

Community Facility Funding Program Environmentally Sustainable Design Information Sheet



The Community Facility Funding Program (CFFP) now provides an innovation incentive for proposals submitted under its Major Facilities, Better Pools/ Aquatic Access and Seasonal Pool Renewal categories to include environmentally sustainable design (ESD) features. To be eligible for funding under these CFFP categories a proposal must allocate a minimum of 20% of the requested grant amount to components that will improve energy efficiency and environmental sustainability, and/or reduce water consumption.

Successful projects will be required to quantify the outcomes achieved by ESD components. Desired ESD goals through funded projects include:

- Environmentally friendly design and construction
- Low energy, low resource and low environmental impact
- Low water use
- Low impact on surroundings
- Lower energy bills
- Measurable outcomes comparable to industry benchmarks
- Low greenhouse emissions
- Low waste
- Good internal and external acoustics
- Improved satisfaction of users

Proposals are encouraged to detail initial capital cost, running cost savings, energy savings, emission savings or water savings information relevant to ESD features included in a project. Some ESD initiatives that could be considered in developing proposals relating to building construction, a buildings envelope or building services are outlined below.

Building Construction

Building materials, use of recycled materials

Maximizing the use of green or recycled materials with good structural and thermal performance is recommended.

Longevity of components

Long life span systems and materials.

Low Embodied Energy

Materials that have used energy efficient manufacturing and transport processes.

Building Orientation

The solar orientation of buildings or the orientation of buildings for prevailing wind conditions will assist in the reduction of heat loss and heat gain.

Transport

Designs that promote public transport, walking, bicycles and other low energy means of attending the facility.

Computer Modelling

Computer modelling of buildings can be used to model the buildings internal and external airflows and through good design reduce heat loss and heat gains in buildings.

Building Envelope

Improved Thermal Properties

Improvements to building façade, roof, floor and internal insulation properties to reduce heat loss and heat gain of the building.

High performance Glazing or low glass to floor ratio

Section J of the building code requires low glass area to floor ratio for developments. Higher performing glazing such as double glazing, low e glass, tinted glass, internal blinds all help to reduce heat loss and heat gains in buildings.

External Shading

External shading, either active or passive, can greatly reduce solar gain in summer, and assist with additional solar gain in winter.



Building Services

Water Reclamation/ Harvesting

Water reclamation can include storm water, grey water and black water systems as applicable to projects.

Efficient Lighting and Lighting Control, Internal and External

The use of high efficiency lighting and lighting control systems to reduce electricity consumption.

Gas Fired Domestic Hot Water Plant and Boilers

The use of gas fired equipment in lieu of electricity based systems.

Green Fuels

The use of green fuels reduces environmental impact of greenhouse and CO2 emissions.

Mechanical Plant and Refrigerants

Mechanical plant of long life span, high efficiency and environmentally friendly refrigerants.

Waste Heat Recovery

The temperature of the air exhausted from the space can be used to help heat or cool the fresh supply air through a simple heat exchange process.

Co-generation – Electricity and Heat

Gas-fired co-generation plant can be used to generate electricity and heat, reducing reliance on the public electricity grid.

Solar Hot Water

Solar hot water panels can be used to reduce domestic hot water loads on gas and electricity. A gas boiler can heat water on days with little solar heat gain.

Geothermal

In certain regions geothermal heating and cooling are a possible alternative solution that may be considered for some high end ESD projects.

Photovoltaic Cells

Photovoltaic cells on the roof can generate electricity from the sun's energy.

Wind Turbines

Wind turbines either on some sites, or local to sites, may be able to provide an alternative energy source to projects of applicable size and scope.

Commissioning and Measurement

Correct commissioning and set up of systems is critical to good energy performance. Direct digital control metering of systems will enable the tracking of the pay back of green initiatives.

Contact Details

The following government web sites can provide additional information:

Sustainability Victoria
www.sustainability.vic.gov.au

Sustainability Education
www.environment.gov.au/education/

CSIRO
www.csiro.au/csiro/channel/ich21.html

Sport and Recreation Victoria
www.sport.vic.gov.au