Annex "C"

TERMS OF REFERENCE AND CONDITIONS

Project/Title	SUPPLY AND DELIVERY OF FARM MACHINERIES/EQUIPMENT PCC-UPLB	
Approved Budget for the Contract	Two Million Five Hundred Thousand Pesos (P 2,500,000.00)	
Fund Source	Revolving Fund	
End-user	PCC-UPLB	
Place of delivery	PHILIPPINE CARABAO CENTER at UPLB	
Delivery Period	Los Banos, Laguna	
Delivery Period	One Hundred Twenty (120) calendar days upon acceptance of Notice to Proceed	
Definition of Similar contract	Similar contract refers to project/s that involves supply and	
	delivery of farm machineries/equipment	
Minimum Requirements for Bidders	It is understood that the equipment to be offered must be complying with the specifications called for.	
	2. The bidder must have completed a single contract within the last five (5) years similar to the project equivalent to at least fifty percent (50%) of the ABC amounting to (P 1,250,000.00) OR	
	Completed at least two (2) similar contracts, the aggregate amount of which should be equivalent to at least fifty percent (50%) of the ABC and the largest of these similar contracts must be at least half of the percentage of ABC required above amounting to (P 625,000.00).	
	3. The bidder must have a valid National Agricultural and Fisheries Machinery Assemblers, Manufacturers, Importers, Distributors and Dealers Accreditation and Classification (NAMDAC) Certificate of Accreditation (CoA).	

Item	Description/Equipment	Quantity	Unit	Unit Cost	Total Cost

No.					
1	Forage Harvester (Flail Chopper)	1	Unit	P 1,200,000.00	P 1,200,000.00
2	Brand New Diesel AC Power Genset	1	Unit	P 1,300,000.00	P 1,300,000.00
	75KVA (Silent Type)				
	TOTAL				P 2,500,000.00

TECHNICAL SPECIFICATIONS

ONE (1) UNIT FORAGE HARVESTER (FLAIL CHOPPER)		
Recommended tractor	Utility tractors from 40 to 100 PTO horsepower	
Cutting width	72-in. (1.8 m)	
Cutting height	Adjustable 2-1/2-in. to 7-1/4-in. (64 to 184 mm)	
Width in operating position	133-in. (3.38 m)	
Width in transport position	108-in. (2.76 m)	
Length with discharge spout to the rear	116-in. (2.95 m)	
Height with spout	118-in. (3.01 m) minimum and 128-in. (3.27 mm)	
	maximum	
Height less spout	56-in. (1.44 m) minimum and 70-in. (1.8 mm)	
Weight (approx.)	2083 lb. (945.2 kg)	
Number of knives: Rotor	42 (reversible, double-edged)	
Cutterhead	3 standard; 3 optional	
Power take-off speed	540 rpm	
Rotor speed	1366 rpm	
Cutterhead speed	957 rpm	

DOCUMENTATION COMPONENTS

The supplier shall warrant that they will provide all the necessary documents/manual in English Language relative to the equipment as follows:

- Owner/User Manual
- Operation Manual
- Maintenance Manual
- Spare Parts List

WARRANTY COMPONENTS

The supplier shall provide warranty for the equipment covering parts and technical services on the equipment and its accessories for a period of one (1) year from the date of installation and commissioning (as accepted by PCC evidenced by a Certificate of Final Acceptance issued by PCC). During the warranty period, the supplier shall replace any defective parts or materials and or provide

regular checkups, consultation and as needed, maintenance services for the equipment at no cost to PCC.

AFTER SALES SERVICE

Regardless of whether or not a maintenance agreement is entered into by the concerned parties after the expiration of the warranty period, the supplier should guarantee the availability of spare parts and components of the aforementioned equipment at least within the period of five (5) years from the date of acceptance of the equipment

ONE (1) UNIT BRAND NEW DIESEL AC POWER G	SENSET 75KVA (SILENT TYPE)		
Standby Power	60kW/75KVA		
Prime Power	54KW/67.5KVA		
ATS	Automatic switch rated 200Amp, breaker type,		
	230V, 3 phase		
Engine Specification:	 Configuration: 4 cycle, 4 cylinders in line 		
ELECTRONICALLY CONTROLLED ENGINE	Aspiration: Turbo charged Rated Speed :		
	1800rpm		
	Standby Power : 75KVA		
	 Speed Governor: ELECTRONIC 		
	Injection System : at least direct injection		
	 Cooling System: Water cooled, 40°C 		
	Radiators As Standard, 50°C is optional		
	 Fuel consumption at 100% load: not more 		
	than 19 L/hr (Standby)		
	Starter motor: DC 12V/24V		
Alternator Specifications:	■ Capacity: 75KVA		
	Voltage:220V		
	Frequency & Speed: 60HZ/1800RPM		
	Exciter Type: Brushless, Self-excited		
	Power factor: 0.8		
	Voltage Adjust Range :> 5%		
	Voltage Regulation NL-FL: < + 0.5%		
	Insulation Grade: H		
	Protection Grade:IP23		
Control System:	Automatic Start/Stop		
Control System.	- Automatic Start/Stop		

	 3 Start attempts failure and Automatic Crank Disconnect Parameter display (V/A/Hz/Hour) Engine monitoring and protection Charge alternator exciting and charge alternator fail alarm Running hour counting Settings can be adjustable via key buttons on front panel
Other Requirements:	Sound attenuated/all weather protective enclosure at 85dBA noise level at 1 meter and manufactured according to ISO standard complete with the following:
	 with provision for lifting multiple Swing Doors POWDER COAT FINISHED, utilizing a SEVEN (7) STAGES of Chemical treatment (de-rusting process) 1.5 mm thick COALED ROLLED SHEET (CRS) with panel viewing glass SLAM LATCH doors Fire retardant foam with aluminum lining 85 decibels sound level at 1 meter engine direct couple with alternator Mounted on heavy duty base frame Fuel capacity for eight (8) hours continuous operation at 100% load Complete with standard accessories
Automatic Transfer Switch:	 200 Amperes Rating minimum Breaker Type or Change Over Type Three (3) Phase 220-240V
Breakers for Automatic Transfer Switch (ATS): Installation:	 USA, United Kingdom and Europe brand Delivery and positioning of generator set
	within the ground level only Installation of vibration isolators

	 Installation of exhaust tail pipe complete
	with bracket and painted with high heat
	paint
	 Installation of ducting complete with
	bracket and canvass cloth
	■ Installation of cable wire (maximum length
	of wire is 10 meter/line) from genset
	breaker to ATS emergency side within the
	standard size power house only, Line side
	and Load side shall be for the account of
	Philippine Carabao
	 Installation of control wiring from genset to ATS
	 Testing and commissioning, consumables
	shall be for the account of the PCC
	 On hand Training of PCC's Authorized
	representative on how to maintain and
	operate the generator set
Additional Requirements:	Inclusive of installation, testing and
	commissioning
	 Length of wire: 10 meters from Generating
	Set to ATS/line
	Additional exhaust pipe, wires and
	accessories
	 Two (2) years warranty from the date of
	commissioning/ acceptance or 1500 hours
	operation whichever comes first
	 After sales service visit schedule
	 Availability of parts and service within the
	next five (5) years from the date of
	acceptance
	■ Training
	 USA, United Kingdom and Europe brand
	for the Engine and Alternator
	 Website of Manufacturer

Prepared by:

EDUARDO P. DALUSONG

Head, Technical Working Group

JESUS ROMMEL V. HERRERA

Officer-in-Charge, PCC-UPLB Approved by:

CARO B. SALCES

Deputy Executive Director/Chief, Operations