

Subject: Engineering, Procurement and Construction (EPC) Contract for Renovation and Modernization of Existing Navigational Lock at Farakka, West Bengal

Reference: IN-IWAI-350002-CW-RFB

CPP Portal Tender no: 2023_JMVP_752273_1

Amendment – 5

Amendment triggered due to Pre-bid responses dated 18.05.2023

S. No.	Bid document Section, Clause	As per Bidding Documents	Amended
1	ITB 46.1, Page No 44, Volume 1	<p>The Adjudicator proposed by the Employer is: The details of the same shall be notified during Pre-Bid meeting.</p> <p>The daily fee for this proposed Adjudicator shall be: Rs 10,000/- per day.</p> <p>The biographical data of the proposed Adjudicator is as follows: [provide relevant information, such as education, experience, age, nationality, and present position; attach additional pages as necessary]</p> <p>“The Adjudicator proposed by the Employer is: To be notified during Pre-Bid meeting and the daily fee payable to Adjudicator is Rs. 10000/-”</p>	<p>The Adjudicator proposed by the Employer is: Mr. Ashok Kumar Mishra.</p> <p>The daily fee for this proposed Adjudicator shall be: Rs 10,000/- per day.</p> <p>The biographical data of the proposed Adjudicator shall be shared during signing of the contract.</p> <p>“The Adjudicator proposed by the Employer is: Mr. Arun Kumar Mishra, and the daily fee payable to Adjudicator is Rs. 10,000/-”</p>
2	Vol - 1 Bid Document, 2.4.2.a, Page no 52, Specific Experience	<p>a) Having executed works as contractor, joint venture member, management contractor, or subcontractor within the last seven (7) years from the bid submission deadline</p> <ul style="list-style-type: none"> • One similar work* of at least INR 128 crores <p>or</p> <ul style="list-style-type: none"> • Two similar work* each with the value of at least INR 80 crores 	<p>The clause may be read as:</p> <p>a) Having executed works as contractor, joint venture member, or subcontractor within the last seven (7) years from the bid submission deadline</p> <ul style="list-style-type: none"> • One similar work* of at least INR 128 crores <p>or</p> <ul style="list-style-type: none"> • Two similar work* each with the value of at least INR 80 crores

	<p>or</p> <ul style="list-style-type: none"> • Three similar work* each with value of at least INR 64 crores <p>that have been successfully and substantially completed** and that are similar to the proposed</p> <p>Works with in last seven (07) years from the bid submission deadline. The similarity shall be based on the physical size, complexity, methods / technology or other characteristics as described in Part 2, Employer’s Requirements.</p> <p>“Similar Work” means Construction of Jetty or Harbour with pile foundation/ diaphragm wall / retaining wall / bridge / Navigational lock / barrage / RCC dam / hydropower / irrigation system in river / sea.</p> <p>Fabrication/ Installation/ Commissioning of Caisson gates/mitre gates requires special skills. Either a member of JV or the lead partner should have necessary experience in construction/ installation/ commissioning of gates in Navigational locks/ hydropower/ irrigation projects</p> <p>*Cost of works of previous years shall be increased by 7% per year</p> <p>**Projects which are 80% completed shall be considered as substantially completed</p>	<p>or</p> <ul style="list-style-type: none"> • Three similar work* each with value of at least INR 64 crores <p>that have been successfully and substantially completed** with in last seven (07) years from the bid submission deadline. The similarity shall be based on the physical size, complexity, methods / technology or other characteristics as described in Part 2, Employer’s Requirements.</p> <p>“Similar Work” means Construction of</p> <p>Jetty or Berth with pile foundation/ diaphragm wall or Navigational lock / barrage / RCC dam / hydropower in river or sea.</p> <p>Fabrication/ Installation/ Commissioning of gates requires special skills. Preferably, either a member of JV or the lead partner should have necessary experience in construction/ installation/ commissioning of gates in Navigational locks/ hydropower/ irrigation projects.</p> <p>*Cost of works of previous years shall be increased by 7% per year</p> <p>**Projects which are 80% completed shall be considered as substantially completed</p>
3	<p>Volume - 1 Clause no 19.2.1, 19.2.6, &</p> <p>Clause no 19.2.1 “The recovery of the same shall be made from the 5th to 14th Month against monthly RA bills in 10 equal installments. Full recovery of this advance (10%)</p>	<p>The clause no 19.2.1 may be read as: "The recovery of the same shall be made from the 5th to 18th Month against monthly RA bills in equal instalments.</p>

	19.2.7 Page No 195 & 196 of 300	shall be made and ensured till 14th Month.” Clause no 19.2.6: “The advance payment shall be recovered from the monthly RA Bills from the 5 th to 14th Month in 10 equal installments of the RA bill payable to the contractor by the employer within 14 months. In case if the recovery installment amount is less than the billed amount in any RA bill, the balance shall be adjusted in the next RA bill.” Clause no 19.2.7 “The Contractor shall repay each installment of the Advance Payment on or before the due date of repayment. In the event of the Contractor’s failure to make the repayment on time, the Employer shall be entitled to encash the Bank guarantee for Advance Payment. The Parties expressly agree that for any delay in repayment of the Advance Payment, the Contractor shall pay interest to the Employer for each day of delay, such interest to be calculated at the rate of 18% (eighteen per cent) per annum. In the event of the Contractor's having repaid the advance either fully or partly, it shall be at the discretion of the Employer to release / reduction/ Amendment of Part Bank Guarantee, in case the Contractor so desires.”	Full recovery of the advance shall be made upto 18th Month." The clause no 19.2.6 may be read as: "The advance payment shall be recovered from the monthly RA Bills starting from the 5 th month to 18th Month in equal monthly installments from the RA bills payable to the contractor by the employer within 18 th months. In case, if approved invoice amount is less than the recovery installment amount, the same shall be adjusted in the next RA bill". The clause no 19.2.7 may be read as: “In case the total installments are not recovered till 18 th month, the Contractor shall pay the balance installment amount to the Employer, failing which, the Employer shall be entitled to encash the Bank guarantee for recovering the Advance Payment.”
4	Volume - 1 Clause no Schedule O-1 Page No 294 of 300	The contractor shall undertake to pass on the input tax credit in GST and shall compensate the employer for any loss suffered on this account by employee (if any).	The clause may be read as: Deleted
5	Volume - 2	Caisson Gate: By filling up top buoyancy tanks from	The clause may be read as:

	Clause no 1.1.4.1 Page No 15 of 550	river water by gravity and draining the same from end tanks during floating operation through drain valve. Caisson gate shall be capable of being ballasted or de-ballasted in 30 minutes or less. Normal raising and sinking operation shall be carried out using suitable valve arrangement without the operation of pumps. However, for any emergency, provision of pumping water from lower tanks to top tanks by means of electric driven submersible pumps shall be made.	Caisson Gate: By filling up top buoyancy tanks from river water and draining the same from end tanks during floating operation through pumps during normal and emergency operating conditions.
6	Volume - 2 Clause no 1.1.4 Page No 15 of 550	Table 1.1 Point no. 5 1 Central Control Room and 2 local control room	The clause may be read as: 1 Central Control Room and 4 local control room
7	Volume - 2 Clause no 1.1.4, 2.3.8, & 6.5.7 Page No 16, 82, & 546 of 550	Clause no 1.1.4 Bulkhead Gates: To be operated by rope drum hoists. Clause no 2.3.8 Bulkhead Gates: To be operated by rope drum hoists. Clause no 6.5.7 The bulkhead gate shall be operated by electrically operated rope drum hoists. The rope drum hoist shall be designed and manufactured as per IS: 6938.	The clauses may be read as: Clause no 1.1.4 Bulkhead Gates: To be operated by Electric Wire Rope Hoist. Clause no 2.3.8 Bulkhead Gates: To be operated by Electric Wire Rope Hoist. Clause no 6.5.7 The bulkhead gate shall be operated by Electric Wire Rope Hoist. The Electric Wire Rope Hoist shall be designed and manufactured as per IS: 6938.
8	Volume - 2 Clause no 2.1.2 Page No 44 of 550	Design Life The permanent works shall be designed and constructed to give the following design lives: > Locks - 50 years (As per PIANC 2011 workshop) > Bank protection works - 50 years > Fenders, Bollards and ladders - 8 years > Buildings - 50 years Above design lives are defined as a period within	The clause may be read as: The new permanent works shall be designed and constructed to give the following design life: > Locks - 50 years (As per PIANC 2011 workshop) > Gates: 30 years > Bank protection works - 50 years > Fenders, Bollards and ladders - 8 years

		which the asset will continue to be serviceable for design loads without collapse.	> Buildings - 50 years Above design life are defined as a period within which the asset will continue to be serviceable for design loads without collapse.
9	Volume - 2 Clause no 2.1.6 Page No 46 of 550	Average response acceleration coefficient, which depends on time period of the structure. The time period, T of the structure will be evaluated by STAAD analysis considering Dead load & 50% Live load.	The clause may be read as: Average response acceleration coefficient, which depends on time period of the structure. The time period, T of the structure will be evaluated by STAAD analysis considering Dead load & 50% Live load or using dynamic analysis and adopt the more severe criteria in the design.
10	Volume - 2 Clause no 2.2.8.1 (C) Page No 73 of 550	Permissible Voltage drop in Cables: <ul style="list-style-type: none"> • Transformer to Switchgear Busbars: - 1% • Switchgear, PCC to Motor: - 3% • Switchgear, PCC, ACDB, MLDB to Lighting DB (LDB): - 2% • LDB to farthest lighting fixture in the circuit: - 2.5% • Starting Voltage drop of Motor: 15% • Running Voltage drop of Motor: 3% 	The clause may be read as: Permissible Voltage drop in Cables: <ul style="list-style-type: none"> • Transformer to Switchgear Busbars: 1% • Switchgear, PCC to Motor: - 3% • Switchgear, PCC, ACDB, MLDB to Lighting DB (LDB): 2% • LDB to farthest lighting fixture in the circuit: 2.5% • Starting Voltage drop of Motor: 10% • Running Voltage drop of Motor: 2.5%
11	Volume - 2 Clause no 2.3.13 Page No 85 of 550	The allowable average water leakage tolerance of gates under any head and without the use of any additional sealing material per metre length of seal shall be 0.10 l/s.	The clause may be read as: The allowable average water leakage tolerance of gates under any head and without the use of any additional sealing material per meter length of seal shall be as per IS Code (IS 7718).
12	Volume-2, 3.2, Page No 90 of 550	Waste and Rubbish The Contractor shall provide regular daily clean-up and removal of trash, waste, scraps, construction debris, etc. from site and temporary work yard and shall arrange for disposal of waste and rubbish to disposal areas approved by the Employer.	The clause may be read as: Waste, Scrap and Rubbish The Contractor shall provide regular daily clean-up and removal of trash, waste, scraps, construction debris, etc. from site and temporary work yard and shall arrange for disposal of waste and rubbish to disposal areas approved by the Employer. The components to be dismantled are mentioned in BoQ & will be considered as scrap.

			The scraps (civil, hydro-mechanical, electrical, etc. having salvage value) retrieved after dismantling/decommissioning by the contractor, being the property of the Employer, shall be stacked at designated place within 500 m from project site.
13	Volume - 1 Schedule K Clause no 2.3 Page No 282 of 300	(iv) Time taken for filling / emptying of the lock shall not exceed 8 minutes. If it does not meet the criteria, appropriate modification to the feeder channel shall be made.	The clause may be read as: (iv) The filling & emptying time of existing navigational lock shall be retained as per original design of the structure.
14	Annexure of Volume - 2: Drawings ENL 011	11) All incomers and outgoings 125A and above shall have microprocessor-based O/L, S/C & E/F releases and below 125A shall have thermal magnetic based O/L, S/C & thermal magnetic based O/L, S/C & E/F releases. 15) LDB in local control room-5 shall fed power to lighting load & power socket load of local control rooms-1,3,5,7. 16) LDB in local control room-6 shall fed power to lighting load & power socket load of local controlrooms-2,4,6,8 and street lighting poles (57 nos) above boundary wall. 17) Location of local control rooms- 1, 2, 3, 4, 5, 6, 7, 8 are shown in drawing no FL-1025.	The clause may be read as: 11) All incomers and outgoings shall have microprocessor-based O/L, S/C & E/F releases. 15) LDB in local control room-1 shall fed power to lighting load & power socket load of local control rooms-1 & 3. 16) LDB in local control room-2 shall fed power to lighting load & power socket load of local controlrooms-2 & 4 and street lighting poles above boundary wall. 17) Deleted 18) Please refer revised drawing no ENL011 attached as Annexure-I .
15	Volume 2, Clause no 1.2.12.2, Point no 7, The detailed scope of electrical works is	Substation Battery, Lead Acid (Valve regulated) Sealed Maintenance Free type, 110V DC with minimum 1 Hour back up, 110V DC battery charger with dual battery charging and DC Distribution boards	The clause may be read as: Substation Battery, Lead Acid (Valve regulated) Sealed Maintenance Free type, 110V DC with minimum 1 Hour back up, 110V DC battery charger with battery charging and DC Distribution boards

	given below:		
16	Volume - 2 Clause no 5.2.5.1 Page No 421 of 550	Wooden racks shall be provided for batteries for multi-tier installation. These racks shall be made of good quality first class seasoned teak wood.	The clause may be read as: Mild Steel racks shall be provided for batteries for multi-tier installation.
17	Volume - 2 Clause no 5.2.6.1 (C) Page No 494 of 550	Control cables shall be of 1.1 kV grade, multicore, PVC insulated, PVC inner sheathed, armoured, FRLS PVC outer sheathed stranded copper conductor conforming to IS:1554 Part-I. Up to 5 cores it shall be colour coded and above 5 cores shall be numbered.	The clause may be read as: Control cables shall be of 1.1 kV grade, multicore, XLPE insulated, PVC inner sheathed, armoured, FRLS PVC outer sheathed stranded copper conductor conforming to IS:1554 Part-I. Up to 5 cores it shall be colour coded and above 5 cores shall be numbered.
18	Volume - 2 Clause no 5.3.3.2 Page No 499 of 550	The goal of the system is to centralize information and planning for the Material Handling solution operations and to optimize the utilization of all facilities. The system shall also be a central clearing house of information on material and equipment. All records shall be cross-linked between inventory and shipping databases, with the intentional that the source, destination, location and movement schedule of all current, previously and future stored material is known and movements can be planned as far in advance as possible. It should be possible, through the system, to know the position, type, Employer, consignee, quantity, age and any other relevant details of every quantity of material stored in the Plant. A maintenance database shall be provided to track equipment operation, faults and availability, and used to automatically schedule maintenance.	The clause may be read as: The management software is required for the following points related to different components of the Navigational Lock.: a. Data management & central repository of equipment. b. Functionality of different component of lack. c. Repository of spare parts & accessories. d. Indicate scheduled and preventive maintenance of different components of the lock etc. The bidder shall design the same with respect to the actual requirement & propose in the proposal along with the financial implication.
19	Volume - 2 Clause no 7 & 7.1	SPECIFICATIONS - FIRE FIGHTING SYSTEM 7.1 SCOPE OF WORK The Scope of Work is for the installation of Fire	The clause may be read as: SPECIFICATIONS - FIRE FIGHTING AND FIRE DETECTION & ALARM SYSTEM

Fighting Systems in the Control Room of Farakka Navigational Lock. The fire fighting system shall consist of dry powder stored pressure by nitrogen gas with inbuilt pressure gauge to indicate pressure.

S. No.	Area	Classes of Fire	Classification of Occupancy	System Proposed
1	Control Room	A, B & C	Ordinary Hazard	Dry powder stored pressure confirming to IS: 13849. Pressurized by nitrogen gas with inbuilt pressure gauge to indicate pressure.

However, if in the opinion of the tenderer, the above requirement needs to be enhanced for better performance or any other imperative criteria, the same shall be quoted separately as an alternative.

7.1 SCOPE OF WORK

The Scope of Work is for the installation of Fire Fighting and Fire Detection & Alarm Systems in the main and local Control Room of Farakka Navigational Lock as per IS: 2189. The firefighting system shall consist of dry powder stored pressure by nitrogen gas with inbuilt pressure gauge to indicate pressure.

S. No.	Area	Class of Fire	Classification of Occupancy	System Proposed
1	Control Room	A, B & C	Ordinary Hazard	Dry powder stored pressure confirming to IS: 13849. Pressurized by nitrogen gas with inbuilt pressure gauge to indicate pressure.

The firefighting system, fire detecting & alarm system shall be designed & implemented by the bidder as per the code & norms with conformity with the norms of as applicable (applicable govt norms).

7.2 FIRE WARNING AND ACTIVATION SYSTEM

7.2.1 Automatic fire detection and alarm system
Selection, installation and maintenance of automatic fire detection and alarm system shall be based on IS 2189 (2008).

7.2.2 Heat sensitive fire detectors
Specification for heat sensitive fire detectors for use in

			<p>automatic fire alarm system shall be based on IS 2175 (1988).</p> <p>7.2.3 Smoke detectors Specification for smoke detectors for use in automatic electrical fire alarm system shall be based on IS 11360 (1985).</p> <p>7.2.4 Protection of electronic data The protection of electronic computer/data processing equipment from damage by fire. The system shall be installed as per the IS 12456 (2004).</p>
<p>All other terms and conditions shall remain unaltered</p>			

