## **Volume-II**

### **NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE (NABI)**

(Department of Biotechnology, Ministry of Science and Technology, Govt. of India) Knowledge City, Sector-81, SAS Nagar, Mohali, Punjab

## **FINANCIAL BID DOCUMENT**



Supply Installation, testing and commissioning of water supply pumps at Sector-81, Mohali.

## **TECHNICAL SPECIFICATIONS**

#### 1.0 STANDARD SPECIFICATIONS TO BE FOLLOWED

The work should be executed as per following CPWD specification and also the specification laid in tender document. In case, above specifications are not available for certain item, then the material should conform to ISI and BIS standards.

#### 1.1 Civil Engineering Works

CPWD Specification 2009 Vol. I & II along with latest correction slips. These Specifications have replaced CPWD Specifications 1996 along with Correction Slips issued on them. These Specifications cover all types of Works. The specifications are available as a printed document issued by CPWD and also in soft copy PDF Format in CPWD website.

#### 1.2 Electrical Engineering Works

- (A) CPWD General Specifications for Electrical Works Part I Internal 2013.
- (B) CPWD General Specifications for Electrical Works Part II External 1994.
- (C) CPWD General Specifications for Electrical Works Part IV Sub Stations 2013.

The above specifications shall be read with upto date correction slips (if any).

- 1. Hydropneumatic pumps:- Supply, Installation, testing and commissioning of pumps along with motor of 7.5 kW (2 nos 1 working , 1 stand by) with digital control panel having facility of intelligent multi pump controller, automatic back up sensor, log function, manual operation option, safety on/off function etc having minimum flow of 20 cubic metre/hour , head of 84 metre with variable speed system including accessories such as suction/discharge headers in Galvanization iron, control valves, non-return valve, pressure transmitter and MPC controller with VFD complete in all aspects.
- 2. Centrifugal pumps: Supply, Installation, testing and commissioning of vertical multistage centrifugal pump (1 nos) with motor having digital pump controller with facility of safety on/off function, dry run protection, having minimum flow of 10 cubic metre/hour, head of 55 metre including acessories such as suction/discharge headers in Galvanization iron, control valves, non-return valve, pressure transmitter and MPC controller with VFD complete in all aspects. (Make-Wilo, Armstrong, Grundfos).

NOTE: In case of any contradiction between the specifications, the contractor shall take the prior approval of the Engineer- In – Charge before executing the same at site.

## **LIST OF MAKES TO BE ADOPTED**

S.No	Item	Make
1.	Pumps	(Wilo, Armstrong, Grundfos)
2.	GI pipe	Jindal/Tata

 $\textbf{Note:-} \ \textbf{Any other material make not mentioned shall be ISI marked \& got approved from Engg-in-charge}$ 

# NAME OF WORK: - Supply Installation, testing and commissioning of water supply pumps at Sector-81, Mohali.

## **ABSTRACT SHEET**

S.NO	PARTICULARS	AMOUNT (In INR)
1	ESTIMATED VALUE OF WORK	Rs 10,75,066/-
	(INCLUSIVE OF TAXES, LABOUR	
	CESS ETC)	
2	PERCENTAGE (% AGE) QUOTE	
	PLUS/MINUS (+/ -) BY BIDDER ON	
	ESTIMATED AMOUNT (IN FIGURES)	
3	PERCENTAGE (% AGE) QUOTE	
	PLUS/MINUS (+/ -) BY BIDDER ON	
	ESTIMATED AMOUNT (IN WORDS)	
4	NET AMOUNT AFTER UN-	
	CONDITIONAL PERCENTAGE	
	REBATE OR QUOTE ABOVE	
	ESTIMATED VALUE ((IN FIGURES)	
5	NET AMOUNT AFTER UN-	
	CONDITIONAL PERCENTAGE	
	REBATE OR QUOTE ABOVE	
	ESTIMATED VALUE ((IN WORDS)	

Stamp & Signatures of bidder

BOQ	for provision of hydroneumatic, o	centri	ifugal pui	mps for N	ABI, Mohali
Sno	Descritption of Work	Unit	Qty	Rate	Amount
1	Supply, Installation, testing and commissioning of hydroneumatic pumps along with motor of 7.5 kW (2 nos 1 working, 1 stand by) with digital control panel having facility of intelligent multi pump controller, automatic back up sensor, log function, manual operation option, safety on/off function etc having minimum flow of 20 cubic metre/hour, head of 84 metre with variable speed system including acessories such as suction/discharge headers in Galvanization iron, control valves, non-return valve, pressure transmitter and MPC controller with VFD complete in all aspects. (Make-Wilo, Armstrong, Grundfos)	each	set of 2 pumps with digital controller panel	940248.44	940248.44
1	Supply, Installation, testing and commissioning of vertical multistage centrifugal pump 1 nos with motor having digital pump controller with facility of safety on/off function, dry run protection, having minimum flow of 10 cubic metre/hour, head of 55 metre including acessories such as suction/discharge headers in Galvanization iron, control valves, non-return valve, pressure transmitter and MPC controller with VFD complete in all aspects.		perior	710210.14	7 102 10. FT
2	(Make- Wilo, Armstrong, Grundfos).	each	1	118544.26	118544.26
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:-  1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal				
	size).				
		cum	1.296	5924.65	7678.346
4	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				
	Foundations, footings, bases of columns, etc. for mass concrete	sqm	3.6	193.95	698.22

	Providing and fixing G.I. pipes complete with				
	G.I. fittings including trenching and refilling				
5	etc.				
	Internal work - Exposed on wall				
	80 mm dia nominal bore	mtr	9	576.3	5186.7
	65 mm dia nominal bore	mtr	6	451.7	2710.2
	Total Amount				1075066.17

NOTE: - Scope of work includes internal wiring of pumps, their internal electrical looping/wiring with controller panels, in between pumps etc. The electrical cabling from source to pumps shall be provided at site by Department. Payment shall be released item wise based on actual measurement examined at site by Engineer- In- Charge.

Signature/Stamp of Bidder