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| <b>Frankston City Council</b>   | Policy No. 03/2015              |
| <b>Environmentally Sustainable Design Standards for Council Buildings</b> | <b>Issue:<br/>13 April 2015</b> |

## 1. INTRODUCTORY STATEMENT

Frankston City Council will design, construct, expand, upgrade, renew, maintain and demolish Council buildings in such a way that reduces Council's environmental impact, contributes to achieving Council's environmental targets and demonstrates a commitment to the long-term sustainable management of Council's facilities.

Each Council building project and scheduled works must have the objective to reduce environmental impacts by protecting the natural environment and minimising the use of energy, water and non-renewable resources over the building's lifecycle. To achieve this, Council must incorporate environmentally sustainable design (ESD) principles and meet the specified environmental performance targets as outlined in these *Environmentally Sustainable Design Standards for Council Buildings* (herein referred to as the 'Standards').

The *Standards* will have succeeded when all Council building projects within the municipality incorporate ESD principles and environmental performance targets as standard practice.

## 2. REASON FOR STANDARDS

Frankston City Council is responsible for the management and upkeep of over 300 buildings and facilities that are utilised by either staff or community members. Whilst existing energy and water conservation measures in the *Building Code of Australia* are a positive first step, it is widely recognised that they are aimed at eliminating worst practice. A more comprehensive and coordinated ESD approach is therefore desirable.

In order to improve the environmental sustainability of Council facilities and reduce their environmental impact and operating costs, Council initiated the development of its first *Environmentally Sustainable Design Standards for Council Buildings*. The *Standards* provide Council with a guide to improve the environmental performance of Council's buildings through the integration of ESD principles in the creation, renewal, upgrade, expansion, maintenance and disposal of Council's buildings. This will be achieved by defining environmental performance targets for buildings and describing roles and responsibilities.

Whilst the focus of the *Standards* is environmental sustainability, ESD for buildings is widely recognised as having multiple long-term benefits, including:

- Reduced environmental impacts
- Reduced annual operating costs by consuming less energy, less water and generating fewer emissions
- Future proofing Council's buildings against climate change and rising costs of utilities
- Ensuring healthy indoor environments and improved comfort levels for occupants, which can lead to increased occupant productivity and associated health benefits
- Higher property returns in the future
- Marketing advantage and leading by example
- Increasing staff engagement and improvements to staff amenity

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Whilst there may be increased construction costs up-front, there are long term financial benefits of ESD through reduced operating costs and improved health of the occupants. Furthermore, it is widely recognised that it is more cost effective to integrate ESD principles in the early planning stage of a building project, rather than to retrofit later. Many aspects of ESD, such as passive solar design and improved insulation, will also have minimal impact on upfront cost but substantial benefits over the long term.

The *Standards* will also assist Council in achieving its environmental performance targets and is a key action of Council's *Carbon Neutral Action Plan*<sup>1</sup> and environmental sustainability a priority of the organisation's *Environmental Sustainability Policy*<sup>2</sup>.

### 3. SCOPE

The *Standards* apply to all Council-owned buildings and covers all building projects associated with new building projects, expansions, upgrades, renewals, as well as building maintenance works undertaken by Council, through to final demolition. This applies to all buildings including (but not limited to):

- Administrative offices
- Arts and library facilities
- Community buildings
- Early education facilities
- Youth and family services facilities
- Sporting facilities and pavilions
- Leisure and aquatic centres
- Operational centres
- Residential buildings
- Halls
- Others, as appropriate

The *Standards* outline Council's adopted environmental performance targets for Council buildings and expectations regarding roles and responsibilities.

The *Standards* must be referred to by Council staff and contractors when planning for, or carrying out projects and works involved in the design, construction, expansion, upgrade, renewal, maintenance and disposal of Council's building assets.

### 4. AUTHORISATION

The Director of City Development has overall responsibility for the *Standards* and they are approved by:

..... CEO, Frankston City Council

..... Mayor, Frankston City Council

### 5. REVISION DATE/RELEVANT STANDARDS SUPERSECEDED

<sup>1</sup> Carbon Neutral Action Plan, Frankston City Council, 2012, [www.frankston.vic.gov.au](http://www.frankston.vic.gov.au)

<sup>2</sup> Environmental Sustainability Policy, Frankston City Council, 2010, [www.frankston.vic.gov.au](http://www.frankston.vic.gov.au)

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The *Standards* are valid for 4 years at which such time they will be formally reviewed. An annual implementation review will also be undertaken to ensure learning outcomes are documented, changes to environmental performance rating tools are accommodated and a commitment to continuous improvement is made.

These are new *Standards* of Council and they do not replace an existing Standard.

## **6. PRINCIPLES**

Council will adhere to the following ESD principles for each Council building project:

- Incorporate passive solar design features to enhance natural ventilation, heating, cooling and lighting and improve thermal performance
- Design for ease of maintenance and long life across the lifecycle of a building
- Minimise impacts on biodiversity, air, water, soil and visual amenity and enhance the local ecology throughout the total lifecycle of the building
- Maximise water efficiency and use alternative water sources, such as capture and re-use, to reduce consumption of mains drinking water
- Maximise energy efficiency and produce clean energy through renewable and alternative energy options
- Install solar power on Council buildings (where feasible)
- Use only energy efficient lighting on Council facilities and assets
- Create a healthy indoor environment by using materials that are not harmful to the health, safety and wellbeing of building occupants
- Use materials with lower embodied energy and reduced environmental impact, for example materials with environmental accreditations or recycled materials
- Maximise reuse and recycling of construction and demolition waste
- Ensure sufficient space is included for waste and recycling collection in the design of buildings, to encourage sorting, recycling and composting by building occupants
- Provide access to efficient and cleaner transport options to the building, by encouraging use of public transport, walking and cycling
- Manage the building efficiently once occupied, to reduce the operational impacts on the environment
- Minimise waste and reduce environmental risks associated with the decommissioning or disposal of a building

Furthermore, Council will achieve the following environmental performance targets outlined below (see section 7) for each Council building project category. To determine the relevant building project category, refer to Appendix A.

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## 7. ENVIRONMENTAL PERFORMANCE TARGET

The table below specifies Council's environmental performance targets and environmental performance rating tools for each Council building project. Council must aim to achieve at least the specified target for each building project. To determine the relevant building project category, refer to Appendix A.

The environmental performance targets are specific in terms of 'Energy' and 'Water' due to Council's focus on energy, greenhouse and water conservation and utility cost savings.

Some issues exist which may impact on the ability of Council to utilise the proposed environmental performance rating tool or achieve the environmental performance target set, for example, heritage considerations, OH&S, hazardous material, fire protection, tree protection, operational requirements. Where these constraints exist, they should be identified early in the building project planning process so that appropriate actions and adjustments to the target can be established and agreed upon for the project, at Council's discretion.

| Building Project Category<br>(see Appendix A for definitions) |           | Environmental Performance Rating Tool   | Council's Environmental Performance Targets  |
|---|-----------|---|--|
| A   | Major New | (1) Green Star rated; possibly certified:   | <b>5 Stars</b>   |
|   |           | (2) NABERS rating (if applicable) <ul style="list-style-type: none"> <li>• Energy:</li> <li>• Water:</li> </ul> | <ul style="list-style-type: none"> <li>• <b>5.0 Stars</b></li> <li>• <b>4.5 Stars</b></li> </ul>   |
| B   | Minor New | (1) Meeting or exceeding overall benchmarks as outlined in SDS  | <b>Exceed energy benchmark by 30% and water by 10%. Meet all other benchmarks</b>  |
| C   | Expansion | (1) Meeting or exceeding overall benchmarks as outlined in SDS  | <b>Exceed energy benchmark by 30% and water by 10%. Meet all other benchmarks.</b><br><br>Note: For portion of building where new works undertaken |
|   |           | (2) Energy efficiency improvement and mains water consumption reduction   | <b>30%</b><br><br>Note: For building performance and/or fittings   |
| D   | Upgrades  | (1) Meeting or exceeding overall benchmarks as outlined in SDS  | <b>Exceed energy benchmark by 30% and water by 10%. Meet all other benchmarks.</b><br><br>Note: For portion of building where new works undertaken |
|   |           | (2) Energy efficiency improvement and mains water consumption reduction   | <b>30%</b><br><br>Note: For building performance and/or fittings   |

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| Building Project Category<br>(see Appendix A for definitions) |                    | Environmental Performance Rating Tool   | Council's Environmental Performance Targets                      |
|---|--------------------|---|--|
| <b>E</b>  | <b>Renewal</b>     | (1) Energy efficiency improvement and mains water consumption reduction   | <b>30%</b><br><br>Note: For building performance and/or fittings |
|   |                    | <b>(2) New appliances within one <a href="#">Energy Star</a> rating of best available New water fixtures and fittings within one <a href="#">WELS</a> star rating of best available</b> |  |
| <b>F</b>  | <b>Maintenance</b> | (3) Achieve x% of maximum available benchmark Green Star credits for IEQ13, IEQ14, MAT8 (Office Tool)   | <b>60%</b>   |
|   |                    |   |  |
| <b>G</b>  | <b>Demolition</b>  | Target for reuse and recycling  | <b>60%</b>   |

## 8. ROLES AND RESPONSIBILITIES

Both the Project Sponsor and Project Manager are responsible for ensuring that the *Standards* and its principles are adhered to and that the environmental performance targets and processes for their building project are met.

Once the building is occupied, the Facility Manager will be responsible for ensuring that the building is managed in an efficient manner to reduce operational impacts and to ensure that any relevant operational environmental performance targets are met (e.g. NABERS).

### 8.1 Council

Councillors will:

- Act as custodians and stewards of Council's facilities
- Set and review the *Standards* and its vision with linkage to the Council Plan
- Ensure adequate funding is available for achieving environmental performance targets
- Ensure appropriate design of buildings which will meet the specified environmental performance targets

### 8.2 CEO/Executive Management Team (EMT)

The CEO/EMT will:

- Ensure that accurate and reliable information is presented to Council for decision-making regarding the *Standards* and Council's building projects
- Approve environmental performance targets for all 'Major New' building projects
- Ensure appropriate design of buildings for achieving environmental performance targets

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- Ensure sufficient funding for compliance with the *Standards* and in achieving the environmental performance targets
- Ensure a periodic review of the *Standards* and advise Council of any recommended changes

### 8.3 Project Sponsor and Project Manager

The Project Sponsor and Project Manager will:

- Understand and ensure the *Standards* are adhered to for their building project, including participating in appropriate training to comply with the *Standards* (as required)
- Establish the environmental performance target for their building project in consultation with Council's Sustainable Assets Department. For 'Major New' building projects, EMT approval is also required. This should take the form of a preliminary discussion in the project scoping and early design stage
- Where the minimum environmental performance target is not able to be achieved, the Project Sponsor and Project Manager will be required to justify this and seek a variation through the Sustainable Assets Department. For 'Major New' building projects, EMT approval is also required
- Appoint an independent ESD Consultant (where required – and as advised by the Sustainable Assets Department) to provide ESD advice to Council during the design and commissioning of the building project
- Develop and manage project costing and ensure sufficient budget allocation for ESD considerations in meeting the environmental performance target
- Deliver the agreed environmental performance targets for the building project, and monitor and report progress to the Sustainable Assets Department. For 'Major New' building projects, reporting to EMT is also required

### 8.4 Sustainable Assets Department

The Sustainable Assets Department will:

- Provide advice to the Project Sponsor and Project Manager to assist in determining appropriate environmental performance targets and budget allocation
- Approve environmental performance targets for all Council building projects, with the exception of 'Major New' projects (where EMT approval is required)
- Approve any variation request from the Project Sponsor and Project Manager to the environmental performance targets for selected Council building projects (where reasonable grounds for accepting a lower target can be made)
- Support Council staff by providing ESD resources/tools, education and advice to assist in embedding the *Standards* in Council processes and procedures
- Assist Council staff in determining the lifecycle costs and analyses for the their building project to support development of the budget
- Annually monitor and review performance of Council in achieving the *Standards* and reporting non-compliance to EMT, including undertaking audits from time to time
- Coordinate the periodic review of the *Standards* and advise EMT and Council of any recommended changes
- Report on Council's environmental performance (including utility usage – electricity, gas and water usage and costs) to assist in monitoring the

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operational impacts of Council's building assets and performance against targets

## 8.5 Facility Managers

Facility Managers will:

- Manage the building efficiently once occupied, to reduce the operational impacts on the environment and rising cost of utilities
- Assist the Sustainable Assets Department in providing information and reporting progress against operational environmental performance targets (e.g. NABERS)

## 8.6 Managers/Coordinators

Managers and Coordinators will:

- Comply with the *Standards*
- Manage Council's assets in consideration of long term environmental sustainability and in accordance with the *Standards*
- Incorporate the *Standards* when developing their Service/Asset Management Plans with support from the Sustainable Assets Department
- Participate in appropriate training to develop the skills and knowledge required to undertake environmentally sustainable building practices, as appropriate for the responsibility of the role or position and in accordance with the *Standards*

## 8.7 Staff

Council staff will:

- Comply with the *Standards*
- Deliver on actions and implement outcomes of the *Standards*
- Collect information / data for reporting on the requirements of the *Standards* (where required)
- Participate in appropriate training to develop the skills and knowledge required to undertake environmentally sustainable building practices, as appropriate for the responsibility of the role or position and in accordance with the *Standards*

## 9. POLICY NON-COMPLIANCE

Non-compliance of the *Standards* may negatively affect both the built and natural environment and consequently individuals and the broader community. It may also negatively affect Council's utility costs and the ability to sustain its building assets, as well as meeting the organisation's adopted environmental performance targets.

## 10. RELATED DOCUMENTS

- Community Plan
- Council Plan
- Environmental Sustainability Policy
- Environmental Sustainability Strategy

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- Asset Management Policy
- Sustainability Policy
- Health and Wellbeing Plan
- Carbon Neutral Action Plan
- Sustainable Water Use Plan
- Climate Change Impacts and Adaption Plan
- Waste Minimisation and Management Strategy

## 11. IMPLEMENTATION AND REPORTING ON THE STANDARDS

The *Standards* will be monitored and reported on regularly by Council's Sustainable Assets Department to ensure its relevance in terms of community needs and expectations, Council goals and targets as well as statutory requirements. The organisation shall undertake regular audits to monitor compliance with the *Standards*, regulatory obligations and plans.

To monitor progress, key performance indicators include:

- Percentage (%) of projects adhering to the requirements of the *Standards*
- Percentage (%) of projects meeting specified environmental performance targets
- Performance of Council buildings against specified environmental performance targets, to be reported on annually in Council's Annual Energy and Water Usage Report

Additional work will be undertaken, including training of Council staff, to embed the requirements of the *Standards* into Council's procedures and processes.

## 12. DEFINITIONS

**Energy Rating** - A joint initiative of the Australian, State, Territory and New Zealand Governments to develop star ratings to provide consumers with an easy way of comparing the energy efficiency of different products and appliances. The more stars the better. See [energyrating.gov.au](http://energyrating.gov.au)

**Environmental Sustainability** - Environmental sustainability is the maintenance of functioning natural ecosystems, as well as the control of pollutants and toxins in human environments such as cities and agricultural areas. It is the concept of humans living in such a way that their use of natural resources is balanced with the ability of the natural world to generate these resources and enhances the living requirements of other organisms on earth. Council aims to demonstrate leadership and achieve best practice in environmental sustainability in partnership with its community.

**Green Star** - Green Star is a national, voluntary environmental rating system that evaluates the environmental design and construction of buildings. Green Star was developed for the property industry to standardise, promote and recognise environmentally sustainable building practices. **Green Star is typically aimed at large building projects.** Green Star covers several categories that assess the environmental impact that is a direct consequence of a projects site selection, design, construction and maintenance. Depending on the credits claimed within the individual categories, projects can be certified and awarded one of the following

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ratings: 4 Stars (Best Practice), 5 Stars (Australian Excellence) or 6 Stars (World Leadership). See [greenstar.org.au](http://greenstar.org.au)

**Lifecycle** - The cycle of activities that an asset (or facility) goes through during its life, while it retains an identity as a particular asset, i.e. from planning and design, through to construction, operation and maintenance, refurbishment and disposal.

**NABERS** - The National Australian Built Environment Rating System measures an existing building's environmental performance during operation. NABERS rates a building on the basis of its measured operational impacts in categories such as energy, water, waste and indoor environment. Currently NABERS only officially rates offices, hotels, shopping centres and homes. Further tools are under development for schools, retails, hospitals and data centres. See [nabers.gov.au](http://nabers.gov.au)

**Sustainable Design Scorecard** – The Sustainable Design Scorecard (SDS) is a voluntary environmental rating system that evaluates the environmental performance of non-residential buildings in Victoria. **The SDS is typically aimed at small to medium facilities.** Similar to Green Star, SDS assesses and scores the environmental sustainability initiatives of new building developments or refurbishments in several different categories. The SDS tool is currently administered by the City of Port Phillip and is available as a free Excel download on their website, see [portphillip.vic.gov.au](http://portphillip.vic.gov.au). The administration of SDS is currently being transferred to CASBE – the Council Alliance for Sustainable Built Environments, which is an association of Victorian councils committed to the creation of a sustainable built environment.

**Water Efficiency Labelling and Standards (WELS) Scheme** - A joint initiative of the Australian, State and Territory Governments to develop star ratings to provide consumers with an easy way of comparing the water efficiency of different products and appliances. The more stars the better. See [waterrating.gov.au](http://waterrating.gov.au)

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## APPENDIX A – BUILDING PROJECT CATEGORIES

The table below outlines the building project categories (A-G) used by Council. Determining the building project category is necessary to determine the relevant environmental performance target for each building project (see section 7.0 also).

| Building Project Category   |                    | Building Project Definition   | Project Example  | Reference to Existing Council Processes   |
|---|--------------------|---|--|---|
| <b>A</b>  | <b>Major New</b>   | All new major building works with a total design and construction value of <u>\$2.5M or more</u> .<br><br>Creates a new asset providing a new service to the community that did not exist beforehand.   | Construction of a new community centre.  | Project Implementation Plan<br>Lifecycle Costing<br>Project Briefs<br>Project Reporting |
| <b>B</b>  | <b>Minor New</b>   | All new minor building works with a total design and construction value of <u>less than \$2.5M</u> .<br><br>Creates a new asset providing a new service to the community that did not exist beforehand. | Construction of a new sports pavilion.<br><br>Installation of a public toilet or construction of a storage shed. | Project Implementation Plan<br>Lifecycle Costing<br>Project Briefs<br>Project Reporting |
| <b>NOTE: Categories C-E to be covered by the environmental performance target requirements of Category A, if their budget exceeds \$2.5M.</b> |                    |   |  |   |
| <b>C</b>  | <b>Expansion</b>   | Extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users.  | Expansion of a community centre to accommodate new user groups.  | Project Implementation Plan<br>Lifecycle Costing<br>Project Briefs<br>Project Reporting |
| <b>D</b>  | <b>Upgrades</b>    | Upgrades an existing asset, which enhances the building to provide a higher level of service, or expenditure that will increase the life of the asset beyond that which it had originally.              | Refurbishment of a hall or leisure centre.   | Project Implementation Plan<br>Lifecycle Costing<br>Project Briefs<br>Project Reporting |
| <b>E</b>  | <b>Renewal</b>     | Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally (i.e. equivalent capacity).   | Renewal of a childcare centre or sports pavilion.  | Asset Management Plans  |
| <b>F</b>  | <b>Maintenance</b> | All reactive and routine maintenance work.  | Application of new finishes or fire alarm.   | Facilities Maintenance Contract   |
| <b>G</b>  | <b>Demolition</b>  | All major demolition work that includes 10m <sup>3</sup> (e.g. industrial grade skip bin) or more of waste.   | The complete or partial demolition of a building.  | Disposal Plan   |