



INVITATION TO BID

 The PHILIPPINE TEXTILE RESEARCH INSTITUTE (PTRI), through the GAA-CI Projects "Support to the Development of Mindanao Silk through the PTRI Technology Center in Misamis Oriental and Revitalization of Sericulture in the Cordillera Administrative Region" intends to apply the sum of FIVE MILLION FIVE HUNDRED THOUSAND PESOS (Php5,500,000.00) being the total Approved Budget for the Contract (ABC) for payments of Two (2) Units Steam Boller inclusive of taxes, fees, delivery costs and other incidental charges.

Bids received in excess of the ABC shall be automatically rejected at bid opening.

- 2. The PTRI, now invites bids for the "Procurement of Two (2) Units Steam Boiler with <u>180 CALENDAR DAYS</u> delivery period. Bidders should have completed, within five (5) years from the date and submission and receipt of bids, a contract similar to the Project as provided for in Section 23.5.1.3 (a) and (b) of the IRR of RA 9184. The description of an eligible bidder is contained in the Bidding Documents, particularly in Section II, Instruction to Bidders.
- Bidding will be conducted through open competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the Revised Implementing Rules and Regulations (IRR) of Republic Act No. 9184 (RA 9184), otherwise known as the "Government Procurement Reform Act" (Handbook on Phil .Government Procurement, 8th Edition, 2016)

Bidding is restricted to Filipino citizens/sole proprietorship, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws and regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183 and subject to Commonwealth Act 138.

 Interested bidders may obtain further information from PTRI BAC Secretariat and inspect the Bidding Documents at the address given below from 8:00 a.m. to 5:00 p.m.

A complete set of Bidding Documents in soft copy contained in a CD may be purchased by interested Bidders from the BAC Secretariat upon payment of Five Thousand Five Hundred Pesos (Php5,500.00).

It may also be downloaded from the website: https://www.ptri.dost.gov.ph_of the Procuring Entity, provided that upon submission of bids, the bidders shall pay the corresponding fee.

- The PTRI will hold a Pre-Bid Conference on 23 May 2018 at 10:00 a.m., PTRI Training Room, PTRI Main Building, Gen. Santos Ave., Bicutan, Taguig City, which shall be open only to all interested parties who have purchased the Bidding Documents.
- Bids must be delivered to PTRI Training Room, PTRI Main Building, Gen. Santos Ave., Bicutan, Taguig City, on or before 10:00 a.m., on June 04, 2018. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 1 18 or a Bid Securing Declaration.

Bid Opening shall be on June 04, 2018 at 10:00 a.m. at the PTRI Training Room, PTRI Main Building, General Santos Avenue, Bicutan, Taguig City Bids will be opened in the presence of the bidders' representatives who choose to attend at the address above. Late bids shall not be accepted.

- The bidders shall submit three (3) sets of their duly accomplished eligibility requirements and Technical, and Financial Proposal in two (2) separate sealed envelopes, contained in an outer envelope.
- The PTRI reserves the right to accept or reject any bid, to annul the bidding process at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.
- 9. For further information, please refer to:

Marilou G. Agustin

Property, Procurement and General Services Section (PPGSS) Tel. No. (02) 837 2071 (loc. 2373) or Tel. / Fax No. (02) 837 0744 mgagustin@ptri.dost.gov.ph

CORAZON I. TAPULGO PTRI BAC Chairperson

Technical Specifications

ltem		Specification	Statement of Compliance
1	Steam Boiler		
	50 HP, 3 pass, dry back, horizontal ,fire tube boiler		
	Design Pressure: 150		
		controller w/ probe type	
	2nd low water cut-c		
	Pressure Atomized Bu		
	Trims: Steam outlet va		
	steam pressure gauge		
	gauge, blow down valv		
	pump control & low water cut-off Feed water pumping set, oil pumping & heating set,		
	fuel oil day tank, includ		
	-	-	
	Installation and commissioning at Kalinga Province Training on Operation and basic maintenance		
	1 year warranty		
	Charge to: Revitalization		
		STEAM BOILER	
		STEAM BOILER	
	Technical Specifications		
	1. One unit steam Boi		
	Horsepower :	50 BHP	
	Type :	Horizontal	
	Design :	Dry-back, 3-Pass	
	Capacity :	1,725 lbs/hr of steam from & @ 212 °F	
	Design Pressure :	150 psi	
	Operating Pressure :	145 psi	
	Max. Steam Temp. :	354 °F	
	Heating Surface :	5 ft2./ BHP (Boiler Horsepower)	
	Steam Chamber :	Equipped with steam separator on chamber et: Temperature mixing baffle plate	
	Accessories Includes :		
	Accessories includes .	Boiler low & high water level (float & probe	
		type level controller)	
		With explosion door outlet	
		2-unit Pressure controller (Honeywell, US)	
		4-unit Standard hand hole	
		2-unit Safety relief valves	
		1-unit Pressure gauge 6"Ø dial face, ¼ NPT	
		B.C.	
		1-lot Smokestack temperature gauge	
		1-set Boiler and burner peep sight glass	
	Material Specification		
	Shell :	Boiler Plate A515 Gr.70	
	Flue Tube :	Boiler Plate A515 Gr.70	
	Tube Sheet :	Boiler Plate A515 Gr.70	
	Tube :	STBH 340E 50mmØ x 3.2mm thk. Gage #10	
	Cladding :	Ga.22 (Color: fire red oven baked)	
	Insulation :	50mm thk. Rockwool @ 650 0C service	
		temperature	
	Shell & Door Flange :	MS Plate A-36	
	Feed Water Connecti	on :	
		2-unit Disc type check valves 150#s boiler	

		side 2-unit Globe valve	
		1-unit Spring loaded check valve 800#s cap after the pump for back pres.	
		1-unit Pressure gauge on the boiler feed line	
	Burner:		
	Brand :	Japan	
	Fuel :	Diesel	
	Control Supply :	220/380V, 3-Phase, 60 Cycle	
	Mode of Operation :	On/Off / Pressure atomized	
2.	ONE UNIT FEEDWATER TANK		
	Capacity :	60 Gallons	
	Mode of Operation :	Controlled by mechanical float valves and sight glass for water level and complete with y-strainer, valves,	
		fittings, by-pass line and drain	
		line with angle bar structural support and base plate.	
3.	ONE UNIT FUEL DAY TA	NK	
	Capacity :	60 Gallons	
		Mode of Operation : Controlled by	
		mechanical float valves and sight glass for	
		fuel level and complete with y-strainer,	
		valves, fittings, by-pass line and drain line	
		with angle bar structural support and base plate.	
4.	ONE UNIT FEEDWATER	Grundfos	
	Model :	CR1-15	
	Capacity :	1.51 m ³ /hr	
	Total Dynamic Head :	105 m	
	, Power Supply :	230/460 Volts, 3-Phase, 60 Hz	
	Impeller :	Stainless Steel, Vertical type	
	Mode of Operation :	Automatic cut-off of the feed pump,	
		complete with sensor for flow	
		and low-low water level control, pressure	
		gauge & continuous level control devices	
5.	ONE UNIT CONTROL PA		
	Design and fabricated in accordance with NEMA 1 Standard.		
	 Equipped with circuit breakers, pilot lamps, magnetic contactors, relays & motors controller. 		
	2. Power indicator, feed water pump, fuel pump burner, flame		
	detection		
c	 Hi-low interlock steam press, low water level alarm systems, motor on/off switch indicator 		
6.	ONE UNIT SMOKESTACK Materials :		
		MS plate A-36, 4' x 8' x 1/8" thk. required with ash pit clean outlet flanges	
	Size :	250mmØ /300 mmØ x 3mm thk. x 40 ft. lon	
		Complete with stack temp. gage, rain cap,	
		guy wire, inspection port for DENR	
	Painting :	Hi-heat @ 1800 °F service temperature	
	Stack Location :	Connected on the rear side of boiler	
7.	INSTALLATION OF BOILE	ER & PIPING WITHIN THE BOILER ROOM ONLY	
		connecting of boiler piping for water, fuel,	
		n, not to exceed 15 feet radius.	
		•	

		erection of smokestack.	
	3. Installation of boiler e	electrical controls.	
	4. Test Run of Boiler		
	Hydro testing	histoping	
	Testing & Comm	oiler operator for a period of (5) five days and	
	(1) one day class roo		
8. SI	TE INSTALLATION		
Ur	nit to be delivered and ins	stalled at Kalinga State University, Bulanao,	
Tabuk,	, Kalinga		
Stear	n Boiler		
	P, 3 pass, dry back, horize	ontal ,fire tube boiler	
-	gn Pressure: 150 psi		
Float-type water level controller w/ probe type 2nd low water cut-off			
	sure Atomized Burners, F	uel: Diesel	
	s: Steam outlet valve, safe		
	n pressure gauge, water o	-	
	ge, blow down valves, try-		
pump	p control & low water cut-	off	
Feed	water pumping set, oil pu	imping & heating set,	
fuel o	oil day tank, including stea	im line	
Installa	ation and commissioning a	at Villanueva, Mis. Or.	
	ng on Operation and basic		
1 year	warranty ge to: Support to the Dev	. of Mindanao Silk STEAM BOILER	
1 year Char	ge to: Support to the Dev		
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1 year Char Tech	ge to: Support to the Dev	STEAM BOILER	
1 year Char Tech 1. (rge to: Support to the Dev	STEAM BOILER	
1 year Char Tech 1.	rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type :	STEAM BOILER and Burner 50 BHP Horizontal	
1 year Char Tech	rge to: Support to the Dev nnical Specifications: One unit steam Boiler a Horsepower : Type : Design :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass	
1 year Char Tech 1.	rge to: Support to the Dev nical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F	
1 year Char Tech	rge to: Support to the Dev mical Specifications: One unit steam Boiler : Horsepower : Type : Design : Capacity : Design Pressure :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 Ibs/hr of steam from & @ 212 °F 150 psi	
1 year Char Tech	rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi	
1 year Char Tech 1. (rge to: Support to the Dev nical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F	
1 year Char Tech	rge to: Support to the Dev mical Specifications: One unit steam Boiler : Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower)	
1 year Char Tech	rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber	
1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate	
1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type	
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1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet :	STEAM BOILER So BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type level controller) With explosion door outlet 2-unit Pressure controller (Honeywell, US)	
1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type level controller) With explosion door outlet 2-unit Pressure controller (Honeywell, US) 4-unit Standard hand hole	
1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Operating Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet :	STEAM BOILER So BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type level controller) With explosion door outlet 2-unit Pressure controller (Honeywell, US) 4-unit Standard hand hole 2-unit Standard hand hole 2-unit Standard hand hole	
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1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler a Horsepower : Type : Design : Capacity : Design Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet : Accessories Includes :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type level controller) With explosion door outlet 2-unit Pressure controller (Honeywell, US) 4-unit Standard hand hole 2-unit Safety relief valves 1-unit Pressure gauge 6"Ø dial face, ¼ NPT B.C.	
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1 year Char Tech 1. (rge to: Support to the Dev mical Specifications: One unit steam Boiler : Horsepower : Type : Design : Capacity : Design Pressure : Max. Steam Temp. : Heating Surface : Steam Chamber : Boiler Feed Water Inlet : Accessories Includes : Material Specifications: Shell : Flue Tube :	STEAM BOILER and Burner 50 BHP Horizontal Dry-back, 3-Pass 1,725 lbs/hr of steam from & @ 212 °F 150 psi 145 psi 354 °F 5 ft2./ BHP (Boiler Horsepower) Equipped with steam separator on chamber Temperature mixing baffle plate Boiler low & high water level (float & probe type level controller) With explosion door outlet 2-unit Standard hand hole 2-unit Standard hand hole 2-unit Standard hand hole 2-unit Safety relief valves 1-unit Pressure gauge 6"Ø dial face, ¼ NPT B.C. 1-lot Smokestack temperature gauge 1-set Boiler and burner peep sight glass	

	Insulation : Shell & Door Flange :	50mm thk. Rockwool @ 650 0C service temperature MS Plate A-36	
	Feed Water Connection :		
	reed water connection.	2-unit Disc type check valves 150#s boiler side	
		2-unit Globe valve	
		1-unit Spring loaded check valve 800#s cap after the pump for back pres.	
		1-unit Pressure gauge on the boiler feed line	
	Burner:		
	Brand :	Japan	
	Fuel :	Diesel	
	Control Supply :	220/380V, 3-Phase, 60 Cycle	
	Mode of Operation :	On/Off / Pressure atomized	
2.	ONE UNIT FEEDWATER TANK		
	Capacity :	60 Gallons	
	Mode of Operation :	Controlled by mechanical float valves and sight	
		glass for water level and complete with y-strainer, valves, fittings,	
		by-pass line and drain	
		line with angle bar structural support and base	
		plate.	
3.	ONE UNIT FUEL DAY TAN	κ	
	Capacity :	60 Gallons	
		Mode of Operation : Controlled by mechanical	
		float valves and sight glass for fuel level and	
		complete with y-strainer, valves, fittings, by-pass line and drain line with angle bar structural	
		support and base plate.	
4.	ONE UNIT FEEDWATER P	UMP	
	Brand :	Grundfos	
	Model :	CR1-15	
	Capacity :	1.51 m³/hr	
	Total Dynamic Head :	105 m	
	Power Supply : Impeller :	230/460 Volts, 3-Phase, 60 Hz Stainless Steel, Vertical type	
	Mode of Operation :	Automatic cut-off of the feed pump, complete	
		with sensor for flow	
		and low-low water level control, pressure	
		gauge & continuous level control devices	
5.	ONE UNIT CONTROL PAN	EL	
	Design and fabricated in accordance with NEMA 1 Standard.		
	 Equipped with circuit breakers, pilot lamps, magnetic contactors, relays & motors controller. 		
	2. Power indicator, feed water pump, fuel pump burner, flame detection		
	3. Hi-low interlock steam press, low water level alarm systems,		
	motor on/off switch indicator		
6.	ONE UNIT SMOKESTACK		
	Materials :	MS plate A-36, 4' x 8' x ¹ / ₈ " thk. required with	
	C i=	ash pit clean outlet flanges	
	Size :	250mmØ /300 mmØ x 3mm thk.	
		x 40 ft. long. Complete with stack temp. gage, rain cap, guy	
		wire, inspection port for DENR	
	Painting :	Hi-heat @ 1800 °F service temperature	
	Stack Location :	Connected on the rear side of boiler	
7.	INSTALLATION OF BOIL	& PIPING WITHIN THE BOILER ROOM ONLY	

blow down, not to exceed 15 feet radius.	
2. Mounting & aligning, levelling of boiler vessel pumps on the foundation	
including erection of smokestack.	
3. Installation of boiler electrical controls.	
4. Test Run of Boiler	
Hydro testing	
Testing & Commissioning	
5. Conduct training of boiler operator for a period of (5) five days and (1)	
one day class room seminar.	
8. SITE INSTALLATION	
Unit to be delivered and installed at PTRI-TCMO, Brgy. Imelda,	
Villanueva, Misamis Oriental	