TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh VOLUME - I SECTION: A3 SHEET 1 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



QUALIFYING REQUIREMENTS FOR WET LIMESTONE BASED FLUE GAS DESULPHURISATION (WLFGD) SYSTEM FOR 3X660 MW LALITPUR THERMAL POWER PLANT

1) Technical Qualifying Requirement

A. The Bidder should meet the Technical qualifying requirements stipulated in any one of the qualifying routes mentioned PLUS requirements stipulated in sub section B, C and D. In addition, the Bidder should also meet the Financial Qualifying requirement as per SI. No. 2 together with the requirements stipulated under section ITB.

Bidder may bid severally or in consortium with others to meet qualifying requirement. Provided a deed consortium with authorisation to lead partner is submitted. The liability of all consortium members shall be joint and several.

A.1 Route - 1: Qualified Wet Limestone based Flue Gas Desulphurisation (WLFGD) System Manufacturer (QFGDM)

The Bidder should have designed, engineered, supplied, erected/supervised erection and commissioned/supervised commissioning of at least one(1) no. of wet limestone based Flue Gas Desulphurisation System, having flue gas treatment capacity of not less than 22,00,000 Nm3/hr, with desulphurization efficiency of at least 95 %, operating in a pulverized coal fired power plant plus any one of the following:

A1.1 The above wet limestone based Flue Gas Desulphurization System should have been in successful operation for a period not less than One (1) year prior to the date of Commercial bid opening.

OR

A1.2 Wet Limestone based Flue Gas Desulphurisation system as mentioned above should have successfully achieved all performance guarantees and obtained certification of operational acceptance as on the date of Techno – commercial bid submission.

TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh VOLUME - I SECTION: A3 SHEET 2 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



 A.2 Route – 2: Wet Limestone based Flue Gas Desulphurisation System (WLFGD) Manufacturer with Collaboration and Technology Transfer Agreement with QFGDM

The Bidder should have designed, engineered, supplied, erected/supervised erection and commissioned/supervised commissioning of at least one(1) no. of wet limestone based Flue Gas Desulphurisation system having flue gas treatment capacity of not less than 6,00,000 Nm³/hr, with desulphurisation efficiency of at least 90%, operating in a pulverised coal fired power plant. The above wet limestone based Flue Gas Desulphurisation System should have been in successful operation for a period not less than One (1) year prior to the date of Commercial bid opening.

OR

- A.3 Route 3: Steam Generator Manufacturer / Indian JV company of Steam Generator manufacturer or QFGDM/ Indian Subsidiary company of Steam Generator manufacturer or QFGDM with Collaboration and Technology Transfer Agreement with QFGDM
- A.3.1 Bidder should have designed, engineered, manufactured/got manufactured, erected/ supervised erection and commissioned/supervised commissioning of atleast one (1) no. of pulverised coal fired steam generator having minimum 550 T/hr. steaming capacity. Further, such Steam Generator should have been in successful operation for a period not less than one (1) year prior to the date of Commercial bid opening.

Alternatively

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

TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh VOLUME - I SECTION: A3 SHEET 3 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



Companies Act of India and (ii) a Steam Generator Manufacturer meeting requirements of clause A.3.1 or a QFGDM meeting requirements of clause A.1, created for the purpose of manufacturing/supplying in India steam generator sets/Flue Gas Desulphurisation System. The Steam Generator Manufacturer/QFGDM/ All the JV Company 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 and 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 and 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 defect liability period of the contract, whichever is later. Bidder should submit the board resolution with this effect (C.4) Further, Bidder should have executed project(s)/order(s), during the last 5 years, with the total value of such project(s) //order(s) being INR 5,000 million or more as on the date of Techno-commercial bid opening.

Alternatively

The Bidder shall be an Indian Subsidiary Company of a Steam Generator Manufacturer meeting requirements of clause A3.1 or an Indian Subsidiary Company of a QFGDM meeting requirements of clause A.1, registered in India under the Companies Act of India, as on the date of techno-commercial bid opening, for manufacturing/supply of Steam Generator sets/Flue Gas Desulphurisation System. The subsidiary Company shall remain a subsidiary company of the Steam Generator Manufacturer/QFGDM for a minimum period of 7 years from the date of incorporation of such Subsidiary Company or up to the end of defect liability period of the contract, whichever is later. Further, Bidder should have executed project(s)/order(s), during the last 5 years, with the total value of such project(s)/order(s) being INR 5,000 million or more as on the date of Techno-commercial bid opening.

VOLUME - I SECTION: A3 SHEET 4 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES

BID QUALIFICATION REQUIREMENTS



OR

A.4 Route - 4: EPC Organization with Collaboration and Technology Transfer Agreement with QFGDM

The Bidder should be an Engineering, Procurement and Construction (EPC) Company and should have executed (Including commissioning), in the last 5 years, large Industrial projects on an EPC basis (with or without civil works). in the area of power, steel, oil & gas, petrochemical, fertilizer, Wet flue gas desulphrisation system and/ or any other process industry with the total value of such projects being INR 5,000 million or more. At least one of such projects (in single or multiple contract) should have a total contract value of INR 2000 million or more. These projects shall be in successful operation for a period of not less than one (1) year prior to the date of Techno-Commercial bid opening.

B. Bidder should also meet the following requirement in case of Route 2, Route - 3 and Route - 4

- B.1 Bidder should also have a valid ongoing collaboration and technology transfer agreement with a QFGDM meeting requirements of clause A.1, valid minimum up to the end of the defect liability period of the contract. In such a case Bidder can either source the WLFGD System from such manufacturer or manufacture/get manufactured the WLFGD System as per the design and manufacturing drawings of such QFGDM.
- B.2 The Bidder shall furnish a Deed of Joint Undertaking (DJU) along with the technology transfer agreement (C.3) executed by it and the QFGDM, in which the executants of DJU shall be jointly and severally liable to the Owner for successful performance of the WLFGD System as per format enclosed with the bidding documents. The DJU shall be submitted along with commercial bid, failing which the Bidder shall be disqualified and its bid shall be rejected.

SPEC. NO.
TCE.11656A-H-6006-01

VOLUME - I SECTION: A3 SHEET 5 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



B.3 In case of award of a project, the QFGDM will be required to furnish an on demand bank guarantee as per the format enclosed with the bidding documents for an amount aggregating 1% of the total contract price of the FGD Package for the awarded project in addition to the contract performance security to be furnished by the Bidder.

C. Bidder should also meet the following requirement:-

C.1 Erection/Commissioning

Necessary documents / certificates from the client, in support of above shall be furnished along with the Technical bid.

C.2 Direct / Indirect order

The Bidder/ QFGDM shall also be considered qualified, in case the award for executing the reference works has been received by the Bidder/ QFGDM either directly from owner of plant or any other intermediary organization. However, a certificate from such owner of plant or any other or any other intermediary organisation shall be required to be furnished by the Bidder along with its Commercial bid in support of the Bidder's/ QFGDM's claim of meeting the qualification requirement. Further, certificate from owner of the plant shall also be furnished by the Bidder along with the Commercial bid for the successful operation.

C.3 Technology Transfer Agreement (Applicable for Clause A.2, A.3 and A.4)

The bidder shall have a technology transfer agreement as on the date of Commercial bid opening between the Bidder & QFGDM which shall necessarily cover transfer of technological knowhow for Wet Limestone

TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh VOLUME - I SECTION: A3 SHEET 6 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



based Flue Gas Desulphurisation System, in the form of complete transfer of design dossier, design software's, drawings and documentation, quality system manuals and imparting relevant personnel training to the Bidder.

C.4 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 its 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 the required minimum equity for the specified lock in period.

D. Holding Company as a Qualified Wet Limestone based Flue Gas Desulphurisation (WLFGD) system Manufacturer

- D.1 A Holding Company, singularly or collectively along with its Subsidiaries (held either directly or indirectly), meeting the requirements of clause A.1 above shall also be considered as QFGDM.
- D.2 In such a case, if the Holding Company itself is not the Bidder as a QFGDM, the Holding Company and all such subsidiaries lending strength / experience to the Holding Company for meeting the requirements of clause A.1 above should necessarily be part of the DJU being submitted by the Bidder for successful performance of the WLFGD System as per format enclosed with the bidding documents, failing which the bidder shall be disqualified and its bid rejected. Further, the Holding Company and all such entities lending strength / experience to the Holding Company for meeting the requirements of clause A.1 above shall each be required to furnish separate on demand bank guarantees as per the requirement

TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh VOLUME - I SECTION: A3 SHEET 7 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



of clause B.3 above for the awarded WLFGD project divided equally among them, in addition to the contract performance security to be furnished by the Bidder.

D.3 In case the Holding Company itself is the Bidder as a QFGDM as per clause A.1, the Holding Company shall submit its board resolution stating that in case of any likely change of management control of any of these subsidiaries lending strength / experience to the Holding Company for meeting the requirements of clause A.1 above, the Bidder shall arrange for separate on demand bank guarantees as per the format enclosed with the bidding documents from all such entities lending strength / experience to the Holding Company for fulfillment of requirement of clause A.1, above for an amount aggregating 1 % of the total contract price of the Flue Gas Desulphurisation System Package for the awarded project divided equally among them, in addition to the contract performance security to be furnished by the Bidder before the change in management control actually occurs.

2.0.0 Financial Criteria

2.1.0 Financial Criteria of Bidder

2.1.1 The average annual turnover & Net-worth of the Bidder, in the preceding Five (5) financial years as on the date of Techno-Commercial bid opening, should not be less than the value indicated in the following table:-

SPEC. NO.
TCE.11656A-H-6006-01

VOLUME - I SECTION: A3 SHEET 8 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



Average Annual turnover of the Bidder, in the preceding of Five (5) financial years as on the date of Techno-Commercial bid opening in INR Million or in equivalent foreign currency

Turnover 3000

(Indian Rupees Three Thousand 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 In addition to above (as per 2.1.1) also the Net worth of the bidder should not be less than 100% (hundred percent) of its paid up share capital as on the last day of the preceding financial year on the date of Technocommercial bid opening. In case the Bidder does not meet the Net worth criteria on its own, it can meet the requirement of Net worth based on the strength of its Subsidiary(ies) and/or Holding Company and/or

SPEC. NO. TCE.11656A-H-6006-01	TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh	VOLUME - I SECTION: A3 SHEET 9 OF 13
bajaj energy	TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES	
	BID QUALIFICATION REQUIREMENTS	ΤΛΤΛ
Sub	osidiaries of its Holding company wherever applicable. In	such a case,
how	vever the Net worth of the Bidder and its Subsidiary(ies) ar	nd/or Holding
Cor	mpany and/or Subsidiary(ies) of the Holding Company,	in combined
mar	nner should not be less than 100% (hundred percent) of th	neir total paid
up s	share capital. However individually, their Net worth should	d not be less
thar	n 75% (seventy five percent) of their respective paid up sh	nare capitals.
	worth in combined manner shall be calculated as follows	:
Net	worth (combined) = (X1+X2+X3) / (Y1+Y2+Y3) X 100	
Wh	ere X1, X2, X3 are individual Net worth which should not	he less than
	6 of the respective paid up share capitals and Y1,Y2,Y3 a	
	d up share capitals.	
2.1.3 In	case the Bidder is not able to furnish its audit	ed financial
stat	ements on standalone entity basis, the unaudited une	consolidated
fina	ncial statements of the Bidder can be considered accepta	ble provided
the	Bidder further furnishes the following documents for sub-	stantiation of
its o	qualification:	
(i)	Copies of the unaudited unconsolidated financial state	
	Bidder along with copies of the audited consolida	ated financial
	statements of its Holding Company.	
(ii)	A Certificate from the CEO/CFO of the Holding Compared	ny, as per the
	format enclosed with the bidding documents, stat	
	unaudited unconsolidated financial statements form	-
	consolidated financial statements of the Holding Compa	•

SPEC. NO.
TCE.11656A-H-6006-01

VOLUME - I SECTION: A3 SHEET 10 OF 13

bajaj energy

TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES BID QUALIFICATION REQUIREMENTS



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 of Collaborator/Associate (Applicable for clause A.2, A.3 and A.4)

2.2.1 The average annual turnover of the Collaborator/Associate, in the preceding five (5) financial years as on the date of Techno-Commercial bid opening, should not be less than the value indicated in the following table.

Average	annual	turn	Over	of	the
Collaborator/Ass Techno-Comme	ercial bid openi		Million		
	3	300			
(Indian Rupee	s Three hundr foreign	ed Millior currency)		r in e	quivalent

In case a Collaborator/Associate 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

	TATA CONSULTING ENGINEERS LIMITED	VOLUME - I
SPEC. NO. TCE.11656A-H-6006-0	Lalitpur Super Thermal Power Project – 3X660 MW	SECTION: A3
	Lalitpur, Uttar Pradesh	SHEET 11 OF 13
	- · ·	
	TECHNICAL SPECIFICATION FOR WET LIMESTONE	
Dala ENERGY	FGD SYSTEM AND AUXILIARIES	
	BID QUALIFICATION REQUIREMENTS	ΤΛΤΛ
2.2.2	Collaborator/Associate would be required to furnish along Techno-Commercial bid, a Letter of Undertaking from Company, supported by the Holding Company's Board F eer the format enclosed in the bid documents, pledging and irrevocable financial support to the Collaborator/Associ- he terms and conditions of the Deed of Joint Undertaking in the f the Contract to the Bidder with whom Collaborator// associated. Net worth of the Collaborator/Associate should not be let hundred percent) of its paid up share capital as on the le- hundred percent) of its paid up share capital as on the let hundred percent) of its paid up share capital as on the let hundred percent) of its paid up share capital as on the let hundred percent) of its paid up share capital as on the let hundred percent) and/or Holding Company and/or Subs dolding company wherever applicable. In such a case, hor youth of the Collaborator/Associate and its Subsidiary(ies) a Company and/or Subsidiary(ies) of the Holding Company, nanner should not be less than 100% (hundred percent) of i up share capital. However individually, their Net worth should han 75% (seventy five percent) of their respective paid up s Net worth in combined manner shall be calculated as follows: Net worth (combined) = (X1+X2+X3) / (Y1+Y2+Y3) X 100 Where X1, X2, X3 are individual Net worth which should no '5% of the respective paid up share capitals and Y1,Y2,Y3 baid up share capitals. In case the Collaborator/Associate is not able to furnis inancial statements on standalone entity basis, th inconsolidated financial statements of the Collaborator/Associ urnishes the following documents for substantiation of its inancial statements on standalone entity basis, th inconsolidated financial statements of substantiation of its ii) Copies of the unaudited unconsolidated financial state collaborator/Associate along with copies of consolidated financial statements of its Holding Compa	 the Holding Resolution, as unconditional ate to honour case of award Associate is ss than 100% ast day of the bid opening. orth criteria on the strength of sidiaries of its wever the Net and/or Holding , in combined their total paid uld not be less share capitals. bt be less than are individual at s audited associate can ociate further a qualification:

			
SPEC. NO.	TATA CONSULTING ENGINEERS LIMITED	VOLUME - I	
TCE.11656A-H-6006-01	Lalitpur Super Thermal Power Project – 3X660 MW	SECTION: A3	
	Lalitpur, Uttar Pradesh	SHEET 12 OF	13
	TECHNICAL SPECIFICATION FOR WET LIMESTONE		
Dajaj ENERGY	FGD SYSTEM AND AUXILIARIES		
Dalai Ewenat	BID QUALIFICATION REQUIREMENTS	TAT	
(ii)	A Certificate from the CEO/CFO of the Holding Compa	inv as ner the	
(1)	format enclosed with the bidding documents, stating	• •	
	unaudited unconsolidated financial statements form	•	
	consolidated financial statements of the Holding Comp	•	
	Č i	2	
	cases where audited results for the last financial year as		
	chno Commercial bid opening are not available, the fir		
	tified by a practicing Chartered Accountant shall I		
	ceptable. In case, Collaborator/Associate is not able t		
	rtificate from a practicing Chartered Accountant certifyin	•	
	ameters, the audited results of three consecutive fir ceding the last financial year shall be considered for	•	
	ancial parameters. Further, a Certificate would be requ	•	
	O/CFO as per the format enclosed in the bidding docume		
	Financial results of the Company are under audit as of	•	
	chno-commercial bid opening and the Certificate from		
Ch	artered Accountant certifying the financial parameters is	not available.	
Notes for	Clause 2.1.0 & 2.2.0		
	Not worth means the sum total of the noid up	abara conital	
(i)	Net worth means the sum total of the paid up and free reserves. Free reserve means all reserves		
	the profits and share premium account but doe		
	reserves credited out of the revaluation of the assets		
	depreciation provision and amalgamation. Furth	•	
	balance of Profit and Loss account and miscellaneou	•	
	the extent not adjusted or written off, if any, shall be	reduced from	
	reserves and surplus.		
(i) Other income shall not be considered for arriving at a	nnual turnover.	
	, C		
	i) "Holding Company" Secton 2(46)of the Compani		
	nolding company", in relation to one or more other company		
C	ompany of which such companies are subsidiary compar	nes, and	
	Subsidiary Company" Section 2(87) of the Companies		
	ubsidiary Company or Subsidiary in relation to any other		
	to say the holding company), means a company in whi	ich the holding	
CC	ompany—		
(i)	Controls the composition of the Board of Directors;	or	
(ii) Exercises or controls more than one-half of th	ne total voting	
	ower] either at its own or together with one or more of	f its subsidiary	
CC	ompanies:		
P	rovided that such class or classes of holding compani	es as may be	
	escribed shall not have layers of subsidiaries beyond su	-	ISSUE
m	ay be prescribed.		R1

SPEC. NO. TCE.11656A-H-6006-01	TATA CONSULTING ENGINEERS LIMITED Lalitpur Super Thermal Power Project – 3X660 MW Lalitpur, Uttar Pradesh	VOLUME - I SECTION: A3 SHEET 13 OF	13
bajaj energy	TECHNICAL SPECIFICATION FOR WET LIMESTONE FGD SYSTEM AND AUXILIARIES		1
Uðjðj Energy	BID QUALIFICATION REQUIREMENTS	TAT	
E	xplanation.—For the purposes of this clause,—		
CC) a company shall be deemed to be a subsidiary company ompany even if the control referred to in sub-clause (i) or of another subsidiary company of the holding company;		
be) the composition of a company's Board of Directors shall e controlled by another company if that other company ome power exercisable by it at its discretion can appoint o majority of the directors;	by exercise of	
(c) the expression "company" includes any body corporate	;	
•) "layer" in relation to a holding company means its Ibsidiaries;	subsidiary or	
"A in su	associate company", Section 2(6) of the Companie associate Company" in relation to another company, mea which that other company has a significant influence, but ubsidiary company of the company having such influence int venture company.	ans a company t which is not a	
E	xplanation.—For the purpose of this clause,—		
pe) the expression "significant influence" means control of er cent. of total voting power, or control of or participative ecisions under an agreement;	•	
pa ne as) the expression "joint venture" means a joint arrangement arties that have joint control of the arrangement have at assets of the arrangement; shall have the meaning as a per Companies Act 2013 of India. and any amendment ereof.	e rights to the cribed to them	
(iv	rate as on seven (7) days prior to the date of Technibid opening shall be used.	•	
pro	Bidder/Collaborator shall be required to meet the aver over criteria specified in clause 2.1.1 & 2.2.1 respect ject for which Bidder has indicated interest in the pres- pritted along with the Techno-Commercial bid.	ctively for the	
			ISS F