

**DEEN BANDHU CHHOTU RAM THERMAL POWER STATION  
YAMUNANAGAR**

**(A Unit of Haryana Power Generation Corporation Limited)**

(Regd. Office: C-7, Urja Bhawan, Sector-6, Panchkula)

Corporate Identity No. U45207HR1997SGC033517

Website:- [www.hpgcl.org.in](http://www.hpgcl.org.in)

(An ISO 9001, 14001 & OHSAS 18001 Certified Company)



**TENDER DOCUMENT**

**FOR**

**Annual running contract for O&M of automated PLC based Ash**

**Handling System**

**(Dry and Wet) including Ash Silos & Ash Water Recovery**

**system of 2x300 MW DCRTTP, Yamunanagar.**

**CHIEF ENGINEER/DCRTTP.  
DEEN BANDHU CHHOTU RAM THERMAL POWER STATION, HPGCL,  
YAMUNANAGAR**

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**HPGC**  
AN ISO 9001:2001 & OHSAS 18001  
CERTIFIED COMPANY

**DEEN BANDHU CHOTU RAM THERMAL POWER PLANT, Yamuna  
Nagar**

HARYANA POWER GENERATION CORPORATION LTD.

Regd. Office- C-7, Urja Bhawan, Sec-6, Panchkula

(Corporate Identity Number:

U45207HR1997SGC033517)

Website: [www.hpgcl.org.in](http://www.hpgcl.org.in), E-mail. : [xenahp.dcrtp@hpgcl.org.in](mailto:xenahp.dcrtp@hpgcl.org.in), Fax No. 01732-204513

**INDEX**

<b>Sr. No.</b>	<b>Description</b>	<b>Annexure</b>
1.	Notice Inviting Tender	---
2.	Instructions to bidder on Electronic Tendering System	---
3.	General Instructions for Tenderers	Annexure-I
4.	General terms and conditions	Annexure-II
5.	Scope of work	Annexure-III
6.	List of Consumables	Annexure-IV
7.	List of Fast Moving Spares	Annexure-V
8.	Ash handling Plant Equipments Details	Annexure-VI
9.	Price Quoting Sheet (Price Bid)	Annexure-VII
10.	Preventive Maintenance Schedule	Annexure-VIII
11.	GST Undertaking	Annexure-IX

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Website: [www.hpgcl.org.in](http://www.hpgcl.org.in), E-mail: [xenahp.dcrtp@hpgcl.org.in](mailto:xenahp.dcrtp@hpgcl.org.in), Fax No. 01732-204513**NOTICE INVITING TENDER (E-TENDER)**

Chief Engineer/DCRTPP, HPGCL, Yamuna Nagar invites e-tenders in two parts from the reputed, registered and experienced firms for following works of Ash handling Plant for 2x300 MW Unit-I & II at Deen Bandhu Chhotu Ram Thermal Power Project (DCRTPP), Yamuna Nagar.:-

NIT No.	Description	Period of contract	Tender Fee (Rs.) (Non – refundable)	EMD (Rs.)	e-service Fees (Rs.)	Last date of submission of Bids online
<b>06 /AH-08/2024-25 dated 18.06.2024</b>	O&M of automated PLC based ash handling system (Dry and Wet) including ash silos & Ash water recovery system of 2x300 MW DCRTPP, Yamunanagar.	3 Year	1,180/-	10,00,000/-	1,180/-	10.07.2024

Information Regarding Online Payment of Tender Document, eService & EMD Fee.

1. The Bidders can download the tender documents from the Portal: <https://etenders.hry.nic.in>.
2. The Bidders shall have to pay for the Tender documents, EMD Fees & e-Service Fee online by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between contractors and online payment authorization networks. The Payment for Tender Document Fee and eService Fee can be made by eligible bidders/ contractors online directly through Debit Cards & Internet Banking Accounts and the Payment for EMD can be made online directly through RTGS / NEFT. For online payments, Home page of the e-tendering portal <https://etenders.hry.nic.in> may be referred.

Note: -

1. If the tenders are cancelled or recalled on any grounds, the tender document fees & e-service fee will not be refunded to the agency.
2. Those agency who are exempted from EMD, should submit proof of related documents at least 10 days before end date of “Downloading of Tender Documents & Bid Preparation” stage to publisher of the tender i.e. concerned Executive Engineer.

The following are exempted from depositing the earnest money:-

- i) Public Sector Undertakings of the Central/ Haryana State Government.
- ii) Firms borne on D.G.S. & D/DS&D Haryana rate contracts.
- iii) Firms registered with the Director of Industries, Haryana or registered with National Small Industries Corporation, Govt. of India.
- iv) The firms having permanent EMD of Rs.10.00 Lac at the respective project / office.

The Tenderer can submit their tender documents (Online) as per the dates mentioned in the key dates: -

Key Dates:-

Sr. No.	Department Stage	Tenderer's Stage	Start date and time	Expiry date and time
1	-	Downloading of Tender Documents & Bid Preparation	19.06.2024 09:00 Hrs	10.07.2024 13:00 Hrs
2	Technical Opening (Part-I)	-	12.07.2024 13:00 Hrs	--
3	Short listing of Technical bids & Opening of Price/ Financial Bid		Informed by email or telephone	

### Instructions to bidder on Electronic Tendering System

1. Registration of bidders on e-Procurement Portal:-

All the bidders intending to participate in the tenders processed online are required to get registered on the centralized e - Procurement Portal i.e. <https://etenders.hry.nic.in>. Please visit the website for more details.

2. Obtaining a Digital Certificate:

- 2.1 The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- 2.2 A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant's PAN Card) and Address proofs and verification form duly attested by the Bank Manager / Post Master / Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website – <https://etenders.hry.nic.in>.
- 2.3 The bidders may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from: <https://etenders.hry.nic.in>.
- 2.4 Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt the data and sign the hash during the stage of bid preparation & hash submission. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised to keep a backup of the certificate and also keep the copies at safe place under proper security (for its use in case of emergencies).
- 2.5 In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no- objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.
- 2.6 In case of any change in the authorization, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company.

The procedure for application of a digital certificate however will remain the same for the new user.

2.7 The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

**Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://etenders.hry.nic.in>.**

**For help manual please refer to the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in>.**

Before submitting tenders the instructions may be read carefully regarding submission of tender. If any bidder finds discrepancies or omissions in the tender documents or is in doubt as to the true meaning of any part, he shall clarify same from tender issuing office in writing before the due date of submission of the bid. No arguments on this account whatsoever shall be entertained after the last date & time of submission of tenders.

**3 Opening of an Electronic Payment Account:**

Tender document can be downloaded online. Bidders are required to pay the tender documents fees online using the electronic payments gateway service. For online payments guidelines, please refer to the Home page of the e-tendering Portal <https://etenders.hry.nic.in>.

**4 Pre-requisites for online bidding:**

In order to bid online on the portal <https://etenders.hry.nic.in>., the user machine must be updated with the latest Java. The link for downloading latest java applet is available on the Home page of the e-tendering Portal.

**5 Online Viewing of Detailed Notice Inviting Tenders:**

The bidders can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e-Procurement system on the Home Page at <https://etenders.hry.nic.in>. .

**6 Download of Tender Documents:**

The tender documents can be downloaded free of cost from the e-Procurement portal <https://etenders.hry.nic.in>. .

**7 Key Dates: -**

The tenderers can submit their tender documents (Online) as per the dates mentioned in the following format: -

Sr. No.	Department Stage	Tenderer's Stage	Start date and time	Expiry date and time
1	-	Downloading of Tender Documents & Bid Preparation	19.06.2024 09:00 Hrs	10.07.2024 13:00 Hrs
2	Technical Opening (Part-I)	-	12.07.2024 13:00 Hrs	--
3	Short listing of Technical bids & Opening of Price/ Financial Bid		Informed by email or telephone	

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

If bidder fails to complete the Online Bid Submission stage on the stipulated date and time, his/her bid will be considered as bid not submitted, and hence not appear during tender opening stage.

**8 Bid Preparation (Technical & Financial) Online Payment of Tender Document Fee, e-Service fee, EMD fees and Submission of Bid Seal of online Bids:**

a.	Tender document is available online on <a href="http://etenders.hry.nic.in">http://etenders.hry.nic.in</a>
b.	Earnest Money: for un-registered bidders – Online. Earnest Money Declaration Form: Bidders registered by Haryana Government – the bidder shall upload an earnest money declaration form as per format given in Section – 7 in the bidding document online.
c.	Tender document fee to be paid – Online
d.	Submission of Technical Bid – Online
e.	Submission of Price Bid – Online

The bidders shall have to pay for the Tender document fee, EMD fees & e-Service Fee online by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between contractors and online payment authorization networks. The Payment for Tender Document Fee and eService Fee can be made by eligible bidders/ contractors online directly through Debit Cards & Internet Banking Accounts and the Payment for EMD can be made online directly through RTGS / NEFT. For online payments guidelines, Home page of the e-tendering Portal <https://etenders.hry.nic.in> may be referred.

The tenders shall be opened on the due date by Tender Opening Committee comprising of Executive Engineers, AE/AEE and a representative of finance / account department not below the rank of Section Officer / Divisional Accountant. The tenders shall be downloaded and print outs taken.

The bidders shall upload their technical offer containing documents, Partnership deed, PAN Card, GST Certificate, Undertaking of Non-Blacklisting, Cancelled Cheque / Proof of bank account, Proof of Address, Similar works experience for the category of registration, Qualifying criteria, technical specification, schedule of deliveries, and all other terms and conditions except the rates (price bid) in the part-I (Technical envelope).

**Note: - In case during examination it is found that any bidder for this category of works has not submitted above mandatory documents or has submitted false documents his bid shall be rejected.**

**9 Tender Closing:**

After the submission of bid by the bidders, the bidding round will be closed. Once the online tender is closed, no new Vendor can bid in the tender.

NOTE:-

**(A)** If bidder fails to complete the Online Bid Submission stage on the stipulated date and time, his/hers bid will be considered as bid not submitted, and hence not appear during tender opening stage.

**(B)** From the starting date of Tender downloading to final date of submission of bid, the bidder can rework on his bid number of times he wants. If bidder submits the revised bid including price bid, original bid will automatically deleted and this revised bid will become original bid. No revised bid will be submitted after Part-I (Technical Bid) is opened.

**(C)** Complete bid will only be submitted after realization of tender document's fee and EMD.

**(D)** Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://etenders.hry.nic.in>.

For help manual please refer to the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in>, and click on the available link 'How to..?' to download the file.

**(E) The CBD generated by HEWP portal is not applicable for this work. All contractors shall strictly follow the NIT terms and conditions uploaded by the Engineer In Charge on HEWP Portal and E-Tendering portal.**

**Executive Engineer/AHP,  
For Chief Engineer /DCRTPP,  
HPGCL, Yamuna Nagar.**

**GENERAL INSTRUCTIONS FOR TENDERERS**

**1. PRE- QUALIFYING REQUIREMENT (PQRs) EGIBILITY CONDITIONS FOR BIDDER:**  
Only competent agency is required to undertake this type of work. The qualifying requirement for this work as follows:

a. The firm who has successfully carried out erection, testing & commissioning of any automated PLC controlled Ash Handling system (Wet & Dry) of generating unit of 250MW & above and should have minimum one year experience in its O&M in the proceeding five years.

OR

b. The firm who has minimum 2 years experience of Operation & Maintenance work of similar\* Automated PLC controlled Ash Handling system (wet & dry) of generating unit of 250 MW & above in the preceding five years.

The firm qualifying either of above mentioned conditions must have average annual turnover in last three consecutive financial years ended 31.03.2024 shall not be less than Rs. 4.13 crores *and successfully executed the Work Orders for the same/similar works during last 5-years ending last day of the month previous to the month in which applications are invited having minimum order value as under:*

*Single order of the value not less than Rs. 3.31 Cr.*

Or

*Two orders of the value not less than Rs. 2.07 Cr each.*

Or

*Three orders of the value not less than Rs. 1.66 Cr each.*

The authentic documentary evidence in support of their claim of having said experience and turnover should be enclosed in technical bid for consideration of their tender.

The firm shall submit the satisfactory performance & satisfactory work completion certificate for the work executed. However, the firms who have carried out the O&M work of Ash Handling Plant at DCRTTPP, Yamunanagar shall have to submit the satisfactory performance / completion certificate of DCRTTPP, Yamunanagar for consideration of tender.

\*Note:- Similar work means Operation & Maintenance work of Hydro Pneumatic type Automated PLC controlled comprehensive Wet & Dry Ash Handling System of generating unit of 250 MW & above.

A certificate to the effect that tenderer is not blacklisted from any public sector undertaking, NTPC, BHEL, power utility etc. in last 3 yrs shall also be submitted with part-1 tender.

The part-I of tenders i.e. technical bid shall be evaluated by committee comprising of concerned SE, concerned XEN, one SE nominated by CE and FA & CAO with respect to qualifying requirements and decision of the committee regarding fulfillment of pre qualification requirement shall be final and binding upon the bidders.

The firm should be registered under contract labour (Regulation and abolition) Act, 1970 and possesses a valid labour license for deploying the workers on the work or will obtain the same within 15 days of issuance of work order.

**2. Tenders should comprising of two parts i.e. Part-I (Technical Bid) & Part-II (Price Bid).**

**a) Part-I i.e. Technical bid:**

It shall comprise of qualifying documents, General Conditions of contract, Technical Particulars & Credentials in support of qualifying criteria, detail of Tender documents fee, Earnest money deposited & e-Service Fee online deposited, PAN card, GST certificate, Undertaking of non blacklisting, proof of immovable properties/ self clarification, cancelled cheque / proof of bank account, proof of address, similar work experience for the category of registration and deviations if any, will be opened on due date & time.



**b) Part –II i.e. Price Bid:**

- i) It shall comprise of price bid only will be opened at a subsequent date to be fixed by the competent authority only of those bidders who qualifies the NIT requirements after checking the qualifying criteria & technical discussion on Tender Part-I.
- ii) The Basic unit rate per month for each year is required to be quoted only excluding GST by the firm in the online commercial envelop i.e. price bid. The total amount including GST will be calculated automatically by the system.

**3.**

- a) Any information regarding tender can be had from the office of XEN/AHP, DCRTTP ([xenahp.dcrtp@hpgcl.org.in](mailto:xenahp.dcrtp@hpgcl.org.in)) on any working day prior to last date of submission of tenders. The payment of Tender Document Fee and e-service Fee can be made online directly through Debit Cards & Internet Banking Accounts. The payment of Earnest Money can be made by eligible bidders / contractors online directly through RTGS / NEFT.
- b) Cost of tender and EMD in any other form shall not be accepted.
- c) Every tenderer, while submitting his tender, should online deposit earnest money specified in the NIT through online portal.

The earnest money furnished by the successful tenderer on whom the work order is placed shall be converted into security deposits as a guarantee for faithful and satisfactory execution of the work order.

The EMD of the unqualified bidders will be returned without any interest, as promptly as possible, within 30 days after declaration of qualification result and that of unsuccessful bidder within 15 days of the execution of the contract with the selected bidder.

4. Before submitting tenders, the instructions may be read carefully regarding submission of tender. If any bidder finds discrepancies or omissions in the tender documents or is in doubt as to the true meaning of any part, he shall clarify same from tender issuing office in writing before the due date of submission of the bid.
5. Unless exempted specifically, tenders not accompanied with the prescribed EMD, Cost of tender & e-Service fee shall be rejected. EMD / Cost of Tender shall be in the prescribed mode of payment as asked in the NIT otherwise the tender shall be liable to be rejected.

The earnest money/security deposit shall be forfeited in part or in full under the following circumstances:-

- 1) If the tenderer withdraws his tender at any stage during the currency of validity period.
- 2) If the W.O. has been issued but the contractor refuses to comply with it irrespective of the fact that HPGCL sustains any loss on account of such default or not.
- 3) In the event of a breach of contract in any manner.
- 4) In case of evidence of cartel formation by the bidder(s).
- 5) If the contractor fails or neglects to observe or perform any of his obligations under the contract, it shall be lawful for the HPGCL to forfeit either in whole or in part, in its absolute discretion, the EMD/security deposit furnished by the contractor.
- 6) The forfeiture of EMD/security deposit shall be without prejudice to the right of HPGCL to recover any further amount or any liquidated and/or other damages as admissible under the law, under payments or over payments made to the contractor under this contract or any other contract as well as to take such administrative action against the contractor as blacklisting etc.

- 6.** The validity of the tender / offer shall be for 120 days from the date of opening of the price bid.
- 7.** The details of NIT along with Tender Documents can be seen and downloaded from the portal <https://etenders.hry.nic.in>. as well as HPGCL website [www.hpgcl.org.in](http://www.hpgcl.org.in).
- 8.** The rate negotiations (if any) shall be carried out as per current negotiation policy.
- 9.** Before tendering, the tenderer shall carefully study all the clauses and specifications of the tender documents. If tenderers have any doubt for the meaning of any portion of the tender specifications or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or needs clarification aspects, scope of work etc., he shall at once contact the authority inviting the tender for clarifications before submission of tender. No arguments on this account whatsoever shall be entertained after the last date & time of submission of tenders.
- 10.** Before tendering, the tenderer is advised to inspect the site of work & the environment and make acquaint with actual work and other prevalent conditions, facilities available, position of material and labour. No claim will be entertained later, on the ground of lack of knowledge.
- 11.** The work as a whole will be allotted in a single part to the bidder who is overall lowest in the merit order considering all items of work.
- 12.** The committee nominated by HPGCL shall evaluate all the bids received against NIT on the parameter indicated under heading qualifying requirement at Sr. No. 1 & 2 above. The decision of the committee shall be final.
- 13.** Issuance of Tender Documents to any party shall not construe that such party is considered to be qualified.
- 14.** In case due dates of sale / receipt /opening of tender happens to be holiday in DCRTPP/HPGCL, the needful will be done on next working day.
- 15.** No deviation shall be allowed. However, in case of deviation of taxes etc., the same be loaded for comparison purpose.
- 16.** Selection preference of the tendered work may be allowed as per policy of the State Government to the Industrial Units located in Haryana on the lowest valid rates if tenderer so claim with requisite documentary evidence.
- 17.** The bidders / contractors shall observe the highest standards of ethics during the submission of tender, procurement and execution of the contract. In case of evidence of cartel formation by the bidder(s) EMD is liable to be forfeited.
- 18.** The bidder shall bear all costs including bank charges if any, associated with the preparation and submission of his bid and the purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 19.** CE/DCRTPP reserves the right to cancel the NIT or to change qualifying requirement or to reject any or all the tenders so received without assigning any reason.
- 20.** The Site for the work is either available or it shall be made available in the parts in a manner so as not to hamper the progress of work.
- 21.** The contractor whose tender is accepted will be required to furnish by way of security deposit for the due fulfillment of his contract such sum as will amount to 10% of the cost of work. The security deposit will be collected by the deduction from the running bills of the contractor at the rate mentioned above and the earnest money if deposited in cash at the time of tenders will be treated as a part of the security deposit and adjusted accordingly.

22. The tenderer shall quote the prices in English language and international numerals. The rates shall be in whole rupees and shall be entered in figures as well as in words. For the purpose of tender, the metric system of units shall be used.
23. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the tenderers who resort to canvassing will be liable to rejection straight way.
24. All rates shall be quoted on the proper form i.e. price bid supplied as part of the tender documents on e-tender portal by the Department.
25. On acceptance of the tenders, the name of the authorized representative(s) of the tenders, who would be responsible for taking instructions from the Engineer-in-Charge and shall be communicated to the Engineer-in-Charge immediately after the allotment / start of work.
26. The Haryana Power Generation Corporation Limited does not bind itself to accept the lowest tender and reserves to itself the right to accept the whole or any part of the tender and the tendered shall be bound to perform the same at the rate quoted in this tender.
27. GST or any other tax on material or labour in respect of this contract shall be payable by the contractor and Haryana Power Generation Corporation Limited will not entertain any such claim whatsoever.
28. No contractor is permitted to tender for the works if any of his near relatives is posted to deal with day to day duties in the passing of bill etc. and who is working in any capacity requiring him to give instructions / advice and in particular any office / official of the Corporation including the member of the Board. Any breach of this condition by any one shall render him liable to be removed from the list of the contractors for the Haryana Power Generation Corporation Limited and the work entrusted to him may be terminated.
29. In case some modifications in any system of Ash handling plant are carried out by HPGCL during contract period, O&M of modified Ash handling plant will be carried out by firm till contract period without any additional charges.

**Executive Engineer/AHP,  
For Chief Engineer /DCRTPP,  
HPGCL, Yamuna Nagar.**

**GENERAL TERMS & CONDITIONS****1. RATE/CONTRACT PRICE:**

Rate shall be quoted by the bidder, strictly as per rate quoting sheet and the agreed contract price shall remain firm during the currency of the contract. Any statutory taxes/levies, if to be charged extra, should be clearly indicated by tenderer in their offer separately, failing which it will be presumed that the quoted prices are inclusive of all such statutory taxes/levies.

**2. PERIOD OF CONTRACT:**

a. The period of contract of the contract will be for 3 year only. However, performance of the firm shall be reviewed after every six months and further continuance of contract will depend on the performance of the firm. The contract can be further extended for another 3 months beyond 3 year on the same rates, terms & conditions at the sole discretion of HPGCL. The extension for 2<sup>nd</sup> /3<sup>rd</sup> year will be given after reviewing the performance of firm in the preceding year at the already agreed rates, terms and conditions of work order at the sole discretion of HPGCL.

b. Mobilization period:

A notice of seven days shall be given for starting the job, but the contractor should be able to mobilize his resources within 24 hours, if necessity arises.

**3. PENALTIES / DEDUCTIONS:**

a. Penalty levied on reasons due to Wet ash handling system:-

A penalty @ 20% of the monthly O&M contract value (Total order value) per day of O&M part shall be levied if plant generation is affected due to operation and maintenance fault in the ash handling system or non evacuation of bottom ash hoppers and economizer hoppers as per designed timings.

b. **Ash water recovery system:-**

Penalty levied on reasons due to Ash Water Recovery System:

i) 2% of the monthly charges for O&M of AWRS per day if system remains out of order more than 12 hrs in a day due to reasons attributed to contractor.

ii) In case AWRS remains non-operational for more than 15 days due to any reasons even not attributed to contractor then only 60% of monthly O&M cost of AWRS will be paid & in case, ash water recovery system remains non-operational for more than 20 days than only 35% of monthly O&M cost of AWRS will be paid. The cleaning of AWRS sump is in the scope of firm.

c. **Dry ash system: (Excluding bottom Ash)**

Timely & efficiently evacuations of 100% dry fly ash from ESP hoppers and efficiently feeding of ash from silos to trucks / bulkers is required.

i) **For the first six months from the date of award of work:**

In case evacuation of dry ash is less than 70 % of the total fly ash generated during a calendar month, payment will be made on pro- rata basis on O&M cost dry ash system.

ii) **After six months from the date of award of work:**

In case evacuation of dry ash is less than 75 % of the total fly ash generated during a calendar month, payment will be made on pro- rata basis on O&M cost of dry ash system.

In case dry ash evacuation / lifting is effected due to non availability of trucks and ash silos level are more than 14 meters i.e. full. The dry ash system penalty shall not be levied for that period. The calculations of ash evacuation will be approved and the reasons for less evacuation of ash would be examined and decided on merit by SPC.

d. A penalty @ 5% of monthly contract value of each item per day shall be levied in case required skilled manpower is not deployed as per clause 14 (General terms & condition) of Annexure-II and operation and maintenance of ash handling & ash water recovery system is affected as per the opinion of Engineer-in-charge.

- e. In case any site found unattended then a penalty of Rs. 2500/- per instance shall be imposed and after two instances in a calendar month Rs. 5000/- per instance shall be levied by Engineer In-charge. This penalty is in addition to the penalty under clause 3(d) above.
- f. A penalty @ 2% of monthly contract value per day shall be levied if proper cleaning/Housekeeping in ash handling system not found as per satisfaction of Engineer-In-Charge.  
The ash accumulated in ESP hopper / B.A.H trench and fallen on ESP/ dry ash system floor will be got cleared by contractor. In case of non evacuation of ESP hoppers in time / accumulation of ash in hoppers, if the ash is dumped on ground floor to avoid damage to ESP same will be got cleared by the contractor. Ash due to leakages from ash disposal lines and ash slurry pumps etc. spread on the floor or in trenches etc. in the pump house, on roads or other areas will be got cleared by firm, If contractor denies, the same shall be got done from other firm at the contractor's risk and cost besides imposing a penalty @ 10 % of monthly contract value for each happening and the amount will be deducted from the bills of contractor.
- g. In case the firm does not carry out the works as per instruction of engineer in-charge within assigned time interval, then a penalty @ 2 % of monthly amount per instance of the respective system i.e. dry, wet, recovery system shall be imposed.
- h. In case any work is not completed by the firm despite of written instructions or work is left over work/unsatisfactory work in the opinion of engineer in-charge, the work will be got done from some other contractor at the contractor's risk and cost.
- i. Idle Labour Charges:
  - a) No idle labour charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour being rendered idle due to any cause.
  - b) In case of non operation of the unit/units, due to any reasons, on the prior instruction of HPGCL, of at least 7 days and work/activity is not carried out:
    - i) for up to one month, a deduction @ 35% payment of particular work will be made.
    - ii) for more than one month, a deduction @ 50% payment of particular work will be made.

However, if the units are expected to be under shut down for longer periods due to any reason including backing down, then SPC may decide short closure of the contract.

#### 4. **FORCE MAJEURE:**

The delay in completion of work may be treated as force majeure to the contractor only if :-

- a. The delay is resulted from any causes arising out of compliance with regulations, orders or instructions of the Central or State Governments, acts of God, acts of Civil & Military authority, fires, floods, strikes, lock-outs, freight embargoes, war risk riots and civil commotion. If the contractor wants to extend the completion period under this clause, he will request for such extension of the completion period along with all necessary evidence, before the expiry of the schedule date of completion. In no case, the completion period shall be extended under this clause, in case the request is received after the due date of completion. Extension in the completion period may be granted only for the period for which the completion of the work is proved by the contractor to have been delayed for circumstances mentioned in the clause.
- b. The contractor's request for extension of the delivery period along with all necessary evidence comes, before the expiry of the schedule date(s) of delivery.

#### 5. **NEGLIGENCE:**

If the contractor neglects to execute the work with due diligence and expedition or refuses to do the work, then HPGCL may serve 15 days notice, in writing to the contractor to make good the failure within the stipulated time otherwise HPGCL shall be at liberty to take the work wholly or partially at the risk and cost of the contractor at a reasonable price. It shall be lawful for the HPGCL to retain any balance which may

otherwise be due to the contractor on any account, if dues of the contract are not sufficient to cover the amount thus recoverable from the contractor and to recover the whole of the balance of the amount from the contractor by action at law or otherwise. The remedy under this clause will be in addition to and without prejudice to rights available to the HPGCL under other clauses of the terms and conditions.

#### **6. SECURITY DEPOSIT AND EMD:**

- I. The Security Deposit shall be 10% of the Contract value which shall be deducted from the monthly running bill of the contractor. The EMD already deposited by the bidder shall be converted into the security deposit.
- II. The security deposit of the contractor shall be retained by HPGCL for faithful execution of the contract.
- III. Security deposit shall be released only after completion of the entire period of the contract and submission of requisite documents like last EPF/ESI return by the contractor.
- IV. No interest shall be paid on EMD / Security Deposit for the period it remains deposited with HPGCL.
- V. The following are exempted from depositing the earnest money:-
  1. Public Sector Undertakings of the Central/ Haryana State Government.
  2. Firms borne on D.G.S. & D/DS&D Haryana rate contracts.
  3. Firms registered with the Director of Industries, Haryana or registered with National Small Industries Corporation, Govt. of India.
  4. The firms having permanent EMD of Rs.10.00 Lac at the respective project / office.
- VI. The earnest money/security deposit shall be forfeited in part or in full under the following circumstances:-
  - (a). If the W.O. has been issued but the contractor refuses to comply with it irrespective of the fact that HPGCL sustains any loss on account of such default or not.
  - (b). In the event of a breach of contract in any manner.
  - (c) If the contractor fails or neglects to observe or perform any of his obligations under the contract, it shall be lawful for the HPGCL to forfeit either in whole or in part, in its absolute discretion, the EMD/security deposit furnished by the contractor.
  - (d) The forfeiture of EMD/security deposit shall be without prejudice to the right of HPGCL to recover any further amount or any liquidated and/or other damages as admissible under the law, under payments or over payments made to the contractor under this contract or any other contract as well as to take such administrative action against the contractor as blacklisting etc.

#### **7. PAYMENT TERMS:**

Subject to any deduction which the HPGCL may be authorized to make under this contract, the payment shall be made as follows

“90% payment shall be made against the running bill or monthly bills for the work done & balance 10% shall be kept as security deposit which shall be released after the satisfactory completion of the contract including the period of guarantee / warranty”. No interest shall be paid by HPGCL on the security amount.

#### **8. MODE OF PAYMENTS:-**

Payment shall be released by the Sr. A.O/AO, DCRTTP, Yamuna Nagar by the way of direct transfer into firm's Account through RTGS/NEFT. Bank Charges shall be born by the firm. The firm shall submit their bank details dully authenticated by them along with bill separately or own bills itself as under:

- a) Name & address of beneficiary.
- b) Name & address of Bank/Branch.
- c) Account Number.
- d) IFSC Code number.

**9. RISK AND COST**

In case the contractor fails to fulfill the contractual obligations, the work shall be got done from some other agency at the risk and cost of the contractor. It shall be without prejudice to the right of HPGCL to recover any further amount or any liquidated and/or other damages

**10. MEASUREMENT AND BILLING:**

All measurement shall be in metric system. All the works completed will be measured by the representative of the Engineer-in-Charge. The contractor will submit the bill in triplicate on approved Performa to the Engineer-in-Charge. The bills for each item shall be raised separately before 7<sup>th</sup> of every month along with all documents.

**11. GST:**

No GST will be paid extra until and unless it is leviable on the service provided by the contractor and specifically demanded for the same in his offer, however due to not claiming of GST from the HPGCL contractor cannot escape from his liability to the Govt. against the taxable service. In case the GST is to be paid by the HPGCL the contractor will have to submit an undertaking, the GST as claimed have been deposited with relevant authority & contractor will submit the copy of challan along with bill. All the provisions as mentioned in Annexure IX to be followed in true spirit.

**12. TAXES AND DUTIES:**

No taxes or duties will be paid extra unless and the same has been demanded by the firm in his offer specifically. In case the same is to be paid by the HPGCL an undertaking is to be submitted by the firm in this regard stating that the taxes or duties as claimed from the HPGCL have been deposited with the relevant authority.

**13. DOCUMENTATION:**

- i. Contractor shall submit monthly bill for the AMC / ARC work and in other cases bill for the work done, in duplicate. The bill should be on the contractor's bill book duly serially numbered and bearing date of issue, contractor's EPF code, ESI code, GST number, PAN & TIN. A photo copy of the EPF code, ESI code, GST number, PAN & TIN shall be attached with the 1<sup>st</sup> running bill for reference and record.
- ii. The contractor shall deposit EPF, ESI contribution and labour welfare fund in concerned department and submit the proof of the same in time for the service provided.
- iii. Attested copy of the attendance sheet, wages register and evidence of wage payment.
- iv. The contractor shall issue the wages slip to each labour/Worker.
- v. The contractor shall submit running bill in time so that wages/salary of the contractual employees can be disbursed by the concerned DDO well before the 7<sup>th</sup> of each and every month.
- vi. Certificate from Labour Welfare Officer / Factory Manager stating that contractor has complied with all labour laws.
- vii. Safety clearance certificate from safety officer/ Factory Manager.
- viii. Copy of protocol and certificate for stage payment if required.
- ix. Any other document required to be submitted in compliance to term & conditions of this work order or as per state/central govt. order/rules which may come into force during pendency of contract.

**14. ENGAGEMENT OF ADEQUATE LABOUR:**

**Manpower with necessary qualification & experience shall be deployed by the contractor round the clock (general as well as shift duty) for smooth working of O&M of ash handling system of both the units.**  
The contractor shall deploy appropriate maintenance as well as operation manpower having the minimum educational qualification and work experience as mentioned below.

Description	Qualification/Experience
Overall Incharge	B.Tech with minimum 3 years of experience as site incharge of Ash handling system
Shift incharge	Diploma with 2 year experience in Ash handling system
Shift operator	I.T.I with 1 year experience or 3 year experience from reputed O&M contractor
Maintenance In-charge	Diploma Engineer with 2 year experience of Ash handling system
Fitter	I.T.I with 3 year experience or matric with 5 year experience of Ash handling system
Electrician	I.T.I with 3 year experience of Ash handling system
Instrument technician	Diploma with 1 year experience of Ash handling system
Welder /Gas cutter	I.T.I with 1 year experience or matric with 5 year experience
PLC Engineer	The Engineer should be Degree holder conversant with PLC
Helper	Matriculation
<b>The Engineer-in-charge of HPGCL reserve the right to ask any person remove from site if not found suitable as per requirement at site.</b>	

iii) **Housekeeping manpower:** The firm shall deploy sufficient manpower in addition to above in each unit for cleaning & housekeeping of ash handling site and deploy separate tractor trolley in each unit, JCB, hydra etc for shifting of pocked/leaked ash from site to low lying areas as informed by Engineer In-charge within plant premises.

iv) In case services of any expert from OEMs for sophisticated equipments are required same shall be arranged by the firm without wasting time. If firm fails to engage the OEM experts, HPGCL may arrange the same at risk & cost of the firm.

v) The above mentioned schedule is only indicative, however, the firm would make assessment by itself and the firm would deploy them in such a way that the operation & maintenance work is carried out effectively and without any delay round the clock. The work shall have to be started immediately as per the instructions of Engineer-in-Charge or his representative. The contractor should be able to mobilize the working force as per the quantum of work and should be capable of executing maintenance work simultaneously at all the fronts depending upon the site requirements. If more persons are required for completion of work in the time schedule as per emergency defined by Engineer- in-Charge, the same shall be arranged by the contractor without any extra payment to complete the work. It is also made clear that the deployment of the workers of contractors will be subject to approval of Engineer- in-Charge of the works.

vi) Additional manpower will be required to be mobilized during overhauling of any unit and the contractor will ensure adequacy of manpower so that overhauling works are completed in time.

vii) The work shall have to be started immediately as per the instructions of Engineer-in-Charge or his representative. The contractor should be able to mobilize the working force as per the quantum of work and should be capable of executing maintenance work simultaneously at all the fronts depending upon the site requirements. If more persons are required for completion of work in the time schedule as per emergency defined by Engineer- in-Charge, the same shall be arranged by the contractor without any extra payment to complete the work. It is also made clear that the deployment of the workers of contractors will be subject to approval of Engineer- in-Charge of the works.



The contractor would be responsible for the following:-

- a. All the labour / workmen deployed during the execution of the contract shall be adequately got insured by the contractor at his own cost.
- b. Any mishappening / accident to any workmen at site of work & compensation payable to workmen on this account, all liabilities arising out of any provision of Labour Act / Workman's Compensation Act shall be the responsibility of the contractor. Any expenditure incurred by HPGCL arising out of the negligence of the contractor would be recovered from his bills / pending dues.
- c. The good conduct of all the workmen at work site.
- d. The loss / damage caused to the property of HPGCL or any other agency of the contractor or any of his workman / employee.
- e. The contractor may employ such employees, as he may think fit to ensure the execution of the work to the entire satisfaction of Engineer-in-Charge. The employees would not be deemed to be in the employment of HPGCL for any purpose whatsoever. The contractor shall abide by the rules, laws and regulations that may be enforced from time to time regarding the employment conditions of service of his employees.
- f. Under no circumstances whatsoever, HPGCL would be held responsible to the labour of the contractor. HPGCL shall have the right to pass on the responsibility on the contractor for any expense incurred by HPGCL as a result of certain dues on the part of employees of the contractor. HPGCL shall be entitled to recover / claim dues / compensation from the contractor in that event.
- g. The labour / employees engaged by the contractor shall not be below the age of 18 years and above 60 years.
- h. Further, the contractor would furnish an undertaking on non judicial stamp paper of appropriate value by each and every worker employed by him, that the worker will not claim any lien as a worker of HPGCL for the services, he is rendering to the contractor.
- i. The contractor shall also indemnify HPGCL against any liability towards its labour for non-compliance of laws etc.
- j. The contractor shall be responsible for character of the worker employed. He shall get the character antecedent of workers verified from concerned authorities.

**15. Rate Quoting:**

The firm will quote rates as per price bid format i.e. Annex-VII considering supply of all the consumable & spares defined in Annex-IV & Annex-V in its scope of supply during the contract period. No payment / reimbursement shall be made by HPGCL for these spares which are required for O&M of Ash Handling Plant.

- i). All the spares & consumables to be used by firm will be of proper size, good quality and standard make only.
- ii). Spares & consumables with HPGCL can be given to firm at its book value in case of site requirement.
- iii). However maintaining sufficient stock of spares & consumables in the scope of firm will be its responsibility so that site work do not suffer due to non availability of spares/ consumables for payment purposes.
- iv) Weight age of different systems for payment purpose will be as under :

O&M of wet ash system excluding	36%	of lump sum quoted rates
Ash Water Recovery System		
O&M of Ash Water Recovery System	4%	of lump sum quoted rates
O&M of Dry ash system including Silo	60%	of lump sum quoted rates

**16. CONTRACTOR TO REMOVE UNSUITABLE LABOUR:**

On instruction of the Engineer-in-Charge, the contractor would immediately remove any person employed on the work, who misbehaves or causes any nuisance or otherwise in the opinion of the Engineer-in-Charge is not fit to be deployed on the work, such person shall not be re-employed or allowed on the work without the prior written permission of the Engineer-in-Charge.

**17. INCOME AND OTHER TAXES DEDUCTIONS:**

The income tax plus surcharges and any other statutory levies required to be deducted by the HPGCL will be deducted at source at the rate applicable from time to time.

**18. EPF REGISTRATION:**

The contractor / firm should be registered with the Regional Employees Provident Fund Commissioner, Govt. of India and should possess valid EPF Registration number. Contractor shall ensure the deposit of monthly EPF Contribution of his workers engaged on said works with EPF Department in the accounts of the workers. Documentary evidence in respect of the amount deposited for the previous month must be submitted before submitting the bill for the following month by the contractor. Annual EPF inspection from the respective inspector is also required to be submitted by the contractor before closing of the contract.

**19. ESI CONTRIBUTION:**

Contractor must ensure the compliance of ESI Act, 1948 as per Govt. of India Notification dated 24.02.06 and produce a documentary evidence for the same along with the monthly bills.

**20. FACTORIES ACT/MINIMUM WAGES ACT/INSURANCE ACT/ EPF/ESI ACT ETC.:**

Strict adherence of various applicable laws likes the Factories Act, Minimum Wages Act, Payment of Wages Act, the workman's Compensation Act, EPF Act, Contractor labour (Regulation & Abolition) Act, 1970 and all other statutory requirements as amended from time to time the entire satisfaction of Central/State Govt. Authorities, shall be the responsibility of the Contractor and he shall have to make good loss, if any, suffered by HPGCL on account of default in this regard by the contractor. EPF/ESI contributions will be deposited by the contractor in his own EPF/ESI code no. in the respective account of the workers. The contractor will submit the copy of EPF/ESI challan to the Labour Welfare Officer, at the time of 90% payment along with corresponding list of workers. The contractor shall make the payment of wages to its labour/worker/driver in their saving account only. Documentary evidence thereof shall be submitted along with the running bills

**21. LABOUR LAWS:**

- a. The contractor must get himself registered with the Labour Department, Haryana under Section-7 of Labour Contract Act 1970.
- b. Firm should also obtain a valid Labour License as applicable under Section 12 of Act for the work awarded to him immediately after the allotment of work and a copy of the same must be submitted along with the contract Agreement.
- c. The contractor shall abide by all labour-laws required to be followed under Factories Act, 1948, Industrial Dispute Act 1947, Workmen Compensation Act 1923, Employees State Insurance Act 1948, EPF Act 1952, Payment of Wages Act 1936 & Minimum Wages Act 1948 and other rules & regulations framed by Central / Haryana Govt. from time to time in this regard. The contractor shall be fully and wholly responsible for any mishapping, injury, fatal / non-fatal accident sustained by him / his employees / workers at site during performance of the work under the contract and HPGCL shall not entertain any claim of this account. However, if HPGCL is forced to pay any compensation to any workman employed / engaged by the contractor, the amount so paid shall be recovered from the contractor from his pending dues against this contract or any other contract with the HPGCL. The contractor shall provide relevant record to the local Government bodies and other authorities as required by them from time to time.
- d. The contractor shall maintain necessary records viz. Register of wages, Muster roll / Attendance register, Employment card / Gate Pass, Overtime Register and other necessary records etc. as required under aforesaid Acts and the same shall be made available to the Engineer-in-Charge / Project Authorities / Govt. of Haryana for checking / inspection as and when required.

- e. The contractor shall indemnify the HPGCL against all the obligations of the Labour Rules and Regulations under any Statutory Act as mentioned above.
- f. The contractor shall submit an undertaking stating that all risks & responsibilities towards labour will be owned by him.
- g. The contractor will be responsible for character & antecedents of the workers deployed by the firm and get the same verified from police department if required.
- h. The workmen engaged by the contractor shall not be treated as employees of HPGCL. The HPGCL shall have no relation with workers engaged by the contractor. An affidavit from the labour / workmen shall be submitted by the contractor that they will not claim themselves as employees of HPGCL.
- i. The contractor shall deduct labour welfare fund @ 0.2% of wages (max Rs 25) from each worker with employers share @ 0.4% of wages per worker (max Rs 50/-) or any other further amendment by the competent authority) deposit the same with the Welfare Commissioner, Haryana, Chandigarh and present its documentary proof along with the bill.

**22. SAFETY RULES:**

- a. Contractor shall have to comply with all the provisions of safety rules. The Engineer-in-Charge or The Chief Safety Officer shall impose penalty of Rs.200/-per day per head if the workers of contractor are found to be working carelessly or in violation of use of proper protective equipments i.e. safety helmets, shoes, safety belts, goggles, ear plugs etc. and against violation of any other clause. A penalty of Rs. 500/- per violation (minimum) shall be levied in case of repeated violation. Further, if the violation made by the contractor / labour which may cause any serious accident or direct loss to the corporation or threatens to cause severe consequences, the higher penalty may be imposed including suspension / termination of the contract.
- b. Following undertaking is also required to be submitted by the contractor:-
 

"I / We have gone through all the terms & conditions on safety regulations and undertake to strictly enforce the same during the execution of this contract including mobilization period, if any". In case of violation of these terms & conditions, the HPGCL is free to take action as deemed fit.
- c. In case of any fatal / non fatal accident or any other violation of Factory Act 1948. Pb Hr Factory Rules 1952 or under other Industrial or Labour Act are made by / with the workers of the contractor and if prosecution is launched by Chief Inspector of Factories, Chandigarh against occupier / Factory Manager or any other authority of HPGCL, the contractor shall be liable to deposit the amount of fine / penalty decided by the Court, on the same day. In case of default, the amount will be recovered from the outstanding dues / liabilities of the contractor against this contract or any other contract at DCRTTP besides other action as the HPGCL may deem fit like black listing of the firm etc.
- d. The liability of the injured person shall be borne by the contractor, irrespective of the location at which the accident has occurred.
- e. The contractor will observe all fire and safety regulations. He should adopt proper fire prevention arrangement during his work at site. He shall be responsible for any loss due to fire or unsafe methods or damage to any of the HPGCL property during the execution of contract and shall make good to the satisfaction of Engineer-in -Charge. However, this will not relieve the contractor of any statutory or other obligations.
- f. HPGCL reserves the right to claim adequate compensation from the contractor on account of any damage caused to the plant & equipment handed over to him for execution of the work due to careless handling or negligence on part of the contractor.
- g. A safety clearance certificate on quarterly basis from the chief safety officer shall be obtained by the contractor and has to be attached along with the bill.
- h. Medical examination/ Test of all contractual labour as prescribed by statutory authority from time to time shall be got carried out by contractor at his own expenses.

**23. LOSS OF PLANT / HPGCL PROPERTY DURING EXECUTION OF THE WORK:**

The contractor shall ensure that no damage or loss is done to HPGCL / Plant property or any other agency in the jurisdiction of work site. In case, it is found that there is any loss to the plant equipment, HPGCL property or human being due to negligence of the labour / worker of the contractor, the same shall be made good to HPGCL by the contractor at his own cost.

**24. BREACH OF CONTRACT:**

If the contractor fails to adhere to the time schedule or if his services are found to be unsatisfactory, the HPGCL will be entitled at its option either:-

- a. If the contractor is unable to execute the work, any loss incurred by HPGCL in this respect will be to the contractor's account. HPGCL may also terminate the contract after giving a three days notice, if in its opinion; the work under the contract is not being done to its satisfaction. HPGCL also has the right to get the job done from a third party at the risk and cost of the first contractor till the expiry of the period of contract and debit the cost plus 10% of the cost to the first contractor's account.
- b. To recover damages as per penalty clause mentioned as above, if the said delay is not covered under the Force Majeure reasons.
- c. To get the work done from any other agency after serving a notice of three days to the contractor at his risk and cost and without prejudice to the other provisions of the work order.

OR

To cancel the contract by giving 15 days notice & forfeit the security.

**25. CONTRACT AGREEMENT:**

The contractor shall execute a contract agreement on specific Performa on Non Judicial Stamp Paper of appropriate value within 10 days of date of issue of LOI / W.O. Cost of the stamp paper will be borne by the contractor. The person who has signed the tender papers should have got authority to sign on behalf of the contractor. If it is discovered at any time that the person so signing has no authority to do so, the HPGCL without prejudice to any other right or remedy available to it may cancel the contract and get the work done from any other agency at risk and cost of the contractor. The contractor shall mean the contractor's legal representatives, successors and assigns.

**26. ARBITRATION:**

All the matters, questions, disputes, differences and/or claims arising out of and/or concerning and /or in connection with and /or in consequence of, and /or relating to the contract whether or not obligations of either or both the contractor and the corporation under this contract be subsisting at the time of such dispute and whether or not the contract has been terminated or purported to be terminated or completed, shall be referred to the Sole Arbitrator of Managing Director/ HPGCL or an officer appointed by the MD, HPGCL as his nominee. The Award of the Arbitrator shall be final and binding on the parties to the contract.

**27. JURISDICTION:**

All legal proceedings in connection with contract shall be subject to the territorial jurisdiction of local court at Yamuna Nagar (Haryana).

**28. ELECTRICITY / AIR / WATER:**

Electricity/ Air / Water will be provided free of cost at one point per unit as per requirement of job. HPGCL may provide suitable space for site store / temporary workshop free of charges to the contractor. The electricity for site store / office will be provided by HPGCL free of cost. The contractor will use electricity / air / water judiciously. However, contractor shall make his own arrangement for Diesel Generator set/ Welding set where electricity supply is not available.

**29. ACCOMMODATION:**

The contractor will be responsible for the accommodation of his employees / workers deployed for execution of work. However, if the accommodation is available with HPGCL the same may be allotted on chargeable basis as per HPGCL rules at the sole discretion of HPGCL.

**30. TRANSPORTATION OF MATERIAL:**

- a. The contractor shall make his own arrangement for transportation of the material from O&M stores to site of work, from site of work to O&M workshop, if required and return of scrap back to stores. The contractor shall also carry out the loading / unloading of material being sent for repairs or received after repair to / from outside of DCRTTP.
- b. The contractor shall make his own arrangement for removal of old as well as unused material from the site to the place as specified by the Engineer-in-Charge after completion of work.
- c. The contractor shall make his own arrangement for making available his personnel at site of work at any time as per requirement of job.

**31. PRESERVATION & STORAGE OF MATERIAL:**

All the material issued to the contractor by the HPGCL or brought by the contractor for its bonafide use shall be stored and preserved against any loss, damage, shrinkages or deterioration in any form. Any damage / loss suffered on this account shall be considered as loss due to willful negligence on part of the contractor and shall be liable to compensate HPGCL for these losses suffered at penal rates to be determined by the HPGCL. The rates charged for the purpose of recovery shall be final and binding on the contractor.

**32. SUPERVISION OF WORK:**

- i) The Engineer-in-Charge shall have the general supervision of the work. The work shall have to be started by the contractor as per the instruction of Engineer-in-Charge or his authorized representative at any time on working day, on holiday or after office hours, and shall be confirmed by post dated indent. The indent will indicate the date / time of start of work, details of work and scheduled time of completion of work as per contract. The time allowed for a work maintained in the indent will be addition of time of all the jobs / activities as per contract. The Engineer-in-Charge may reduce the total cumulative time of various activities, keeping in view of emergency to bring back the equipment in time. The total time allowed by the Engineer-in-Charge will be final & binding on the contractor. He has the authority to stop the work whenever such stoppage is necessary to ensure the proper execution of the contract. He shall also have authority to reject all works or part thereof and give necessary direction to carry out work again to his satisfaction. No claim whatsoever on this account will be entertained. The work shall be subjected to the inspection by Engineer-in-Charge all the time.
- ii) The decision of Engineer-in-Charge shall be final with regards to all matters relating to his contract.
- iii) The decision of Engineer-in-Charge for determining the category of the work with reference to the items not mentioned in scope of work shall be final.
- iv) The execution of work may entail working at all the sites and weather conditions and no extra claim will be considered on this account. The contractor may have to carry out jobs and work round the clock, as per the requirement to be decided by Engineer-in-Charge. No extra claim / over time will be paid on this account.
- v) In case the contractor fails to do the extra / substituted work, Engineer-in-Charge will have the option to get the work done through any other agency at the risk & cost of the contractor.
- vi) In case of any dispute, the contractor may represent in writing to the Engineer-in-Charge.

**33. TELEPHONE:**

The successful contractor shall provide the mobile phone facility to his all supervisors & operators to facilitate HPGCL for easy communication with the contractor. The phone number shall be intimated by the contractor immediately after the award of the contract.

**34. AUTHORIZED REPRESENTATIVE:**

The firm will intimate (in writing) the name of authorized representative at site to whom necessary instructions regarding the works can be imparted and who will make correspondence regarding contract related issues. The signatures of the aforesaid authorized representative shall be got attested from First Class Magistrate or Notary Public.

**35. OWNERSHIP DEED:**

The firm will give ownership deed / partnership deed / proprietorship deed (as applicable) duly attested by Notary Public for record and reference of his office.

**36.** Any other work relating to preventive maintenance of the equipments not mentioned in scope of work but otherwise felt necessary will also be in the scope of contractor. No extra payment on this account will be made.

**37.** HPGCL shall have power to make any alteration, omission from addition to or substitution for the original specifications and instructions which may be considered necessary during the progress of work and contractor shall carry out the work in accordance with any instructions which may be given to him in writing duly signed by the Engineer-in-Charge. Such alterations, omissions, additions, substitutions shall not invalidate the contract and any alteration, additional or substituted work which the contractor may be directed to do shall be carried out by the contractor on the same conditions in all respects on which he has agreed to do the main work.

**38.** Contractor shall abide by all the rules and regulations, directions framed by HPGCL time to time for implication of ISO: 9001, ISO: 14001 & ISO 18000 norms. If the behavior of contractor found non-supportive towards these norms, firm shall be heavily penalized as per the direction of Engineer-in-charge. The firm shall follow all the environment laws also.

**39.** Contractor will make monthly payment to their employees through online bank account transfer by opening their bank accounts and shall submit the documentary proof for the same along with monthly running bills .

**40. a)** All the one time modifications upto achievement of 100% dry fly ash evacuation through dry fly ash system on sustained basis will be carried out by the firm for which no extra payment will be charged but all the spares required for modification will be provided by HPGCL free of cost. This excludes major modifications like provision of Dense phase system etc.

**b)** For improvement of Ash Handling system, all required specialized manpower will be deployed by the firm without any additional charges so that the required targets can be achieved at the earliest.

**c)** The firm will try its level best to achieve the target of 100% dry fly ash disposal within three months of the date of award/execution of contract.

**41. LAWS GOVERNING CONTRACTS**

All contracts shall be governed by the laws of India for the time being in force. Irrespective of the place of delivery, place of performance or place of payment under a contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.

Jurisdiction of Courts- The courts of the place from where the acceptance of tender has been issued shall alone have exclusive jurisdiction to decide any dispute arising out of or in respect of the contract.

**42. OVER RUN CHARGES**

No over run charges shall be paid in the event of the completion period being extended for any reasons.

**43. WATCH & WARD**

The watch and ward of T&P and other material will be the responsibility of the contractor.

**44. FACILITIES TO BE ARRANGED BY CONTRACTOR**

The contractor shall make his own arrangement for providing all facilities like lodging, boarding, furniture and transportation etc. for his supervisors/staff engaged by him for the job.

**45. STATUTORY DEDUCTIONS**

Statutory deduction on account of Income Tax, Works Tax & Sales Tax etc. including surcharge shall be made at source from the bills of the contractor at the prevailing rates.

**46. INSURANCE OF WORKERS**

The contractor will be solely responsible for any liability for his workers in respect of any accident, injury arising out and in course of contractor's employment. To meet his aforesaid obligation under the workmen Compensation Act, The contractor may obtain W.C. Policy from the Insurance Company for the persons employed by him for carrying out the work. The premium payable for the aforesaid Insurance Policy shall be borne by the contractor. The contractor shall ensure that the said Insurance Policy of this insurance cover is required to be submitted by the contractor to Engineer-in-charge of work immediately after issue of LOI, but before the start of work.

**47. SUBLETTING NOT ALLOWED**

Contractor shall neither sublet the contract nor suspend the work at any time during the period of contract without any lawful excuse and without the earlier permission of the project authorities. However, contractor will be allowed to engage service providers for taking educated and experienced manpower except the key personnel. In such case contractor will be fully responsible for all supervision and legal consequences and to follow all norms as per work order. The service provider should have min. two year associations with the contractor. The contractor will only be responsible to execute the work.

**48. Environment laws**

The firm shall strictly follow all the environment related laws as per prescribed norms/guidelines issued by statutory body from time to time.

**49. SET OFF**

Any sum of money due and payable to the supplier/contractor (including security deposit returnable to the supplier/contractor) may be appropriated by the HPGCL and set off against any claim of the corporation for the payment of a sum of money arising out of under that or any other contract entered into the supplier/contractor with the HPGCL.

**50. Short Close**

Contract may be short closed by HPGCL at any time during the period of contract without assigning any reason by giving a notice of one month for which no compensation will be paid to contractor.

for **Executive Engineer/AHP,  
Chief Engineer /DCRTPP,  
HPGCL, Yamuna Nagar**

- A) Operation and Maintenance of Ash Handling System (Wet & Dry), including Dry Ash Silo and Ash Water Recovery System for 2X300MW Unit-1 & 2 of DCRTTP, Yamuna Nagar.**
1. Continuous operation & maintenance of PLC based Ash Handling system (Wet & dry) and Ash water Recovery system including local operation of Silo system of Unit-1 & 2 round the clock in three shifts by deploying experienced Engineers, supervisors, operators etc. The contractor shall also deploy Engineers, supervisors, technician and other supporting staff in general shifts for maintenance. The work shall be carried out in an approved manner and as directed by Engineer-in-Charge. Operation of dry ash evacuation system is to be carried out in co-ordination with the staff at Silos. Operation & maintenance of the Ash handling system including ash water recovery system, involves the following activities:-
    - i) Operation of the ash handling plant (wet mode) for each unit broadly involves evacuation of bottom ash hopper (02 Nos), Economizer hoppers- 04 Nos, ESP hoppers (56 No) by means of operating various pumps and auxiliaries i.e. Vacuum pumps BAH overflow pumps, H.P, L.P, F.A, seal water pumps, Jheel Water pump, Submersible pumps & ash slurry disposal pumps etc.
    - ii) a. Operation of ash handling system (dry mode) for each unit involves evacuation of dry ash from ESP hoppers (56 Nos.), APH hoppers ( 8 Nos) by operating water ring vacuum pumps with required auxiliaries of fluidizing air blowers system to buffer hoppers and then ash transport to storage silos with transport air compressors .  
b. Continuous local operation of ash silo system of Unit-1 & 2 round the clock in three shifts by deploying experienced supervisors, operators and technician and other supporting staff in general shift for maintenance. The work shall be carried out to the entire satisfaction of Engineer-in-Charge.
    - iii) Operation of ash water recovery system for Unit-1 & 2 broadly involves supplying 520m<sup>3</sup>/hr clear water by mean of operating ash water recovery pumps (2 Nos. working and 2 nos stand by) each of 260 m<sup>3</sup>/ hr capacity, one no. reactor clarifier of 1150m<sup>3</sup>/hour capacity along with lime dosing pumps and alum dosing pumps & sludge disposal pumps and connected valves etc shall be in scope of contractor.
    - iv) a. Maintenance of ash handling plant wet system including ash water recovery system mainly involves all the concerned machinery and auxiliaries installed on above equipments as well as other associated auxiliaries such as clinker-grinders system, seal trough, bottom ash discharge lines, collector tanks, wetting head, hydro ejectors, Ash slurry disposable pumps, HP water pumps, LP water pumps, FA water pumps, drain pumps, seal water pumps, Jheel Water pump & Submersible pumps. Ash disposal lines up to ash disposal points on ash dyke, vacuum pumps, slurry valves, pneumatic cylinders, other valves along with their actuators, ash water recovery pumps and their sealing water pumps, ash water lines from ash recovery pump house to reactor clarifier and Reactor clarifier along with dosing system etc shall be in scope of contractor .  
b. Maintenance/servicing of dry ash evacuation system from buffer hoppers to silos mainly involves all the concerned machinery and auxiliaries installed on above equipments as well as other associated auxiliaries such as transport air compressors, Instrument air compressors with air driers, various auxiliaries & equipments installed at silos, segregating valves, material handling valves, equalizing valves, material handling valves, fly ash lines, fluidizing air system, knife gate valves, equalizing valves, buffer hoppers & associated system would be in scope of contractor etc.
    - v) Maintenance of electrical & C&I equipments, inter locks, protections, maintenance of PLC system, maintenance of field instruments such as solenoid valves, switches (Pressure, flow, Temperature level etc.), transmitters, gauges, Pressure, temperature etc) analyzer instruments etc. will also be in the scope of contractor, However, for the replacement of the damaged equipments/ spares including indication lamps, control wires, pressure switches, solenoid valves or any other instruments etc. will be supplied by Electrical/C&I division of HPGCL and the work shall be carried out under supervision of EMD/C&I division respectively . Proper records of material damaged/replaced will be maintained by the contractor.  
Cleaning & tightening of electrical connection of all modules/feeders



periodically/during shut down to upkeep & maintain their record.

Maintenance & attending routine faults of control panels & all outgoing breakers/modules.

During routine work if any electrical flash/abnormality occurred then contractor normalize the system. HPGCL will provide spares required thereof. During the course of running, if motors got damaged, damaged report will be made by contractor and countersigned it from engineer of respective division.

Removal, reconnection and tightening connection of power and control cable at motor end/module end as and when needed.

- (VI) O&M of sluice gates at Ash water recovery system.
- (VII) Fabrication and replacement of various eroded MS bends/pipes/reducer as per requirement of ash handling system.
- (VIII) Arrangement of dewatering pumps for cleaning and dewatering from various sumps/water logged areas in AHP will be in scope of the contractor. Dewatering pumps if available with HPGCL will be provided free of cost, however proper maintenance and breakdown repairing due to contractor fault will be in the scope of the contractor.
- (IX) O&M of hydro ejector system installed for front field hoppers of both units with its valves and pipelines will be in the scope of contractor.
  - 1.1. Lifting of motors & pumps for maintenance, reinstallation and alignments/coupling of the pumps with motors shall be in the scope of contractor.
  - 1.2. Removal of fallen foreign material from BAH, economizer hoppers & ESP hoppers shall be in the scope of contractor.
  - 1.3. Cleaning of all equipments/pumps instruments, electrical equipments, panels and house keeping for complete system of AHS and AWRS will be done by the contractor; Oiling/greasing of mechanical/electrical equipment such as pumps/gear drives, motors etc. shall be done regularly by the contractor as provided in the O&M manual or directed by Engineer-in-charge.

Cleaning in ash handling plant area, compressor house, ash water pump house, ash recovery water pump house and ash slurry pump house should be as per ISO 9001, ISO 14001 & OHSAS 18001.
  - 1.4. Monitoring of the performance of different components of ash handling system is in the scope of contractor and he is to intimate adequate measures to be taken to overcome actual or likely shortfall in performance.
  - 1.5. Preparing and putting into implementation an effective operation and preventive Mtc. programme.
  - 1.6. Carrying out all needed maintenance of the ash handling system & ash water recovery system in routine as well as during shut down for any major overhaul/inspection. Overhauling of all equipments of all the above system will be carried out by the firm and no extra payment will be made on account of labour charges.
  - 1.7. Providing adequate technical back up from the contractor's head office including periodic visits to the site by its senior engineers to ensure smooth operation and maintenance of the plant.
  - 1.8. The contractor will maintain daily logging of the progress made during each shift which includes preventive/break down/shutdown/faults attended during the SDP.
  - 1.9. To carry out repair of all equipments in ash handling, dry ash system and ash water recovery system by welding as per the requirement and instruction of Engineer-in-Charge shall also be in scope of contractor. Work shop facility as available at DCRTPP, HPGCL, shall be provided free of cost. However planning & supervision of such repairs / machining job etc. to be carried out at DCRTPP, HPGCL, work shop will be deemed to be part of contractor's scope.
  - 1.10. The contractor shall also be required to carry out Mtc. in evening/night shifts & holidays in case of emergent exigencies/breakdown.
  - 1.11. Any other operation/maintenance work not included in the scope as detailed above but is required for running of ash handling, dry ash silo system and ash water recovery system is deemed to be included in the contractor's scope.
  - 1.12. The contractor shall also bring the clear water samples to chemicals lab for testing and further dosing of chemicals in the reactor clarifier as advised by the chief chemist according to sample tested on day to day basis.
  - 1.13. Carrying out refractory work in bottom ash hoppers as & when required shall be in the scope of the contractor.
  - 1.14. Damaged insulation on fluidizing piping to be carried out as and when required

shall be in scope of contractor.

- 1.15. In any case; if services of experts of OEM or other specialist is required, it would be arranged by the contractor at their own cost with in time frame as finalized with HPGCL's Engineer-in-Charge. In case of delay, HPGCL may arrange the same and would recover the amount incurred for services from firm's bills.
- 1.16. All maintenance & upkeep of EOT cranes installed in ash handling plant shall be in scope of contractor.
- 1.17. The services of EOT crane where installed shall be provided free of cost. However, mobile crane if required will be arranged by the firm for handling of heavy material/spares from store to work place or shifting at site.
- 1.18. Transportation of spares from store to site, return of scrap from site to store & unloading / loading of components at site shall be scope of contractor. Any tractor trolley for lifting device if required shall be arranged by contractor at his cost.
- 1.19. The dry and wet ash removal in plant or outside area including drains/trenches/roads due to leakages from any dry or wet lines/pipes/equipments including knife gate valves etc. or due to O&M problem in ash handling system will be in the scope of contractor. Accumulation of ash in hoppers due to non evacuation which has to be got cleared manually by the contractor to avoid any damage to ESP/ hoppers etc. will be got cleared by the contractor. Otherwise the same will be got done from other agency at the contractor's risk and cost and the amount will be deducted from the bills of contractor.

To avoid ash accumulation in hoppers in addition to normal ash evacuation by vacuum system, the contractor shall make programme for inspection & pocking of all hoppers at regular periodicity.
- 1.20. Any of the work relating to above scope not indicated but required to be carried out as per site requirement is deemed to be included and contractor shall accomplish the same at no extra cost.
- 1.21. A proper preventive mtc. Schedule for daily ,weekly, monthly, quarterly etc, will be prepared and followed in consultation with HPGCL for which a proper record will be maintained. A general guidelines for preventive maintenance schedule is also attached here with at Annexure-VIII. Non adherence to this preventive maintenance schedule will be considered as deficiency in service and will attract penalty under 3(g) of Annexure-II ( page-8).

The contractor should follow work instructions, maintenance procedure and maintain daily check & preventive maintenance register as per ISO approved documents related to AHP, DCRTTP.

Standard operating procedures (SOPs) and Standard maintenance procedures (SMPs) of AHP, DCRTTP are to be followed by the contractor.
- 1.22. Maintenance and inspection of ash disposal line from ash slurry sump to ash dyke and around ash dyke on daily basis and any loss due to leakage in ash disposal line in nearby area will be in the scope of contractor.
- 1.23. Cleaning of all the slurry sumps, water sumps, clarifloculator sumps etc as per direction of Engineer incharge. The work shall be started strictly with in 24 hrs. of such instruction.
- 1.24. Operation and maintenance of recovery water treatment system and clarifloculator of ash handling plant.
- 1.25. Maintenance and inspection of all lines carrying water to clarifloculator, ash water sump & slurry sump.
- 1.26. Assisting HPGCL in timely procurement of all needed genuine spare parts.
- 1.27. To carry out repair of all equipments in ash handling, dry ash silo System and ash water recovery system as per the requirement and instruction of Engineer-in-Charge. Work shop facility as available at DCRTTP, HPGCL, shall be provided free of cost. However planning & supervision of such repairs / machining job etc. to be carried out at work shop will deem to be part of contractor's scope.
- 1.28. The contractor shall also be required to carry out Mtc. works in evening/night shifts & holidays in case of emergent exigencies/breakdown.
- 1.29. Manual cleaning of bottom ash hoppers and various sumps in AHP area, if required, will be carried out by the contractor.

### Technical term and conditions:-

1. **The Consumables / fast moving spares as per list attached at Annexure – IV & V required for ash handling maintenance jobs will be provided by the firm. The consumables and fast moving spares shall be routed through O&M store.**

In case contractor fails to bring sufficient above consumables / fast moving spares to site without which HPGCL work is suffering, HPGCL shall be procuring the same from the market and recover the cost from the contractor's bill @1.5 times the purchase price of the item.
2. The firm should have minimum following T & P along with other sufficient essential T&P so that simultaneous different sites could be handled at site for O & M work:
  - a. Welding machines 03Nos
  - b. Portable welding Machine 01 No.
  - c. Gas Cutting Set 03 Nos
  - d. Chain Blocks 03 Nos
  - e. Hydraulic Jack (50 T) 02 Nos
  - f. Grinding Machine 02 No
  - g. Drill Machine 01 No.

All above T&P should be in proper working condition all the time for which a checking record will be maintained by the firm and will be shown to HPGCL on demand .
3. All tools & tackles like spanners, millimeters, tong tester, box-spanner, pull lift, hoisting arrangement, portable grinding machine, personnel protective equipments for safety of workers, safety belt, and other general purpose tools and tackles have to be arranged/ provided by the contractor.
4. The entire work shall be completed by the contractor within the time given by Engineer-in-Charge and to achieve this, contractor has to work round the clock.
5. Attending damaged lines / leakage from ash handling lines including minor replacement up to 6 meters length per instance shall be in the scope of contractor. The contractor will assist in identification & planning for replacement & rotation of eroded ash pipe lines.
6. The work shall be started immediately after getting written/verbal instructions from the authorized representative of the Engineer-in-Charge.
7. Any temporary Platform/scaffolding etc. required to execute any work shall be in the scope of contractor.
8. The transportation of material from site to workshop & vice versa will be in the scope of contractor. The contractor will assist the loading / unloading of spares, if the same are to be got repaired from any private workshop.
9. The transportation of spares & other material from O&M store to site store or place of work & transportation of scrap to store yard will be in the scope of contractor.
10. After attending the job, the area will have to be got cleaned / cleared and scrap etc. to be removed from site. In case Engineer-in-Charge feels that the area has not been cleaned / cleared properly, HPGCL has the right to get the above work done from other agency at the risk and cost of the contractor.
11. If required, the space for office and store can be provided if available by HPGCL. The site office should be well painted and constructed in such a way that it should give an aesthetic look.
12. The chemicals for carrying out DP test wherever required will also be arranged by the contractor.
- 13.a In case spares are not available at site or in store and same are required to be removed from any other unit, the contractor is bound to do same without any extra cost.
  - b. At the start of contract; the contractor shall access the spare parts requirement of various equipments and would advice the DCRTTP Engineer-in- Charge.
14. Cleaning of dust from equipment i.e. HP, LP ,F.A pumps, Vacuum pumps, Fluidizing blowers, Ash slurry pumps, TAC, IAC, Clinker grinder drives, Ash Water recovery pumps & associated equipments, equipments and silo utility building, LP- HP piping, TAC line etc. will be done daily, preferably between 04:00 PM to 7:00 AM. All equipments shall be maintained adequately cleaned & dust free.
15. The dismantled spares, new spares, kept at site for emergency use should be properly stacked, kept cleaned and covered properly in safe custody.

16. Contractor will arrange all measuring instruments like micrometers, vernier calipers, scales, tong testers, millimeters, dial gauge, hydraulic testing pumps for coolers etc.
17. Additional manpower will be required to be mobilized during overhauling of any unit and the contractor will ensure adequacy of manpower so that overhauling works are completed in time.
18. The contractor shall make an arrangement so that his authorized representative is available round the clock at specified location to take maintenance job on all days including Sundays / Holidays.
19. The contractor will ensure the presence of their representative i.e. supervisor / contractor himself at the time of cancellation of PTW / running of equipment after completion of work.
20. The contractor shall submit the weekly report of works carried out by him at the end of the week countersigned by Engineer-in -Charge.
21. Dismantling and assembly of any equipment like pump/gear box/blower/pneumatic cylinder etc. for the purpose of overhauling or for getting its components repaired from outside agency shall also be in scope of contractor.
22. During the contract period any other equipment if required to be installed for improvement in performance of AHP system, the O&M of the same shall be in the scope of contractor.

**C. Exclusion from scope of contractor-**

1. All spares Lubricants & consumables which go permanently into the equipment & form part of equipment like & electrodes except ordinary MS electrodes required for the job shall be provided by the HPGCL free of cost except indicated in Annexure-IV & Annexure-V.  
The firm will assist HPGCL in planning & procurement of all needed spares & replacements.  
However special electrodes for S.S/C.I/alloy steel for hard facing / repairs will be provided by HPGCL free of cost.  
Scaffolding material, if required shall be provided by HPGCL free of cost.
2. Maintenance of following electrical equipments is excluded from contractor's scope of work.
  - i) Repairing/rewinding of H.T motors/L.T motors.
  - ii) Power Transformers.
  - iii) Incomer of 415 V PMCC.
  - iv) Spares for motors & breakers/modules etc.
  - v) Lighting system and its panels.
  - vi) 6.6 KV breakers of H.T motors.
- 3 Major replacement and rotation of ash pipe lines will be in scope of HPGCL.
- 4 All the chemicals such as alum and lime for dosing in reactor clarifier shall be arranged by HPGCL at their own cost .
- 5 Carrying out all modification and renovation works not forming part of the normal maintenance of ash handling, dry ash silo system and AWR system is excluded. However, planning and supervision of such works will be deemed to be part of contractor's scope of work.
- 6 In case of overhauling or major shut down (more than 10 days) of the unit ash accumulated below ESP hoppers only due to washing or cleaning of ESP will not be in scope of contractor. However ash accumulated in the ESP hoppers due to non functioning of the ash handling system properly but has to be dropped on ground for clearing the hoppers or making Ash handling system operational its lifting will be in the scope of contractor/firm. Contractor/firm is supposed to lift the Ash without wasting time to make proper cleaning of the area.
7. Space for office accommodation will be provided near the working place free of cost.
8. For ensuring effective operation & maintenance of automated ash handling system, the contractor shall adopt training program of their employees for enhancement of their skills as per required.

**Executive Engineer/AHP,  
For Chief Engineer /DCRTPP,  
HPGCL, Yamuna Nagar.**

## List of consumables

<b>Sr.No.</b>	<b>Description</b>	<b>Sr. NO</b>	<b>Description</b>
1	Anabond	25	MS Welding Electrode
2	Araldite	26	Insulation Tape
3	Coir Rope	27	Kerosene
4	CTC	28	Lead Wire
5	Cotton Tape Roll	29	Loctite Sealants
6	Fevicol	30	Precision Blue Paste
7	Fibre glass Sheet	31	Soldering Rod
8	Cotton Waste	32	Soldering Paste
9	Grinding Wheel	33	Welding Glasses
10	Grinding paste	34	Welding Lead
11	Conical grinding Stone	35	Welding Holder
12	Emery paper	36	Paint Brush
13	Hecksaw Blade	37	Wire Brush
14	Teflon Tape	38	Brush
15	Drill Bits	39	Bulbs
16	DA Gas	40	Torch & Cell
17	Oxygen Gas	41	Chalk pieces
18	Cutting Torch	42	Cotton Cloth
19	Rustolene	43	Cutting Nozzle
20	Petrol/Diesel	44	Cleaning Agent
21	M Seal	45	Flexible pipes
22	Varnish	46	Air Lugs & furels
23	Holdite Graphite Compound	47	Old Dhoties
24	Holdite Liquid Sealents	48	Hand Gloves

## List of fast moving spares

Sr.No.	Description
1	Rubber Coupling Gasket 150 mm
2	Rubber Coupling Gasket 200 mm
3	Rubber Coupling Gasket 250 mm
4	Rubber Coupling Gasket 300 mm
5	Rubber Coupling Gasket 350 mm
6	Rubber Coupling Gasket 400 mm
7	CAF Jointing sheets , 1 mm
8	CAF Jointing sheets , 3 mm
9	Rubber sheets , 5 mm
10	Rubber Sheets , 3 mm
11	Gland Rope
12	Gland packings ,12 mm
13	Gland Packings , 16 mm
14	Gland Packings , 19 mm
15	O-Ring of various sizes
16	Rubber Chord
17	Diff size HT Nuts/ bolts
18	Diff size MS Nuts & Bolts
19	All type of Shims
20	Seat of MHV
21	Gate of MHV
22	Slide gate of 200 NB Segg. valve
23	Seat of 200 NB Segg. Valve
24	Seat of 200 NB RSV
25	Gate of 200 NB RSV
26	Seat of 80 NB Equalizing valve/Ring of 80 NB double disc valve
27	Gate of 80 NB Equalizing valve/Disc of 80 NB double disc valve
28	M.S fittings , unions , nipples ,valves and Copper fittings etc. upto 2 inch dia

**Ash Handling Plant Equipments Details****A. Ash slurry pumps**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01	Ash Slurry Pumps	12 nos	12 Nos. (6+6) Pump Make – Indure/Warman Make Model – 8/6 EEAH Type – Horizontal Centrifugal Pump Number Operating – 6 Rated Capacity – 600 m <sup>3</sup> /hr Rated Speed – 873 RPM Shaft of Head – 42m Specific gravity of Slurry – 1.12 No. of Pumps in series – 3 Motor Rated output of motor 120 KW Power – 120 KW @ 1485 rpm.

**B. L.P Seal water pumps for ash slurry**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01	LP Seal water pumps	03 nos	03 Nos. (2+1) Pump Make – Best & Crompton Make Model: CNW 100X400 S.NO.W0082907 Capacity: 50 M3/Hr Head: 55 mtrs. Motor Rated output of motor 15 KW @ 1485 rpm

**C. H.P Seal Water Pumps for ash slurry**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01	HP seal water pumps	02 nos	02 Nos. (1+1) Pump Make – Best & Crompton Make Model: FOB-9 stage Capacity: 5.5 LPS Head: 80 mtrs. Motor Rated output of motor 7.5 KW @ 1485 rpm.

**D. H.P water pumps**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01	HP water pumps	03 nos	04 Nos. (2+2) Pump Make :M/s Best & Crompton make Discharge -280 m <sup>3</sup> /hr Head -75 m Coupling Type – Flexible Pin and Bush Coupling Make and size–Fenner/BC Motor Power – 90 KW Make – Alstom /TEFL R.P.M. – 1485

**E. L.P water pumps**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01	L.P water pumps	03 nos	03 Nos. (2+1) Pump Make :M/s Best & Crompton make Discharge – 425 m <sup>3</sup> /hr Head – 22m Coupling Type – JAW Flex Spacer Coupling Make and size – Love Joy/RRS 190 Motor Power – 37KW Make – Alstom /TEFL R.P.M. – 1470

**F. Fly ash (F.A) water pumps**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	F.A water pumps	03 nos	03 Nos. (2+1) Pump Make :M/s Best & Crompton make Discharge – 300 m <sup>3</sup> / hr Head – 65 mtrs Coupling Type – Flexible Pin and Bush Coupling Make and size – Fenner BC 5 Motor Power – 90 KW Make- Alstom / TEFL R.P.M. - 1485

**G. Economizer water pumps**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Economizer water pumps	03 nos	03 Nos. (2+1) Pump Make :M/s Best & Crompton make Model: CNW 100X400 Capacity: 60 M3/Hr Head: 50 Mtrs. Motor Rating – 18.5 KW @ 1485 rpm

**H. Vacuum pump for unit- I & II**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Vacuum pumps for unit- I & II	16 nos	16 Nos. (8+8) Pump Make – Vaccunair / Premier / TMVT/ Garuda make Make –Engineering Co. Pvt. Ltd. Model – 140/170 @R.P.M. 490 4 nos V- Belt drive of SPC – 3750, Capacity – 2890 m <sup>3</sup> /hr/3200 m <sup>3</sup> /hr Vacuum – 400 mmwc Motor Power – 75KW @R.P.M. – 1475



**I. Ash water recovery pump**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Ash water recovery pumps	04 nos	04 Nos. (2+2) Pump Make – WPIL Make Model – 12 GMTC Type – Vertical; Rated Capacity – 260 m <sup>3</sup> /hr No. of stages – 08 nos Head – 90 m Motor Rated output of motor 90 KW Power – 900 KW @ 1485 rpm.

**I. Transport Air Compressors (T.A.C)**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Transport air compressors (T.A.C)	03 nos	03 Nos. (2+1) Pump Make – M/s Atlas Copco make Model – ZA-06 -175 Type of compressor- Oil free screw Rated Capacity – 6000m <sup>3</sup> /hr Design Pressure- 1.75 Kg/cm <sup>2</sup> Discharge Temperature- 170 Deg. Cel. Design Capacity - 3578 cfm Noise level- Max. 85 dB (A) at height of 1.5 m above floor level Motor Rated output of motor 315 KW

**J. Instrument Air Compressors (I.A.C)**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Instrument air Compressor (I.A.C)	02 nos	02 Nos. (1+1) Pump Make – M/s Kirloskar make Model – TB-TD-LM Rated Capacity – 600 m <sup>3</sup> /hr Motor Rated output of motor 75 KW @ 1485 rpm.

**K. Fluidizing blowers of ESP & buffer hoppers for unit- I & II**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Fluidizing blowers of ESP & buffer hoppers for unit- I & II	04 nos	04 Nos. (2+2) Pump Make – M/s Swam make Motor Rated output of motor 11 KW @ 1485 rpm.

**L. Bottom ash overflow pumps (B.A.O.F)**

<b>S No.</b>	<b>Name of Equipments</b>	<b>Quantity</b>	<b>Pump Specifications</b>
01.	Bottom ash overflow pumps (B.A.O .P)	04 nos	04 Nos. (2+2) Pump Make – M/s Warman make Model – 6/4 Capacity – 170 m <sup>3</sup> / min. Head – 22 M , Motor Rated output of motor 37 KW Power – 37 KW @ 1485 rpm.

### M. Vacuum Drain Pumps

S No.	Name of Equipments	Quantity	Pump Specifications
01.	Vacuum drain pump	04 nos	04 Nos. (2+2) Pump Make – M/s Warman make Type of pump – Vertical pump Model – 65 QVSP Head - 18.0 Meter. Motor Rated output of motor 7.5 KW Power – 7.5 KW @ 1485 rpm.

### Other Equipments

- a. 3 nos. ash slurry disposal lines of pipe Ø 300mm and thickness - 9.52 mm
- b. Total length of 3 nos ash disposal lines up to Ash dyke- 25 Km (approx.)
- c. 1 no. ash water recovery line of Ø 350 mm and thickness - 6.35 mm
- d. Total length of ash water recovery line - 4.5 Km (approx.)
- e. Dry fly ash silo (2 Nos) of Capacity- 1000 MT each.
- f. Ash water recovery pumps (4Nos) of capacity-260 M<sup>3</sup>/hr each.
- g. Bottom ash hoppers -2 nos per unit
- h. Economizer hoppers-4 nos per unit.
- i. Air pre heater hoppers- 8 nos per unit.
- j. ESP hoppers - 56 Nos. per unit
- k. All Make water pumps to ash water sump.
- l. Seal water pump for Ash water recovery pumps- 2 nos

### PLC

ALLAEN BRADELY : ROCKWELL AUTOMATION MAKE

### Description of Dry Fly Ash System

There are total 56 hoppers in ESP pass – A & B of each unit. 56 hoppers are further divided into 4 streams (A, B, C & D). Each stream is connected with 14 hoppers. All four streams could be evacuated in dry mode as well as in wet mode at any time.

- A stream of ESP hoppers is connected with A-1 main line buffer hopper & A-2 standby buffer hopper.
- B stream of ESP hoppers is connected with B-1 buffer hopper & there is stand by buffer hopper B-2.
- C stream of ESP hoppers is connected with B-1 buffer hopper & there is stand by buffer hopper C-1.
- D stream of ESP hoppers is connected with C-1 main buffer hopper and C-2 stand by buffer hopper.

**Executive Engineer/AHP,  
For Chief Engineer /DCRTPP,  
HPGCL, Yamuna Nagar**

**PART-II (Price Bid)**

NIT No. 06 /AH-08/2023-24

Date: - 18.06.2024

Item No.	Description of Activity (Ash Handling System Unit I & II)	Ist Year Rates	2 <sup>nd</sup> Year Rates	3rd Year Rates
		Lump Sum Rates to be Quoted for 3 systems (GST Extra as applicable) (Say V)	Lump Sum Rates to be Quoted for 3 systems (GST Extra as applicable) (Say X)	Lump Sum Rates to be Quoted for 3 systems (GST Extra as applicable) (Say Y)
1.	Operation & Maintenance of automated PLC based ash handling system (Dry and Wet) ash silos & Ash water recovery system of 2x300 MW DCRTTP, Yamunanagar including cost of consumables & fast moving spares as per (Annex-IV & V)			
Total (Rs.)				

**Note for the bidder:**

- The Bidders are required to quote the rates strictly as per this rate Quoting Sheet format.
- The Bidders are required to submit details of man power (nos.) involved in each package category wise like Site In charge, Engineers Supervisors, Operators, Skilled, Semi-Skilled, Un-Skilled manpower, Welders, Riggers, Electrician and Technician. Manpower must be deployed in accordance with clause No.14 (General terms & conditions) of Annexure-II and require to be strengthened as per requirement of site and the opinion of Engineer In-charge time to time. Technical back up available with bidder will also be intimated.
- L-1 will be decided on lump sum rates including consumables and spares cost as per Annex-IV & V, but for payment purpose weightage of different system will be as under:

Item No	Description	Weightage
1	Operation & Maintenance of wet ash system excluding ash water recovery system.	36% of V or X or Y or Z as the case may be
2	Operation & Maintenance of ash water recovery system (AWRS).	4% of V or X or Y or Z as the case may be
3	Operation & Maintenance of dry ash system including ash silo system.	60% of V or X or Y or Z as the case may be

**Signature & Stamp of the Contractor**

## Preventive Maintenance Schedule

## FLY ASH SYSTEM

Sr. No.	Name of Equipment	Detail of Preventive Maintenance	Frequency						Remarks
			Daily	Weekly	Fortnightly	Monthly	Yearly	Shut Down	
1	Wetting Head Air Washer	Water Pressure		*					
		Check of Nozzles for erosion/choking				*			
2	Vaccum line from Air Washer	Water Washing		*					
3	Material Handling Valves	Checking of Valve seats & slides for erosion			*				
		Checking air intake valves for proper operation			*				
		Checking solenoid valves & pneumatic actuator for air leakage			*				
4	Seggregating valves	Checking of Valve seats & slides for erosion			*				
		Checking solenoid valves & pneumatic actuator for air leakage			*				
5	Rotary Seggregating valves	Adjustment of seat & spring		*					
		Checking of Valve seats & gates for erosion			*				
		Checking solenoid valves & pneumatic actuator for air leakage			*				
6	Equalizing/Double disc Valves	Adjustment of seat & spring		*					
		Checking of Valve seats & gates for erosion			*				
		Checking solenoid valves & pneumatic actuator for air leakage			*				
7	Air lock Tank	Check for proper filling & emptying	*						
		Checks fluidising pads for proper operation & air leakage				*			
8	Bag Filters of buffer hoppers and ash silo	Check the air pressure for pulse jetting	*						
		Check the pulse jet controller & solenoid valves for proper operation			*				
9	Buffer Hoppers	Checks fluidising pads for proper operation & air leakage				*			
10	Fluidizing Air Blowers	Cleaning of suction filters			*				
		Check for oil level and topping up			*				
		Check safety valve for proper operation			*				
11	Fly Ash Conveying Lines from Buffer Hopper to silo	Check for coupling leakages	*						
		Check for knife gate valves for gland leakage			*				
12	Fly Ash Conveying Lines from ESP Hopper to Collector Tank	Check for coupling leakages	*						
13	Silo Vent Fan	Greasing of bearing		*					

		Check tightness for V belts		*					
14.	Silo Rotary feeder	Check of erosion/choking		*					
		Greasing of bearing		*					
15.	Telescopic Chute	Inspection of telescopic chute	*						
16.	Ash Silo	Silo Cleaning						*	
		Checking of fluidizing pad						*	
17.	Fluidizing air blower	Greasing of bearing		*					
		Checking of oil level		*					
18.	Air receiver tank	Checking of air leakage			*				
19.	Air dryer	Checking of air leakage			*				

## ASH HANDLING SYSTEM PUMPS

Sr. No.	Name of Equipment	Detail of Preventive Maintenance	Frequency						Remarks
			Daily	Weekly	Fortnightly	Monthly	Yearly	Shut Down	
1	Vacuum Pumps	Seal water pressure	*						
		Grease Top up of Bearings			*				
		Shut off Vaccum	*						
2	Ash Water/Fly ash Pumps	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
3	HP Water Pumps	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
4	LP Water Pumps	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
5	Ash Water Recovery Pumps	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
6	Ash Slurry Pumps	Gland leakage & seal water pressure	*						
		Grease Top up of Bearings		*					
		Check for oil level in gear box	*						
		Check for oil level in Fluid coupling			*				
		Check for tightness of belts		*					
7	Transport air compressor	Cleaning of suction filters			*				
		Check for oil level and topping up			*				
8	Instrument air compressor	Cleaning of suction filters			*				
		Check for oil level and topping up			*				
		Checking of Inlet / Outlet valves			*				
9	Air Receivers	Check drain valves for accumulation of water		*					
		Check safety valves for proper operation			*				
10	HP & LP Seal water pump of Ash handling plant and Ash water recovery pump house	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
11.	Vacuum drain pump	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
12	Slurry drain pump	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
13	Jheel water pump	Gland Leakage	*						
		Grease Top up of Bearings			*				
		Discharge water Pressure	*						
14	Bottom ash	Gland Leakage	*						

	overflow pump								
		Grease Top up of Bearings		*					
		Discharge water Pressure	*						
15	Clarifloculator sludge pump	Gland Leakage	*						
		Grease Top up of Bearings		*					
		Discharge water Pressure	*						
16	Economizer hopper pump	Gland Leakage	*						
		Grease Top up of Bearings		*					
		Discharge water Pressure	*						

## BOTTOM ASH SYSTEM

Sr. No.	Name of Equipment	Detail of Preventive Maintenance	Frequency						Remarks
			Daily	Weekly	Fortnightly	Monthly	Yearly	Shut Down	
1	Clinker Grinders	Gland leakage & seal water pressure	*						
		Grease top up in bearings/spur gears		*					
		Check for chain tightness& lubrication		*					
		Fluid Coupling oil level			*				
		Drive Motor bearing greasing			*				
		Drive & Driven sprockets						*	
2	Gear Box	Check for abnormal sound	*						
		Check for oil level	*						
3	Hopper Gates	Gate Leakages			*				
		Roller supports greasing		*					
		Water level check of air water convertor tank	*						
4	Hopper Flushing Nozzle	Check for choking /Erosion						*	
5	Hopper Seal Trough	Check for accumulation of ash		*					
6	Hydro Ejector	Inlet water Pressure	*						
		Wear out of intermediate wear piece, throat & nozzle						*	
7	Water Valves	Gland leakage		*					
		Valve Passing		*					



## GST UNDERTAKING

**The following undertakings on the letter of the firm to be made part of mandatory documents to be submitted by the firm:-**

1. GST registration is valid as on date-----.
2. No default has ever been made by firm in filling the various GST returns and deposit of GST dues with the department.
3. Firm having multiple registrations under GST will submit undertaking for each & every GST number.
4. A CA certificate regarding validity of GST registration will be submitted during the tenure of contract/Work order.
5. Firm will submit GSTR-1/GST3B challans as evidence to deposit of GST with certification that GST collected from HPGCL, to be specified in exact rupees, has been paid to Govt. vide this challan (specifying the challan no. & date of deposit) and returns filed (date of filling of return) includes the transaction of supply good or/and services to HPGCL.
6. Firm will inform immediately the HPGCL about initiation of any proceeding against him under the GST laws which may result in suspension or cancelation of GST number of the vendor.
7. Undertaking to indemnify the HPGCL in case of any financial implication on HPGCL due to non-compliance of prescribed obligation under GST law on part of the supplier/vendor.
8. In case of one-time job orders copies of GSTR 1, GSTR 2A and GSTR 3B along with copies of raised to HPGCL, dully reconciled with three returns to be submitted before release of the security.
9. GST no./address/place of supply/place of invoice are same as submitted at the time of bid documents & GST portal.
10. w.e.f. from 01.04.2021 generation of E-invoice for GST supplier by the person having aggregate turnover of more than 50 crores has made compulsory.
11. If previous year annual turn over is less than 50 crores, undertaking from the vendor in following format is required:-

"We M/s----- having PAN ----- and GSTIN registration number-----hereby undertake that our aggregate turnover (as per section 2(6) of Central Goods and Services Tax Act, 2017) for FY 2019-20 does not exceed the prescribed threshold (as on the date of this declaration) for generation a Unique Invoice Registration Number (IRN) and QR code as per the provisions of Central Goods and Services Tax Act, 2017 and rules there under (GST Law). Further, we also undertake that if the aggregate turnover of M/s-----exceeds the current threshold or revised threshold notified by the Government of India at any future date, then we shall issue invoice and credit note in compliance with the required provisions of GST law. In case of any queries from the any state or centre goods and services tax authorities. M/s ----- will be solely responsible.