



MTU

Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

Capital Projects Sustainable Design Procedure

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1.0 INTRODUCTION

Munster Technological University (MTU) delivers a programme of Capital Projects to support its strategic objectives, enhance infrastructure, and provide high-quality, sustainable facilities for staff and students. Given the scale and complexity of these projects, a consistent and structured approach to governance, oversight, and delivery is required.

Capital project delivery within the public sector operates within a defined regulatory and policy framework, including the Capital Works Management Framework (CWMF), public procurement requirements, and statutory obligations. In addition, there is a growing requirement to embed sustainable design, energy efficiency, and decarbonisation into all stages of project planning and delivery in line with national policy.

MTU is committed to embedding sustainability as a core principle in capital delivery. This includes the integration of energy performance, whole-life carbon reduction, and climate resilience throughout the project lifecycle, in alignment with the Climate Action Mandate and MTU's Energy Management System under ISO 50001.

2.0 PURPOSE

The purpose of this procedure is to ensure that sustainable design outcomes, operational energy performance, and whole-life carbon reduction are systematically integrated into decision-making across the project lifecycle of all capital projects.

All projects shall be delivered in compliance with the Capital Works Management Framework (CWMF), relevant Building Regulations, and applicable statutory requirements, while incorporating the principles of the Climate Action Mandate and ISO 50001 Energy Management Systems.

This procedure ensures that capital investments deliver value for money, lifecycle value, and high-quality built assets, while supporting MTU's sustainability and decarbonisation objectives.

3.0 SCOPE

This Procedure applies to all Capital Projects undertaken by MTU Capital Projects and Estates teams, including but not limited to, new builds, refurbishments, and infrastructure works, regardless of scale or funding source unless formally exempt.

This procedure covers all stages of the project lifecycle from initial feasibility and business case development through design, procurement, construction, handover, and post-occupancy evaluation.

All parties (including external Design Consultants) involved in capital project delivery are required to comply with this procedure and any associated governance, reporting, and approval requirements.

This procedure interfaces with and shall be applied in conjunction with MTU's procurement, financial control, project governance, and energy and sustainability management policies, procedures and processes.

Routine maintenance, minor repairs, and operational works that is not classified as 'capital projects' are excluded unless they form an integral part of an approved capital works programme.

4.0 DEFINITIONS AND ABBREVIATIONS

Term / Acronym	Definition
HEA	Higher Education Authority – The HEA is a statutory or regulatory body responsible for overseeing, accrediting, and ensuring quality in higher education institutions.
RIAI	The Royal Institute of the Architects of Ireland – The RIAI the professional institute for architects and architectural technologists in Ireland.
CWMF	Capital Works Management Framework - The CWMF is for use by public sector bodies involved in spending public funds on construction projects and related consultancy services in Ireland. The framework aligns with the Infrastructure Guidelines developed by the Irish government.
Climate Action Mandate	The Climate Action Mandate is a directive for public sector bodies in Ireland, established under the Climate Action and Low Carbon Development (Amendment) Act 2021. It requires these bodies to perform their functions in a manner consistent with national climate ambitions, aiming to reduce greenhouse gas emissions and achieve climate neutrality by 2050. The mandate highlights key climate action objectives and is reviewed annually to ensure compliance and effectiveness in implementing climate initiatives.
ISO 50001	ISO 50001 is an International Standard for Energy Management. It provides a structured framework for organisations to implement, maintain and continually improve an energy management system to optimise energy use, reduce costs and lower greenhouse gases.
GPP	Green Public Procurement is a process where public authorities seek to source goods, services or works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would ordinarily be procured.
DoEY	Department of Education and Youth Schedule of Stage Services for Construction Consultants scope.

5.0 ROLES & RESPONSIBILITIES

Group / Function	Roles & Responsibilities
Vice President for Finance and Operations and The Executive Climate and Sustainability Champion	MTU's sustainability programme is jointly headed up by the Vice-President for Finance and Operations and the Executive Climate and Sustainability Champion, who play leading roles in the determination and communication of the University's sustainability agenda, who also engage with colleagues on the University Executive to ensure that sustainability and carbon management are embedded into all university operations and planning, who oversee the budget of the Sustainability Centre and the budgetary planning for the implementation of the sustainability action plan, and who have responsibility for the University's sustainability risk assessment and reporting.
Sanctioning Authority	The Sanctioning Authority is normally the Government Minister, Government Department or public body who has responsibility for implementing Government policy and for providing financial assistance for capital programmes and projects. Responsibilities are as defined within the Capital Works Management Framework.
Steering Group	The Steering Group is established for the purpose of overseeing the execution of the project on behalf of the Sanctioning Authority. It is usually only required on complex and large-scale projects, particularly where a number of bodies are interested or involved. Membership of the Steering Group are as defined within the Capital Works Management Framework.
Sponsoring Agencies:	The Sponsoring Agency is the Government Department, Local Authority, Higher Education Institution (HEI) or other State body or agency that requires the project to be undertaken. Responsibilities are as defined within the Capital Works Management Framework.

Group / Function	Roles & Responsibilities
Project Coordinator	The Project Coordinator is the main promoter and practical leader of the project and has the pivotal roles of liaising between the Design Team and the Management Team, of engaging with all the stakeholders, and of implementing the decisions of the Sponsoring Agency. Responsibilities are as defined within the Capital Works Management Framework.
Sustainability Project Coordinator	The University's Sustainability Project Coordinator leads out the implementation of the MTU Sustainability Strategy and Action Plan, including the realisation of the sustainability action plan and the coordination of MTU Sustainability Governance groups, the management of key relationships, the collaboration with internal and external stakeholders and the preparation of annual sustainability reporting and implementation plans.
Energy Performance Officer (EPO)	The University's Energy Performance Officer (EPO) leads MTU's energy management programme and the realisation of climate targets under the University's Climate Action Roadmap. The Energy Performance Officer is also responsible for supporting the implementation, monitoring, and verification of energy performance requirements across capital projects, ensuring alignment with MTU's Energy Management System (ISO 50001) and energy performance objectives.
Project Manager	The Project Manager's role is to lead, manage and coordinate the Design Team on a day-to-day basis to achieve the project's objectives. Responsibilities are as defined within the Capital Works Management Framework.

The Design Team	The Design Team is the group of professional consultants and specialists who advise and support the Client and undertake various activities within their service disciplines to implement the project. Where these services are outsourced, each Design Team member will usually be appointed under a separate contract with the Sponsoring Agency. Responsibilities are as defined in the Capital Works Management Framework and the Department of Education and Youth Schedule of Stage Services for Construction Consultants, together with any project-specific requirements set out in the Scope of Services.
The Design Team Leader	A Design Team Leader (or principal consultant) should be appointed for every project with more than one professional consultant. Responsibilities are as defined in the Capital Works Management Framework and the Department of Education and Youth Schedule of Stage Services for Construction Consultants, together with any project-specific requirements set out in the Scope of Services.
Project Supervisor for the Design Process (PSDP)	The Project Supervisor for the Design Process (PSDP) though separately appointed is usually a member of the Design Team. Responsibilities are as defined in the Capital Works Management Framework and the Department of Education and Youth Schedule of Stage Services for Construction Consultants, together with any project-specific requirements set out in the Scope of Services.
Cost Advisor	The Design Team includes a cost adviser / quantity surveyor. Responsibilities are as defined in the Capital Works Management Framework and the Department of Education and Youth Schedule of Stage Services for Construction Consultants, together with any project-specific requirements set out in the Scope of Services.

Energy Efficient Design Owner	The Energy Efficient Design (EED) Owner (MTU) shall ensure that energy efficient design is implemented across all relevant projects in accordance with I.S. 399:2021, Directive (EU) 2023/1791, and the agreed project-specific scope of service.
Energy Efficient Design Expert /Facilitator (This role is typically embedded within the Design Team; however, a separate appointment may be made depending on the scale and complexity of the project)	The Energy Efficient Design Expert Facilitator (External Consultant) shall support the integration of energy efficiency and performance requirements into capital project design and delivery, in alignment with MTU's Energy Management System (ISO 50001), Climate Action objectives, I.S. 399:2021, Directive (EU) 2023/1791, and the agreed project scope of service.
Carbon Coordinator (This role is typically embedded within the Design Team; however, a separate appointment may be made depending on the scale and complexity of the project)	The Carbon Coordinator shall be responsible for overseeing the assessment, management, and reporting of whole-life carbon across the project lifecycle, ensuring alignment with MTU's climate objectives, relevant national policy, and the agreed project scope of service. Whole-life carbon assessments shall be undertaken in accordance with EN 15978.
Contractor	The Contractor shall be responsible for the execution and delivery of the Works in accordance with the Public Works Contract, including the Contract Documents, the approved design, and all applicable statutory, governance, sustainability, and energy performance requirements.
Estates & Maintenance Team	The Estates / Facilities Management Team is responsible for the operational management, maintenance, and performance of all completed capital assets, ensuring that buildings and infrastructure operate in accordance with design intent, statutory requirements and MTU's sustainability and energy performance objectives.

6.0 GOVERNANCE & FRAMEWORK

Capital projects shall be governed through a structured framework that integrates national policy requirements, public sector obligations, and recognised standards.

This procedure establishes a structured approach to ensure compliance and consistent application across all project stages.

6.1 Governance Framework

All capital projects shall be delivered in accordance with the Capital Works Management Framework (CWMF), which provides the overarching structure for project delivery from appraisal through to handover. Sustainability requirements shall be embedded across all stages of the CWMF and applied on a whole-life basis.

Sustainability, energy performance, and climate action requirements shall not be treated as standalone considerations but shall be integrated into all project decisions, ensuring a coordinated approach to compliance, performance delivery, and continuous improvement.

6.2 Key Policy & Regulatory Requirements

All capital projects shall comply with applicable current public sector policies, statutory requirements, and organisational procedures, including but not limited to the following:

Public Sector Governance

- Capital Works Management Framework (CWMF)
- Infrastructure Guidelines
- Relevant Departmental and Higher Education Authority (HEA) requirements, devolved Control procedures (where applicable)
- Procedures required by other funding bodies (where applicable)

Statutory Compliance

All projects shall comply with applicable legislation and regulations, including but not limited to:

- Building Regulations
- Planning and Development legislation
- Health and Safety legislation
- Fire safety and Accessibility requirements
- Environmental and waste management regulations

Climate Action & Sustainability

All projects shall align with national and organisational climate objectives, including:

- MTU Sustainability Strategy 2025-2035
- MTU Climate Action Roadmap

- Climate Action Mandate for the Public Sector
- National Climate Action Plan
- Public sector energy efficiency and decarbonisation targets
- Project delivery shall incorporate energy-efficient design, low-carbon solutions, and, where appropriate, whole life cost and carbon considerations.

Green Public Procurement (GPP)

Procurement shall align with Green Public Procurement principles, ensuring environmental considerations are embedded in the selection of goods, services, and works.

This includes:

- Whole-life impacts
- Energy efficiency
- Circular economy principles
- Sustainable sourcing

In addition to Green Public Procurement requirements, the delivery of Capital Projects shall comply with applicable MTU procurement governance and procedures, including:

- MTU Procurement Policy
- MTU Purchasing Procedures

Energy Management (ISO 50001)

All projects shall support MTU's Energy Management System in accordance with ISO50001 by:

- Contributing to energy performance improvement.
- Supporting the achievement of energy objectives and targets.
- Incorporating energy-efficient design and technologies.
- Enabling monitoring, measurement, and verification of energy performance.

All projects shall comply with applicable legal and other requirements as identified within MTU's ISO 50001 Legal Register. The Legal Register shall be used to identify relevant energy-related statutory and regulatory obligations applicable to capital projects, and to ensure that these requirements are considered and addressed throughout the project lifecycle.

Professional Guidance

The procedure also recognises relevant professional body guidance, including sustainable design approaches promoted by the Royal Institute of the Architects of Ireland (RIAI), as supporting best practice in sustainable building design.

The above collectively establishes the governance foundation for this procedure. Sustainability shall not be treated as a standalone requirement but shall be embedded across all stages of the Capital Works Management Framework lifecycle, ensuring a coordinated approach to compliance, performance delivery, and continuous improvement in capital project outcomes.

7.0 PROCEDURE

7.1 Identification of Opportunities

Sustainability objectives shall be established at the initiation of all capital projects. These objectives shall define the intended sustainability outcomes for the project, including, where applicable, targets for operational energy performance, carbon reduction, lifecycle value, climate resilience, resource efficiency, and alignment with MTU sustainability commitments.

Objectives shall be developed collaboratively by the Design Team, where appointed, the appointed Energy Efficient Designer (EED) where applicable, the Capital Projects Team, the Building & Estates teams, and relevant MTU leadership representatives to ensure strategic alignment, technical feasibility, and operational relevance.

All agreed sustainability objectives shall be formally documented within the project governance records and used to guide design development, option appraisal, decision-making, and procurement throughout the project lifecycle. Performance against these objectives shall be reviewed at key project stage-gates and formally verified following project delivery.

7.2 Setting Sustainability Objectives

Sustainable design shall be embedded into all capital projects through a structured, stage-gated process of identification, assessment, approval, integration, and verification.

The process ensures that all sustainability opportunities, including operational energy performance, whole-life carbon reduction, lifecycle value, and climate resilience measures, are systematically evaluated and formally approved prior to incorporation into design and construction.

The Design Team or appointed Energy Efficient Designer (EED) shall identify sustainable opportunities throughout the project lifecycle, including at feasibility, concept design, developed design, and value engineering stages.

These Opportunities may arise from design development workshops, energy modelling and technical analysis, whole-life carbon assessment, stakeholder input (including Estates and Facilities Management), client requirements, MTU sustainability objectives, regulatory requirements, and the Climate Action Mandate.

Opportunities Register

All identified opportunities shall be recorded in an Opportunities Register maintained by the Design Team / EED and reviewed at key project stage-gates.

The register shall include:

- Description of each opportunity
- Assessment outcome (accept / reject / modify)
- Energy, carbon, cost, and technical implications
- Justification for decisions
- Record of approvals

All opportunities shall be assessed against the following criteria:

- Operational energy performance (aligned with ISO 50001 principles for energy management and improvement)
- Whole-life carbon impact (including embodied carbon)
- Lifecycle cost and value
- Technical feasibility and operational suitability

This assessment shall ensure that measures are deliverable, cost-effective, and aligned with MTU's sustainability and energy objectives.

Decision Making

Design decisions shall be made in accordance with project scope and budget while optimising sustainability outcomes, including operational energy efficiency, whole-life carbon reduction, and lifecycle value.

Approved sustainability measures shall be incorporated into design documentation, specifications, energy and carbon assessments, and cost and procurement documentation.

Approval Governance

All sustainability measures shall be subject to formal approval in accordance with project stage-gate governance thresholds defined in the Capital Works Governance Framework.

Project Value / Threshold	Sustainability & Technical Review	Sustainability Endorsed	Final Approval Authority
Value of Contract €1m or lower and projected energy consumption of less than 250,000 kWh per year	Building & Estates	Project Manager	Project Coordinator
Value of Contract between €1m and €5m	Building & Estates And / Energy Efficient Designer (EED) where required. If projected energy consumption exceeds 250,000 kWh per annum, the Project Manager must consult with an EED Facilitator to determine the extent of the EED review required.	Project Coordinator	Energy Performance Officer (EPO)
Value of Contract greater than €5m	Building & Estates Energy Efficient Designer (EED)	Project Manager / Project Coordinator	Energy Performance Officer (EPO) Vice President for Finance and Operations and The Executive Climate and Sustainability Champion.

All decisions, including their justification, shall be recorded in the Opportunities Register. Approved measures shall be progressed through subsequent project stages.

7.3 Measurement & Verification

Sustainability objectives, performance targets, and implemented opportunities shall be subject to formal measurement and verification to confirm delivery of intended outcomes. The Capital Projects Team shall ensure that appropriate monitoring capability is incorporated into project design and delivery to enable meaningful performance assessment following completion.

Measurement and verification activities shall be undertaken by a suitably qualified Measurement and Verification practitioner and carried out in accordance with recognised methodologies, including ISO 50015 and/or the International Performance Measurement and Verification Protocol (IPMVP), as appropriate. Verified performance outcomes shall be documented and used to inform project close-out, lessons learned, and continuous improvement of MTU capital delivery processes.

Refer to MTU's Energy Manual for full details of these requirements.

8.0 COMPLIANCE

All capital projects shall comply with this Capital Works Sustainable Design Procedure. Compliance shall be verified at each project stage-gate in accordance with the Capital Works Management Procedure. Compliance shall be demonstrated through stage-gate approvals, the Opportunities Register, and associated energy, carbon, and design documentation.

Compliance monitoring shall be the responsibility of the Project Coordinator / Project Manager, supported by the Design Team / Energy Efficient Designer (where appointed), with sustainability oversight provided by the Energy Performance Officer.

Any deviation from this procedure shall be formally recorded, including justification and impact assessment (energy, carbon, cost, and technical implications).

Deviations shall require approval from the MTU Project Coordinator, with input from the Energy Performance Officer, Vice President for Finance and Operations and The Executive Climate and Sustainability Champion where sustainability impacts are material.

All approved deviations shall be recorded in the Opportunities Register.