया निम्नलिखित ब्यौरा अलग से उपलब्ध कराएं)

- क) स्थिति: निर्माणाधीन या सक्रिय या खाली किया गया या पुन: भरा गया
- ख) राख कुण्ड में राख का निपटान शुरू करने की तारीख/महीना/वर्ष या महीना/वर्ष):
- ग) राख कुण्ड की क्षमता पूर्ण किए जाने के पश्चात् उसमें राख निपटान रोकने की तारीख

(तारीख/महीना/वर्ष या महीना/वर्ष):

(सक्रिय राख कुण्डों के लिए लागू नहीं)

- ग) क्षेत्र (हेक्टेयर):
- घ) डाइक की ऊंचाई (मी.):
- घ) आयतन (मी³):
- ड.) तारीख 31 मार्च तक निपटान किए गए राख की मात्रा (मीट्टिक टन):
- च) उपलब्ध आयतन का प्रतिशत (%) और आगे निपटान किए जा सकने वाले राख की मात्रा (मीट्रिक टन):
- छ) राख कुण्ड के भरे जाने की अनुमानित अवधि (वर्षों और महीनों की संख्या):
- ड.) निर्देशांक (अक्षांश और देशान्तर): (कृपया न्यूनतम 4 निर्देशांकों को विनिर्दिष्ट करें)
- ज) राख कुण्ड में की गई लाइनिंग का प्रकार: एचडीपीई लाइनिंग या एलडीपीई लाइनिंग या क्ले लाइनिंग या कोई लाइनिंग नहीं
- छ) निपटान की विधि: शुष्क निपटान या नम गारा (नम गारा के मामले में कृपया विनिर्टिष्ट करें कि क्या एचसीएसडी या एमसीएसडी या एलसीएसडी है)
- ज) राख का अनुपात: गारा मिश्रण में जल (1:____):
- झ) संस्थापित और कार्यशील राख जल पुनर्चक्रण प्रणाली (एडब्ल्यूआरएस): हां या नहीं
- ञ) जमीन के अंदर या जल निकाय में राख कुण्ड से निस्सरित अपशिष्ट जल की मात्रा (मी³):
- ट) डाइक की स्थिरता का अध्ययन कराए जाने की पिछली तारीख और उस संगठन का नाम जिसने अध्ययन किया:
- ठ) लेखा-परीक्षा किए जाने की पिछली तारीख और उस संगठन का नाम जिसने लेखा-परीक्षा की:
- 19. उपयोग किए गए पुराने राख की मात्रा (एमटीपीए):
 - i. फ्लाई-एश आधारित उत्पाद (ईंट या ब्लॉक या टाइल्स या फाइबर

		सीमेंट शीट या पाइ	इप या बोर्ड या पैनल):				
	ii.	सीमेंट विनिर्माण:					
	iii.	रेडी मिक्स कंक्रीट:					
	iv.	राख और जीओ-पॉ	लिमर आधारित निर्माण	सामर्ग्र	Γ:		
	٧.	सिंटर्ड या कोल्ड ब	ॉन्डेड राख एग्रीगेट का न <u>ि</u>	र्माण:			
	vi.	सड़कों, सड़क और	फ्लाई ओवर के पुश्तों का	निर्मा	ग:		
	vii.	बांधों का निर्माण:					
	viii.	निम्न भू-क्षेत्र का भ	ाराव:				
	ix.	खनिज क्षेत्रों का भ	राव:				
	Х.	अधिभार वाले डम्प	गों में उपयोग:				
	xi.	कृषि:					
	xii.	तटीय जिलों में तट	रेखा सुरक्षा संरचनाओं क	ा निम	ेण:		
	xiii.	अन्य देशों को राख	का निर्यात				
	xiv.	अन्य (कृपया विनि	र्दिष्ट करें):				
20.	सार :						
		ब्यौरा	सृजित मात्रा		योग की गई मात्रा	शेष मात्रा (एमटीपी)	
			(एमटीपी)	(ए	मटीपी) और (%)		
		ग की अवधि के					
	दौरान						
	पुरानी	राख					
	कुल						
21.		न्य सूचना :					
	वार्षिक	अनुपालन रिपोर्ट,	और विद्युत संयंत्रों और	राख			
	कुण्डों व	<mark>ि शेप फाइलों की</mark> स	ॉफ्ट कॉपी ई-मेल:- <u>mo</u> e	efcc-			
	coalas	sh@gov.in पर भेज	नी जाए।				
22.	प्राधिकृ	त हस्ताक्षरकर्ता के ह	स्ताक्षर				

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFICATION

New Delhi, the 31st December, 2021

S.O. 5481(E).—Whereas by notification of the Government of India in the erstwhile Ministry of Environment and Forests *vide* S.O.763 (E), dated the 14th September, 1999, as amended from time to time, the Central Government, issued directions for restricting the excavation of top soil for manufacturing of bricks and promoting the utilisation of fly ash in the manufacturing of building materials and in construction activity within a specified radius of three hundred kilometres from the coal or lignite based thermal power plants;

And whereas, to implement the aforesaid notification more effectively based on the polluter pays principle (PPP) thereby ensuring 100 per cent utilisation of fly ash by the coal or lignite based thermal power plants and for the sustainability of the fly ash management system, the Central Government reviewed the existing notification; and whereas environmental compensation needs to be introduced based on the polluter pays principle;

And whereas, there is a need to conserve top soil by promoting manufacture and mandating use of ash based products and building materials in the construction sector;

And whereas, there is a need to conserve top soil and natural resources by promoting utilisation of ash in road laying, road and flyover embankments, shoreline protection measures, low lying areas of approved projects, backfilling of mines, as an alternative for filling of earthen materials;

And whereas, it is necessary to protect the environment and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And whereas, in the said notification the phrase 'ash', has been used which includes both fly ash as well as bottom ash generated from the Coal or Lignite based thermal power plants;

And whereas, the Central Government intends to bring out a comprehensive framework for ash utilisation including system of environmental compensation based on polluter pays principle;

And whereas, a draft notification on ash utilisation by coal or lignite thermal power plants in supersession of the notification of the Government of India, Ministry of Environment and Forests published in the Gazette of India, Extra Ordinary part II, section 3, sub-section (i) *vide* S.O.763 (E), dated the 14th September, 1999, by notification in exercise of the powers conferred under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, was published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (i), *vide* G.S.R. 285(E), dated the 22nd April, 2021 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of sixty days from the date on which copies of the Gazette containing the said draft provisions were made available to the public;

And, whereas all the objections and suggestions received from all persons likely to be affected thereby in respect of the said draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, and in supersession of the Notification S.O.763 (E), dated the 14th September, 1999 except as respect things done or omitted to be done before such supersession, the Central Government hereby issues the following notification on ash utilisation from coal or lignite thermal power plants which shall come into force on the date of the publication of this notification, namely:-

A. Responsibilities of thermal power plants to dispose fly ash and bottom ash.—

- (1) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);
- (2) The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:-
- (i) Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;
- (ii) Cement manufacturing, ready mix concrete;
- (iii) Construction of road and fly over embankment, Ash and Geo-polymer based construction material;
- (iv) Construction of dam;
- (v) Filling up of low lying area;
- (vi) Filling of mine voids;
- (vii) Manufacturing of sintered or cold bonded ash aggregate;
- (viii) Agriculture in a controlled manner based on soil testing;
- (ix) Construction of shoreline protection structures in coastal districts;

- (x) Export of ash to other countries;
- (xi) Any other eco-friendly purpose as notified from time to time.
- (CPCB) and having representatives from Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Power, Ministry of Mines, Ministry of Coal, Ministry of Road Transport and Highways, Department of Agricultural Research and Education, Institute of Road Congress, National Council for Cement and Building Materials, to examine and review and recommend the eco-friendly ways of utilisation of ash and make inclusion or exclusion or modification in the list of such ways as mentioned in Subparagraph (2) based on technological developments and requests received from stakeholders. The committee may invite State Pollution Control Board or Pollution Control Committee, operators of thermal power plants and mines, cement plants and other stakeholders as and when required for this purpose. Based on the recommendations of the Committee, Ministry of Environment, Forest and Climate Change (MoEFCC) may publish such eco-friendly purpose.
- (4) Every coal or lignite based thermal power plant shall be responsible to utilise 100 per cent ash (fly ash and bottom ash) generated during that year, however, in no case shall utilisation fall below 80 per cent in any year, and the thermal power plant shall achieve average ash utilisation of 100 per cent in a three years cycle:

Provided that the three years cycle applicable for the first time is extendable by one year for the thermal power plants where ash utilisation is in the range of 60-80 per cent, and two years where ash utilisation is below 60 per cent and for the purpose of calculation of percentage of ash utilisation, the percentage quantity of utilisation in the year 2021- 2022 shall be taken into account as per the table below:

Utilisation percentages of thermal power plants	First compliance Cycle to meet 100 per cent utilisation	Second compliance cycle onwards, to meet 100 per cent utilisation
>80 per cent	3 years	3 years
60-80 per cent	4 years	3 years
<60 per cent	5 years	3 years

Provided further that the minimum utilisation percentage of 80 per cent shall not be applicable to the first year and first two years of the first compliance cycle for the thermal power plants under the utilisation category of 60-80 per cent and <60 per cent, respectively.

Provided also that 20per cent of ash generated in the final year of compliance cycle may be carried forward to the next cycle which shall be utilised in the next three years cycle along with the ash generated during that cycle.

(5) The unutilised accumulated ash i.e. legacy ash, which is stored before the publication of this notification, shall be utilised progressively by the thermal power plants in such a manner that the utilization of legacy ash shall be completed fully within ten years from the date of publication of this notification and this will be over and above the utilisation targets prescribed for ash generation through current operations of that particular year:

Provided that the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year and the minimum quantity of legacy ash is to be calculated based on the annual ash generation as per installed capacity of thermal power plant.

Year from date of publication	1 st	2 nd	3 rd -10 th
Utilisation of legacy ash (in percentage of Annual ash)	At least 20 per cent	At least 35 per cent	At least 50 per cent

Provided further that the legacy ash utilisation shall not be required where ash pond or dyke has stabilised and the reclamation has taken place with greenbelt or plantation and the concerned State Pollution Control Board shall certify in this regard. Stabilisation and reclamation of an ash pond or dyke including certification by the Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be carried out within a year from the date of publication of this notification. The ash remaining in all other ash ponds or dykes shall be utilised in progressive manner as per the above mentioned timelines.

Note: The obligations under sub-paragraph (4) and (5) above for achieving the ash utilisation targets shall be applicable from 1st April, 2022.

- (6) Any new as well as operational thermal power plant may be permitted an emergency or temporary ash pond with an area of 0.1 hectare per Mega Watt (MW). Technical specifications of ash ponds or dykes shall be as per the guidelines of Central Pollution Control Board (CPCB) made in consultation with Central Electricity Authority (CEA) and these guidelines shall also lay down a procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt, etc., and shall be put in place within three months from the date of publication of this notification.
- (7) Every coal or lignite based thermal power plant shall ensure that loading, unloading, transport, storage and disposal of ash is done in an environmentally sound manner and that all precautions to prevent air and water pollution are taken and status in this regard shall be reported to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in Annexure attached to this notification.
- (8) Every coal or lignite based thermal power plant shall install dedicated silos for storage of dry fly ash silos for at least sixteen hours of ash based on installed capacity and it shall be reported upon to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in the Annexure and shall be inspected by Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) from time to time.
- (9) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall provide real time data on daily basis of availability of ash with Thermal Power Plant (TPP), by providing link to Central Pollution Control Board's web portal or mobile phone App for the benefit of actual user(s).
- (10) Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.
- B. For the purpose of utilisation of ash, the subsequent sub-paras shall apply.—
- (1) All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within 300 kms from the lignite or coal based thermal power plants shall mandatorily utilise ash in these activities:

Provided that it is delivered at the project site free of cost and transportation cost is borne by such coal or lignite based thermal power plants.

Provided further that thermal power plant may charge for ash cost and transportation as per mutually agreed terms, in case thermal power plant is able to dispose the ash through other means and those agencies makes a request for it and the provisions of ash free of cost and free transportation shall be applicable, if thermal power plant serves a notice on the construction agency for the same.

(2) The utilisation of ash in the said activities shall be carried out in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government Agencies.

(3) It shall be obligatory on all mines located within 300 kilometres radius of thermal power plant, to undertake backfilling of ash in mine voids or mixing of ash with external Overburden dumps, under Extended Producer Responsibility (EPR). All mine owners or operators (Government, Public and Private Sector) within three hundred kilometres (by road) from coal or lignite based thermal power plants, shall undertake measures to mix at least 25 per cent of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine (running or abandoned as the case may be) as per the guidelines of the Director General of Mines Safety (DGMS):

Provided that such thermal power stations shall facilitate the availability of required quantity of ash by delivering ash free of cost and bearing the cost of transportation or cost or transportation arrangement decided on mutually agreed terms and mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification and the utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.

Explanation.- For the purpose of this sub-paragraph, it is also clarified that the provisions of ash free of cost and free transportation shall be applicable, if thermal power plants serve a notice on the mine owner for the same and the mandate of using 25 per cent of ash for mixing with overburden dump and filling up of mine voids shall not be applicable unless a notice is served on the mine owner by thermal power plant.

- (4) (i) All mine owners shall get mine closure plans (progressive and final) to accommodate ash in the mine voids and the concerned authority shall approve mine plans for disposal of ash in mine voids and mixing of ash with overburden dumps. The Ministry of Environment, Forest and Climate Change (MoEFCC) has issued guidelines on 28th August, 2019 regarding exemption of requirement of Environmental Clearance of thermal power plants and coal mines along with the guidelines to be followed for such disposal.
 - (ii) The Ministry in consultation with Central Pollution Control Board (CPCB), Director General of Mine Safety (DGMS) and Indian Bureau of Mines (IBM) may issue further guidelines time to time to facilitate ash disposal in mine voids and mixing with overburden dumps and it shall be the responsibility of mine owners to get the necessary amendments or modifications in the permissions issued by various regulatory authorities within one year from the date of identification of such mines.
- (i) There shall be a committee headed by Chairperson, Central Pollution Control Board (CPCB) with representatives from Ministry of Environment, Forest and Climate Change, Ministry of Power, Ministry of Mines, Ministry of Coal, Director General of Mine Safety and Indian Bureau of Mines for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump including examination of safety, feasibility (not economic feasibility) and aspects of environmental contamination and the committee shall get updated quarterly reports prepared regarding identified mines (both underground and opencast) for the stakeholder Ministries or Departments and the committee shall start identifying the suitable mines immediately after the publication of this notification.
 - (ii) Thermal power plants or mines shall not wait for disposal of ash till the identification is done by the above mentioned committee, to meet the utilisation targets mandated as above.
- (6) Filling of low lying areas with ash shall be carried out with prior permission of the State Pollution Control Board or Pollution Control Committee for approved projects, and in accordance with guidelines laid down by Central Pollution Control Board (CPCB) and the State Pollution Control Board or Pollution Control Committee (PCC) shall publish approved sites, location, area and permitted quantity annually on its website.
- (7) Central Pollution Control Board after engaging relevant stakeholders, shall put in place the guidelines within one year for all types of activities envisaged under this notification including putting in place time bound online application process for the grant permission by State Pollution Control Boards (SPCBs) or Pollution Control Committees (PCCs).

- (8) All building construction projects (Central, State and Local authorities, Govt. undertakings, other Govt. agencies and all private agencies) located within a radius of three hundred kilometres from a coal or lignite based thermal power plant shall use ash bricks, tiles, sintered ash aggregate or other ash based products, provided these are made available at prices not higher than the price of alternative products.
- (9) Manufacturing of ash based products and use of ash in such products shall be in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, and Central Pollution Control Board.

C. Environmental compensation for non-compliance.—

(1) In the first two years of a three years cycle, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved at least 80 per cent ash (fly ash and bottom ash) utilisation, then such non-compliant thermal power plants shall be imposed with an environmental compensation of Rs. 1000 per ton on unutilised ash during the end of financial year based on the annual reports submitted and if it is unable to utilise 100 per cent of ash in the third year of the three years cycle, it shall be liable to pay an environmental compensation of Rs. 1000 per ton on the unutilised quantity on which environmental compensation has not been imposed earlier:

Provided that the environmental compensation shall be estimated and imposed at the end of last year of the first compliance cycle as per the various utilisation categories as mentioned in sub-paragraph (4) of Para A.

- (2) Environmental compensation collected by the authorities shall be deposited in the designated account of Central Pollution Control Board.
- (3) In case of legacy ash, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved utilisation equivalent to at least 20 per cent (for the first year), 35 per cent (for the second year), 50 per cent (for third to tenth year) of ash generated based on installed capacity, an environmental compensation of Rs. 1000 per ton of unutilised legacy ash during that financial year shall be imposed and if the utilization of legacy ash is not completed at the end of 10 years, an environmental compensation of Rs.1000 per ton shall be imposed on the remaining unutilised quantity which has not been imposed earlier.
- (4) It shall be the responsibility of the transporters or vehicle owner to deliver ash to authorised purchaser or user agency and if it is not complied, then an environmental compensation of Rs. 1500 per ton on such quantity as mis-delivered to unauthorised users or non- delivered to authorised users will be imposed besides prosecution of such non-compliant transporters by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).
- (5) It is the responsibility of the purchasers or user agencies to utilise ash in an eco-friendly manner as laid down at para B of this notification and if it is not complied, then an environmental compensation of Rs. 1500 or per ton shall be imposed by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).
- (6) If the user agencies do not utilise ash to the extent obligated under para B or the extent to which they have been intimated through Notice(s) served under sub-paragraph (1) of para D, whichever is lower, they shall be liable to pay Rs. 1500 per ton of ash for the quantity they fall short off:
 - Provided that the environmental compensation on building constructions shall be levied at Rs.75/- per square feet of built up area of construction.
- (7) (i) The environmental compensation collected by Central Pollution Control Board from the thermal power plants and other defaulters shall be used towards the safe disposal of the unutilised ash and the fund may also be utilised for advancing research on use of ash including ash based products.
 - (ii) The liability of ash utilisation shall be with thermal power plants even after imposition of environmental compensation on unutilised quantities and in case thermal power plant achieves the ash utilisation of any

particular cycle after imposition of environmental compensation in subsequent cycles, the said amount shall be returned to thermal power plant after deducting 10 per cent of the environmental compensation collected on the unutilised quantity during the next cycle and deduction of 20 per cent, 30 per cent, and so on, of the environmental compensation collected is to be made in case of utilisation of ash in subsequent cycles.

D. Procedure for supply of ash or ash based products.—

- (1) The owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate shall serve written notice to persons or agencies who are liable to utilise ash or ash based products, offering for sale, or transport or both.
- (2) Persons or user agencies who have been served notices by owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate, if they have already tied up with other agencies for the purpose of utilisation of ash or ash products, shall inform the thermal power plant accordingly, if they cannot use any ash or ash products or use reduced quantity.

E. Enforcement, Monitoring, Audit and Reporting.—

- (1) The Central Pollution Control Board (CPCB) and the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be the enforcing and monitoring authority for ensuring compliance of the provisions and shall monitor the utilisation of ash on quarterly basis. Central Pollution Control Board shall develop a portal for the purpose within six months of date of publication of the notification. The concerned District Magistrate shall have concurrent jurisdiction for enforcement and monitoring of the provisions of this notification.
- (2) (i) Thermal power plants shall upload monthly information regarding ash generation and utilisation by 5th of the next month on the web portal. Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Pollution Control Committee (PCC), Central Electricity Authority (CEA), and concerned Integrated Regional Office of Ministry of Environment, Forest and Climate Change by the coal or lignite based thermal power plants. Central Pollution Control Board and Central Electricity Authority shall compile the annual reports submitted by all the thermal power plants and submit to Ministry of Environment, Forest and Climate Change by 31st May.
 - (ii) All other user agencies shall submit consumption or utilisation or disposal of ash and use of ash based products as mandated in this notification in the compliance report of Environmental Clearance (EC) issued by Ministry of Environment, Forest and Climate Change or State Level Environment Impact Assessment Authority (SEIAA) or Consent to Operate (CTO) issued by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC), whichever is applicable. The Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall publish annual report of ash utilisation of all other agencies except thermal power plants to review the effective implementation of the provisions of the notification.
- (3) For the purpose of monitoring the implementation of the provisions of this notification, a committee shall be constituted under the Chairperson, Central Pollution Control Board (CPCB), with members from Ministry of Power, Ministry of Coal, Ministry of Mines, Ministry of Environment, Forest and Climate Change, Ministry Road Transportation and Highways, Department of Heavy Industry as well as any concerned stakeholder(s), to be nominated by the Chairman of the committee. The committee may make recommendations for effective and efficient implementation of the provisions of the notification. The committee shall meet at least once in six months and review annual implementation reports and the committee shall also hold stakeholder consultations for monitoring of ash utilisation as mandated by this notification by inviting relevant stakeholder(s) at least once in six months. The committee shall submit the six monthly report to Ministry of Environment, Forest and Climate Change (MoEFCC).

- (4) For the purpose of resolving disputes between thermal power plants and users of ash or manufacturer of ash based products, the State Governments or Union territory administration constitute a Committee within three months from the date of publication of this notification under the Chairman, State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) with representatives from Department of Power, and one representative from the Department which deals with the subject of concerned agency with which dispute is made.
- (5) The compliance audit for ash disposal by the thermal power plants and the user agency shall be conducted by auditors, authorised by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 30th November every year. Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall initiate action against non-compliant thermal power plants within fifteen days of receipt of audit report.

[F. No. HSM-9/1/2019-HSM] NARESH PAL GANGWAR, Jt. Secy.

Annexure

Ash Compliance Report (for the period 1st April-31st March) to be submitted on or before 31st May.

Sl. No.	Details	
1.	Name of Power Plant	
2.	Name of the company	
3.	District	
4.	State	
5.	Postal address for communication:	
6.	E-mail:	
7.	Power Plant installed capacity (MW):	
8.	Plant Load Factor (PLF):	
9.	No. of units generated (MWh):	
10.	Total area under power plant (ha): (including area under ash ponds)	
11.	Quantity of coal consumption during reporting period (Metric Tons per Annum):	
12	Average ash content in percentage (per cent):	
13.	Quantity of current ash generation during reporting period (Metric Tons per Annum): Fly ash (Metric Tons per Annum): Bottom ash (Metric Tons per Annum):	
14.	Capacity of dry fly ash storage silo(s) (Metric Tons):	
15	Details of utilisation of current ash generated during reporting period (a) Total quantity of current ash utilised (MTPA) during reporting period:	
	 (b) Quantity of fly ash utilised (MTPA): (i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels) (ii) Cement manufacturing: 	

	(:::)	Decide win consults	
	(iii)	Ready mix concrete:	
	(iv)	Ash and Geo-polymer based construction material:	
	(v)	Manufacturing of sintered or cold bonded ash aggregate:	
	(vi)	Construction of roads, road and fly over embankment:	
	(vii)	Construction of dams:	
	(viii)	Filling up of low lying area:	
	(ix)	Filling of mine voids:	
	(x)	Use in overburden dumps:	
	(xi)	Agriculture:	
	(xii)	Construction of shoreline protection structures in coastal districts;	
	(xiii)	Export of ash to other countries:	
	(xiv)	Others (please specify):	
	(c) Qua	ntity of bottom ash utilised (MTPA):	
	(i)	Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	
	(ii)	Cement manufacturing:	
	(iii)	Ready mix concrete:	
	(iv)	Ash and Geo-polymer based construction material:	
	(v)	Manufacturing of sintered or cold bonded ash aggregate:	
	(vi)	Construction of roads, road and flyover embankment:	
	(vii)	Construction of dams:	
	(viii)	Filling up of low lying area:	
	(ix)	Filling of mine voids:	
	(x)	Use in overburden dumps:	
	(xi)	Agriculture:	
	(xii)	Construction of shoreline protection structures in coastal districts:	
	(xiii)	Export of ash to other countries:	
	(xiv)	Others (please specify):	
	_	uantity of current ash unutilised (MTPA) during g period:	
16.		age utilisation of current ash generated during reporting (per cent):	
17.	Details	of disposal of ash in ash ponds	
	(a) Tota	al quantity of ash disposed in ash pond(s) (Metric Tons) st March (excluding reporting period):	
		antity of ash disposed in ash pond(s) during reporting (Metric Tons):	
	(c) Tot	al quantity of water consumption for slurry discharge ponds during reporting period (m ³):	
		al number of ash ponds:	
		(i) Active:	
		(ii) Exhausted (yet to be reclaimed):	
		(iii) Reclaimed:	
	(e) total	area under ash ponds (ha):	
18.		ual ash pond details	
		nd-1,2, etc (please provide below mentioned details ely, if number of ash ponds is more than one)	
	(a) Sta	tus: Under construction or Active or Exhausted or	

[भाग II—खण्ड 3(ii)] भारत का राजपत्र : असाधारण 21

	Reclaim					
	(b) Date MMYY		osal in ash pond (DD/MM/Y	YYYY or		
	(c) Dat	e of stoppage of	ash disposal in ash po D/MM/YYYY or MM/YYYY			
	(Not app	plicable for active as	sh ponds)			
	(c) area	(hectares):				
	(d) dyke	height (m):				
	(d) volu	me (m ³):				
	(e) quan	tity of ash disposed	as on 31st March (Metric To	ons):		
		able volume in percurther disposed (Me	entage (per cent) and quantititie (tric Tons):	ty of ash		
	(g) expe	cted life of ash pond	d (number of years and mon	ths):		
	(e) co-o	rdinates (Lat and Lo	ong):			
	(please	specify minimum 4	co-ordinates)			
		of lining carried in clay lining or No li	n ash pond: HDPE lining of ining	or LDPE		
			isposal or wet slurry (in caser HCSD or MCSD or LCSI			
	(h) Rati	to of ash: water in sl	urry mix (1:):			
		n water recycling ing: Yes or No	system (AWRS) instal	led and		
	(j) Quantity of wastewater from ash pond discharged into land or water body (m3):					
		(k) Last date when the dyke stability study was conducted and name of the organisation who conducted the study:				
		date when the aud	lit was conducted and nam the audit:	e of the		
19.	Quantity	y of legacy ash utilis	sed (MTPA):			
	i.	Fly ash based prod	ucts (bricks or blocks or tile s or pipes or boards or panel			
	ii.	Cement manufactu	ring:			
	iii.	Ready mix concret	e:			
	iv.	Ash and Geo-polyr	mer based construction mate	rial:		
	v. Manufacturing of sintered or cold bonded ash aggregate:					
	vi.		ads, road and flyover emban	kment:		
	vii.	Construction of dar	_			
	viii.	Filling up of low ly	ving area:			
	ix.	Filling of mine voi	_			
	X.	Use in overburden				
	xi.	Agriculture:	1			
	xii.					
	xiii.	Export of ash to otl	her countries:			
	xiv.	Others (please spec				
20.	Summai		÷ /		I	
20.				0		D 1
	Details		Quantity generated (MTP)	Quantity		Balance quantity (MTP)
				(MTP) a	nd (per cent)	

	Current ash during reporting period			
	Legacy ash			
	Total			
21.	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcc-coalash@gov.in			
22.	Signature of Authorised Signatory			

Annexure 34

GR for RMU & LE Hydro stations.

Policy For Renovation, Modernisation, Uprating and Life Extension (RMU&LE) of Hydroelectric Projects on Lease, Renovate, Operate and Transfer (LROT) Basis.

GOVERNMENT OF MAHARASHTRA WATER RESOURCES DEPARTMENT Government Resolution No. HEP2021/C.R.45/2021/HP

Mantralaya, Mumbai 400032 Date: 21.08.2024

1) Preamble:

Hydroelectric power generation has many well recognised advantages. It is environmentally clean and renewable energy source with high degree of flexibility and reliability. In the overall economic interests of the State and the Country, hydro potential has to be optimally harnessed and operated efficiently by constant maintenance, renovation and modernisation.

Normally, the life of the civil structure, of the hydroelectric project is about 100 years but the normative life of the hydro-mechanical and electro-mechanical equipment is 35 years. With aging, the performance of the plant declines due to wear and tear of its various parts. Over a period of time, maintenance becomes costly and difficult due to non-availability of spares. In a fast-changing technological environment, control protection system comprising of electronic components and operating software become obsolete in a period of 10 to 12 years. This leads to frequent unplanned breakdowns and reduction in efficiency & reliability.

Renovation, Modernisation, Uprating & Life Extension (RMU&LE) of old hydro-electric plants has been accorded high priority by the Government of India as it is considered as a faster and cheaper option of capacity addition in comparison to installing new units, as critical issues like land acquisition, forest clearance or R & R, geological surprises, new evacuation arrangements are not involved. It improves the operational reliability and efficiency. It also extends the plant life by 25 years. In implementation of RMU&LE program, risk of time overrun is very limited. Thus, there exists encouraging environment for the PPP in implementation of RMU&LE program of the hydropower projects.

2) Status of Hydroelectric Projects in the State:

In the state of Maharashtra, the hydroelectric projects have been constructed by the Water Resources Department(WRD). After commissioning, these projects were handed over to then Maharashtra State Electricity Board (MSEB) for operation and maintenance. Now, post trifurcation of MSEB, these projects are being operated and maintained by the State owned, Maharashtra State Power Generation Company Limited (MAHAGENCo). Presently, 25 projects of total installed capacity of 2578.95 MW, which were constructed by WRD and now owned by the Irrigation Development Corporations (IDCs) are being operated by

MAHAGENCo. In addition to 25 hydroelectric projects that are presently operated by MAHAGENCo, there exist 6 more projects of 9.575 MW capacity, which are constructed and presently being operated by the WRD. The details of these projects are enclosed as Annexures- I & II. Out of 25 hydro electric projects being operated by MAHAGENCo, 10 projects of 622MW installed capacity as per Annexure-III have completed its normative useful life and another 4 projects of 37 MW installed capacity as per Annexure-IV will follow suit.

3) Relevant Legal Provisions:

- a) Government of Maharashtra, through various enactments has constituted five Irrigation Development Corporations (IDC) in the State viz.
- Maharashtra Krishna Valley Development Corporation; (MAHARASHTRA ACT NO. XV of 1996).
- Vidarbha Irrigation Development Corporation; (MAHARASHTRA ACT NO. XXVI of 1997).
- Godavari Marathwada Irrigation Development Corporation; (MAHARASHTRA ACT NO. XXIII of 1998).
- Tapi Irrigation Development Corporation; (MAHARASHTRA ACT NO. IV of 1998).
- Konkan Irrigation Development Corporation; (MAHARASHTRA ACT NO. III of 1998).

As per the provisions in Section 15 of the respective IDC Acts, all the projects and assets including hydroelectric projects, situated in the area of jurisdiction of these IDCs, earlier vested with the State Government have been transferred to the respective IDCs.

- b) Section 18 of these IDC Acts empowers the respective IDC to plan, investigate, design, construct and manage, promote and operate schemes for the generation of hydroelectric projects. These IDCs are also empowered to invite bids/offers for the purpose of all the activities of the corporations, promote participation of any person or body for designing and management of hydroelectric projects.
- c) Electricity Act (EA), 2003 has delicensed the generation of electricity. Section 7 of the Act provides that any generating company may establish, operate and maintain a generating station without obtaining a license under this Act, if it complies with the technical standards relating to connectivity with the grid referred to in clause (b) of the Section 73 of the Act.

Thus respective IDCs by virtue of statutory provisions, being the owner of the hydroelectric projects in their jurisdiction have right of harnessing the natural resources at these sites for generation of hydro-electricity and earn revenue from it. Also IDCs can carry out RMU&LE works and operate these hydropower plants.

4) Past Action:

The petition was filed with the MERC for guidance regarding the transfer of Veer HEP back to the Water Resources Department for RMU. The Commission has mentioned in its order dated 14.12.2009 that the ownership of the said project belongs to Water Resources Department, hence Water Resources Department (WRD) should take a decision in this regard.

5) Need for the Policy & way forward:

By undertaking timely RMU&LE works, the existing generating plants can continue to operate for extended period of 25 years with improved reliability and availability. However in absence of any policy guidelines, the RMU&LE works have not been streamlined in the State. Therefore the Government of Maharashtra, Water Resources Department (GOMWRD) realised the need for policy intervention.

GOMWRD, constituted the Committee of experts to formulate the comprehensive draft of the policy document, for implementation of RMU&LE activities through Public Private Partnership (PPP). The Committee, after extensive consultation with the stakeholders and the experts in the field submitted a comprehensive draft policy document to the State Government.

Independent Hydropower Projects (IPPs), in which water is utilised only for power generation and the projects are useful for stability & management of the grid and therefore considering the strategic importance of these projects, MAHAGENCo can carry out RMU&LE works of these IPPs. Further, MAHAGENCo has communicated that RMU&LE works of IPPs will be carried out by them. Accordingly MAHAGENCO will carry out RMU&LE works of 6 IPPs of 561.50 MW as listed in Annexure- III under category- I

Considering the above-mentioned background, legislative intents of the various enactments mentioned in clause 3 above and the Report of the Committee, Government of Maharashtra Water Resources Department with concurrence of State Cabinet meeting dt. 30.07.2024 is pleased to declare this policy for Renovation, Modernisation, Uprating & Life Extension of over lived hydroelectric projects on Lease, Renovate, Operate & Transfer (LROT) basis.

6) Objectives of the Policy:

The State Government intends to achieve following objectives through this Policy:

a) Life Extension (LE) of over lived hydroelectric power plants by about 25 years, beyond its normative life.

- **b)** Along with the life extension, improving the performance of over lived hydroelectric power plants in terms of efficiency, output, availability & reliability by resorting to modernisation with the state-of-art technology.
- **c**) Uprating the station capacity, wherever feasible from techno-economic and hydrological point of view.
- **d**) Converting existing base load stations to peaking stations for the benefit of the electricity grid, wherever feasible without adversely affecting the other planned consumptive water usages.
- e) Reducing the maintenance requirements and ensuring ease of operation and safety.
- **f**) Optimum utilisation of land available with WRD at hydroelectric plants and existing evacuation infrastructure by promotion of co-located hydro-solar hybrid power plant.
- **g**) Accelerating the RMU&LE activities of the existing hydro-power plants through private sector participation.
- **h)** Protection of overall interest of consumers by timely completion of the RMU&LE works without cost over-run and minimum loss of generation.
- i) Generation of reasonable revenue for IDCs for sustenance of the infrastructure created for harnessing the natural resources.
- j) To lay down the comprehensive framework for effective implementation of the policy.

7) Scope:

The provisions in this policy are applicable to all the hydroelectric projects in the State developed by the WRD, IDCs, and by developer under privatisation policies of the State including the projects handed over to MAHAGENCO for operation & maintenance.

PART- A: IMPLEMENTATION FRAMEWORK

8) Identification of Projects / Units Requiring RMU&LE:

RMU&LE program needs to be taken up timely to prevent further deterioration in operation of generating units which may lead to their premature retiring. Identification of plants requiring renovation and modernisation need to be done well in advance as there are several essentialities to be fulfilled which may take considerable time before commencement of the actual execution of works. The projects requiring RMU&LE will be primarily identified not only on the basis of its operating hours but on the basis of its performance record and parameters such as:

- Reduction in generation due to frequent breakdowns and reduction in efficiency;
- Reduction in plant availability due to frequent unplanned breakdowns;
- Temperature rise, vibrations etc.;
- Uneconomical operations due to increase in O & M Cost;

• Obsolescence of equipment and non-availability of spares;

The performance of all the projects shall be critically reviewed initially after 10 & 20 years of operations and every 5 years after 20 years of operation. The performance data shall be documented in the standard format prescribed in the "Guidelines for Renovation & Modernisation of Hydro Power Stations" issued by the CEA (hereinafter referred to as "CEA R&M Guidelines"), as amended from time to time. The projects based on the past performance data and the criteria listed above shall be considered for Residual Life Assessment (RLA) study. The Chief Engineer (Electrical), Hydro Projects, Mumbai or any other competent authority, as may be identified by the GoMWRD will be responsible for identification of projects for RMU&LE and timely carrying out RLA study.

9) Residual Life Assessment (RLA) Study:

Systematic RLA study of the primarily identified projects shall be conducted as a mandatory technical requirement to assess the health and residual life of every component of the hydro generating unit and to firm up the scope of RMU&LE plan.

RLA study, in order to avoid conflict of interests shall be conducted through an independent institute or competent consultant who will not be involved subsequently in the execution of RMU&LE works, directly or indirectly. This specific provision shall be made in the bid document.

RLA study and its report shall be on the basis of inspections, diagnostic tests and checks specified in the CEA R & M Guidelines. RLA study shall identify and address the problems due to generic defects, design deficiency if any, aging, obsolescence of equipment/components, non-availability of spares, low efficiency of generating units and safety requirements.

In RLA study, the hydrology shall be reviewed and the hydropower potential shall be reaffirmed, taking due cognizance of any change in hydrology over a period. Any scope for uprating based on the availability of additional water if any shall also be evaluated.

RLA study, in addition to electromechanical components, must also give due attention to hydro mechanical and civil components. Erosion damages of civil works especially in the intake structures water conductor system and tail race channels require special attention. Water leakages from the gates and intake structure shall also be given due consideration.

RLA Report should specify the envisaged RMU&LE plan, considering the life extension of 25 years and techno-economic feasibility of uprating. The possibility of converting existing baseload station to peaking station may also be considered.

Considering the fact that the control protection and communication system comprising of electronic hardware and software, become obsolete in a period of 10 to 12 years, provision for two cycles of renovation and modernisation of electronic control system will be made for achieving reliability and higher yield. The scope of the RMU&LE work shall be clearly defined, to avoid cropping up of the extra works beyond the envisaged scope at later stage resulting into cost and time overrun.

Provision for discharge and net head measurement facility along with its synchronisation with SCADA system and data logging system shall be provided. Further, the RLA Report should clearly indicate which components / equipment are to be refurbished and which need complete replacement. Report shall also cover the prioritization of R&M activities. The works having shorter gestation period but having immediate benefits in terms of improvement of availability, increase in generation etc. will be assigned higher priority.

RLA report shall be approved by the CE (Electrical) in consultation with the concerned Chief Engineer (civil) and Superintending Engineer, Koyna Design Circle, Pune within one month from the receipt of such report with or without any modifications.

10) Preparation of the Detailed Project Report (DPR):

Due attention must be given while preparing DPR to avoid further complications at tariff determination process. The DPR should be bankable and shall include but not limited to following essential provisions.

- a) Complete scope of the envisaged RMU&LE works consistent with the approved RLA report;
- **b)** Hydrology details duly considering the change in hydrology or water release pattern, if any;
- c) History of Project wise /unit wise past performance, trajectory of operation of the generating plant and project specific operating criteria / conditions i.e. whether the power station is expected to be operated as per the irrigation schedule or as per the instructions of the Maharashtra State Load Despatch Centre (MSLDC).
- d) Working table for 75% dependable year and Design Energy (DE);
- e) Detailed cost estimates, on the basis of Guidelines issued by Alternate Hydro Energy Centre, Indian Institute of Technology Roorkee, shall be prepared. The cost estimates shall be realistic to the extent possible and should be based on current market rates / budgetary offers of the supplying agencies. Capital cost shall cover the costs of all civil, electro-mechanical and hydro-mechanical works, cost of RLA study including testing,

pre-development charges, financial charges, interest during construction, all applicable taxes, expenses towards foreign exchange component if any, freights, insurance, erection, testing and commissioning, project management, contingencies, overheads etc. It should also account for mandatory payments to be made to the WRD including all applicable taxes.

- f) Cost benefit analysis, computation of the cost of generation and likely levelized tariff as per prevailing tariff regulations notified by the Commission.
- g) Implementation schedule of RMU&LE works will be planned with minimum generation loss. In projects having more than one unit, generation will be planned concurrently with the works to the extent possible.
- h) As the RMU&LE activities are proposed to be taken up through MAHAGENCo/ PPP, the administrative approval of the State Government to the DPR will not be required. However, CE (Electrical) shall certify the correctness of the provisions in the DPR viz. scope of RMU&LE works, overall cost abstract, working table and the design generation etc. The concerned Chief Engineer (Civil) shall certify the water availability, water release schedule and cost abstract of the civil works. The successful bidder may prepare its own DPR consistent with its envisaged RMU&LE plan and costing.

11. Implementation Policy:

RMU&LE works pertaining to over lived hydroelectric projects are necessary and are categorised as follows -

i) Category I - Independent Hydropower Projects (IPPs) :-

Out of twenty five projects owned & constructed by WRD and leased out to MAHAGENCo as listed in Annexure- I, nine Independent Hydropower Projects (IPP) of 2411.5 MW capacity, in which water is utilised only for power generation and the projects are useful for stability & management of the grid. Considering the strategic importance of these projects, MAHAGENCo shall carry out RMU&LE works of these IPPs after expiration of their 35 years of normative life as per the requirement with prior consent from WRD and will continue to run and maintain these IPPs further on terms & conditions of this policy document in the form of Lease Agreement before carrying out R&M works. MAHAGENCo will carry out the RMU&LE works of the IPP at their own cost. MAHAGENCo shall pay annual lease charges, intake maintenance charges & 13% free power etc. as per Part- D of the policy to concerned IDC.

Category II - Irrigation Based Power Projects

- a) Remaining 16 hydroelectric projects of 167.45 MW capacity listed in Annexure-I & six hydroelectric projects of 9.575 MW capacity listed in Annexure II in which power generation is incidental to irrigation and/or water supply releases will be carried out through Lease, Renovate, Operate & Transfer (LROT) basis. Though hydroelectric projects listed in Annexure II has not completed their normative life of 35 years, but requires repairs & maintenance for some hydro power plant component, hence these projects are proposed for allotment to a Generating Company, following a transparent two stage bidding process through Lease, Renovate, Operate & Transfer (LROT) basis.
- b) Further, GOMWRD/IDC shall convey to MAHAGENCO, in writing the status of bidding process and the probable date of handing over the project to the successful bidder for RMU&LE work on LROT basis for Category II projects, at least four months in advance, for enabling them to make administrative arrangements of the operating staff.
- c) Standard Bidding Documents and Model Lease Agreement: In order to have uniformity amongst the various IDCs, GOMWRD will standardise the bidding document and lease agreement. Bidding document shall provide history of operation of the generating units and project specific operating criteria / conditions i.e. whether the power station is expected to be operated as per the irrigation schedule or the grid requirements.
- **d**) The ownership of the projects will vest with concerned IDC after handing over of hydro projects by MAHAGENCo to WRD. On behalf of IDC, the bidding process shall be carried out by Chief Engineer (Electrical), Hydro projects, Mumbai.
- e) Promoter shall pay annual lease charges, intake maintenance charges & 13% free power etc. as per Part- D of the policy to concerned IDC.

12) Selection of the Generating Company for Category II projects:

Project shall be allotted to a Generating Company, following a transparent two stage bidding process. MAHAGENCO may also participate in this bidding process. In the first stage, the bidders will be shortlisted on the basis of assessment of their financial and technical strengths. In the second stage, the financial bids shall be called from the prequalified bidders. The bidder who offers the highest Upfront Premium (UP) over and above the Threshold Premium (TP) fixed for the bidding will be selected as a successful bidder.

Threshold Premium shall be Rs. 2 lakh per MW of installed capacity of hydroelectric project or the unrecovered allowable depreciation of originally admitted cost with

additional capitalisation if any, whichever is maximum. The TP so fixed shall be the part of the capital cost.

13) Implementation Schedule:

The implementation schedule for various tasks shall be as follows:

- a) Letter of Allotment (LoA) shall be issued to the successful bidder within 10 (ten) calendar days from the opening of the financial bids.
- b) The successful bidder or the Special Purpose Vehicle (SPV) proposed by the successful bidder as per the provisions in the bidding document shall submit within 15 (fifteen) days from the date of LOA the Performance Security (PS) in the form of irrevocable Bank Guarantee (BG). Value of the PS shall be 5 % of the estimated cost of RMU&LE work. This period for the submission of the PS shall not be extended in any case and if the successful bidder fails to submit it within stipulated period, LOA issued shall stand cancelled and Earnest Money Deposit (EMD) deposited along with the bid shall be forfeited. Under such circumstances, LoA shall be issued to bidder who has offered next higher UP.
- c) The successful bidder shall further make the payments of the TP & UP within one month from the date of LoA. In no case the time limit prescribed for the payment of the TP & UP shall be extended. If the successful bidder fails to make the payment of TP & UP within stipulated period, LoA issued shall stand cancelled and EMD as well as PS shall be forfeited. Under such circumstances LoA shall be issued to bidder who has offered next highest UP.
- **d**) After the submission of the PS and payment of UP & TP by the successful bidder, the EMD submitted by other bidders shall be released within 15 (Fifteen) calendar days.
- e) The Generating Company or the SPV, who shall also be recognised as Generating Company shall execute the lease agreement with CE (Civil) of concerned IDC on the Non-Judicial Stamp Paper of requisite value, within 30 (thirty) days from the date of issue of LoA. Lease agreement shall be registered within next 10 days. The cost of stamp duty and registration shall be borne by the Generating Company.
 - f) IDC shall hand over the project site to the Generating Company within 10 (ten) days after completion of the above said activities. The IDC shall handover the project in 'AS IS WHERE IS BASIS' along with all the spares, tools and plants, package sheds, drawings etc.

- g) The Generating Company shall simultaneously arrange for any other required formalities such as preparation of its own DPR, obtaining necessary clearances, financial closure, tariff determination by the Commission, signing of the Energy Purchase Agreement (EPA) etc.
- h) The project shall be re-commissioned after carrying out necessary RMU&LE works within the stipulated time. Time limit for the execution of the RMU&LE works shall be fixed on the basis of nature and the extent of work. However many a times, during the execution after dismantling of the machines, additional works which were not considered in RLA study, may crop up, requiring reverse engineering. Under such circumstances suitable time extension shall be given without any cost implications. CE (civil) in consultation with CE (Electrical), Hydro Projects, Mumbai will be the competent authority for granting such extensions.
- i) The cost of disposal of scrap shall be borne by the Generating Company at the same time scrap and replaced components/equipment shall be the property of Generating Company.
- j) During execution the progress of the work shall be reviewed with respect to the milestones set in the lease agreement. In case the Generating Company fails to achieve expected progress, it will be entitled to pay the liquidated damages as prescribed in Lease agreement.

14) Term of Lease:

The term of lease shall be of 25 years from Commercial Operation Date(COD). At the end of the LROT period, absolute possession of the project along with the land switchyard and allied equipment and spares automatically stand transferred to IDC free of cost.

PART- B: WATER AVAILABILITY FOR GENERATION

15) Water Availability for Generation:

a) In case of hydroelectric projects developed on irrigation projects, the hydropower generation is incidental to irrigation/domestic/industrial water supply (consumptive uses). The water releases for such hydroelectric projects shall be strictly as per demand of the consumptive uses and the Generating Company shall plan the schedule for generation of energy in accordance with such water release schedule. Further IDC reserves the right to decide the water release schedule and modify it from time to time, as per the requirement of the consumptive uses. Such schedule and changes therein will be communicated to the generating company preferably two days in advance.

b) IDC, both during fair weather season and monsoon surplus releases, shall endeavour to release maximum volume of water from the dam in such a way that it can be utilised for generation of electricity. However the decision of the IDC, in this regard shall be final, binding and conclusive. No claim of compensation on these grounds shall be entertained.

16) Reduction in Generation Due to Less Availability of Water & Consequential Provisions:

In unforeseen events in which actual generation is reduced below 75% of the Design Energy (DE), due to less availability of water shall be governed by the following provisions.

Sr. No.	Reason for Less Availability of Water for Generation.	Consequential Provisions
1	Less rainfall resulting into less inflow into the dam and consequential reduction in the water release for power generation	Generating Company shall not be entitled for any compensation.
2	Water level in the dam is restricted temporarily for repairs of the dam or from dam safety point of view and or any other reasons beyond the control of the IDC, resulting into reduction in generation, by more than 25% of the DE.	This situation shall be treated as a Force Majeure Event. The IDC shall give written intimation of occurrence of such Force Majeure event to the Generating Company. The term of the lease shall be extended by a period for which the Force Majeure event exist. However, Generating Company shall not be entitled for any compensation.
3	Additional diversion of water from the reservoir for domestic / industrial / lift irrigation after signing of the lease agreement, without power generation, resulting into reduction in generation, by more than 25% of the DE due to such diversion of water.	This event shall be treated as IDC event of default and the Generating Company shall have the right to terminate the lease agreement, following the procedure specified in the lease agreement. IDC on receipt of such notice of termination shall scrutinise the reasons for less generation and submit the proposal to Secretary (CAD) for approval. After approval of Government if the reduction in generation is more than 25% of the DE and is due to additional diversion of water from the reservoir, without power generation, after signing of the lease agreement, IDC shall take over the project and relieve the Generating Company from the contractual obligations. In such circumstances,

Sr. No.	Reason for Less Availability of Water for Generation.	Consequential Provisions
		IDC shall return the PS to the Generating Company. Further, the Generating Company shall be compensated with residual cost of the project, as evaluated by the IDC, on the basis of facts that are mentioned in the lease agreement. The decision regarding residual cost of IDC is final.

PART- C: GENERATION & SALE OF ENERGY

17) Generation:

As per the provisions in EA 2003, the Generating Company during the term of the lease shall be entitled to operate and maintain the power plant without obtaining any licence provided the technical standards related to connectivity with the grid referred to in sub-Section (b) of Section 73, provisions in Section 10, other relevant provisions in the EA 2003 and prevalent regulations / orders of the Commission are followed.

18) Scheduling & Despatch Principles for Electricity:

As per the provisions in the Section 33 of the EA 2003, Generating Company shall comply with the directions of the Maharashtra State Load Despatch Centre (MSLDC). As per the prevailing regulations of the Commission, all RE projects are presently treated as 'Must Run' projects and shall not be subjected to 'Merit Order Despatch' principle, however provisions in the Regulations of the Commission, issued from time to time, shall be applicable.

19) Grid Interconnection and Evacuation Arrangements:

Grid interconnection and evacuation arrangement shall be governed by the prevailing Grid Code, Regulations and the Orders of the Commission and the relevant provisions in the Energy Purchase Agreements to be signed by the Generating Company with the distribution licensee / Purchaser.

20) Wheeling and Transmission:

Applicability of wheeling and transmission charges and losses shall be governed by the prevailing Regulations and Orders of the Commission.

21) Banking:

Banking facility shall be regulated by the provisions in the prevailing Regulations / Orders of the Commission.

22) Sale of Power:

The sale of electricity shall also be guided by the provisions in the prevalent RE policy and Energy policy of the State. The Government of Maharashtra, in its' Non-Conventional Energy Generation Policy -2020, has set the target of 380 MW to be achieved through SHPs by 2025 and has assured that it will purchase power from SHPs directly, through Energy Purchase Agreements, at the rate to be decided by the Commission to achieve this target.

Further, the hydro generating plants covered under this RMU&LE policy, may result in comparatively lower tariff than that of new projects. Hence, it would not be prudent to allow its benefits to any person other than MSEDCL considering the fact that during the earlier period of such plants, MSEDCL has partially serviced its cost through lease charges. Hence, the first right of refusal of energy generated from hydroelectric plants covered under this policy shall vest with the MSEDCL, the State-owned distribution licensee. Provided further that MSEDCL shall provide the refusal in 30 (thirty) days from the date of receipt of the request beyond which it shall be treated as deemed refusal. The tariff for sale of power to distribution licensee shall be determined by the Commission. The Generating Company, therefore will be required to approach the Commission, for determination of the tariff with necessary petition under section 62 of the EA, 2003 and tariff regulations notified by the Commission.

PART- D: Mandatory Payments to IDC

- 23) In addition to the payment of the Threshold Premium and the Upfront Premium, the Generating Company will have to make the following mandatory payments to the respective IDC:
- a) Lease Charges: The lease charges for the transferred asset of the hydroelectric project shall be at the rate of Rs.4.5 Lakhs per annum per MW of the installed capacity of the hydroelectric project. These annual charges are for FY 2022-23. In case the generating company intends to develop co-located hydro-solar hybrid project, the necessary additional land, if available will be provided to the generating company. Else the IDC may give the permission to install floating PV solar panels at appropriate locations in the reservoir, if feasible. In such cases, additional land lease charges as provided in clause 25 (g) shall be applicable.
 - **b) Intake Maintenance Charges:** The Generating Company shall pay the intake maintenance charges to the IDC. In case of Category-I projects, the applicable intake maintenance charges shall be Rs. 0.50 per kWh. And for Category-II projects applicable intake maintenance charges shall be Rs. 0.10 per kWh. These annual charges are for FY

- 2022-23. But, if the Generating Company maintains the intake structure at its own cost, in such case they need not to pay any intake maintenance charges to IDC.
- c) The above rates of lease charges and intake maintenance charges shall be increased in every subsequent year by 5% compounding and applicable from the first year of commercial generation.
- d) The Generating Company shall pay charges to the IDC as per rate decided by MERC for 13% free power of net energy exported from the hydroelectric project to the grid as per National Hydro Policy 2008.
- e) GST or any other tax applicable under reverse charge mechanism for such payments shall be borne by the Generating Company.
- f) Intake maintenance charges shall be invoiced quarterly at the end of each quarter and lease charges shall be invoiced at the beginning of every financial year. All these charges will have to be settled within 30 days from the date of invoice, along with the applicable taxes thereon. Thereafter the interest at prevailing Marginal Cost of Funds based Lending Rate (MCLR) plus 2% (Two percent) per annum on delayed payment for delayed period shall be made applicable.

PART- E: Co-Located Hydro-Solar Hybrid Projects

24) In case the Generating Company opt to develop co-located hydro-solar hybrid project, along with the RMU&LE of the existing hydropower plant under this policy, it will be permitted to tap the solar potential of the land and/or roof top of the project handed over to it, following the provisions in clause 25 below.

The IDC may also provide any additional land required for solar component, if available, on lease basis. IDC, after ascertaining technical feasibility on case-to-case basis, may also permit the solar installation on downstream slope of the dam or on the submergence of the dam for installation of floating solar panels, subject to all necessary statutory clearances.

- 25) In case the Generating Company opt to develop hydro-solar hybrid project, as per the provisions in clause 24 above, following additional provisions shall also be applicable.
 - a) The Generating Company, to which hydroelectric project is allotted by bidding, after site inspection may submit the Techno Economic Feasibility Report for the co-located solar project to CE (Electrical), Hydro Pojects, Mumbai along with the additional land requirement if any and the necessary processing fees. The processing fee shall be Rs. 1 Lac per MW or part thereof, of solar installation considering base year 2022-23 and same shall increase in every subsequent year by 5% compounding.

- b) On scrutiny of such proposal and subject to availability of additional land, the proposal will be approved, and the separate Letter of Permission (LOP) shall be issued. The CE (Electrical), Hydro Pojects, Mumbai shall be the competent authority for this.
- c) Generating Company shall be required to sign supplementary agreement with IDC for the solar project.
- d) The term of the lease shall be coterminous with that of the hydro-electric project.
- e) Generation meters shall be provided to each source of Renewable Energy as per CEA specifications.
- f) The provisions in the prevalent RE Policy of the State Government and prevailing Regulations and Orders of the Commission shall be applicable.
- g) The Generating Company will pay to the IDC, the annual additional lease charges at the following rates:
 - i. For land/roof top installed solar panels: Rs. 0.10 per kWh of net energy exported, from the solar installation, for FY 2022-23 and same shall be increased in every subsequent financial year by 5% compounding.
 - ii. For floating solar panels: Rs. 0.05 per kWh of net energy exported, from the solar installation, for FY 2022-23 and same shall be increased in every subsequent financial year by 5% compounding.
- h) Generating Company may use the power produced from co-located solar power plants, under this policy, for (a) captive purpose; (b) sale to third party through open access; (c) sale to any distribution licensee as per the provisions of the Regulations and Orders of the Commission.
- i) At the end of the lease period, the absolute ownership of the hydro-solar project, along with the land shall automatically stands transferred to IDC free of cost.

PART- F: GENERAL PROVISIONS

26) Appointment of Nodal officer:

GoMWRD / IDC shall appoint the nodal officer who will facilitate the activities such as registration of lease agreement, handing over of the project, obtaining necessary clearances, grid connectivity and PPA with the MSEDCL etc.

27) GOMWRD/IDC shall endeavour to observe the time bound commitments made in this policy.

28) Inspection of Project:

In addition to the statutory inspection by Factory Inspector and Electrical Inspector, the GOMWRD or the IDC, through its' engineers or any authorised Panel of Experts, before and after the monsoon, every year shall inspect the power project from safety point of view. The Generating Company shall render all necessary cooperation for such inspection(s). The inspection team shall submit inspection reports to CE (Civil) of respective IDC and to CE (Electrical) after completion of inspection.

The Generating Company shall maintain the plant performance data in the standard format prescribed in the CEA, R&M Guidelines and such data shall be made available at the time of inspection.

29) The Generating Company shall not use the land handed over to it for any other purpose other than the purpose, envisaged in this policy without prior permission of the IDC.

30) Taxes and Duties:

Generating Company shall pay all the taxes, duties & other levies made applicable from time to time to the respective departments of the Central, State and Local Governments unless specifically exempted. It shall be presumed that the Generating Company has considered the relevant statutory provisions at the time of bidding and signing the lease agreement.

31) Transfer of Allotment:

If the Generating Company, as per the prevailing laws, intends to transfer its rights in the hydroelectric project or hydro-solar hybrid project, as the case may be, it shall be permitted to do so, only after prior approval of the IDC. IDC may give such approval provided,

- a) Financial institution has consented such transfer.
- **b**) Proposed Generating Company agrees to all the terms & conditions of the lease agreement signed by the original Generating Company.
- c) Generating Company deposits the transfer fees of Rs. 2 Lacs/MW of installation of Hydro or Hydro-Solar hybrid project considering the base year as 2022-23 and same shall increase in every subsequent year by 5% compounding.
- **d**) In case of hydro-solar hybrid project the entire ownership (both hydro generating plant and solar installations) will have to be transferred.

32) Powers to Resolve Difficulties:

In the event of dispute in respect of interpretation of any of the provisions or giving effect to any of the provisions in this policy, the decision of the Secretary (CAD), GOMWRD shall be final, conclusive and binding;

Provided that in all such matters, reasonable opportunity will be given to the affected party, to be heard before the final decision.

33) Period of Enforcement:

This policy will remain in force unless withdrawn, modified or superseded by the Government. The Government will undertake a review of this Policy as and when required.

PART- G: INCENTIVES

- 34) If actual generation is less than 75% of the Design Energy (DE), due to less availability of water, then intake maintenance charges payable to the IDC, for that year shall not be applicable.
- 35) If the Generating Company commissions the project, prior to scheduled date of commissioning, it will be exempted from payment of intake maintenance charges to an extent of energy exported to the grid before scheduled date of commissioning.
- **36**) IDC will allow to use the approach road to the powerhouse and site if it is in possession of IDC. However, the Generating Company shall carry out the maintenance of the approach road to the powerhouse.
- 37) IDC will provide residential quarters of suitable type, if available near the project site, on "AS IS WHERE IS" basis for the operating staff of the powerhouse, during development and operation period. However, the Generating Company shall carry out the maintenance of the same at its own cost. The rent per annum for such quarters shall be 10% of its depreciated value, as calculated by IDC. the Generating Company at the end of lease period shall transfer these quarters to IDC on "AS IS WHERE IS" basis.
- 38) If the residential quarters are not available with IDC for the operating staff, IDC shall make available the piece(s) of land, if available, to the Generating Company for the construction of the residential quarters for the operating staff. Generating company shall construct the buildings at its own cost and the same shall stand transferred to IDC free of cost

at the expiry of the term of the lease agreement. The rent of such land shall deem to be included in the lease charges payable by the Generating Company under clause 23 (a).

This Policy superseds the G.R. No.जविप्र २०२१/प्र.क्र. १०५/जिव, दि.१६.११.२०२१. This Government Resolution is available on the official website of Government of Maharashtra, www.maharashtra.gov.in and its computer code is 202408211736464727 This Government Resolution is digitally signed.

By order and in the name of the Governor of Maharashtra,

(Dr. Sanjay Belsare) Secretary (CAD) WRD, Mantralaya, Mumbai.

Encl.: Appendix I & Annexure I to IV.

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Copy to:

- 1. The Principal Secretary to Hon. Governor, Maharashtra State, Mantralaya, Mumbai
- 2. The Principal Secretary to Hon. Chief Minister, Maharashtra State, Mantralaya, Mumbai
- 3. The Principal Secretary to Hon. Dy. Chief Minister (Water Resources & CAD), Maharashtra State, Mantralaya, Mumbai
- 4. The Principal Secretary to Hon. Dy. Chief Minister (Planning & Finance), Maharashtra State, Mantralaya, Mumbai
- 5. The Leader of Opposition, (Legislative Assembly/ Council), Maharashtra State, Vidhan Bhayan, Mumbai
- 6. All members of Legislative Assembly & Council, Maharashtra State, Vidhan Bhavan, Mumbai
- 7. The Principal Secretary to Hon. All Ministers, Maharashtra State, Mantralaya, Mumbai
- 8. The Principal Secretary to Hon. All State Ministers, Maharashtra State, Mantralaya, Mumbai
- 9. The Chief Secretary, Maharashtra State, Mantralaya, Mumbai
- 10. The Additional Chief Secretary (Finance), Finance Department, Mantralaya, Mumbai.
- 11. The Additional Chief Secretary, Water Resources Department, Mantralaya, Mumbai.
- 12. The Principal Secretary (Planning), Planning Department, Mantralaya, Mumbai
- 13. The Principal Secretary (Energy), I.E.& L.Department, Mantralaya, Mumbai.
- 14. The Principal Secretary (Industries), I.E.& L.Department, Mantralaya, Mumbai.
- 15. The Principal Secretary (RLA), Law & Judiciary Department, Mantralaya, Mumbai
- 16. The Secretary (CAD), Water Resources Department, Mantralaya, Mumbai.
- 17. The Secretary (PC), Water Resources Department, Mantralaya, Mumbai.
- 18. The Chairman, Maharashtra Electricity Regulatory Commission, Mumbai
- 19. The Managing Director, MSEB Holding Company Ltd., Prakashghad, Mumbai
- 20. The Managing Director, MSTCL, Prakashghad, Bandra, Mumbai.
- 21. The Managing Director, MSEDCL Prakashghad, Mumbai.
- 22. The Managing Director, MSPGCL, Prakashghad, Mumbai
- 23. Executive Directors and Chief Engineers of all Irrigation Development Corporations

- 24. All CE & Joint Secretaries, Water Resources Department, Mantralaya, Mumbai
- 25. Chief Engineer (Electrical), Hydro Projects, Mumbai
- 26. All Regional Chief Engineers /Superintending Engineers of Water Resources Department.
- 27. Directorate General of Information & Public Relations, Maharashtra State, Mantralaya, Mumbai (2 copies)
- 28. HP Desk (for collection).

Appendix-I

Sr.	Abbreviation	Full form of Abbreviation	
No			
1.	ВОТ	Built- Operate - Transfer	
2.	CE (Civil)	Regional Chief Engineer	
3.	CE (Electrical)	Chief Engineer, Electrical, Hydro Projects, Mumbai	
4.	CEA	Central Electricity Authority	
5.	COD	Commercial Operation Date	
6.	DE	Design Energy	
7.	EA 2003	Electricity Act 2003	
8.	EMD	Earnest Money deposit	
9.	GoM	Government of Maharashtra	
10.	GoMDoE	Government of Maharashtra, Department of Energy	
11.	GoMWRD	Government of Maharashtra, Water Resources	
		Department	
12.	HPDA	Hydro Power Development Agreement	
13.	IDC	Irrigation Development Corporation of Maharashtra	
14.	IDC Concerned	IDC having jurisdiction of the Hydro Project	
15.	IPP	Independent Hydro Power Project	
16.	LoA	Letter of Allotment.	
17.	LoAS	Letter of Authorization.	
18.	LoP	Letter of Permission.	
19.	MAHAGENCo	Maharashtra State Power Generating Company	
20.	MCLR	Marginal Cost of Funds based Lending Rate	
21.	MERC	Maharashtra Electricity Regulatory Commission	
22.	MSLDC	Maharashtra State Load Dispatch Centre	

Sr.	Abbreviation	Full form of Abbreviation				
No						
23.	O &M	Operation and Maintenance				
24.	PPA	Power Purchase Agreement				
25.	PPP	Public Private Partnership				
26.	RE	Renewable Energy				
27.	R & R	Relief and Rehabilitation				
28.	RMU & LE	Renovation, Modernization, Uprating and Life Extension				
29.	SPV	Special Purpose Vehicle				
30.	TP	Threshold premium				
31.	UP	Upfront premium				

Annexure-I

<u>List of Hydro Projects Commissioned by WRD and handed over for O&M on lease basis to MAHAGENCO</u>

Sr. No.	Name of Hydro Electric Project	Installed Capacity (MW)	Designed Generation (MUs)	Date of Commissioning	Category
1.	Koyna Stage - I&II (4x70 + 4x80MW)	600	700	1) 16.05.62 2) 02.08.62 3) 28.01.63 4) 28.02.63 5) 30.06.67 6) 28.11.66 7) 22.06.66 8) 23.06.66	Category-I
2.	Koyna Stage -III (4x80MW)	320	560	1) 06.07.75 2) 11.01.76 3) 08.05.77 4) 02.10.78	Category-I
3.	Vaitarna (1 x 60 MW)	60	144	26.06.76	Category-I
4.	Koyna Dam foot Power House-I (2 x 20 MW)	40	146	1) 03.10.80 2) 16.03.81	Category-I
5.	Tillari (1 x 60 MW)	60	133	10.10.86	Category-I
6.	Bhira (2 x 40 MW)	80	75	1) 29.03.88 2) 13.09.87	Category-I
7.	Vaitarna Dam Toe (1 x 1.5 MW)	1.5	8	21.09.87	Category-I
8.	Koyna Stage -IV (4x250MW)	1000	1450	1) 20.06.99 2) 25.11.99 3) 04.03.00 4) 03.05.00	Category-I
9.	Ghatghar (2 x125 MW)	250	467	1) 09.04.08 2) 23.06.08	Category-I
	SUB TOTAL – I	2411.5 MW	3683		

10.	Yeldari (3 x 7.5 MW)	22.5	45	1) 16.06.68 2) 10.05.68 3) 20.03.68	Category-II
11.	Bhatghar (1 x 16 MW)	16	36	02.08.77	Category-II
12.	Paithan (1 x 12 MW)	12	21	01.11.84	Category-II
13.	Pawna (1 x 10 MW)	10	16	11.06.88	Category-II
	Khadakwasla HEP				
14.	1) Panshet (1 x 8 MW)	8	55	1) 31.03.91	Category-II
	2) Varasgaon (1 x 8 MW)	8		2) 21.08.91	Category-II
15.	Kanher (1 x 4 MW)	4	15	18.08.91	Category-II
16	Bhatsa (1 x 15 MW)	15	62	28.09.91	Category-II
17.	Dhom (2 x 1 MW)	2	11	1) 31.3.92 2) 13.3.92	Category-II
18.	Ujani (1 x 12 MW)	12	22	02.05.94	Category-II
19.	Manikdoh (1 x 6 MW)	6	18	22.11.95	Category-II
20.	Terwanmedhe (1 x 0.2 MW)	0.2	1	31.03.98	Category-II
21.	Surya RBC (1x0.75 MW)	0.75	5.60	04.06.98	Category-II
22.	Dimbhe (1 x 5 MW)	5	18	17.10.98	Category-II
23.	Surya (1 x 6 MW)	6	21	01.01.99	Category-II
24.	Warna (2 x 8 MW)	16	56	1) 16.09.99 2) 01.09.99	Category-II
25.	Dudhganga (2 x 12 MW)	24	57	1) 27.02.00 2) 31.03.00	Category-II
	SUB TOTAL-II	167.45 MW	459.6		
	Total I+II	2578.95	4142.6		

Note:- Catogory I - Independent Power Projects.

Catogory II - Irrigation Based Power Projects.

Annexure-II

List of Hydro Projects Commissioned & being Operated by WRD

Sr. No.	Name Of Hydro Electric Projects	Installed Capacity (MW)	Designed Generation (MUs)	Date of Commissioning	Category
1.	Yevateshwar 1 x 0.075	0.075	0.59	02.01.1998	Category-II
2.	Karanjwan 1x3	3	8.54	26.10.2001	Category-II
3.	Shahanur 1 x 0.75	0.75	2.68	11.02.2004	Category-II
4.	Dolwahal 2x1	2	5.56	i) 02.12.2007 ii) 21.12.2007	Category-II
5.	Majalgaon 3 x 0.75	2.25	8.74	i) 20.12.2007 ii) 17.01.2008 iii) 18.02.2008	Category-II
6.	Wan 1x1.50	1.50	4.20	20.12.2007	Category-II
	TOTAL	9.575	30.31		

Annexure-III List of Hydro Power Projects due for R&M :-

Sr. No.	Name of Hydro Electric Project	Installed Capacity (MW)	Date of Commissioning	Completion of 35 years Normative Life	Category
1.	Koyna Stage -III (4x80MW)	320	1) 06.07.75 2) 11.01.76 3) 08.05.77 4) 02.10.78	July 2010 to October 2013	Category-I
2.	Vaitarna (1 x 60 MW)	60	26.06.1976	June 2011	Category-I
3.	Koyna Dam foot Power House-I (2 x 20 MW)	40	1) 03.10.80 2) 16.03.81	October 2015	Category-I
4.	Tillari (1 x 60 MW)	60	10.10.86	October 2021	Category-I
5.	Bhira (2 x 40 MW)	80	1) 29.03.88 2) 13.09.87	March 2023	Category-I
6.	Vaitarna D.T (1 x 1.5 MW)	1.5	21.09.87	September 2022	Category-I
	SUB TOTAL	561.50 MW			
7.	Yeldari (3 x 7.5 MW)	22.5	1) 16.06.68 2) 10.05.68 3) 20.03.68	June 2003	Category-II
8.	Bhatghar (1 x 16 MW)	16	02.08.77	August 2012	Category-II
9.	Paithan (1 x 12 MW)	12	01.11.84	January 2019	Category-II
10.	Pawna (1 x 10 MW)	10	11.06.88	June 2023	Category-II
	SUB TOTAL	60.50 MW			
	TOTAL CATEGORY-(I & II)	622 MW			

Annexure-IV

<u>List of Hydro Projects outlived their Normative Life of 30 years & due for</u> <u>R&M in Next 5 years:-</u>

Sr. No.	Name of Hydro Electric Project	Installed Capacity (MW)	Date of Commissioni ng	Completion of 35 years Normative Life	Category
1.	Khadakwasla				
	1) Panshet (1 x 8 MW)	08	31.03.91	March, 2026	Category-II
	2) Varasgaon (1 x 8 MW)	08	21.08.91	August, 2026	Category-II
2.	Kanher (1 x 4 MW)	04	18.08.91	August 2026	Category-II
3.	Bhatsa (1 x 15 MW)	15	28.09.91	September 2026	Category-II
4.	Dhom (2 x 1 MW)	02	1) 31 . 03.92 2) 13 . 03.92	March 2027	Category-II
	TOTAL	37 MW			

Annexure 35

MYT petition formats for MSPGCL stations -- In soft format Excel file.

Annexure 36

Formats for Provisional Tariff for Bhusawal Unit # 6 -- In soft format Excel file.