MAHAGENCO

MAHARASHTRA STATE POWER GENERATION CO. LTD.

Office of Chief Engineer (Projects & Planning),
'Prakashgad', 3rd floor, Bandra (East), Mumbai-400 051
Phone: (O) 022-69852200 / 022-69853535 (Extn.3520) Email-cgmgpp@mahagenco.in

Ref. No. CE(P&P)/KRD 2x660 MW/U-11&12/BTG/Civil/ 0127 Date: 7 FEB 2025

LETTER OF AWARD

For Civil works of Plant

By Post/Email

To

M/s. Bharat Heavy Electricals Ltd.,
BHEL House,
Siri Fort,
NEW DELHI - 110 049
Email: jgulati@bhel.in, scv@bhel.in, ajaya@bhel.in

Subject : Design, Engineering, Manufacture, Inspection, Testing at Manufacturer's work, supply, Forwarding to Site, Civil, Structural & Architectural Works, Marine-cum-Erection insurance, Transportation, Delivery, Unloading, Receipt at Site, Storage at Site, Erection, Testing and Commissioning of Main Plant (BTG Package) comprising of Steam Generator, Steam Turbine & Generator complete with all auxiliaries, accessories including FGD, SCR and Supply of mandatory spares, special tools & tackles for Koradi Thermal Power Station 2x660 MW Units - 11 & 12 Project on Engineering Procurement & Construction (EPC) Basis - Civil works of BTG plant - reg.

Reference:

1. IFB No. RFx No 3000046202 issued on 01.03.2024 & final extension issued for bid submission in SRM system, till 22.07.2024.
2. Pre-bid meeting conducted on date 09.05.2024 & 10.05.2024.
3. Amendment 1 to 9 and addendum 1 to 6 along with replies on pre-bid queries issued issued in SRM system on 21.06.2024.
4. Corrigendum -1 along with replies on additional pre-bid queries issued for Bid Specification issued in SRM system, on 04.07.2024.
5. Amendment No. 10 & 11 along with replies on additional pre-bid queries issued in SRM system on 18.07.2024.
6. M/s BHEL's offer no. MS-1-23-E-0012 dtd. 20.07.2024 & opened on 26.07.2024 (Techno- commercial bid).
7. M/s BHEL's Online Price bid proposal (opened on 05.08.2024).
8. Post bid meetings carried out on 22.08.2024, 25.09.2024 & 03.10.2024.
9. Minutes of Meeting dtd. 10.01.2025.
10. CE (P&P)'s email dtd. 14.01.2025.
11. M/s BHEL's revised offer no. MS-1-23-E0012 dtd. 16.01.2025.

Dear Sir,

With reference to your Bid Proposal dtd. 20.07.2024 submitted against RFx no. 3000046202 in respect of Koradi Thermal Power Station 2x660 MW Units – 11 & 12 Project on Engineering Procurement & Construction (EPC) Basis for BTG Package, this is to inform you as under:

1.0 AWARD OF CONTRACT:

In accordance with the documents and correspondence cited under references above, we are pleased to award the work of implementation of Koradi Thermal Power Station 2x660 MW Units – 11 & 12 (Main Plant BTG Package) Project on Engineering Procurement & Construction (EPC) Basis as prescribed in the bid specification No. RFx No 3000046202 read with subsequent corrigendum, addendum, amendment, clarifications, resolutions, Minutes of Meetings (MOM), etc. as a fully integrated package consisting of supply of equipment, systems and rendering services as cited in bid specifications.

2.0 SCOPE OF CONTRACT:

2.1 It is not the intent to list out complete scope of work hereunder. However, the broad scope of the work shall include Design, Engineering, Manufacture, Inspection, Testing at Manufacturer's work, supply, Forwarding to Site, Civil, Structural & Architectural Works, Marine-cum-Erection insurance, Transportation, Delivery, Unloading, Receipt at Site, Storage at Site, Erection, Testing and Commissioning of Main Plant (BTG Package) comprising of Steam Generator, Steam Turbine & Generator complete with all auxiliaries, accessories including FGD, SCR and Supply of mandatory spares, special tools & tackles for Koradi Thermal Power Station 2x660 MW Units – 11 & 12 (Main Plant BTG Package) Project on Engineering Procurement & Construction (EPC) basis as prescribed in the bid specification No. RFx No 3000046202 read with subsequent corrigendum, addendum, amendments, clarifications, resolutions, MOM, etc. as a fully integrated package consisting of supply of equipment, systems and rendering services as cited in bid specifications.

2.2 The Bid Specification and the subsequent correspondence referred above shall form the integral part of this contract. The equipment/system/item required for successful completion and operation of plant, if not explicitly stated but required and explicitly not excluded from the scope of work, shall deemed to have been included in the contractor's scope and shall be supplied/provided by the contractor within the contract price.

3.0 CONTRACT PRICE:

The Contract Price for Civil, Structural, Architectural and Constructional works pertaining to civil scope (including associated civil supply component) of Main Plant (BTG) for Koradi 2x660 W Project Unit -11 & 12 is as detailed below:

Sr. No.	Particulars	Amount in Rs.
A.1	Price for Civil Works related Design Engineering Civil Construction, Structural and Architectural Works (including associated supply)	14,100,000,000.00
A.2	GST @18%	2,538,000,000.00
A.3	Total Price Inclusive of GST	16,638,000,000.00
In words: Rupees One Thousand Six Hundred and Sixty Three Crores and Eighty Lakhs only		

Note: Total price as per A.3 above is inclusive of all other taxes, duties, royalties, cess, etc. with reference to clause 16.2 of Section-I, Volume-I of bid specifications.

4.0 TAXES & DUTIES:

Amount of Taxes & Duties shall be paid as per the provisions of bid specifications. However, Statutory variation in taxes & duties, shall be paid in line with provisions of Clause no 24.0 of Section-2B, Volume – I of Bid Specification.

5.0 INSURANCE:

5.1 The Contractor shall arrange for insurance of equipment and materials included under the scope of contract including but not limited to marine cum-storage-cum-erection insurance policy. The Contractor shall procure All Risk Marine-cum-Erection Insurance policy which shall insure fully and properly in fully convertible currency the goods to be supplied under this contract against loss or damage incidental to manufacture or acquisition, risks to be covered from his works to port of discharge, marine transportation, clearing forwarding and handling at port of entry, and equipment supplied from his works or sub-contractors works to project site, inland transportation up to project site (warehouse to warehouse), storage and handling at site and erection, testing and commissioning and up to successful Trial Operation of the unit in the manner specified under Clause No. 37.3, Section 2, Volume 1 of Bid Specifications.

In case the Trial Operation is delayed for the reasons attributable to the owner, his authorised representative or any other agency appointed by the owner, the insurance policy shall be extended by the Contractor till completion of Trial Operation of the Plant and the actual premium charges along with applicable tax and cess towards such extension of insurance policy, shall be reimbursed by the Owner to the Contractor at actuals without any handling charges.

Contractor shall procure the All Risk Marine-cum-Erection Insurance policy only from the "Directorate of Insurance, Maharashtra State, Mumbai".

5.2 Immediately after issuance of the LOA, the contractor shall obtain the quotation from the Director of Insurance and approach the owner for its consent for the same. The owner may participate in the process of finalising the insurance charges with the Directorate of Insurance.

5.3 The charges levied by the Directorate of Insurance or Lead Insurer proposed by them together with taxes and duties applicable thereon, if any, shall be reimbursed to the contractor at actual within 30 days from the date of submission of invoice along with all the relevant documents including money receipt.

6.0 CONTRACT PERFORMANCE SECURITY:

6.1 The successful bidder (Contractor), within 30 Days from the date of issuance of the LOA, shall submit the bank guarantees as under:

i) The Contract performance security amounting to 10% of the Contract Price (excluding taxes and duties) strictly in the format as per Schedule -8 (A) issued by any Nationalized Bank/ scheduled commercial bank as notified by the Reserve Bank of India.

ii) If applicable, On demand bank guarantees issued on behalf of every executants of the Deed(s) of joint Undertaking except for the bidder amounting to 0.5% of the Contract Price in the format as per Schedule-8 (B) issued by any Nationalized Bank/scheduled commercial bank as notified by the Reserve Bank of India.

iii) If applicable, On demand bank guarantee issued on behalf of the consultant of the successful bidder amounting to INR Fifteen Lakh in the format as per Schedule-8 (C) issued by any Nationalized Bank/ scheduled commercial bank as notified by the Reserve Bank of India.

6.2 All the above bank guarantees shall be kept valid for the period of 90 Days beyond the expiry of the Defect Liability Period with further claim period of 6 months.

6.3 The performance security will be returned to the Contractor without any interest after successful completion of the defect liability period and after completion of Contractor's other obligations under the contract.

7.0 CONSIGNEE:

All the goods supplied pursuant to the contract shall be consigned as per the instructions stipulated under Clause No. 5, Section - 3, Vol. I.
The imported goods shall be consigned to the MSPGCL only to their address at site. Contractor will be responsible for generation of E-way Bills.

8.0 WORK COMPLETION SCHEDULE:

8.1 The duration for completion of various phases of the project from the "Zero Date" is as under:

Sr. No.	Milestone	Duration (Months) Unit-11	Duration (Months) Unit-12
1.	Synchronisation of the Unit on designated Fuel	49	55
2	Completion of Trial Operation with all standby auxiliaries duly commissioned	51	57
3	Completion of Performance Guarantee Test and handing over the unit to the Owner	52	58

8.2 The Contractor, within the period of one Month from the date of issuance of LOA, shall submit micro detailed Work Completion schedule indicating all Construction, Erection & Commissioning activities in Microsoft Project format (*.mpp) to match the Contractual Completion Period, to Chief Engineer (P&P) for approval. In the event of more than one unit, the facilities/Equipment (including standby Equipment) common for more than one unit shall be covered under project plan of the first unit.

8.3 The schedule shall be generally based on the Owner's standard template of Work Breakdown Structure (WBS). The configuration of the Work Breakdown Structure (WBS) for the project shall be as per Bid Specification.

8.4 The approved Work Completion Schedule shall be included in the Contract Agreement and shall be integral part of the Contract. The Contractor should note that unless the schedule is approved, the construction activities will not be allowed to be started and payment of invoices except for advance payment will not be possible.

9.0 LIQUIDATED DAMAGES:

9.1 Liquidated Damages for Delay in Completion of Works:
If the contractor fails to complete the Successful Trial Operation of the main plant within the work completion period as per Schedule – 6, the contractor shall pay liquidated damages to the owner as per Clause no 30.0, Section 2, Volume 1 and at the rate stipulated under Clause No.6.2, Section – 3, Volume – 1 read with Amendments to the Bid specifications.

9.2 Liquidated damages for failure to meet performance guarantee:
If after the completion of the performance guarantee test in accordance with the Clause 39, Section-2, Volume-1, it is proven that the performance guarantees are deviating from their value guaranteed by the contractor as stipulated under the Clause No. 6.3, Section–3, Volume – I of the Bid specifications read with MOM dated 10.01.2025, Amendments of the Bid

specifications and reply to pre-bid queries, the contractor shall pay the owner the Liquidated Damages as stipulated thereunder.

9.3 The aggregate liability of the contractor towards payment of Liquidated Damages stipulated under clause Nos. 30.1 and 30.2, Section 2, Volume 1 shall not exceed 7.5% and 10% of the contract price respectively. The overall capping for liquidated damages against Cl. No. 30.1 & 30.2, Section 2, Volume 1 shall be limited to 15% of contract price. For the purpose of Clause No. 30, Section 2 Volume 1, the contract price shall mean the contract price (excluding price of mandatory spares along with applicable freight) along with applicable price variation excluding the amount of taxes & duties.

10.0 TERMS OF PAYMENT:

10.1 Application for the Payments:

10.1.1 For all payments, the application and the invoices along with the documents listed in the relevant clauses of terms of payment shall be submitted by the Contractor to the Project Manager. However, for the Advance Payment, the application and the invoices along with the documents listed in the relevant clauses of terms of payment shall be submitted by the Contractor to the Chief Engineer (P&P) & the advance payment shall be released from Head Office, Prakashgad, Mumbai. The supply invoice (except in case of advance payment), shall invariably contain the Purchase Order (approved BBU) number, Item code as per the Purchase Order and delivery challan no. of the contractor vide which the material was delivered.

10.1.2 Each such application shall state the amount claimed and shall set forth in detail, in the order of the Work Order, particulars of the services rendered pursuant to the contract. No sum shall be included in any payment application in respect of the service that, according to the decision of the Engineer, does not comply with the contract.

10.1.3 The payments shall be released by the Project Manager or the financing institute(s) with whom the owner has tied up the funding for this project, through Crossed Cheque/NEFT/RTGS.

10.1.4 The owner, as per guidelines and conditions specified herein, shall arrange the payment to the contractor only for the performance of the works under the contract. All payments during the currency of the contract shall be "on account" payments only. The payments shall be made in Indian Rupees as per the contract.

10.2 Advance payment:

10.2.1 **10%** of contract price and taxes payable on the advance payment, if any, shall be paid within 21 days upon mobilisation of contractor's establishment at site for undertaking services against this contract and submission of the documents as under:

i) Invoice in triplicate (one original + two copies).
ii) A Copy of Letter of Award issued by the owner duly acknowledged by the contractor.

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iii) A copy of the acceptance of the contract performance security issued by the owner/the Project Manager.

iv) A copy of the acceptance of the bank guarantee of equivalent amount submitted by the contractor against advance payment.

v) A copy of "site mobilisation of contractors establishment" certificate issued by the owner/the Project Manager.

vi) A copy of All Risk Marine-cum-Erection Insurance.

10.2.2 In the event of order for more than one unit, the unit wise advance shall be in proportion with the contract price allocated to the respective unit.

10.2.3 The advance paid as above shall be interest free up to the scheduled date of Trial operation of the unit as per the approved project schedule. The advance shall be adjusted against the services rendered by the contractor on prorata basis and shall be determined by the value of services rendered by the contractor against the contract irrespective of the fact whether payment against such services are made by the owner or otherwise. However, the contractor may seek accelerated/onetime adjustment of the advance on or before the scheduled date of Trial operation of the unit as per the approved project schedule.

10.2.4 For the un-recovered advance, if any, beyond the scheduled date of completion of trial operation of the unit as per the approved project schedule, interest at the rate of whichever is higher of i) one percent higher than the rate of borrowing by the owner for this project or ii) the prevailing Retail Prime Lending Rate (RPLR) of State Bank of India shall be levied.

10.2.5 The Contractor may, if he so desires, reduce the value of Bank Guarantee(s) submitted against advance payments after every three (3) months to the extent of advance actually adjusted. The application for reduction in the value of the Bank Guarantee shall be submitted to the Project Manager.

10.3 Progressive Payment:

10.3.1 Payments towards Services Rendered:

10.3.1.1 **90%** of the Contract price (excluding taxes and duties) as per the approved billing breakup minus advance adjustment on prorate basis (e.g. 80% if advance paid till then is 10 %) together with applicable tax as stipulated under Clause No. 23 shall be paid on prorata basis within 21 days from the date of submission of the invoice and related documents as mentioned below:

i) Invoice : 1 original+ 2 copies

ii) Service entry sheet approved by the Owner : 3 copies

10.3.1.2 10% payment of invoice value shall be retained and out of which 5% payment shall be released upon completion of successful Trial Operation within 21 days from the date of submission of application for release of payment along with a) Certificate issued by the Project Manager declaring the completion of successful trial operation b) Certificate issued by the Project Manager declaring the completion of all the services to be rendered for successful Trial Operation.

Contract value for this purpose shall be excluding Taxes and Duties and shall be calculated apportionately for each unit (i.e. half of the total contract price).

10.3.2 Final Payment against site works:

Balance 5% payment shall be released upon completion of successful PG Test within 21 days from the date of submission of application for release of payment along with i) Certificate issued by the owner/engineer declaring completion of successful Performance Guarantee Test and ii) Certificate issued by the Project Manager declaring the completion of all the services to be rendered against the contract.

10.4 Payment of Price Adjustment:

Pursuant to provisions of Clause No. 25, Section - 2B, Volume - I of Bid Specification, The Contract price (excluding taxes) less advance paid shall be subjected to the price variation.
Price variation shall be paid; if any, for the corresponding period, with base indices submitted in your offer and as per the formulae given in SCHEDULE-3. The Price Variation shall be subjected to a ceiling of (+/-) 20% of the Contract price (excluding taxes).

a. 90% payment towards the Price Adjustment on supply of equipment/mandatory spares along with 100% taxes thereon shall be paid against submission of invoices along with documentary evidence (one original + two copies) as stipulated in bid specification Clause-10, Section-2A, Volume-I and Clause-25, Section-2B, Volume-I as the case may be.
b. Balance 10% payment of price adjustment shall be released as per the provisions of Clause no. 10.3.1.2 & 10.3.2 above.

10.5 Payments against Statutory Variation:

100% Payments towards Statutory Variation as per bid specification shall be made to the contractor along with payment of respective invoice and documentary evidence of applicability of such tax statutory variations.

10.6 Statutory Deductions (Deduction of Tax at Source):

10.6.1 Statutory deduction towards deduction of tax at source (TDS) under the Income Tax Act, Goods and Service Tax (GST) Act and any other taxes & duties as may be applicable under any other act(s), shall be made by the owner from the contractor's respective invoices, as per the prevailing statutory requirements and necessary TDS certificate shall be issued in favour of the contractor.

10.6.2 However, if the contractor submits the certificate(s) from the respective statutory authorities exempting the contractor from deduction of such tax(es) or allowing deduction at lower rate or allowing deduction of certain amount, as the case may be, the action as per the stipulations of the certificate shall be taken while releasing the payments to the Contractor.

10.6.3 As per Building & Other Construction Workers Act-1996, BOCW cess @1% of contract price of Erection, Testing & Commissioning Contract and Civil works contract shall be deducted from the invoices of the contractor and deposited to the concerned authorities. Any increase or decrease in the rate from the next day to the Record Date shall accrue to the Owner.

10.6.4 On Quarterly basis, the Contractor shall submit Sub-contractor wise Reconciliation Statement of Payments made to respective Sub-Contractor jointly signed by the authorized representatives of the Contractor and the Sub-contractor depicting therewith details of invoices raised by the Sub-contractor, recoveries/retentions if any, amounts due, their due dates, dates of payments made, balance payment etc. The format for such statement shall be finalized during the execution of the Contract

11.0 ROYALTY CHARGES LEVIED BY GOVERNMENT:

11.1 Any royalty required to be paid for excavation work, back filling, materials borrowed from outside for development/embankment etc. shall have to be paid by the contractor to the concerned revenue authorities at his own cost and the contractor shall be fully responsible for the same.

11.2 In the event of there being a statutory increase in the rates of royalty charges/fresh levy of royalty on materials, the same shall be reimbursed to the Contractor upon submission of original challan by him of having made the payments at revised rates. In the event of there being a decrease in such rates, the same shall be recovered from the Contractor. The base date for calculating the increase or decrease shall be the rate as on seven (7) days prior to the deadline set for Price Bid submission. The total reimbursement (positive or negative) as specified above, to be paid or recovered, shall however be calculated on the quantity of materials actually considered while making the royalty payments to the concerned authorities, or the theoretical consumption of these materials (calculated on the basis of the volume of concrete or fill accepted for payment), whichever is less, and on the basis of documentary evidence of Govt. Notification. However, the Contractor will settle claims, if any, on account of over charge by the State Authorities.

12.0 ZERO DATE OF THE CONTRACT:

"Zero Date" shall be the date of issuance of this LOA.

In case of delay in first advance payment beyond the period specified in the LOA for the reasons attributable to Owner, the zero date shall be extended by the period equal to the delay in making the payment of first instalment of the advance to the contractor.

13.0 FINAL ACCEPTANCE AND HANDOVER OF THE UNIT:

13.1 The owner shall accord final acceptance of the unit and takeover the unit from the contractor for commercial operation only if:

- The trial operation of the unit in accordance with the provisions of the contract is completed successfully.
- The Performance Guarantee Test is successfully completed (All the tests covered under LD clauses and under corrections).
- Submission of Performance Guarantee Test reports by the contractor and acceptance of the same by the Owner.
- All permits required to operate and maintain the Unit/Block/Plant, which are to be obtained by the Contractor, have been so obtained.
- All documents/manuals required under the contract to start up, operate and maintain the plant are delivered to the owner.
- The mandatory spares and special tools and tackles ordered against the Contract and which Owner considers essential to be supplied before Taking over of Plant for uninterrupted Operation of the Plant are delivered to the owner.
- Contractor has successfully completed the training programme for Operation and Maintenance personnel.

13.2 Further, the contractor shall ensure that

- All activities are completed as per the scope of the contract. All touchup & final painting and other finishing works are completed.
- All punch list points are closed or reconciled between Contractor and Engineer.
- All roads and drains are completed and smoothly interconnected at terminal points
- All drains are cleaned and covered
- Rain water harvesting is completed
- All construction wastes are properly disposed off and all scraps are sorted, segregated and stored properly as directed by engineer.
- All temporary works constructed by Contractor for establishing the project are removed if directed by engineer.
- All areas are cleaned and paint markings are provided for demarcations, wherever required and as instructed by the Engineer.

14.0 DEFECT LIABILITY (GUARANTEE) PERIOD

14.1 The Contractor shall guarantee that the equipment supplied shall be new and in accordance with the contract documents and be free from defects in design, material and workmanship for a period of 12 (twelve) calendar months commencing immediately upon completion of successful Performance Guarantee Test of the Plant OR taking over of the plant by the owner as per the provisions of Clause No. 41.4, Section-2 of bid specifications above whichever is earlier.

However, Defect Liability Period shall be limited to not later than 18 months after successful completion of Trial operation if intimation is received from Contractor within one month after successful completion of Trial Operation regarding readiness to perform PG Test and all major punch points which affect performance of plant directly are completed by contractor. The Contractor shall be responsible for replacement of any defective part in the equipment arising from faulty design, materials and/or workmanship. Such replaced defective parts may be collected by the contractor at his own cost from the site.

14.2 Latent Defect liability period shall be 24 months from the end of Defect Liability period.

14.3 At the end of defect liability period, the Contractor's liability ceases except for latent defects and Contractor's obligation to prove 90% availability of the plant. In respect of goods supplied by sub-contractors to the Contractor, where sub-contractor provides a longer guarantee than the one indicated in this contract, the Owner shall be entitled to the benefit of such longer guarantees.

14.4 The Contractor shall guarantee 90 % availability of SG, STG and associated auxiliaries for one (1) year from the date of successful completion of Performance Guarantee Test/Taking over of the plant in terms of the contract. In case 90 % availability of SG, STG and associated auxiliaries is not achieved, Defect Liability Period shall be further extended to one year from the date of repair/replacement of the equipment. Accordingly, Contract Performance Security shall require to be extended, till completion of Defect Liability Period.

15.0 SETTLEMENT OF DISPUTES:

15.1 All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the contractor to the Chief Engineer (P&P) and the Chief Engineer (P&P) shall (within 120 days) after receipt of the contractor's representation make and notify decisions of all matters referred to by the contractor in writing.

15.2 Unsettled disputes or differences shall be taken up by either party for resolution through Administrative Mechanism for Resolution of CPSES

Disputes (AMRCD) as mentioned in DPE Office Memorandum No. 05/003/2019-FTS-10937 dated 14.12.2022 issued by Department of Public Enterprises, Ministry of Finance, Government of India and its further clarifications, modifications and amendments, issued from time to time. The decision of AMRCD on the said dispute will be binding on both the parties.

16.0 CROSS-FALL BREACH AGREEMENT

The award of three Contracts shall not in any way dilute the responsibility of the Contractor for the successful completion of the project as per specification on single point responsibility basis. All the above Contracts shall contain a Cross-Fall Breach clause specifying a breach in one Contract shall automatically be construed as a breach of the other Contracts which will confer a right on the Owner to terminate the other Contract(s) also at the risk & cost of the Contractor.

17.0 GOVERNING LAW AND JURISDICTION:

This contract shall be governed and construed in accordance with the laws of India. The courts in Mumbai shall have exclusive jurisdiction to decide any disputes arising out of or in relation to the contract.

You are requested to confirm the acceptance of this Letter of Award within 7 days from date of issuance of LOA. Further, furnish the contract performance security at the earliest. You are also requested to submit the draft contract agreement at the earliest for our review and comments so as to finalize the same.

This Letter of Award (LoA) is not exhaustive and is not intended to cover all terms & conditions of the contract. For details please refer Bid specification (RFx No 3000046202) along with Amendment, corrigendum, addendum, clarifications, Minutes of meetings and other correspondence, if any, in this matter.

Thanking you,
Encl: as above.

Yours truly,
07.02.2025
Chief Engineer (P&P)

Copy s.w.rs. to:
Director (Projects) / Director (Operations) / Director (Finance) / Director (Mining)
Executive Director (Projects)/(O&M-I)/(O&M-II)/ (HR)/(Coal)/(E&S)

Copy f.w.cs. to:
Chief Engineer (Project) Koradi/ (O&M), Koradi/(Const), Koradi/ (Civil-I)/
Chief Engineer (Civil-II)/(FM)/(Coal)/(PMG)/(RCD)/(E&S)/(Tech)
Chief General Manager (Finance)/(Accounts)
TA to CMD

Copy to:
DyCE P&P-(Commercial/BTG/BoP)
GM (HO A/C)
Sr. Manager (P&P)- This has reference to IA No. 108 dated 07.02.2025.

Price Schedule

Civil, Structural, Architectural and Constructional works

Sr. No.	Particulars	Amount in Rs.
A.1	Price for Civil Works related Design Engineering Civil Construction, Structural and Architectural Works (including associated supply)	14,100,000,000.00
A.2	GST @18%	2,538,000,000.00
A.3	Total Price Inclusive of GST	16,638,000,000.00
In words: Rupees One Thousand Six Hundred and Sixty Three Crores and Eighty Lakhs only		

Total price as per A.3 above is inclusive of all other taxes, duties, royalties, cess, etc. with reference to clause 16.2 of Section-I, Volume-I of bid specifications.

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Schedule - 3

Details of Price Adjustments

SCHEDULE FOR PRICE ADJUSTMENTS

Pursuant to provisions of Clause No. 10, Section - 2A and Clause No. 25, Section - 2B, Volume - I of Bid Specification, we are herewith submitting our formulae for adjustment of various Price components as under:

1.0 Supply of Equipment, Materials:

1.1 Supply of Equipment:

1.1.1 The Ex-Works/FOB price element of price for supply of Equipment and Mandatory Spares thereof shall be subject to price adjustment limited to ±20% of the said price component.

1.1.2 The price adjustment shall be done as per following formula:

$EC_1 = EC_0*[0.2 + (a*A_1 / A_0)+(b*B_1 / B_0)+(c*C_1 / C_0)+ (0.25*L_1/L_0)]$

Where,

EC_0 = Ex-works / FOB supply price-component (without taxes and duties, inland freight, Insurance etc.) less advance paid of the Contract value for equipment, shipment-wise.

EC_1= Adjusted supply price-component of Equipment (without Taxes & duties, inland freight, insurance, etc.) less advance paid Shipment-wise.

a = Co-efficient of steel material involved in the ex-factory / FOB price of the Equipment / materials.

b, c = Co-efficient of any other material involved in the ex-factory/ FOB price of the Equipment / Materials to be selected by the Contractor and indicated in the Contract.

a+b+c = 0.55 (this factor cannot change)

Co-efficient of labour component in the ex-factory /FOB price of the Equipment/Materials = 0.25

A, B, C = published price indices of materials corresponding to a, b and c.

L = All India consumer Price Index for industrial workers as published by labour Bureau, Shimla, Govt of India. Subscript '0' refers to indices/exchange rates as on Base date. Whereas, the Subscript '1' refers to the indices/exchange rates as on:

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i) One Month prior to the date of shipment, for labour;

and

ii) at the expiry of two-third (2/3) period from the zero date to the date of Shipment, for materials, in case of a, b & c.

1.1.3 The indices selected for this purpose by the bidder/Contractor against A, B & C above are as under:

Sr. No.	Name of the Material/ Labour	Co-efficient of Material	Publication details	Value of Index as on Base Date*
1	a =All commodities	0.35	Economic Advisor/ RBI Bulletin Base Year 2011-12=100	154.0
2	b = Manufacturer of other fabricated metal products	0.10		145.8
3	c =Manufacturer of Basic Metals	0.10		143.3
4	L= All India Consumer Price Index Number For Industrial Workers (All India Monthly Average)	0.25	Labour Bureau Shimla/RBI Bulletin	141.4

*Base Date shall mean the date 30 days prior to the date set for opening of Cover No.1 of bid.

1.1.4 In any case, the total price adjustment payable against this Contract for Equipment & Material / Mandatory Spares as the case may be shall not exceed ± 20% of the Ex-Works/FOB price (without taxes and duties, inland freight, Insurance etc.) of the Equipment & Material/Mandatory Spares as the case may be and not for individual invoice or for individual shipment.

1.1.5 In the event of the shipment beyond scheduled date of supply completion of the respective equipment/spares/material as the case may be, for the reasons attributable to contractor, the price adjustment shall be worked out based on i) the scheduled date of supply completion of equipment/spares/material and ii) the actual date of supply completion of the same and whichever is beneficial to the Owner shall be payable.

2.0 Erection, Testing & Commissioning Services:

2.1 The Contract price adjustment for Erection, Testing & Commissioning Charges shall be as per following formula:

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$E_1 = E_0*[0.25+ (0.75*Cp_1/Cp_0)]$

Where,

$E_0 =$ Basic Price (without taxes and duties, inland freight, Insurance etc.) less advance paid for Erection, Testing & Commissioning charges completed during the Month.

$E_1 =$ Adjusted Price (without taxes and duties, inland freight, Insurance etc.) less advance paid for Erection, Testing & Commissioning charges completed during the Month.

$Cp_0=$ Value of All India Consumer Price Index for Industrial Workers as on Base Date as Published by Labour Bureau, Shimla, Government of India. i.e. 141.4 [Base Year: 2016].

$Cp_1=$ Value of All India Consumer Price Index for Industrial Workers applicable for the corresponding Month as Published by Labour Bureau, Shimla, Government of India.

2.2 In the event of the work performed beyond scheduled date of completion of the respective activity, for the reasons attributable to the Contractor, the price adjustment shall be worked out based on i) the scheduled date of completion of respective activity and ii) the actual date of completion of the activity and whichever is beneficial to the Owner shall be payable.

2.3 In any case, the price adjustment shall not exceed ± 20% of the Contract price (without taxes and duties, inland freight, Insurance etc.) of Erection, Testing & Commissioning.

3.0 Price Adjustment for Civil, Structural & Architectural Works:

3.1 The Contract price adjustment for Civil, Structural & Architectural Works shall be as per following formula:

$C_1 = C_0*[0.25+ (0.75*Cw_1/Cw_0)]$

Where,

$C_0 =$ Basic Price (without taxes and duties, inland freight, Insurance etc.) less advance paid for Civil, Structural & Architectural Works completed during the Month.

$C_1 =$ Adjusted Price (without taxes and duties, inland freight, Insurance etc.) less advance paid for Civil, Structural & Architectural Works completed during the Month.

$Cw_0=$ Value of Consumer Price Index (New Series) for Industrial Workers applicable for working price centre (Nagpur) as on Base Date as Published by

Labour Bureau, Shimla, Government of India. i.e. 144.0 [Base Year: 2016]

Cw_1= Value of Consumer Price Index (New Series) for Industrial Workers applicable for working price centre (Nagpur) applicable for the corresponding Month as Published by Labour Bureau, Shimla, Government of India.

3.2 In the event of the work performed beyond scheduled date of completion of the respective activity, for the reasons attributable to the Contractor, the price adjustment shall be worked out based on i) the scheduled date of completion of respective activity and ii) the actual date of completion of the activity and whichever is beneficial to the Owner shall be payable.

3.3 In any case, the price adjustment shall not exceed ± 20% of the Contract price (without taxes and duties, inland freight, Insurance etc.) of Civil, Structural and Architectural Works.

Schedule – 4

Details of Imported Input Material Included in Supply Price of Equipment, Materials & Mandatory Spares

(CFR Basis)

S.N.	ITEM DESCRIPTION	UOM	QUANTITY	VALUE In INR
1	Imported Input Material included in Supply Price of Equipment, Materials & Mandatory Spares on CFR Basis	-	-	900,00,00,000.00
TOTAL in INR				**900,00,00,000.00**

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Schedule - 6

Details of Work Completion Schedule and Inputs Required from the Owner

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WORK COMPLETION SCHEDULE

Work Completion Schedule in line with Clause No. 18, Section-I comprising of major milestones as under:

Sr. No.	Milestone Activities	Duration from the Zero Date For,	
		Unit#11 (Months)	Unit#12 (Months)
A	**Boiler, ESP & FGD**		
1	Commencement of Boiler Foundation Works	5	9
2	Commencement of Boiler Supplies	8	10
3	Commencement of Boiler Erection	10	14
4	Readiness of foundation for ESP column erection	14	20
5	Readiness of ID/FD/PA fan Foundations	22	28
6	Hydro test	35	41
7	Readiness of SCR	43	49
8	Readiness of FGD	49	55
9	Completion of Boiler Supplies	50	56
B	**Turbine & Generator**		
1	Commencement of TG building foundations	8	11
2	Commencement of TG foundation & deck	8	10
3	Commencement of Structural erection for TG building	12	15
4	Commencement of TG Supplies	17	20
5	Completion of STG Foundations & Deck	23	26
6	Commencement of Condenser Erection	24	27
7	Completion of TG hall with EOT crane for TG erection	24	28
8	Readiness of GT Foundation	22	28
9	Commencement of Stator Lifting	34	40
10	Completion of De-aerator Erection	32	38

11	Completion of Condenser Erection	38	44
12	Completion of TG Supplies	50	56
13	TG Box up	44	50
C	**Commissioning Activities**		
1	Readiness of DCS for BLU	43	49
2	Chemical Cleaning of Boiler	44	50
3	Completion of Oil Flushing	45	51
4	Boiler Light Up	46	52
5	Readiness of GT	47	53
6	Roads & Paving Complete	44	50
7	Synchronization	49	55
8	Coal Firing	50	56
9	Completion of Trial Operation	51	57
10	Completion of PG Test & Handing over of Unit	52	58
D	Mandatory Spares		
1	Commencement & Completion of Supplies	As per Cl. No. 11.12.1 of Section-2A, Volume-I	

The schedule of end milestones i.e. Synchronization, Coal Firing, Trial Operation and PG Test are fixed. However, the schedule of intermittent milestones may be slightly modified.

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Schedule - 7

GUARANTEE DECLARATION

(Refer Amendment-3 to Vol.-II, Section-2 Performance Guarantees, for further details)

Category-I

Reject the equipment/system/plant & recover from the bidder the payments already made OR Accept the equipment/system after levying LD as per specific clause.

If, the demonstrated guarantees continue to be more than stipulated acceptable shortfall limit, the owner may at his discretion reject the equipment/system and recover the payment already made or accept the equipment/system only after levying liquidated damages against the bidder.

Sr. No.	Guaranteed Parameters	Load Point	Unit	Value Guaranteed (for each unit)
1	Unit Heat Rate at 100% TMCR Load	at 660 MW under rated steam conditions at 33 deg.C cooling water inlet temperature and maximum 10 deg.C temperature rise across the condenser (optimized condenser vacuum), with zero make- up.	kCal/kWh	2110 Maximum
2	TG Output at VWO Condition	Continuous TG output of 693 MW unit load (i.e. 105% of rated load) under rated steam conditions at 33 deg.C cooling water inlet temperature and maximum 10 deg.C temperature rise across the condenser (optimized condenser vacuum), with zero make-up.	MW	693
3	Auxiliary Power Consumption (APC)	Auxiliary power consumption of all BTG package auxiliaries including FGD with 100% TMCR, 33°C cooling water inlet temp., zero make up, guaranteed average condenser pressure	KW	40200 KW Maximum {Unit APC + (half) Station APC}
4	Capacity of Steam Generator (Main Steam)	100% BMCR with Worst coal	TPH	2100 TPH Minimum
5	Average Condenser Pressure	Measured at 300 mm above the top row of condenser tubes with 660 MW output, 0% make	Mm Hg	Bidder to optimize & indicate, considering CW inlet temperature of 33

		up, design CW temperature and design CW flow		deg C and maximum temperature rise across condenser as 10 deg C (however not more than 77 mm hg)
6	Lime stone consumption	100% TMCR, while firing worst coal	Kg/hr	11100 Maximum
7	Ammonia (anhydrous) consumption	100% TMCR while firing design coal.	Kg/hr	445 Maximum

Category-II

Reject the equipment/system/plant & recover from the bidder the payments already made. Conformance to the performance requirements.

Sr. No.	Guaranteed Parameters	Load Point	Unit	Value Guaranteed (for each unit)
1	Suspended Particular Matter(SPM)	100% TMCR, while firing worst coal	mg/Nm3	less than 27 at ESP outlet before FGD inlet at 6%O_2 dry.
2	SO2 in Chimney	100% TMCR, while firing Worst coal	mg/Nm3	less than 70 at 6%O_2 dry.
3	NOx in Chimney	100% TMCR, while firing design coal	mg/Nm3	less than 70 at 6%O_2 dry.
4	Noise Level			All the plant, equipment and systems covered under this specification shall perform continuously without exceeding the noise level over the entire range of output and operating frequency specified in the technical specifications.
5	APH Leakage	Not more than 10%	%	10% Maximum

Category-III

Reject the equipment/system/plant & recover from the bidder the payments already made OR

Accept the equipment/system after assessing the deficiency in respect of various performance & recover amount equivalent to the damage as determine by the owner

Sr. No.	Guaranteed Parameters	Value Guaranteed (for each unit)
1	As listed under clause 11.32.00 of Amendment-3 to Vol.-II, Section-2 Performance Guarantees	

Auxiliary Power Consumption(APC)

a) The respective Auxiliary Power Consumption for Unit and Station (2x660MW BTG Package) are to be calculated in isolation to calculate the respective guaranteed power consumption as is illustrated hereunder: The guaranteed auxiliary power consumption shall be sum of the calculated Unit and Station Auxiliary Power Consumption.

b) Unit Auxiliary Power Consumption

1) The unit auxiliary power consumption shall be calculated using the following relationship, with design coal-

PAU = PU + TL (Unit)

Where,

PAU = Guaranteed Unit Auxiliary Power Consumption
PU = Power consumed by the auxiliaries of the unit under test
TL = Losses of the Generator transformers and Unit Transformers supplied by bidder based on works test reports. While guaranteeing the auxiliary power consumption the bidder shall necessarily include all continuously operating unit auxiliaries.

2) The power consumption (Pu) of entire unit auxiliaries fed from unit transformers shall be measured at the incomers of respective unit boards. Suitable correction for auxiliaries not in service at the time of this measured power consumption like MDBFP etc, shall be done on as per the technical specification. If GCB scheme is adopted, suitable corrections for station auxiliaries shall be done.

3) All unit auxiliaries required to be operated to continuously operate the plant at the rated load of 100% TMCR have to be considered. The auxiliaries to be considered shall include but not be limited to the following:

- Unit Auxiliaries to be considered for calculating PU
- Turbine generator and auxiliaries
  - ◊ Turbine unit oil purifier
  - ◊ Turbine unit control oil purifier
  - ◊ Booster pumps for TDBFP (if applicable)
  - ◊ TDBFP lube. Oil pumps
  - ◊ Feed and discharge pumps of turbine oil purification system
  - ◊ Oil purifiers of TDBFP including feed and discharge pumps
  - ◊ Electric oil heater of TDBFP lube Oil (if applicable)
  - ◊ Electric oil heater for turbine lube oil tank (rated power shall be considered)
  - ◊ Vapour extractor fan motors
  - ◊ MDBFP Auxiliary Oil pump (if applicable)
  - ◊ Condensate Extraction Pumps (CEP)
  - ◊ TG control oil pumps
  - ◊ Oil pumps for HP & LP bypass system
  - ◊ Condenser air evacuation equipment (Vacuum pumps)

- ◊ BFP drive turbine condenser air evacuation pumps (if applicable)
- ◊ BFP drive turbine condenser extraction pumps (if applicable)
- ◊ COLTCS
- ◊ Drip pumps (if applicable)
- ◊ Chemical Dosing pumps
- ◊ Hotwell make up pumps (Duty factor - 0.2)
- ◊ CW Pumps, including all auxiliaries
- ◊ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)

- ♦ Steam Generator and Auxiliaries
  - ◊ Primary Air (PA) Fans including its lube oil pumps
  - ◊ Coal Feeders
  - ◊ Seal air fans
  - ◊ Coal mills including its lube oil pumps
  - ◊ Forced Draft (FD) Fans including its lube oil pumps
  - ◊ Regenerative Air Preheater including its lube oil pumps
  - ◊ Electrostatic precipitators (ESP) - with all TR sets , all hopper heaters including wrap around heaters of adapters, if applicable & all insulator heaters/pent house fans (if applicable) of all ESP passes working and rapping system in normal operation. During the test all hopper heaters including wrap around heaters of adapters, if applicable & all insulator heaters/pent house fans (if applicable)of all ESP passes will be in ON condition and set point temperature shall be kept 5 degree Celsius above the flue gas temperature.
  - ◊ Induced Draft (ID) Fans including its lube oil pumps
  - ◊ Boiler circulation pumps
  - ◊ Scanner air fans
  - ◊ Electrical Heat Tracing (if applicable)
  - ◊ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)

- ♦ SCR system and auxiliaries
  - ◊ Ammonia forwarding pump
  - ◊ Dilution air fan
  - ◊ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)

- ♦ FGD system
  - ◊ Absorber recirculation slurry pumps
  - ◊ Air oxidation blowers
  - ◊ Gypsum bleed pump

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- ◊ All Process/filter water pumps
- ◊ Gypsum dewatering system - Vacuum belt filter, vacuum pump, filtrate pump & agitator, waste water pump and agitator
- ◊ Lime stone preparation system – gravimetric feeder, grinding mill, limestone slurry pump and agitator
- ◊ Sump system – Absorber area sump pump & agitator, gypsum area sump pump & agitator, limestone area sump pump & agitator and auxiliary absorbent pump and agitator
- ◊ All agitators
- ◊ Lime handling system (0.3)
- ◊ Gypsum handling System (1.0)
- ◊ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)

- ♦ Mill Reject System (1.0)
- ♦ Balance of plant - Unitised systems
  - ◊ ACW (booster) pumps of the unit
  - ◊ DMCW pumps to supply cooling water on the primary (DM) side of the plate type heat exchangers in the closed loop Equipment cooling (Unit auxiliaries) water system.
  - ◊ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)
- • Electrical system
- ♦ Losses in Bus ducts (at rated load conditions)
  - ◊ Isolated phase bus duct (IPBD)
  - ◊ Segregated phase bus duct (SPBD)
- ♦ UPS power consumption (at rated load condition)
- ♦ DC System power consumption (at rated load condition)
- ♦ GCB Losses of Unit : Losses and fan power for Generator Circuit Breaker (ifapplicable)
- ♦ Other Unit auxiliaries (Bidder to list all other continuously/intermittently running equipment)

4) Transformer losses (for Unit)

- • Transformer losses (at rated capacity) shall include –
- ♦ Iron loss
- ♦ Copper loss
- ♦ Cooler pump and fan loss
- • Following transformers are included:
- ♦ Generator Transformer losses (at rated Load Condition)
- ♦ Unit auxiliary transformer losses (at rated load conditions)

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- Station transformer losses (at Unit rated load conditions)
- Losses in all other service/auxiliary transformers (at rated load conditions)

5) The bidder shall furnish a list of equipment to be covered under Unit auxiliary power consumption, which shall be subject to Owner's approval. The bidder shall ensure that power supply to all such equipment to be covered under unit auxiliary power consumption is fed from unit board of the respective unit.

6) The measurement for guaranteed auxiliary power consumption shall be carried out during ESP collection efficiency test. The method for computing the power shall be as described below:-

- Power consumption of ESP will be measured pass wise and for one pass/stream (Say ESP-A) at a time with the help of energy meter in ESP MCC.
- Energy meter reading will be taken before starting the collection efficiency test and after completion of collection efficiency test.
- Before starting collection efficiency test, note down energy meter readings for period t1 i.e. E1. The power consumption shall be W1=E1/t1.
- During the collection efficiency test the total energy fed in to ESP MCC of one pass (say ESP-A) will be measured during entire period of collection efficiency test i.e. E2. Total time period (t2) of test shall be noted. The power consumption shall be W2=E2/t2. During the test all hopper heaters of all ESP passes will be in ON condition and set point temperature shall be kept 5 °C above the flue gas temperature.
- Measured power consumption for one ESP pass (say ESP- A)=(W2-W1)
- Measured Electrostatic Precipitator power of one unit= Power of (ESP-A + ESP-B + ESP-C + ESP-D + ESP-E + ESP-F)
- Number of stream & fields shall be as per the PG test of ESP as detailed elsewhere.

7) Guaranteed Unit Auxiliary Power Consumption of FGD system shall be taken by considering the additional pressure drop in the FGD system during FGD SO2 removal efficiency test at specified guarantee point conditions. For this purpose, difference of FGD system pressure drop during FGD SO2 removal efficiency test and that at Unit Auxiliary Power Consumption test shall be loaded as additional Auxiliary Power Consumption.

- Generation from roof top solar during the test period shall be added to the total measured power consumption.

c) Station Auxiliary Power Consumption

1) The station auxiliary power consumption shall be calculated using the following relationship, with design coal-

PAS = PS + TL (Station)

&

PS = SUM (PI x DI)

PS = Total Power Consumption, while running the units at 100% design load for all auxiliaries of the (2x660MW) station, supplied by the Bidder under this Package.

PI = Power consumed by each station auxiliary

DI = Duty factor to be considered for each station auxiliary

TL = In this case (Station) - Transformer Losses of the Station transformers and that of any other Transformers associated with station auxiliary power supply system (excluding those in Unit system like GT, UT, UAT, UST etc.) and shunt reactor supplied by bidder, for meeting station auxiliary power supply, based on works test reports.

2) Losses of transformers shall be considered based on the works test reports as per the criteria specified in subsequent clauses under the subheading Transformers.

3) While guaranteeing the station auxiliary power consumption the bidder shall necessarily include all the station auxiliaries running at full load with duty factors as have been defined herein.

4) The station auxiliaries that shall be running during the guarantee test for calculating " PS " shall include but not be limited to the following:

- Plant Instrument and Service Air Compressors & Air Drying Plant
- ♦ Instrument Air Compressors (All Normally Running ('N_{IA}' Nos.)) - Duty Factor=0.6
- ♦ Service Air Compressors (All Normally Running ('N_{SA}' Nos.)) - Duty Factor=0.35
- ♦ ADP Heaters (if applicable) (All Normally Running ('N_{IA}' Nos.)) - Duty Factor=0.5
- ♦ ADP Blowers (if applicable) (All Normally Running ('N_{IA}' Nos.)) - Duty Factor=1.0
- ♦ Power consumption at rated duty point for compressors to be arrived based on shop test and power consumption at rated duty point for Air Drying plant to be arrived based on site test.
- Air Conditioning System
- ♦ Power consumption at motor input terminals of working units (i.e. excluding stand-by)at its rated duty point of Chilling machines / VAM machine, Chilled water Pumps, Condenser water Pumps, Air handling unit (AHU) fans, cooling tower fans and other auxiliaries for the Air conditioning system of main plant building, FGD control room, ESP control room of each units, AHP control room, service building, administrative building. Power consumption at motor input terminals of working units (i.e. excluding stand-by) at its rated duty point of compressor and condenser fans of air cooled condensing unit, Air handling unit (AHU) fans for the Air conditioning system of auxiliary plants like ESP control rooms, FGD control rooms, etc. Power consumption at motor input terminals of centrifugal fans of mechanical ventilation system.
- ♦ Power consumption at rated duty point for water cooled chillers & air cooled condensing units shall be based on site test and for other drives

like chilled water pumps, Condenser water Pumps & AHU/centrifugal fans shall be based on shop test.

- Auxiliary Water System Pumps (Working Pumps)
  - Service water pumps
  - Potable water pumps
  - DM water transfer pumps
  - Waste water transfer pumps
  - Any other pump/drive required for continuous operation of the plant.
- Fuel Oil System
  - LDO forwarding/pressuring pumps - Duty factor - 0.5
- Plant Illumination
  - Indoor Lighting
  - Outdoor Lighting - Duty factor - 0.4
- DMCW / ECW system for common auxiliaries
  - ECW system for common station auxiliaries (as provided). Total power consumption of all equipments (excluding envisaged standby ones) shall be included.
- Transformers
  - Transformer losses (TL) shall be considered as per following (as applicable)-
    - ◊ GT - 100% no load loss, 54% of Copper losses & 100% Cooler Loss.
    - ◊ ST- 100% no load loss, 8% of Copper losses & 9% Cooler Loss.
    - ◊ UT - 100% no load loss, 52% of Copper losses & 50% Cooler Loss.
    - ◊ Aux/ LT Outdoor/ LT Indoor Transformer: 100% no load loss & 25% of Copper losses
    - ◊ Reactor - losses at rated voltage

5) The above list is not comprehensive and only indicative. Bidder shall furnish the comprehensive list of equipment to be covered under station auxiliary system, which is to be considered under station auxiliary power consumption. That will be subject to Owner's approval.

6) Where duty factor is not indicated the same is to be considered as '1.0'.

7) Auxiliary power for steam generator shall be accounted for continuously operating auxiliaries/ drives as well as intermittently operating drives. Power consumed by intermittently operative auxiliaries/drives shall be on hourly average basis.

8) List auxiliary power consumers and their duty factor will be further finalised during finalisation of PG test procedure.