



Environmentally Sustainable Design for Council Buildings Policy

Policy Owner	Environment and Sustainability Economy, Growth & Infrastructure
Creation Date	August 2021
Revision Date	August 2024

Purpose

This policy has been developed to provide guidance and minimum standards for Environmentally Sustainable Design (ESD) in Council buildings to avoid and minimise environmental impacts throughout their lifecycle.

This policy seeks to ensure that future emissions from buildings, embodied greenhouse gas emissions in construction materials, and waste and energy used in their construction are reduced, and that sustainability is embedded into the earliest stages of project design.

This policy will also contribute to improving the resilience of Council's buildings to the impacts of climate change.

Context

Buildings typically have a long life and require a significant amount of natural resources and capital to construct and operate, with their siting and design having an impact on their operation and the surrounding natural environment. They can, however, be designed to reduce their ecological footprint and impacts and be sympathetic and connected to their surroundings.

It is recognised that some best practice ESD measures can incur an additional upfront cost, however, these are significantly outweighed by the benefits achieved over an asset's lifecycle, including:

- Delivering assets that are resilient to the impacts of climate change,
- Enhancing the wellbeing of facility users by connecting the natural and built environment and improving indoor environments for buildings,
- Encouraging the uptake of ESD practices in the wider community,
- Securing ongoing operation efficiencies, through improved asset management and less intensive maintenance programs,
- Addressing gaps and the absence of minimum requirements in the National Construction Code (NCC) and relevant legislation,
- Reducing reliance on emissions intensive transport modes and facilitating active transport options, and
- Driving the uptake of low impact construction materials and stimulating local markets for recycled products.

The incorporation of ESD features into building design is essential to achieving corporate sustainability targets and objectives.

Scope

This policy applies to:

- All new Council buildings, initiated by Council or developer led, and;
- All substantial renewals, renovations and upgrades to existing Council buildings and facilities.

The policy provides clear objectives, guidance and tools for use by building and facility managers, designers, architects, engineers, project managers and building contractors for all new builds, renewal, upgrade and refurbishment projects.

The policy shall not undermine relevant legislative requirements and regulations such as building requirements for construction in bushfire prone areas or those required for Maternal Child Health Centres and Kindergartens. The policy shall acknowledge and work alongside Mitchell Shire Community Infrastructure Guidelines where appropriate.

Policy

The objectives of the policy are to:

- Reduce the environmental impacts of constructing, refurbishing and operating Council buildings and consider the embodied energy of construction materials;
- Ensure waste avoidance, and promote a circular economy during the planning phase and construction;
- Improve energy and water efficiency of Council owned buildings and facilities;
- Provide a healthy indoor environment in Council owned buildings;
- Demonstrate leadership and corporate responsibility to the community by adopting and promoting sustainable building design suitable for the region's current and future climate;
- Reduce reliance on non-renewable grid electricity;
- Reduce the operational costs associated with Council's buildings and facilities;
- Conserve and contribute to no net loss of biodiversity around Council buildings;
- Support active travel and zero emission vehicle uptake;
- Increase education of building users and the public in environmentally sustainable design.

ESD Assessment Matrix and Targets

The following ESD Assessment Matrix will be utilised to achieve minimum ESD targets for Council buildings in conjunction with the checklist requirements in the ESD Minimum Building Standards for Council Buildings.

These targets are the minimum standard required for building project types, in some cases a higher target may be desirable.

Project Type	Building Project	Planning and Design Specification Document	Minimum ESD Targets
Significant	New buildings, upgrades, expansion or renewal projects with a total design and construction cost over \$10 million	ESD Minimum Building Standards for Council Buildings, Green Star Design and As Built Submission (latest version)	6 Star Green Star (certified)
Major	New buildings, upgrades, expansion or renewal projects with a total design and construction cost from \$6-10 million	ESD Minimum Building Standards for Council Buildings Green Star – Design and As Built (latest version) Built Environment Sustainability Scorecard (BESS)	5 Star Green Star compliant, (certified if feasible) or minimum 70% Built Environment Sustainability Scorecard (BESS) rating
Minor	New buildings, upgrades, expansion or renewal projects with a total design and construction cost up to \$6 million	ESD Minimum Building Standards for Council Buildings Built Environment Sustainability Scorecard (BESS)	4 Star Green Star compliant or minimum 60% BESS rating
All Buildings	Furniture, Appliances and Equipment Fit-out, or Bulk Procurement	ESD Minimum Building Standards for Council Buildings, Energy Star Rating Water Efficiency Labelling Scheme (WELS)	Furniture and Finishes Good Environment Choice Australia (GECA) or Eco-Specifier Certified product or; Recycled/Repurposed Furniture Electrical Appliances Highest Energy Star Rating available applicable to appliance being installed Water Using Appliances and Fittings Highest Water Efficiency Labelling Scheme Rating (WELS) available applicable to appliance or fitting being installed

Building Maintenance	Maintenance of specified Council buildings	ESD Minimum Building Standards for Council Buildings	Applicable Works carried out in accordance with the Council ESD Minimum Building Standards Minimum 70% of waste generated during demolition diverted from landfill through circular economy
Demolition	Demolition, where 50% or more of the building is demolished	ESD Minimum Building Standards for Council Buildings	

Policy Implementation

The ESD Minimum Building Standards for Council buildings are to be implemented as part of the scoping and definition stages of any project. They shall be incorporated as part of the Project Management Framework for Capital Works.

In accordance with the Mitchell Shire Project Management Framework, the Project Sponsor has ultimate accountability for the realisation of project outcomes and objectives.

It is the responsibility of the Project Sponsor to ensure the ESD Minimum Building Standards are considered in the initiation and concept design development phases of the project and included in the **Project Proposal** document. At this time, a nominal budget allocation for ESD initiatives should be included in the project budget estimate used for the preparation of the project business case.

Guidance on suitable allocations for ESD can be found in the ESD standards.

Upon funding being allocated to either the design phase or execution phase (or both), the Project Sponsor is responsible for ensuring the relevant ESD targets are identified in the **Project Plan** and are not compromised during the project lifecycle. The **Project Plan** should be used to monitor the implementation of these ESD targets.

In the closure phase of the project, the Project Sponsor is responsible for ensuring an evaluation of the ESD targets is carried out.

For developer led projects, including those being undertaken as part of Precinct Structure Plans (PSP), the Project Sponsor / relevant Service Manager is responsible for ensuring compliance with this policy.

Procedural Flowchart

The following diagram outlines how to consider ESD during the scoping, planning and design, procurement and construction phases of a project.



Responsibilities

The policy applies to all Council officers and the contractors responsible for financing, planning, designing, developing, constructing, renovating and managing Council-owned buildings and facilities including developer led works.

Related Legislation

Local Government Act 2020
Climate Change Act 2017
Environment Protection Act 1970

References

The following Council policies and plans are applicable to this policy:

- Buildings Asset Management Plan
- Mitchell Shire Council Plan 2017-2021
- Mitchell Shire Environment Policy 2020
- Mitchell Shire Procurement Policy 2019
- Mitchell Shire Environment Strategy 2014
- Mitchell Shire Capital Works Framework
- Waste Management Strategy 2016-2021

The following external resources and references are applicable to this policy:

- Australian Building Codes Board (ABCB), National Construction Code (NCC), <https://ncc.abcb.gov.au>
- Australian Government, Water Efficiency Labelling and Standards (WELS) Scheme, www.waterrating.gov.au/
- Built Environment Sustainability Scorecard (BESS),
- Ecospecifier, www.ecospecifier.com.au/ building materials and products certification,
- Energy Rating, www.energyrating.gov.au/
- Forest Stewardship Council (FSC), Public certificate search, <http://info.fsc.org/certificate.php>
- Green Environmental Choice Australia, www.geca.org.au/
- Green Building Council of Australia, <http://new.gbca.org.au/>
- Infrastructure Sustainability Council of Australia, ISCA IS Design and As Built rating tool, www.isca.org.au/
- WELS Water Rating product labelling: Water Efficiency Labelling and Standards (WELS) Scheme, www.waterrating.gov.au/

Review

This policy will be initially reviewed 12 months from the date of adoption.

To monitor the effectiveness of the policy, an annual report will be prepared based on the following measures.

Performance Measure	Target	Data collection	Reporting Responsibility
Percentage (%) of capital building projects undertaken during the financial year complying with standards	100%	Capital Works	Environmental Sustainability
Performance of upgraded existing buildings against key sustainability performance targets	Increased renewable energy in kW Reduced potable water usage in kL Increased Water harvesting/Reuse in kL CSIRO Urban Stormwater Best Practice Guidelines have been met and demonstrated through the STORM or MUSIC tools.	Environment and Sustainability	Environment and Sustainability
Waste	Demolition projects achieve 70% of demolished materials recycled or reused through circular economy % Recycled content achieved in building materials (by weight)	Capital Works	Environment and Sustainability

This evaluation will also be recorded in the Benefits Realisation process for each project

Definitions and Glossary of Terms

Term	Definition
BESS	The Built Environment Sustainability Scorecard (BESS) is an online sustainability assessment. The BESS tool specifies best practice benchmarks in different environmental categories. Meeting these benchmarks confirms best practice standard for medium to large scale buildings.
Buildings and facilities	Any building or facility owned and/or managed by Mitchell Shire Council. Includes offices, libraries, halls, preschools, sports pavilions, toilet blocks and many other categories. Does not apply to individual structures such as netball shelters or scoreboards, etc.
Circular economy	A circular economy is one that re-uses and recycles resources rather than the traditional linear economy of make, use and dispose.
Ecological footprint	The amount of the environment necessary to produce the goods and services needed to support a particular activity or project.
Embodied energy / emissions	The energy / emissions associated with the manufacturing of a product or services. This includes energy or emissions used for extracting and processing of raw materials, manufacturing of construction materials, transportation and distribution, and assembly and construction.
Green Star	Green Star is a voluntary sustainability rating system for buildings in Australia. The Green Star rating system assesses the sustainability of projects at all stages of the built environment life cycle. There are four tools available – Communities, Design and as Built, Interiors and Performance. Green Star benchmarks projects against the nine categories of: Management; Indoor Environment Quality; Energy; Transport; Water; Materials; Land Use & Ecology; Emissions and Innovation.
MUSIC	Model for Urban Stormwater Improvement Conceptualisation (MUSIC) can model a wide range of treatment devices to find the best way to capture and reuse stormwater runoff, remove its contaminants, and reduce the frequency of runoff.
STORM	Stormwater Treatment Objective Relative Measure (STORM) calculator measures if best practice stormwater objectives have been met by measuring the projected reduction in nitrogen pollution.