

**NTPC LIMITED**  
**(A Government of India Enterprise)**

**CORPORATE CONTRACTS, NOIDA**

**INVITATION FOR BIDS (IFB)**

**FOR**

**EPC PACKAGE FOR**

**SINGRAULI SUPER THERMAL POWER PROJECT, STAGE-III (2X800 MW)**  
**LOCATED AT**

**P.O. SHAKTINAGAR, DIST. SONEBHADRA, UTTAR PRADESH-231 222**

**(International Competitive Bidding)**

**IFB No.: 2023\_NTPC\_80641\_1**

**Bidding Document No.: CS-1150-001(R)-2**

**Date: 19.10.2023**

**A.** NTPC invites on-line bids at Government e-procurement portal of NIC (GePNIC) at website- <https://eprocurementpc.nic.in/> on **Single Stage Two Envelope Basis (i.e. Envelope-I: Techno-Commercial Bid and Envelope-II: Price Bid)** from eligible Bidders for aforesaid package, as per the scope of work briefly mentioned hereinafter.

**B. BRIEF SCOPE OF WORK**

The Brief scope of work for the subject EPC Package for SINGRAULI STPP Stage-III (2X800 MW) is as follows:

Design, Engineering, Manufacture, Supply, Construction, Erection, Testing & Commissioning works for the EPC Package for SINGRAULI SUPER THERMAL POWER PROJECT Stage-III (2 X 800 MW), on the basis of single point responsibility, completely covering the following activities and services in respect of Steam Generator and Auxiliaries, Electrostatic Precipitator, Flue Gas Desulphurization (FGD) System, Biomass co-firing capability, Ash Handling System, Compressed Air System, Enabling Works as identified in the specification, Civil, Structural & Architectural works including Site Levelling, Boundary Wall, Roads, Drains & Sewerage, Pipe / Cable Racks, Chimney & Chimney Elevator, Steam Turbine & Auxiliaries, Generator & Auxiliaries, , Fire Detection & Protection System, Civil, Structural & Architectural works of Main Power House, Common Control Room, Service Building, Transformer Yard and Pipe / Cable Racks, CST, Generator Bus ducts and associated equipment's, Power Transformers & Reactors, HT Switchgears for complete plant facilities, LT indoor Transformer, MV Bus-duct, DC Batteries, Battery chargers, DG sets, CW system including equipment, Duct, NDCT & CW channel and associated civil works, Aux. Cooling tower including Aux CT pumps system and associated electrical and controls & Instrumentation, Raw Water and associated Electrical & civil works, Water treatment plant and associated civil works including Effluent quality Monitoring System(EQMS), ECW system for TG & SG including station auxiliaries, Condensate polishing plant (CPU) and associated controls & Instrumentation, Station Piping, Coal, Limestone & Gypsum Handling Plant System, Fuel Oil system, Mill Reject System, Air Conditioning System, Ventilation System, Packaged Sewerage Treatment Plant, LT switchgear & LT Bus Duct, Outdoor Transformers, 400KV

GIS Switchyard and associated transmission line LILO portion of Both the circuit of existing twin moose conductor D/C tie line between VSTPP Stage-IV & VSTPP Stage- V at Singrauli Stage-III switchyard, HT ,LT power cables & LT control cables, Lightning Protection, DG sets for FGD, Lighting, Cabling, Earthing, Control & Instrumentation(C&I), Fireproof cable penetration sealing system, Solar PV plant on roof tops of buildings, underground facilities like drainage, sewerage, trenches, earthing mat/ grounding for the Offsite area, Miscellaneous Buildings, Rain Water Harvesting etc. covered under the specifications:

- a) Basic Engineering of the plant including preparation of Plant Definition Manuals;
- b) Detailed design of all the equipment and equipment system(s) including civil, structure steel & Architectural works included in bidder's scope.
- c) Providing engineering drawings, equipment sizing & performance data, instruction manuals, as built drawings and other information;
- d) Compliance with statutory requirements and obtaining clearances from statutory authorities, wherever required;
- e) Complete manufacturing including shop testing/type testing;
- f) The complete Civil, structural and architectural works
- g) Packing and transportation from the manufacturer's works to the site including logistic studies, insurance, customs clearance & port clearance, port charges, if any.
- h) Receipt, storage, preservation, handling and conservation of equipment at the site;
- i) Fabrication, pre-assembly, if any, erection, insurance, testing, commissioning and completion of facilities including putting into satisfactory operation all the equipment including successful completion of initial operation;
- j) Performance and guarantee tests Along with initial operation;
- k) Supply of spares on FOR site basis;
- l) Reconciliation with Customs Authorities;
- m) Satisfactory conclusion of the Contract;
- n) Insurance and other requirements

Detailed scope of work has been specified in the bidding documents

**C.** NTPC intends to finance the aforesaid Package through External Commercial Borrowings (ECB)/Own Resources.

**D.** Detailed specification, scope of work and terms & conditions are given in the Bidding Documents, which are available at the GePNIC (e-tender) portal at <https://eprocurementpc.nic.in/>. The Bidding Schedule\* for the Tender is as under:

Issue of Abridged IFB	02.09.2023
Bidding Document No	<b>CS-1150-001(R)-2</b>
Start of Documents download Date	19.10.2023
Date for Pre-Bid conference	28.10.2023
Last date for receipt of queries from bidders (if any)**	31.10.2023 upto 17:00 Hrs (IST)
Bid receipt date & time for Envelope-I (Techno-	10.11.2023 upto 14:00 Hrs (IST)

Commercial) & Envelope-II (Price) bid	
Bid Opening Date & Time for Envelope-I (Techno-Commercial) bid	10.11.2023 at 16:00 Hrs (IST)
Cost of Bidding Document	Rs. 22,500 (Rupees Twenty Two Thousand Five Hundred only) for Indian Bidders or USD 500 (US Dollar Five Hundred only) for Foreign Bidders.
Bid Opening Date & Time for Envelope-II (Price) bid	Shall be intimated after opening of Envelope-I (Techno-Commercial) Bids.

**\*Note: Bidders are advised to visit the GePNIC (e-tender) portal of NTPC for updated bidding schedule of the Tender.**

\*\*It is to be noted that “No Queries from Bidders, whatsoever, shall be entertained by the Employer beyond the last date of receipt of Queries as specified at GePNIC portal of NTPC”.

- E. All bids must be accompanied by Bid Security for an amount of INR 1,000,000,000/- (Indian Rupees One Billion only) or USD 11,968,900 (Eleven Million Nine Hundred Sixty Eight Thousand and Nine Hundred US Dollars) in the form as stipulated in the Bidding Documents.

**ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE BID SECURITY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY THE EMPLOYER AS BEING NON-RESPONSIVE. IN CASE, THE BID SECURITY IS SUBMITTED THROUGH ELECTRONIC FUND TRANSFER (EFT), BIDDER TO SUBMIT THE PROOF OF E-PAYMENT OF BID SECURITY EITHER IN SEPARATE SEALED ENVELOPE OR IN THE E-TENDERING PORTAL.**

- F. A complete set of Bidding Documents may be downloaded by any interested Bidder from the e-Tender Portal as per specified schedule. The tender is invited under e-tendering process. The bidders can enroll themselves on the website <https://eprocurementpc.nic.in/>. The use of Digital Signature Certificate (DSC) Class-3 key is mandatory for e-tendering activities. Accordingly, bidders should have Digital Signature Certificate (DSC) key of Class 3 to participate in e-tendering. Bidders, if required, can obtain DSC Class-3 key from agencies authorized by Govt. of India. The e-Tender Portal also has the user manuals with detailed guidelines on enrolment and participation in the bidding process.

**No hard copy of Bidding Documents shall be issued. Bids shall be submitted ONLY at the e-Tender Portal i.e. <https://eprocurementpc.nic.in/>**

- G. **Qualifying Requirements for Bidders (QR):**

Qualifying Requirement (QR) for subject package is attached as **Appendix-1**

- H. “Class-I local suppliers’ only are eligible to participate in this tender, as defined in the bidding documents/ Public Procurement (Preference to Make in India), Order 2017 and its subsequent amendments/ revisions issued by DPIIT. The bidders may apprise

themselves of the relevant provisions of bidding documents in this regard before submission of their bids."

**Only Class-I local suppliers are eligible to Bid. Bids received (if any) from Class-II Local Supplier / Non Local Supplier shall be out rightly rejected.**

- I. Any 'Bidder from a country which shares a land border with India', as specified in the Bidding Documents, will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in the Bidding Documents.

Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, will be eligible to bid only if the bidder is registered with the same competent authority.

However, the said requirement of registration will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects.

- J. Transfer of Bidding Documents by one intending Bidder to another is not permissible.
- K. Downloading/Issuance of Bidding Documents and /or submission of Bid shall not construe that such bidder is considered to be qualified.
- L. NTPC reserves the right to reject any or all bids or cancel/withdraw the Invitation for Bids (under subject IFB) without assigning any reason whatsoever and in such case no bidder/intending bidder shall have any claim arising out of such action.

**M. Address for Communication:**

DGM (Contract Services) / Sr. Manager (Contract Services),  
NTPC Limited,  
Sixth Floor, Engineering Office Complex,  
A-8A, Sector-24, NOIDA,  
Distt. Gautam Budh Nagar, (UP), INDIA  
Pin - 201301

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E-mail: shrishksingh@ntpc.co.in / anujarora@ntpc.co.in

Websites: <https://eprocurentpc.nic.in/> or [www.ntpctender.ntpc.co.in](http://www.ntpctender.ntpc.co.in) or [www.ntpc.co.in](http://www.ntpc.co.in)

**N. Registered Office**

**NTPC Limited  
NTPC Bhawan, SCOPE Complex,  
7, Institutional Area, Lodi Road,  
New Delhi – 110003**

**Corporate Identification Number: L40101DL1975GOI007966,**

**Website: [www.ntpc.co.in](http://www.ntpc.co.in)**

## **APPROVED QR FOR EPC PACKAGE FOR SINGRAULI STPP STAGE-III (2X800 MW)**

1.0.0 The Bidder should meet the qualifying requirements of any one of the qualifying routes stipulated under clause 1.1.0 or 1.2.0 or 1.3.0 or 1.4.0 or 1.5.0 or 1.6.0 or 1.7.0. In addition, the Bidder should also meet the requirements stipulated under clause 2.0.0, 3.0.0, 4.0.0 & 5.0.0 together with the requirements stipulated under section ITB.

### **1.1.0 Route 1: Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer**

1.1.1(A) The Bidder should have designed, engineered, manufactured/got manufactured, erected/supervised erection, commissioned/supervised commissioning of at least one (1) number of pulverized coal fired supercritical Steam Generator having rated capacity of 1500 tonnes of steam per hour or higher. Further, such Steam generator should be of the type specified, i.e. single pass (tower type) or two pass type using either spiral wound (inclined) or vertical plain or vertical rifled type water wall tubing, and should have been in successful operation for a period of not less than one (1) year prior to the date of techno-commercial bid opening. In addition, the above Steam Generator should have been provided with evaporator suitable for variable pressure operation (sub-critical and super-critical pressure ranges). The Bidder shall offer only the type of Steam Generator and type of water wall tubing for which he is qualified.

AND/OR

1.1.1(B) The Bidder should have designed, engineered, manufactured / got manufactured, erected / supervised erection, commissioned / supervised commissioning of (i) at least one (1) number supercritical steam turbine of tandem compound, condensing, reheat type of 500 MW or higher capacity with main steam pressure, of 225 Kg/cm<sup>2</sup> (gauge) or higher and main steam / reheat temperature of 565 °C / 565 °C or higher and (ii) at least one (1) number of generator of two pole, Thermal class 155(F) winding insulation, hydrogen / water cooled stator and hydrogen / water cooled rotor of 500MW or above capacity. These steam turbine and generator should have been in successful operation for a period of not less than one (1) year prior to the date of techno-commercial bid opening.

1.1.2 The Bidder should have registered in India under the Companies Act of India, either a Subsidiary Company or a Joint Venture (JV) Company for manufacturing of supercritical steam generator sets and/or supercritical steam turbine generator sets for which it is qualified.

(a) In case the Bidder has formed a Subsidiary Company then the Subsidiary Company of the Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer should have been registered in India under the Companies Act of India for manufacturing supercritical steam generator and/or supercritical steam turbine generator sets covering the type, size and rating specified as on the date of techno-commercial bid opening. If the Subsidiary Company is registered as a public limited Company then it should have obtained certificate for Commencement of Business in India as on the date of techno-commercial bid opening.

The Subsidiary Company shall remain a subsidiary Company of the Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer for a minimum period of 7 years from the date of incorporation of such Subsidiary Company or up to the end of the defect liability period of the contract whichever is later.

(b) In case the Bidder has formed a JV Company then, the Joint Venture (JV) Company should have been incorporated in India under the Companies Act of India, as on the date of techno-commercial bid opening and promoted by (i) an Indian Company registered in India under the Companies Act of India and (ii) a Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer, for the purpose of manufacturing

supercritical steam generator and/or supercritical steam turbine generator sets covering the type, size and rating specified. If the JV Company is incorporated as a public limited Company then it should have obtained certificate for Commencement of Business in India as on the date of techno-commercial bid opening.

The Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer shall maintain a minimum equity participation of 26% in the JV Company for a lock-in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

One of the promoters shall be a majority stakeholder who shall maintain a minimum equity participation of 51% in the JV Company for a lock in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

(c) In case the Bidder meets the requirements indicated at 1.1.1(A)/(B) and 1.1.2(a)/(b) for either steam Generator sets or steam turbine generator sets (and not for both) then the Bidder shall associate/ collaborate for the other equipment with either of the following and shall source the equipment i.e. steam turbine generator set or steam generator set, only from such qualified associate.

(i) Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) or 1.1.1(A) above as the case may be along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the respective equipment

Or

(ii) Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1(a) in conjunction with 1.4.3 (if applicable) as the case may be along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iii) Indian Subsidiary Company / JV Company / Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator and/or supercritical Steam turbine Generator (as the case may be) and 3.0.0 for the respective equipment.

1.1.3 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:

<b>DJU</b>	<b>Executants</b>	<b>BG</b>
For Steam Generator	The Bidder	-----
	Indian Subsidiary / JV Company for steam Generator	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for steam Generator	0.15%
	QSGM (applicable if other than bidder)	0.3%
For Steam Generator (if the Steam Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Steam Turbine Generator	The Bidder	-----
	QSTGM (applicable if other than bidder)	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator	0.15%
	Other promoter having 25% or higher equity participation in	0.15%

DJU	Executants	BG
	Indian Subsidiary Company / JV Company for Steam Turbine Generator	
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (if the Steam turbine Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	0.3%
For Project Management If applicable as per clause 4.1.0	The Bidder	-----
	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.1.4 A super critical steam turbine manufacturer who meets the requirements of clause 1.1.1(B) except for generator would also qualify provided the Subsidiary Company / JV Company (as the case may be) associates and have a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator, hereinafter referred to as Qualified Generator Manufacturer.

The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian Subsidiary Company or the JV Company (as the case may be), for a lock-in period of 7 years from the date of incorporation of the Indian Subsidiary Company or JV Company (as the case may be) or up to the end of defect liability period of the contract whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.1.3 above.

- 1.2.0 **NOT USED**
- 1.2.1 NOT USED
- 1.2.2 NOT USED
- 1.2.3 NOT USED

Route 1.2.0 has not been used for the purpose of qualification in these Qualifying Requirements. Wherever Clause 1.2.0, 1.2.1, 1.2.2 & 1.2.3 have been referred to either directly or indirectly in any qualification routes / financial criteria, the same should be deemed to have been omitted and qualifying requirements should be read accordingly.

**1.3.0 Route 3: Indian Subsidiary Company of a Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer**

1.3.1(a) The Bidder shall be an Indian Subsidiary Company of a Qualified Steam Generator Manufacturer and/or a Qualified Steam Turbine Generator Manufacturer meeting requirements of clause 1.1.1(A) and/or 1.1.1(B) (as the case may be), registered in India under the Companies Act of India, as on the date of techno-commercial bid opening, for manufacturing supercritical steam generator and/or supercritical Steam Turbine Generator sets covering the type, size and rating specified. If the Subsidiary Company is incorporated as a public limited Company then it should have obtained certificate for Commencement of Business in India as on the date of techno-commercial bid opening.

The Subsidiary Company shall remain a subsidiary Company of the Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer for a minimum period of 7 years from the date of incorporation of such Subsidiary Company or up to the end of the defect liability period of the contract whichever is later.

(b) In case the Bidder meets the requirements indicated at 1.3.1(a) for either steam Generator sets or steam turbine generator sets (and not for both) then the Bidder shall associate/ collaborate for the other equipment with either of the following and shall source the equipment i.e. steam turbine generator set or steam generator set, only from such qualified associate.

(i) Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) or 1.1.1(A) above as the case may be along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the respective equipment

Or

(ii) Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1(a) in conjunction with 1.4.3 (if applicable) as the case may be along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iii) Indian Subsidiary Company / JV Company / Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator and/or supercritical Steam turbine Generator (as the case may be) and 3.0.0 for the respective equipment.

1.3.2 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:



<b>DJU</b>	<b>Executants</b>	<b>BG</b>
For Steam Generator	The Bidder	-----
	QSGM	0.3%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for Steam Generator	0.15%
	Indian Subsidiary Company / JV Company for Steam Generator (applicable if other than bidder)	0.15%
For Steam Generator (if the Steam Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Steam Turbine Generator	The Bidder	-----
	QSTGM	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator (applicable if other than bidder)	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for Steam Turbine Generator	0.15%
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (if the Steam turbine Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Project Management If applicable as per clause 4.1.0	The Bidder	-----
	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder</li> </ul>		

DJU	Executants	BG
<p>shall be disqualified and its bid shall be rejected.</p> <ul style="list-style-type: none"> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.3.3 In case the Bidder is an Indian Subsidiary Company of a super critical steam turbine manufacturer as its promoter meeting the requirements of clause 1.1.1(B) except for generator or if the Bidder's associate is supercritical steam turbine manufacturer meeting the requirements of clause 1.1.1(B) except for generator would also qualify provided the Subsidiary Company / JV Company of the supercritical steam turbine generator manufacturer associates and has a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator.

The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian Subsidiary Company / JV Company for a lock-in period of 7 years from the date of incorporation of the Indian Subsidiary Company /JV Company or up to the end of defect liability period of the contract, whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.3.2 above.

1.4.0 **Route 4: Indian Joint Venture (JV) Company for manufacturing of Super Critical Steam Generator and/or Super Critical Steam Turbine Generator in India between an Indian Company and a Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer**

1.4.1(a) The Bidder shall be a Joint Venture (JV) Company incorporated in India under the Companies Act of India, as on the date of techno-commercial bid opening, promoted by (i) an Indian Company registered in India under the Companies Act of India and (ii) a Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer meeting requirements of clause 1.1.1(A) and/or 1.1.1(B) (as the case may be), created for the purpose of manufacturing in India supercritical steam generator and/or supercritical steam turbine generator sets covering the type, size and rating specified. If the JV Company is incorporated as a public limited Company then it should have obtained certificate for Commencement of Business in India as on the date of techno-commercial bid opening.

The Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer shall maintain a minimum equity participation of 26% in the JV Company for a lock-in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

One of the promoters shall be a majority stakeholder who shall maintain a minimum equity participation of 51% in the JV Company for a lock in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

In the event that the majority stake holder in the JV Company is an entity other than the Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer, it should be an Indian Company and should have executed, in the last 10 years, industrial projects on EPC basis (with or without civil works) in the area of power, steel, oil & gas, petro-chemical, fertilizer and / or any other process industry with the total value of such projects being INR 10000 million or more. At least one of such projects should have a contract value of INR 4000 million or more. These projects shall be in successful operation for a period of not less than one year prior to the date of techno-commercial bid opening.

(b) In case the Bidder meets the requirements indicated at 1.4.1(a) for either steam Generator sets or steam turbine generator sets (and not for both) then the Bidder shall associate/ collaborate for the other equipment with either of the following and shall source the equipment i.e. steam turbine generator set or steam generator set, only from such qualified associate.

(i) Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) or 1.1.1(A) above as the case may be along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the respective equipment

Or

(ii) Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1(a) in conjunction with 1.4.3 (if applicable) as the case may be along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iii) Indian Subsidiary Company / JV Company / Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator and/or supercritical Steam turbine Generator (as the case may be) and 3.0.0 for the respective equipment.

1.4.2 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:

<b>DJU</b>	<b>Executants</b>	<b>BG</b>
Steam Generator	The Bidder	----
	QSGM	0.3%
	Other promoter having 25% or higher equity participation in Indian Subsidiary/ JV Company for Steam Generator	0.15%
	Indian Subsidiary/ JV Company for Steam Generator (applicable if other than bidder)	0.15%
For Steam Generator (if the Steam Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Steam Turbine Generator	The Bidder	-----
	QSTGM	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator (applicable if other than bidder)	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for Steam Turbine Generator	0.15%
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (if the Steam turbine Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Project Management If	The Bidder	-----

DJU	Executants	BG
applicable as per clause 4.1.0	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.4.3 In case the Bidder is an Indian Joint Venture Company with a super critical steam turbine manufacturer as one of the promoters meeting the requirements of clause 1.1.1(B) except for generator or if the Bidder's associate is supercritical steam turbine manufacturer meeting the requirements of clause 1.1.1(B) except for generator would also qualify provided the JV Company/ Subsidiary Company of the super critical steam turbine generator manufacturer associates and have a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator.

The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian JV Company / Subsidiary Company, for a lock-in period of 7 years from the date of incorporation of the Indian JV Company / Subsidiary Company or up to the end of defect liability period of the contract whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.4.2 above.

**1.5.0 Route 5: Indian Company who holds at least 51% equity in a Joint Venture Company for manufacturing Super Critical Steam Generator and/or supercritical Steam Turbine Generator sets in India between an Indian Company and a Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer**

1.5.1(a) The Bidder shall be Indian Company who holds majority stake in a Joint Venture Company incorporated in India under the Companies Act of India as on the date of techno-commercial bid opening, promoted by (i) a Company registered in India under the Companies Act of India and (ii) a Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer meeting requirements of clause 1.1.1(A) and/or 1.1.1(B) (as the case may be), created for the purpose of manufacturing supercritical steam generator and/or supercritical steam turbine generator

sets in India, covering the type, size and rating specified. If the JV Company is incorporated as a public limited Company then it should have obtained certificate for Commencement of Business in India as on the date of techno-commercial bid opening.

The Qualified Steam Generator and/or Qualified Steam Turbine Generator Manufacturer shall maintain a minimum equity participation of 26% in the JV Company for a lock-in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

The Bidder shall maintain a minimum equity participation of 51% in the JV Company for a lock in period of 7 years from the date of incorporation of JV Company or up to the end of the defect liability period of the contract whichever is later.

The Bidder should have executed in the last 10 years industrial projects on EPC basis (with or without civil works) in the area of power, steel, oil & gas, petro-chemical, fertilizer and / or any other process industry with the total value of such projects being INR 10000 million or more. At least one of such projects should have a contract value of INR 4000 million or more. These projects shall be in successful operation for a period of not less than one year prior to the date of techno-commercial bid opening.

(b) In case the Bidder meets the requirements indicated at 1.5.1(a) for either steam Generator sets or steam turbine generator sets (and not for both) then the Bidder shall associate/ collaborate for the other equipment with either of the following and shall source the equipment i.e. steam turbine generator set or steam generator set, only from such qualified associate.

(i) Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) or 1.1.1(A) above as the case may be along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the respective equipment

Or

(ii) Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1(a) in conjunction with 1.4.3 (if applicable) as the case may be along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iii) Indian Subsidiary Company / JV Company / Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator and/or supercritical Steam turbine Generator (as the case may be) and 3.0.0 for the respective equipment.

1.5.2 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:

<b>DJU</b>	<b>Executants</b>	<b>BG</b>
For Steam Generator	The Bidder	----
	QSGM	0.3%
	Indian Subsidiary / JV Company For Steam Generator	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary/ JV Company for Steam Generator (applicable if other than bidder)	0.15%
For Steam Generator (if the Steam Generator is being sourced from	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing	<b>0.3%</b>

<b>DJU</b>	<b>Executants</b>	<b>BG</b>
the associate meeting the requirement of clause 1.6.1)	company meeting requirements at 1.6.1 & 3.0.0	
For Steam Turbine Generator	The Bidder	-----
	QSTGM	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for Steam Turbine Generator (applicable if other than bidder)	0.15%
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (if the Steam turbine Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Project Management If applicable as per clause 4.1.0	The Bidder	-----
	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.5.3 In case the Indian Joint Venture Company of the Bidder has a super critical steam turbine manufacturer as one of its promoters, who meets the requirements of clause 1.1.1(B) except for generator or if the Bidder's associate is supercritical steam turbine manufacturer meeting the requirements of clause 1.1.1(B) except for generator would also qualify provided the JV Company/ Subsidiary Company of the supercritical steam turbine generator manufacturer associates and have a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator.

The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian JV Company/ Subsidiary Company, for a lock-in period of 7 years from the date of incorporation of the Indian JV Company/ Subsidiary Company or up to the end of defect liability period of the contract whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.5.2 above.

#### **1.6.0 Route 6: Indian Steam Generator and/or Indian Steam Turbine Generator Manufacturer**

##### **1.6.1 The bidder should be an Indian manufacturing company which is a supercritical Steam Generator manufacturer and/or a supercritical Steam turbine Generator manufacturer, as the case may be, and meets the following criteria.**

Eight (8) Nos. supercritical Steam Generators and/or supercritical Steam Turbine Generators (as the case may be) manufactured/supplied in India by the Indian Subsidiary/JV Company / Indian manufacturing company should be in commercial operation (achieved COD) out of which four (4) such Steam Generators and/or Steam Turbine Generators (as the case may be) should have been in commercial operation for at least one year and Performance Guarantee (PG) Test should have been successfully completed in any two (2) such Steam Generators and/or steam turbine generators (as the case may be) prior to the date of techno-commercial bid opening.

In case any problem related to supercritical Steam Generators and/or supercritical Steam Turbine Generators (as the case may be) & Auxiliaries is encountered during execution of the contract, bidder shall resolve the same within a reasonable time (in the opinion of the owner) by itself/through its collaborator/through firm having competency to resolve such issues. If the problem is not resolved within a reasonable period of time in the opinion of the owner, Owner shall have the option to approach directly to the collaborator/licensor/technology Provider or any other firm to resolve the issue. In such a case the financial expenditure(s) incurred by Owner for resolution of such issues will be to bidder's account. Accordingly, bidder shall be required to submit a letter along with the techno commercial bid valid up to the end of defect liability period of the contract, as per the format enclosed in the bidding documents.

The bidder shall offer only the type of steam generator and the steam turbine generator for which it or its collaborator / associate (as per clause 1.6.2 below) is qualified.

1.6.2(a) In case the Bidder meets the requirements indicated at 1.6.1 above for either steam Generator sets or steam turbine generator sets (and not for both) then the Bidder shall associate/ collaborate for the other equipment with either of the following and shall source the equipment i.e. steam turbine generator sets or steam generator sets, only from such qualified associate.

(i) Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) or 1.1.1(A) above as the case may be along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the respective equipment

Or

(ii) Indian Steam Generator and Steam Turbine Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.2.1 in conjunction with 1.2.3 (as applicable) above along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iii) Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer or Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1(a) in conjunction with 1.4.3 (if applicable) as the case may be along with requirements stipulated at 3.0.0 for the respective equipment

Or

(iv) Indian Subsidiary Company / JV Company / Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator or supercritical Steam turbine Generator (as the case may be) and 3.0.0 for the respective equipment.

(b) The Bidder seeking qualification under (a) above shall furnish Deeds of Joint Undertaking (DJUs) for the respective equipment (as applicable) as per the following table:

DJU	Executants	BG
For Steam Generator (applicable if the Steam Generator is being sourced from the associate as per clause 1.6.2 (a) (i) or 1.6.2 (a) (iii))	The Bidder	----
	QSGM	0.3%
	Other promoter having 25% or higher equity participation in Indian Subsidiary/ JV Company for Steam Generator	0.15%
	Indian Subsidiary/ JV Company for Steam Generator	0.15%
For Steam Generator (applicable if the Steam Generator is being sourced from the associate as per clause 1.6.2 (a) (ii))	The Bidder	----
	QSGM	0.3%
	Indian Steam Generator and Steam Turbine Generator Manufacturer, meeting the requirements stipulated at 1.2.1 (Applicable if other than bidder)	0.15%
For Steam Generator (applicable if the Steam Generator is being sourced from the associate as per clause 1.6.2 (a) (iv))	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	0.3%
For Steam Turbine Generator (applicable if the Steam turbine Generator is being sourced from the associate as per clause 1.6.2 (a) (i) or 1.6.2 (a) (iii))	The Bidder	-----
	QSTGM	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator	0.15%
	Other promoter having 25% or higher equity participation in Indian Subsidiary Company / JV Company for Steam Turbine Generator	0.15%
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam Turbine Generator (applicable if the Steam turbine Generator is being sourced from the associate as per clause 1.6.2 (a) (ii))	The Bidder	-----
	QSTGM	0.3%
	Indian Steam Generator and Steam Turbine Generator Manufacturer, meeting the requirements stipulated at 1.2.1 in conjunction with 1.2.3 (as applicable) (Applicable if other than	0.15%



DJU	Executants	BG
	bidder)	
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (applicable if the Steam turbine Generator is being sourced from the associate as per clause 1.6.2 (a) (iv) )	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	0.3%
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ If the Steam Generators/steam turbine generators are being sourced from the associate as per clause 1.6.2 (a) (ii), then in the Deed of Joint Undertaking the liability of the Qualified Steam Generator manufacturer / Qualified steam turbine generator manufacturer shall be as defined at clause 1.2.2 for the respective equipment as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.6.3 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:

For Project Management If applicable as per clause 4.1.0	The Bidder	-----
	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.6.4 In case the Bidder's associate is supercritical steam turbine manufacturer meeting the requirements of clause 1.1.1(B) except for generator would also qualify provided the JV Company/ Subsidiary Company of the super critical steam turbine generator manufacturer associates and have a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator. The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian JV Company / Subsidiary Company, for a lock-in period of 7 years from the date of incorporation of the Indian JV Company / Subsidiary Company or up to the end of defect liability period of the contract whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.6.2 above.

**1.7.0 Route 7: Company having experience of 500MW Supercritical units on EPC Basis**

1.7.1(a) The Bidder should have executed on Engineering, Procurement and Construction (EPC) basis, minimum one (1) no. 500MW or above pulverized Coal fired Supercritical unit comprising of at least steam generator and steam turbine generator sets along with their associated auxiliary equipments, electrostatic precipitators/bag filters, Switchyard, Coal Handling plant, Ash handling plant, Cooling Towers, Condenser Cooling water system, including associated civil works for the above equipments and systems, which is in successful operation for a period of not less than one (1) year prior to the date of techno-commercial bid opening.

(b) The Bidder meeting the requirements indicated at 1.7.1(a) above except for electrostatic precipitators/bag filters, Switchyard, Coal Handling plant, Ash handling plant, Cooling Towers, Condenser Cooling water system, would also qualify provided the Bidder meets the requirement indicated at 4.1.0(b) or associates with a Project Management Organization meeting the requirement indicated at 4.1.0(b).

1.7.2 The Bidder shall associate/ collaborate for the (i) Steam Generator and (ii) Steam Turbine Generator sets and shall source these equipments only from the Associate / Collaborator who meets the following:

(i) Qualified Steam Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(A) along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the Steam Generator

Or

Indian subsidiary / JV Company of Qualified Steam Generator Manufacturer, who shall in turn meet the requirements, stipulated at 1.3.1(a) or 1.4.1(a) as the case may be along with requirements stipulated at 3.0.0 for the Steam Generator

Or

Indian Subsidiary Company / JV Company /Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam Generator and 3.0.0 for the respective equipment.

(ii) Qualified Steam Turbine Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.1.1(B) in conjunction with 1.1.4 (as applicable) above along with requirements stipulated at 1.1.2 (a) / (b) and 3.0.0 for the Steam Turbine Generator Sets.

Or

Indian subsidiary / JV Company of Qualified Steam Turbine Generator Manufacturer, who shall in turn meet the requirements stipulated at 1.3.1(a) in conjunction with 1.3.3 (if applicable) or 1.4.1 (a) in conjunction with 1.4.3 (if applicable) along with requirements stipulated at 3.0.0 for the Steam Turbine Generator Sets.

Or

Indian Subsidiary Company / JV Company /Indian manufacturing company meeting the requirements of clause 1.6.1 in respect of supercritical Steam turbine Generator and 3.0.0 for the respective equipment.

1.7.3 The Bidder shall furnish Deeds of Joint Undertaking (DJUs) as per the following table:

DJU	Executants	BG
For Steam Generator	The Bidder	-----
	QSGM	0.3%
	Indian Subsidiary / JV Company for Steam Generator	0.15%
	Other promoter having 25% or higher equity participation in	0.15%

<b>DJU</b>	<b>Executants</b>	<b>BG</b>
	Indian Subsidiary Company / JV Company for Steam Generator	
For Steam Generator (if the Steam Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Steam Turbine Generator	The Bidder	-----
	QSTGM	0.3%
	Indian Subsidiary / JV Company for Steam Turbine Generator	0.15%
	Other promoter having 25% or higher equity participation in associate's Indian Subsidiary Company / JV Company for Steam Turbine Generator	0.15%
	Qualified Generator Manufacturer (If applicable)	0.1%
For Steam turbine Generator (if the Steam turbine Generator is being sourced from the associate meeting the requirement of clause 1.6.1)	The Bidder	-----
	Indian Subsidiary / JV Company/ Indian manufacturing company meeting requirements at 1.6.1 & 3.0.0	<b>0.3%</b>
For Project Management If applicable as per clause 4.1.0(b)	The Bidder	-----
	Project Management Organization	INR 20 Million
For Engineering If applicable as per clause 5.0.0	The Bidder	----
	Architect Engineering Firm	INR 1.5 Million
<ul style="list-style-type: none"> <li>➤ In the Deed of Joint Undertaking for Steam Generator and Auxiliaries, all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to steam generator and auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ In the Deed of Joint Undertaking for Steam Turbine Generator and Auxiliaries all the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the contract for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system as per the format enclosed in the bidding documents.</li> <li>➤ Qualified Generator Manufacturer (where ever applicable) shall be liable to the Employer for successful performance of the generator and its auxiliaries as per the format enclosed in the bidding documents.</li> <li>➤ Where the Bank Guarantee (BG) amount is indicated as %, the same shall be % of the total contract price.</li> <li>➤ In case the Bidder gets qualified using notes and/or other clauses then the DJU and BG requirement indicated in such notes / clauses shall also apply in addition to above.</li> <li>➤ The Deeds of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.</li> <li>➤ Applicable BGs are in addition to the contract performance security to be furnished by the Bidder.</li> <li>➤ Applicable BGs shall be furnished in case of award.</li> </ul>		

1.7.4 In case the Bidder's associate is supercritical steam turbine manufacturer meeting the requirements of clause 1.1.1(B) except for generator would also qualify provided the Subsidiary Company / JV Company of the

supercritical steam turbine generator manufacturer associates and has a Technology Transfer agreement with a Generator Manufacturer who meets the requirements of clause 1.1.1(B) fully in respect of generator.

The Qualified Generator Manufacturer shall maintain a minimum equity participation of 10 % in the Indian Subsidiary Company / JV Company for a lock-in period of 7 years from the date of incorporation of the Indian Subsidiary Company /JV Company or up to the end of defect liability period of the contract, whichever is later.

The Qualified Generator Manufacturer shall necessarily be one of the executants of DJU being submitted by the Bidder (for steam turbine generator and auxiliaries) as per clause 1.7.3 above.

#### **Notes for clause 1.0.0**

##### **(1) Definitions**

- (i) "Qualified Steam Generator Manufacturer" (QSGM) means a manufacturer meeting requirement stipulated at 1.1.1(A).
- (ii) "Qualified Steam Turbine Generator Manufacturer" (QSTGM) means a manufacturer meeting requirement stipulated at 1.1.1(B).
- (iii) Wherever "Indian Manufacturing Company" is indicated, the same shall mean a Subsidiary Company or a Joint Venture Company or an Indian Steam Generator Manufacturing Company or an Indian Steam Turbine Generator Manufacturing Company registered in India under the Companies Act of India or as per the prevailing laws of India.
- (iv) Wherever the term 'coal fired' is appearing above, "coal" shall be deemed to also include bituminous coal/sub-bituminous coal/brown coal/lignite

##### **(2) Erection/Commissioning**

Where erection / supervision of erection and commissioning / supervision of commissioning has not been in the scope of the Bidder as mentioned in clause 1.1.0 & 1.2.0, it should have acted as an advisor for erection and commissioning of the Steam Generator & auxiliaries/ Steam Turbine & Generator, as the case may be. Necessary documents / certificates from the client, in support of above shall be furnished along with the techno-commercial bid.

##### **(3) Direct / Indirect order**

- i) The Bidder / Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer / Qualified Generator Manufacturer shall also be considered qualified, in case the award for the reference works (steam generator / Turbine and generator) has been received by the Bidder / Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer / Qualified Generator Manufacturer either directly from 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 / Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer / Qualified Generator Manufacturer along with its techno-commercial bid in support of its claim of meeting requirement stipulated at 1.1.1(A), 1.1.1(B), 1.1.4, 1.2.1 and 1.2.3 above as the case may be.
- ii) Certificate from owner of the plant shall also be furnished by the Bidder / Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer for the successful operation of the steam generator / turbine generator set as specified at 1.1.1(A), 1.1.1(B), 1.1.4, 1.2.1 and 1.2.3 above as the case may be along with the techno-commercial bid.

##### **(4) Holding Company as a Qualified Steam Generator Manufacturer and/or Qualified Steam Turbine Generator Manufacturer**

- (i) A Holding Company, singularly or collectively along with its Subsidiaries (held either directly or indirectly), meeting the requirements of clause 1.1.1(A) / 1.1.1(B) above, and also owning the technology for supercritical steam generators / supercritical steam turbine generators, shall also be considered as Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer. However, in such a case either the Indian subsidiary Company created for manufacturing of supercritical steam generator / supercritical steam turbine generators in India shall be a subsidiary of the Holding Company or the Holding Company shall maintain a minimum equity of 26% in the Joint Venture Company, created for manufacturing of supercritical steam generator / supercritical steam turbine generators in India.
- (ii) In such a case, the Holding Company and all such subsidiaries lending strength / experience to the Holding Company shall necessarily be part of the DJU being submitted by the Bidder for successful performance of the contract for the scope related to steam turbine generator and auxiliaries including turbine cycle, regenerative feed heating and pumping system / contract for the scope related to steam generator and auxiliaries (as the case may be) as per the format enclosed in bidding documents.
- In case of award, if the Holding Company itself is not the Bidder as a Qualified Steam Generator / Qualified Steam Turbine Generator Manufacturer, the Holding Company and all such entities lending strength / experience to the Holding Company shall each be required to furnish separate on demand bank guarantees for an amount aggregating 0.6% of the total contract price of the EPC Package divided equally among them, in addition to the contract performance security to be furnished by the Bidder. This bank guarantee requirement shall supersede bank guarantee requirement stipulated at clause 1.1.0(applicable for associate), 1.3.0, 1.4.0, 1.5.0 & 1.7.0 for the Qualified Steam Generator / Qualified Steam Turbine Generator Manufacturer.
- However, in case the Holding Company itself is the Bidder as a Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer as per clause 1.1.0, Bidder shall submit its board resolution stating that in case of any likely change of management control of any of these subsidiaries, the Bidder shall arrange for separate on demand bank guarantees from all such entities lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1(A) / 1.1.1(B) for an amount aggregating 0.6% of the total contract price of the EPC Package divided equally among them before the change in management control actually occurs.
- (iii) As an alternative to the requirements of Note 4(ii) above, the Holding Company, as a Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer, shall necessarily be part of the DJU being submitted by the Bidder for successful performance of the contract for the scope related to steam turbine generator and auxiliaries including turbine cycle, regenerative feed heating and pumping system / contract for the scope related to steam generator and auxiliaries (as the case may be) as per the format enclosed in bidding documents. However, the Bidder shall submit a board resolution of the Holding Company stating that in case of any likely change of management control of any of these subsidiaries, the Holding Company shall arrange for signing of DJU by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1(A) / 1.1.1(B), in line with the requirements of Note 4(ii) above before the change in management control actually occurs.
- In case of award, if the Holding Company itself is not the Bidder as a Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer, the Holding Company shall be required to furnish separate on demand bank guarantee for an amount of 0.6% of the total contract price of the EPC Package, in addition to the contract performance security to be furnished by the Bidder. This bank guarantee requirement shall supersede

bank guarantee requirement stipulated at clause 1.1.0(applicable for associate), 1.3.0, 1.4.0, 1.5.0 & 1.7.0 for the Qualified steam generator / Qualified Steam Turbine Generator Manufacturer. In case of any likely change of management control of any of its subsidiaries lending strength/ experience, the Holding Company shall arrange for signing of DJU and bank guarantees from all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1(A) / 1.1.1(B), in line with Note 4(ii) above before the change in management control actually occurs, in addition to the bank guarantee already furnished by the Holding Company.

However, in case the Holding Company itself is the Bidder as a Qualified steam generator manufacturer / Qualified Steam Turbine Generator Manufacturer as per clause 1.1.0, and anticipates change of management control of any of its subsidiaries lending strength/ experience for fulfillment of requirement of clause 1.1.1(A) / 1.1.1(B), the Holding Company shall arrange for signing of DJU and bank guarantees from all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1(A) / 1.1.1(B), in line with Note 4(ii) above before the change in management control actually occurs, in addition to the bank guarantee already furnished by the Holding Company.

**(5) Steam Generator Manufacturer with Technology Tie-up for Variable Pressure Design**

In case a supercritical Steam Generator manufacturer meets all the requirements as specified in clause no. 1.1.1(A) above except that the evaporator in the reference steam generator is not designed for variable pressure operation and is designed for constant pressure (Universal Pressure) operation only, in such case, the supercritical Steam Generator manufacturer shall be considered to be qualified, provided that, such supercritical Steam Generator manufacturer has an ongoing license agreement (which covers technology transfer), as on the date of techno-commercial bid opening, with the original Technology Owner (Licensor) for design, manufacture, sell, use, service of once through variable pressure supercritical steam generator technology (with evaporator suitable for variable pressure operation in sub-critical and supercritical pressure ranges).

- i. The licensor should have experience of providing such variable pressure design steam generator technology for at least one (1) no. of pulverized coal fired supercritical steam generator for a 1500 T/hr or higher capacity using either spiral wound (inclined) or vertical plain or vertical rifled type water wall tubing with the evaporator suitable for variable pressure operation in sub-critical and super-critical pressure ranges and which should be in successful operation for a period of not less than one (1) year prior to the date of techno-commercial bid opening.
- ii. The Bidder shall offer only the type of steam generator i.e. single pass (tower type) or two pass type for which the Bidder is qualified and shall offer only the type of water wall tubing (either spiral wound (inclined) or vertical plain or vertical rifled type) for which his licensor is qualified.
- iii. In such an event, the Bidder shall furnish a Deed of Joint Undertaking executed between the Bidder and the supercritical steam generator manufacturer (as the case may be) and its Technology Owner (Licensor), as per the format enclosed in the Bidding Documents towards the Bidder and the licensor being jointly and severally liable to the Employer for successful performance of the Steam Generator along with an extended warranty of at least one (1) year over and above what is required as per tender documents. The Deed of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.
- iv. In case of award, Technology Owner (Licensor) will be required to furnish an on demand bank guarantee for an amount of INR 12 Million (Rupees Twelve Million) in addition to the contract performance security to be furnished by the Bidder.”

**(6) For clause 1.4.0**

In case the Indian majority stake holder of the JV Company does not have requisite EPC experience as mentioned at clause 1.4.1 above, it may still be considered qualified if it is wholly owned by a parent company who fully meets the requisite EPC experience provided the parent company maintains its 100% equity in such wholly owned subsidiary for a lock in period of 7 years from the date of incorporation of JV company or up to the end of the defect liability period of the contract whichever is later.

In such a case, the parent company mentioned above shall necessarily be part of DJU being submitted by the Bidder.

In case of award, the parent company shall be required to furnish an on demand bank guarantee for an amount of 0.1% of total contract price of the EPC package in addition to the bank guarantee requirement indicated at clause 1.4.2 and 1.4.3.

**(7) For clause 1.5.0**

Majority stake in JV Company can be held either directly by the Bidder or through its wholly owned subsidiary provided the Bidder maintains its 100% equity in such wholly owned subsidiary for a lock in period of 7 years from the date of incorporation of JV company or up to the end of the defect liability period of the contract whichever is later.

In case majority stake in the JV Company is held by wholly owned subsidiary of the Bidder then such wholly owned subsidiary shall necessarily be part of DJU being submitted by the Bidder.

In case of award the wholly owned subsidiary as mentioned above shall be required to furnish an on demand bank guarantee for an amount of 0.1% of total contract price of EPC package in addition to the bank guarantee requirement at clause 1.5.2 and 1.5.3.

**(8) For clause 1.1.0, 1.3.0, 1.4.0 & 1.5.0**

The manufacturing may, alternatively, be carried out by another subsidiary registered for manufacturing supercritical steam generator / supercritical steam turbine generator in India of the above Indian subsidiary / JV Company. In such an event, the manufacturing company shall remain a subsidiary of the Indian subsidiary / JV company with equity lock in for a minimum lock in period of 7 years from the date of incorporation of the manufacturing company or up to the end of the defect liability period of the contract, whichever is later.

In such a case the manufacturing company shall necessarily be part of DJU being submitted by the Bidder.

In case of award the manufacturing company shall be required to furnish an on demand bank guarantee for an amount of 0.1% of total contract price of EPC package in addition to the bank guarantee requirement at clause 1.1.3, 1.1.4, 1.3.2, 1.3.3, 1.4.2, 1.4.3, 1.5.2 and 1.5.3.

**(9) Equity lock in period**

Wherever equity lock in period requirement or subsidiary status requirement is indicated, the Bidder would be required to furnish along with his techno-commercial bid, a Letter of Undertaking from the promoter(s) supported by Board Resolution as per the format enclosed in the bid documents, for maintaining required minimum equity for the lock in period mentioned / maintaining the subsidiary status.

Following is also applicable for clauses 1.3.0, 1.4.0 and 1.5.0:

In case the Indian Subsidiary (ies) /JV Company (ies) (formed for manufacturing Super critical Steam Generator and/or supercritical Steam Turbine Generator sets) meets the criteria specified under Note No. 13 of "Notes for clause 1.0.0" and has also successfully completed Phased Manufacturing Program (PMP) as per clause 3.0.0, then the bidder would have the option of submitting "Letter of Undertaking" for support from the QSGM and/or QSTGM and/or QGM, as applicable, along with the techno commercial bid as per the format enclosed in the bidding

documents instead of the undertakings / documents for maintaining the minimum equity for the lock-in period mentioned / maintaining the subsidiary status, wherever indicated, in respect of QSGM and/or QSTGM and/or QGM, as applicable.

**(10) For Clause 1.2.0**

“Steam Turbine Generator” indicated at clause 1.2.2 shall mean Steam Turbine, Generator and their auxiliaries as included in the DJU formats included in the bidding documents.

“Steam Generator” indicated at clause 1.2.2 shall mean Steam Generator and its auxiliaries as included in the DJU formats included in the bidding documents.

**(11) For clause 1.1.0, 1.3.0, 1.4.0, 1.5.0, 1.6.0, 1.7.0**

“for the scope related to Steam Turbine Generator and Auxiliaries including turbine cycle, regenerative feed heating and pumping system” indicated at clause 1.1.3, 1.3.2, 1.4.2, 1.5.2, 1.6.2, 1.7.3 shall mean Steam Turbine Generator and their Auxiliaries including turbine cycle, regenerative feed heating and pumping system as included in the DJU formats included in the bidding documents.

“for the scope related to Steam Generator and Auxiliaries” indicated at clause 1.1.3, 1.3.2, 1.4.2, 1.5.2, 1.6.2, 1.7.3 shall mean Steam Generator and Auxiliaries as included in the DJU formats included in the bidding documents.

**(12) For clause 1.6.0**

Sourcing of the Steam generators or Steam turbine generators, either from a qualified associate or from the bidder itself meeting the requirements indicated in the applicable clauses of relevant route is acceptable.

**(13) For clauses 1.1.0, 1.2.0, 1.3.0, 1.4.0, and 1.5.0**

Bidders participating through any of the Routes 1.1.0 or 1.2.0 or 1.3.0 or 1.4.0 or 1.5.0 shall not be required to furnish deed of joint undertaking (DJU) and associated BG for the Steam Generator and /or Steam Turbine Generator (as the case may be), in case they meet the following criteria:

Eight (8) Nos supercritical Steam Generators and/or supercritical Steam Turbine Generators (as the case may be) manufactured/supplied in India by the Indian Subsidiary/JV Company / Indian manufacturing company should be in commercial operation (achieved COD) out of which four (4) such Steam Generators and/or Steam Turbine Generators (as the case may be) should have been in commercial operation for at least one year and Performance Guarantee (PG) Test should have been successfully completed in any two (2) such Steam Generators and/or Steam Turbine Generators (as the case may be) prior to the date of techno-commercial bid opening.

In case any problem related to supercritical Steam Generators and/or supercritical Steam Turbine Generators (as the case may be) & Auxiliaries is encountered during execution of the contract, bidder shall resolve the same within a reasonable time (in the opinion of the owner) by itself/through its collaborator/through firm having competency to resolve such issues. If the problem is not resolved within a reasonable period of time in the opinion of the owner, Owner shall have the option to approach directly to the collaborator/licensor/technology Provider or any other firm to resolve the issue. In such a case the financial expenditure(s) incurred by Owner for resolution of such issues will be to bidder's account. Accordingly, bidder shall be required to submit a letter along with the techno commercial bid valid up to the end of defect liability period of the contract, as per the format enclosed in the bidding documents.



## **2.0.0 Financial Criteria:**

### **2.1.0 Financial Criteria for the Bidder**

2.1.1 The average annual turnover of the Bidder, in the preceding three (3) financial years as on the date of techno-commercial bid opening, should not be less than **₹ 21082 Million (Indian Rupees Twenty One Thousand Eighty Two Million only) or in equivalent foreign currency.**

In case a Bidder does not satisfy the average annual turnover criteria, stipulated above on its own, its Holding Company would be required to meet the stipulated turnover requirements as above, provided that the Net Worth of such Holding Company as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the Holding Company. In such an event, the Bidder would be required to furnish along with its Techno-Commercial bid, a Letter of Undertaking from the Holding Company, supported by the Holding Company's Board Resolution, as per the format enclosed in the bid documents, pledging unconditional and irrevocable financial support for the execution of the Contract by the Bidder in case of award.

2.1.2 **Bidder should have Positive Net Worth as on the last day of the preceding financial year.**

2.1.3 In case the Bidder is not able to furnish its audited financial statements on standalone entity basis, the unaudited unconsolidated financial statements of the Bidder can be considered acceptable provided the Bidder furnishes the following further documents on substantiation of its qualification:

- (i) Copies of the unaudited unconsolidated financial statements of the Bidder alongwith copies of the audited consolidated financial statements of its Holding Company.
- (ii) A Certificate from the CEO/CFO of the Holding Company, as per the format enclosed in the bidding documents, stating that the unaudited unconsolidated financial statements form part of the Consolidated Annual Report of the Company.

In cases where audited results for the last financial year as on the date of Techno Commercial bid opening are not available, the financial results certified by a practicing Chartered Accountant shall be considered acceptable. In case, Bidder is not able to submit the Certificate from a practicing Chartered Accountant certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the financial parameters. Further, a Certificate would be required from the CEO/CFO as per the format enclosed in the bidding documents stating that the Financial results of the Company are under audit as on the date of Techno-commercial bid opening and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available.

### **2.2.0 Financial Criteria for the Collaborator(s) / Associate(s)**

2.2.1 The average annual turnover of the **Collaborator(s) / Associate(s)**, in the preceding three (3) financial years as on the date of techno-commercial bid opening, should not be less than the following for different Collaborator(s) / associate(s) as applicable.

<b>Collaborator(s) / Associate(s)</b>	<b>Applicable clauses</b>	<b>Required annual turnover in Million INR or in equivalent foreign currency</b>
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QSGM	<b>1.2.1, 1.6.2(a)(ii)</b>	<b>INR 2108 Million (Indian Rupees Two Thousand One Hundred Eight Million Only)</b>
	1.1.2(c), <b>1.3.1(a)</b> , 1.3.1(b), <b>1.4.1(a)</b> , 1.4.1(b), <b>1.5.1(a)</b> , 1.5.1(b), <b>1.6.2 (a)(i)/(iii)/(iv)</b> , 1.7.2	<b>INR 8143 Million (Indian Rupees Eight thousand One hundred Forty Three Million only)</b>
QSTGM	<b>1.2.1, 1.2.3, 1.6.2(a)(ii)</b>	<b>INR 2108 Million (Indian Rupees Two Thousand One Hundred Eight Million Only)</b>
	1.1.2(c), <b>1.3.1(a)</b> , 1.3.1(b), <b>1.4.1(a)</b> , 1.4.1(b), <b>1.5.1(a)</b> , 1.5.1(b), <b>1.6.2(a)(i)/(iii)/(iv)</b> , 1.7.2	<b>INR 2831 Million (Indian Rupees Two thousand Eight hundred Thirty One Million only)</b>
Indian Steam Generator and Steam Turbine generator manufacturer (if steam generator is being sourced as per clause 1.6.2(a)(ii)	1.6.2(a)(ii)	<b>INR 8143 Million (Indian Rupees Eight thousand One hundred Forty Three Million only)</b>
Indian Steam Generator and Steam Turbine generator manufacturer (if steam turbine generator is being sourced as per clause 1.6.2(a)(ii)	1.6.2(a)(ii)	<b>INR 2831 Million (Indian Rupees Two thousand Eight hundred Thirty One Million only)</b>
Subsidiary Company / JV Company of QSGM	1.1.2(c), 1.3.1(b), 1.4.1(b), 1.5.1(b), <b>1.6.2(a) (i)/(iii)/(iv)</b> , 1.7.2	<b>INR 8143 Million (Indian Rupees Eight thousand One hundred Forty Three Million only)</b>
Subsidiary Company / JV Company of QSTGM	1.1.2(c), 1.3.1(b), 1.4.1(b), 1.5.1(b), <b>1.6.2(a) (i)/(iii)/(iv)</b> , 1.7.2	<b>INR 2831 Million (Indian Rupees Two thousand Eight hundred Thirty One Million only)</b>

Separate Generator Manufacturer	1.1.4, 1.2.3, 1.3.3, 1.4.3, 1.5.3, <b>1.6.4</b> , 1.7.4	<b>INR 2108 Million (Indian Rupees Two Thousand One Hundred Eight Million Only)</b>
Holding Company as QSGM	Notes for clause 1.0.0 (4)	<b>INR 8143 Million (Indian Rupees Eight thousand One hundred Forty Three Million only)</b>
Holding Company as QSTGM	Notes for clause 1.0.0 (4)	<b>INR 2831 Million (Indian Rupees Two thousand Eight hundred Thirty One Million only)</b>
Technology Owner (Licensor to QSGM)	Notes for clause 1.0.0 (5)	<b>INR 2108 Million (Indian Rupees Two Thousand One Hundred Eight Million Only)</b>

In case the Collaborator/Associate does not satisfy the average annual turnover criteria above on its own, its Holding Company would be required to meet the stipulated turnover requirements at Cl. 2.2.1 above, provided that the net worth of such Holding Company, as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the Holding Company. In such an event, the Collaborator/Associate would be required to furnish along with bidder's Techno-Commercial bid, a Letter of Undertaking from the Holding Company, supported by Board Resolution of the Holding Company, as per the format enclosed with the bidding documents, pledging unconditional and irrevocable financial support to the Collaborator/Associate to honour the terms and conditions of the Deed of Joint Undertaking in case of award of the Contract to the Bidder with whom Collaborator/Associate is associated.

**2.2.2 Each Collaborator/Associate should have Positive Net Worth as on the last day of the preceding financial year.**

2.2.3 In case the Collaborator(s) / Associate(s) is not able to furnish its audited financial statements on stand-alone entity basis, the unaudited unconsolidated financial statements of the Collaborator(s) / Associate(s) can be considered acceptable provided the Collaborator(s) / Associate(s) furnishes the following further documents on substantiation of its qualification:

- (i) Copies of the unaudited unconsolidated financial statements of the Collaborator(s) / Associate(s) along with copies of the audited consolidated financial statements of the Holding Company of Collaborator(s) / Associate(s).
- (ii) A Certificate from the CEO/CFO of the Holding Company, as per the format enclosed with the bidding documents, stating that the unaudited unconsolidated financial statements form part of the consolidated financial statements of the Holding Company of Collaborator/Associate.

In cases where audited results for the last financial year as on the date of Techno Commercial bid opening are not available, the financial results certified by a practicing Chartered Accountant shall be considered acceptable. In case, Collaborator/Associate is not able to submit the Certificate from a practicing Chartered Accountant certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the financial parameters. Further, a Certificate would be required from the CEO/CFO as per the format enclosed in the bidding documents stating that the Financial results of the Company are under audit as on the date of Techno-

commercial bid opening and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available.

**NOTES:**

- (i) Net worth means the sum total of the paid up share capital and free reserves. Free reserve means all reserves credited out of the profits and share premium account but does not include reserves credited out of the revaluation of the assets, write back of depreciation provision and amalgamation. Further any debit balance of Profit and Loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from reserves and surplus.
- (ii) Other income shall not be considered for arriving at annual turnover.
- (iii) "Holding Company" and "Subsidiary Company" shall have the meaning ascribed to them as per Companies Act of India.
- (iv) For annual Turnover indicated in foreign currency, the exchange rate as on seven (7) days prior to the date of Techno-Commercial bid opening shall be used.
- (v) In case the bidder / collaborator(s) / associate(s) participating under Clause 1.3.0 or 1.4.0, do not meet the turnover requirement, then, the Turnover of any of the Promoters individually or all the promoters (in a combined manner) (each having Equity Stake more than 25%) of the Subsidiary Company / JV Company would be considered. Each such promoter of the Subsidiary Company / JV Company shall have to meet the Net Worth criteria individually as per clause 2.1.2 and/or 2.2.2. In such an event the Bidder would be required to furnish along with its techno-commercial bid, a Letter of Undertaking from such promoter(s), supported by Board Resolution as per the format enclosed in the bidding documents, pledging unconditional and irrevocable financial support for execution of the Contract by the Bidder in case of award.

**3.0.0 Phased Manufacturing Program and Transfer of Technology**

3.1.0 The Bidder and its associate shall give firm commitment (for their respective equipment) in the form of an undertaking supported by board resolution to set up / augment the existing manufacturing facility for supercritical Steam Generator and Steam Turbine Generator sets in India either by itself or through its subsidiaries or through Joint Venture (JV) in India in a phased manner as per Phased Manufacturing Program elaborated in the bidding documents.

The manufacturing may, alternatively, be carried out by another subsidiary registered for manufacturing supercritical Steam Generators / supercritical steam turbine generators in India of the above Indian subsidiary / JV Company. In such an event, the manufacturing company shall remain a subsidiary of the Indian subsidiary / JV company with equity lock in for a minimum lock in period of 7 years from the date of incorporation of the manufacturing company or up to the end of the defect liability period of the contract, whichever is later.

In case of award the Bidder shall submit an on demand bank guarantee of INR 650 Millions for Steam Turbine Generators and INR 900 Million for Steam Generators as security for any default against meeting the specified Phased Manufacturing Program.

3.2.0 Valid technology transfer agreements including license to manufacture and supply in India, separately for steam generator sets and steam turbine generator sets, between the Qualified Steam Generator Manufacturer / Qualified Steam Turbine Generator Manufacturer or their technology provider (if any) and the Indian Manufacturing Company should be in place on the date of techno-commercial bid opening covering the type, size and rating of the Steam Generators / Steam Turbine Generator sets specified, valid minimum up to the end of the defect liability

period of the contract. The signatory of the technology transfer agreement with the Indian Manufacturing Company should either own the technology or should have authorization to use and further license the technology. Documentary evidence to this effect shall be furnished along with the techno-commercial bid. The technology transfer agreement shall necessarily cover transfer of technological know-how for super critical Steam Generator / supercritical Steam Turbine Generator in the form of complete transfer of design dossier, design softwares, drawings and documentation, quality system manuals and imparting relevant personnel training to the Indian Manufacturing Company. Such technology transfer agreement must have provision that the transfer of technology to the Indian Manufacturing Company shall be completed by the time last 800 MW supercritical unit is supplied by the Bidder under this tender.

- 3.3.0 Major part (minimum 75%) of the land required for setting up manufacturing facility in India should be in possession with clear title either in the name of the "Indian Manufacturing Company(ies)" or its Indian promoter (but pledged / leased to the Subsidiary / JV company) prior to submission of techno-commercial bid. In case, the Bidder has existing manufacturing facility in India, he should have in possession major part (minimum 75%) of the additional land required with clear title for augmenting his already existing manufacturing facility. "Clear title" shall be deemed to also include land acquired on long term lease basis for minimum 30 years with a provision for further extension.
- 3.4.0 Promoters of the Subsidiary (ies) / JV Company (ies) will be required to either employ a minimum subscribed and paid up share capital or have net worth of INR 500 million in the respective Subsidiary / JV Company prior to the submission of techno-commercial bid. In case the Bidder is selected for award of the contract, either a minimum subscribed and paid up share capital or net worth of INR 1000 million in the respective Subsidiary / JV Company will have to be ensured by the promoters prior to the date of award. In the event the Bidder fails to meet this requirement, the Employer shall disqualify such Bidder. The certificates from a practicing Chartered Accountant shall be submitted by the Bidder certifying the amount of subscribed and paid up share capital, or net worth as the case may be as on a date not earlier than 15 days from the date of techno-commercial bid opening / award date as applicable.
- 3.5.0 The Bidder and its associate shall be required to furnish an undertaking (for their respective equipment) with regard to above as per format enclosed with the bidding documents.

**Note to clause 3.0.0**

(1) Among the bidder and its associate(s) who has already given commitments for PMP and submitted bank guarantees for security for default against specified PMP for steam Turbine Generators / Steam Generator to any Central / State sector power generating Company for supercritical projects **or if such bank guarantees have already been released** shall not be required to furnish further bank guarantees for security for default against specified PMP.

(2) In case the Indian Subsidiary Company/JV Company/Indian manufacturing company have already completed PMP, for supercritical boiler/supercritical steam turbine (as the case may be) then such Indian Subsidiary Company/JV Company/Indian manufacturing company need not submit the undertakings/documents for PMP again for the respective equipment. However, certificate in support of completion of such PMP duly issued by the competent authority **or proof of release of the bank guarantee by any Central / State power generating company** shall be submitted along with the techno-commercial bid.

**4.0.0 Project Management Experience**

- 4.1.0 (a) The Bidder should have executed in the last 10 years industrial projects on EPC basis (with or without civil works) in the area of power, steel, oil & gas, petro-chemical, fertilizer and / or any other process industry with the total value

of such projects being INR 10000 million or more. At least one of such projects should have a contract value of INR 4000 million or more. These projects shall be in successful operation for a period of not less than one year prior to the date of Techno-Commercial bid opening.

**OR**

- 4.1.0(b) The Bidder should have executed at least one (1) no of pulverized coal / lignite fired reheat type of unit of at least 200 MW which is in successful operation for a period of not less than one (1) year prior to the date of techno-commercial bid opening. The scope of work of such reference plant should have necessarily included engineering management, procurement management, construction management, and commissioning/ supervision of commissioning of steam generator and steam turbine generator sets with their associated auxiliaries, Electro static precipitators/ bag filters, Switchyard, Coal handling plant, Ash handling plant, Cooling Towers, Condenser cooling water system for carrying out project management. Otherwise the Bidder shall associate with a Project Management Organization who meets the above requirement for project management.

If the project management of the EPC package is to be carried out by a Project Management Organization other than the Bidder itself then, the Bidder shall furnish undertaking jointly executed by it and Project Management Organization in which all the executants of DJU shall be jointly and severally liable to the Employer to perform successfully all the project management activities included in his scope as per format enclosed in the bidding documents. The Deed of Joint Undertaking shall be submitted along with Techno-Commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected. In case of award, the Project Management Organization will be required to furnish an on demand bank guarantee for INR 20 Million (Rupees twenty Million) in addition to the contract performance security by the Bidder.

#### **5.0.0 Engineering Experience**

The Bidder should carryout Engineering of the complete EPC package either by itself or through an Architect Engineering firm meeting either the requirements indicated at 5.1.0 or 5.2.0 or 5.3.0 below:

- 5.1.0(a) (i) The Bidder should have carried out Engineering of at least one (1) no. of pulverized coal/ lignite fired reheat type supercritical unit, with minimum unit rating of 500 MW, consisting of steam generator and steam turbine generator sets along with their auxiliaries including mills, fans, Air pre-heaters, steam Generator start up system, regenerative heating and pumping system, Power cycle piping and flash tanks/ flash boxes, which is in successful operation for a period of not less than one (1) year prior to the date of Techno-Commercial bid opening.

And

- 5.1.0 (a) (ii) The Bidder should have carried out Engineering of at least one (1) no. of pulverized coal / lignite fired reheat type unit, with minimum unit rating of 200 MW consisting of steam generator and steam turbine generator sets along with their auxiliaries including mills, fans, Air pre-heaters, regenerative heating and pumping system , Power cycle piping and flash tanks/ flash boxes, Coal handling plant, Ash handling plant, Condenser cooling water system, Switchyard, which is in successful operation for a period of not less than one (1) year prior to the date of Techno-Commercial bid opening.
- 5.1.0 (b) If the Bidder does not meet the requirement indicated at 5.1.0 (a)(i) but meets the requirement indicated at 5.1.0 (a)(ii) then the Bidder shall get the engineering documents related to Thermal cycle, Power Cycle piping and flash tanks/ flash boxes, Steam Generator start up system, Sizing of Main Plant equipments, interface between SG and TG, unit start up and control philosophy vetted by an Architect Engineering Firm who meets the requirement indicated at 5.1.0 (a) (i). In such a case the Bidder shall furnish an Undertaking Jointly executed by it and the architect engineering firm, meeting the requirement indicated at 5.1.0(a) (i) in which all the executants of DJU shall be jointly

and severally liable to the Employer to perform successfully all the engineering activities included in the scope of the architect engineering firm as per format enclosed in the bidding documents. The Deed of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected. In case of award, the architect engineering firm will be required to furnish an on demand bank guarantee for INR 1.5 Million (Rupees One and Half Million) in addition to the contract performance security to be furnished by the Bidder.

5.2.0(a)(i) The steam generator and/or steam turbine generator manufacturer bidding under route 1.1.0 or 1.2.0 should be engaged in or should have completed Engineering of at least one (1) no. of pulverized coal/ lignite fired reheat type supercritical unit, with minimum unit rating of 500 MW, consisting of steam generator and steam turbine generator sets along with their auxiliaries including mills, fans, Air pre-heaters, steam Generator start up system, regenerative heating and pumping system, Power cycle piping and flash tanks/ flash boxes (in a single contract or in two separate contracts in a single unit), which is under execution prior to the date of Techno-Commercial bid opening.

And

5.2.0(a)(ii) The steam generator and/or steam turbine generator manufacturer bidding under route 1.1.0 or 1.2.0 should have carried out Engineering of at least one (1) no. of pulverized coal / lignite fired reheat type unit, with minimum unit rating of 500 MW consisting of steam generator and steam turbine generator sets along with their auxiliaries including mills, fans, Air pre-heaters, regenerative heating and pumping system, Power cycle piping and flash tanks/ flash boxes, Coal handling plant, Ash handling plant, Condenser cooling water system, Switchyard, which is in successful operation for a period of not less than one (1) year prior to the date of Techno-Commercial bid opening.

5.3.0(a) If the Bidder does not meet either the requirements indicated at 5.1.0 (a)(i) & (ii) or the requirements indicated at 5.2.0(a)(i) & (ii) then, the Bidder shall get the complete engineering of the EPC package done by an Architect Engineering firm who meets the requirements indicated at 5.1.0 (a) (i) & (ii). In such a case the Bidder shall furnish undertaking jointly executed by it and the Architect Engineering Firm in which all the executants of DJU shall be jointly and severally liable to the Employer to perform successfully all the engineering activities included in its scope as per format enclosed in the bidding documents. The Deed of Joint Undertaking shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected. In case of award, architect engineering firm will be required to furnish an on demand bank guarantee for INR 1.5 Million (Rupees One and Half Million) in addition to the contract performance security to be furnished by the Bidder.

5.3.0(b) As an alternate to 5.3.0(a) the Bidder shall get the engineering of the Main Plant equipment / systems i.e. steam generator and steam turbine generator sets along with their auxiliaries including mills, fans, Air pre-heaters, steam Generator start up system, regenerative heating and pumping system, Power cycle piping and flash tanks/ flash boxes and interface between Boiler and Turbine, done by an Architect Engineering firm who meets the requirements indicated at 5.1.0 (a) (i) and the Bidder shall get the engineering of Balance of Plant including interface between Main Plant and Balance of Plant done by another architect engineering firm who meets the requirements indicated at 5.1.0(a)(ii). In such a case the Bidder shall furnish two separate Deed of Joint Undertakings (i) Jointly executed by it and the architect engineering firm for Main Plant Equipment / systems in which all the executants of DJU shall be jointly and severally liable to the Employer to perform successfully all the engineering activities of Main Plant equipment / system included in the scope of the architect engineering firm as per format enclosed in the bidding documents. (ii) Jointly executed by it and the architect engineering firm for Balance of Plant in which all the executants of DJU shall be jointly and severally liable to the Employer to perform successfully all the engineering activities of Balance of Plant including interface between Main Plant and Balance of Plant included in the scope of the

architect engineering firm as per format enclosed in the bidding documents. The Deed of Joint Undertakings shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected. In case of award, architect engineering firm for Main Plant equipment / system and for Balance of Plant will each be required to furnish an on demand bank guarantee for INR 1.5 Million (Rupees One and Half Million) in addition to the contract performance security to be furnished by the Bidder.

**Note**

- 1.0 The term 'Engineering' in clause 5.0.0, shall mean (a) Basic engineering for integration and interface between SG & TG. (b) Pre award engineering for system associated with BTG & BOP, (c) Post award engineering covering review of thermal cycle of the power plant, review and interface engineering for over all integration of various power plant equipment / packages including review of major design documentation such as design/ sizing calculations, layout, plant start up and control philosophy and schematic drawings and other documentation related to Mechanical, Civil, Electrical and C & I design.
- 2.0 For compliance of requirement stipulated in clause 5.1.0 (a) (i) & (ii) or 5.2.0(a) (i) & (ii) above, Bidder/ Architectural engineering firm can either use two different reference power plants or single reference power plant.