

Bidding Document FOR Development of 20MW Solar PV Project at Central Coalfields Limited (CCL) CHP/CPP Piparwar, Jharkhand

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सेंट्रलकोलफील्ड्सलिमिटेड (कोलइंडियाकीअनुषंगीइकाई) दरभंगाहाउसरांची- 834 029

CENTRAL COALFIELDS LIMITED

(A Subsidiary of Coal India Limited)

E&M DEPARTMENT

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NIT No.: GM(E&M)/e-Tender/22/01 Dated: 05.01.2022

e-TENDER NOTICE

1. Digitally signed and encrypted e-Tenders are invited under Two Part system on the website https://coalindiatenders.nic.in from the reputed and experienced contractors for the following work:

Description of work	Location	Estimated Value (Rs.)	Earnest Money (Rs)	Period of Completion (in Days)
DEVELOPMENT	CHP/CPP	106.19 Crores	100,00,000.00	Total contract period: 2095
OF 20 MW SOLAR	PIPARWAR,	(Including GST and		days (270 days + 1825
PV PROJECT AT	JHARKHAND	O&M cost for 5 Year)		days)
CENTRAL		for 46.75 MU		
COALFIELDS		Maximum generation		a) Construction of plant
LIMITED (CCL)				including successfully trial
CHP/CPP				run, :270 days
PIPARWAR,				
JHARKHAND				(b) Operation &
				Maintenance of Plant:
				1825 days

Note: The bid documents will be available on the website https://www.coalindiatenders.nic.in & www.centralcoalfields.in and can be downloaded by the bidder up to the bid submission end date. The details of the tender will be mirrored on the Central Public Procurement Portal (CPP) of Govt. of India (https://eprocure.gov.in). There is no Application Fee.

2.0 BRIEF SCOPE OF WORK

Design, Engineering, Manufacturing, Supply, Packing and Forwarding, Transportation, Unloading, Storage, Installation and Commissioning of grid connected 20MW Ground Mounted Solar PV Project at CCL CHP/CPP Piparwar, Jharkhand.

- The broad scope of work under this package shall include Civil Structural and architectural works related to but not limited to the following areas, System, Structures / Substructures, Buildings and Facilities:
- i. Design, engineering, manufacturing, supply, packing and forwarding, transportation, unloading storage, installation, testing and commissioning of Solar Photo Voltaic Plant based on Open category PV modules and cells.
- ii. Site levelling & Grading and clearing/removal of vegetation.
- iii. Providing power supply and water supply for construction purposes.
- iv. Construction of Central Monitoring and Control Station (CMCS) with switchgear room, with all electrical fitting and furniture, security cabin etc.
- v. Construction of Inverter room/Pre Engineered Building (PEB) as per bidder's proposal.
- vi. SCADA system for remote monitoring and including control of Inverters with all hardware & software.
- vii. Design, construction and fabrication of Module Mounting Structures and its Foundations.
- viii. Design and construction of Internal Roads and Pathways as per Bidder's proposed General Layout.
- ix. Design and construction of Drainage system as per General Layout and Topography.
- x. Construction of Prestressed precast Boundary wall and Main gate as per approved design.
- xi. Design and construction of a Module Washing System. Water supply arrangement for washing including supply and installation of Module Washing System.
- xii. Construction of Store Room.
- xiii. Design and construction of Sewerage System for any facility/ Room /building.
- xiv. Cable laying works
- xv. All associated electrical and civil works required for interfacing with grid (i.e. breakers, isolators, panels, protection system, cables/ overhead line).
- xvi. Construction of Overhead 33kV double circuit line and integration with CCL existing outdoor 33kV Central Switching Station (CSS), Piparwar Area including construction of two numbers of new 33kV Bay at CSS with all required control and protection system.
- xvii. Civil Foundation for all electrical items/33KV Systems.
- xviii. Metering system as per specifications.
 - xix. Comprehensive Operation & maintenance of SPV Plant along with all electrical Equipment, consumables and spare parts for a period of 5 (Five) years from the date of successful completion of trial run.
 - xx. Comprehensive AMC of Inverter, SCADA & tracker system (if applicable) for 5 years beyond comprehensive operation & maintenance period.
 - xxi. Supply of Mandatory spares.
- xxii. Any other works and services to make the system complete.

3.0 Time Schedule of Tender

SL No	Particulars	Date	Time	
1	Tender e-Publication date			
2	Document download start date			
3	Document download end date			
4	Date of Pre-Bid meeting			
5	d submission start date			
6	Bid submission end date As mentioned in the portal		a in the portar	
7	Start date for seeking clarification on-line			
8	Last date for seeking clarification on-line			
9	Bid opening Date [Cover I (Technical bid)]			
10	Bid opening date [Cover II(Price bid)]			

4.0 Deposit of EMD:

The Bidder will have to make the payment of EMD through ONLINE mode only.

The bidders have to make payment of EMD either through Net-banking from designated Banks or through NEFT/RTGS from any scheduled Bank. In case of payment through Net-banking the money will be immediately transferred to CCL's designated Account. In case of payment through NEFT/RTGS the bidder will have to make payment as per the Challans generated by system on e-Procurement portal. Bidder will be allowed by the system to submit the bid only when the EMD is successfully received in CCL's account and the information flows from Bank's Server to e-Procurement portal.

- 5.0 **Pre-bid Meeting:** The pre-bid meeting shall be held in the office of Tender Inviting Authority on the scheduled date & time, if specified online. Non-attendance of pre-bid meeting will not be a cause for disqualification of the bidder and it shall be presumed that the bidder does not require any clarification. The purpose of Pre-bid meeting is to clarify the issues raised by bidders during the meeting. In case the Pre-Bid Meeting is held, the Minutes of Pre-Bid Meeting will be uploaded on the e-Procurement Portal, before start date of bid submission which can be viewed by all interested bidders.
 - 6.0 **Seeking online clarification by bidder:** The bidder may seek clarification online within the specified period. The identity of the bidder will not be disclosed by the system. The department will clarify as far as possible the relevant queries of bidders. The clarification given by the department will be visible to all the bidders intending to participate in the tender.

7.0 Eligibility Criteria:-

A. TECHNICAL CRITERIA

7.1 The Bidder should have designed, supplied, erected/ supervised erection and commissioned/ supervised commissioning of Solar Photo Voltaic (SPV) based grid connected power plant(s) of cumulative installed capacity of 16 MWp or higher, out of which at least one plant should have been of 10 MWp or higher

capacity. The reference plant of 10MWp or higher capacity must have been in successful operation for at least six (6) months prior to the date of technical bid opening.

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7.2 The Bidder should be a developer of Solar Photo Voltaic (SPV) based grid connected power plant(s) of cumulative installed capacity of 16 MWp or higher, out of which at least one plant should have been of 10 MWp or higher capacity. The reference plant of 10MWp or higher capacity must have been in successful operation for at least six (6) months prior to the date of technical bid opening.

OR

- 7.3 (a) The Bidder should have executed in the last ten (10) years an industrial project either as developer or as EPC Contractor in the area of power/ steel/ oil and gas/ Petro-chemical/ fertilizer/cement/coal mining including coal handling plant and/ or any other process industry, of a value of INR 73 Crore (Indian Rupees Seventy Three Crore only) or more in a single project or single work respectively and the same should be in successful operation for at least one (1) year prior to the date of technical bid opening.
 - (b) The Bidder should have executed at least one (1) Electrical Sub-station of 33 kV or above voltage level, consisting of equipment such as 33kV or above voltage level circuit breakers and Power transformer, either as developer or as EPC Contractor which should be in successful operation for at least one (1) year prior to the date of technical bid opening.

The works referred to at clause 7.3 (a) & 7.3 (b) can be in same or different projects.

The Intending bidder must have in its name of having successfully completed works as required at Clause 7.1 /7.2/7.3 (a) & (b) above. Experience for those works only shall be considered for evaluation purposes, which match eligibility requirement stipulated above, on or before the last day of month previous to one in which tender has been invited(publication date of NIT). The experience of incomplete/ongoing works as on last date of eligibility period will not be considered for evaluation. If the referred work includes construction as well as maintenance after construction, the experience of such work may be considered as 'acceptable' if the construction part is completed as on the last date of 'eligibility period', even if maintenance work is ongoing, and the certificate issued clearly stipulates the same .

In case the bidder is not a prime contractor, but a sub-contractor, the bidder's experience as sub-contractor will be taken into account, against suitable document that the contract in support of qualification is a sub-contract in compliance with the provision of such sub-contracts in the original contract awarded to prime contractor. The document may be issued by owner/Govt. department on behalf of the owner.

Joint Venture shall be allowed for participation in this bid. In order for joint venture to qualify, JV as a whole must meet the minimum criteria of work experience listed above. Failure to comply with this requirement will result in rejection of the Joint Venture's Bid. The qualifying criteria parameter e.g. experience of the individual partners of the J.V will be added together towards fulfilment of qualification criteria related to experience.

A firm can be a partner in only one joint venture; multiple bids submitted by joint ventures having the same firm as partner will be rejected.

The participating share of JV partners shall be as below:

- i) Lead Partner shall have at least 50% participating share in JV
- ii) Other partner(s) shall have at least 20% participating share in JV

Notes for clause 7.A

- a. The reference SPV based grid-connected power plant of 10MWp or above capacity should be at a single location developed by Bidder for itself or any other client.
- b. SPV based Roof-top/Floating solar power projects, which are grid connected, shall also be considered eligible for QR purposes.
- c. Projects executed by Bidder's group company, Holding Company or Subsidiary Company shall also be considered as Bidder's experience for meeting the QR, provided Bidder is an Indian company registered in India.
- d. Bidder shall submit certificate of successful completion and operation from the Owner.
- e. In case the award for the reference works has been received by the Bidder directly from either owner of plant or any other intermediary organization, a certificate from such owner of plant or the intermediary organization shall be required to be furnished by the Bidder along with its techno-commercial bid in support of its claim of meeting requirement stipulated above. Certificate from owner of the plant shall also be furnished by the Bidder for successful operation of the reference plant.
- f. In case of developer as bidder in clause 7.2 or 7.3, the documentary evidence (certified by Chartered Accountant) for value of executed reference work must be submitted by the Bidder.
- g. Developer means an entity who has either executed or got executed the work/ project as owner of industrial projects.
- h. The execution of industrial project as EPC Contractor under Clause No. 7.3 means, such EPC Contractor is responsible for all the activities i.e. Design/Engineering, Procurement, Construction and Commissioning of a project/work.
- i. The portion of work related to power transformer such as supply and or installation mentioned at cl. No. 7.3(b) can either be done by EPC contractor by themselves or by the owner.
- j. The experience towards overseas jobs, if submitted, should be vetted/endorsed by the relevant* embassy/high commission concerned, towards authenticity of document in English or translated in English language.

(*Relevant embassy/High Commission means the embassy/High Commission in India of the country where the bidder has executed the said work or country of origin of the bidder OR the Indian embassy in the country where bidder has executed the work or country of origin of the bidder.)

For Clause No 7.1

Data to be furnished by the bidders online:

Bidder has to confirm YES/NO in technical parameters sheet having experience as per clause 7.1 above.

Technical Evaluation by the System:

The System will evaluate "Yes" as eligible and "No" as not eligible.

Scanned Copy of documents to be uploaded by the bidders

Copies of authentic Purchase Orders Completion Certificate from client, Agreements in support of details/data along with Annexure - XII.

In case of Sub-Contractor, suitable document as per provision of eligibility, if applicable.

Work- Order, BOQ and/or TDS may be sought during clarification or along with deficient documents.

For Clause No 7.2

Data to be furnished by the bidders online:

Bidder has to confirm YES/NO in technical parameters sheet having experience as per clause 7.2 above.

Technical Evaluation by the System:

The System will evaluate "Yes" as eligible and "No" as not eligible.

Scanned Copy of documents to be uploaded by the bidders

Copies of authentic Purchase Orders Completion Certificate from client, Agreements in support of details/data along with Annexure - XIII.

The documentary evidence (certified by Chartered Accountant) for value of executed work in support of reference work.

Work- Order, BOQ and/or TDS may be sought during clarification or along with deficient documents.

For Clause No 7.3

Data to be furnished by the bidders online:

Bidder has to confirm YES/NO in technical parameters sheet having experience as per clause 7.3 (a) & (b) above.

Technical Evaluation by the System:

The System will evaluate "Yes" as eligible and "No" as not eligible.

Scanned Copy of documents to be uploaded by the bidders

Copies of authentic Purchase Orders Completion Certificate from client, Agreements in support of details/data along with Annexure - XIV.

In case of Sub-Contractor, suitable document as per provision of eligibility, if applicable.

In case the Project executed by Developer the documentary evidence (certified by Chartered Accountant) for value of executed work in support of reference work.

Work- Order, BOQ and/or TDS may be sought during clarification or along with deficient documents.

B FINANCIAL TURNOVER:

Average annual financial turnover during the last 3(three) years, ending 31st March of the previous financial year should be at least 30% of the estimated cost put to tender.

(The "Previous financial year" shall be computed with respect to the e-Publication date of NIT)

The intending bidders must submit the Financial Turnover certificate (with UDIN No.) issued by a Practicing Chartered Accountant having a membership number with Institute of Chartered Accountants of India, containing the information as furnished by bidder.

The foreign partner(s) should submit Financial Turnover certificate based on IFRS (International Financial Reporting Standards) accounting standard certified by a local practicing public accountant/audit firm duly vetted/endorsed by the relevant *Embassy/High Commission concerned, towards authenticity of document.

(*Relevant embassy/High Commission means the embassy/High Commission in India of the country where the bidder has obtained Turnover certificate or country of origin of the bidder OR the Indian embassy in the country where the bidder has obtained Turnover certificate or country of origin of the bidder.)

Note:

Financial turnover shall be given a simple weightage of 5% per year to bring them at current price level, while evaluating the qualification requirement of the bidder. Such weightage shall be considered from the end date of financial year. Updating will be considered for full or part of the year (total no. of days / 365) i.e. considering 365 days in a year, till the last day of month previous to one in which bid has been invited.

Joint Ventures shall meet the above eligibility requirement, in the following manner:

The qualifying criteria parameter e.g. financial resources of the individual partners of the J.V. will be added together, for the relevant financial year, and the total should not be less than as spelt out above.

In respect of the above eligibility criteria the bidders are required to furnish the following information (As per online evaluation):

- i) Financial Turnover for the last three years (last three years may be considered as stated above).
- ii) Name of the Chartered Accountant issuing Certificate.
- iii) Membership Number of the Chartered Accountant.
- iv) Scanned Copy of document as explained at clause 8 related to financial turnover.

Note:

- a) In case the bidder is a Joint Venture, the above information in respect of each individual partner of JV may be furnished and the financial turnover of JV will be assessed by adding the information furnished.
- b) In case of JV, if financial turnover of all the partners is not submitted, JV will be not be disqualified and instead a value of zero for partner/partners who has/have not submitted the financial turnover certificate shall be considered.
- c) If the bidder does not submit turnover value and certificate for any year out of the three years, the bidder will not be disqualified and instead all three years for computing the average by assuming a value of "zero" for the year(s) for which no information is given by the bidder shall be considered.

C Working Capital

The Bidder must submit the Certificate of possessing adequate Working Capital (at least 20% of the "Annualized value or Estimated value whichever is less" of this work) inclusive of access to lines of credit and availability of other financial resources to meet the requirement, issued by a Practicing Chartered Accountant having a Membership Number with Institute of Chartered Accountants of India. Such Certificate should contain the Unique Document Identification Number (UDIN). The bidder should possess the Working Capital issued within three months prior to the date of opening of tender.

In case, access to lines of credit constitutes the availability of Working Capital, Banker's Certificate (Scheduled Commercial Bank) shall also be submitted regarding availability of access to credit (issued within three months prior to the date of opening of tender) to meet the above eligibility criteria.

For foreign Partner(s), Banker's Certificate regarding availability of access to credit (issued within three months prior to the date of opening of tender) should be duly vetted/endorsed by the relevant Embassy/High Commission concerned, towards authenticity of document.

(Relevant Embassy/High Commission means the Embassy/High Commission in India of the Country where the bidder has obtained Banker's Certificate or Country of origin of the bidder).

In case of tender of more than one-year period of construction of plant including trial run and performance guarantee test, the annualised value to be worked out as under:

In case of JV, the requirement of Working Capital under this clause shall be met as per following proportion:

- a. The lead member shall have to possess at least 50% share in the required working capital in order to qualify in this tender.
- b. All other members shall have to possess at least 25% share in the required Working capital, in order to qualify in this tender.

In respect of the above eligibility criteria the bidders are required to furnish the following information (As per Annexure- XXXIII):

I. For CA Certificate:

- i. Amount of available working capital inclusive of access to lines of credit and availability of other financial resources.
- ii. Date on which the bidder possesses the required working capital.
- iii. Date of issue of Working Capital Certificate by CA.
- iv. Name of the Chartered Accountant (CA).
- v. Membership Number of CA who certifies the bidder's working capital.
- vi. UDIN no. of Working Capital Certificate issued by CA.

In case, access to lines of credit constitutes the availability of Working Capital, Banker's Certificate (Scheduled Commercial Bank) shall also be submitted regarding availability of access to credit (issued within three months prior to the date of opening of tender)

- II. For Banker's Certificate:
- i. Date of issue of certificate by bank.
- ii. Name of bank. iii. Address of the bank.
- iv. Value of access to credit issued by bank in the name of the bidder.

Note:

In case of JV, the requirement of Working Capital under this clause shall be met as per following proportion:

- a. The lead member shall have to possess at least 50% share in the required working capital in order to qualify in this tender.
- b. All other members shall have to possess at least 25% share in the required Working capital, in order to qualify in this tender.

Note: The date on which the bidder possesses the required working capital as well as the date of issue of CA/Banker's Certificate should be within 3 months prior to the date of opening of tender.

D PERMANENT ACCOUNT NUMBER:

The bidder should possess a Permanent Account Number (PAN) issued by Income Tax Department, Govt. of India. In respect of the above eligibility criteria the bidders are required to furnish the following information on line: i. Confirmation in the form of YES/NO regarding possessing PAN issued by Income Tax Department, Govt. of India.

ii. Scanned Copy of document as explained at clause 8 related to PAN.

Note: In case of Joint Venture (JV), each INDIAN Partner of JV should possess PAN Card issued by Income Tax Department, Govt. of India and each FOREIGN Partner of JV should possess Verifiable Tax Residency Certificate of respective Country OR JV itself should possess PAN card issued by Income Tax Department, Govt. of India. [In case the work is awarded to JV, the PAN, in the name of JV, is to be submitted before execution of Agreement]

E. GOODS AND SERVICES TAX (NOT APPLICABLE FOR EXEMPTED SERVICES):

The bidder should possess GST Registration Certificate and submit GSTIN (Goods and Services Tax Identification Number).

In respect of the above eligibility criteria the bidders are required to furnish the following information on-line:

- i. Confirmation in the form of YES/NO regarding possessing of GST Registration Certificate (with GSTIN)
- ii. Scanned Copy of document as explained at clause 8 related to GST (with GSTIN).

Note: In case of Joint Venture (JV), each partner of JV should possess GST Registration Certificate (with GSTIN) OR JV itself should possess GST Registration Certificate (with GSTIN).

[In case the work is awarded to JV, the GST Registration Certificate (with GSTIN), in the name of JV, is to be submitted before execution of Agreement]

F. VALID ELECTRICAL LICENSE:

The tenderers should have valid electrical contractor's license issued by Govt. licensing Board of any state but in the event of work being awarded; the bidder will have to obtain the electrical contractor's license before execution of agreement from Jharkhand (JH) for working in respective state.

In case tenderer is a partnership firm, the license shall be valid for that partnership firm. The tenderer shall submit photocopy of complete license showing name of the firm, name of the contractor/s, name and address of the firm. The tenderer shall provide proof of validity of his electrical contractor's license for proprietorship firm or partnership firm or limited company or who will execute the electrical part of work as the case may be.

Data to be furnished by the bidders:

Confirmation in the form of YES/NO regarding possessing Valid Electrical License

G. BIDDER'S QUALIFICATIONS

The documentary evidence of the Bidder's Qualifications to perform the contract, shall establish to the Employer's satisfaction that the Bidder has the financial, technical, production, procurement, shipping, installation and other capacities and capabilities necessary to perform the contract and meets the experience.

The Bidder shall provide satisfactory evidence that he and/or, where applicable, his collaborator/associate:

- (i) is a manufacturer/supplier, who regularly manufactures equipment of the type specified and/or undertakes the type of work specified and has adequate technical knowledge and relevant experience for the works covered in the Bidding Documents.
- (ii)does not anticipate a change in ownership during the proposed period of execution of work (If such a change is anticipated, the scope and effect thereof shall be defined).
- (iii) has adequate Design, Plant and Manufacturing and/or Fabrication Capability and Capacity available to perform the work properly and expeditiously within the time period specified. The evidence shall specifically cover, with written details, the installed manufacturing and/or fabrication capacities and present commitments (excluding those anticipated under this specification). If the present commitments are such that the installed capacity results in an inadequacy of manufacturing and/or fabrication capacities to meet the requirements appropriate to the works cover in his bid, then the details of alternative arrangements to be organized by the Bidder and/or his collaborator/associate for this purpose and which shall meet the Employer's approval, shall also be furnished.
- (iv) has an established Project Management Organization covering the areas related to engineering of equipment/systems, interface engineering, procurement of equipment and the necessary field services required for successful construction, testing and commissioning of all the power plant equipment and systems covered in the scope of work for this package and as required by the Bidding Documents.
- (v) has established Quality Assurance Systems and Organization Designed to achieve high levels of equipment/system reliability, both during his manufacturing and/or fabrication and field installation activities.
- (vi) a company formed by the merger of two or more companies or divisions of such companies engaged in supply and installation of power generation equipment can also participate provided the constituent companies or divisions before merger individually or jointly meet the stipulated qualification requirements fully.

Scanned Copy of documents to be uploaded by the bidders

As per Annexure XV, bidder is required to upload a write up of all the points mentioned in this annexure in his own format along with all the relevant documents and the same should be enclosed as annexures numbered as XVA, XVB ... and so on. For further detailed technical evaluation, the bidder is also required to upload filled annexures XVI to XXII which are enclosed as:

- 1. Annexure XV : Details of Manufacturing and Testing Capacities
- 2. Annexure XVI: Details of Manufacturing Capacities & Plant Loading
- 3. Annexure XVII: Present Order Book Position
- 4. Annexure XVIII: Past Performance Data
- 5. Annexure XIX: Data regarding Key Construction Personnel
- 6. Annexure XX: Manpower Loading Data

- 7. Annexure XXI: Detail regarding Project Management Organization
- 8. Annexure XXII: Declaration by the Bidder who did not manufacture or otherwise produce and/or install plant and equipment of Solar Project

Note: The Bidder shall enclose relevant documents in support of the details/data provided in above Annexures

Notwithstanding anything stated above, the Employer reserves the right to undertake a Physical Assessment of the capacity and capabilities including financial capacity and capability of the Bidder / his Collaborator(s)/ Associate(s)/subsidiary(ies) / Group Company(ies) to perform the Contract, should the circumstances warrant such assessment in the overall interest of the Employer.

The Physical Assessment shall include but not be limited to the assessment of the office/facilities/banker's/reference works by the Employer. A negative determination of such assessment of capacity and capabilities may result in the rejection of the Bid.

The above right to undertake the Physical Assessment shall be applicable for the qualifying requirements as stipulated in the bid document.

In case Bidder is permitted to offer to supply and/or install plant and equipment under the contract that the Bidder did not manufacture or otherwise produce and/or install, the Bidder shall (i) have the financial and other capabilities necessary to perform the contract; (ii) have been duly authorized by the manufacturer or producer of the related plant and equipment or component to supply and/or install that item in the Employer's country; (iii) be responsible for ensuring that the manufacturer or producer of the related item meets the minimum criteria listed for that item.

H. Eligibility and Conformity of the Facilities

Documentary evidence establishing that the facilities offered by the Bidder in its bid are eligible and conform to the Bidding Documents.

The documentary evidence of the eligibility of the facilities shall consist of a statement on the country of origin of the plant and equipment offered, which shall be confirmed by a certificate of origin issued at the time of shipment.

Scanned Copy of documents to be uploaded by the bidders

The documentary evidence of the conformity of the facilities to the Bidding Documents may be in the form of literature, drawing and data, and shall include:

- (i) a detailed description of the essential technical and performance characteristics of the facilities;
- (ii) a list giving full particulars, including available sources, of all spare parts, special tools, etc. necessary for the proper and continuing functioning of the facilities following completion of facilities in accordance with provisions of contract; and
- (iii) a commentary on the Employer's Technical Specifications and adequate evidence demonstrating the substantial responsiveness of the facilities to those specifications. Bidders shall note that standards for workmanship, materials and equipment designated by the Employer in the Bidding Documents are intended to be descriptive (establishing standards of quality and performance) only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Employer's satisfaction that the substitutions are substantially equivalent or superior to the standards designated in the Technical Specifications.

I.ERECTION TOOLS AND PLANT AND SAFETY EQUIPMENT & SAFETY PERSONAL PROTECTIVE EQUIPMENT

List of Erection Tools and Plant and Safety Equipment & Safety Personal Protective equipment which the bidder proposes to bring to site in case the contract is awarded to him.

Scanned Copy of documents to be uploaded by the bidders

Details as per format at Annexure XXIII.

J. QUALITY ASSURANCE PROGRAMME

Details regarding the overall Quality Management & Procedures which the bidder proposes to follow during various phases of execution of the contract.

Scanned Copy of documents to be uploaded by the bidders

Details as per format at Annexure XXIV.

K. MILESTONE SCHEDULE

Time for completion of facilities under the Package is as per details given in the Clause No 3 of Special conditions of the Contract of the Bidding Documents. Further, bidder is also to provide comprehensive Operation and Maintenance (O&M) of Solar Photo Voltaic Plant for a period of **Five** (05) years from the date of successful completion of Trial Run.

The Bidder shall also be required to submit a brief integrated PERT Network (L2 Schedule) matching the above work schedule. The Master Network shall inter-alia; include the major activities listed below for each of the systems listed above showing their interrelationship and duration so as to meet the schedule dates mentioned at Clause No 3 of Special conditions of the Contract of the Bidding Documents

Activities to be incorporated in Master Network to be submitted with bid:

- 1. Ordering on sub-vendor(s) (wherever applicable)
- 2. Start of Engineering
- 3. Completion of Engineering
- 4. Start of Manufacturing/ Fabrication
- 5. Completion of Manufacturing/ Fabrication
- 6. Readiness and Completion of Type Test
- 7. Commencement of Dispatch
- 8. Completion of Dispatch
- 9. Start of Erection
- 10. Commissioning of the System
- 11. Completion of the Facilities.

The Master Network and the Key Milestone Dates will be discussed with the successful bidder, if required, and agreed upon before the issue of Notification of Award as per tender schedule. Engineering Drawing and Data Submission Schedule shall also be discussed and finalised before the issue of Notification of Award.

After the Notification of Award, the contractor shall plan the sequence of work of Manufacture, Supply and Erection to meet the above stated dates of Successful Completion of Facilities and shall ensure all work, Manufacture, Shop Testing, Inspection and Shipment of the equipment in accordance with the required construction/erection sequence.