

SUMMARY

UNIT/TEAM : MECHANICAL TEAM

PROVISION OF MAINTENANCE SERVICES FOR AIR-CONDITIONING AND COOLING TOWER UNITS AT IUM GOMBAK CAMPUS

ITEM	DESCRIPTIONS	AMOUNT (RM)
1	Total 1.0 PRELIMINARIES	NA
2	Total 2.0 AHU	
3	Total 3.0 PAHU	
4	Total 4.0 ACPU	
5	Total 5.0 FCU	
6	Total 6.0 ACSU, VRV & VRF	
7	Total 7.0 COOLING TOWER	
TOTAL AMOUNT FOR 1 MONTH (RM)		
SST 8%		
GRAND TOTAL AMOUNT FOR 1 MONTH (RM) (All prices quoted herein are inclusive of SST)		
TOTAL AMOUNT FOR 27 MONTHS (RM)		
SST 8%		
GRAND TOTAL AMOUNT FOR 27 MONTHS (RM) (All prices quoted herein are inclusive of SST)		

Remarks:

- 1) The tendered price in this RFT ref no.: DBSB/PROC/GBK/2026/RFT/14 will be the contract price during the contract period.

THE TOTAL AMOUNT OF THE TENDER FOR 27 MONTHS IN WORDS:

RINGGIT MALAYSIA:

I hereby certify that all descriptions provided are accurate and that all offered prices include all costs associated with refining and fulfilling the required scope of services under this tender.

Signature of Tenderer:

Signature of Witness:

.....
Name:

Designation:

Date:

Company Stamp:

.....
Name:

Designation:

Date:

Company Stamp:

BILL OF QUANTITY (BQ)
UNIT/TEAM : MECHANICAL TEAM

PROVISION OF MAINTENANCE SERVICES FOR AIR-CONDITIONING AND COOLING TOWER UNITS AT IIUM GOMBAK CAMPUS

ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
1.0	<u>PRELIMINARIES</u>			
A	Mobilization and demobilization of personnel, equipment, support facilities and materials required to complete the work.	L/S		
B	Apply PTW (Permit To Work) details and worker pass by liaise with related authorities and DBSB representative for reporting procedure before work commencement.			
C	Contractor should obtain the following guideline imposed for servicing and maintenance works: a) Obtain valid pass for workers at DBSB office before starting the work and always display the pass during working hour. b) Workers should comply with the safety regulations and guideline imposed by Safety and Health Department of DBSB and OSHBE. Malaysian workers are required to complete 2 dose of vaccination and submit the certificate to DBSB. COVID-19 test for non-malaysian worker is required and test results need to be submitted to DBSB every week before entering IIUM premises. c) Wearing suitable PPE equipment and uniforms d) To ensure all debris to be transported outside IIUM Campus and makegood of IIUM properties if any.			
D	Contractor should provide fifteen manpower (15) including one (1) Supervisor to complete the above services within the required frequency and time frame by DBSB as following requirements: <u>i) SUPERVISOR/LEADER</u> a) Malaysian, male age 18 years old and not exceeding 60 years old b) Posses a Diploma or relevant certificate related to air-conditioner or experience with related field more than 3 years c) Good communication and have leadership skills d) Can speak, write, read and understand well in Malay and English e) Possess own transportation and mobile phone <u>ii) GENERAL WORKERS</u> a) Malaysian Male have a relevant certificate related to air-conditiond and/or electrical. b) Mentally and physically fit with no criminal records, under drug abuse or under police patrol c) Working age: 18 years and not exceeding 60 years old	1		
E	Insurance coverage using takaful insurance for workmanship compensation and public liability within the duration of contract. and must be submitted to DBSB before starting work.	15		

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
F	Contractor to ensure all workers Malaysian nationality or citizenship. All foreign workers should have a valid work permit and employed by the contractor.			
G	Working days and hour for servicing and maintenance works: i) <u>Attendance Record</u> All workers will need to register thumbprint at DBSB office and to clock-in and out accordingly ii) Days: Monday until Friday (Air-Conditioning Units Only) Time: 9.00AM - 5.30PM iii) Days: Weekend and Public Holiday (Cooling Tower Units Only) Time: 9.00AM - 5.30PM			
H	Any requirement for work during Public Holiday and Weekend should be informed to the Supervisor incharge.			
I	Contractor should take full responsibility to attend all emergency issues i.e breakdown, leaking and other related issues.			
J	REPORTING PROCEDURES a) Prepare quarterly schedule (1 cycle) for yearly servicing and maintenance works for all departments b) Preparation of monthly service checklist as per schedule (1 cycle) complete with verification from the end users (as per attachment) <i>Deduction : Reporting Submission within 5 calendar days after the end of each month. Late submission / missing timestamped photos</i> c) Preparation of Monthly report for billing purposes should attached with pictures affixed with timestamp. d) Prepare report on air conditioned units for any damages (when necessary).		Monthly	
K	Performance based Deduction (PPM) i) All maintenance items in this Bill shall be subject to performance monitoring. Deduction per individual asset shall be applied for any non-execution of PPM tasks within the monthly schedule. ii) An additional increment factor of 0.5 on the penalty amount shall be applied for each subsequent month of non-compliance for the same asset until the work is fully executed.			RM 50/day
L	Contractor should provide basic First Aid Kits to be used during any emergencies.			
M	Contractor should responsible any damages done to the property of IIUM Gombak or property inside the IIUM Gombak and compensate the payment if any.			
Total 1.0 PRELIMINARIES (RM)				NA

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
2.0	AIR-HANDLING UNIT (AHU)	216	QUARTERLY	
2.1	Inspect for any unusual AHU noise and vibration. Clean dirt and dust on grille or panel including air filters at the service unit.			
2.2	Adjust belt tension and pulley alignment if required. Inspect any leakage at exterior piping and valves and tighten the connections as required.			
2.3	Check and clean condensate pan, drainage piping and floor trap from blockage.			
2.4	Inspect cooling coil , service cooling coil and replace air filter			
2.5	Inspect frequency inverter operation and clean strainers. Also inspect AHU control panel for any loose wiring port, breakers, relays, contactors and indicator lamps condition.			
2.6	Lubricate bearing and shaft for blower motor. Check and tighten pulley and sheaves screw set.			
2.7	Inspect dampers operation, louvers, motorized valves and all insulation part.			
2.8	Inspect and maintain the actuator devices, flow meter, pressure sensors and temperature sensors to ensure smooth control of the system. The off coil temperature sensors readings shall be within $\pm 2^{\circ}\text{C}$ of the set points.			
2.9	Record phase condition for running and loading amp including incoming phase for red-yellow, yellow-blue and blue-red.			
2.10	Cleaning AHU room i.e vacuum outlet drain piping including maintaining lighting			
Total 2.0 AHU (RM)				

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
3.0	PRIMARY AIR HANDLING UNIT (PAHU) SERVICES	71	QUARTERLY	
3.1	Inspect for any unusual AHU noise and vibration. Clean dirt and dust on grille or panel including air filters at the service unit.			
3.2	Adjust belt tension and pulley alignment if required. Inspect any leakage at exterior piping and valves and tighten the connections as required.			
3.3	Check and clean condensate pan, drainage piping and floor trap from blockage.			
3.4	Inspect cooling coil , service cooling coil and replace air filter			
3.5	Inspect frequency inverter operation and clean strainers. Also inspect AHU control panel for any loose wiring port, breakers, relays, contactors and indicator lamps condition.			
3.6	Lubricate bearing and shaft for blower motor. Check and tighten pulley and sheaves screw set.			
3.7	Inspect dampers operation, louvers, motorized valves and all insulation part.			
3.8	Inspect and maintain the actuator devices, flow meter, pressure sensors and temperature sensors to ensure smooth control of the system. The off coil temperature sensors readings shall be within $\pm 2^{\circ}\text{C}$ of the set points.			
3.9	Record phase condition for running and loading amp including incoming phase for red-yellow, yellow-blue and blue-red.			
3.10	Cleaning PAHU room i.e vaccum outlet drain piping including maintaining lighting.			
Total 3.0 PAHU (RM)				

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
4.0	AIR-COOLED PACKAGE UNIT (ACPU)) SERVICES	20	QUARTERLY	
4.1	Inspect any excessive noise and vibration at the service unit.			
4.2	Clean dirt and dust on grille or panel including air filters at the service unit.			
4.3	Inspect excessive bearing noise and filter dryer condition.			
4.4	Inspect any leakage at refrigerant joints, drainage pan and drainage pipe.			
4.5	Check and inspect electrical terminal connection. Ensure there is no damage insulation part. Inspect and ensure condensing coil is clean. Comb the fins and clean the coil if necessary.			
4.6	Tighten tapping screw, bolts and nuts if required. Also check any sign of rust components and record the item in ACSU checklist.			
4.7	Clean and service indoor and outdoor condensing coil.			
4.8	Record suction pressure, discharge pressure and current room temperature			
4.9	Inspect phase condition for running and loading ampere.			
4.10	Cleaning ACPU/WCPU room i.e vacuum outlet drain piping including maintaining lighting.			
4.11	Inspect cooling coil and service cooling coil			
Total 4.0 ACPU & WCPU (RM)				

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
5.0	FAN COIL UNIT (FCU) SERVICES	2132	QUARTERLY	
5.1	Inspect cooling coil , service cooling coil and replace air filter			
5.2	Inspect all existing water coils, any leakage or blockage of pipe line, pipe joints and drainage line.			
5.3	Purge air from all water coils. Clean condenser pans and trays.			
5.4	Inspect thermostat operation, wiring terminal connection, fan bearings, FCU housing and all insulation pipe.			
5.5	Inspect and check any excessive bearing noise for blower condition.			
5.6	Clean FCU strainer and cooling coil. Inspect them if required.			
5.7	Inspect phase condition for running and loading ampere.			
5.8	Supply, remove existing and replace new air filter for Fan Coil Unit (FCU) of approved type and size			
5.9	Cleaning FCU room i.e vaccum outlet drain piping including maintaining lighting			
Total 5.0 FCU (RM)				

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ITEM	DESCRIPTION	QTY	FREQUENCY	27 MONTHS PRICE (RM)
6.0	Air Cooled Split Unit (ACSU) Services, Variable Refrigerant Volume (VRV) and Variable Refrigerant Flow (VRF)	3178	QUARTERLY	
6.1	Inspect any excessive noise and vibration at the service unit.			
6.2	Clean dirt and dust on grille or panel including air filters at the service unit.			
6.3	Inspect excessive bearing noise and filter dryer condition.			
6.4	Inspect any leakage at refrigerant joints, drainage pan and drainage pipe.			
6.5	Check and inspect electrical terminal connection. Ensure there is no damage insulation part. Inspect and ensure condensing coil is clean. Comb the fins and clean the coil if necessary.			
6.6	Tighten tapping screw, bolts and nuts if required. Also check any sign of rust components and record the items in ACSU checklist.			
6.7	Clean and service indoor and outdoor condensing coil.			
6.8	Record suction pressure, discharge pressure and current room temperature			
6.9	Inspect phase condition for running and loading ampere.			
6.10	Cleaning ACSU, VRV & VRF room i.e vacuum outlet drain piping including maintaining lighting			
6.12	Variable Refrigerant Volume (VRV) Services outdoor only.	51	QUARTERLY	
6.13	Variable Refrigerant Volume (VRV) Services indoor only.	547	QUARTERLY	
Total 6.0 ACSU, VRV & VRF (RM)				
7.0	<u>COOLING TOWER</u>			
7.1	Ensure the cleaning service work is using waterjet (equivalent size)			
7.2	Ensure area compound cooling tower is clean from wild plants and mosses using chlorine or any appropriate chemicals.			
7.3	Ensure to check all the cleaning task based on attached checklist (cooling tower servicing)			
7.4	Ensure the cleaning service work is included to clean strainer and flow filling.			
7.5	The areas intended for the service are as follows: a. Admin Building b. ICC Building	1 set 1 set	MONTHLY MONTHLY	
Total 7.0 COOLING TOWER (RM)				

JADUAL KADAR HARGA
UNIT/TEAM : PPM TEAM

**PROVISION OF MAINTENANCE SERVICES FOR AIR-CONDITIONING AND COOLING TOWER UNITS AT IIUM
GOMBAK CAMPUS**

ITEM	KETERANGAN	UNIT	QTY	UNIT PRICE (RM)	TOTAL PRICE (RM)
1	Chemical cleaning and treatment for air-conditioning units :				
	i) PAHU - Required filter replacement	Unit	72		
	ii) ACPU - Not required filter replacement	Unit	44		
	iii) FCU Required filter replacement	Unit	2132		
	iv) AHU Required filter replacement	Unit	216		
	v) ACSU - Not equired filter replacement	Unit	3178		

Remarks:

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