

SECTION-I
PRESS NOTICE, NIT, AND
INFORMATION FOR BIDDERS (IFB)

E- Tender No. : SJVN/CHQ/ECD/Sunni/EMP/2024



SJVN Limited

(A Joint Venture of Govt. of India & Govt. of H.P.)

A Mini Ratna & Schedule 'A' PSU

CIN: L40101HP1988GOI008409

E- Tender No. : SJVN/CHQ/ECD/SUNNI/EMP/2024

Online bids (E-tender) on Domestic Competitive Bidding (DCB) are invited on behalf of SJVN Ltd. for Construction of all Electro Mechanical Works of Sunni Dam HEP (382 MW) in Himachal Pradesh.

For details, visit websites www.sjvn.nic.in, <https://etender.sjvn.co.in> and www.eprocure.gov.in. Last date for bid submission is **28.10.2024 (1300 Hrs)**.

Amendments, if any, shall be issued on websites only.

For and on behalf of SJVN Ltd.

Sd/-

HOD (Electrical Contracts Deptt.)

SJVN Corporate Head Quarter,,

Shanan, Shimla-171006,

Himachal Pradesh,

E-mail: elect.contracts@sjvn.nic.in



SJVN Limited

(A Joint Venture of Govt. of India & Govt. of H.P.)

A Mini Ratna & Schedule 'A' PSU

CIN: L40101HP1988GOI008409

Notice Inviting Tender (NIT)

Tender No. : SJVN/CHQ/ECD/Sunni/EMP/2024

The SJVN Ltd., having its registered and corporate office at SJVN Corporate Head Quarters, Shanani, Shimla-171006, Himachal Pradesh, hereinafter referred to as the "Employer", wishes to receive bids from Indian Companies/Firms for the Electro-Mechanical Works of Sunni Dam HEP in Himachal Pradesh, as summarized herein below and described in the Bid Document, hereinafter referred to as the "Works". The bids shall be submitted online through <https://etender.sjvn.co.in>.

Description of Work	Cost of Bid Document (INR)	Bid Security (INR)	Completion Period (Months)
Electro-Mechanical Works of Sunni Dam HEP (382 MW) located in Distt. Shimla and Mandi in Himachal Pradesh (India).	5900/- (inclusive of applicable GST@18%)	Rs. 16.72 Cr.	43 months (Detailed in BDS)

1. Bidders should not have been banned/ de-listed/ black listed/ debarred from business by Ministry of Power, Government of India/any PSU/any Government Department during last 03 (three) years on grounds of corrupt/fraudulent practices and/or by Ministry of Power, Government of India/SJVN on any grounds. The bidder shall have valid EPF Code and PAN, GST no.
2. The no. of JV partners allowed for bidding is two.
3. To improve transparency and fairness in the tendering process the Employer is implementing Integrity Pact. The Integrity Pact, signed by all the prospective Bidders and the Employer, shall commit the persons/officials of both the parties, not to exercise any corrupt /fraudulent/collusive/coercive practices in the Tendering process and also during implementation of the Contract. Only those Bidders who have entered into Integrity Pact with the Employer shall be eligible to participate in the bidding process. Entering into Integrity Pact is a basic qualifying requirement. In case of JV, each partner of JV shall sign Integrity Pact with the Employer. The Bidder shall sign an Integrity Pact with the Manufacturer(s) on the similar lines as signed by him with the Employer. Bidders signing Integrity Pact shall not approach the courts while representing the matter to IEMs and he/she will await the decision in the matter.

4. The minimum qualifying requirements are as under:

4.1 General Experience:

Experience as prime contractor or as partner in a joint venture or Manufacturer or Sub-contractor approved by the Employer of executing Electromechanical Contract of Hydro Electric Project having value of **INR 418.09** Crores or more in last 20 years to be reckoned from the last day of the month previous to the one in which bids are invited.

4.2 Specific Experience:

Successful experience, either by the Bidder itself or by the proposed manufacturer who have given authorization to the bidder in required format, in design, engineering, manufacturing, erection, testing and commissioning of the following electro-mechanical items / works in preceding twenty (20) years.

The beginning and end date to be adopted for evaluation should fall within the preceding 20 years reckoned from the last day of the month previous to the one in which bids are invited.

i) Turbine

Francis Turbine having rated output of 44 MW or higher.

ii) Generator

Vertical shaft synchronous generator having rated output of 52 MVA or higher.

Notes:

- a) Experience of Supervision of erection, testing and commissioning of bidder shall also be considered at par with own erection, testing & commissioning of E&M equipment.
- b) In case of financial value(s) mentioned in foreign currency, the conversion rate shall be applicable as on the corresponding date (i.e. award date) pertaining to such financial value(s). For conversion of equivalent foreign currency, the Bills Clearing (B.C) selling market rate of exchange (MRE) as published by State Bank of India shall be considered.

4.3 Financial Capacity:

4.3.1 Net Worth

The net worth for last three financial years should be positive.

However, the Net Worth shall be calculated as per definition under clause no. 2(57) of Companies Act 2013 as amended from time to time.

4.3.2 Working Capital

Capacity to have a cash flow amount /working capital of at least INR **58.34 Cr.** or equivalent as evident from the immediately preceding financial year as per the audited balance sheet/ equivalent financial statements. Working capital/ cash flow amount shall be calculated by subtracting current liabilities (CL) from Current Assets (CA) i.e (CA-CL).

4.3.3 Average Annual Turnover

The average annual turnover of the bidder in the preceding three (3) consecutive financial years should not be less than **INR 250.85 Cr.** or equivalent (Certified by the Auditor of the Company if it is not clearly indicated in the financial statement) from related business.

Related business means turnover from hydro business of the company.

General Notes for Financial Situation:-

- i) The number of partners in case of Joint Venture including lead partner shall not be more than two (2). The lead partner must have minimum 50% participation in the JV and other partner(s) shall have minimum 20% participation and overall JV should meet the 100% requirement.
- ii) In case of JV-requirement of working capital/net cash flow is to be distributed between partners as per their percentage participation and every partner should satisfy the minimum requirement for his portion.

Example:- Let there are two partners of JV and Lead Partner has percentage participation =A, other Partner has percentage participation=B. If minimum working capital/ net cash flow required is 'W then working capital/ net cash flow of Lead Partner should be $WA/100$, working capital/ net cash flow of other partner should be $W B/100$. Example: Let there are two partners of JV and Lead Partner has turnover of X & percentage participation =A, other Partner has turnover Y & percentage participation =B, then the average annual turnover of JV will be $(AX+BY) / 100$.

- iii) Turnover of the bidder/ partner from the related business shall only be taken into consideration for the purpose of evaluation. In case turnover is not shown separately in the financial statements, certificate from Chartered Accountant certifying turnover shall be submitted.
- iv) Annual Report along with audited Balance Sheets, Profit & Loss Accounts, the schedules and other Financial Statements of the immediately preceding three(3) years of the Bidder should be furnished by the Bidder for checking and evaluating their Financial Capacity vis-à-vis the requirement stipulated hereinabove.

In case, if the Bidder has not submitted the above Annual report along with the Bid, then a certificate from CEO/CFO of the Bidder shall be submitted along with Bid mentioning that a requirement of Annual report as per governing laws of the country is not mandatory. In such cases duly notarized copies of Audited Printed Annual Financial statement (Balance sheet, Profit and Loss statement, cash flow, statement, Auditor's Report thereon including all relevant schedules/ annexure etc.) for the immediately preceding three (3) years be submitted by the bidder along with the Bid.

- v) In case where Audited financial results for the immediately preceding year are not available, then a statement of account as on the closing date of the immediately preceding financial year depicting the Turnover from related business, Net Worth and Working Capital (calculated as per laid down criteria) duly certified by their Statutory Auditor/ Certified Public Accountant carrying out the Statutory Audit shall be enclosed with the bid along with copy of appointment letter of the Statutory Auditor.
- vi) Wherever, the Annual report/ duly Notarized copies of the audited Printed annual Financial Statement are in language other than English, then copy duly translated & printed into English language and certified by approved/ recognized English translator shall be submitted with the bid.
- vii) For the Purpose of compliance to the stipulated turnover criteria given at Financial Criteria, the turnover from joint Venture(s) as declared in the Joint Venture Agreement shall also be considered.

The proportionate JV turnover shall be certified by their statutory Auditor in the absence of not appearing the same in Audited Financial statement.

- viii) For conversion to US\$ or other foreign currency, the exchange rate at the end of the respective accounting year shall be considered.

For the conversion of equivalent foreign currency, the Bil Clearing (B.C) Selling Market Rate of Exchange (MRE) as published by State Bank of India shall be considered.

4.4 Bid Capacity:-

The available Bid Capacity of the bidder of the date after NIT, calculated as under should not be less than **INR 836.18 Cr.:** -

$$\text{Available Bid Capacity} = 2.0 \times A \times N - B,$$

Where;

A = Indexed value of maximum value of works executed (in a ongoing or completed project) in any one year during last 5 years, keeping index of inflation as 6% (compounded annually) for calculating A at present price level.

N = Number of years prescribed for completion of the subject Contract Package.

B = Value of existing commitments (on the date after NIT) and ongoing works to be completed in the next 'N' years."

The bidder shall submit a certificate from its statutory auditors/ chartered accountant in support of establishing "A" and "B" above, along with their bid.

5. This tender is being processed through e-tendering/e-procurement system. The bid documents are to be downloaded and bids duly filled in are to be submitted / uploaded through SJVN e-tendering system at <https://etender.sjvn.co.in>

5.1 Digital Signature Certificate: To participate in an e-Tender, bidder need to have a valid Class-3 Digital Certificate (Signing & Encryption/Combo) from certifying authority of India as per the IT Act, 2000. Valid Digital Certificate must be installed in a computer system from where you want to login on website. Perform the below steps to confirm whether valid digital certificate is available on your computer system or not:

Steps:

- ➔ Open Internet Explorer.
- ➔ Select Tools menu from menu bar. OR (Press Alt + T on your keyboard)
- ➔ Click on Internet Options >>Content >>Certificate button.

The bidder should view your digital certificate under "Personal" heading.

Requirement of Digital Signature Certificate

- ➔ Please enable ActiveX Controls & Plug-ins. (Tools->Internet Options-> Security->Custom Level)

Active-X controls need to be enabled in your Internet browser. In order to ensure this, please do the following:

- 1) In Menu Bar ---Click on Tools - Internet Options – Security – Click on Trusted Sites Icon – Click on Sites button

Add 2 Website in Trusted Sites:

- 1) <https://etender.sjvn.co.in>

After that, click on

Tools menu of Internet explorer - Internet Options – Security – Click on Internet Icon

After Click on Custom Level button –

From below ActiveX controls and plug-ins ---- Select below 5 Items to be enabled

- 1) Download signed ActiveX controls –select Prompt or Enable

- 2) Download unsigned ActiveX controls – select Prompt or Enable
- 3) Initialize and script ActiveX controls not marked as safe for scripting – select Prompt or Enable
- 4) Run ActiveX controls and plug-ins-select Enable
- 5) Script ActiveX controls marked safe for scripting – select Enable

After completed this above selection----Below option has available---Reset custom settings--- Reset To: Select low or medium ---Click on OK

Also, please check your system Date & Time it should be set as current date & time.

→ Please disable or uninstall Third Party Toolbar / Add-ons from Browser.

5.2 Vendor Registration Process

After obtaining digital signature as indicated above, the bidder is to register with SJVN e-tendering portal <https://etender.sjvn.co.in> to participate in the tendering process. Perform below mentioned steps to register yourself:

- Click on a “New User Click here” link available on home page
- You need to furnish individual details as well as of company details in registration form
- After filling all mandatory fields, you need to click on “submit” button to complete registration process.
- On successful completion of registration you will be prompted a message saying that “You have successfully registered on SJVN Limited’s e-tender portal”

Already valid registered vendors in SJVN systems with Vendor Id need not follow registration process and may contact support email: etender.support@sjvn.nic.in for further Vendor ID details.

2.0 Downloading Bid Document

Bidder to access <https://etender.sjvn.co.in> to download NIT document, after completing registration formality (if required) and successful login vendor need to process for Tender Fee / Document Fee as per the provisions of bid documents and thereafter bidder can download detailed tender document.

2.1 Bid Submission

- Bidder needs to login on SJVN tendering portal i.e. <https://etender.sjvn.co.in>
- Search tender by filling necessary searching criteria after Login.
- Please refer to attach document of “Bidder User manual”.

All the bidders are requested to get themselves registered well in advance and no extra time will be considered for submission of bids for the delay in on-line Vendor Registration, if any.

2.2 The bid document comprises of following:

Section-I Press Notice, Notice Inviting Tender and Information for Bidders (IFB)

Section-II Instructions to Bidders (ITB)

Section-III Bid Data Sheet (BDS)

Section-IV General Conditions (GC)

Section -V Special Conditions of Contract (SCC)

Section-VI Technical Specifications, Drawings & Schedules (TS) and QATR

Section-VII Letter of Tender, Attachments and Bid Price Schedules

Section -VIII Contract Form & Procedure

The complete set of Bid Document can be downloaded by the bidders through <https://etender.sjvn.co.in> only after registration.

Bidders are also advised to keep on visiting the websites as mentioned below for any Notification/ Amendment / Addendum/ Corrigendum from SJVN's side in respect of this tender:

- (i) <https://etender.sjvn.co.in>
- (ii) <https://sjvn.nic.in>
- (iii) Visit us at: <https://sjvn.nic.in> & <https://etender.sjvn.co.in>

6. The key particulars/details and dates of this invitation are as under :

Date and time for availability/ downloading of Bid document on web site https://etender.sjvn.co.in	28.08.2024 (1800 Hrs.) to 27.10.2024 (1200 Hrs).
Last date for receiving request for clarifications from bidders on our e-mail id elect.contracts@sjvn.nic.in	18.09.2024 Upto 1800 Hrs.
Venue, Time and date of the pre bid meeting (only in Physical mode)	Venue: Conference Hall, Electrical Contract Department, SJVN Corporate Head Quarter,, Shakti Sadan, Shanan, Shimla – 171006 (H.P.) Date: 19.09.2024. Time: 1130 Hrs.
Deadline for submission of bids :	1. Online submission 28.10.2024 (1300 Hrs.) 2. Offline submission 04.11.2024 (1800 Hrs.) (Hard Copy)

Date & time for Bid opening.	Online bid opening (Techno-commercial) 28.10.2024 (1400 Hrs.) Price Bid : To be intimated later on to the bidders meeting the specified qualifying criteria and also whose Techno-Commercial Bids are found responsive.
Venue for opening of proposal	Electrical Contract Department, SJVN Corporate Head Quarter,, Shakti Sadan, Shanan, Shimla – 171006 (H.P.)

For any query/enquiry/clarification for registration, submission of Bids and any other information, the Bidder may contact the following person:

Designation	Address	Phone no.
CGM/ HOD(ECD)	Electrical Contract Department	0177-2660201,132

All correspondence with regard to the above shall be made at the following address:

HOD(ECD)
Electrical Contract Department,
SJVN Corporate Head Quarters,
Shakti Sadan, Shanan,
Shimla (HP) -171006,
Ph. No.: +91-177-2660201,132
Telefax No. +91-177-2660200

E-mail: elect.contracts@sjvn.nic.in
Visit us at : www.sjvn.nic.in

INFORMATION FOR BIDDERS (IFB)

1.0 GENERAL

382 MW Sunni Dam Hydro Electric Project (SDHEP) is envisaged of Two Power Plants i.e., Main Power Plant (4x73=292 MW) and Auxiliary Power Plant (1x73+1x17=90 MW) located in Single Underground Power House Cavern. Auxiliary Power Plant shall also be termed as Environmental Flow Plant (e-Flow Plant).

The 73 MW Unit of Main Plant and Auxiliary Plant is similar in every aspect. Accordingly, in order to simplify the Nomenclature, following terms shall be used in entire document (instead of Main Plant unit or/and Auxiliary/e-flow Unit): -

A) 73 MW Unit

B) 17 MW Unit

Main Power Plant is envisaged as Peaking Run-of-River (PRoR) scheme with Storage capacity of 7.9 MCM on River Satluj. The Energy generated by Main Power Plant in 90% dependable hydro year is 987.84 MU.

e-flow Plant is envisaged as Run-of -River (RoR) scheme corresponding to mandatory release of water as per **Table -1**. The Energy generated by e-flow Plant in 90% dependable hydro year is 393.93MU.

Combined Energy generation from Main Power Plant and e-flow Plant in 90% dependable hydro year is 1381.77 MU.

Sr.No	Season	e-Flows (Cumecs)	Remarks
1	Monsoon Period (June to Sept)	171.27	30% of average monsoon Flow of 90% dependable Hydro Year
2	Non-Monsoon-Non-Lean Period (Oct-Nov and April-May)	72.38	25% of average NM-NL flow of 90% dependable Hydro Year
3	Lean Period (Dec-March)	21.12	20% of average flow of 90% dependable Hydro Year

2.0 LOCATION

The project is situated on Satluj River near Khaira Village, in Shimla and Mandi Districts of Himachal Pradesh. On the upstream of the project lies the under construction 210 MW LHEP-I of SJVN Ltd., which utilizes water discharged from the further upstream 412 MW Rampur Hydro Power Station. On the downstream of Sunni Dam Hydroelectric project lies the 800 MW Koldam HPS (FRL 642 m). The minimum tail water level of SDHEP is El. 647.5 m.

Latitude31°14'53"N

Longitude77°12'39"E

3.0 CLIMATIC CONDITION

Maximum Ambient Temperature	:	40°C
Minimum Ambient Temperature	:	0°C
Max. River Water Temperature	:	15°C
Minimum River Temperature	:	6 °C
Relative Humidity (during monsoons)	:	95% Maximum (during monsoons)
	:	16 % (Minimum)
Average Annual Rainfall	:	1424.8 mm per annum
Wind zone	:	4
Thunder storm	:	Refer vulnerability Atlas of India
Seismic Zone	:	Zone -V ($a_h = 0.24g$, $\alpha_V = 0.16g$)

4.0 SCOPE OF WORKS

The scope of work intends to cover the provision of labour, tools, plants, materials and performance of work necessary for the design, engineering, manufacture, quality assurance, quality control, shop assembly, shop testing, packaging & delivery at site including insurance, unloading, site storage and preservation, in plant transportation at site, erection / installation, testing, supervision, pre commissioning, successful commissioning, performance and acceptance testing, handing over to Employer and warranting trouble free operation as per the specifications/GCC/SCC of various components for Sunni Dam Hydro power project having six units (6) {73 MW (05 Nos) & 17 MW Unit (01 No)} consisting of generator & its auxiliaries, Francis turbine & its auxiliaries, Station Auxiliaries and accessories and as detailed in the Technical Specifications.

5.0 GOOD INDUSTRY PRACTICE

Successful Bidder shall have obligation to ensure Good Industry Practice during project execution at all times, more specifically when specific scope/provision is not mentioned but necessary for the satisfactory completion of scope of work. **It is therefore expected from bidder to study & examine whole bid document carefully and shall inform constraints/limitations/exclusions etc. during pre-bid stage to employer.**

“Good industry practice” means the exercise of that degree of skill, diligence, prudence and foresight that reasonably would be expected from the designer of Hydro Project facilities in accordance with best practice, methods and standards that are generally accepted internationally for hydro project facilities under condition comparable to those applicable to this project, consist with Laws, Regulation, codes etc. and taking into account factors such as (A) the use of appropriate hydro technology (B) Relative size, performance, age and technology of physical

component (C) Safe, efficient and economic design, construction, commissioning, operation and maintenance of hydro project (D) Technical standards

6.0 BIDDER TO INFORM THEMSELVES FULLY

The bid document has been prepared in good faith and on best endeavour basis. The Bidders shall make independent enquiry and satisfy themselves with respect to all the required information, inputs, conditions and circumstances and factors that may have any effect on his Bid.

Once the Bidders have submitted their Bids, the Bidders shall be deemed to have inspected and examined the site conditions including but not limited to its surroundings, its geological condition and the adequacy of transport facilities to the site, the laws and regulations in force in India, the transportation facilities up to project site, its adequacy and conditions of roads, bridges, railway sidings, ports, etc. for unloading and/or transporting heavy pieces of material and has based its design, equipment size and fixed its price taking into account all such relevant conditions and also the risks, contingencies and other circumstances which may influence or affect the execution of EM Works.

Accordingly, each Bidder acknowledges that, on being selected as Successful Bidder, contractor shall not be relieved from any of its obligations under the Bid Document nor shall the contractor be entitled to any extension in Scheduled COD mentioned in this bid document or financial compensation for any reason whatsoever.

7.0 TRANSPORTATION ROUTE

The project site is located at about 145 km from the nearest railhead at Kalka in Haryana and can be approached by NH-5 followed by SH-13 and MDR-22 via Shimla, Naldhera and Chaba (**Main Route for Major EM Equipment**).

There are multiple alternative routes Upto Project site through which **Minor EM equipments** can be transported during emergencies/ exigencies. The illustrative routes are as below:

1. Shimla- Narkanda- Sainj- Luhri- Ogli- Khaira
2. Sunder Nagar- Tattapani- Sunni- Khaira
3. Shimla- Naldehra- Basantpur- Jalog- Ogli-Khaira

8.0 LOGISTIC ROUTE SURVEY

It is mandatory for all prospective bidders to perform the Logistic Survey of Main route for transportation by expert team or/ and including logistic vendor based on the dimensions of EM equipments (planned/Design by Bidder) between Shimla to Khaira (Project site) "as-is-where-is basis" considering designed EM equipment by segmentation/sectionalization, orientation of shipment etc. Failing to visit of contractor expert Team or/and including Logistic vendor and non-submission of Logistic Survey Report along with bid shall lead to rejection of Bid.

M/s Voith Hydro, M/s Andritz Hydro and M/s BHEL has performed the Logistic route survey before NIT (*it is already part of detailed NIT/Bid*) and deemed eligible prospective bidder.

Prospective Bidder other than above may alternatively, endorse/undertake that logistic route survey carried out by M/s Andritz, M/s BHEL and M/s Voith is found in order and is acceptable to them.

Employer's Responsibility:

Widening of road/ Civil works related to transportation of EM equipment from Shimla- Dhali- Naldehra- Sunni- Chaba- Khaira shall be in Employer's scope based on Equipment dimensions of ODC listed in Bid document.

Bidder's Responsibility:

Minor work (*illustrative lists are: permit/ liaison with Administration/ handling of Electric & telecom poles, civil works like filling, temporary arrangement on bridge/ culvert etc.*) for transportation of EM equipments along the route shall be in Bidders' responsibility.

9.0 OTHER LOGISTIC INFRASTRUCTURE

The Contractor shall establish facilities such as Site Office, Storage facility (*Covered & Stockyard etc*), Contractors Camp/Colony, Sanitation, Wireless communication system, internet facilities for smooth and effective monitoring & execution of EM work at site at his own Cost.

10.0 LAND:

The land upon which the Facilities are to be installed only shall be provided to the Contractor for execution EM Package.

It is expressly understood that any additional land required for contractor's infrastructure works (labor camp, site office etc.), Storage and construction facilities (workshop etc.) shall be arranged by contractor at his own cost.

11.0 WATER:

It is expressly understood that water supplies, sanitation etc. shall be arranged by contractor at his own cost.

12.0 CONSTRUCTION POWER:

It is expressly understood that construction power requirements shall be arranged by contractor at his own cost.

13.0 TEMPORARY POWER AND LIGHTING

The work relating to all temporary lighting and power facilities required for the installation work shall be carried out by the Contractor under this contract and shall be included by the Contractors in their offer.

14.0 CIVIL FRONTS

Civil fronts for EM equipment installation shall be provided free from hindrances/ restrictions as far as practicable including their access.

15.0 CIVIL WORKS

Civil foundations for equipment of the generating units in Power House & Transformer Hall, Pot Head Yard, TRT, Dam and Intake, FF/CWS tanks area etc. and other plant & equipment (*Trench for cables, hume pipes for road crossing, CW and FF tanks etc.*) will be prepared/ provided by the Employer in accordance with the basic design data to be supplied by the Contractor.

However, the Contractor shall provide design data for foundations and install the inserts/embedment; support steels and/or components for foundation /supports purpose, shall perform minor civil work such as any chipping / levelling works, denting / painting etc. & Civil Works of Pole lighting of Illumination Section.

16.0 SITE CLEARANCE

Site Clearance in Course of Performance: In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

Clearance of Site after Completion: After Completion of all parts of the Facilities, the Contractor shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site and Facilities in a clean and safe condition.

17.0 EARTHING WORKS

Employer shall be responsible for laying for Earthing Grid/Mat including provision of Risers in all floors, Yard of Power House area (Power House, PHY and TRT), Dam area, FF & CW tanks etc.

Contractor shall design and provide Two (02) no Earthing terminals for each equipment (*whose earthing is compulsory as per regulation, technical requirement or/and safety requirement*) of these specifications.

Contractor shall be responsible for connecting all EM equipment under this package of earthing terminals to Risers of Earthing Grid/Mat.

18.0 WATER AVAILABILITY FOR COMMISSIONING

Employer shall provide Upstream side (*Head Race Level*) and Downstream side (*Tail Race Level*) water as per approved L-2 schedule.

19.0 220KV GRID SUPPLY FOR SYNCHRONIZATION

Employer shall provide 220kV Grid Supply as per approved L-2 schedule for synchronization of Unit (s) and subsequent activity as per provisions of contract document.

20.0 CONSTRUCTION PERIOD

The entire works of this package is proposed to be completed within a time span of 43 months (***Detailed conditions are as per GTS clause 1.7.***)