




CLAUSE NO.	<div>PROVENNESS</div> <div>एनटीपीसी NTPC</div>																						
4.26 4.26.1	<p>(5) Technology Transfer Agreement (Applicable for Clause 4.25.2, 4.25.3 & 4.25.4)</p> <p>The technology transfer agreement between the Bidder/Bidder's sub-vendor & QFGDM shall necessarily cover transfer of technological knowhow for Wet Limestone based Flue Gas Desulphurisation System in the form of complete transfer of design dossier, design software's, drawings and documentation, quality system manuals and imparting relevant personnel training to the Indian Manufacturing Company.</p> <p>Provenness criteria for critical equipment, auxiliaries, systems and bought out items for Flue Gas Desulphurisation System:</p> <p>The Bidder / Bidder's sub-vendor(s) is required to meet the provenness criteria and/or qualification requirement for critical equipment, auxiliaries, system and bought out items as per criteria stipulated below:</p> <p>Slurry Recirculation Pumps, Oxidation Blowers, Wet Limestone Grinding Mills, Slurry Pumps, Agitators & Vacuum Belt Filters for the Wet Limestone based Flue Gas Desulphurisation (FGD) System offered by the Bidder shall be only from such manufacturer(s) who has previously designed (either by itself or under collaboration / licensing agreement), manufactured / got manufactured the respective equipment(s) of the type, application and minimum equipment rating as stipulated below such that the respective equipment(s) should have been in successful operation in at least one (1) plant for a period not less than one(1) year:</p>																						
	<table> <tr> <th>Sl. No.</th><th>Name of Equipment</th><th>Type of Equipment</th><th>Application</th><th>Equipment Rating</th></tr> <tr> <td>(a)</td><td>Slurry Recirculation Pumps</td><td>Centrifugal type</td><td>Wet Limestone based FGD application in Coal fired power plant</td><td>80% of the flow & 100% of the head of the offered Slurry Recirculation Pump</td></tr> <tr> <td>(b)</td><td>Oxidation Blowers</td><td>Centrifugal/ positive displacement type blower</td><td>Wet Limestone based FGD application in Coal fired power plant</td><td>80% of the flow & 100% of the head of the offered Oxidation Blower</td></tr> <tr> <td>(c)</td><td>Wet limestone Grinding mills</td><td>Horizontal Wet Ball mill</td><td>Wet Limestone based FGD application in Coal fired power plant</td><td>80% of the offered Ball mill capacity with pulverizing fineness not less than 90% thru</td></tr> </table>	Sl. No.	Name of Equipment	Type of Equipment	Application	Equipment Rating	(a)	Slurry Recirculation Pumps	Centrifugal type	Wet Limestone based FGD application in Coal fired power plant	80% of the flow & 100% of the head of the offered Slurry Recirculation Pump	(b)	Oxidation Blowers	Centrifugal/ positive displacement type blower	Wet Limestone based FGD application in Coal fired power plant	80% of the flow & 100% of the head of the offered Oxidation Blower	(c)	Wet limestone Grinding mills	Horizontal Wet Ball mill	Wet Limestone based FGD application in Coal fired power plant	80% of the offered Ball mill capacity with pulverizing fineness not less than 90% thru		
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EPC PACKAGE FOR PATRATU SUPER THERMAL POWER STATION EXPANSION PHASE-I (3X800 MW)		TECHNICAL SPECIFICATION SECTION – VI, PART-A BID DOC. NO CS-9885-001-02		SUB-SECTION-IA PROVENNESS PAGE 29 OF 54																			

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	Sl. No.	Name of Equipment	Type of Equipment	Application	Equipment Rating
					325 mesh
	(d)	Slurry Pumps	Centrifugal type	Wet Limestone based FGD application or similar process/duty application.	Flow 50 m³/hr (minimum) with Head 30 Meters of Liquid Column (minimum)
	(e)	Agitators	Vertical/Horizontal	Wet Limestone based FGD application in Coal fired power plant	Agitator rating not less than that supplied for 500 MW or higher size unit for similar application
	(f)	Vacuum Belt filters	Belt type	Wet Limestone based FGD application in Coal fired power plant	80% of the offered Vacuum Belt filter capacity
4.26.2	<p>Bidder shall offer and supply only the type of the above equipment(s) for which he himself or the manufacturer proposed by the bidder for the above equipment(s) is qualified.</p> <p>A JV / Subsidiary Company formed for manufacturing and supply of equipment(s) as listed at clause no. 4.26.1 above in India can also manufacture such equipments, provided that it has a valid collaboration or licensing agreement for design, engineering, manufacturing of such equipment(s) in India with a qualified equipment manufacturer who meets the requirements stipulated at clause 4.26.1 above (or the technology provider of the qualified equipment manufacturer) for the respective equipment(s). However, in this case, the proposed JV / Subsidiary Company before resorting to design, engineering, manufacturing of such proven equipment(s) listed at clause no. 4.26.1 above by himself should have sourced / shall source such proven equipment(s) for at least the first 800 MW unit completely from such qualified manufacturer. For subsequent units before taking up the manufacturing of such equipment(s), the bidder/ his sub-vendor(s) must create /have created manufacturing facilities at his works as per collaborator's/licenser's design, manufacturing and quality control system for such equipment(s).</p> <p>Further, in such a case, such qualified equipment manufacturers should have, directly or indirectly through its holding company/ subsidiary company, at least 26% equity participation in the Indian Joint Venture Company/ Subsidiary Company, which shall be maintained for a lock-in period of seven (7) years from the date of incorporation of such Joint Venture/ Subsidiary or upto the end of defect liability period of the contract, whichever is later. In addition, the Bidder along with the Indian Joint Venture Company/ Subsidiary Company, qualified equipment manufacturers</p>				
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4.26.3	<p>and its holding/ subsidiary Company, as applicable, shall furnish DJU in which executant of the DJU shall be jointly and severally liable for the successful performance of the equipment as per the format enclosed in the bidding document. The DJU shall be submitted prior to the placement of order on the approved sub-vendor for a particular equipment. In case of award, each executant of the DJU except the Bidder shall be required to furnish an on demand bank guarantee for INR 1.5 Million (Indian Rupees One and Half Million only) for each equipment.</p> <p>In case the Bidder or the proposed sub-vendor is not manufacturer of proven Oxidation Blowers as per clause 4.26.1 (b) above but is a manufacturer of Blowers/compressors for minimum 50 NM³/min capacity, the Bidder or the proposed sub-vendor can also manufacture Oxidation Blowers, provided it has collaboration or valid licensing agreement for design, engineering, manufacturing, supply of such Oxidation Blowers in India with such manufacturer who meet the requirements stipulated at clause 4.26.1 (b) above for the Oxidation Blowers. However, in this case, Bidder or the proposed sub-vendor before resorting to design, engineering, manufacturing of such proven equipment by himself should have sourced / shall source such proven equipment for at least the first 800 MW unit completely from such qualified manufacturer. For subsequent units before taking up the manufacturing of such equipment, the bidder/ his sub-vendor must create /have created manufacturing facilities at his works as per collaborator's /licenser's design, manufacturing and quality control system for such equipments.</p> <p>In addition, the Bidder along with the qualified equipment manufacturer shall furnish DJU in which executant of the DJU shall be jointly and severally liable for the successful performance of the equipment as per the format enclosed in the bidding document. The DJU shall be submitted prior to the placement of order on the approved sub-vendor for Oxidation Blowers. In case of award, each executant of the DJU except the Bidder shall be required to furnish an on demand bank guarantee for INR 1.5 Million (Indian Rupees One and Half Million only).</p>		
4.26.4	<p>In case the Bidder or the proposed sub-vendor is not manufacturer of proven Wet limestone Grinding mills as per clause 4.26.1 (c) above but is a manufacturer of dry Grinding mills for power or cement industry of minimum 20 T/h capacity, the Bidder or the proposed sub-vendor can also manufacture Wet limestone Grinding mills, provided it has collaboration or valid licensing agreement for design, engineering, manufacturing, supply of such Wet limestone Grinding mills in India with such manufacturer who meet the requirements stipulated at clause 4.26.1 (c) above for the Wet limestone Grinding mills. However, in this case, Bidder or the proposed sub-vendor before resorting to design, engineering, manufacturing of such proven equipment by himself should have sourced / shall source such proven equipment for at least the first 800 MW unit completely from such qualified manufacturer. For subsequent units before taking up the manufacturing of such equipment, the bidder/ his sub-vendor must create /have created manufacturing facilities at his works as per collaborator's /licenser's design, manufacturing and quality control system for such equipments.</p> <p>In addition, the Bidder along with the qualified equipment manufacturer shall furnish DJU in which executant of the DJU shall be jointly and severally liable for the</p>		
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4.26.5	<p>successful performance of the equipment as per the format enclosed in the bidding document. The DJU shall be submitted prior to the placement of order on the approved sub-vendor for Wet limestone Grinding mills. In case of award, each executant of the DJU except the Bidder shall be required to furnish an on demand bank guarantee for INR 1.5 Million (Indian Rupees One and Half Million only).</p> <p>In case the Bidder or the proposed sub-vendor is not manufacturer of proven Agitators as per clause 4.26.1 (e) above but is a manufacturer of Agitators for similar process/duty application in petrochemical or metals and mining industry, the Bidder or the proposed sub-vendor can also manufacture Agitators, provided it has collaboration or valid licensing agreement for design, engineering, manufacturing, supply of such Agitators in India with such manufacturer who meet the requirements stipulated at clause 4.26.1 (e) above for the Agitators. However, in this case, Bidder or the proposed sub-vendor before resorting to design, engineering, manufacturing of such proven equipment by himself should have sourced / shall source such proven equipment for at least the first 800 MW unit completely from such qualified manufacturer. For subsequent units before taking up the manufacturing of such equipment, the bidder/ his sub-vendor must create /have created manufacturing facilities at his works as per collaborator's /licenser's design, manufacturing and quality control system for such equipments.</p> <p>In addition, the Bidder along with the qualified equipment manufacturer shall furnish DJU in which executant of the DJU shall be jointly and severally liable for the successful performance of the equipment as per the format enclosed in the bidding document. The DJU shall be submitted prior to the placement of order on the approved sub-vendor for Agitators. In case of award, each executant of the DJU except the Bidder shall be required to furnish an on demand bank guarantee for INR 1.5 Million (Indian Rupees One and Half Million only).</p>			
4.26.6	<p>In case the Bidder or the proposed sub-vendor is a manufacturer of Slurry Pumps who meets the requirements stipulated at clause 4.26.1 (d) above, the Bidder or the proposed sub-vendor can also manufacture Slurry Recirculation Pumps, provided it has collaboration or valid licensing agreement for design, engineering, manufacturing, supply of such equipment in India with such manufacturer who meet the requirements stipulated at clause 4.26.1 (a) above for the Slurry Recirculation Pumps. However, in this case, Bidder or the proposed sub-vendor before resorting to design, engineering, manufacturing of such proven equipment by himself should have sourced / shall source such proven equipment for at least the first 800 MW unit completely from such qualified manufacturer. For subsequent units before taking up the manufacturing of such equipment, the bidder/ his sub-vendor must create /have created manufacturing facilities at his works as per collaborator's /licenser's design, manufacturing and quality control system for such equipment.</p> <p>In addition, the Bidder along with the qualified equipment manufacturer shall furnish DJU in which executant of the DJU shall be jointly and severally liable for the successful performance of the equipment as per the format enclosed in the bidding document. The DJU shall be submitted prior to the placement of order on the approved sub-vendor for Slurry Recirculation Pumps. In case of award, each</p>			
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	executant of the DJU except the Bidder shall be required to furnish an on demand bank guarantee for INR 1.5 Million (Indian Rupees One and Half Million only).			
4.26..7	Before taking up the manufacturing of such equipment(s) as per clause 4.26.2, 4.26.3, 4.26.4, 4.26.5 & 4.26.6 above, the Bidder / its sub vendor(s) must create (or should have created) manufacturing and testing facilities at its works as per Collaborator / licensor's design, manufacturing and quality control system for such equipments duly certified by the Collaborator / licensor. Further, the Collaborator / Licensor shall provide (or should have provided) all design, design calculation, manufacturing drawings and must provide (or should have provided) technical and quality surveillance assistance and supervision during manufacturing, erection, testing, commissioning of equipments.			
4.26.8	Bidder shall offer and supply only the type of the above equipment(s) for which it, itself or the manufacturer / Collaborator(s) / Licensor(s) proposed by the Bidder for the above equipment(s) is qualified.			
4.26.9	The Employer reserves the right to fully satisfy himself regarding capability and capacity of Bidder / its sub-vendor(s) and the proposed arrangement and may prescribe additional requirement before allowing manufacture of the equipment listed above for this contract.			
5.0	PROVENNESS CRITERIA FOR ELECTRICAL EQUIPMENTS			
5.1	ISOLATED PHASE BUSDUCT			
5.1.1	Bidder / Sub Vendor should have designed, manufactured, type tested, supplied, erected/ supervised erection and commissioned/supervised commissioning of Isolated Phase Busduct for a turbo-generator of at least 500MW, which should have been in successful operation for a period of not less than two (2) years.			
	OR			
5.1.2	(i) Bidder / Sub Vendor should have designed, manufactured, type tested, supplied, erected/ supervised erection and commissioned/ supervised commissioning of Isolated Phase Busduct for a turbo-generator of at least 200MW, which should have been in successful operation for a period of not less than two (2) years.			
	(ii) Bidder / Sub Vendor has an on-going technical collaboration agreement with a party who in turn meets the requirements of 5.1 .1 above. Further in such an event the Bidder should furnish an undertaking jointly executed by it and its Associate or Collaborator, as per format, enclosed in the bidding document for the successful performance of the equipment. This Deed of Joint Undertaking should be submitted prior to the placement of order on approved Sub Vendor. In case of award, the Associate or Collaborator of the Bidder /Sub Vendor (as applicable) will be required to furnish an on demand Bank Guarantee for INR 2 Million (Indian Rupees Two Million only) .			
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