



ASTI – FM 03-17
REV 2 / 31 January 2020

PURCHASE ORDER

Supplier:	ACMI Office Systems Philippines, Inc.	PO No.:	21-10-174
Address:	AYSN Building, 268A N.Domingo St., San Juan City	PO Date:	October 15, 2021
TIN:	005-175-282-000	Mode of Procurement:	Competitive Bidding

Gentleman:

Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery:	ASTI Bldg., C.P. Garcia Ave., U.P. Technology Park Complex, U.P. Campus, Diliman, Quezon City 1101	Delivery Term:	Thirty (30) Calendar Days upon issuance of NTP
Date of Delivery:		Payment Term:	Government Terms
		Warranty Term:	

Stock / Property No.	Unit	Description	Quantity	Unit Cost	Amount
1	Lot	<p>Airconditioning Units</p> <p>Supply, Delivery, Installation, Testing, and Commissioning of Various Air Conditioning Units (ACUs)</p> <p>1. BACKGROUND and OBJECTIVES</p> <p>1.1. The Advanced Science and Technology Institute (herein referred as to the "Institute") is seeking qualified and competent bidders for the supply, delivery, installation, testing, and commissioning of various air-conditioning system units (ACUs).</p> <p>1.2. The approved budget for the contract is inclusive of all applicable government taxes and services charges.</p> <p>1.3. These brand-new ACUs will be installed at the premises of the Institute replacing existing AC units, which have either reached the end of their useful life or in a state of disrepair; thus, the bid should include any construction, electrical, and restoration works necessary to complete their installation such as dismantling/removal of all decommissioned units, removal/replacement of old copper piping, and removal/replacement of circuit breakers for the power supply.</p> <p>1.4. The technical specifications indicated herein are minimum requirements, unless otherwise specified.</p> <p>2. SCOPE OF WORK</p> <p>2.1. Supply, delivery and installation, testing, and commissioning of twenty-six (26) units of inverter-air-conditioning units (ACUs)</p> <p>2.2. Dismantling and removal of all identified existing ACUs (indoor and outdoor units), roughing-ins and other materials to be replaced.</p> <p>2.3. Chipping and boring of holes through walls, ceiling, and floor (if applicable) for the passage of</p>	1	₱3,977,500.00	₱3,977,500.00

Postal Address : ASTI Bldg., U.P. Technology Park Complex,
CP Garcia Ave., Diliman, Quezon City 1101
Website : www.asti.dost.gov.ph
Email : info@asti.dost.gov.ph

Tel No. : +632 8249-8500
+632 8426-9755;
Fax No. : +632 8426-9764

the refrigerant and condensate piping system and electrical wirings.

2.4. Restoration works on affected areas caused by installation works to its original condition, if any.

2.5. Leak test, test run and observation of each set of ACUs.

2.6. Supply, delivery, installation, and complete layout of copper (refrigerant) piping and condensate drain system, with corresponding fittings and accessories, for each set of AC units.

2.7. Supply, delivery, installation, and complete layout of required electrical wiring system (feeder line) and control devices (circuit breaker with NEMA 3R box) per set of ACUs connected to the main power supply line.

2.8. Supply, delivery, and installation of fabricated steel support frames made of angular bar, pre-painted with metal primer and enamel paint for the condensing (outdoor) unit, to be installed on the concrete wall of the building (outside) with a clearance of at least 0.30 meters. Indoor units (evaporator) shall be properly mounted on the wall or on steel frames (for floor standing units).

2.9. Supply of other equipment, including all necessary accessories and appurtenances not specifically mentioned herein but are considered standard issue and necessary for the safe, reliable, and proper operation of the air conditioning system.

3. TECHNICAL SPECIFICATIONS

3.1. Nine (9) Units High-capacity Inverter-type Floor Standing Airconditioning Unit (ACU)

3.1.1. ACU must provide a cooling capacity of at least 60,000 BTU/Hr or better

3.1.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply

3.1.3. ACU must be rated with an energy efficiency ratio (EER) of 12.4 or higher

3.1.4. ACU must use a R410A cooling agent (refrigerant)

3.1.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters (~20-feet).

3.1.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).

3.1.7. ACU must be equipped with an inverter compressor motor.

3.1.8. ACU's outdoor unit must possess a resistance class of at least IP24.

3.1.9. ACU must possess the following functional features:

3.1.9.1. Remote control operations

3.1.9.2. Auto-swing function for even airflow distribution

3.1.9.3. Indicator LED displays to show current temperature setting

3.1.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting

3.1.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

3.2. Nine (9) Units Medium-capacity Inverter-type Floor Standing ACU

- 3.2.1. ACU must provide a cooling capacity of at least 38,000 BTU/Hr or better
- 3.2.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply
- 3.2.3. ACU must be rated with an energy efficiency ratio (EER) of 12.5 or better
- 3.2.4. ACU must use a R410A cooling agent (refrigerant)
- 3.2.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters (~20-feet).
- 3.2.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).
- 3.2.7. ACU must be equipped with an inverter compressor motor.
- 3.2.8. ACU's outdoor unit must possess a resistance class of at least IP24.
- 3.2.9. ACU must possess the following functional features:
 - 3.2.9.1. Remote control operations for storing ACU setting parameters
 - 3.2.9.2. Auto-swing function for even airflow distribution
 - 3.2.9.3. Indicator LED displays to show current temperature setting
 - 3.2.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting
 - 3.2.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

3.3. Four (4) Units Medium-capacity Inverter-type Ceiling Mounted ACU

- 3.3.1. ACU must provide a cooling capacity of at least 36,000 BTU/Hr or better
- 3.3.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply
- 3.3.3. ACU must be rated with an energy efficiency ratio (EER) of 12.67 or better
- 3.3.4. ACU must use a R410A cooling agent (refrigerant)
- 3.3.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters (~20-feet).
- 3.3.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).
- 3.3.7. ACU must be equipped with an inverter compressor motor.
- 3.3.8. ACU's outdoor unit must possess a resistance class of at least IP24.
- 3.3.9. ACU must possess the following functional features:
 - 3.3.9.1. Remote control operations
 - 3.3.9.2. Auto-swing function for even airflow distribution
 - 3.3.9.3. Indicator LED displays to show current temperature setting
 - 3.3.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting
 - 3.3.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

3.4. Two (2) Unit Low-capacity Inverter-type Ceiling Mounted ACU

- 3.4.1. ACU must provide a cooling capacity of at least 25,000 BTU/Hr or better
- 3.4.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply

3.4.3. ACU must be rated with an energy efficiency ratio (EER) of 12.39 or higher

3.4.4. ACU must use a R410A cooling agent (refrigerant)

3.4.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters (~20-feet).

3.4.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).

3.4.7. ACU must be equipped with an inverter compressor motor.

3.4.8. ACU's outdoor unit must possess a resistance class of at least IP24.

3.4.9. ACU must possess the following functional features:

3.4.9.1. Remote control operations

3.4.9.2. Auto-swing function for even airflow distribution

3.4.9.3. Indicator LED displays to show current temperature setting

3.4.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting

3.4.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

3.5. One (1) Unit Medium-capacity Inverter-type Wall Mounted ACU

3.5.1. CU must provide a cooling capacity of at least 24,000 BTU/Hr or better

3.5.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply

3.5.3. ACU must be rated with an energy efficiency ratio (EER) of 14.1 or higher

3.5.4. ACU must use a R410A cooling agent (refrigerant)

3.5.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters (~20-feet).

3.5.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).

3.5.7. ACU must be equipped with an inverter compressor motor.

3.5.8. ACU's outdoor unit must possess a resistance class of at least IP24.

3.5.9. ACU must possess the following functional features:

3.5.9.1. Remote control operations

3.5.9.2. Auto-swing function for even airflow distribution

3.5.9.3. Indicator LED displays to show current temperature setting

3.5.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting

3.5.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

3.6. One (1) Unit Low-capacity Inverter-type Wall Mounted ACU

3.6.1. ACU must provide a cooling capacity of at least 9,000 BTU/Hour or better

3.6.2. ACU must operate with 230-volts, 60Hz, 1-phase or 3-phase power supply

3.6.3. ACU must be rated with an energy efficiency ratio (EER) of 12.3 or higher

3.6.4. ACU must use a R410A cooling agent (refrigerant)

3.6.5. ACU must use refrigerant (copper) piping and communication wires not exceeding 6-meters

(~20-feet).

3.6.6. ACU must use condensate drain (PVC) pipes not exceeding 9-meters (~30-feet).

3.6.7. ACU must be equipped with an inverter compressor motor.

3.6.8. ACU's outdoor unit must possess a resistance class of at least IP24.

3.6.9. ACU must possess the following functional features:

3.6.9.1. Remote control operations

3.6.9.2. Auto-swing function for even airflow distribution

3.6.9.3. Indicator LED displays to show current temperature setting

3.6.9.4. Self-diagnosis mode for providing error codes to assist in troubleshooting

3.6.9.5. Auto-restart function for automatically restoring previous function setting after a power interruption

4. TERMS AND CONDITIONS

4.1. ACUs, copper pipes, drain pipes, and fittings must be brand new and unused.

4.2. The manufacturer of the ACUs must be ISO certified or any equivalent certification that guarantees that they have a quality management system in place. The bidder must submit documentary proof of ISO certification of the offered brands issued by accredited registrars or any equivalent certification body.

4.3. The bidder must have at least one (1) authorized service centers in the National Capital Region (NCR) of the brand/model of the product being offered for, but not limited to, regular preventive maintenance and general cleaning services.

4.4. The bidder must perform quarterly general cleaning service for one (1) year covering all ACUs:

4.4.1. Perform general cleaning of condenser and evaporator.

4.4.2. Cleaning of blower wheel and fan blade.

4.4.3. Cleaning of cabinet and face cover.

4.4.4. Conduct thorough inspection of electrical wiring/connections and mechanical controls.

4.4.5. Check cabinet for corrosion and repair

4.4.6. Conduct flushing of drain pipe.

4.4.7. Freon charging (if necessary)

4.4.8. Submit status report of all the activities performed.

4.5. The bidder must submit an "As-Built" plan indicating the exact locations of the circuit breakers, indoor and outdoor units of each ACUs on each floor, and corresponding routes of the condensate drain and refrigerant piping system upon completion of the installation and commissioning activities.

5. WARRANTY and AFTER-SALES SUPPORT

5.1. All ACUs must carry five (5) years warranty for compressor and one (1) year for other parts and services that cover defects in materials and workmanship. Warranty service shall commence from the date of end-user acceptance.

5.2. Technical support services must be available 9 hours per day, Monday to Friday (including holidays), during business hours, 9-6PM Philippines Standard Time (UTC+8)

5.2.1. Must respond within four (4) business hours, and for unresolved issues exceeding one (1) business day, updates must be made available to

	<p>the end-users every three (3) business days.</p> <p>5.2.2. Any repair or replacement service must be successfully performed within twenty (20) business days.</p> <p>5.3. End-users must be able to request technical support by phone and/or email.</p> <p>5.4. Onsite technical support may be requested for special cases including, but not limited to, the following issues:</p> <p>5.4.1. Not activating</p> <p>5.4.2. Not blowing cold air</p> <p>5.4.3. ACU freezing up</p> <p>5.4.4. Refrigerant leak</p> <p>5.4.5. Leaking ducts and clogged drains</p> <p>5.4.6. Frozen evaporator coils</p> <p>5.4.7. Electric control failure</p> <p>5.4.8. Drainage problems</p> <p>5.4.9. Thermostat sensor problems</p> <p>6. DELIVERY AND PAYMENT TERMS</p> <p>6.1. Delivery of the Goods and/or performance of Services shall be made by the Supplier within Thirty (30) calendar days upon issuance of Notice to Proceed (NTP).</p> <p>6.2. Payment shall be made only upon certification/acceptance by the End User to the effect that the Goods have been rendered or delivered in accordance with the terms of this Contract and have been duly inspected and accepted. No payment shall be made for services not yet rendered or for supplies and materials not yet delivered under this Contract.</p> <p><i>(Please see attached offer.)</i></p>			
			TOTAL:	₱3,977,500.00
(Total Amount in Words)	Three Million Nine Hundred Seventy Seven Thousand Five Hundred Pesos Only			

The contract price is inclusive of taxes and other fees or charges. In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, DOST-ASTI may rescind or terminate the contract, without prejudice to other courses of action and remedies available under the circumstances and in accordance with the provisions of the latest implementing rules and regulations of RA 9184.

Conforme:

Very Truly Yours,

(Signature over Printed Name of Supplier)

FRANZ A. DE LEON, Ph.D.

Director, DOST-ASTI



(Date)

Fund Cluster:	01	ORS / BURS No.:	011011012021-10-000619
		ORS / BURS Date:	October 20, 2021
Funds Available:	Php 3,977,500.00	Amount:	₱ 3,977,500.00
<p>_____ GAY CONCEPCION S. BUGAGAO Accountant III</p>			