

## PURCHASE REQUEST

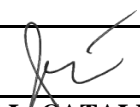
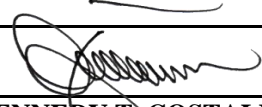
Entity Name: **PHILIPPINE FIBER INDUSTRY DEVELOPMENT AUTHORITY**

Fund Cluster: **101**

Office/Section: <b>Research Division</b>		PR No. Responsibility Center Code:	Date: May 21, 2018		
Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
	unit	<p><b>Lyophilizer/Freeze Dryer Set</b>                      Upright stainless steel collector coil capable of removing at least 2 liters of water in 24 hours and holding 2.5 liters of ice before defrosting.                      Dual 1/3 HCFC/CFC-free refrigeration systems to cool collector to -84°C (-119°F). For low eutectic point samples containing water or acetonitrile. Compact benchtop with small footprint.                      Brushed stainless steel and glacier white, powder-coated steel exterior with blue accents.                      LCD that displays system operating parameters, set up parameters and alarm messages. It may be user configured to display vacuum in mBar, Pa or Torr and temperature in °C or °F. It also displays total number of hours of refrigeration system operation and time.                      Alarm red/alarm flash or beep sounds to indicate abnormal system even has occurred with menu switch to display the alarm message on the LCD                      LED vacuum and temperature waves for at a glance display of relative system vacuum and collector temperature.                      Moisture sensor that prevents refrigeration of vacuum start-up when moisture is detected in the drain area                      Vacuum control valves that maintains setpoint vacuum level. Vacuum break valve that bleeds air into the system when power to the freeze dryer or vacuum pump is shut off. If the power outage less than approximately 5 mins occur, the freeze dryer will</p>	1		1,000,000.00

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Purpose: for Research Division use.

	<b>Requested by:</b>	<b>Approved by:</b>	
Signature			
Printed Name	<b>JOSE L. CATALLA</b>	<b>KENNEDY T. COSTALES</b>	
Designation	Chief-Research Division	Executive Director III	

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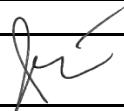
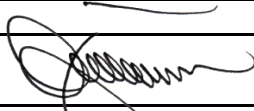
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Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
		<p>continuation: restart and the refrigeration and vacuum system will resume operation once the power is restore. If the power failure is more than approximately 5 mins and the collector warms above safe limits, the freeze dryer will not automatically restart</p> <p>Port to transmit data to a user-supplied computer Automatic start-up switch for collector cool-down and vacuum pull-down with manual override switches. Side-mounted, retractable, 9" collector drain hose. Clear acrylic lide, 3/4" thick, with 3" diameter port for connection of drying accessories. Side-mounted power switch, rear mounted electrical receptacle (for vacuum pump connection) and 3-wire cord with 20 amp plug. 3/4" OD vacuum connector, three feet of 3/4" ID vacuum hose and two clamps. Model conform to the following standards:     UL Standard 61010-1 (60Hz model)     CAN/CSA C22.2 No.61010.1 (60 Hz model)     CE Conformity marking (230 volts, 50 Hz models)</p> <p>Includes: Combination Vacuum Pump Clear Chamber Product Shelves</p> <p>With two (2) year warranty on parts and services, yearly preventive maintenance during the warranty period Provide on-site training and calibration upon delivery</p>	last copied		

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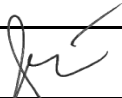

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Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
	unit	<p><b>Ultra Low Temperature Freezer</b>            Minus 50 to minus 86 degree C, Upright Freezer,            19.4 cu.ft, 208-230V, 60Hz            Four polystyrene inner doors, 3 shelves            Painted Steel Interior,standard, Optional Stainless Steel interior            4x7 heated gasket, four security touchpoints and seven protection zones            Can store up to 15 years worth of temperature and event data in on-board data storage            Cryobank tubes capacity: 67,600 1mL tubes            Vial capacity: 40,000 2mL vials            Foot print: 8.46 sq.ft. / 0.79 sq.m            Energy: 19 KW/day            Vial to foot print: 4,728 vials/ft; 50,633 vials/m            Vials to energy: 1.93 watts/100 2mLvials            Area footprint: 8.46 sq.ft./0.79 sq.m            Touch screen LCD display            Interior dimensions (H x W x D in/cm):                51.23 x 23.13 x 28.29 / 130.11 x 58.74 x 71.86            Exterior dimensions (H x W x D in/cm):                78.0 x 32.4 x 37.6 / 198.1 x 82.2 x 95.5            Energy consumption (kW-hour/day): Energy Savings Mode at 16.9 / High Performance Mode at 18.5            Insulation -Vacuum Panel and Water Blown Foam            Standard On-Board Datalogging            Standard Operating Modes High Performance or Energy Efficiency            Standard Setpoint Security- Individual user names and passwords            Data Outputs RS-485, 4-20mA, dry contacts - standard</p>	1		1,500,000.00

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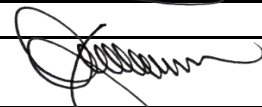
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Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
	unit	<p>continuation: Health Monitoring On Screen,Log File Buck/Boost Voltage Compensation SmartView Compatible Peak Variation from -80°C Setpoint (°C): +5.6/-5.3 Door Opening Recovery: 20 minutes Access Security: Keylock, padlock standard Warm-up Time (-80°C to -50°C): 225 minutes cULus, CE listed Technical Support: Attentive factory-trained engineer/ technical specialist to submit certifications) Comes complete with 1 x RSK400SD4 Racking Shelf Kit which includes 4 sliding drawer racks, 100 pcs 2" boxes with 100count cell dividers. Including transformer, not less than 10 kva With two (2) years warranty on parts and services, yearly preventive maintenance during the warranty period Provide on-site training and calibration upon delivery</p> <p><b>Centrifuge with fixed angle rotor</b> Max. Speed : 16,000 rpm Capacity: 24 x 2mL Electricals : Hertz 50/60Hz Voltage 230V Programmability : 4 protocols via direct access key, with naming option and password protection available Profile : (Acceleration/Braking) 2 (standard and soft) Control : Microprocessor Noise Level : &lt;61 dBA Safety Features: Auto-Lock rotor exchange system imbalance detection system, certified ClickSeal sealed biocontainment lids</p>	1		200,000.00
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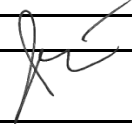
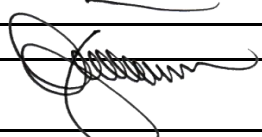
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Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
	unit	<p>continuation: Timer: 99 hr 59 min, continuous; Certifications/Compliance: IEC; UI Listed/CE marked Drive : Direct, brushless induction</p> <p>With two (2) years warranty on parts and services, yearly Preventive maintenance during the warranty period Provide on-site training and calibration upon delivery</p> <p><b>Gel Doc Imaging System</b> Auto exposure with 5MP or more,camera, scientific grade sensor; Light source: Epi white, dual wave length transillumination at 302nm With door sensor to prevent accidental exposure to UV; UV light automatically shut off when door is open, small footprints Certification: CE or ISO Accessories: Laptop and printer with OS (MS®) Hardware requirements: at least 1:4 GHz Processor speed: at least 2 gb RAM, at least 16 gb HD at least 2 USB ports With two (2) years warranty (parts and services) yearly Preventive maintenance during the warranty period Provide on-site installation and training on operation and basic maintenance of the unit</p>	1		402,000.00
Page 5 of 6					
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Signature		Signature			
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Designation		Designation			
JOSE L. CATALLA		KENNEDY T. COSTALES			
Chief-Research Division		Executive Director III			

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Office/Section: <b>Research Division</b>		PR No. Responsibility Center Code:	Date: May 21, 2018		
Stock/Proper No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
	unit	<b>Tissue Lyser</b> including: Adapter set 2 x 24 2 sets of adapter plates and 2 racks for use with 2 ml microcentrifuge tubes Stainless steel beads, 5mm (200) High-speed shaking of samples in 2 ml microcentrifuge tubes with stainless steel beads Technology: bead mill Throughput: 2 x 24 microcentrifuge tubes (2ml) Typical run time: 15 sec - 2 x 3 minutes at 15-30 Hz  With two (2) year warranty on parts and services, yearly preventive maintenance during the warranty period Provide on-site training and calibration upon delivery  Charge to 2018 Research Division ( Capital Outlay )	1		932,580.00
6 of 6			<b>TOTAL</b>		<b>4,034,580.00</b>

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Signature		
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