

M&E Services Pricing Document (T1)

26-021-PD-01



kcetb

Bord Oideachais agus Oiliúna
Chill Chainnigh agus Cheatharlach
*Kilkenny and Carlow
Education and Training Board*

AUGUST 2026

EnerJ Building Services Engineering

Prepared by : John Hayes

Reviewed by: John Hassett



Table of Contents

1.	–Preliminaries	3
2.	Mechanical services – Demolition Works [M-100]	4
3.	Mechanical Services – New Boiler Plant & Heating System [M-101]	5
4.	Mechanical Services – Sports Hall Heating System [M-102]	6
5.	Mechanical Services – New LPG Gas System [M-103]	7
6.	Mechanical Services – BMS and Controls [M-105].....	8
7.	Electrical services – (E-100)	10
1.	Summary.....	14
2.	Freedom Of Information Act	15
3.	Schedule Of Alternative Manufacturers.....	16
4.	List Of Proposed Subcontractors	17
5.	Schedule Of Net Hourly Wage Rates	18
6.	Schedule Of Daywork Rates	19

1. –Preliminaries

Line Item	Description	Total Cost (€)
1.	Mobilisation of contractor management, supervision, labour and staff, including site establishment, attendance at site meetings and coordination with the Employer's Representative.	€
2.	Carry out the works in accordance with the complete tender package, including drawings M-100, M-101, M-102, M-103, M-105, E-100, the Mechanical Services Specification 26-021-SP-M (T1), statutory requirements, Building Regulations, applicable standards, manufacturers' instructions and good industry practice.	€
3.	Allow for insurances, bonds, health and safety compliance, method statements, risk assessments, PSCS duties where applicable and all statutory obligations.	€
4.	Provide scaffolding, access platforms, lifting equipment, hoisting, tools, plant, temporary protection, temporary lighting, vehicles and all support facilities required to complete the works.	€
5.	Protect existing building fabric, equipment, services, finishes, floors and retained plant during the works.	€
6.	Carry out detailed site survey and verification of existing gas, LPHW, electrical, controls, condensate, drainage and flue services before disconnection or alteration.	€
7.	Allow for programming, sequencing, shutdown planning, school liaison, out-of-hours or holiday-period working where required, and maintenance of safe access and escape routes.	€
8.	Prepare working drawings, builders work drawings, technical submittals, equipment schedules, controls schematics, lifting plans and coordinated installation details.	€
9.	Allow for all isolations, drain-downs, purging, temporary caps, testing, recommissioning and phased return to service.	€
10.	Provide record drawings, O&M manuals, certificates, warranties, commissioning records, valve charts, electrical schedules and Safety File information.	€
11.	Keep the work areas clean and safe; remove all waste and redundant plant from site through licensed waste routes.	€
12.	Allowance for any other item not specifically scheduled but required for complete, safe and operational installation. Tenderer to identify any such allowance.	€
Sub Total for Section 1 Preliminaries		€

2. Mechanical services – Demolition Works [M-100]

Line Item	Description	Total Cost (€)
1.	Isolate, drain down, electrically isolate, disconnect and make safe the existing boiler plant and associated services in accordance with an agreed shutdown plan.	€
2.	Decommission, dismantle, remove from site and lawfully dispose of 2 No. existing boilers, associated shunt pumps, local flow and return pipework, valves, fittings and condensate connections.	€
3.	Remove the existing common boiler flue system in its entirety, including branches, supports, terminal and weathering components, while protecting the existing roof construction.	€
4.	Disconnect, drain, clean, remove from site and lawfully dispose of the existing oil storage tank, residual oil, redundant oil pipework, valves and associated fittings serving the existing boilers.	€
5.	Remove all redundant oil lines, valves and fittings, including draining, cleaning and disposal of residual oil and contaminated materials.	€
6.	Strip back existing boiler flow and return pipework to suit the new installation, retaining only the agreed system headers and distribution circuits.	€
7.	Disconnect and remove the existing boiler MCC/control panels, redundant controls wiring, strap-on temperature sensors and associated accessories not required for reuse.	€
8.	Remove existing boiler fire extinguishers and support brackets where indicated and hand to the Client or dispose of as directed.	€
9.	Decommission and remove the 2 No. existing heating-circuit pumps P1 and P2 and the existing 3-port control valve indicated for removal	€
10.	Decommission and remove 4 No. existing high-level LPHW Sports Hall unit heaters together with associated thermostats, speed controllers and controls wiring.	€
11.	Retain the existing high-level Sports Hall LPHW distribution pipework, local mains power supplies and isolators identified for reuse; leave all retained services safe, supported and suitable for connection to the replacement unit heaters.	€
12.	Provide a separate unit rate for replacement of one existing gate valve on the retained header where found to be passing or defective.	€
Sub Total for Section 2: Mechanical services – Demolition Works		€

3. Mechanical Services – New Boiler Plant & Heating System [M-101]

Line Item	Description	Total Cost (€)
1.	Supply, install and commission 3 No. high-efficiency gas-fired condensing boilers B.01-B.03 arranged in cascade, each nominally 84.2 kW at 80/60°C, total cascade output approximately 252 kW, complete with freestanding frame, common headers, primary pumps, proprietary controls and standard accessories.	€
2.	Provide all boiler local isolation valves, drain cocks, non-return valves, safety valves, dirt separators, pressure/temperature gauges, automatic air vents and connection kits required for a complete installation.	€
3.	Supply and install plate heat exchanger HEX.01 complete with isolation valves, strainers, gauges, vents, drains, supports and all primary/secondary connections.	€
4.	Provide new packaged pressurisation/autofill unit PU.01, expansion vessel(s), pressure-reducing arrangement, safety devices and anti-gravity loop; connect to retained cold-water make-up feed.	€
5.	Provide magnetic dirt separation / filtration, dosing pot across the flow and return header, drain points and chemical treatment connections.	€
6.	Modify the existing LPHW flow and return headers and provide new Ø80 mm heating flow and return connections as indicated, including flanged butterfly isolation valves, supports, drains, automatic air vents and insulation/cladding to match the existing plantroom installation.	€
7.	Supply and install new heating-circuit pump P.01 serving the school/space-heating circuit	€
8.	Supply and install new heating-circuit pump P.02 serving the Sports Hall space-heating circuit	€
9.	Provide new flanged connections, temperature pockets, sensors, pressure/temperature gauges, drain points and automatic air vents at all high points as indicated on the tender drawings and schematic.	€
10.	Replace / reconnect 3-port valves, actuators, bypasses, balancing valves, thermometers and temperature sensors serving retained circuits as shown.	€
11.	Provide new Ø200 mm common boiler flue header, boiler branches, vertical riser, supports, condensate management, roof terminal and all proprietary components required by the boiler/flue manufacturer.	€
12.	Provide boiler condensate pipework to suitable drain, including traps, supports, neutralisation where required and testing.	€
13.	Provide all pipework insulation and removable valve/equipment jackets, including proprietary jackets to valves above 32 mm, complete with identification labels and flow arrows.	€
Sub Total for Section 3: New Boiler Plant Installation		€

4. Mechanical Services – Sports Hall Heating System [M-102]

Line Item	Description	Total Cost (€)
1.	Supply, install and commission 4 No. high-level LPHW unit heaters UH.01-UH.04, Tanner MDA 121H EC or equal approved, each nominally 14 kW at 21°C room condition, 1Ø/230 V/0.98 A, complete with EC fan, 0-10 V speed control capability and all mounting accessories.	€
2.	Provide a proprietary destratification hood to each unit heater suitable for directing warm air from high level to the occupied zone from the approximate 6.1 m floor-to-ceiling height shown on the tender drawing.	€
3.	Connect each replacement unit heater to the retained high-level LPHW flow and return pipework and existing isolation points, including all local pipework modifications, unions/flanges, supports, drains, vents and commissioning requirements.	€
4.	Supply and install individual normally closed 2-port motorised valves MV.01-MV.04, one serving each unit heater, complete with actuators, local isolation, wiring interfaces and commissioning.	€
5.	Provide common Sports Hall occupied-zone temperature sensor/thermostat TS-10 mounted approximately 2.0 m above finished floor level at the location shown, away from direct heater discharge, doors, draughts and local heat sources.	€
6.	Provide high-level Sports Hall temperature sensor TS-11 mounted to the underside of the ceiling/upper hall volume, located away from direct unit-heater discharge, for automatic destratification control.	€
7.	Provide all BMS-compatible unit-heater enable interfaces and 0-10 V analogue fan-speed controls required for individual operation of UH.01-UH.04.	€
8.	Provide all local supports, brackets, vibration isolation, guarding where required, access arrangements and safe high-level installation works necessary for the replacement unit heaters.	€
9.	Test, balance and commission each unit heater for heat output, air throw, fan-speed range, valve operation, noise/draught performance and effective destratification. Record final settings in the O&M documentation.	€
Sub Total for Section 4: Sports Hall Heating System		€

5. Mechanical Services – New LPG Gas System [M-103]

Line Item	Description	Total Cost (€)
1.	Coordinate the complete LPG installation with the Client/KCETB and the nominated LPG supplier. The Client/KCETB will arrange the LPG fuel-supply agreement; the nominated LPG supplier is to supply and install the bulk LPG storage tank and first-stage regulator. Contractor to include all liaison, attendance, compound and downstream works required by the tender documents.	€
2.	Provide the new LPG tank compound at the indicated location, including nominal 4.5 m x 3.5 m x 150 mm reinforced concrete base/plinth and coordination of the final tank orientation and connection point with the nominated LPG supplier.	€
3.	Provide 1.8 m high secure PVC-coated mesh enclosure to the LPG compound, generally 200 x 50 mm mesh with V-crimps to BS 1722 Part 14 or approved equivalent, fixed to suitable posts, complete with outward-opening non-self-locking access gate and LPG warning signage.	€
4.	Maintain the required nominal 3.0 m exclusion zone from buildings, site boundaries and fixed sources of ignition, subject to final confirmation by the nominated LPG supplier and applicable standards.	€
5.	Provide a 1.0 m wide access path to the LPG compound for fuel delivery, inspection and maintenance, including formation, finish and reinstatement to match adjacent surfaces.	€
6.	Provide new nominal Ø32 mm PE underground LPG gas main from the tank compound to the boiler house, including trench excavation, 150 mm sand surround, compacted Clause 804 or equivalent backfill in layers, warning tape approximately 300 mm below finished level and required separation from other services.	€
7.	Provide suitable protection, sleeves/ducts where required and full reinstatement where the underground gas service crosses existing roads, paths or hardstanding, restoring surfaces to match existing.	€
8.	Provide approved PE-to-steel transitions at above-ground locations, external gas isolation valves at the tank compound and boiler-house entry, and all sleeves/seals through building fabric using mild-steel sleeves and approved gas-tight/weatherproof sealant.	€
9.	Provide second-stage LPG regulator at the boiler-house entry, coordinated with the LPG supplier and boiler manufacturer, together with test points, pressure measurement provisions and all associated gas-train components downstream of the supplier's first-stage regulator.	€
10.	Provide complete internal steel LPG pipework from the boiler-house entry to the boiler cascade, including common gas line/header, individual lockable boiler isolation valves and supports.	€
11.	Provide gas safety shut-off arrangement including slam-shut valve (SSV), key-release emergency stop, manual reset and all hardwired safety interlocks required for the boiler installation.	€
12.	Supply and install the gas detection system comprising gas detection panel, 1 No. LPG/methane detector, 1 No. carbon-monoxide detector, audio/visual alarm where indicated and interfaces to the gas slam-shut valve, fire alarm and boiler enable.	€
Sub Total for Section 5: New LPG Gas System		€

6. Mechanical Services – BMS and Controls [M-105]

Line Item	Description	Total Cost (€)
1.	Provide a complete BMS control installation for the new boiler plant and Sports Hall heating system, including controllers, field devices, sensors, relays, actuators, interfaces, programming, graphics, alarms, point-to-point testing and commissioning.	€
2.	Provide new plantroom control panel MCC.01 complete with isolators, protective devices, starters/relays, controller interfaces, terminals, engraved labels, panel wiring, schematics and all components necessary to serve the new boilers, P.01, P.02, PU.01, Sports Hall unit heaters, motorised valves and field devices.	€
3.	Interface the BMS with the boiler manufacturer's proprietary cascade controller. The proprietary controller shall sequence/modulate B.01-B.03, rotate lead boiler, provide anti-cycle and pump-overflow functions and remove failed boilers from the sequence while the BMS provides overall heating enable and required flow-temperature setpoint.	€
4.	Provide weather-compensated boiler/heating flow-temperature control based on external air temperature, with adjustable minimum/maximum flow temperatures, slope and offset. Nominal system design temperatures are 75/65°C unless adjusted during commissioning.	€
5.	Provide and connect temperature sensors TS-01 to TS-11 and all pockets/accessories indicated on M-105, including external frost stat, external temperature sensor, boiler header flow/return, post-HEX flow/return, heating circuit return sensors, Sports Hall occupied-zone sensor and Sports Hall high-level destratification sensor.	€
6.	Monitor temperatures on both sides of HEX.01 and control boiler demand to maintain the required secondary flow temperature. Generate alarms for abnormal temperature differential, loss of circulation or poor heat transfer through HEX.01.	€
7.	Provide Hand/Off/Auto control, enable, run and trip/fault indication for the boiler cascade, P.01, P.02, PU.01 and Sports Hall unit-heater group as indicated on the tender schematic.	€
8.	Provide separate BMS time schedules for general school heating, Sports Hall heating and boiler plant, together with Summer/Winter mode, optimum start/stop where configured and a user boost function of 1 hour / 2 hours / 3 hours.	€
9.	Provide the heating-system BMS front-end graphical interface at Reception displaying boiler status, flow/return temperatures, external temperature, pump status, Sports Hall temperatures/setpoints, unit-heater and valve status, pressurisation alarms, gas safety/fire alarm status, schedules, boost, Summer/Winter mode and active alarms.	€
10.	Configure Sports Hall heating and destratification sequences in accordance with the Mechanical Services Specification, including 0-10 V EC fan speed control, valve opening delay, P.02 operation, heating priority and independent destratification without boiler demand where no heating demand exists.	€
11.	Provide two-stage frost protection independent of normal schedules: external frost protection initially at 4°C to establish circulation, and water-temperature frost protection initially at 2°C to enable the boiler cascade until return water temperature recovers to approximately 10°C or commissioned values.	€
12.	Monitor PU.01 high/low pressure and common fault status; inhibit boiler operation on unsafe low pressure where required. The BMS shall not automatically reset safety trips.	€

13.	Interface with the hardwired gas safety and fire-alarm systems for status/monitoring. The BMS shall not override, bypass or reset the gas safety system; safety interlocks shall take priority over normal control commands.	€
14.	Provide all BMS alarms listed in the specification, including individual/common boiler faults, P.01/P.02 faults, unit-heater faults where available, system pressure alarms, high/low temperature alarms, gas/CO alarms, SSV status, fire alarm interlock, sensor failure and BMS communications/controller failure.	€
<i>Sub Total for Section 6: BMS and Controls</i>		€

7. Electrical services – (E-100)

Line Item	Description	Total Cost (€)
1.	Electrical preliminaries, site survey of existing electrical supplies and containment, isolation planning, lock-out/tag-out, proving dead and safe disconnection of all electrical services affected by the works.	€
2.	Disconnect and remove the existing boiler MCC/control panel and redundant associated wiring, containment and accessories while retaining identified live supplies/services required for the new installation.	€
3.	Provide a new mains power cable from the existing school MDB to MCC.01, sized to suit the final connected load; tender schematic indicates 5C 16 mm ² Cu/LSF/SWA. Verify final sizing, protective device, voltage drop, fault level and installation method before installation.	€
4.	Supply, install, fit out, wire, label, test and commission new plantroom MCC.01 in accordance with drawing M-105, the BMS specialist's requirements and the final approved equipment loads.	€
5.	Provide new outgoing mains power circuits and lockable local rotary isolators for boilers B.01-B.03, generally 10 A each, including cabling, containment, glands, terminations and labels.	€
6.	Provide new outgoing mains power circuits and lockable local rotary isolators for heating pumps P.01 and P.02, generally 16 A each, including cabling, containment, glands, terminations and labels.	€
7.	Provide new mains power circuit and local rotary isolator for pressurisation/autofill unit PU.01, generally 10 A, complete with containment, cabling, glands, terminations and labels.	€
8.	Provide/modify power supplies, local isolation and final connections to Sports Hall unit heaters UH.01-UH.04 in accordance with E-100. Existing unit-heater mains supplies/isolators are shown for retention on M-100 and shall be verified for reuse; include all necessary adaptation or replacement required to achieve a compliant final installation and clearly identify any tender qualification.	€
9.	Provide electrical power and control wiring to MV.01-MV.04 2-port motorised valves, including local isolation for each valve and any common valve power supply arrangement shown on the tender schematic.	€
10.	Provide all power and control wiring associated with the boiler cascade, P.01/P.02, unit heaters, valves, temperature controls, gas detection/emergency shut-off equipment and all other field devices shown or required for complete operation.	€
11.	Provide all BMS field wiring and interfaces for boiler enable/run/fault, pump enable/run/fault, unit-heater enable and 0-10 V speed control, motorised-valve control, temperature monitoring and pressurisation unit high/low alarm monitoring.	€
12.	Provide power supply and final connection for the BMS front-end interface at Reception and provide CAT6 data cabling between the BMS system and Reception front end, allowing approximately 70 m cable run subject to site verification.	€
13.	Provide fire-alarm interface cabling between the existing fire alarm panel at Main Reception and the new heating/BMS control system, allowing approximately 70 m run, together with interface relays, terminals and ancillary components. Fire alarm connection shown as Firetuff 2-pair or approved equivalent.	€

14.	Provide electrical supplies and final connections to the new gas detection panel, methane/LPG detector, carbon-monoxide detector, audio/visual alarm, emergency stop, slam-shut valve and associated safety-system interfaces as required by the specialist gas detection system.	€
15.	Provide all new cable containment, supports, glands, terminations, fire-rated penetrations, fire stopping, segregation between mains/controls/BMS/data cabling, circuit identification, engraved labels and updated schedules.	€
16.	Provide earthing and bonding to the new MCC, boilers, pumps, unit heaters, gas pipework, metallic services and containment as required by I.S. 10101:2020 and the final installation design.	€
17.	Verify all final equipment electrical loads and manufacturers' requirements before installation; coordinate fully with the Mechanical Contractor and BMS controls specialist.	€
18.	Inspect, test, certify and commission the complete electrical installation in accordance with I.S. 10101:2020 and provide test certificates, updated circuit schedules, panel schematics and as-built information.	€
<i>Sub Total for Section 5: Electrical Services – E-100</i>		€

8. Builders Works, Fire Stopping and Making Good [BW-100]

Line Item	Description	Total Cost (€)
1.	Provide all builders work necessary for the mechanical and electrical installation, including drilling, cutting, chasing, forming openings, sleeves, bases, supports and making good, excluding items expressly priced within the dedicated LPG gas-system section.	€
2.	Form the new boiler-flue roof penetration at the coordinated location, including trimming/secondary support where required, upstands, flashings, proprietary roof seals, weathering and reinstatement compatible with the existing roof construction.	€
3.	Make good and permanently weather-seal all redundant penetrations and openings arising from removal of the existing boiler flue, oil services and other redundant plant/services.	€
4.	Provide all equipment plinths, supports, Unistrut, brackets, secondary steelwork, anti-vibration fixings and mounting frames required for boilers, pumps, HEX.01, PU.01, pipework, controls and associated plant where not part of proprietary equipment supply.	€
5.	Provide all supports, brackets, access arrangements and builders-work interfaces required for the 4 No. replacement high-level Sports Hall unit heaters and associated pipework/controls.	€
6.	Provide fire stopping to all new or disturbed penetrations through fire-rated walls, floors and compartments using tested proprietary systems appropriate to the service type and substrate, complete with labels and installer certification.	€
7.	Provide gas-tight and weather-tight sealing at gas-service penetrations and all sleeves through external walls in accordance with the gas-system details and specification.	€
8.	Provide temporary weathering, roof access, edge protection/fall-restraint provisions and access equipment necessary for roof and high-level works.	€
9.	Make good all disturbed walls, floors, ceilings, coatings, decorations, roads, paths and finishes to match existing, including interfaces affected by removal and installation of plant and services.	€
10.	Provide photographic records of concealed builders work and fire stopping and include certification and product data within the Safety File/O&M documentation.	€
11.	Remove all builders-work waste and leave all affected areas clean, safe and fully reinstated at completion.	€
Sub Total for Section 8: Builders Woks		€

9. Testing, Commissioning, Documentation and Handover

Line Item	Description	Total Cost (€)
1.	Pressure test all new and modified LPHW pipework, gas pipework where applicable, condensate and drainage connections; provide signed test records.	€
2.	Flush and chemically clean the heating system as required, clean strainers and magnetic filters, dose with approved inhibitor and provide final water-treatment analysis.	€
3.	Commission the boiler cascade, primary pumps, plate heat exchanger, secondary pumps, pressurisation equipment, expansion vessels, safety devices and hydraulic settings.	€
4.	Carry out gas soundness testing, purging, appliance commissioning and combustion analysis by competent registered personnel; provide certification.	€
5.	Inspect and test the full flue system, supports, falls, joints, condensate drainage, terminal clearances and roof weathering; provide manufacturer / installer certification.	€
6.	Functionally test all controls, safety interlocks, alarms, emergency shut-off, gas detection, frost protection, summer/winter modes, remote panel and zone boost functions.	€
7.	Provide complete O&M manuals, manufacturers literature, warranties, commissioning records, certificates, panel schematics, points lists, valve schedules and settings.	€
8.	Provide as-installed mechanical, gas, flue, condensate, electrical and controls drawings, together with photographic records of concealed fire-stopping and pit-sealing works.	€
9.	Provide Client demonstration and training on operation, shutdown, isolation, alarms, controls, filter cleaning, pressurisation and routine maintenance.	€
10.	Provide all Safety File information and close-out documentation required by the Employer's Representative prior to Practical Completion.	€
Sub Total for Section 7: Testing, Commissioning, Documentation and Handover		€

1. Summary

Line Item	Description	Total Cost (€)
1	Section 1: Preliminaries and General Requirements	€
2	Section 2: Mechanical Services - Demolition Works [M-100]	€
3	Section 3: Mechanical Services - New Boiler Plant and Heating System [M-101]	€
4	Section 4: Mechanical Services - Sports Hall Heating System [M-102]	€
5	Section 5: Mechanical Services - New LPG Gas System [M-103]	€
6	Section 6: Mechanical Services - BMS Controls and Heating System Schematic [M-105]	€
7	Section 7: Electrical Services [E-100]	€
8	Builders Works, Fire Stopping and Making Good [BW-100]	€
M&E Services – Net Tender Sum		€
VAT @ 13.5%		€
Total Tendered Amount Inclusive of VAT		€

Signed : For and on behalf:

Name : Position:

Date:

2. Freedom Of Information Act

The Department proposes that the following information relating to this tender will be made available on request under the Freedom of Information Act, 1997:

(a) Name of successful Tenderer

(b) Reasons for non-acceptance of the enquirer's tender

The Contracting Authority undertakes to hold confidential any information provided in this tender subject to:

(1) Disclosure of the information specified at (a) and (b) above as liable for release to the public and

(2) The Contracting Authority's obligations under law, including the Freedom of Information Act which came into law on 21st April 1998.

Tenderers are asked to consider if any of the information supplied with this offer should not be disclosed because of its sensitivity, (other than that referred to at (a) and (b) above). If this is the case, Tenderers should when providing such information, identify same and specify the reasons for its sensitivity. The Contracting Authority will consult with Tenderers about potentially sensitive information before making a decision on any request received under the Freedom of Information Act, 1997.

If a Tenderer considers that ANY of the information supplied is of a sensitive nature, a statement to effect should be made.

3. Schedule Of Alternative Manufacturers

Item	Model	Manufacturer	Credit if accepted €
Total:			

The credit is deemed to include labour, profit and overheads but exclude M.C.D. and V.A.T.

Signed:		Date:	
Company:			

4. List Of Proposed Subcontractors

The Contractor shall list below details of those Sub-Contractors he wishes to employ in the execution of the Contract Works.

Description of Works	Name and Address of Proposed Subcontractor

Signed:		Date:	
Company:			

5. Schedule Of Net Hourly Wage Rates

Operative	Net Hourly Wage Rate
Foreman	
Charge hand	
Electrician	
Apprentice	
Labourer	
Other	

Signed:		Date:	
Company:			

6. Schedule Of Daywork Rates

The Contractor shall list below his percentage on-cost for overheads, establishment and profit on labour, material and plant if he should be instructed during or prior to the commencement of the defects liability period to carry out day work.

Item	% for overheads, establishment & profit

Signed:		Date:	
Company:			