



राष्ट्रीय प्रौद्योगिकी संस्थान,मणिपुर  
**NATIONAL INSTITUTE OF TECHNOLOGY, MANIPUR**  
Langol Campus, .Ph. (0385) 2445812 / email:- [nitmn@nitmanipur.ac.in](mailto:nitmn@nitmanipur.ac.in)  
An Autonomous Institute under MHRD, Govt. of India.

**INVITATION FOR QUOTATION**

**TEQIP-III/2018/nitm/Shopping/28**

**18-Sep-2018**

To,

**Sub: Invitation for Quotations for supply of Goods**

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	Air pre heater accessories of model	1	60	NIT Manipur	yes
2	Babcock & Wilcox Boilers	1	60	NIT Manipur	Yes
3	Benson Boiler	1	60	NIT Manipur	Yes
4	Blow of cock mounting of model	1	60	NIT Manipur	Yes
5	Chochran Boiler	1	60	NIT Manipur	Yes
6	Cornish Boiler	1	60	NIT Manipur	Yes
7	Economizer eccossories of model	1	60	NIT Manipur	Yes



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8	Feed check valve mounting of model	1	60	NIT Manipur	Yes
9	Feed pump accessories of model	1	60	NIT Manipur	Yes
10	Feed pump mounting of model	1	60	NIT Manipur	Yes
11	Fusible plug mounting of model	1	60	NIT Manipur	yes
12	Injector accessories of model	1	60	NIT Manipur	Yes
13	Lamont Boiler	1	60	NIT Manipur	Yes
14	LANCASHIRE BOILER	1	60	NIT Manipur	Yes
15	Locomotive Boiler	1	60	NIT Manipur	Yes
16	Loeffler boiler	1	60	NIT Manipur	Yes
17	Pressure gauge mounting of model	1	60	NIT Manipur	Yes
18	Safety valve mounting of model	1	60	NIT Manipur	Yes
19	Scotchmarine Boiler	1	60	NIT Manipur	Yes
20	Steam Engine Model	1	60	NIT Manipur	Yes
21	Steam stop valve mounting of model	1	60	NIT Manipur	Yes
22	Sterling Boiler	1	60	NIT Manipur	YES
23	Super heater accessories of model	1	60	NIT Manipur	Yes



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24	Velox Boiler	1	60	NIT Manipur	Yes
25	Vertical Water Tube Boiler	1	60	NIT Manipur	Yes

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
  - 3.1 The contract shall be for the full quantity as described above.
  - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
  - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
  - 3.4 Applicable taxes shall be quoted separately for all items.
  - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
  - 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **55** days after the last date of quotation submission.
6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

  - 6.1 are properly signed ; and
  - 6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract:



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The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

**Delivery and Installation - 90% of total cost**

**Satisfactory Acceptance - 10% of total cost**

10. All supplied items are under warranty of months from the date of successful acceptance of items.

11. You are requested to provide your offer latest by **13:30** hours on **02-Nov-2018** .

12. Detailed specifications of the items are at Annexure I.

13. Training Clause (if any)

14. Testing/Installation Clause (if any)

15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

16. Sealed quotation to be submitted/ delivered at the address mentioned below,  
Langol, Imphal West 795004

17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation



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**Annexure I**

<b>Sr. No</b>	<b>Item Name</b>	<b>Specifications</b>
1	Air pre heater accessories of model	Air heater or air pre-heater is waste heat recovery device in which the air on its way to the furnace is raised in temperature by utilizing the heat of the exhaust gases. Air pre-heater are classified into the following two categories.
2	Babcock & Wilcox Boilers	It is a water tube boiler used in steam power plants. In this, water is circulated inside the tubes and hot gases flow over the tubes.
3	Benson Boiler	Benson boiler is also known as super critical steam generator which is developed by Mark Benson in the year 1922. This boiler can generate high pressure steam, which is further used in production of electricity and other industrial processes. It is a water tube boiler
4	Blow of cock mounting of model	The blow of cock serves to drain out the water from the boiler periodically for any one of the following reasons: o discharge mud, scale and other impurities which settle down at the bottom of the boiler, To empty the boiler for internal cleaning and inspection, To lower the water level rapidly if the level becomes too high.
5	Chochran Boiler	This is the best known vertical type fire tube boiler. The shell is about 25 cm. In diameter and 60 cm, high. The cylindrical fire box is with a door and grate at its bottom. Hot gasses pass from the fuel to the combustion chamber through a short flue pipe and then to chimney through ate tubes
6	Cornish Boiler	The Cornish Boiler is horizontal, cylindrical, with a single furnace tube running from the front to rear. The furnace tube is of a diameter sufficient to allow for a fire grate and ash pit to be placed within the tube. ... To reduce the waste of heat the boiler is set in brick



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7	Economizer eccosories of model	The economizer is a device, which serves to recover some of the heat being carried by exhaust flue gases. The heat thus recovered is utilized in raised temperature in feed water being supplied to the boiler. If the water is raised and thus there is a saving in the consumption of fuel.
8	Feed check valve mounting of model	The feed check valve has the following two functions to perform: To Allow the feed water to pass into the boiler, To prevent the back flow of water from the boiler in the events of the failure of the feed pump.
9	Feed pump accosories of model	The pressure inside a steaming boiler is high and so the feed water has to be raised in pressure before its entry can be affected in the boiler. Feed pump is a device which raised the pressure of water and forces it into the boiler
10	Feed pump mounting of model	The function of the water level indicator is to ascertain constantly and exactly the level of water in the boiler shell. It is fitted in the front of the boiler from where it is easily visible to the operator
11	Fusible plug mounting of model	The function of the fusible plug is to extinguish the fire in the event of the boiler shell failing below a certain specified limit. We know that when the water on heating transforms into steam, the level of water in the boiler falls down. If the water is not replenished and the steam generation continues then the parts, which have been uncovered by water uncovered by water may get overheated and subsequently are melted
12	Injector accessories of model	The pressure must be lowered with the use of either ... wide variety of fixed and variable chemical injectors and accessories
13	Lamont Boiler	LaMont boiler. A LaMont boiler is a type of forced circulation water-tube boiler in which the boiler water is circulated through an external pump through long closely spaced tubes of small diameter. The mechanical pump is employed in order to have an adequate and positive circulation in steam and hot water boilers.



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14	LANCASHIRE BOILER	Steel shell is about 75 cm. Long and 22 cm in diameter. Two large tubes known as fire tubes pass from end to end. At the front end of each tube a furnace fire grating is placed and a door is hinged.
15	Locomotive Boiler	In the locomotive-type boiler, fuel is burnt in a firebox to produce hot combustion gases. ... In the locomotive boiler, the saturated steam is very often passed into a superheater, back through the larger flues at the top of the boiler, to dry the steam and heat it to superheated steam
16	Loeffler boiler	Loeffler Boiler is a forced circulation, high pressure, and water tube boiler with internally fired furnace. In this boiler, the 2/3 of superheated steam is used to evaporate the water in the evaporating drum and remaining 1/3 of the steam from the superheater is used by the turbine. A steam circulating pump is used to circulate the steam into the boiler
17	Pressure gauge mounting of model	Each boiler has to be provided with a pressure gauge, which record the pressure at which the steam is being generated in the boiler. The gauge is usually mounted at the front top of the boiler shell or drum. The gauge should to be clearly visible to the attendant so that he can easily record the pressure reading.
18	Safety valve mounting of model	The function of the safety valve is to permit the steam in the boiler to escape to atmosphere when pressure in the steam space in the boiler. The safety valve operates in the principle that a valve is pressed against its seat through some agency such as sturt, screw or spring by external weight or force
19	Scotchmarine Boiler	Scotch Marine Boiler is a fire-tube boiler, in that hot flue gases pass through tubes set within a tank of water. The general layout is that of a squat horizontal cylinder. One or more large cylindrical furnaces are in the lower part of the boiler shell.
20	Steam Engine Model	A fire where the coal burns. A boiler full of water that the fire heats up to make steam. A cylinder and piston, rather like a bicycle pump



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		but much bigger. Steam from the boiler is piped into the cylinder, causing the piston to move first one way then the other
21	Steam stop valve mounting of model	A fire where the coal burns. A boiler full of water that the fire heats up to make steam. A cylinder and piston, rather like a bicycle pump but much bigger. Steam from the boiler is piped into the cylinder, causing the piston to move first one way then the other
22	Sterling Boiler	Stirling boilers may be made in very large sizes. It is usual for a standard design to be used, but in varying widths, according to need rapid circulation in a boiler is essential and it can readily be seen that the design of the Stirling boiler is favourable for securing good results in this direction.
23	Super heater accessories of model	The steam generated by a simple boiler is generally wet or at the most dry saturated. Steam super heater is a surface heat exchanger in which the wet steam is first dried at the same temperature and pressure and then raised to temperature above the saturation temperature at constant pressure. Heat of flue gasses utilized in super heating the steam and as the super heater is placed in the path of the flue gasses,
24	Velox Boiler	velox boiler is a forced circulation water tube boiler. It is mostly used in gas turbine. In this boiler, the velocity of flue gases is greater than the velocity of sound, which causes more heat transfer from gas to the water, which increases the steam generation rate. Due to this, it is most important boiler
25	Vertical Water Tube Boiler	It is fitted inside a cylindrical fire box to increase the heating surface and improve the circulation. The fire box is fitted with cross tubes, the model is complete with stop valve, check valve, safety valve, manhole, water gauge and steam gauge.





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**FORMAT FOR QUOTATION SUBMISSION**  
(In letterhead of the supplier with seal)

Date: \_\_\_\_\_

To:

\_\_\_\_\_  
\_\_\_\_\_

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
<b>Total Cost</b>							

Gross Total Cost (A+B): Rs. \_\_\_\_\_

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. \_\_\_\_\_ (Amount in figures) (Rupees \_\_\_\_\_ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of \_\_\_\_\_ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.



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We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No: \_\_\_\_\_