




KSK MAHANADI POWER COMPANY LIMITED

KSK MAHANADI POWER PLANT (3X600 MW)

FLUE GAS DESULPHURISATION SYSTEM PRE QUALIFICATION

Job No	D-0476	Name/Sign	Date	
Prepared By		MVBR	22.01.2020	
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KSK MAHANADI POWER PLANT (3X600 MW)

SECTION - I

INVITATION FOR BIDS (IFB) FOR FLUE GAS DESULPHURISATION (FGD) SYSTEM

JAS-ANZ



ISO 9001:2015 CERTIFIED
Certificate No: IQSC201712033

A Development Service for Industries & Utilities



KSK MAHANADI POWER COMPANY LIMITED (KMPCL)
KSK MAHANADI POWER PLANT (3X600 MW)

INVITATION FOR BIDS (IFB) FOR
FLUE GAS DESULPHURISATION (FGD) SYSTEM
(International Competitive Bidding)

SECTION - I

- A.** KSK Mahanadi Power Company Limited invites Pre-Qualification Bids from eligible Bidders for **Flue Gas Desulphurisation (FGD) System Package for KSK Mahanadi Power Plant (3x600 MW), Nariyara, Janjgir-Champa District, Chhattishgarh.**
- B.** The brief scope of work is as under:-
- Design, engineering, manufacture, shop fabrication, preassembly, shop testing/ type testing at manufacturer's works, packing, transportation, unloading, handling and conservation of equipment at site, complete services of construction including erection, supervision, pre-commissioning, commissioning and performance testing of equipment under Bidder's scope of work of FGD System, Limestone handling, crushing, storage, conveying and Gypsum handling & storage and its associated auxiliaries for Limestone based FGD; Ammonia Unloading and Storage, Hydro Cyclones, Centrifuge, Dryers, Packaging, etc., for Ammonia based FGD; including all Electrical, Control & Instrumentation, Civil, Structural and Architecture works.
- C.** DESEIN Private Limited has been appointed as Owner's Engineering for this project. All the communications shall be addressed to DESEIN as per the details given below.
- D.** Detailed Specification, Scope of Work and Terms & Conditions will be issued to qualified bidders.

Proposed Schedule for finalization of Bidder for the subject work is as follows:

ACTIVITY	DATE
Pre Qualifications Requirements release	03.01.2020
Pre Qualifications Requirements publication in news papers	10.01.2020
Expression of Interest publication	25.01.2020
Issue of Draft Technical Specification	27.01.2020
Finalisation of Bidders	31.01.2020
Finalisation of Technical Specification	03.02.2020

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ACTIVITY	DATE
Receipt of Pre Bid Queries from bidders	13.02.2020
Pre Bid Conference at Site	18.02.2020
Replies to Bidders queries	25.02.2020
Technical Bids submission last date	10.03.2020
Evaluation of Technical Bids	25.03.2020
Post Bid discussions with qualified bidders	30.03.2020 & 31.03.2020
Submission of Commercial Offers	10.04.2020
Selection of Bidder	30.04.2020

E. Qualification Requirements for Bidders.

The following are the qualification requirement of bidders:

1.0.0 Technical Criteria

The Bidder should meet the qualifying requirements stipulated in any one of the qualifying routes i.e Route-1 (clause 1.1.0) or Route-2 (clause 1.2.0) or Route-3 (clause 1.3.0) or Route-4 (clause 1.4.0) including requirements stipulated in sub clauses of respective Route. In addition, the Bidder should also meet the requirements stipulated under clause 2.0.0.

1.1.0 Route-1: Qualified Wet Limestone/ Ammonia based Flue Gas Desulphurisation (FGD) System Manufacturer (QFGDM)

- 1.1.1 The Bidder should have designed, engineered, supplied, erected/ supervised erection and commissioned/ supervised commissioning of at least two (2) nos. of wet limestone/ ammonia based Flue Gas Desulphurisation Systems, having flue gas treatment capacity of not less than 20,00,000 Nm³/hr, with desulphurisation efficiency of at least 90 %, operating in a pulverised coal fired power plant. The above wet limestone/ammonia based Flue Gas Desulphurisation Systems should have been in successful operation for a period not less than two (2) years in last ten (10) years period, prior to the date of Pre-Qualification bid opening. Of the two (2) reference plants, one (1) plant shall be installed in a country other than home country of bidder.

1.2.0 Route-2: Wet Limestone/ Ammonia based Flue Gas Desulphurisation System

Manufacturer with Collaboration and Technology Transfer Agreement with QFGDM

- 1.2.1 The Bidder should have designed, engineered, supplied, erected/supervised erection and commissioned/supervised commissioning of at least two (2) nos. of wet limestone/ Ammonia based Flue Gas Desulphurisation systems having flue gas treatment capacity of not less than 6,00,000 Nm³/hr, with desulphurisation efficiency of at least 85%, operating in a pulverised coal fired power plants. The above wet limestone/ ammonia based Flue Gas Desulphurisation System should have been in successful operation for a period not less than two (2) years in last ten (10) years period, prior to the date of Pre-Qualification bid opening. Of the two (2) reference plants, one (1) plant shall be installed in a country other than home country of bidder.
- 1.2.2 Bidder should also have a valid ongoing collaboration and technology transfer agreement with a QFGDM meeting requirements of clause 1.1.1 on its own, valid minimum up to the end of the defect liability period of the contract. In such a case Bidder can either source the FGD System from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.
- 1.2.3 The Bidder shall furnish a Deed of Joint Undertaking (DJU) executed by it and the QFGDM, in which the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the FGD System as per format enclosed with the bidding documents. The DJU shall be submitted along with pre-qualification bids, failing which the Bidder shall be disqualified and its bid shall be rejected.
- 1.2.4 In case of award of the project, the QFGDM will be required to furnish an on demand bank guarantee for an amount of **INR Millions 100** for the project in addition to the contract performance security to be furnished by the Bidder.
- 1.3.0 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) Bidder should have designed, engineered, manufactured/got manufactured, erected/supervised erection and commissioned/supervised commissioning of at least two (2) nos. of pulverised coal fired steam generator for 200 MW or higher capacity unit or having minimum 690T/hr steaming capacity. Further, such Steam Generator should have been in successful operation for a period not less than two (2) years in last ten (10) years period, prior to the date of Pre-Qualification bids opening.
- (b) The Bidder shall be a Joint Venture (JV) Company incorporated in India under the Companies Act of India, as on the date of Pre-Qualification bid opening, promoted by (i) an Indian Company registered in India under the Companies Act of India and (ii) a Steam Generator Manufacturer meeting requirements of clause 1.3.1(a) or a QFGDM meeting requirements of clause 1.1.1, created for the purpose of manufacturing/supplying in India steam generator sets/Flue Gas Desulphurisation System. The Steam Generator Manufacturer/QFGDM 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 or up to the end of defect liability period of the contract whichever is later. Further, Bidder should have executed order(s), during the last 5 years, with the total value of such project(s) being INR 20,000 million or more as on the date of Pre-Qualification bid opening.

Alternatively

- (c) The Bidder shall be an Indian Subsidiary Company of a Steam Generator manufacturer meeting requirements of clause 1.3.1(a) or an Indian Subsidiary Company of a QFGDM meeting requirements of clause 1.1.1, registered in India under the Companies Act of India, as on the date of Pre-Qualification 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 order(s), during the last 5 years, with the total value of such project(s) being INR 20,000 million or more as on the date of Pre-Qualification bid opening.
- 1.3.2 Bidder should also have a valid ongoing collaboration and technology transfer agreement with a QFGDM meeting requirements of clause 1.1.1, valid minimum up to the end of the defect liability period of the contract. In such a case, Bidder can either source the FGD System from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.
- 1.3.3 The Bidder shall furnish a Deed of Joint Undertaking (DJU) executed by it, the promoter(s) having 25% or higher equity participation in the Subsidiary Company / JV Company (as the case may be) and the QFGDM, in which the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the FGD System as per format enclosed with the bidding documents. The DJU shall be submitted along with Pre-Qualification bid, failing which the Bidder shall be disqualified and its bid shall be rejected.
- 1.3.4 In case of award of a project, the QFGDM will be required to furnish an on demand bank guarantee for an amount of **INR Millions 100** for the project in addition to the contract performance security to be furnished by the Bidder.
- 1.4.0 Route-4: EPC Organization with Collaboration and Technology Transfer Agreement with QFGDM**

The Bidder should be an Engineering, Procurement and Construction (EPC) organization and should have executed, in the last 10 years, large industrial projects on EPC basis (with or without civil works) in the area of power, steel, oil & gas, petro- chemical, fertilizer, Flue Gas Desulphurisation and / or any other process industry with the total value of such projects being INR 20,000 million or more. At least one of such project (in single or multiple contracts) should have a total contract value of INR 8,000 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 Pre-Qualification bid opening.

- 1.4.1 Bidder should also have a valid ongoing collaboration and technology transfer agreement with a QFGDM meeting requirements of clause 1.1.1, valid minimum up to the end of the defect liability period of the contract. In such a case, Bidder can either source the FGD System from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings released by such QFGDM.
- 1.4.2 The Bidder shall furnish a Deed of Joint Undertaking (DJU) executed by it and the QFGDM, in which the executants of DJU shall be jointly and severally liable to the Employer for successful performance of the FGD System as per format enclosed with the bidding documents. The DJU shall be submitted along with Pre-Qualification bid, failing which the Bidder shall be disqualified and its bid shall be rejected.
- 1.4.3 In case of award of a project, the QFGDM will be required to furnish an on demand bank guarantee for an amount of **INR Millions 100** for the project in addition to the contract performance security to be furnished by the Bidder.

Notes for clause 1.0.0

(1) Definitions

- (i) "QFGDM" (Qualified Wet Limestone/ Ammonia based Flue Gas Desulphurisation System Manufacturer) means a manufacturer meeting requirements stipulated at 1.1.1.
- (ii) Whenever the term 'coal fired' is appearing above, "Coal" shall be deemed to also include bituminous coal/brown coal/ anthracite coal/lignite.
- (iii) "Flue Gas Desulphurisation System" or "FGD System" wherever appearing above shall mean consisting of at least Absorber System.
- (iv) The word "executed" in Clause 1.3.1 (b)/ Clause 1.3.1 (c) means the Bidder should have commissioned the project(s) specified in the Clause 1.3.1 (b)/ Clause 1.3.1 (c) even if the contract has been started earlier and / or is not completed / closed.

(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 1.1.1, 1.2.1 & 1.3.1 (a), the Bidder should have acted as an advisor for erection and commissioning. Necessary documents / certificates from the client, in support of above shall be furnished along with the Pre-Qualification bid.

(3) 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 intermediary organization shall be required to be furnished by the Bidder along with its Pre-Qualification bid in support of the Bidder's/ QFGDM claim of meeting the qualification requirement as per clause 1.1.1, 1.2.1, 1.3.1(a) & 1.4.1 above. Further, certificate from owner of the plant shall also be furnished by the Bidder along with the Pre-Qualification bid for the successful operation as specified at clause 1.1.1, 1.2.1, 1.3.1(a) & 1.4.1 above.

(4) Holding Company as a Qualified Wet Limestone/ Ammonia based Flue Gas Desulphurisation system 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 above shall also be considered as QFGDM.
- (ii) 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 1.1.1 above should necessarily be part of the DJU being submitted by the Bidder for successful performance of the FGD 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 1.1.1 above shall each be required to furnish separate on demand bank guarantees as per the format enclosed with the bidding documents for an amount of **INR Millions 100** for the project 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 1.2.4, 1.3.4 & 1.4.4 for the QFGDM.
- (iii) In case the Holding Company itself is the Bidder as a QFGDM as per clause 1.1.1, 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 1.1.1 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 1.1.1, above for an amount of **INR Millions 100** 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.

(5) Technology Transfer Agreement (Applicable for Clause 1.2.0, 1.3.0 & 1.4.0)

The bidder shall have a technology transfer agreement as on the date of Techno-commercial bid opening between the Bidder & QFGDM which shall necessarily cover transfer of technological knowhow for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, in the form of complete transfer of design dossier, design software, drawings and documentation, quality system manuals and imparting relevant personnel training to the Bidder.

(6) 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 Pre-Qualification 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.

2.0.0 Financial Criteria**2.1.0 Financial Criteria of Bidder**

- 2.1.1** The average annual turnover of the Bidder, in the preceding three (3) financial years as on the date of Pre-Qualification bid opening, should not be less than **INR Millions 20000**.

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** 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 Pre-Qualification 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 Subsidiaries of its Holding company wherever applicable. In such a case, however the Net worth of the Bidder and its Subsidiary(ies) and/or Holding Company and/or Subsidiary(ies) of the Holding Company, in combined manner should not be less than 100% (hundred percent) of their total paid up share capital. However individually, their Net worth should not be less than 75% (seventy five percent) of their respective paid up share capitals.

Net worth in combined manner shall be calculated as follows:

$$\text{Net worth (combined)} = (X_1 + X_2 + X_3) / (Y_1 + Y_2 + Y_3) \times 100$$

Where X_1, X_2, X_3 are individual Net worth which should not be less than 75% of the respective paid up share capitals and Y_1, Y_2, Y_3 are individual paid up share capitals.

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 further furnishes the following documents for substantiation of its qualification:

- (i) Copies of the unaudited unconsolidated financial statements of the Bidder along with 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 with the bidding documents, stating that the unaudited unconsolidated financial statements form part of the consolidated financial statements of the Holding Company.

In cases where audited results for the last financial year as on the date of Pre-Qualification 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 Pre-Qualification 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 1.2.0, 1.3.0 & 1.4.0)

2.2.1 The average annual turnover of the Collaborator/Associate, in the preceding three (3) financial years as on the date of Pre-Qualification bid opening, should not be less than INR Millions 7000.

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 Collaborator/Associate would be required to furnish along with bidder's 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 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.

Net worth of the Collaborator/Associate 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 Pre-Qualification bid opening. In case the Collaborator/Associate 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 Subsidiaries of its Holding company wherever applicable. In such a case, however the Net worth of the Collaborator/Associate and its Subsidiary(ies) and/or Holding Company and/or Subsidiary(ies) of the Holding Company, in combined manner should not be less than 100% (hundred percent) of their total paid up share capital. However individually, their Net worth should not be less than 75% (seventy five percent) of their respective paid up share capitals.

Net worth in combined manner shall be calculated as follows:

$$\text{Net worth (combined)} = (X_1 + X_2 + X_3) / (Y_1 + Y_2 + Y_3) \times 100$$

Where X_1, X_2, X_3 are individual Net worth which should not be less than 75% of the respective paid up share capitals and Y_1, Y_2, Y_3 are individual paid up share capitals.

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

- (i) Copies of the unaudited unconsolidated financial statements of the Collaborator/Associate along with 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 with the bidding documents, stating that the unaudited unconsolidated financial statements form part of the consolidated financial statements of the Holding Company.

In cases where audited results for the last financial year as on the date of Pre-Qualification 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 for Clause 2.1.0 & 2.2.0

- (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.

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 Pre-Qualification bid opening shall be used.
 - (v) Bidder/Collaborator shall be required to meet the average annual turnover criteria specified in clause 2.1.1 & 2.2.1 respectively for the number of projects for which Bidder has indicated interest in the prescribed format submitted along with the Techno-Commercial bid. In case Bidder/Collaborator meets the average turnover criteria for lesser number of projects than indicated in the prescribed format, submitted along with the Pre-Qualification bid, then the number of project(s) shall be reduced based on Bidder/Collaborator meeting average annual turnover criteria specified in clause 2.1.1 & 2.2.1 respectively.
- F. Bidders are required to furnish the details of the past experiences based on which selection is to be made as per format enclosed in the bidding documents for the same and enclose relevant documents like copies of authentic work order, completion certificate, agreements etc. supporting the details/data provided in the format. No claims without supporting documents shall be accepted in this regard. However, if any of the reference work pertains to the Contract(s)/ Work(s) executed by Bidder for KMPCL in the past then in respect of such Contract(s)/ Work(s), Bidder shall not be required to enclose Client Certificate(s) along with its bid.
- G. Notwithstanding anything stated above, the Purchaser reserves the right to assess the capabilities and capacity of the Bidder / its Collaborators/ Associates/ Subsidiaries/Group companies to satisfactorily execute the contract, should the circumstances warrant such assessment in the overall interest of the Purchaser.
- H. The reference plants whose details have been declared as per the specified format in the relevant Attachments shall only be considered to ascertain the bidder's compliance to the specified Qualifying Requirement (QR). Bidders wishing to provide additional reference plants are required to declare the same in similar format, which shall be additionally attached. However, bidders are not permitted to quote more than Three times the number of plants as specified in the Qualifying Requirements for this purpose.
- The Purchaser at its discretion may seek any clarification and/ or documentary evidence only for the reference plants as mentioned above. However, no change or substitution of the reference plants by new/ additional plant for conforming to the specified Qualifying Requirement shall be sought, offered or permitted.
- I. Purchaser reserves the right to reject any or all bids or cancel / withdraw the Invitation for Bids without assigning any reason whatsoever and in such case no Bidder / intending Bidder shall have any claim arising out of such action.

- J. Issuance of bid documents to any Bidder shall not construe that such bidder is considered to be qualified.
- K. Transfer of Bidding Documents meant for one Bidder to another is not permissible.
- L. Bids shall be submitted by email/ hard copies through courier. Bidder shall furnish original copies of Deed of Joint Undertaking (if applicable) and Power of Attorney as detailed in Bidding Documents by the stipulated bid submission closing date and time at the address given below.

M. Address for Communication with Purchaser:

Dr MVRN Acharyulu,
Sr. Deputy General Manager (Environment),
KSK Mahanadi Power Company Limited,
8-2-293/82/A/413A,
Road No. 22, Jubilee Hills,
Hyderabad – 500 033, INDIA

Telephone No. : 040 – 23559922 – 25
: 040 - 23558701
E-mail : acharyulu.m@ksk.co.in

N. Address for Communication with Consultant:

Vijaya Bhaskara Rao Munagala,
DESEIN Private Limited,
DESEIN House, Greater Kailash-II,
New Delhi – 110 048, INDIA

Telephone No. : 011 – 41891418
E-mail : vmunagala1@desein.com

KSK MAHANADI POWER PLANT (3X600 MW)

SECTION - II

INSTRUCTIONS TO BIDDERS (ITB) FOR FLUE GAS DESULPHURISATION (FGD) SYSTEM

JAS-ANZ



KVQA

ISO 9001:2015 CERTIFIED
Certificate No: IQSC201712033

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**INSTRUCTION TO BIDDERS (ITB) FOR
FLUE GAS DESULPHURISATION (FGD) SYSTEM**

SECTION - II

1.0 INTRODUCTION

KSK Mahanadi Power Company Limited, Hyderabad invites Pre-Qualification Bids from the eligible bidders for installation of Flue Gas Desulphurisation Plant for coal based power plant - KSK Mahanadi Power Plant (3x600 MW) located at Village Nariyara, Dist. Janjgir Champa in Chhattisgarh, India.

This is an international competitive bidding. Bidders shall submit documentary evidence for justifying both technical and financial criteria as specified in Clause E, Invitation to Bids. Technical Specifications will be issued to qualified bidders only.

A Bidder is allowed to submit bid with only one Collaborator under one Route only i.e. either Route 2 or Route 3 or Route 4 of Qualifying Requirements.

QFGDM can participate either as a Bidder or as a Collaborator. However, in case QFGDM has Two Types of Wet Lime Stone based FGD Technologies/ Two FGD Technologies – Wet Limestone and Ammonia, then only QFGDM is allowed to participate in maximum two bids - one as a Bidder offering one type of Technology and other bid as a Collaborator with another Bidder offering other type of Technology. In such cases, Bidder would be required to provide documents/details including Patents in support of having two different types of Technologies offered separately in Two Different Bids.

2.0 Eligible Plant, Equipment and Services

For the purposes of these bidding documents, the word "facilities" means the plant and equipment to be supplied and installed, together with the services to be carried out by the contractor under the contract.

The words "plant and equipment", "installation services" etc., shall be construed in accordance with the respective definitions given to them in the General Conditions of Contract.

All countries and areas are the eligible source countries for goods and services to be supplied under this contract and accordingly goods and services to be supplied under this contract may have their origin in any country and area.

For purposes of this clause, "origin" means the place where the plant and equipment or component parts thereof are mined, grown, or produced. Plant and equipment are produced when, through manufacturing, processing or substantial and major assembling

of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components

The origin of the plant, equipment, and services is distinct from the nationality of the Bidder.

3.0 Content of Bidding Documents

The facilities required, bidding procedures, contract terms and technical requirements are prescribed in the bidding documents. The bidding documents include the following sections:

- Section I – Invitation for Bids (IFB)
- Section II – Instructions to Bidders (ITB)
- Section III – General Conditions of Contract (GCC) (will be furnished with Technical Specification to qualified bidders)
- Section IV – Special Conditions of Contract (SCC) (will be furnished with Technical Specification to qualified bidders)
- Section V – Technical Specifications (TS)

The Bidder is expected to examine all instructions, forms, terms, conditions, specifications and other information in the bidding documents. Failure to furnish all information required as per the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its Bid

4.0 Clarification on Bidding Documents

A prospective Bidder requiring any clarification to the bidding documents may notify the Employer through e-mail or in writing by post at the address indicated in ITB. The Employer/Consultant will respond to any request for clarification or modification of the bidding documents that it receives no later than the last date of receipt of queries as specified in Invitation for Bids (IFB). The Employer will furnish the Clarifications through email.

The Bidder is advised to visit and examine the site where the facilities are to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for supply and installation of the facilities. The costs of visiting the site shall be borne by the bidder fully.

The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.

5.0 Amendment to Bidding Documents

At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at its own initiative, or in response to a clarification requested by a prospective Bidder, amend the bidding documents.

The amendments will be notified to the Bidder through email. The amendments will be binding on Bidders and it will be assumed that the information contained therein will have been taken into account by the Bidder in its Bid.

6.0 Language of Bid

The bid prepared by the Bidder and all correspondence and documents related to the bid exchanged between the Bidder and the Employer shall be written in English language, provided that any printed literature furnished by the Bidder may be written in another language, as long as such literature is accompanied by a translation of its pertinent passages in English language in which case, for purposes of interpretation of the bid, the translation shall govern.

The English Translation of the documents shall be carried out by professional translators and the translator shall certify that he is proficient in both languages in order to translate the documents and that the translation is complete and accurate. Further, translation shall be authenticated by the Indian Consulate located in the Country where the documents have been issued or Embassy of that Country in India.

In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the Employer may, at its discretion, extend the deadline for the submission of bids.

7.0 Documents Comprising the Bid

Attachment 1: Power of Attorney

- (i) A power of attorney, duly notarized by a Notary Public, indicating that the person signing and submitting the Bid digitally/ signing the documents on behalf of bidder which are required to be submitted in physical form has the authority to sign the Bid and that the bid is binding upon the Bidder during the full period of its validity in accordance with ITB Clause 9.0.

(The Authority of the person issuing the Power of Attorney shall also be submitted.)

- (ii) Power of attorney(s), duly notarized by Notary Public, indicating that the person(s) signing the documents on behalf of Associate(s)/ collaborator(s)/ Assignee (s)/ executants(s) of DJUs have the authority to sign the same and the said documents are binding upon them during the full period of its validity.

(The Authority of the person issuing the Power of Attorney shall also be submitted.)

- iii) Further, Bidder to note that bid can be submitted/digitally signed by only one person. The Power of Attorney must be in the name of person signing the bids.

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Attachment-2: Deed of Joint Undertaking(s) (If applicable) as per relevant attachment**Attachment 3: Bidder's Qualifications**

In the absence of pre-qualification, documentary evidence that the Bidder is eligible to bid and is qualified to perform the contract, if its bid is accepted, shall be furnished in Attachment-3 to Bid.

The documentary evidence of the Bidder's qualifications to perform the contract, if its bid is accepted, shall establish to the Employer's satisfaction that the Bidder has the financial, technical, production, procurement, shipping, installation and other capacities and capabilities necessary to perform the contract and meets the experience and other criteria in the BDS :

- (I) The Bidder shall provide satisfactory evidence that he and/or, where applicable, his collaborator/associate:
 - (i) is a supplier, who regularly manufactures/supplies equipment of the type specified and/or undertakes the type of work specified and has adequate technical knowledge and relevant experience.
 - (ii) does not anticipate a change in ownership during the proposed period of execution of work (If such a change is anticipated, a scope and effect thereof shall be defined).
 - (iii) has adequate financial stability and status to meet the financial obligations pursuant to the works covered in the Bidding Documents. (The Bidders should attach Annual Reports with profit & loss account and balance sheet for the last five (5) financial years).
 - (iv) has adequate design, manufacturing and/or fabrication capability and capacity to perform the work properly and expeditiously within the time period specified. The evidence shall specifically cover, with written details, the installed manufacturing and/or fabrication capacities and present commitments (excluding those anticipated under this Bidding Document). If the present commitments are such that the installed capacity results in an inadequacy of manufacturing and/or fabrication capacities to meet the requirements appropriate to the works covered in his bid, then the details of alternative arrangements to be organized by the Bidder and/or his Collaborator/Associate for this purpose and which shall meet the Employer's approval, shall be furnished.
 - (v) has an adequate Project management organization covering the areas related to engineering of equipment/systems, interface engineering, procurement of equipment and the necessary field services required for successful construction, testing and commissioning of all the equipment/system as

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required by the Bidding Documents.

- (vi) has established quality assurance systems and organization designed to achieve high levels of equipment/system reliability, both during his manufacturing and/or fabrication and field installation activities.
- (vii) a company formed by the merger of two or more companies or divisions of such companies engaged in supply and installation of similar system can also participate provided the constituent companies or divisions before merger individually or jointly meet the stipulated qualification requirements fully.

In addition to the requirements stipulated above, the Bidder should also meet the qualifying requirements stipulated in ITB.

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

The physical assessment shall include but not be limited to the assessment of the office/facilities/banker's/reference works/similar projects being executed by the Bidder. A negative determination of such assessment of capacity and capabilities may result in the rejection of the Bid.

The above right to undertake the physical assessment shall be applicable for the qualifying requirements stipulated in ITB.

- (II) Bids submitted by a Joint Venture of two or more firms as partners, if so permitted in the Bid Data Sheet, shall comply with the following requirements: **(JV AND CONSORTIUM NOT APPLICABLE)**
 - (i) The bid shall include all the information required for Attachment 3 as described above for each Joint Venture or Consortium partner.
 - (ii) The bid shall be signed so as to be legally binding on all partners.
 - (iii) One of the partners shall be designated as leader, this authorization shall be evidenced by submitting with the bid a power of attorney signed by legally authorised signatories of joint venture partners.
 - (iv) The leader shall be authorised to receive instructions for and on behalf of any and all partners of the Joint Venture or Consortium and the entire execution of the contract, shall be done exclusively with the leader. KMPCL may release payment to the leader and /or to any of the Joint Venture or Consortium Partner(s) duly authorized by the Leader. However, the above is without any additional liability of whatsoever nature to KMPCL in case of award of contract to a Joint Venture or Consortium.

- (v) All partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract in accordance with the contract terms and should have adequate experience before forming the Joint Venture of Consortium in required field.
- (vi) A copy of the agreement entered into by the joint venture or Consortium partners as per the format provided in the Bidding Documents shall be submitted with the bid.

In order for a joint venture or consortium to qualify, each of its partners or combination of partners must meet the minimum criteria listed for an individual Bidder for the component of the contract they are designated to perform. Failure to comply with this requirement will result in rejection of the joint venture or consortium's bid.

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

III Bids submitted by a Bidder in association with an Associate, if so permitted as per Qualification requirements, shall additionally comply with the following requirements:

- (a) The bid shall include the information listed in ITB Item No. 3.0.
- (b) Original Deed of Joint Undertaking as per DJU Format entered into by the bidder with the Collaborator / Associate shall be submitted along with the Techno-Commercial bid.

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

Attachment 4: Eligibility and Conformity of the Facilities:

Documentary evidence established in accordance with ITB Clause 2.0 that the facilities offered by the Bidder in its bid or in any alternative bid (if permitted) are eligible and conform to the bidding documents.

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

The documentary evidence of the conformity of the facilities to the bidding documents may

be in the form of literature, drawings and data, and shall include:

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

8.0 Modification and Withdrawal of Bids

The Bidder may modify or withdraw its bid after submission, provided that written notice of the modification or withdrawal is received prior to the deadline prescribed for bid submission.

A Bidder wishing to withdraw its bid shall notify the Employer in writing prior to the deadline prescribed for bid submission. A withdrawal notice may also be sent by post or by email followed by post confirmation postmarked not later than the deadline for submission of bids.

The notice of withdrawal shall:

- (a) be addressed to the Employer at the address named in Bid Data Sheet, and
- (b) bear the Package name, the IFB number, and the words "**BID WITHDRAWAL NOTICE.**"

Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a validly submitted bid.

No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in ITB Clause 10.

9.0 Bid Opening and Evaluation

Employer will open the Pre Qualifications Bids

In case requisite Deed of Joint Undertaking (DJU) and Power of Attorney are not submitted before the stipulated bid submission closing date and time, then Bid shall be rejected by

the Employer as being non-responsive and shall not be considered for evaluation.

Bids which are generally responsive will then be considered for evaluation.

During bid evaluation, the Employer may, at its discretion, ask the Bidder for a clarification of its bid including documentary evidence pertaining to the reference plants declared in the bid for the purpose of meeting Qualifying Requirement specified in Bid Data Sheet. The response to clarifications shall be in writing, and no change in substance of the bid including substitution of reference plants in the bid by new/additional plant for conforming to Qualifying Requirement shall be sought, offered or permitted.

The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

After the evaluation Pre-Qualification Bid is completed, bidders whose Pre-Qualification Bid is not substantially responsive, will be rejected.

Technical Specifications will be issued to qualified bidders only.

10.0 Period of Validity of Bids

Bids shall remain valid for a period of 180 days from the closing date prescribed by EMPLOYER for the receipt of bids, pursuant to ITB clause 11.0. A bid valid for a shorter period shall be rejected by EMPLOYER as being non responsive.

In exceptional circumstances, the Employer may solicit the Bidder's consent to an extension of the bid validity period. The request and responses thereto shall be made in writing by post or by telefax followed by post confirmation. If a Bidder accepts to extend the period of bid validity, the validity of bid security shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

11.0 Deadline for Submission of Bids

Original Deed of Joint Undertaking/JV Agreement (as applicable) and Power of Attorney shall be submitted in physical form before stipulated bid submission date & time at the address specified. Employer shall not be liable for loss/non-receipt/late receipt of above documents in postal transit.

The Employer may, at its discretion, extend this deadline for submission of bids by amending the bidding documents in accordance with ITB Clause 5.0, in which case all rights and obligations of Employer and Bidders will thereafter be subject to the deadline as extended.

DJU Format-I

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS
DESULPHURISATION SYSTEM AS PER CLAUSE 1.2.3, ITEM 3 OF IFB
(ROUTE 2)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.2.3, ITEM 3 OF IFB AND THE COLLABORATOR WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed thisday ofTwo thousand.....by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM)"/Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Purchaser invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant, (3X600 MW)**

AND WHEREAS clause 1.2.3, item 3 of IFB of Bidding Documents, stipulate that the bidder, who meets the requirement of Clause 1.2.1, item 3 of IFB, should have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Purchaser for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant, (3X600 MW)**.

AND WHEREAS the Bidder and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for **KSK Mahanadi Power Plant, (3X600 MW)**, in the event, the Bid is accepted by the Purchaser resulting into a Contract/ Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Purchaser to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.

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2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Purchaser against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Purchaser to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, nor any extension of time or any relaxation given by the Purchaser to the Contractor would prejudice any rights of the Purchaser under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer.

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
- (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/Ammonia based Flue Gas Desulphurisation System.
- (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be specifically responsible for the following:
- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
 - (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
 - (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.

- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
 - (iv) Provide manufacturing/fabrication drawings for absorber including its internals.
 - (v) Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.
- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.

- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s
(Bidder/Contractor)

Witness :

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

For M/s.....
(QFGDM)

.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) *** Bidder to strike out, whichever is not applicable.**

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DJU Format-II

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.2.3 ALONG WITH NOTE 4 (ii) OF CLAUSE 1.0.0, ITEM 3 OF IFB
(ROUTE 2)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.2.1, ITEM 3 OF IFB SHEETS AND THE COLLABORATOR (A HOLDING COMPANY ALONG WITH ITS SUBSIDIARIES) WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s..... a Company incorporated under having its registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator Holding Company", which expression shall include its successors, administrators, executors and permitted assigns)

*M/s a Company registered under having its Registered Office at , *M/s a Company registered under having its Registered Office at and M/s a Company registered under having its Registered Office at (the Subsidiary(ies) of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer who are lending strength/ experience to the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System for meeting the requirements stipulated in clause 1.1.1 and hereinafter collectively called the "Subsidiary(ies)", which expression shall include its successors, administrators, executors and permitted assigns) in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3X600 MW)**:

AND WHEREAS clause 1.2.3, item 3 of IFB of Bidding Documents, stipulate that the bidder, who meets the requirement of Clause 1.2.1, item 3 of IFB, should have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM. Further as per note 4 ii) of clause 1.0.0, Item 3 of IFB, 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.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant, (3X600 MW)**

AND WHEREAS the Bidder and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for

the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant, (3X600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or Subsidiary(ies).

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
 - (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
 - (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.

7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s
(Bidder/Contractor)

Witness :

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name :

Designation :

Common Seal of the Company
.....

For M/s.....
(Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer i.e. HOLDING COMPANY)

.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:.....

Designation:

Common Seal of the Company
.....

WITNESS :

1.....

For M/s
(*SUBSIDIARY 1 OF HOLDING COMPANY)

.....
(Signature of the Authorised

.....
 (Official Address)

Representative)
 Name.....
 Designation.....
 Common Seal of the Company

WITNESS :

1..... ..

For M/s
 (*SUBSIDIARY 2 OF HOLDING COMPANY)

 (Signature of the Authorised
 Representative)
 Name.....
 Designation.....
 Common Seal of the Company

.....
 (Official Address)

WITNESS :

1..... ..

For M/s
 (*SUBSIDIARY 3 OF HOLDING COMPANY)

 (Signature of the Authorised
 Representative)
 Name.....
 Designation.....
 Common Seal of the Company

.....
 (Official Address)

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) **The Bidder shall submit board resolution of Holding Company along with the Deed of Joint Undertaking stating that in case of any likely change of management control of any of its subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1, item 3 of IFB, the bidder shall arrange for signing of DJU and bank guarantees by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of Note 4 of clause 1.0.0, item 3 of IFB, before the change in management control actually occurs. Such bank guarantees to be furnished by the Holding Company and entities lending support for fulfillment of requirement of clause Note 4 of Clause 1.0.0, item 3 of IFB, for an amount aggregating to INR Millions 100 divided equally among them, in addition to the contract performance security to be furnished by the Bidder.**
- iii) *** Bidder to strike out, whichever is not applicable.**

DJU Format-III

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.3.3, ITEM 3 OF IFB (ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (a), ITEM 3 OF IFB AND THE COLLABORATOR WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Company (3x600 MW)**

AND WHEREAS clause 1.3.2, item 3 of IFB of Bidding Documents, stipulate that the bidder, who meets the requirement of Clause 1.3.1 (a), item 3 of IFB, should have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS the Bidder and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)** as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/ Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations

including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.

2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer.

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
- (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
- (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be specifically responsible for the following:
- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.

- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration

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- parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor, through their authorized representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s
(Bidder/Contractor)

Witness :

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

For M/s.....
(QFGDM)

.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) *** Bidder to strike out, whichever is not applicable.**

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DJU Format-IV

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.3.3 ALONGWITH NOTE 4 (ii) OF CLAUSE 1.0.0, ITEM 3 OF IFB
(ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (a), ITEM 3 OF IFB AND THE COLLABORATOR (A HOLDING COMPANY ALONG WITH ITS SUBSIDIARIES) WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator Holding Company", which expression shall include its successors, administrators, executors and permitted assigns)

*M/s a Company registered under having its Registered Office at , *M/s a Company registered under having its Registered Office at and M/s a Company registered under having its Registered Office at (the Subsidiary(ies) of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer who are lending strength/ experience to the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System for meeting the requirements stipulated in clause 1.1.1 and hereinafter collectively called the "Subsidiary(ies)", which expression shall include its successors, administrators, executors and permitted assigns) in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3X600 MW)**.

AND WHEREAS clause 1.3.2, item 3 of IFB of Bidding Documents, stipulate that the bidder, who meets the requirement of Clause 1.3.1 (a), item 3 of IFB, should have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM. Further as per note 4 ii) of clause 1.0.0, Item 3 of IFB, 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.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3X600 MW)**

AND WHEREAS the Bidder and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for

the successful performance of the FGD System including meeting the technical guarantees for **KSK Mahanadi Power Plant (3X600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or Subsidiary(ies).

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
 - (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
 - (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
 - (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
 - (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
 - (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
 - (v) Provide manufacturing/fabrication drawings for absorber including its internals.
- Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.
- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
- For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.
- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking

shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.

8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s
(Bidder/Contractor)

Witness:

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

For M/s.....
(Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer i.e. HOLDING COMPANY)

.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company
.....

WITNESS:

1

For M/s
(*SUBSIDIARY 1 OF HOLDING COMPANY)

(Signature of the Authorised Representative)

.....
(Official Address)

Name.....

Designation.....

Common Seal of the Company

.....

WITNESS:

For M/s

(*SUBSIDIARY 1 OF HOLDING COMPANY)

1.....

(Signature of the Authorised Representative)

Name.....

.....
(Official Address)

Designation.....

Common Seal of the Company

.....

WITNESS:

For M/s

(*SUBSIDIARY 3 OF HOLDING COMPANY)

1

(Signature of the Authorised Representative)

Name.....

.....
(Official Address)

Designation.....

Common Seal of the Company

.....

Notes:

- i) Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.
- ii) The Bidder shall submit board resolution of Holding Company along with the Deed of Joint Undertaking stating that in case of any likely change of management control of any of its subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1, item 3 of IFB, the bidder shall arrange for signing of DJU and bank guarantees by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of Note 4 of clause 1.0.0, item 3 of IFB, before the change in management control actually occurs. Such bank guarantees to be furnished by the Holding Company and entities lending support for fulfillment of requirement of clause Note 4 of Clause 1.0.0, item 3 of IFB, for an amount aggregating to INR Millions 100 divided equally among them, in addition to the contract performance security to be furnished by the Bidder.
- iv) * Bidder to strike out, whichever is not applicable.

JAS-ANZ



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DJU Format-V

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.3.3, ITEM 3 OF IFB (ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR (INDIAN JOINT VENTURE COMPANY) MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (b), ITEM 3 OF IFB AND THE COLLABORATOR WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] AND THE PROMOTER(S) HAVING 25% OR HIGHER EQUITY PARTICIPATION IN THE INDIAN JOINT VENTURE COMPANY FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor/Indian Joint Venture (JV) Company", which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....and having 25% or higher equity participation in the Bidder/Contractor (hereinafter called the "PROMOTER", which expression shall include its successors, administrators, executors and permitted assigns), in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS clause 1.3.2, item 3 of IFB of Bidding Documents, stipulate that the bidder, meeting the requirement of Clause 1.3.1 (b), item 3 of IFB shall have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the other Promoter of the Indian Joint Venture (JV) Company having 25% or higher equity participation in the Bidder, meeting the requirement of Clause 1.3.1 (b), item 3 of IFB and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

WHEREAS M/s (Bidder/Contractor), 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) M/s....., an Indian Company registered in India under the Companies Act of India and (ii) M/s.*a Steam Generator Manufacturer meeting the requirement of Clause 1.3.1 (a), item 3 of IFB or *a QFGDM meeting the requirement of Clause 1.1.1 (b), item 3 of IFB, created for the purpose of manufacturing/supplying in India steam generator sets/ Flue Gas

Desulphurisation System and other Promoter *M/s.....(hereinafter called "PROMOTER") having 25% or higher equity participation in the Bidder/ Contractor meeting the requirements specified in Clause 1.3.1 (b), item 3 of IFB.

AND WHEREAS the Bidder (Joint Venture Company), Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, including meeting the technical guarantees and characteristics as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER, do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever and the Contractor.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER, nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER.

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
 - (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure

satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

(b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

(c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to INR Millions 100 and KSK and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract.

In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.

7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, the PROMOTER and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

Witness:

For M/s
(Bidder/Contractor)

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company

Witness:

For M/s
(QFGDM)

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company

Witness:

For M/s
(PROMOTER)

1.....

.....

...
(Name in Block Letters)

(Signature of the authorized representative)

.....

(Official Address)

Name:

Designation:

Common Seal of the Company

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) *** Bidder to strike out, whichever is not applicable.**

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**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.3.3, ALONGWITH NOTE 4 (ii) OF CLAUSE 1.0.0, ITEM 3 OF IFB
(ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR (INDIAN JOINT VENTURE COMPANY) MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (b), ITEM 3 OF IFB AND THE COLLABORATOR (A HOLDING COMPANY ALONG WITH ITS SUBSIDIARIES) WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] AND THE OTHER PROMOTER OF THE INDIAN JOINT VENTURE COMPANY HAVING A STAKE OF 25% OR MORE IN THE INDIAN JOINT VENTURE COMPANY FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor/Indian Joint Venture (JV) Company", which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) AND

*M/s a Company registered under having its Registered Office at , *M/s a Company registered under having its Registered Office at and M/s a Company registered under having its Registered Office at (the Subsidiary(ies) of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer who are lending strength/ experience to the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System for meeting the requirements stipulated in clause 3.1.1.1 and hereinafter collectively called the "Subsidiary(ies)", which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....and having 25% or higher equity participation in the Bidder/ Contractor (hereinafter called the "PROMOTER", which expression shall include its successors, administrators, executors and permitted assigns), in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS clause 1.3.2, item 3 of IFB of Bidding Documents, stipulate that the bidder, meeting the requirement of Clause 1.3.1 (b), item 3 of IFB shall have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the other Promoter of the Indian Joint Venture (JV) Company having 25% or higher equity participation in the Bidder, meeting the requirement of Clause 1.3.1 (b), item 3 of IFB and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the

FGD System as per the design and manufacturing drawings of such QFGDM. Further as per note 4 ii) of clause 1.0.0, Item 3 of IFB, 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.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

WHEREAS M/s (Bidder/Contractor), a Joint Venture Company incorporated in India under the Companies Act of India, as on the date of Techno-Commercial Bid opening, has been set up by *M/s....., *a Steam Generator Manufacturer meeting the requirement of Clause 1.3.1 (a), item 3 of IFB *OR *a QFGDM meeting the requirement of Clause 1.1.1 (b), item 3 of IFB, and other Promoter meeting the requirements specified in Clause 1.3.1 (b), item 3 of IFB & having a stake of 25% or more in the Bidder/ Contractor i.e. M/s.....(hereinafter called "PROMOTER").

AND WHEREAS the Bidder (Joint Venture Company), *the Steam Generator Manufacturer, Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.

In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER, do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever and the Contractor.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER, nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any

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rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER.

2. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:

- (a) We, the Qualified Wet Limestone/Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
- (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be specifically responsible for the following:
- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
 - (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
 - (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
 - (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.

Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.

- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.

1. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.

2. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
4. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
5. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
6. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
7. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), the PROMOTER and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s.....
(Bidder/Contractor)

Witness: For M/s

(PROMOTER)

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:
Common Seal of the Company

Witness:

For M/s
(QFGDM i.e. HOLDING COMPANY)1.....
(Name in Block Letters)
.....
(Official Address).....
(Signature of the authorized representative)
Name:

Designation:

Common Seal of the Company
.....

WITNESS:

For M/s
(*SUBSIDIARY 1 OF HOLDING COMPANY)1.....
.....
(Official Address).....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company
.....

WITNESS:

For M/s
(*SUBSIDIARY 2 OF HOLDING COMPANY)1.....
.....
(Official Address).....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company
.....

WITNESS:

For M/s
(*SUBSIDIARY 3 OF HOLDING COMPANY)1.....
.....
(Official Address).....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company
.....

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) **The Bidder shall submit board resolution of Holding Company along with the Deed of Joint Undertaking stating that in case of any likely change of management control of any of its subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1, item 3 of IFB, the bidder shall arrange for signing of DJU and bank guarantees by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of Note 4 of clause 1.0.0, item 3 of IFB, before the change in management control actually occurs. Such bank guarantees to be furnished by the Holding Company and entities lending support for fulfillment of requirement of clause Note 4 of Clause 1.0.0, item 3 of IFB, for an amount aggregating to INR Millions 100 divided equally among them, in addition to the contract performance security to be furnished by the Bidder.**
- III) *** Bidder to strike out, whichever is not applicable.**

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**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS
DESULPHURISATION SYSTEM AS PER CLAUSE 1.3.3, ITEM 3 OF IFB
(ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR (INDIAN SUBSIDIARY COMPANY OF A *STEAM GENERATOR MANUFACTURER *OR * QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM), MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (c), ITEM 3 OF IFB AND THE COLLABORATOR WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] *AND THE PROMOTER(S) HAVING 25% OR HIGHER EQUITY PARTICIPATION IN THE *SUBSIDIARY COMPANY/ *JV COMPANY (AS THE CASE MAY BE) & MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (c), ITEM 3 OF IFB FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor/Indian Subsidiary Company", which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) AND

*M/s a Company incorporated under having its Registered Office at....., *M/s a Company incorporated under having its Registered Office at....., and having 25% or higher equity participation in the Bidder/ Contractor (hereinafter called the "PROMOTER(S)", which expression shall include its successors, administrators, executors and permitted assigns), in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**

AND WHEREAS clause 1.3.3, item 3 of IFB of Bidding Documents, stipulate that the bidder, meeting the requirement of Clause 1.3.1 (c), item 3 of IFB shall have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the Promoter(s) having 25% or higher equity participation in the Bidder, and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings released by such QFGDM.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

WHEREAS M/s (Bidder/Contractor), an Indian Subsidiary Company of M/s....., a *Steam Generator Manufacturer meeting the requirement of Clause 1.3.1 (a), item 3 of IFB/ *Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer meeting the requirement of Clause 1.1.1, item 3 of IFB, 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, meeting the requirement of Clause 1.3.1 (c), item 3 of IFB whose other Promoter(s) having 25% or higher equity participation in the Bidder/ Contractor i.e. *M/s....., *M/s..... (herein after called "PROMOTER(s)").

AND WHEREAS the Bidder, Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S)(s) are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/ Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S), do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S), do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S) and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever and the Contractor.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S), nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S).

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
 - (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure

satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

(b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

(c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S) do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S) will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at

this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.

7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S) and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, the PROMOTER(S) and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

Witness:

1.....
(Name in Block Letters)

.....
(Official Address)

Witness:

1.....
(Name in Block Letters)

.....
(Official Address)

Witness:

1.....
(Name in Block Letters)

.....

For M/s
(Bidder/Contractor)

.....
(Signature of the authorized representative)

Name:

Designation:
Common Seal of the Company

For M/s
(QFGDM)

.....
(Signature of the authorized representative)

Name:

Designation:
Common Seal of the Company

For M/s
(PROMOTER(s))

.....
(Signature of the authorized representative)

Name:

(Official Address)

Designation:
Common Seal of the Company

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) *** Bidder to strike out, whichever is not applicable.**

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DJU Format-VIII

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.3.3, ALONGWITH NOTE 4 (ii) OF CLAUSE 1.0.0, ITEM 3 OF IFB
(ROUTE 3)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR (INDIAN SUBSIDIARY COMPANY OF A *STEAM GENERATOR MANUFACTURER *OR * QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM), MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (c), ITEM 3 OF IFB AND THE COLLABORATOR (A HOLDING COMPANY ALONG WITH ITS SUBSIDIARIES) WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] *AND THE PROMOTER(S) HAVING 25% OR HIGHER EQUITY PARTICIPATION IN THE *SUBSIDIARY COMPANY/ *JV COMPANY (AS THE CASE MAY BE) & MEETING THE REQUIREMENTS OF CLAUSE 1.3.1 (c), ITEM 3 OF IFB FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day of Two thousand by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor/Indian Subsidiary Company", which expression shall include its successors, administrators, executors and permitted assigns) AND

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator Holding Company", which expression shall include its successors, administrators, executors and permitted assigns) AND

*M/s a Company registered under having its Registered Office at , *M/s a Company registered under having its Registered Office at and M/s a Company registered under having its Registered Office at (the Subsidiary(ies) of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer who are lending strength/ experience to the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System for meeting the requirements stipulated in clause 1.1.1 and hereinafter collectively called the "Subsidiary(ies)", which expression shall include its successors, administrators, executors and permitted assigns) AND

*M/s a Company incorporated under having its Registered Office at....., *M/s a Company incorporated under having its Registered Office at.....and having 25% or higher equity participation in the Bidder/ Contractor (hereinafter called the "PROMOTER(S)", which expression shall include its successors, administrators, executors and permitted assigns), in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS clause 1.3.2, item 3 of IFB of Bidding Documents, stipulate that the bidder, meeting the requirement of Clause 1.3.1 (c), item 3 of IFB shall have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and the Promoter(s) of

the Bidder having 25% or higher equity participation in the Bidder, and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings released by such QFGDM. Further as per note 4 ii) of clause 1.0.0, Item 3 of IFB, 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.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package **KSK Mahanadi Power Plant (3x600 MW)**.

WHEREAS M/s (Bidder/Contractor), an Indian Subsidiary Company of M/s....., a *Steam Generator Manufacturer meeting the requirement of Clause 1.3.1 (a), item 3 of IFB/ *Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer meeting the requirement of Clause 1.1.1, item 3 of IFB, 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, meeting the requirement of Clause 1.3.1 (c), item 3 of IFB whose other Promoter(s) having 25% or higher equity participation in the Bidder/ Contractor i.e. *M/s....., *M/s..... (hereinafter called "PROMOTER(s)").

AND WHEREAS the Bidder, Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S) are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, including meeting the technical guarantees and characteristics as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/ Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S), do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S), do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S) and the Contractor jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever and the Contractor.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

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This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S), nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S).

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:

(a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

(c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/

Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (d) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.

4. We, the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the PROMOTER(S) do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect

liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.

5. We, the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S) will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the PROMOTER(S) and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), the PROMOTER(S) and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s.....
(Bidder/Contractor)

Witness :

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:

Common Seal of the Company

Witness:

1.....
(Name in Block Letters).....
(Official Address)

WITNESS:

1.....

.....
(Official Address)

WITNESS:

1.....

.....
(Official Address)

WITNESS:

1.....

.....
(Official Address)

WITNESS:

.....
For M/s
(QFGDM i.e. HOLDING COMPANY).....
(Signature of the authorized representative)

Name :

Designation :

Common Seal of the Company

For M/s
(*SUBSIDIARY 1 OF HOLDING COMPANY)
.....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company

For M/s
(*SUBSIDIARY 2 OF HOLDING COMPANY)
.....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company

For M/s
(*SUBSIDIARY 3 OF HOLDING COMPANY)
.....
(Signature of the Authorised Representative)

Name.....

Designation.....

Common Seal of the Company

For M/s
(PROMOTER(S))

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1.....
(Name in Block Letters)
.....
(Official Address)
.....
(Signature of the authorized representative)
Name:

Designation:
Common Seal of the Company

Witness:

For M/s
(*other Promoter having 25% or higher equity
participation in the Bidder/ Contractor)

1.....
(Name in Block Letters)
.....
(Official Address)
.....
(Signature of the authorized representative)
Name:.....

Designation:
Common Seal of the Company

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) **The Bidder shall submit board resolution of Holding Company along with the Deed of Joint Undertaking stating that in case of any likely change of management control of any of its subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1, item 3 of IFB, the bidder shall arrange for signing of DJU and bank guarantees by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of Note 4 of clause 1.0.0, item 3 of IFB, before the change in management control actually occurs. Such bank guarantees to be furnished by the Holding Company and entities lending support for fulfillment of requirement of clause Note 4 of Clause 1.0.0, item 3 of IFB, for an amount aggregating to INR Millions 100 divided equally among them, in addition to the contract performance security to be furnished by the Bidder.**
- iii) *** Bidder to strike out, whichever is not applicable.**

DJU Format-IX

**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS
DESULPHURISATION SYSTEM AS PER CLAUSE 1.4.3, ITEM 3 OF IFB
(ROUTE 4)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.4.1, ITEM 3 OF IFB AND THE COLLABORATOR WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator, which expression shall include its successors, administrators, executors and permitted assigns) in favour of **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns)..

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS clause 1.4.1, item 3 of IFB of Bidding Documents, stipulate that the bidder, as an Engineering, Procurement and Construction (EPC) organization, who meets the requirement of Clause 1.4.1, item 3 of IFB, should have a valid ongoing collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings of such QFGDM.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS the Bidder, and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer are required to jointly execute and furnish along with the bid an irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/ Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor, and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.

2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor, jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer.

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
- (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
- (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be specifically responsible for the following:
- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
 - (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
 - (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.

- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.

- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor, and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor, and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.
6. In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
8. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and the Contractor, agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
9. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

For M/s
(Bidder/Contractor)

Witness:

1.....

(Name in Block Letters)

.....

(Official Address)

.....
(Signature of the authorized representative)

Name:

Designation:

Common Seal of the Company

Witness:

.....

(Name in Block Letters)

.....

(Official Address)

For M/s.....
(QFGDM)

.....
(Signature of the authorized representative)

Name:

Designation:

Common Seal of the Company

.....

Notes:

- i) **Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.**
- ii) *** Bidder to strike out, whichever is not applicable.**

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**FORM OF DEED OF JOINT UNDERTAKING FOR THE COMPLETE FLUE GAS DESULPHURISATION
SYSTEM AS PER CLAUSE 1.4.3 ALONGWITH NOTE 4 (ii) OF CLAUSE 1.0.0, ITEM 3 OF IFB
(ROUTE 4)
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)**

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY THE BIDDER/ CONTRACTOR MEETING THE REQUIREMENTS OF CLAUSE 1.4.3, ITEM 3 OF IFB AND THE COLLABORATOR (A HOLDING COMPANY ALONG WITH ITS SUBSIDIARIES) WHO MEETS THE REQUIREMENT OF CLAUSE 1.1.1, ITEM 3 OF IFB [AS A QUALIFIED WET LIMESTONE/ AMMONIA BASED FLUE GAS DESULPHURISATION SYSTEM MANUFACTURER (QFGDM)] FOR SUCCESSFUL PERFORMANCE OF THE FGD SYSTEM INCLUDING MEETING THE TECHNICAL GUARANTEES

The DEED OF UNDERTAKING executed this day ofTwo thousand by M/s..... a Company incorporated under having its Registered Office at.....(hereinafter called the "Bidder/Contractor", which expression shall include its successors, administrators, executors and permitted assigns) and

M/s a Company incorporated under having its Registered Office at.....(hereinafter called "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer (QFGDM) Collaborator Holding Company", which expression shall include its successors, administrators, executors and permitted assigns) M/s a Company registered under having its Registered Office at,

M/s a Company registered underhaving its Registered Office at and M/s a Company registered under having its Registered Office at (the Subsidiary(ies) of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer who are lending strength/ experience to the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System for meeting the requirements stipulated in clause 1.1.1 and hereinafter collectively called the "Subsidiary(ies)", which expression shall include its successors, administrators, executors and permitted assigns) AND in **KSK Mahanadi Power Company having its Registered Office at 8-2-293/82/A/431A, Road No 22, Jubilee Hills, Hyderabad, INDIA** (hereinafter called "KSK" or "Purchaser" or "Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS clause 1.4.1, item 3 of IFB of Bidding Documents, stipulate that the bidder, as an Engineering, Procurement and Construction (EPC) organization who meets the requirement of Clause 1.4.1, item 3 of IFB, should have a valid on going collaboration and technology transfer agreement with "Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer" meeting the requirements of Clause 1.1.1, item 3 of IFB on its own and furnish a Deed of Joint Undertaking. Further, the bidder shall either source the FGD system from such manufacturer or manufacture/get manufactured the FGD System as per the design and manufacturing drawings released by such QFGDM. Further as per note 4 ii) of clause 1.0.0, Item 3 of IFB, 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.

WHEREAS M/s (Bidder) is submitting its proposal in response to the aforesaid Invitation for Bid by the Employer for Flue Gas Desulphurisation System (FGD) Package for **KSK Mahanadi Power Plant (3x600 MW)**.

AND WHEREAS the Bidder, and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) are required to jointly execute and furnish along with the bid an

irrevocable Deed of Joint Undertaking and be jointly and severally liable and bound unto the Employer for the successful performance of the FGD System including meeting the technical guarantees for its **KSK Mahanadi Power Plant (3x600 MW)**, as per bidding documents, in the event, the Bid is accepted by the Employer resulting into a Contract/Contracts.

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. That in consideration of the award of the Contract(s) by the Employer to the Contractor, we the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the execution and successful performance of all the contractual obligations including the technical guarantees for the complete Flue Gas Desulphurisation Package, as specified under the said Contract(s) to the satisfaction of the Employer.
2. In case of any breach of the Contract committed by the Contractor, we the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the complete Flue Gas Desulphurization (FGD) System Package and undertake to carry out all obligations and responsibilities stipulated in the Contract, including the technical guarantees for the complete Flue Gas Desulphurisation System Package. Further if the Employer sustains any loss or damage on account of any breach of the Contract, we Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) jointly and severally undertake to promptly indemnify, and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever.

The liability of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer shall be limited to an amount equivalent to **INR 315 Million** for complete Flue Gas Desulphurisation (FGD) System.

This is without prejudice to any rights of the Employer against the Contractor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) nor any extension of time or any relaxation given by the Employer to the Contractor would prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer or Subsidiary(ies).

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objectives set forth in paragraph 1 above shall be as follows:
 - (a) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete engineering, preparation of all designs, design calculations, design documents/ drawings and manufacturing drawings for the Absorber including all its internals; preparation of all P&IDs & process flow diagrams; Selection of auxiliaries, and interfacing/ integrating Absorber with their auxiliaries so as to ensure satisfactory, reliable, safe and trouble free performance of all Absorber and auxiliaries meeting all stipulated technical requirements as well as all guaranteed parameters specified in the Contract for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.
 - (b) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be specifically responsible for the following:

- (i) Complete design of Absorber including selection/design of Absorber material, lining & all internals; complete mass flow balance as well as design of structural/supporting system including selection of material & accessories etc.
- (ii) Selection of auxiliaries for Wet Limestone/Ammonia based Flue Gas Desulphurisation System including preparation of purchase specification for critical auxiliaries viz. Slurry Recirculation pumps, Oxidation Blowers, Ammonia Unloading and Storage; Wet limestone Grinding mills, Slurry pumps, Agitators, Hydro-cyclones, Centrifuges, Vacuum Belt Filters, slurry valves & piping, dryer, packaging etc., as applicable.
- (iii) Design of controls, protections and interlocks for all the auxiliaries for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System including Absorber for their safe and reliable operation as integral units with other equipment of the Main Plant.
- (iv) Providing all design data required by the Contractor to carry out design/ selection of balance equipment/ system including all civil inputs for foundation design, site construction, structural work etc. for Wet Limestone/ Ammonia based Flue Gas Desulphurisation System and for their proper interfacing and integration.
- (v) Provide manufacturing/fabrication drawings for absorber including its internals.

Further, we, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall extend our quality surveillance/ supervision/ quality control to the Contractor during manufacture, erection, commissioning and performance testing, both at Contractor's and/ or at Employer's Station site. Without prejudice to the overall responsibilities of the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) for successful commissioning and performance of Wet Limestone/ Ammonia based Flue Gas Desulphurisation System, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall depute its technical experts from time to time to the Contractor's/ Sub-vendor's works/ Employer's Station site, as mutually agreed upon between the Employer and the Contractor in accordance with the stipulation of the Contracts.

- (c) We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of manufacture of all equipment/ main assemblies/ components for incorporation in the Wet Limestone/ Ammonia based Flue Gas Desulphurisation System.

For the items to be manufactured by the contractor at his/or his vendor's works as per the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies), design & manufacturing drawings released by us, the Collaborator shall ensure completeness and correctness of the design, data, document and information in every detail provided to the Contractor which would result in the same quality of equipment as if manufactured at Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System.

Manufacturer or its Sub-vendor's works and shall meet Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer acceptance.

- (d) We the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall be fully responsible for complete for design, engineering, supply, installation, putting in to satisfactory operation and carrying out the

guarantee tests for Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System to the satisfaction of the Employer.

Further, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall ensure proper design, manufacture, installation, testing and successful performance of the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System under the said Contract in accordance with stipulations of Bidding Documents and if necessary, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall advise the Contractor/ his Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

- (e) In the event the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor fail to demonstrate that the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System meets the guaranteed parameters and demonstration parameters as specified in the contract, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) and the Contractor shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.
- (f) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and severally responsibility of the Contractor and Collaborator.
4. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) do hereby undertake and confirm that this Deed of Joint Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the expiry of defect liability period of the plant under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days upon satisfactory completion of such defect liability period. We further agree that this undertaking shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Guarantees as well as other obligations of the Contractor in terms of the Contract.
5. We, the Contractor and the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) will be fully responsible for the quality of all equipment/main assemblies/components manufactured at their works or at their Vendor's works or constructed at site, and their repairs or replacement if necessary for incorporation in the relevant system(s) of Flue Gas Desulphurization (FGD) System Package and timely delivery thereof to meet the completion schedule under the Contract.

In case of Award, in addition to the Contractor's Performance Bank Guarantee furnished by the Contractor, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer and Subsidiary(ies) shall furnish "as Security" an on demand Performance Bank Guarantees in favour of the Employer as per provisions of the Bidding Documents. The value of such Bank Guarantees shall be equal to **INR Millions 100** and it shall be towards guaranteeing the faithful performance/compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of contract, i.e. till ninety (90) days beyond the end of the Defect Liability period of the Flue Gas Desulphurization (FGD) System Package under the Contract. In case of delay in completion of the defect liability period, the validity at this Bank Guarantee shall be extended by

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the period of such delay. The Bank Guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.

6. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Hyderabad shall have exclusive jurisdiction.
7. We, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies) and the Contractor agree that this Deed of Joint Undertaking shall be irrevocable and shall form an integral part of the Contract. We further agree that this Deed of Joint Undertaking shall continue to be enforceable till the successful completion of Contract and till the Employer discharge it.
8. That this Deed shall be operative from the effective date of the NOA.

IN WITNESS WHEREOF, the Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer, Subsidiary(ies), and the Contractor, through their authorised representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

Witness:

For M/s
(Bidder/Contractor)

1.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:
Common Seal of the Company

.....

Witness:

For M/s.....
(Qualified Wet Limestone/ Ammonia Based Flue Gas Desulphurisation System Manufacturer i.e. HOLDING COMPANY)

.....
(Name in Block Letters)

.....
(Signature of the authorized representative)

.....
(Official Address)

Name:

Designation:
Common Seal of the Company

.....

Witness:

For M/s
(*SUBSIDIARY 1 OF HOLDING COMPANY)

1.

.....
(Signature of the Authorised Representative)

.....

Name:

(Official Address)

Designation.....

Common Seal of the Company

.....

Witness:

For M/s
(*SUBSIDIARY 2 OF HOLDING COMPANY)

1.

(Signature of the Authorised Representative)

Name:

.....

(Official Address)

Designation.....

Common Seal of the Company

.....

Witness:

For M/s
(*SUBSIDIARY 3 OF HOLDING COMPANY)

1.

(Signature of the Authorised Representative)

Name:

.....

(Official Address)

Designation.....

Common Seal of the Company

.....

Notes:

- i) Power of Attorney of each of the person signing the Deed of Joint Undertaking and Board resolution in regard of POA of Authorised signatory, shall be furnished along with this Deed of Joint Undertaking.
- ii) The Bidder shall submit board resolution of Holding Company along with the Deed of Joint Undertaking stating that in case of any likely change of management control of any of its subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of clause 1.1.1, item 3 of IFB, the bidder shall arrange for signing of DJU and bank guarantees by all such subsidiaries lending strength / experience to the Holding Company for fulfillment of requirement of Note 4 of clause 1.0.0, item 3 of IFB, before the change in management control actually occurs. Such bank guarantees to be furnished by the Holding Company and entities lending support for fulfillment of requirement of clause Note 4 of Clause 1.0.0, item 3 of IFB, for an amount aggregating to INR Millions 100 divided equally among them, in addition to the contract performance security to be furnished by the Bidder.
- iii) * Bidder to strike out, whichever is not applicable.