Planning and Environment Act 1987

Advisory Committee and Panel Report

Environmentally Efficient Design Local Policies

7 April 2014

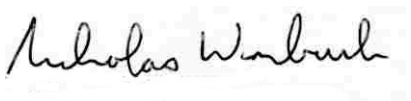
Planning Panels Victoria
State Government Victoria

Planning and Environment Act 1987

Advisory Committee Report pursuant to Section 151 of the Act

Panel Report pursuant to Section 25 of the Act

Environmentally Efficient Design Local Policies



Nick Wimbush, Chair

Ian Coles, Member

Gaye McKenzie, Member

Sue Porter, Member

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List of Abbreviations

ABCB	Australian Building Codes Board
BCA	Building Code of Australia
BDAV	Building Designers Association of Victoria
BEEC	Building Energy Efficiency Certificate
CASBE	Council Alliance for a Sustainable Built Environment
COAG	Council of Australian Governments
DSE	Department of Sustainability and Environment
DTPLI	Department of Transport, Planning and Local Infrastructure
DTS	Deemed to Satisfy
EED	Environmentally Efficient Design
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ESD	Ecologically or Environmentally Sustainable Development
GAA	Growth Areas Authority
GEM	Greenhouse Energy Minimum Standards
HIA	Housing Industry Association
IGAE	Intergovernmental Agreement on the Environment
IPO	Incorporated Plan Overlay
LGPMC	Local Government and Planning Ministerial Council
LPPF	Local Planning Policy Framework
MAV	Municipal Association of Victoria
MMBW	Melbourne and Metropolitan Board of Works
MSS	Municipal Strategic Statement
NCC	National Construction Code
SDAPP	Sustainable Design Assessment in the Planning Process
SDS	Sustainable Design Scorecard
SPPF	State Planning Policy Framework
STEPS	Sustainable Tools for Environmental Performance Strategy
The Committee	The Advisory Committee and Planning Panel
The Councils	The six Councils proposing sustainability amendments
VBR	Victoria Building Regulations 2006

VCEC	Victorian Competition and Efficiency Commission
VOC	Volatile Organic Compounds
VPP	Victoria Planning Provisions
WSUD	Water Sensitive Urban Design

Summary and response to Terms of Reference

The Environmentally Efficient Design Advisory Committee (the Committee) was appointed by the Minister for Planning on 15 June 2013 under section 151, 153 and 155 of the *Planning and Environment Act* 1987.

The Committee's Terms of Reference (attached at Appendix C) state at paragraph 3 that the Advisory Committee has the following purpose: *...to provide advice to the Minister for Planning on the applicability and suitability of including environmental sustainability requirements in planning schemes generally as proposed in the following local policies*:

- Banyule Planning Scheme (Amendment C73);
- Moreland Planning Scheme (Amendment C71);
- Port Phillip Planning Scheme (Amendment C97);
- Stonnington Planning Scheme (Amendment C177);
- Whitehorse Planning Scheme (Amendment C130); and
- Yarra Planning Scheme (Amendment C133).

The Committee has a dual role; firstly that of an Advisory Committee. This role requires it to advise on the broader applicability and suitability of local planning policy that requires environmental sustainability to be considered at the planning stage rather than the building stage, and hear submissions on this matter.

The second role is that of a Panel, to hear submissions in response to the six local planning policy Amendments as outlined above. Section 25 of the *Planning and Environment Act* states the Panel must report its findings to the planning authority and in its report, make any recommendations it sees fit.

During exhibition, a total of 25 submissions were received by Moreland City Council, 29 by Yarra City Council, 28 by Banyule City Council, 28 by Whitehorse City Council, 12 by Stonnington City Council and 25 by Port Phillip City Council.[1] A further 22 submissions were received directly by the Committee, on invitation, after the exhibition period closed.

The hearings took place over a six day period in November and December 2013.

Key issues raised in submissions and at the hearing included:

- Costs and benefits associated with the proposed policies;
- Whether the policies should be implemented state-wide;
- The financial burden on applicants, Councils and to the building industry;
- The 'triggers' for the policies and if they should apply across all municipalities;
- The appropriateness of the assessment tools and SDAPP Fact Sheets;
- Whether sustainability is a role of planning or building or both.

The structure of the Committee's report and key issues are outlined in Table 1.

[1] Note: Many submitters submitted to more than one Amendment so the total number of submitters was relatively low.

Table 1 The Committee's approach

Issue	Committee consideration	Chapter
Key terms and assessment tools	The terms which are common to many of the Amendments and submissions but are expressed in different ways	2
Sustainability in development	Factors that go into designing a development that is considered 'sustainable'	3
Broader legislative and policy framework	General policy and legislative frameworks	4
Planning and sustainability	Strategic and statutory planning policy frameworks	5
Building and sustainability	The role of the building system in sustainability	6
Planning or building	The overlap between planning and building	7
Costs and benefits of sustainability in planning	Costs and benefits of introducing sustainability in local policies	8
Planning and building – A way forward	The potential role of planning and building and suggested improvements	9
Other initiatives to support sustainability	Non-regulatory initiatives to support sustainability	10
The proposed Amendments	Assessment of the proposed Amendments	11-13

Having considered the issues and submissions in detail and listened to expert evidence, the Committee has concluded that sustainability and sustainable development has a long history in planning; and that consideration of the issue has evolved to the point where many Councils are seeking to advance sustainable outcomes.

The Committee considers that in principle, a Statewide approach is the best way to facilitate this increased focus on sustainability. In the interim the Committee is supporting the six Amendments and has recommended accordingly in this report.

The Committee also notes, and comments on, the strong linkages between planning and building in the area of sustainability. The Committee has concluded that, whilst there should be improved clarity in roles, the two systems need not be in conflict and both have important roles to play.

1 Introduction and background

1.1 The role of the Advisory Committee and Panel

The Committee has a dual role; that of a Panel to hear submissions in response to a number of Amendments that seek to introduce a local planning policy on built form sustainability; and that of an Advisory Committee to advise on the broader applicability and suitability of a local planning policy or other scheme provision to require sustainability to be considered at the planning stage rather than the building stage.

The Amendments are:

- Banyule Planning Scheme (Amendment C73);
- Moreland Planning Scheme (Amendment C71);
- Port Phillip Planning Scheme (Amendment C97);
- Stonnington Planning Scheme (Amendment C177);
- Whitehorse Planning Scheme (Amendment C130); and
- Yarra Planning Scheme (Amendment C133).

The joint planning authorities and proponents are Banyule City Council, Moreland City Council, Port Phillip City Council, Stonnington City Council, Whitehorse City Council and Yarra City Council.

1.2 Appointment of the Committee

The Committee was appointed by the Minister for Planning on the 15 June 2013 pursuant to Sections 151, 153 and 155 of the *Planning and Environment Act 1987* to hear and consider submissions in respect of the Amendments and give more general advice in accordance with the established Terms of Reference.

The Panel consisted of:

- Nick Wimbush (Chair);
- Ian Coles (Member);
- Gaye McKenzie (Member); and
- Sue Porter (Member).

1.3 Terms of Reference

The Terms of Reference are at Appendix C. Pursuant to paragraph 9 of the Terms of Reference, the Committee must:

- *Review and assess all submissions made in regard to the draft policies;*
- *Review and assess all relevant building and planning issues relating to the draft policies;*
- *Review and assess the issues relating to EED beyond planning, as appropriate including the respective roles of the building and planning systems in relation to the regulation of EED matters;*
- *Review and assess the effect of the policies, having regard to:*

  - *The appropriateness of the recommended assessment tools including their efficacy when compared with nationally recognised rating tools such as FirstRate;*
  - *The effect on any existing intergovernmental agreements relating to the role and function of planning and building systems;*
  - *The ambit of the policies and interaction with building system requirements and other relevant legislation;*
  - *Whether the policies are more appropriately applied through consistent Statewide requirements;*
  - *Appropriate thresholds for applying the application requirements;*
  - *Effect of policies when used in conjunction with a range of non-statutory measures aimed at encouraging environmentally efficient development. For example, educating residents and applicants, assisting applicants to use EED tools, leading by example with Council projects, promotion of exemplary private projects, promotion of use materials with favourable life cycle impacts.*
  - *Whether quantitative assessment is more appropriate in a local policy;*
  - *Whether mandatory or discretionary controls are appropriate and in what form;*
  - *The ability of Councils to assess applications and support applicants.*
- *Assess the costs and benefits of the policies with regard to the effect of:*
  - *Implementing the new provisions on the resource and administrative costs of the Council;*
  - *Policy requirements on applicants at application stage/building stage;*
  - *The policy on life cycle of building costs (including operational costs);*
  - *The policy on removing cost of retrofitting buildings in the future, with regard to future proofing;*
  - *The additional regulatory cost burden imposed on applicants.*
- *Define what 'Best Practice' means in relation to the objectives of the policy and whether that term is appropriate.*

The Committee responds to these Terms of Reference primarily in Part A of this report.

1.4 Exhibition and submissions

The Amendments were exhibited between 28 February and 29 April 2013 (Banyule, Moreland, Port Phillip, Whitehorse and Yarra Councils) and between 4 April and 6 May 2013 (Stonnington Council).

The Councils also held an industry information session on 15 March 2013 for 30 key industry stakeholders including the Municipal Association of Victoria, Housing Institute of Australia, Building Commission of Victoria, Plumbing Commission, Building Designers Association of Victoria, Property Council of Victoria and Sustainability Victoria.

Submissions were received directly by each of the joint proponent Councils: Banyule, Moreland, Port Phillip, Stonnington Whitehorse and Yarra Councils, as listed in Appendix A.

In addition to the submissions received by the six proponent Councils, on 18 September 2013, the Committee wrote to all Councils in Victoria and a number of industry bodies

inviting submissions on the broader issues to be considered by the Committee. The list of invitees is included in Appendix B. In response, the Committee received 23 submissions (listed in Appendix A).

The Committee has considered all written and oral submissions and all material presented to it in connection with this matter.

All submitters were offered the opportunity to be heard at the Public Hearing.

1.5 Hearings

A Directions Hearing was held on 25 October 2013 at the Municipal Association of Victoria. The Hearings were held on 25, 26, 28, 29 November and 3 December at Planning Panels Victoria, and 9 December 2013 at the Municipal Association of Victoria.

The Committee heard the parties listed in Table 2.

Table 2 Parties to the Committee Hearings

Submitter	Represented by
Banyule, Moreland, Port Phillip, Stonnington, Whitehorse and Yarra City Councils (joint submission)	Juliet Forsyth of Counsel instructed by Barnaby McIlrath of Maddocks who called the following expert witnesses: - Gerard Healey of Arup in ESD - Ben de Waard of Sustainable Development Consultants in ESD - Rob Milner of 10 Consulting Group in Strategic Planning - Phil Harrington of Pitt & Sherry in Cost Benefit Analysis - Euan Williamson of City of Yarra in EED Policy - Steve McKellar of City of Port Phillip in EED Policy
Department of Transport, Planning and Local Infrastructure	Dan Biggs
Building Designers Association of Victoria	Ashley Thomson of Clause 1 Planning
City of Kingston	Alan West, Jonathan Guttman and Urmi Buragohain
Council Alliance for a Sustainable Built Environment (CASBE)	Natasha Palich
Housing Industry Association	Emily Waters
Urbis Pty Ltd	Will Pearce
Colonial First State Global Asset Management	Emily Porter of Counsel instructed by Rhodie Anderson of Rigby Cooke calling evidence from the following: - Brendan Rogers Urbis in Planning - Ben White Norman Disney & Young in ESD

Mornington Peninsula Shire Council	Roz Franklin
City of Darebin	Janine Parker and Emily Hillebrand
Salta Properties Pty Ltd	Simon Evans
GIW Environmental Solutions Pty Ltd	Gary Wertheimer
Australand Holdings Pty Ltd	Mark Woodland of Echelon Planning
Ark Resources	Jan Talacko
Office of the Victorian Government Architect	Tom Alves

1.6 Inspections

On 16 December 2013 the Committee undertook accompanied visits to the following case study sites:

- 366 Church Street, Richmond (a multi-residential development comprising 31 apartments and basement car parking);
- 12-20 Miller Street, East Brunswick (townhouses of mostly two and three bedrooms); and
- 7 Florence Street, Brunswick ('The Commons') (a 7.5 star 'eco-development' comprising 24 apartments, 3 artist studios and 2 commercial premises).

1.7 Further directions

At the close of hearings on 9 December 2013, the Committee invited parties to the Hearing to comment on the question, *'What improvements could be made to the State planning system (if any) in relation to incorporating environmentally efficient design into the planning framework?'* This related to the Committee's Terms of Reference paragraphs 9c and 9d, which state the Advisory Committee must review and assess the effect of the policies, having regard to:

- *The ambit of the policies and interaction with building system requirements and other relevant legislation; and*
- *Whether the policies are more appropriately applied through consistent Statewide requirements.*

Responses were received on a 'without prejudice' basis and the invitation was extended only to parties to the Hearing. Responses were provided by 22 January 2014 and were posted on the Planning Panels Victoria website. Responses were received from Boroondara City Council, Kingston City Council, Melbourne City Council and HIA, and the Joint Council proponents.

1.8 Structure of this report

This report is structured in three parts.

Part A – General issues - examines the broader issues around sustainable development in the planning and building systems including a discussion of:

- Key terms and assessment tools;
- Sustainability in development;

- Broader legislative and policy framework;
- Planning and sustainability;
- Building and sustainability;
- Planning or building?;
- Costs and benefits of sustainability in planning;
- Planning and building – A Way Forward; and
- Other initiatives to support sustainability.

Part B – Amendments –examines the Amendments as exhibited by the six municipalities. As there is much commonality between the Amendments, this section provides combined comments on the Amendments.

Part C – Summary of findings and recommendations

PART A – GENERAL ISSUES

2 Key terms and assessment tools

This chapter considers definitions of terms used throughout this report. The terms, which are common to many of the Amendments and submissions, are expressed in a number of different ways in various material related to the Amendments.

This chapter also provides an overview of the sustainability assessment tools.

2.1 Sustainable development

(i) Background

The Amendments, evidence, background information and this report have used a number of terms such as environmentally efficient design, sustainable design, energy efficient design, sustainable development, ecologically sustainable development and environmentally sustainable development. These terms relate to the same issues in general with some difference in use driven by whether it is 'design' or 'development' and the context of use.

'Sustainability' is a very broad and well recognised concept and is frequently used to cover a wide range of environmental, social and economic issues. Its modern usage arguably dates to the 1987 *Our Common Future* report (also known as the 'The Brundtland Report' after the Chair of the Commission) which defined 'sustainable development' as *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

This broad understanding is picked up in the Victoria Planning Provisions (VPP) at clause 10.04 where integrated decision making is required to consider net community benefit and sustainable development in the interest of current and future generations.

Whilst the concept of sustainability continues to evolve, there appear to be three common elements in most definitions:

- Sustainability is concerned with the future and the ability to maintain certain values, assets or capabilities over the long term;
- Sustainability involves decisions that address the interaction between environmental, social and economic domains; and
- Sustainability requires choices considering equity within society and across generations.

(ii) Submissions

At the hearing, Mr Dan Biggs for DTPLI advised that in drafting the Terms of Reference, the Department was originally reluctant to call the policies 'Environmentally Sustainable Development' even though the Councils considered it to be a more recognised term than 'Environmentally Efficient Design'. However, when questioned by the Committee, Mr Biggs advised that the Department did not have an official view on whether the policies should be described as 'Environmentally Sustainable Development' or 'Environmentally Efficient Design'.

(iii) Discussion and conclusion

The Committee notes the term sustainable development and associated terms have not been used consistently by Councils in their Municipal Strategic Statements (MSS) and local planning policies[2]; using different terminology for related issues.

Whilst there is lack of consistency of use in terms, the Committee does not consider there is any substantive objection to the pursuit of 'sustainability' of itself. It is not helpful in our view to reduce the discussion of issues to one of semantics. It may in time, however, be helpful for Councils across the State to adopt a consistent approach and terminology, and this will certainly be necessary if further Statewide provisions are developed.

The Committee notes in the development of the Amendments DTPLI appeared to resist the use of the term 'environmentally sustainable development', opting for the exhibited 'environmentally efficient design', however, later withdrew its objection to the Councils' preferred title.

In this report the Committee uses the general term 'sustainable development' or 'sustainability', but where it departs from it, this should not be given great significance unless explicitly stated. The Committee also supports the use of the local policies' original term of 'Environmentally sustainable development' as it reflects the broader range of sustainability issues compared to 'energy efficiency' and has recommended accordingly.

2.2 Best Practice

(i) Background

The definition of 'best practice' and what it actually means was the subject of considerable discussion in the Hearing.

The basic objective of introducing the proposed local policies is *...that development should achieve best practice in environmentally sustainable development, including from the design stage through construction and operation*.[3] It also aims to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The proposed policies set out qualitative objectives for each of the following indicators:

- Energy efficiency;
- Water resources;
- Indoor environment quality;
- Stormwater management;
- Transport;
- Waste management; and
- Urban ecology.

For the specified types of development, applications must be accompanied by either a Sustainable Design Assessment (SDA) or Sustainability Management Plan (SMP) which:

- Utilises the relevant assessment tools; and

[2] See examples discussed in Chapter 5 of this report.

[3] The 'objective' as defined in the proposed policies.

- Addresses relevant policy objectives.

The SDA or SMP is the means by which the applicant is to demonstrate best practice in achieving the policy objectives.

In addition, in the Councils' documentation and in evidence there is significant reference to the Sustainable Design Assessment in the Planning Process (SDAPP) Program. This program and the Facts Sheets underpin current practice of Councils in assessing sustainable development in planning applications. Although there are some differences between the Council documents, the structure, intent, and most of the content is very much the same.

The SDAPP Fact Sheets, for each of the 10 Key Sustainable Building Categories, include a box entitled 'Mandatory Requirements[4] and Council's Best Practice Standard'. For some categories no mandatory requirements exist. The Facts Sheets also outline 'Council's Best Practice Standard' for each category.

(ii) Submissions and evidence

Expert witnesses provided definitions of best practice at the Hearing. As outlined in Mr Milner's evidence, the term best practice:

> *...is inherently performance based and implies evolving and innovative practices resulting in continually improved outcomes. That said the term and concept is not specifically or clearly defined, or consistently used in the Victorian planning framework. Historically planning provisions and policies have relied on strategies, actions or standards to measure attainment of explicit objectives while retaining latitude to demonstrate that alternative approaches may be capable of satisfying an objective. The reliance upon 'best practice' is a similar approach. A range of objectives are set but the demonstration of adequate performance is left open to allow for the application of tools and assessment techniques that may not have yet been established.*[5]

Agreeing that best practice is not clearly defined, Mr Healy's evidence stated that:

> *Although 'best practice' and similar terms are used in Municipal Strategic Statements, it is not a term that is uniformly understood within government and industry.*[6]

He further commented that best practice is variously understood as:

- *Best in class – for example, top 25% of the market (definition of best practice for the Green Star rating scheme)*
- *Achieving outcomes to the extent that it is cost effective – for example, EPA Victoria definition*
- *Beyond minimum requirements – e.g. Housing Industry Association GreenSmart House Protocol (voluntary guidelines)*

[4] Related to the Building Code of Australia.
[5] Robert Milner expert witness statement, p6.
[6] Gerard Healey expert witness statement, p8.

- *Specific outcomes – e.g. Urban Stormwater Best Practice Environmental Management Guidelines, Victoria Stormwater Committee 1999 (see Section 4.3.1).*[7]

Furthermore, Mr Healey outlined that in its *Guidelines for Demonstrating Best Practice* (2013)[8], EPA states:

> *Decisions with regard to practicability, when assessing best practice, should have regard to technical, logistical and financial considerations. This is different from meeting absolute (quantified) limits set out in SEPPs or regulations, where cost is not a consideration in assessing compliance.*
>
> *EPA does not expect best practice to be pursued 'at any cost'. It is important that the proposed approach be cost effective in the context of the relevant industry sector within which the site operates or is planned to operate, as well as within the context of the total project cost. Most important is that the preferred option is proportional to the environmental risk.*
>
> *Cost in this context means 'net cost', where up-front capital investment is considered together with a pay-back period, based on consequently reduced resource management costs.*
>
> *Best practice may be internationally demonstrated and locally available.*
>
> *Identifying best practice means identifying the combination of measures or practices that demonstrably prevent or minimise environmental impact. An assessment of best practice needs to give reasonable consideration to the availability of technology.*[9]

In the Councils' closing submission to the Committee, Ms Forsyth provided a proposed definition of Best Practice:

> *A combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.*[10]

City of Port Phillip further commented that:

> *The assessment tools contain measurements that could indicate 'best practice'. The definition of 'best practice' would be improved by including the SDAPP fact sheets as a Policy Reference Document, as these provide clearer guidance to Council and permit applicants as to what is considered to be 'best practice'.*[11]

In its submission, GIW Environmental Solutions expressed concern that:

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7 Gerard Healey expert witness statement, p8.
8 EPA Guidelines for Demonstrating Best Practice, publication 1517 (February 2013)
9 Gerard Healey expert witness statement, p8.
10 Councils closing submission, p6.
11 Ben de Waard expert witness statement, p29.

Contrary to the goal of making the requirements clearer, the application of 'Best Practice' may shift between respective Councils and respective ESD Officers causing uncertainty amongst developers and building design professionals alike as to the specific Council requirements which are to be met.

(iii) Discussion and conclusion

The Committee considers the term 'best practice'; as opposed to 'sustainable development' is one where a consistent definition in the planning context is useful. This should assist in the consistent and reasonable application of decision making against the policies.

The Committee has reviewed the version put forward by the Councils and considers it is a reasonable definition for planning. It encompasses:

- *Commercially proven* – so whilst innovative and experimental technologies or processes may be used; they are not required;
- *Appropriate to the scale of development* – so that small scale development should not be forced to adopt possibly expensive solutions suited to larger developments;
- Are *demonstrated and locally available* – so there is a 'track record' locally; and
- *Have already led to optimum ESD outcomes* – that is, they work.

The Committee considers the definition should provide for achieving sustainable development outcomes without requiring applicants to be held to unreasonably stringent standards that are not proven in local application. The Committee recommends this definition be adopted in the policies.

2.3 Assessment tools

(i) Background

The following computer based assessment tools are used by Councils, government and industry bodies for assessing the environmental impact of residential and commercial development. Different assessment tools are preferred by different Councils, governments and organisations. The following is an outline of the main assessment tools referred to in the Amendments, expert witness reports, SDAPP fact sheets, submissions and discussed at the Hearing. These summaries were created by the Committee through the use a range of sources, including websites and other documents.

STEPS

Moreland Sustainable Tools for Environmental Performance Strategy (STEPS) was developed by Moreland City Council to assess the environmental impact of residential dwellings and to promote early integration of sustainable design initiatives. The web-based tool is available for the public to use and assesses the areas of energy, peak demand, water, stormwater and materials on a scale of percentage improvement above the average residential development. The tool is now used by many Councils.

SDS

The Sustainable Design Scorecard (SDS) Non-Residential was developed by the City of Port Phillip and Moreland City Council to assess non-residential planning applications. The Excel spreadsheet is downloadable from the Moreland STEPS website. Minimum point scores

must be achieved in seven sustainable development categories to provide a comprehensive environmental rating.

Green Star

The Green Star suite of tools has been developed by the Green Building Council. There are currently Green Star tools for the assessment of office design, office interiors and offices as built. Pilot tools exist for health care and supermarkets and tools for education and multi-unit residences are under development. All tools assess a range of environmental issues and were originally based on BREEAM from the United Kingdom (the BRE Environmental Assessment Method) and LEED from the United States (Leadership in Energy and Environmental Design). The office design tool requires an ABGR (Australian Building Greenhouse Rating) base building design assessment. Certified ratings are between 4 stars (best practice) and 6 stars (world leadership) and are aimed at the top 25% of the industry. Certified assessments and accreditation are costly in comparison to other tools.

NatHERS

The Nationwide House Energy Rating Scheme (NatHERS) family of software includes FirstRate and Accurate and Building Energy Rating Scheme (BERS). The scheme is administered by the Federal Government and the tools engine was developed by the CSIRO. In Victoria, FirstRate is administered and owned by Sustainability Victoria. The tools are used to assess residential (Class 1 and 2 and part Class 4) building fabric performance and its potential to reduce heating and cooling loads. The predicted reduction in energy use is measured on a scale of 0 to 10 stars. Training and accreditation fees are required before being certified to use the tools.

It is now mandatory to achieve a 6 star NatHERS rating in Victoria for new dwellings; and a combined 6 star rating and 5 star individual rating for apartments and a dwelling that is part of a non-residential building.

MUSIC

The Model for Urban Stormwater Improvement Conceptualisation (MUSIC), developed by the Cooperative Research Centre for Catchment Hydrology (CRC) is designed to simulate urban stormwater systems. Water quality and peak flows can then be assessed against design constraints or requirements. Training is offered to urban stormwater engineers, planners, policy staff and managers in consultancies and state, regional and local government agencies but there are no accreditation fees.

STORM

The STORM tool was developed by Melbourne Water, as a simplified version of MUSIC for smaller sites. A STORM rating of 100% signifies achievement of the stormwater quality performance objectives, which includes a 45% reduction of nitrogen. The tool is web based and accessible for all to use, and training has been offered in conjunction with MUSIC training in Victoria.

The STORM tool may be used for sites of less than 4,000m^2 to assess land development applications in Victoria. The STEPS and SDS tools have incorporated a target of 75% using

the STORM tool as part of the assessment process. The tool provides some useful tips for the user on sizing different treatment options. However, there are some usability issues for high density sites that have a large number of occupants.

(ii) Submissions

The Assessment Tools as outlined above are accepted across Councils, government and industry bodies for assessing the environmental impact of buildings. Whilst their use was not questioned at the Hearing, the Committee heard that there are some useability issues with different types of development, and that training and accreditation is required in order to use them effectively.

For instance, Echelon Planning for Australand stated:

> *The proposed policy requires applicants for planning permits to prepare assessments and reports using one of a number of tools such as STEPS, Sustainable Design Scorecard (SDS), NatHERS, Green Star, etc. Many of these tools require the applicant to select which design features they anticipate that their development will include ... This itself is a challenge on many projects as the design of the project is not sufficiently advanced for the applicant to confidently commit to such design features.*

(iii) Discussion and conclusions

Despite some limitations, like many forms of computer software, the Committee is satisfied these tools are recognised by the sustainable development industry as current 'best practice'. The local policy Amendments do not mandate these tools, so if alternatives are developed that achieve the same objectives they may also be used.

Issues to do with cost of compliance and the difficulty of using tools in the planning compared to building process are discussed later in this report.

2.4 Findings and recommendations

The Committee finds:

A particular definition of 'sustainable development' or similar is not required in the policies as the term and its derivatives is generally understood.

If changes are made to Statewide provisions, a consistent terminology around sustainable development may need to be considered.

The range of tools available are appropriate to assist in assessing the environmental impact of residential and commercial development.

It is appropriate to have a consistent term to define 'best practice'.

The Committee recommends:

1. **The policy title be reinstated to 'Environmentally Sustainable Development' as proposed pre-exhibition and shown in Appendix D.**

2. **The following definition of 'best practice' as provided by the proponent Councils should be included in the local policies:**

   A combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

3 Sustainability in development

3.1 The issue

There are many factors that go into designing a development that is considered 'sustainable'. SDAPP outlines ten key and widely used elements or design criteria. This process, and the Facts Sheets which support it, were referred to in several submissions and in the expert statements of Mr Milner, Mr de Waard, Mr Healey, Mr McKellar and Mr Williamson in particular.

It should be recognised that developments do not need to embrace all elements to achieve an acceptable level of sustainability, however the more that are embraced the more sustainable the development will be.

A brief description of the SDAPP design elements is set out below.

(i) Indoor environmental quality

Improving the indoor environment quality at home and in the workplace will generally enhance well-being and reduce the likelihood of ill-health. Through the implementation of passive design principles, good indoor environment quality also leads to energy savings due to reduced energy demands for heating, cooling and artificial lighting.

The quality of an indoor environment (e.g. a room) is commonly defined through factors including light, external views, air quality, ventilation, thermal comfort, noise, materials and the ability of the occupants to control their environment.

(ii) Energy efficiency

Around 40% of the world's energy resources are used in our buildings – both residential and commercial. Estimates show the use of electricity contributes approximately 70% of Victoria's total greenhouse gas emissions due to our reliance on brown coal.[12]

Passive design principles including thermal mass, external shading, building orientation, cross ventilation and better insulation in buildings lead to less reliance on energy intensive mechanical systems to maintain comfortable internal temperatures. Using renewable energy further reduces a building's environmental impact.

Good building design decreases power consumption, saves money and reduces the effects of climate change. On the other hand, poor building design is uneconomical and contributes to greenhouse gas emissions.

(iii) Water efficiency

Up to 90% of water consumption is used for toilet flushing, garden irrigation and other uses that don't require water of drinking quality.[13]

As our population grows and weather patterns shift, there is a need to rethink the availability of fresh water and prepare for a more efficient use of available resources. The

[12] SDAPP Fact Sheet No 2
[13] SDAPP Fact Sheet No 3

use of integrated water saving measures, such as water efficient fittings and fixtures (taps, shower heads etc.) and rainwater tanks connected to toilets and irrigation can lead to substantial water efficiencies.

The benefits to using water more efficiently include:

- reducing the costly demand on water supply infrastructure upgrades;
- lowering water bills;
- future proofing property investment;
- securing a water supply that is not subject to water restrictions;
- maintaining gardens through low periods of rain; and
- discharging less sewage to rivers and the ocean.

(iv) Stormwater management - Integrated water management

Urbanisation results in a dramatic increase in areas of hard and impervious surfaces, such as buildings, roads and car parks. Consequently, the majority of the rain that falls in urban areas is converted into run off, or stormwater.

Traditional stormwater management practices direct stormwater into urban waterways affecting the health and amenity of waterways for people, plants and animals, and ultimately our rivers and bays. Additionally, the large volumes of stormwater entering our waterways can cause flooding that damages both natural and built environments.

Water Sensitive Urban Design (WSUD) can capture, treat and reuse stormwater onsite to dramatically improve the quality and quantity of water entering waterways. Integrating WSUD into development, including at a broad scale such as implemented by the City of Kingston, will minimise its downstream impacts and also enable the conservation of potable (drinking) water by substituting it with rainwater.

(v) Building materials

Building construction currently consumes between 30-50% of raw materials worldwide. With significant growth taking place in the building sector, the burden on limited resources is increasing – resources that one day will run out. Ongoing fit-outs, extensions and/or refurbishments increase the environmental impact during a building's life cycle.

By making informed choices about the materials, construction and fit-out of buildings can:

- assess the viability of reusing what you already have;
- save on construction, refurbishment and maintenance costs; and
- design buildings that have a longer lifespan by nominating durable materials such as brickwork, stone and post-consumer steel.

(vi) Transport - Green Travel Plans

In Australia, cars account for approximately 50% of our total transport greenhouse gas emissions.[14] In addition to contributing to global warming, car exhaust contains toxic pollutants that are dangerous to our health. As the population of cities increases so does

[14] SDAPP Fact Sheet No 6

traffic congestion, further multiplying the amount of exhaust pollutants and greenhouse gas emissions into the atmosphere.

Research has shown that approximately 80% of Australian adults rely on their car to commute to work. Reducing this dependency requires the provision of sustainable transport modes (i.e. public transport services and bicycle lanes), and encouraging the use of these services.

(vii) Waste management

Up to 40% of waste going to Australia's landfills is related to the construction and demolition of buildings.[15] Even more waste is produced during the occupancy of buildings and the production of goods consumed every day. Poor waste practices and treatment of the environment in the past have not only lead to a degradation of our water, air and land resources, but also represent a big financial burden to current and future generations.

Minimising, recycling and reusing waste:

- reduces the amount of waste going to landfill;
- reduces emissions, pollution and contamination;
- protects scarce resources;
- reduces overall construction costs;
- reduces tipping fees; and
- provides opportunities for selling salvaged resources.

(viii) Urban ecology

Urbanisation in cities and suburbs has altered natural environments and processes such as soil drainage, overland and waterway flows, light availability and habitat for birds and other wildlife.

Removing areas of vegetation and replacing this with hard surfaces including roads, driveways and paving increases stormwater runoff and contributes to flash flooding. This damages our landscapes, waterways and buildings. It can also lead to the creation of heat banks.

There are ways to overcome the loss of natural processes and improve liveability for people, flora and fauna. These include decreasing the areas of hard or impervious surfaces and at the same time increasing vegetation and landscaping.

Research indicates landscaping in metropolitan environments which shades windows and walls of a home can reduce air conditioning costs by up to 50%. Just one healthy tree can be the equivalent of ten room-size air conditioners operating 20 hours a day.

The benefits to our urban ecology include reducing overall temperature and noise, increasing air purification and providing habitat for local fauna, not to mention creating more attractive environments.

[15] SDAPP Fact Sheet No 7

(ix) Innovation

Innovative ideas and their implementation led to the economic and social revolutions that we experienced throughout the last centuries. Most innovative ideas result from defining a problem or need.

Many innovations, such as systems for renewable energy production or the growing efficiency of building technologies, have made a contribution to lessen our environmental footprint. Whilst there has been significant progress in the efficiency of buildings, they still consume too much energy, water and other resources. Individual examples have shown that innovative design solutions can lead to outstanding results, including buildings that produce more energy than they use.

At the same time, innovations and the uptake of new technologies can result in greater cost efficiencies which can make these technologies more accessible to a greater number of people.

(x) Construction/building management

Using sustainable design principles, 'green' buildings have the potential to lessen their impact on the environment, however, practising sustainable site management and ensuring that green buildings actually operate as efficiently as their design intended, is vital for a complete project success.

Sustainable development will only lead to a truly sustainable building if the project includes a sensible and well-conceived construction management approach and an ongoing building management allowance, including:

- an early commitment to environmental targets;
- a demolition and construction waste minimisation strategy;
- an operation waste separation strategy;
- regular tuning of building services;
- sensible use of building services, such as heating and cooling devices; and
- preparation of a Building Users Guide.

3.2 Discussion

All development can be designed to be sustainable, whether it is a single dwelling or a high rise apartment, factory or warehouse, hospital or shopping centre and there is sound justification for this. There was no argument presented at the Hearing to suggest that certain types of development should not be sustainable. The areas of dispute at the Hearing centred on how this might be achieved and where the cost benefit equation might lie.

The Committee thus considers sustainability should be incorporated into all forms of development and does not think this is an essentially contested proposition. It is clear the benefits to be gained from sustainable design are not confined to the environment, but also have a wider range of health, social and economic benefits.

The real issues is where in the planning and building system context the maximum gain can be achieved for the least cost.

3.3 Findings

The Committee finds:

All built form can incorporate elements of sustainability but there are divergent opinions as to when and how this is to be achieved and to what extent.

There are many factors that go into designing a development that is considered to be 'sustainable'. The ten elements or design criteria included in the Sustainable Design Assessment in the Planning Process appear to provide a sound basis for assessment, but it should be recognised that developments may not need to embrace all elements to achieve an acceptable level of sustainability.

4 Broader legislative and policy framework

4.1 The issue

At the Hearing, the Councils submitted that sustainability should be incorporated into development, citing reasons such as international agreements and legislative requirements, to deliver tangible environmental, social and economic benefits. This chapter provides an overview of some of the key general policy and legislative frameworks. More detailed analysis of the frameworks for planning and building follow in later chapters.

4.2 International

There are a number of international conferences and agreements that are relevant to the issue and the Amendments.

UN World Commission on Environment and Development (1987)

As mentioned in Chapter 2, in 1987, the Commission produced the paper *Our Common Future* which defined 'sustainable development' as *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

In the report, the concepts of 'environment' and 'development' were brought together, stating: *Environment and development are not separate challenges; they are inexorably linked*.

Agenda 21 (1992)

Agenda 21 is an international blueprint that was signed by the United Nations at the Conference on Environment and Development in Rio de Janeiro in June 1992. Its objectives included:

- *To improve the functioning of commodity markets and achieve sound, compatible and consistent commodity policies at national and international levels with a view to optimizing the contribution of the commodity sector to sustainable development, taking into account environmental considerations;*
- *To promote and support policies, domestic and international, that make economic growth and environmental protection mutually supportive.*

Agenda 21 outlines actions that can be taken to achieve sustainability by governments, international organisations, industries and the community. Agenda 21 seeks to achieve *...the alleviation of poverty, hunger, sickness and illiteracy worldwide while halting the deterioration of ecosystems which sustain life*.[16]

The United Nations Conference on Sustainable Development (UNCSD)

Also known as 'Rio 2012', 'Rio+20' or 'Earth Summit 2012', UNCSD was the third international conference on sustainable development aimed at reconciling the economic and environmental goals of the global community held in Rio De Janeiro in Brazil in 2012.

[16] http://www.environment.gov.au/system/files/resources/4c38f8b4-da1f-409e-8ad6-c3c6246001fd/files/agenda21.pdf

According to the United Nations, ... *many challenges exist to maintaining cities in a way that continues to create jobs and prosperity while not straining land and resources. Common city challenges include congestion, lack of funds to provide basic services, a shortage of adequate housing and declining infrastructure.*[17] A sustainable city involves improving resource use and decreasing pollution and poverty.

At Rio+20, official discussions focussed on two main themes: *how to build a green economy to achieve sustainable development and lift people out of poverty; and how to improve international coordination for sustainable development.*

4.3 National

(i) Legislation

There is no specific national legislation which requires development and land use to be undertaken in an environmentally sustainable manner, or be addressed in decision making. Despite that, there is some legislation which relates to a number of specific sustainability matters which are worthy of note, these are outlined below.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) is the Commonwealth legislation that provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places — which are defined in the EPBC Act as matters of national environmental significance. The Act seeks to protect Commonwealth listed threatened species, migratory species, World Heritage Areas, the Great Barrier Reef, Ramsar wetlands, and other areas of importance.

The objectives of the Act are defined in section 3 and include *to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources*.

Section 3A states that the principles of ecologically sustainable development are:

- *decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;*
- *if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;*
- *the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;*
- *the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;*

[17] http://www.un.org/en/sustainablefuture/cities.shtml

- *improved valuation, pricing and incentive mechanisms should be promoted.*

Building Energy Efficiency Disclosure Act 2010

This Act is designed to reduce carbon emissions and improve energy efficiency in commercial office buildings.

The obligations outlined in the Act apply to owners and tenants of commercial office buildings where it is proposed to sell or lease, invite offers to purchase or lease relevant commercial offices space. In these circumstances, buildings captured under the criteria in the Act are required to obtain a Building Energy Efficiency Certificate (BEEC) which discloses:

- the energy efficiency star rating of the building (based on the National Australian Built Environment Rating System – 'NABERS');
- an assessment of the energy efficiency of the building lighting; and
- an energy efficiency report outlining possible improvements.

The obligation of compliance includes:

- a vendor or lessor must register its BEEC before it sells or leases a building;
- any advertisement for the sale or lease of a building must include the NABERS star rating; and
- a prospective purchaser or lessee can either obtain a copy from the online registry or ask the vendor or lessor to supply them with a copy of the BEEC.

If an existing lease does not require a tenant to provide the relevant information, the Act gives accredited assessors the authority to compel tenants to provide data and access in order to prepare a BEEC.

Greenhouse and Energy Minimum Standards Act 2012

This Act promotes the development and adoption of products to reduce energy use and greenhouse gas production. This is achieved by applying greenhouse and energy minimum standards (GEMS) in association with the supply and commercial use of products that use energy, or affect the energy used by another product. These standards are provided for by requirements in Ministerial determinations (GEMS determinations).

Whilst there is legislation which promotes the development and adoption of energy efficient products, there is no legislation at the National level which specifically requires that buildings be built in an energy efficient or sustainable manner. Similarly, whilst there is legislation which requires energy reporting for commercial buildings, this has not been applied to industrial or residential buildings.

(ii) Policy

Whilst Federal policy is not considered directly in making planning decisions at the local level, it is still important to consider this policy and the position adopted at the Federal government level. Where Federal government policy becomes more significant is in relation to the building regulations, as these are established nationally to ensure interstate consistency.

National Climate Change Adaptation Framework (2007)

The long term goal of this Framework is to position Australia to reduce the risks of climate change impacts and realise any opportunities.

The Framework recognises that physical infrastructure and the social and economic fabric of settlements are likely to be affected by climate change, especially by changed frequency of intensity of extreme weather events. It recognises that infrastructure can be long lived; therefore planning decisions for the development and replacement or refurbishment of long-lived infrastructure needs to take account of the different future climate, including higher temperatures and changes to rainfall.

The Framework also identifies a number of potential areas of action; the most relevant being:

- Research to address key knowledge gaps about human settlements and climate change impacts, including information needed to effectively implement actions in relation to planning, codes and standards and major infrastructure.
- All jurisdictions will evaluate and share relevant information about the extent to which planning and development systems promote decisions that increase resilience to the impacts of climate change and discourage decisions that increase vulnerability, and consider changes where appropriate. The Local Government and Planning Ministers' Council would coordinate a national report based on these assessments.
- Analysis and revision of planning systems including revision and development of codes, standards and guides to increase resilience to climate change including:
    - the Australian Building Codes Board (ABCB) consider climate change as part of their periodic reviews;
    - review standards used for building, plumbing and electricity and specification for the development and subdivision of land. This would include a particular focus on standards related to buildings and utilities and would be ongoing as better information becomes available;
    - review information used to determine vulnerability of settlement land to climate related hazards. This review should take into account the contribution of 'urban forests' to modify the impact of climate change in the urban environment; and
    - revision of stormwater and sewerage guidelines.

Adapting to Climate Change in Australia – An Australian Government Position Paper – February 2010

This Paper sets out the Australian Government's vision for adapting to the impacts of climate change and proposed practical steps to realise this vision. The Paper recognises that Australia faces a stark fact:

> *The opportunity to avoid climate change altogether has passed. Efforts to achieve significant reductions in global greenhouse gas emissions are aimed at minimising the extent of climate change and, in particular, trying to avoid the emergence of dangerous climate change.*

It identifies that adapting to the impacts of unavoidable climate change is critical to any effective climate change response. The Paper identifies adaptation is one of the three pillars on which the climate change strategy is built.

The Paper also identifies that many of the decisions we make today increase or decrease our vulnerability to future climate change; and decisions about land use, infrastructure design and water management (amongst others) will all need to take future climate change into account.

It emphasises that Governments must ensure regulatory arrangements such as land-use planning, codes and standards do not distort market and policy instruments; and that environmental or public health legislation can play an important role where market mechanisms are ineffective.

In considering the role of State and Local Government, the Paper recognises these levels of Government will have a direct role in adaptation action as they are *responsible for a good deal of regulation that bears on our ability to adapt to the impacts of climate change. Building codes and landuse planning regulations are examples* (our emphasis).

Sustainable Australia Report 2013 – Conversations with the Future - National Sustainability Council

This report provides information and analysis on key trends and emerging issues for Australia's sustainability and reports against a set of sustainability indicators covering social, human, natural and economic factors. The report identifies that, whilst Australia has a recognised high quality of living, there are a number of key challenges which need to be met. These challenges include planning more sustainable cities, reducing greenhouse gas emissions and adapting to climate change, reducing the environmental impact of economic growth, protecting biodiversity and ecosystems, sustainable food and agriculture and tackling inequality and disadvantage.

The report specifically looks at the issues related to sustainable cities. It recognises there are many opportunities for greater efficiencies and better design to reduce the environmental impacts of our cities, improve economic performance and enhance community well-being. It recognises the introduction of 'best practice' accreditation tools for buildings, such as the Green Building Council of Australia's 'Green Star' rating system and NABERS, together with the implementation of minimum standards for energy efficiency in buildings through the Building Code of Australia (BCA), has led to broad improvements in the performance efficiency of new and existing buildings over the past decade.

(iii) Agreements

Intergovernmental Agreement on the Environment (IGAE) (1992)

This Agreement was signed by the Australian Commonwealth and State governments in May 1992. In summary, the Agreement states:

- Local Government has a responsibility to develop and implement locally relevant environmental policies, as well as regional, state and national policies that affect local government.

- Developing and implementing environmental policy and programs by all levels of government should be guided by a number of principles. These include:
    - Environmental considerations will be taken into account in decision-making;
    - Measures adopted will be cost-effective and not disproportionate in relation to the actual environmental issues being addressed;
- The concept of ecologically sustainable development will be used by governments *in their assessment of natural resources, land use decisions and approval processes*.[18]

Australian Building Codes Board Intergovernmental Agreement (2012)

This Agreement was signed by Commonwealth and State governments in 2012 and effectively established the ABCB. The Agreement seeks to strengthen reforms to building and plumbing regulation nationally. The Agreement includes a 'Recital' which seeks commitments from local governments and similar bodies preventing them ...*from setting prescriptive standards for buildings that override performance requirements in the National Construction Code (NCC)*.[19]

COAG Reform Agenda (2009)

The Council of Australian Governments (COAG) reform agenda has the objective of minimising overlapping and unnecessary regulation across borders. These reforms have included the establishment of the ABCB which facilitated the development of the National Construction Code (NCC), comprising the BCA and the Plumbing Code of Australia. Other reforms have also included adoption of a set of National Planning System Principles which form the basis for urban planning across all Australian jurisdictions and the Leading Practice Model for Development Assessment in Australia.[20]

4.4 State

(i) Legislation

It is at the State level that the most specific legislation is located and there are two principle pieces of legislation that govern the issues of sustainability in built form, including the *Planning and Environment Act 1987* and the *Building Act 1993*. There is also other legislation which affects other more specific aspects of sustainability, such as the *Water Act 1989*.

Planning and Environment Act 1987

The Planning and Environment Act 1987 is the principle legislation which provides direction for the consideration of sustainability in both development and land use and this is achieved through the articulation of a series of objectives. The key relevant objectives include in Section 4:

- *To provide for the fair, orderly, economic and sustainable use, and development of land;*

[18] Councils opening submission, p5.
[19] Australian Building Codes Board Intergovernmental Agreement, Recital C vi.
[20] Australand Holdings submission, pp4-5.

- *To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;*
- *To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;*
- *...*
- *To facilitate development in accordance with the objectives set out in the points above.*
- *To balance the present and future interests of all Victorians* **(**our emphasis**).**

Building Act 1993

The *Building Act 1993* regulates the construction industry and those engaged in it. The Objectives of the Act at Section 4 include:

(a) To protect the safety and health of people who use buildings and places of entertainment.

(b) To enhance the amenity of buildings.

(f) To facilitate the construction of environmentally and energy efficient buildings **(**our emphasis**).**

(ii) Policy

Plan Melbourne (Victorian Government 2013)

Plan Melbourne is the draft metropolitan strategy which outlines the vision for Melbourne's growth to 2050. It seeks to define what kind of city Melbourne will be and identify the infrastructure, services and major projects which need to be put in place to underpin the city's growth. It is to be the blueprint for Melbourne's future prosperity, liveability and sustainability. Plan Melbourne predicts that by 2050 Melbourne will have a population of 6.5 million people, which is an increase of 2.5 million people. It also predicts that in order to accommodate this growth, Melbourne will require over one million more houses and about 1.2 million new jobs. The Plan also recognises that Melbourne's economy has changed significantly over the last 20 years, with a reduced emphasis on manufacturing and an increased emphasis on business, population-related and health services, a trend which is expected to continue.

The strategy identifies there are a number of key issues and actions needed to create an economically, socially and environmentally sustainable city. Some relevant matters identified in Plan Melbourne include:

> *Our city's sustainability is defined by the strength, health and beauty of our natural environment and the resilience of our built environment.*
>
> *Key to sustainability will be the way in which we manage our water, energy and water resources. We need to change the way we plan and manage both urban development and water services to enable a more comprehensive and innovative approach to using stormwater and recycled water.*
>
> *Sustainability will also be reinforced through an urban structure that aligns housing and commercial development with public transport and locates people closer to where they work.*

> *Demand for energy in Melbourne will continue to grow. This presents challenges in terms of managing electricity prices and improving energy efficiency. Improving energy efficiency and developing local solutions will become more important, not only for reasons of price and sustainability but also because rising aspirations within local communities to have more control over their own energy supply and consumption.*

The Plan recognises some key issues surrounding matters relating to the structure of urban development, maintaining ecosystems and biodiversity, reducing air, soil and water pollution, using water wisely and reusing water where possible.

The consultation undertaken as part of Plan Melbourne highlighted a number of themes, one of which was *We need to build and retro-fit more environmentally friendly houses and buildings.* One of the key concepts for planning Melbourne's Future is *Transitioning to a more sustainable city*. Some of the metropolitan planning approaches include (amongst other things) improving building design.

Regional Growth Plans

Eight Regional Growth Plans have also been prepared which provide broad direction for land use and development across regional Victoria, including key regional centres. These plans, not yet finalised, combined with Plan Melbourne, provide strategic land use plans for regional Victoria. All of these plans forecast there will be increased growth within regional areas, along with a transition in local economies away from traditional manufacturing to more business, population-related and health services. One of the common themes amongst all of these draft Plans is that managing the potential impacts of climate change will be critical and that development should be sustainable.

Victorian Climate Change Adaptation Plan (2012)

The Climate Change Adaptation Plan for Victoria focuses on government preparedness by ensuring that:

- appropriate risk management strategies are in place for public assets and services;
- enhanced disaster resilience strategies are being implemented; and
- Government policies and programs encourage and facilitate climate resilience and adaptive capacity across the Victorian community.

Included in the Plan are actions related to improving the resilience of private buildings, including:

- Implement revised national building and construction standards as these are developed/updated to reflect the latest information on physical hazards, energy efficiency and climate risks;
- Prepare a Regulatory Impact Statement for building controls to improve the water performance of new buildings; and
- Undertake work on the effect of heatwaves on buildings and continue to investigate opportunities to tackle the urban heat island effect.

(iii) Agreements and Reports

Victorian government response to the Victorian Competition and Efficiency Commission's Final Report August 2012

In March 2009, VCEC published *Local Government for a Better Victoria: An Inquiry into Streamlining Local Government Regulation*. The inquiry commenced in August 2009 in response to terms of reference from the Victorian Treasurer. A number of submissions were received from interested parties and a final report was presented to the then Treasurer in 2010. The Treasurer released the final report, and the Government's response, on 14 August 2012.

The key relevant Recommendation and the Government's response is:

Recommendation 6.6:

> *That the Victorian Government clarify that building regulation is the most efficient means of addressing the environmental performance of building, through changes to national building standards or through changes to State building regulation.*
>
> *That the Victorian Government clarify the boundaries between building and planning with regard to environmental performance of buildings, and develop a strategy to remove overlapping standards and assessment processes, for example, initially by:*
>
> - *Deeming environmental performance areas in which councils should retain primary responsibility*
> - *Clarifying environmental performance areas which should not be addressed by the planning process, but rather specifying for councils how these will be dealt with.*
>
> *That the Victorian Government clarify that councils' role under the planning system does provide for voluntary schemes and the provision of information and tools to assist applicants make informed decisions about the environmental performance of buildings.*[21]

Government Response:

> *The Government agrees that greater clarity is required in relation to the role and responsibilities of local government in seeking to improve the environmental performance of buildings. This is particularly in relation to the use of the planning system to achieve environmental outcomes above and beyond the minimum standards regulated under the building system. While recognising that innovation can be valuable, the Government does not support councils imposing building environmental performance standards that impose greater costs on business over and above agreed national standards.*

[21] Victorian Government Response to the Victorian Consumer Competition and Efficiency Commission's Final Report, August 2012, pp16-17.

The Government recognises that in providing such clarity, regard must be given to the national context, including the Building Code of Australia which regulates building performance, as well as the national approach to the delineation of planning and building systems.

In this context, this recommendation will be implemented through:

- *actively pursuing a national approach to addressing the delineation of the roles and responsibilities of building and planning systems;*
- *revising the state policy context to clearly articulate that building regulation, not the planning system, is the primary and most efficient means for addressing the environmental performance of buildings, including removing overlapping standards and processes; and*
- *clearly articulating the role of local government in addressing the environmental performance of buildings.*[22]

4.5 Discussion and findings

For the past thirty years there has been progressive and significant developments in both policy and legislation related to sustainability internationally and at the National and State levels. These developments have sought to strike a balance between economic, environmental and social factors while pursuing the goal of ensuring that *development meets the needs of the present without compromising the ability of future generations to meet their own needs.*

More recently the pursuit of sustainability has been dominated by the impacts of climate change, and how to reduce and adapt to these changes; again internationally, nationally and at the local and household levels. This context provides a strong basis for the consideration of how sustainability can be implemented at a Statewide and/or local level.

As Victoria experiences high population growth there will be a need to build more houses, and different types of housing. Similarly, there will be more economic growth and as economies diversify, greater opportunities to redevelop existing infrastructure. This growth and change all presents an opportunity to incorporate sustainability early in the design and development process in order to maximise the sustainability opportunities across Victoria.

Equally important, is that all these strategies recognise that a major challenge for planning will be to ensure this development mitigates against the potential impacts of climate change and the need for development to be 'sustainable'.

The Committee considers this policy and strategic work provides a sound underlying base from which to explore the future continuing implementation of sustainable development. The challenge now is perhaps to go to the next level of detail in implementation.

The planning and building legislation clearly identify both systems have a role to play in not only ensuring buildings are built in a sustainable and energy efficient manner, but also include consideration of concepts such as 'safety', 'health', 'amenity' and 'pleasant' environments for living, working and recreation.

[22] Victorian Government Response to the Victorian Consumer Competition and Efficiency Commission's Final Report, August 2012, p17.

The Committee notes the Government response to the VCEC Enquiry that the building system will be the *primary and most efficient means for addressing the environmental performance of buildings*. The Committee considers that there is little disagreement on this point; that is the minimum standards approach in the NCC is the 'bottom line' on this issue. The Committee does not consider this precludes, or should preclude, those Councils wishing to achieve a better outcome, provided it is not done via a mandatory control which imposes standards inconsistent with the NCC. These issues are considered in more detail in the following chapters.

4.6 Findings

The Committee finds:

There is a strong legislative and policy framework that supports the need for sustainable development and which recognises that both planning and building have a significant role to play in achieving it.

Achieving sustainability in planning and development should be undertaken using the most efficient mechanisms to minimise cost to consumers and industry.

5 Planning and sustainability

5.1 The issue

The planning system includes a number of elements related to sustainable development. This chapter outlines the key strategic and statutory planning policy frameworks and outlines how decision making has dealt with sustainability.

5.2 Planning

Land use planning in Victoria is principally achieved through the implementation of municipal planning schemes. The purpose of a planning scheme is to provide a clear and consistent framework within which decisions about the use and development of land can be made.

It is intended to express State, regional, local and community expectations for areas and land uses and to provide for the implementation of policy affecting land use and development.

As specified in section 6(1) of the *Planning and Environment Act* 1987, all planning schemes must seek to achieve the objectives of planning in Victoria as defined in section 4 of the Act. As one of the objectives of planning is sustainable development, a planning scheme must seek to achieve this, amongst other things.

The Committee notes sustainable development operates at two major levels in planning. Strategic planning seeks to ensure settlement patterns and the inter-relationships between land use and infrastructure provision are undertaken in an integrated manner to achieve sustainable outcomes. It is through this 'big picture' strategic approach that significant upfront sustainability gains can be achieved. The role of statutory planning is to ensure development is designed and built in a manner which is sustainable.

Decision making in land use planning often involves balancing competing objectives. Clause 10.04 of all planning schemes requires that Planning and Responsible Authorities should endeavour to integrate the range of policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations.

A planning scheme is made up of a number of key parts as follows:

- State Planning Policy Framework;
- Local Planning Policy Framework;
- Zone and Overlay requirements and Particular provisions; and
- General Provisions.

How each of these parts of the planning scheme address sustainability is outlined below:

(i) State Planning Policy Framework

'Sustainability' in the State Planning Policy Framework (SPPF) refers to a wide range of matters, including various economic, social and environmental matters, as well as energy efficiency and sustainable design[23].

[23] Note a revised draft SPPF has was placed on review for comment in mid-March 2014.

The SPPF contains 23 policy statements which make direct or indirect reference to sustainability and the consideration of energy efficiency in design and development. These are spread throughout the SPPF rather than comprehensively dealt with in a specific policy.

Below is an outline of all of those policies which relate to sustainability (summarised by the Committee).

Clause 11 – *Settlement* – identifies that planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for a variety of purposes. In doing so, planning is to recognise the need for a range of matters such as energy efficiency and facilitate sustainable development. The policy outlines the settlement strategy and how planning for this should occur, with sustainability and improved environmental performance being key themes.

Clause 12 - *Environmental and Landscape Values* – identifies that planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values. In doing so, planning must implement environmental principles for ecologically sustainable development that have been established by international and national agreements.[24]

Clause 13 - *Environmental Risks* – identifies planning should adopt a best practice environmental management and risk management approach which aims to avoid or minimise environmental degradation and hazards. In doing so, it states planning should identify and manage the potential for the environment and environmental changes to impact upon the economic, environmental or social well-being of society.

Clause 14.02-3 - *Natural Resource Management – Water conservation* – seeks to ensure water resources are managed in a sustainable way. Strategies include encouraging the use of alternative water sources such as rainwater tanks, stormwater and recycled water by governments, developers and households and ensuring development of new urban areas and green spaces takes advantage of any opportunities for effluent recycling.

Clause 14.02-1 - *Catchment planning and management* – seeks to assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater and the marine environment. Strategies include undertaking measures to minimise the quantity and retard the flow of stormwater runoff from developed areas and encouraging measures to filter sediment and wastes from stormwater prior to its discharge into waterways, including the preservation of floodplains or other land for wetlands and retention basins.

Clause 15 – *Built Environment and Heritage* – seeks to create quality built environments that support the social, cultural, economic and environmental wellbeing of our communities, cities and towns. The objective identifies planning should achieve high quality urban design that (amongst other things) reflects the particular characteristics, aspirations and cultural identity of the community.

[24] This includes the Intergovernmental Agreement on the Environment and the National Strategy for Ecologically Sustainable Development, which sets out the key principles for environmental policy in Australia and are discussed earlier in this report.

Clause 15.01 - *Urban environment – Urban Design* – seeks to create urban environments that are safe, functional and provide good quality environments with a sense of place and cultural identity. Two key strategies include ensuring good urban design in order to make the environment more liveable and attractive; and to ensure new development or redevelopment contributes to community life by improving the quality of living and working environments and environmental sustainability.

Clause 15.01-2 - *Urban design principles* – seeks to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm, while minimising detrimental impact on neighbouring properties. A strategy includes applying a series of design principles to development proposals for non-residential development or residential development not covered by Clause 54, Clause 55 or Clause 56, one being '*Energy and resource efficiency*', which seeks to ensure all building, subdivision and engineering works include efficient use of resources and energy efficiency.

Clause 15.01-3 - *Neighbourhood and subdivision design* – seeks to ensure the design of subdivisions achieves attractive, liveable, walkable, cyclable, diverse and sustainable neighbourhoods. A key strategy is that in the development of new residential areas and redevelopment of existing areas, subdivision should be designed to create liveable and sustainable communities by including environmentally friendly development that includes improved energy efficiency, water conservation, local management of stormwater and waste water treatment, less waste and reduced air pollution.

Clause 15.02 - *Sustainable development - Energy and resource efficiency* – is the most specific policy relating to energy efficiency in design. It seeks to encourage land use and development that is consistent with the efficient use of energy and the minimisation of greenhouse gas emissions. Key strategies include ensuring building and subdivision design improves efficiency in energy use, promoting consolidation of urban development, integrating land use and transport, improving efficiency in energy use through greater use of renewable energy and supporting low energy forms of transport such as walking and cycling.

Clause 16 – *Housing* – identifies planning should provide for housing diversity and ensure the efficient provision of supporting infrastructure. A key strategy is to ensure new housing has access to services and is planned for long term sustainability, including walkability to activity centres, public transport, schools and open space.

Clause 16.01-1 - *Integrated housing* – seeks to promote a housing market that meets community needs. A strategy is to encourage housing that is both water efficient and energy efficient.

Clause 16.01-4 - *Housing diversity* – seeks to provide for a range of housing types to meet increasingly diverse needs. A key strategy is to encourage the development of well-designed medium-density housing which improves energy efficiency of housing.

Clause 16.01-5 - *Housing affordability* – seeks to deliver more affordable housing closer to jobs, transport and services. A key strategy is to promote good housing and urban design to minimise negative environmental impacts and keep down costs for residents and the wider community.

Clause 17.02-2 – *Design of Industrial Development* – seeks to facilitate the sustainable development and operation of industry, research and development activity. Despite the reference to sustainability in the objective, there is no specific strategy identified as to how this objective is to be achieved.

Clause 18 – *Transport* - identifies planning should ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe.

Clause 18.01-1 - *Integrated Transport – Land use and transport planning* – seeks to create a safe and sustainable transport system by integrating land-use and transport. A key strategy is to require integrated transport plans be prepared for all new major residential, commercial and industrial developments.

Clause 18.02-1 - *Movement networks - Sustainable personal transport* – seeks to promote the use of sustainable personal transport. A key strategy is to ensure development provides opportunities to create more sustainable transport options such as walking, cycling and public transport.

Clause 18.02-2 – *Movement networks – Cycling* – seeks to integrate planning for cycling with land use and development planning and encourage it as alternative mode of travel. A key strategy is to ensure adequate cycling facilities to meet demand at educational, recreation, shopping, community facilities and other major attractions.

Clause 19 – *Infrastructure* – identifies that planning for development of social and physical infrastructure should enable it to be provided in a way that is efficient, equitable, accessible and timely.

Clause 19.01-1 - *Renewable energy - Provision of renewable energy* – seeks to promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met. Key strategies include facilitating renewable energy development in appropriate locations and protecting energy infrastructure against competing and incompatible uses. A strategy seeks to ensure that in considering proposals for renewable energy, consideration is given to the economic and environmental benefits to the broader community of renewable energy generation; while also considering the need to minimise the effects of a proposal on the local community and environment.

This policy does not make a clear distinction between smaller scale domestic renewable energy sources and major renewable energy facilities.

Clause 19.03-3 – *Infrastructure – Stormwater* – seeks to reduce the impact of stormwater on bays and catchments. A key strategy includes incorporating water-sensitive urban design techniques into developments to protect and enhance natural water systems, integrate stormwater treatment into the landscape, protect quality of water, reduce run-off and peak flow and minimise drainage and infrastructure costs.

Clause 19.03-5 – *Infrastructure - Waste and resource recovery* – seeks to avoid, minimise and generate less waste to reduce damage to the environment caused by waste, pollution, land degradation and unsustainable waste practices. A key strategy is to establish new sites

and facilities to safely and sustainably manage all waste and maximise opportunities for resource recovery.

Documents referred to in the SPPF

Melbourne 2030 – Planning for sustainable growth

This is the strategy for Melbourne currently referenced in the SPPF. Melbourne 2030 is being superseded by Plan Melbourne.

Plan Melbourne – Metropolitan Planning Strategy

Plan Melbourne was outlined in Chapter 4 as the new metropolitan planning strategy. It is likely to be finalised in the near future.

Guidelines for Higher Density Residential Development

These Guidelines were developed by the then Department of Sustainability and Environment (DSE) in 2004 and apply to development of more than five storeys. They were developed so the planning system can promote well-designed higher-density housing in activity centres and other strategic redevelopment sites close to public transport. The Guidelines expand on Clause 19.03 of the SPPF in defining what principles must be taken into account in the design of urban spaces and buildings. The Guidelines provide 'better practice' design advice for higher density residential development that promotes high quality development, private amenity and good design.

In defining what represents good design, the Guidelines specify that it *Makes efficient use of natural resources, energy and water throughout its full life cycle.*

In terms of sustainability, the Guidelines state *The achievement of sustainable design outcomes needs to be considered*.

The Guidelines further refer to the DSE publication *Environmentally Sustainable Design and Construction: Principles and Guidelines for Capital Works Projects* (July 2003). This document encourages Government Departments and building professionals to address the following principles for reducing the ecological impact of capital works:

- *Energy conservation*
- *Water conservation*
- *Minimisation of fossil fuel usage associated with transport*
- *Preservation of natural features of sites*
- *Building materials conservation*
- *Waste minimisation*
- *Enhancement of indoor environmental quality*
- *Appropriate landscaping*
- *Enhancement of community life*
- *Maintenance.*

Whilst the majority of the guidelines relate to managing both the internal and external design elements, some specific objectives and design guidelines exist relating to energy

efficiency, such as natural lighting and ventilation, solar access to both private and shared open spaces and stormwater runoff minimisation and reuse.

New State Planning Policy Framework

A new revised draft SPPF was released for comment in mid-March 2014. The revised SPPF includes, at Clause 6, *Landscape and built environment*, a new Clause 6.04, *Environmentally Sustainable Design.*

The directions in the new SPPF on this issue are consistent with the existing SPPF but there has been significant redrafting to simplify and improve the structure including a new model for integrating State and local policy. The finalisation of the new SPPF may provide the opportunity for consideration of the Committee's suggested changes to policy as discussed in Chapter 9.

(ii) Local Planning Policy Framework

Municipal Strategic Statements

Each Municipal Strategic Statement (MSS) is tailored to the issues relevant to each municipality. An examination of all of the MSS's within Victorian planning schemes has revealed that sustainability and the need to ensure that development is undertaken in a sustainable manner is a common theme amongst over half of the MSS's. This indicates a strong understanding and acceptance of the importance of this issue to local governments and their communities.

Local Planning Policies

There are currently no specific Local Planning Policies in planning schemes in Victoria which comprehensively deal with incorporating sustainability into design. However, there are a number of Local Policies which seek to provide policy direction in relation to specific elements of sustainability or in relation to specific locations, these are:

- Bayside Planning Scheme Clause 22.08 - Water Sensitive Urban Design (interim control until 31 May 2015)
- Melbourne City Council Clause 22.25 - Urban Design within Fishermans Bend

Other examples are discussed in Section 5.4 below.

(iii) Particular Provisions

A number of particular provisions common to all planning schemes deal with elements of sustainability.

Clause 52.34 ***Bicycle facilities*** – This clause seeks to encourage cycling as a mode of transport and to provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities. The Clause specifies the bicycle facilities required for a range of the uses, including a 'Dwelling' in developments of four or more storeys and commercial and industrial developments, as well as a range of community uses.

Clause 54 – ***One Dwelling on a lot*** – This clause seeks to implement the SPPF and the LPPF. In doing so, it also seeks to achieve residential development that provides reasonable standards of amenity for existing and new residents.

Specifically, Clause 54.01-1 *Neighbourhood and Site Description* requires a range of information be provided with an application, one of which is solar access to the site and surrounding properties. Clause 54.01-2 *Design response* specifies the design response must explain how the design responds to the site description and achieves the objectives of Clause 54. This Clause includes a number of specific objectives which relate to elements relevant to energy efficiency and these include the following:

- **Clause 54.03-4 – *Permeability objective*** – seeks to reduce the impact of increased stormwater run-off on the drainage system and to facilitate on-site stormwater infiltration. Standard A6 specifies a minimum area that should be covered by pervious surfaces, as well as a range of decision guidelines.
- **Clause 54.03-5 – *Energy efficiency protection objective*** – seeks to achieve and protect energy efficient dwellings and ensure the orientation and layout of development reduces fossil fuel energy use and makes appropriate use of daylight and solar energy. Standard A7 specifies dwellings should be oriented to make appropriate use of solar energy with specific reference to the location of windows and living spaces, emphasising developments should be designed so as not to unreasonably reduce the energy efficiency of existing dwellings on adjoining lots.
- **Clause 54.04-3 – *Daylight to existing windows objective*** – seeks to allow adequate daylight into existing habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 54.04-4 – *North-facing window objective*** – seeks to allow adequate solar access to existing north facing habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 54.05-1 – *Daylight to new windows objective*** – seeks to allow adequate daylight into new habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 54.05-3 – *Solar access to open space objective*** – seeks to allow solar access into the secluded private open space of a new dwelling and specifies a standard for how this is to be achieved.

It needs to be recognised this only applies to single dwellings where a permit is triggered and does not apply to all single dwelling developments.

Clause 55 *Two or more dwellings on a lot and Residential Buildings* – This clause seeks to implement the SPPF and the LPPF. In doing so, it also seeks to achieve residential development that provides reasonable standards of amenity for existing and new residents (amongst others). Clause 55.01-1 – *Neighbourhood and Site Description* - requires a range of information be provided with an application, one of which is solar access to the site and surrounding properties. Clause 55.01-2 – *Design response* – specifies the design response must explain how the proposed design responds to the site description and achieves the objectives of Clause 54. This Clause includes a number of specific objectives which relate to energy efficiency including:

- **Clause 55.03-4 – *Permeability objectives*** – seeks to reduce the impact of increased stormwater run-off on the drainage system and to facilitate on-site stormwater infiltration. Standard B9 specifies a minimum area that should be covered by pervious surfaces, which can be varied in the Schedule to the zone.

- **Clause 55.03-5 – *Energy efficiency protection objectives*** – seeks to achieve and protect energy efficient dwellings and to ensure the orientation and layout of development reduces fossil fuel energy use and makes appropriate use of daylight and solar energy. Standard B10 specifies dwellings should be oriented to make appropriate use of solar energy with specific reference to the location of windows and living spaces emphasising developments should be designed so as not to unreasonably reduce the energy efficiency of existing dwellings on adjoining lots.
- **Clause 55.04-3 – *Daylight to existing windows objective*** – seeks to allow adequate daylight into existing habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 55.04-4 – *North-facing window objectives*** – seeks to allow adequate solar access to existing north facing habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 55.04-5 – *Overshadowing open space objective*** – seeks to ensure buildings do not significantly overshadow secluded private open space and specifies a standard for how this is to be achieved.
- **Clause 55.05-3 – *Daylight to new windows objective*** – seeks to allow adequate daylight into new habitable room windows and specifies a standard for how this is to be achieved.
- **Clause 55.05-5 – *Solar access to open space*** – seeks to allow solar access into the secluded private open space of a new dwelling and specifies a standard for how this is to be achieved.

Clause 56 – Residential Subdivision – seeks to implement the SPPF and the LPPF. In doing so, it also seeks to create liveable and sustainable neighbourhoods and ensure residential subdivision design provides liveable and sustainable communities and integrated water management, amongst others. This Clause includes a number of specific objectives which relate to elements relevant to energy efficiency and these include:

- **Clause 56.04-2 – *Lot area and building envelopes objectives*** – seeks to provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling with solar access and water management (amongst others). It includes Standard C8 which specifies the need to identify building envelopes which protect solar access for future dwellings and support the siting and design of dwellings that achieve the energy rating requirements of the Building Regulations.
- **Clause 56.04-3 – *Solar orientation of lots objective*** – seeks to provide good solar orientation of lots and solar access for future dwellings and includes Standard C9 which specifies a quantifiable measure and definition of appropriate solar orientation.
- **Clause 56.06-1 – *Integrated mobility objective*** – seeks to contribute to reduced car dependence, improved energy efficiency, improved transport efficiency, reduced greenhouse gas emissions and reduced air pollution and specifies objectives and standards which seek to improve walking and cycling, public transport and neighbourhood street networks.
- **Clause 56.07-2 – *Integrated water management – Reused and recycled water objective*** – seeks to provide for the substitution of drinking water for non-drinking purposes with reused and recycled water.

(iv) General Provisions

A number of general provisions in planning schemes are also relevant.

Clause 65 – *Decision Guidelines* – sets out the common decision guidelines for approval of an application for subdivisions, however, sustainability is not one of those guidelines specified.

Clause 72 – *General Terms* – lists general terms which may be used in a planning scheme. This Clause does not define sustainable development or any of the other terms which are generally used to refer to sustainable development.

Clause 81.01 – *Incorporated Documents* – this section lists Incorporated Documents which carry the same weight as other parts of the scheme and can only be changed by a planning scheme amendment. The Table to Clause 81.01 contains a list of Incorporated Documents, however, none of these directly relate to sustainability, energy efficiency or ecologically sustainable development.

There is also scope for local municipalities to include a range of local incorporated documents in the schedule to this Clause; however no planning scheme includes an incorporated document dealing specifically with sustainability.

(v) Voluntary programs

In addition to the policies and provisions contained in the local planning schemes, a number of municipalities have been implementing the SDAPP program (discussed in Chapter 3) on a voluntary basis aimed at improving the environmental efficiency of certain types of development.

The SDAPP program refers to the inclusion of key environmental performance considerations into the planning permit approval process in order to achieve more sustainable building outcomes for the long-term benefit of the wider community. SDAPP is:

- A guide to achieving more sustainable building outcomes;
- A practical approach to assessing sustainable development matters during the planning permit application process; and
- The consistent inclusion of key environmental performance standards into the planning permit approvals process.

The ten key issues addressed in SDAPP were listed in Chapter 3.1.

5.3 Victoria Civil and Administrative Tribunal cases

Over the last decade, with an increased focus on sustainability by local government, a number of matters relating to sustainability have been referred to VCAT for review. In reviewing decisions and applications VCAT must consider the relevant policy framework and provisions of the planning scheme.

VCAT decisions have consistently supported the principle of sustainability and incorporating energy efficiency in development. There has been variation in the decisions about how this is achieved, how far it should go and whether it should be a planning or building approval matter.

Some of the key VCAT cases are outlined below.

(i) Taras Nominees v Yarra CC [2003] VCAT 1952 (19 December 2003)

This is the first hearing that considered this issue in detail. This was an appeal against a request for further information, most relevantly an ESD report. In his decision, Justice Morris stated (at paragraph 6):

> *If environmentally sustainable design is to be incorporated into buildings, this should be required by the building regulation system and not be principally required by the town planning system. The reason for this is that, if environmentally sustainable design is important, as I believe it is, it ought to be incorporated in all buildings, regardless whether those buildings require a planning permit or not. Golden Ridge v Whitehorse CC (Mitcham Towers) [2004] VCAT 1706 (7 September 2004).*

(ii) Golden Ridge v Whitehorse City Council (7 September 2004)

This was an appeal against Council's refusal to grant a permit for two residential towers. Justice Morris, who heard this matter, reiterated his support for a greater focus on ESD for all buildings and that this can only be achieved through the building control system. In addition, Justice Morris noted (at paragraph 100):

> *...environmentally sustainable design often turns on the matter of detail, such as the thickness of insulation, the use of drapes and the type of glass used in windows. This detail is often unavailable when a building is submitted for approval; and it would be unreasonable to require it to be available.*

Justice Morris directed the permit include a condition which required an ESD Plan which would require the development to achieve an average 5 star rating.

(iii) Carlos Constructions Pty Ltd v Moreland CC [2004] VCAT 1752 (9 September 2004)

This was an appeal against Council's refusal to grant a permit for the construction of shops and dwellings in a 10 storey building. In considering proposed conditions, the Tribunal stated it had reservations about specifying the need to achieve a 5 star energy rating given this had recently been introduced into the Building Code of Australia; and not all dwellings are treated equally under the planning scheme. The Tribunal also stated (at paragraph 103):

> *Not all aspects of ESD are dealt with under the current regulatory regime in the BCA, and there may be circumstances in which a higher standard than that set out in the BCA is warranted. However, if a higher energy rating is to be required, then such a requirement will require a higher level of justification...*

(iv) 100 Mason Street Pty Ltd v Hobsons Bay CC [2005] VCAT 1221 (22 June 2005)

This was an appeal against a condition on a permit which required the use of grey water for toilet flushing. Deputy President Gibson, who heard this matter, agreed it is important for new developments to be as environmentally sustainable as possible, however did not support a condition which would require an individual developer to take a risk on specific

cutting edge ESD technology which was not properly tested or proven. She stated (at paragraph 8):

> *...it is undesirable to impose conditions on individual developers in the name of environmental sustainability unless the techniques are well established and are demonstrably effective in achieving ESD objectives and represent common best practice.*

This was the first decision which recognised the need for ESD to be considered as part of the planning and design stage in order to achieve genuine ESD objectives. In considering this issue, Deputy President Gibson commented (at paragraph 7):

> *Effective ESD requires developments to be designed with sustainability in mind from the outset rather than regarding sustainability as an 'add on' that can be achieved by retrofitting a conventional design or through the imposition of conditions.*

(v) Hasan v Moreland CC [2005] VCAT 1931 (16 September 2005)

This was an appeal against conditions imposed on a permit requiring solar hot water systems, rainwater tanks and a 5 star energy rating. The Tribunal reiterated the building regulations were the appropriate mechanism given they cover all buildings. In its decision, the Tribunal raised the question of equity saying (at paragraph 21):

> *We think in applying sustainability conditions it is unfair to discriminate between dwellings that require a planning permit and dwellings that do not ... For the sake of consistency and clarity the planning system should generally not prescribe operational or detailed sustainability requirements that are being, or will be addressed, by other regulatory systems.*

(vi) Jolin Nominees PL v Moreland CC (Red Dot) [2006] VCAT 467 (31 March 2006)

This was an appeal against conditions which required compliance with 5 star energy rating, provision of a gas boosted solar hot water system and the preparation of an Environmental Sustainable Development Management Plan. Deputy President Gibson and Member Kearney stated (at paragraph 54):

- *There is justification at all levels of the planning system for the imposition of objectives, strategies and (perhaps) permit conditions which incorporate best practice ESD principles. ….*
- *There is a need to be more selective in applying such conditions and they should not be applied 'globally'. They should be proportional and relevant to the scale and nature of the development.*
- *The requirements imposed by, or as a result of, a condition should not exceed what is reasonable to expect of the developer.*
- *There is no need to apply conditions which are comprehensively dealt with by other legislation or regulation.*
- *The usual vehicle to deliver planning permit outcomes is a plan and/or report, commonly referred to an ESD management plan.*

- *Such a vehicle should be linked to identified targets that are framed in a way to actively encourage developers to design buildings, subdivisions and other developments to achieve targets.*
- *Unless a council can show that an ESD type condition has a nexus with a transparent council strategy or guidelines, the Tribunal would be reluctant to allow such a condition just for the sake of it.*

The Tribunal emphasised that sustainability techniques and principles should be embraced from the outset rather than after design is completed and the development approved. The Tribunal further commented that Councils should not be applying more sustainability measures than already required by other legislation, unless there is a highly developed statutory and strategic basis for doing so. The Tribunal commented that for smaller developments, sustainability objectives will sometimes be best achieved by simply complying with the building regulations.

(vii) Polizzi v Darebin CC (includes Summary) (Red Dot) [2009] VCAT 1573 (7 August 2009)

This was an appeal against a condition requiring the preparation of a Sustainable Design Statement for a dual occupancy development. The Tribunal found that for a modest development, the proposed conditions were disproportionate to the outcomes sought, excessive and lacking in a reasonable nexus with the approval granted.

The Tribunal also raised concern with the lack of specific MSS/local policy support for requiring permit applicants to prepare a Sustainable Design Statement, stating there seems to be confusion regarding how STEPS and SDS fit together.

(viii) Calodoukas v Moreland CC (includes Summary) (Red Dot) [2010] VCAT 498 (22 April 2010)

This was an appeal against a request for further information, which included the provision of a full ESD Management Plan. Deputy President Dwyer stated the requirement for a full ESD Management Plan was generic and unreasonable, however it was appropriate for information to be provided which showed how the design had incorporated ESD principles.

(ix) Richmond Icon Pty Ltd v Yarra CC (includes Summary) (Red Dot) [2011] VCAT 2175 (8 November 2011)

This was an appeal against Council's refusal to grant a permit for the redevelopment of the Dimmey's site. In considering ESD features, the Tribunal made the following comment (at paragraph 153):

> *The goal posts have shifted since Hasan in terms of the potential for the planning system to actively contribute at a broader design level to the aim of greater built form sustainability. I am conscious here that there can be limits to the sustainability gains at the subsequent building permit stage if the planning approval constitutes poor sustainability i.e. the horse may have already half bolted. For example, the sustainability requirements at the building permit stage will always be very compromised if a new dwelling is sited on its lot so as to have very poor solar orientation.*

(x) Wang v Moreland CC & Ors [2012] VCAT 323 (23 March 2012)

This was an appeal against Council's failure to determine an application to construct a 10 storey mixed use building. In considering the issue of ESD, there was debate about the target to be achieved and what Star rating would constitute 'best practice'. Tribunal comment that (at paragraph 112):

> *Now that the Building Code of Australia requires a 6 star energy rating for apartment buildings and a 5 star rating for individual apartments the Tribunal has made it clear that there is no benefit in the planning system duplicating and doubling up the requirements of the building approval system. Hence precisely what is to be achieved and how it is to be attained is a matter of detail to be largely resolved at the building approval stage.*

5.4 Panel reports

A number of sustainability Amendments have been considered by Planning Panels in recent years. Some of the key Amendments and Panel findings are considered below.

(i) Manningham C33 (PSA) [2003] PPV 94 (2 October 2003)

This Amendment sought to put in place a statutory framework to give effect to the strategic intent expressed in the Doncaster Hill Strategy, part of which related to ecologically sustainable development. In considering the issue of sustainability, the Panel commented:

> *...experience has demonstrated that where developers do not apply ESD principles 'from the ground up', but treat ESD as an add-on and the Council is forced to apply these principles by means of planning permit conditions, a much less happy outcome is the result.*
>
> *...*
>
> *The Panel agrees that the onus should be placed on the developer to design with sustainability in mind from the outset rather than regarding sustainability as an 'add-on' that can be achieve by retrofitting a conventional design or achieved through the imposition of conditions. This concept should be included in the MSS as it is so important to the way in which ESD will be implemented in Doncaster Hill.*

In considering the issue of the appropriate policy framework, the Panel made the following comments:

- *It should clearly communicate its purpose and the outcomes it seeks to achieve.*
- *It should contain sufficient rigour to stand up to challenge with respect to its technical and statutory basis.*
- *It should at minimum ensure statutory obligations are met and support the implementation of standards established by government, research institutions and the like.*
- *It should deliver equitable solutions across different land uses and development sites while allowing for flexibility in site and building design.*

- *It should be capable of comparing 'apple with oranges' so that the value of different solutions, including innovative practices and technologies, can be evaluated for effectiveness in achieving broad ESD objectives and specific standards or performance targets.*
- *It should be capable of independent verification.*
- *It should be able to sustain the constructed or operational elements that justified the original approval of the proposal.*
- *It should identify responsibilities and the schedule for implementation of agreed outcomes.*
- *It should ensure that agreed outcomes occur.*
- *It should enable the Council to monitor the effectiveness of its planning framework over time.*

(ii) Hume C134 (PSA) [2012] PPV 31 (15 March 2012) (Industrial Stormwater Management Policy)

This Amendment sought to introduce a new local policy that would implement water sensitive urban water principles for industrial and warehousing applications. The Amendment was supported by the Panel.

(iii) Melbourne C187 (PSA) [2012] PPV 132 (7 November 2012) (Energy, Water and Waste Efficiency)

This Amendment sought to replace an existing policy entitled 'Sustainable Office Buildings' with a new policy 'Energy, Water and Waste Efficiency'. The replacement policy provided objectives, policy requirements, application requirements and performance measures that refer to various ESD rating tools to assess energy, water and waste efficiency of new building developments for the purposes of office, retail, education centres and accommodation.

In considering whether there is strategic justification to include ESD in the planning scheme, the Panel commented:

> *The planning scheme already has in place mechanisms for dealing with sustainability matters across transport and activity centre planning, managing off site impacts, management of native vegetation and protection of coastal land. As argued by Council, the policy proposed in this Amendment gives content to Melbourne City Council's strategies regarding sustainable buildings and is another key in the 'sustainability' puzzle.*

The Panel further stated:

> *The Panel notes that building regulations focus on the performance of the heating/cooling footprint and the services of the building, whereas the planning system is more suited to introducing new initiatives that encourage the pursuit of improved standards of sustainable built form design which are more ambitious than what is contained within the BCA, as well as a building within the context of its setting.*

(iv) Moonee Valley C108 (PSA) [2013] PPV 81 (27 June 2013) (Water Sensitive Urban Design – Local Policy)

This Amendment sought to introduce a new local policy into the planning scheme regarding water sensitive urban design. The objective of the policy was to establish requirements for new developments that promote the use of best practice performance objectives for stormwater management using water sensitive urban design in the consideration of applications and proposals.

The Panel formed the view the Amendment is strategically supported in State and local policy and that the implementation of the Amendment will *fill a gap that currently exists in the planning scheme.*

In considering the issue of cost and benefits of the policy and the financial burden on permit applicants, the Panel concluded the potential cost to home owners will be offset by the positive benefits of the policy.

The Panel was satisfied there was a significant gap between the existing planning policy and building regulations and in the absence of State planning controls and improved building regulations, considered it appropriate for Council to take a leadership role, noting a sunset clause exists and that if a state policy is introduced the local policy would be removed.

5.5 Effectiveness of the planning system

(i) Coverage and Equity

One of the fundamental features of the planning system is that it only affects those developments that require a planning permit. This is an intentional approach to try to limit regulation of land use planning to those significant matters that require consideration by a Responsible or Planning Authority.

The most common development type that does not require planning consent is the single dwelling, and this means they do not have to respond to the strategic directions contained in the SPPF, LPPF or any of the particular or general provisions contained in the planning scheme.

As a result, it could be argued planning has a limited role to play in achieving sustainable development for a significant area of new residential development. For planning to have a greater role or wider coverage, it would be necessary to have greater permit triggers. This approach could, however, be onerous for both applicants in terms of compliance requirements and costs, but also local government in terms of implementation. Simply put, planning cannot hope to achieve sustainability across the board without potentially 'bogging' the system down.

Yet the planning system can influence residential developments of two or more dwellings, single dwellings where a permit is required and a large proportion of non-residential development.

The limited role of planning raises an important question of equity. One of the objectives of planning is *To provide for the fair…. development of land.* It could therefore be asked, is it fair for only those developments which require a planning permit to incorporate a higher

level of sustainability than those that do not? This question has been raised by VCAT on a number of occasions; see, for example the cases of *Taras Nominees v Yarra* and *Hasan v Moreland* in Section 5.3.[25]

The Committee does not consider this is fair. Developments that contribute to urban consolidation already assist in achieving sustainability outcomes, and the Committee does not consider these developments should be expected to achieve a higher level of sustainability than a single dwelling just because they are subject to a planning permit.

The Committee has found in Chapter 3.3 that all developments including metropolitan and non-metropolitan can incorporate forms of sustainability, therefore to ensure fairness, the Committee considers they should. The question is how this is best achieved.

Given planning has a limited role to play, the Committee is of the view that it is important to consider whether the planning system could be improved to provide a more consistent approach to covering more development, or whether an integrated approach between planning and building may be a better approach, with the potential to 'raise the bar' in building control by, for example, increasing the minimum star rating.

(ii) Legislative framework

The Committee considers the *Planning and Environment Act* 1987 places a clear and appropriate focus on the importance of sustainability, and provides an effective framework for the consideration of and planning for these issues. The Committee is of the view there is no need to amend the Act in relation to sustainability.

(iii) Policy Framework

As outlined, there is already significant policy at the Federal, State and Local level which recognises the importance of sustainability, particularly as a means of adapting to future climate change. How effectively the State and Local policy frameworks in planning address sustainability is discussed below.

State Planning Policy Framework

The SPPF clearly identifies 'sustainability', 'intergenerational equity' and 'net community benefit' as the key deciding factors when balancing competing policy objectives. The Committee considers this places a clear and appropriate focus on sustainability and should be effective in implementing sustainability in decision making.

The Committee also considers this is a very significant part of the planning scheme as it not only highlights the importance of sustainability and the weight that should be given to it in decision making, but also what emphasis the policies and provisions of the planning scheme should place on sustainability.

The Committee considers there is insufficient recognition of the importance of 'Sustainable Design' in the SPPF, both in terms of structure and content. In terms of structure, as discussed, policy that relates to the various elements of sustainable design (as described in

[25] See also the Moonee Valley Planning Scheme Amendment C108 Panel Report at p14 for more discussion of this issue.

Chapter 3) is scattered throughout the SPPF referring to the various terms used to encompass sustainability, rather than being contained in one, easy to locate policy. This makes the SPPF more difficult to use and can dilute the key message of the SPPF.

In terms of content, the Committee notes the opening paragraph in 'Built Form and Heritage' does not recognise the importance of 'Sustainable development', and whilst this clause includes a specific section of sustainability, it is very limited and does not cover the wider elements and issues that contribute to sustainable design. Similarly, the section relating to 'Environmental Risks' and climate change do not identify the importance of sustainable design as an adaptation measure. The Committee considers the objectives contained in the SPPF are generally sound and appropriate, however, is of the view the SPPF would be strengthened if it provided a specific more detailed sustainability policy that brings together all of the sustainable design matters under the one heading. The Committee considers this would be a significant improvement and could almost be undertaken as a policy neutral translation of the existing SPPF as much of this policy is already contained within the SPPF. The Committee notes a new draft structure for the SPPF has just been released and this may provide an opportunity to develop a more coherent approach to sustainable development in the SPPF.

The Committee also considers the SPPF should be strengthened to highlight the importance of including sustainability in the early design process, and that sustainability needs to be considered in an integrated manner, rather than as separate elements, giving due recognition to those elements that achieve sustainable design.

Local Planning Policy Framework

It is has been made clear to the Committee by the Councils sponsoring the Amendments, that in the absence of a Statewide policy, local municipalities have been introducing or attempting to introduce local policies to achieve more sustainable outcomes. It is very early days in terms of assessing the effectiveness of LPPFs which seek to achieve sustainability outcomes as there are currently no policies which cover the broader sustainability picture.

What has occurred is that local Councils have sought to introduce policies which relate to specific aspects of sustainability, such as water sensitive urban design, or to achieve specific sustainability outcomes in specific locations, such as Doncaster Hill or Fisherman's Bend.

The Committee considers the local policies, which seek to achieve specific outcomes in specific locations, are appropriate as they are clearly trying to achieve a local approach to a local issue. The Committee would be concerned, however, with the introduction of individual local policies which deal with specific elements of sustainability which have a much broader application, such as waste or water related issues. The Committee considers these are issues which are generally applicable across all municipalities and as such would be better dealt with as Statewide policies to ensure a consistent approach. The Committee addresses this matter further in Chapter 9.

(iv) Planning Scheme Provisions

Clause 54 – *One dwelling on a lot* – The Committee notes this provision appears to be more focussed on managing the external impact of the dwelling on neighbouring properties in terms of heights, setbacks and overlooking and whilst it touches on some elements of

sustainability such as permeability, energy efficiency and solar access, it does not address many of the other important sustainability design features that can be addressed early in the design phase to achieve a sustainable design. Therefore, as drafted, it has limitations in achieving greater sustainability outcomes.

Clause 55 – *Two or more dwellings on a lot* – This provision touches on some of the elements of sustainability such as permeability, energy efficiency and solar access, however, it does not address many of the other important sustainability design features that can be addressed early in the design phase to achieve a sustainable design and therefore is limited in trying to achieve greater sustainability outcomes.

It appears that this provision is more focussed on trying to ameliorate some of the external impacts of the dwelling on neighbouring properties than specifically improving the sustainability of the design for broader environmental and future occupant gain.

These provisions also do not relate to developments of five storeys and above.

Clause 56 – *Residential subdivision* – this provision relates only to residential subdivision and does not provide any direction in relation to industrial or commercial subdivisions. The Committee considers this is a significant omission.

At the Hearing Simon Evans of Salta Properties suggested that for industrial developments, the most effective time to achieve any sustainability outcomes is at the subdivision stage, to achieve appropriate orientation to achieve good solar access, integrated stormwater management and water re-use, as well as integrated transport management. These issues appear to be well addressed in Clause 56 for residential subdivisions, but as yet, not for industrial/commercial subdivisions.

Clause 65 – *Decision guidelines* – despite sustainability being one of the key issues in balancing competing objectives, it is surprising that sustainability is not one of the decision guidelines. The Committee considers this is a significant deficiency in the planning scheme which could be easily addressed.

Clause 72 – *General Terms* – there is no definition of sustainable development or design and how this may differ from the more general application of sustainability. This leads to an element of confusion as to what policies apply to this issue.

(v) Implementation

With the evolution of incorporating greater emphasis on sustainability in planning, particularly through SDAPP, the implementation approach adopted by individual Councils has also evolved, particularly in terms of information required to be submitted as part of applications and as requests for further information, as well as the inclusion of conditions on permits. This evolution has also been guided by the significant VCAT decisions that advance understanding in this area.

One of the benefits of the planning system is that where sustainability measures are proposed or required as conditions of a planning permit, there is the scope to enforce these approved developments to ensure the sustainability measures are implemented. What is required is a mechanism to facilitate this. This would normally involve an inspection of the

completed development, which would require resourcing. An alternative may be for an applicant, or its consultant, to certify the required work has been undertaken.

(vi) SDAPP

From information presented at the Hearing, the Committee notes that participating Councils have experienced increasing success in encouraging developers to participate in SDAPP, although as a voluntary program, its success will depend on the commitment of Councils to implement it. Should for some reason a Council change its approach and consider SDAPP a program it no longer wishes to pursue, or can no longer afford to resource or fund it, without the necessary strategic or statutory support for this program in planning schemes it is possible they may cease to be implemented.

Given the long standing commitment of participating Councils to progressing this agenda, and the considerable time, energy and resources they have dedicated to it, the Committee does not consider this is likely. However, sustainable development is a significant issue which is clearly supported by international agreements, legislative requirements, Federal and State policy and has clear economic, social and environmental benefits. In the Committee's view, consideration of the issue has long moved on from being a voluntary initiative, at least in a residential and urban context.

(vii) Discussion

It is clear planning not only has role to play in achieving sustainability outcomes, it also has a clear obligation to do so.

There is already clear strategic justification for the development of greater sustainability focus within planning schemes, and whilst improvements can be made to planning system to provide a clearer and broader focus on sustainability, there is no need to 'reinvent the wheel'. There are a range of more simple improvements which can be made to planning schemes to achieve this.

The significant issue which arises in considering how planning can best address sustainability is whether it is through a Statewide or a local approach. This is an issue that was raised at the Hearings and will be discussed below.

5.6 A Statewide or a local approach?

At the Hearing, the Councils submitted that in the absence of a Statewide approach to sustainability in planning, over the last decade a number of Councils led by the Moreland and Port Phillip City Councils, had teamed up to develop a 'local solution' which consisted initially of SDAPP, and has now extended to include the introduction of local policies in a number of planning schemes.

The Councils believe that local policies are necessary until such time as a Statewide sustainability policy is included in the VPP.

There was general support amongst submitters for the adoption of a Statewide policy for sustainable development. Submissions from Greater Dandenong, Banyule, Boroondara and the Mornington Peninsula Councils recognised a Statewide policy could ensure consistency and certainty across the State and avoid the possibility of different controls specific to each municipality.

This is a view also held by the Building Designers Association of Victoria (BDAV) who submitted:[26]

> *The BDAV does not support the proliferation of Local Planning Policy Frameworks and strongly supports the simplification, reduction and standardisation (as much as practical) of those portions of Planning Schemes. The BDAV prefers a state-wide or national approach to policy affecting planning and building matters rather than ad-hoc changes to individual local schemes.*

Similarly, Mr Jan Talacko from Ark Resources[27] raised concern about the potential for arbitrary/differing boundaries for large and small development categories and in providing support for a consistent approach, emphasising the importance of these being aligned across municipal boundaries.

On the other hand Cardinia Council submitted:

> *Each local Council, their range of developments, and the level and type of environmentally efficient design they require is unique. State-wide requirements should be established that allow specific assessment requirements and trigger points for assessment to be set at the local level.*

Places Victoria submitted that a Metropolitan Melbourne approach to policy, rather than a State based approach, may be more appropriate considering the potential for development feasibility to be reduced in regional areas based on the increased development costs imposed by the policy.

(i) Discussion

The Committee is firmly of the view a Statewide approach would be the most effective way to achieve the greatest sustainability outcomes, providing greater coverage, consistency, fairness and simplicity.

The Committee acknowledges the Amendment Councils have developed these policies in response to a lack of a Statewide approach and are to be commended for their vision and commitment. The Committee is concerned, however, that the adoption of varying approaches between municipalities could lead to confusion and inequity.

In the interim, until such time as a more cogent approach is developed at the Statewide level, the Committee accepts there is a case for municipalities to include a local policy which provides the strategic justification for the consideration of sustainability outcomes for defined developments.

The Committee also believes that even if a Statewide policy is introduced, local policies may still be appropriate where municipalities seek to 'raise the bar higher' either in specific locations, or where the community has higher sustainability expectations.

The Committee considers there is merit is including a sunset clause on any local policy introduced that would enable the review of these policies in light of any Statewide approach introduced. If these policies duplicate the Statewide approach it would be appropriate for

[26] Document 16.
[27] Document 39.

these local policies to be deleted, however if the local policies go further than the Statewide approach, the policies could refined to delete areas of supplication and focus solely on those elements which seek to 'raise the bar' at the local level.

5.7 Findings

The Committee finds:

There is a role and a statutory obligation for planning to advance sustainability.

Whilst the existing State Planning Policy Framework and Victoria Planning Provisions provide a good starting point for the inclusion of sustainability, there are clear areas for improvement.

The role of planning in achieving sustainability is limited by the fact that it can only influence development that requires a planning permit.

A Statewide approach to sustainability in planning would be the most effective way to achieve the greatest sustainability outcomes; however, there is still a potential role for local policies to play in achieving greater local sustainability outcomes.

Any local approach should include a sunset clause that would enable the review of these policies upon the introduction of any Statewide approach.

6 Building and sustainability

6.1 The issue

As discussed in Chapter 5, the planning system has traditionally had a role in the implementation of sustainability, particularly in strategic planning. In recent years, this implementation has been delivered through statutory planning and the issuing of permits.

Likewise, the building system has played a significant role in implementing sustainability through the building approval process. Some of the key issues are outlined below.

6.2 Building

Building permits are required for all buildings.

Historically, building regulations (the Uniform Building Regulations and then the Victoria Building Regulations) were drafted as prescriptive controls, to ensure buildings were structurally sound and provided a safe and healthy environment for those occupying them. Over time, the building regulations have been amended to reflect changes taking place in the construction industry and it is now a performance based document.

The National Construction Code 2013 (NCC) was developed by the Council of Australian Governments (COAG) and incorporated all on-site construction requirements into a single national code. The Building Code of Australia (BCA) comprises Volume 1 and 2 of the NCC. The BCA is produced and maintained by the Australian Building Codes Board (ABCB) on behalf of the Australian, States and Territories governments.

Volume 1 of the BCA applies to Classes 2 to 9 buildings, and includes some residential buildings (Classes 2, 3 and 4), shop, office, public buildings, industrial and other non-residential buildings.

Volume 2 regulates single and multi-dwellings and non-habitable outbuildings associated with dwellings (Classes 1 and 10).

The performance format of the BCA allows an applicant to adopt the prescriptive provisions considered to be '*acceptable construction practice'* for Classes 1 and 10; and *'deemed to satisfy'* (DTS) for Classes 2 to 9, in meeting the relevant 'Performance requirement'. Alternatively, an applicant may propose a different solution which is accepted by the decision maker as satisfying the performance requirement. Both Volumes of the BCA include the energy efficiency provisions that are to be met in satisfying the legislated energy ratings.

Section J of Volume 1 and Part 3.12 of Volume 2 of the BCA contain the requirements to produce energy efficient buildings.

(i) Volume 1 of the BCA

The Energy Objective for Classes 2 to 9, as set out in Section J of Volume 1 is *"to reduce greenhouse gas emissions."*

A 'Functional Statement' relating to the reduction of greenhouse gas emissions to the degree necessary requires that:

(a) a building, including its services, is to be capable of efficiently using energy, and

(b) a building's services for heating are to obtain their energy from:

(i) a low greenhouse gas intensity source; or

(ii) an on-site renewable energy source; or

(iii) another process as reclaimed energy.

The performance requirements for Classes 2 to 9 are that:

A building, including its services, must have, to the degree necessary, features that facilitate the efficient use of energy, appropriate to:

(a) *the function and use of the building and services; and*

(b) the internal environment; and

(c) the geographic location of the building; and

(d) the effects of permanent features such as topography, structure and buildings; and

(e) solar radiation being –

(i) utilised for heating; and

(ii) controlled to minimise energy for cooling; and

(f) the sealing of the building envelope against air leakage; and

(g) the utilisation of air movement to assist cooling; and

(h) the energy source of its services.

The '*deemed to satisfy*' provisions are set out under the following parts.

- *Energy Efficiency;*
- *Building Fabric;*
- *Glazing;*
- *Building Sealing;*
- *Air-conditioning and ventilation systems;*
- *Artificial lighting and power;*
- *Hot water supply and swimming pool and spa pool plant;*
- *Access for maintenance and facilities for monitoring;*
- *Roof and ceiling construction;*
- *Wall construction;*
- *Floor construction;*
- *Ductwork insulation and sealing;*
- *Insulating of piping, vessels, heat exchangers and tanks;*
- *Lighting and power control devices.*

Under Part J0, 'Energy Efficiency', the heating and cooling loads of sole occupancy units of a Class 2 building or a Class 4 part (residential) must collectively achieve an average rating of not less than 6 stars, and individually achieve an energy rating of not less than 5 stars, using

the *house energy rating software*. They are also required to comply with 'deemed-to-satisfy' measures for thermal construction, thermal breaks, compensation for loss of ceiling insulation, floor edge insulation and building sealing.

In relation to non-residential buildings, Tables for different occupancies and profiles set out the *annual energy consumption* criteria for various services.

(ii) Volume 2 of the BCA

Part 2.6 of Volume 2 sets out the Objective, Functional Statement and Performance requirements of Energy Efficiency for single and multi-dwellings, a boarding house, guest house, hostel or the like of specified floor areas and numbers of occupants. The Victorian Variations for Energy Efficiency includes the following Objective:

> *to reduce greenhouse gas emissions and conserve water by efficiently using energy and water.*

The Functional Statement for Victoria (F2.6) states that to reduce greenhouse gas emissions to the degree necessary –

(a) *a building, including its domestic services, is to be capable of efficiently using energy and water; and*

(b) a building's domestic services for heating are to obtain their energy from –

(i) a low greenhouse gas intensity source; or

(ii) an on-site renewable energy source; or

(iii) another process as reclaimed energy.

The Performance requirement for a building (at P2.6.1) in Victoria is:

A building must have, to the degree necessary, a level of thermal performance to facilitate the efficient use of energy for artificial heating and cooling and a level of water use performance to facilitate the efficient use of water, appropriate to:

(a) *the function and use of the building; and*

(b) the internal environment; and

(c) the geographic location of the building; and

(d) the effects of permanent features such as topography, structure and buildings; and

(e) solar radiation being –

(i) utilised for heating; and

(ii) controlled to minimise energy for cooling; and

(f) the sealing of the building envelope against air leakage; and

(g) the utilisation of air movement to assist cooling; and

(h) water resources available; and

(i) pertinent water management measures of the responsible water authority.

Part 3.12 of Volume 2 sets out the performance requirements and the 'acceptable construction practices' to achieve them. Alternatively, other tools using accredited software can be used to meet the performance requirements of the BCA.

The Government accredited house energy rating software (NatHERS) is limited to assessing the potential thermal efficiency of the dwelling envelope.

In Victoria, the *Performance Requirement* at P2.6.1 (set out above) for the thermal performance of the building is satisfied by either complying with the parts of the regulations relating to:

- reducing heating and cooling loads, building fabric thermal insulation, thermal breaks, compensating for loss of ceiling insulation, floor edge insulation and building sealing; or for
- building fabric, external glazing and shading, sealing and air movement.

In the case of a single dwelling, it must also either have a rainwater tank connected to all sanitary flushing systems, or a solar water heater system installed.

To reduce heating and cooling loads for a Class 2 building in Victoria, it must achieve an energy rating using *house energy rating software* of not less than 6 stars.

The Victoria Regulations 2006 (VBR) adopts siting requirements contained at Clause 54 of the VPP. Those relevant to energy efficiency are permeability (54.03-4), Daylight to existing windows (54.04-3), Daylight to north facing windows (54.04-4), Overshadowing (54.04-5), and Daylight to new windows (54.05-1).

The VBR does not include the standards of Clause 54.03-5 – Energy efficiency protection or Clause 54.05-3 – Solar access to open space. These Clauses deal with the orientation of buildings and the location of habitable rooms and private open space to maximise solar access to the dwelling.

6.3 Effectiveness of the building system

The responsibility of the building system is to *deliver buildings that are safe and healthy, with appropriate levels of amenity and sustainability* for occupants. In the case of energy efficiency, it is the thermal energy rating of the building envelope that is controlled. The nationally agreed position is that building standards are to rule out 'worst practice', and therefore the thermal rating to be met is the minimum for the various Classes of buildings. The thermal rating can be met by complying with the prescriptive requirements set out in the BCA, or by choosing an alternate acceptable solution that will satisfy the applicable performance requirement.

Whilst the building system is now 'performance' based, it still largely relies on prescriptive measures from which an applicant can pick and choose to satisfy the required thermal rating of a building.

The energy efficiency provisions of Clause 54 of the VPP that specifically relate to the siting and design of buildings, to reduce fossil fuel energy, are not included in the VBR. This means the relevant building surveyor does not have the discretion available under the planning approval system to influence the orientation and internal layout of a dwelling in dealing with the thermal energy rating of a dwelling.

This of course does not prevent applicants from aspiring to achieve better energy efficiency outcomes and the Committee was referred to examples where higher ratings had been achieved voluntarily. The HIA also advised the Committee that it encourages its members to exceed the minimum benchmark through educational and GreenSmart programs, and it makes awards in seeking to encourage energy efficient developments.

These are not, however, matters the building control system can enforce.

While a star rating system does not apply to non-residential buildings, 'annual energy consumption criteria' have to be satisfied.

Submissions made by Australand and Salta Properties to the Committee advised that they aim to be leaders in the area of energy efficiency in commercial buildings. While they accepted that planning had a role to play in this area, it was considered the building approval system was better equipped to deal with the detail associated with the actual construction of buildings.

6.4 Discussion and conclusions

A strength of the building control system is that a building permit is required for all buildings. This means that, at the very least, minimum legislated standards must be met. The downside is that the ratings are minimum standards with no discretion to secure higher standards.

The fact that the building regulations do not include standards relating to the orientation or internal layout of buildings means the opportunity to maximise solar access, by determining where habitable rooms and their openings should be located, and whether eaves or other shading devices are provided, is lost.

6.5 Findings

The Committee finds:

The fact that the building regulatory system is generally not involved at the initial design stage of a development, when the orientation and internal layout of buildings is determined, can result in a less desirable design outcome, even though the minimum thermal energy rating is met.

The involvement of planning at the initial site planning stage enables the orientation, internal layouts and site development to be dealt with in a manner that may assist at the building approval stage in achieving the best design outcome in achieving the minimum or even a higher thermal energy rating of the building.

7 Planning or building?

7.1 Introduction

There has been no argument as to the benefits derived from sustainable buildings. What has been in dispute is whether planning or building should have the principal role in achieving this and whether there is any overlap between the two systems.

7.2 Submissions and evidence

The potential overlap of the planning and building systems was raised by submitters throughout the hearing. In his evidence, Mr Milner reproduced a table summarising the respective roles of the planning and buildings systems taken from a report by the Hansen Partnership and Sustainable Built Environments *Sustainability Assessment in the Planning Process – Investigations Report*.[28]

In addition, the Committee notes the Municipal Association of Victoria (MAV) has a table on its website which comprehensively outlines the elements of planning and building addressed in the respective systems.[29]

Some submitters were concerned the introduction of the local planning policies would result in unnecessary duplication of performance requirements contained in the BCA.

It was the view of the Housing Industry Association (HIA), the BDAV and Urbis that the building approval system is best able to deal with administering the controls to secure energy efficiency in buildings. It was acknowledged that planning has a role to play, but this is at the commencement of the process and should not extend to dictating requirements in seeking to achieve a higher than the prescribed thermal rating of the building envelope. The participating Councils submitted the planning objectives included matters either not covered, or insufficiently dealt with by the BCA bench marks, such as 'Indoor Environment Quality'[30]

Reasons given as to why the building system does not adequately deal with the broader question of sustainability included the following:

- By the time a proposal reaches the building permit stage, opportunities to incorporate ESD principles into the design may have been lost;
- The building regulations do not cover the broader area of environmental sustainability but are simply concerned with the thermal energy rating of the building envelope; and
- The building regulations are minimum national standards, drafted to prevent the 'worst case' outcomes.

Evidence presented by the Councils was that cost benefit analysis supports policies that aim for higher than the minimum building standards. Furthermore, evidence was put that where this does not occur, costs are borne by the community as a whole.

[28] Rob Milner evidence, p14.
[29] http://www.mav.asn.au/policy-services/planning-building/sustainable-buildings/planning-building-systems/Pages/default.aspx
[30] Councils opening submission, pp38-39.

Reference was also made to the Agreement between the Commonwealth, States and Territories where it was stated that Councils should not introduce planning controls that conflicted with or over-rode those in the BCA. This would include provisions relating to the energy efficiency of a building.

Councils further commented ... *the policy goes further than that and requires applicants to consider ways in which they may go beyond simply minimum compliance.*[31]

CASBE supported this, stating ... *The planning system can encourage early consideration of sustainable design initiatives that result in improved standards of building sustainability beyond what might be included in the National Construction Code.*[32]

Darebin City Council concurred, stating *The NCC does not consider the vast majority of elements required to create a healthy and comfortable, energy and water efficient building* ..., whilst Dandenong City Council (Moreland submissions folder) stated *... the current Regulations do not adequately address a broad range of environmental aspects and lack holistic consideration of site context, building services and construction techniques*.

Australand was concerned the proposed policies *extends too far into the regulatory realm*[33], yet it considered the role of the planning and building systems to be complementary. In Australand's view:

- *The planning system should address the concept design/layout of development as well as their impact on their urban context;*
- *The building system should address detailed design of buildings to address safety, health, amenity and sustainability of buildings (as provided for in the inter-governmental agreement on the Australian Building Codes Board).*[34]

Australand acknowledged, however, that ... *there are some important sustainability related design issues that are better dealt with at the planning rather than building approvals stage.*[35] In stating this it noted that whilst reforming the BCA is a slow process, the ABCB is the appropriate mechanism for ensuring that buildings are designed to be more sustainable, rather than via the planning system.[36]

HIA strongly held the view the issues being addressed in the current amendments should be dealt with by the building system. According to HIA *The government should maintain a clear delineation between the roles of planning and building regulatory systems.*[37] HIA considered improvements could be made to the State planning system through:

- *actively pursuing a national approach to addressing the delineation of the roles and responsibilities of building and planning systems;*

[31] Councils opening submission, pp60-61.
[32] CASBE submission, p3.
[33] Australand submission, p3.
[34] Australand submission, p3.
[35] Australand submission, p16.
[36] Australand submission, p19.
[37] HIA further written submission, p2.

- *revising the state policy context to clearly articulate that building regulation, not the planning system, is the primary and most efficient means for addressing the environmental performance of buildings, including removing overlapping standards and processes; and*
- *clearly articulating the role of local government in addressing the environmental performance of buildings.*[38]

The BDAV stated it did not support any attempt to include matters that can be dealt with in the BCA in planning schemes, or to change the minimum standards of the BCA through provisions in the planning scheme.[39]

Those municipalities that made submissions to the amendments supported the local policies being proposed. These policies were also supported by a number of other submitters.

There were submitters, however, who were of the view that the BCA was best able to manage the processes associated with achieving energy efficient buildings.

The HIA, the BDAV and Urbis argued that, as proposed, the local policies would overlap and contravene the requirements of the NCC. It was also submitted these local policies are contrary to current State Government Policy concerning the delineation of planning and building responsibilities. It was the opinion of the HIA that the building system (and therefore the building regulations) offered the better option in achieving energy efficient buildings.

The BDAV did not question the need to protect the environment through the use of sustainable design principles; however, it did not support the use of local planning policies to achieve this.

The BDAV is concerned with the multiplicity of local policies, and the associated delays and costs experienced by its members under the current planning system. The BDAV does not support the inclusion of matters in planning schemes that either are presently, or could be, included under the BCA. Furthermore, it does not support increasing the minimum standards contained within the BCA.

The HIA acknowledged that planning has a role in matters of 'environmental protection and managing environmental risk'. It noted, however, that early consideration of sustainability can already occur under existing land use, siting and design controls at Clauses 54, 55 and 56 of planning schemes when matters such as the size and location of windows, building orientation, solar access and daylight to windows can be considered. It was of the view that local sustainability policies were therefore not required.

The HIA referred to the agreement between the Commonwealth, States and Territories which was to ensure the construction industry operated efficiently. This Agreement commits local governments and like bodies that have an administrative responsibility for regulating the building industry, to implement a 'gate-way' model that prevents local government from setting prescriptive standards for buildings that override the performance

[38] HIA further written submission, p2.
[39] BDAV submission, p5.

requirements of the NCC. It is unclear as to what the 'gate-way' model referred to in this Agreement is.

The HIA stated the proposed local planning policies would duplicate requirements of the NCC.

It was the view of the HIA that the role of government was to set the minimum planning and building standards to provide certainty to landowners in terms of cost. If the 'bar' was to be raised in relation to the standards set for energy efficiency, then it should occur by way of changing the building requirements which would have to go through a Regulatory Impact Statement process before adoption.

In its written submission, the ABCB referred to the above agreement and to the principle that '*where a subject is covered by the NCC, it should not be available for local governments to use the planning system as a mechanism to set higher standards for the same subject.'* The ABCB submission also pointed out that where higher levels are able to be achieved this is done through industry initiatives that, over time, raise the benchmark minimum standard under the NCC. The national agreed aim of building standards within Australia is to *'rule out worst practice, not prescribe best practice.'*

The ABCB acknowledged that some of the proposed local sustainability provisions were not the domain of building standards. It was noted that some, however, such as thermal efficiency within buildings, were potentially covered by the NCC. The ABCB was particularly concerned that responsible authorities would be able to determine targets on a 'case by case basis', which could lead to inconsistencies in the setting of standards, not only between different councils, but also within an individual council.

Urbis submitted the BCA approval system is better equipped to deal with matters of detailed design in making a sustainability assessment, in a manner that does not create unnecessary cost and uncertainty to the private sector and unreasonable burden on the public sector.

Salta submitted that Section J of the NCC / BCA and the Green Star/ NABERS tools are clearer and more comprehensive than those selected for use under the subject Amendments. While appreciating the intentions of the Councils involved in the amendment process, it was submitted there are practical limitations as to the level of detail that can and should be prepared at the planning stage.

In representing the commercial and industrial arm of Australand, Mr Woodland advised that it is his client's vision to be Australia's leading provider of 'environmentally sustainable industrial facilities', a vision it is on-track to deliver.

Mr Woodland advised the Committee that while Australand supports the aspirations of Councils to see improvements in the environmental performance of buildings, in its view, planning and building have different but complementary roles to play concerning sustainable design.

It was Mr Woodland's submission that the planning system is involved at the concept design and layout stage of developments, as well as in assessing their impact in the urban context. It is the responsibility of the building system to address the detailed design of the buildings in ensuring the issues of safety, health, amenity and sustainability.

It was also the Australand submission that, as proposed, the Amendments extend too far into the responsibilities of the building regulatory system. It was submitted the role of planning in sustainable design should be defined more narrowly than is the case under the Amendments. In Mr Woodland's view it would assist if the VPP were amended to 'enhance State Planning Policy' with a new 'Particular provisions' section drafted to outline the sustainable design elements to be addressed in planning permit applications.

7.3 Discussion

As there has been no dispute about the merits of sustainable design and development, the question is whether this is best dealt with through planning, building or both, and whether this will lead to an overlap.

Having reviewed the requirements associated with sustainable design, the Committee has formed the view that a degree of overlap between the planning and building is to be expected given both are required by their respective legislation to consider issues of sustainability and energy efficiency. But despite concerns raised in some of the submissions, the Committee is not convinced this is a problem. Each has a specific role to play and a limited sphere of influence. Planning does not cover all development, yet the building system does; similarly, building is not involved in influencing the initial design phase including orientation, subdivision and so on, nor can it require a greater level of compliance than what is set down under the BCA, yet planning can. Building cannot enforce the inclusion of sustainability features in development, yet planning can.

Given this, the Committee considers that what is required to achieve the greatest sustainability outcomes is an integrated approach between planning and building. What is important is that each has a clearly defined role to play and that they complement, rather than duplicate each other. The importance of an integrated approach has been recognised in Federal policy and COAG agreements.

The Committee considers planning is best suited to influencing the 'bigger picture' for that development which requires a planning permit and should be involved in the initial design phase, guiding developments in terms of orientation, integrated water and waste management, use of alternative energy sources, integrated transport and landscaping. It can also provide the legal framework to ensure these features are implemented through permits and the endorsement of plans. Yet the Committee considers planning should not get involved setting specific energy efficiency ratings, or specifying the more detailed aspects of development, such as insulation and hot water services.

Recognising building is not able to influence these 'bigger picture' issues, the Committee is of the view that matters such as choice of building materials and products to be used in the construction and fit out of buildings are details that should remain primarily in the building approval process, and the BCA already contains mandatory provisions in this area. It is, of course open to an applicant to provide this information at the planning stage, but this should be on a voluntary basis as materials selected early in the design process may not be available at the construction phase, or indeed superior materials may be available at such time.

The Committee also considers building has an important role to play in ensuring that developments that do not require a planning permit also achieve a minimum energy rating.

The Committee considers this is very important in ensuring the equitable approach to sustainability.

Yet the Committee recognises there is room for improvement in both to ensure they operate more effectively and achieve greater sustainability outcomes. Suggestions for improvements will be discussed in Chapter 9.

Whilst concern was raised the policies seek to achieve 'best practice' and this will lead to conflict with the objective of the NCC which seeks to prevent 'worst practice', in the Committee's opinion this need not be the case. Where planning consent is required for buildings and works, based on the objectives of the *Planning and Environment Act* 1987 and SPPF, it is reasonable to require an application to include an assessment that identifies the environmental targets and performance of a building.

As presently drafted, the SDAPP Fact Sheets recommend that designs exceed the DTS provisions of the BCA. This is clearly the expressed outcome sought by Councils using the SDAPP process. The BCA sets the minimum standard, and the planning system through the SDAPP process, encourages applicants to go further.

While this encouragement to achieve higher standards is of a non-compulsory nature, the Committee does not have significant concern that the planning system is usurping, rather than complementing, the building system. The fact that the SDAPP Fact Sheets are proposed as Reference Documents in the local policies, and that there are no specific targets in the policies, should ensure that the 'encouragement' focus is retained, rather than a compulsory set of alternative standards. This issue is discussed further in Chapter 13.

The Committee considers the development of Statewide approach should specifically consider the role of building and how the planning system can complement it.

7.4 Findings

The Committee finds:

There is a clear need for an integrated planning and building approach to achieve sustainable outcomes.

It is important to clearly define the roles of planning and building.

Planning is best suited to dealing with the 'big picture' upfront issues, whereas building is best suited to managing the detailed aspects.

8 Costs and benefits of sustainability in planning

8.1 The issue

This chapter focuses on the costs and benefits of introducing sustainability in local policies and whether the financial burden on permit applicants and Councils will be outweighed by other social, economic and environmental benefits.

8.2 Evidence and submissions

The Councils and several submitters considered the proposed Amendments will have positive social, environmental and economic outcomes. The Committee also identified a range of costs and benefits through its own readings, some of which are noted in this chapter. However, submitters such as the HIA and BDAV were concerned about the impacts the proposed local policies would have on the cost of housing and the associated impacts on industry.

At the Hearing, the Councils submitted that development has an impact on the environment, both in terms of the resources it uses and what it returns to the environment. The Green Building Council of Australia identified that *Buildings consume 32% of the world's resources, including 12% of its fresh water and up to 40% of its energy. Buildings generate 40% of waste to landfill and 40% to air emissions.*[40] Similarly, *The Stern Review* (2006) identified buildings contribute up to 20% of global greenhouse gas emissions, with the highest consumption coming from heating and cooling.[41] Also, as discussed in Chapter 3, the SDAPP Fact Sheets identify a range of impacts of development on the environment.

Accordingly, the Councils submitted that adopting sustainable design principles can reduce the consumption of energy, resources and materials that go into development, thereby reducing outputs in terms of greenhouse gas emissions, waste and water; resulting in clear and tangible environmental benefits.

At the hearing, the Councils and some submitters commented on the social benefits to be attained by implementing the proposed policies. The social benefits associated with sustainable design include improved living and working conditions for building occupants resulting from improved internal amenity, such as access to natural light, good ventilation, improved air quality, higher levels of thermal comfort and lower levels of noise and air pollutants. In his expert witness statement for the Councils, Mr Harrington commented that a number of studies have shown improved conditions can result in improved health and productivity. Whilst these studies were focused on commercial buildings, it is reasonable to assume the same benefits would be achieved through applying sustainability design in residential, industrial and community facilities as well.[42] It was submitted that sustainable design which improves our ability to adapt to increased extreme weather events will have clear social benefits to the wider community.

[40] Darebin City Council submission. Source: Green Building Council Australia.

[41] Stern Review on the Economics of Climate Change, Office of Climate Change, HM Treasury, 2006. Cited in Steven McKellar expert witness statement, chapter 2 – 'Energy'.

[42] Phil Harrington expert witness statement, pp11-12.

However in its submission to the Committee, HIA stated these issues should be left to market mechanisms. HIA stated:

> *The market has an important role in providing sustainable building solutions to the building industry and home buyers. Product innovation, green product accreditation, homebuyers asking for more efficient appliances to reduce utility bills, homebuyers considering water tanks to be able to water gardens in times of water restrictions. These trends happen without regulation ... Therefore HIA believes the proposed policies are aiming to address a market failure where no failure exists.*[43]

A significant consideration for the Committee is the potential economic costs and benefits associated with the policies. Submitters such as the HIA held a strong view the costs would be borne by purchasers and ultimately impact on the housing affordability. The HIA stated in its closing submission:

> *The impact on housing affordability has not been considered in these proposals. When considering new permit or planning scheme requirements, it's important to consider housing affordability and how new regulation will affect the individual home owner. Where new regulations add to the upfront cost of building a home, housing affordability is adversely affected and first home buyers and middle-lower income earners could be priced out of the market. HIA believes that there are important social and economic considerations that need to be considered if the upfront cost of building is going to increase as a result of a planning scheme change.*[44]
>
> *….*
>
> *Costs include uncertainty, permit delays, consultant costs, variations to contracts as preferences and budgets of clients change throughout the development process, inevitable changing material or product selection.*[45]

The HIA suggested a rigorous process of assessing the impacts of regulatory change should be undertaken when introducing local policies of this type.

The BDAV concurred with this sentiment and stated:

> *It is considered that the cost and time associated with providing the information required to accompany a planning permit application, as a result of the proposed amendments, will unreasonably increase the complexity and requirements on small and midsized planning permit applications...*[46]

Other submitters such as Colac Otway Shire Council stated that whilst the upfront cost may be increased, the consumer could ultimately save money in the long run. It stated:

> *Whilst the cost of buying a home is critical, the increased costs of heating and cooling that home as a result of deficiencies in its design should be no less*

[43] HIA submission, p25.
[44] HIA closing submission.
[45] HIA closing submission Appendix 1.
[46] BDAV submission p5.

> *important. Relying on retrofitting to improve the performance of the home is more expensive...*[47]

The VLGA agreed the potential benefits associated with the policy would include ... *reduction of life cycle of building costs, reduced running costs, improved amenity and more environmentally sustainable urban form.*[48] It further stated the costs of retrofitting poorly designed buildings would be reduced.

Darebin City Council commented on the holistic application of the policy, stating the paradigm should be shifted from 'affordable housing' to 'affordable living'. It stated:

> *...planning has an important role to play in ensuring that new building stock is liveable, affordable and equitable for the community, and this extends to matters beyond the initial price point for a dwelling'.*[49]

The potential for upfront costs of construction to be offset by savings in relation to energy was discussed at the hearing. In his expert witness statement for the Councils, Mr Harrington undertook a cost benefit analysis in relation to four development types: small residential (new), small residential (extension), large residential and non-residential.[50] The cost-benefit model settings were for 2014-2050 and incorporated factors such as gas, electricity and water prices.

The results of his analysis are shown in Table 3.

Whilst there was discussion and questioning of Mr Harrington in relation to his work and the quantum of the cost benefit ratios achieved, Mr Harrington was clear that for all the development types, including single dwellings, there is a significant positive cost benefit ratio.

Mr Harrington further stated that significant potential exists to make cost-effective improvements in the energy efficiency of new and refurbished buildings in Australia beyond the minimum requirements of the NCC. In particular, he stated that Class 2 buildings have relatively low energy performance requirements in the Code. This is particularly pertinent due to rising gas and electricity prices.[51]

Mr Harrington further commented that:

> *... improving the thermal efficiency of building shells, and also utilising trees, green walls and roofs and other albedo changing strategies, can reduce the urban heat island effect and should be noted as a further benefit of environmentally efficient design policies.*[52]

[47] Colac Otway Shire Council submission to Planning Panels Victoria.
[48] VLGA submission to Planning Panels Victoria.
[49] Darebin City Council submission to Planning Panels Victoria, p3.
[50] Phil Harrington expert witness statement, p9.
[51] Phil Harrington expert witness statement, p18.
[52] Phil Harrington expert witness statement, p27.

Table 3 Results of cost benefit analysis[53]

Building type	**Present Value of Benefits (at 7% real discount rate)**	**Present Value of Costs (at 7% real discount rate)**	**Present Value of Net Benefits (at 7% real discount rate)**	**Benefit Cost Ratio[54]**
Small Multi-Dwelling Residential Building	$168	$35	$134	4.9
Small Residential Extension	$141	$46	$95	3.1
Large Multi-Unit Residential	$123	$18	$105	6.8
Small Commercial Building	$198	$65	$133	3.1

Another relevant issue for the Committee is whether Councils can afford to bear the administrative costs of implementing the policies, and whether resource shortages may negatively impact on applicants.

Cardinia Shire Council submitted that:

> *These provisions will increase the resource and administrative costs to Council. This cost is minimal compared to the cost of not addressing environmentally efficient design during the planning process. The benefits of the process to the environment and comfort and safety of residents outweigh the costs.*

Frankston City Council submitted that not all Councils have staff skilled in the use and understanding of the tools outlined in the draft schedule to the local policies, however this should not be a deterrent for implementing requirements into the planning system, particularly with the longer term benefits to be gained. Council indicated the introduction of sustainability assessment would equate to the cost of a maximum 1 full-time equivalent position.

Mr Williamson, the Sustainability Adviser to the City of Yarra, in his expert witness statement, noted that:

> *The time it takes to complete an ESD Referral varies depending on the development, and how well the documents have been prepared. A well prepared submission for a large development including an SMP and consistent set of architectural drawings can take between 3 to 4 hours to complete. An incomplete submission can take several days, plus delays waiting for supplementary information or amendments to be submitted.*

[53] Phil Harrington expert witness statement, pii.

[54] A cost benefit ratio higher than 1 is considered a positive cost benefit – ie the benefits outweigh the costs.

The HIA on the other hand was less convinced of the capability of Councils to effectively manage sustainability applications:

> *HIA members report that when required to undertake sustainability assessments as part of a planning permit application the staffing situation at council adds significant delays and contributes to lack of transparency as planning officers have to consult internally with ESD officers in making decision. Additional referral times add to the delays in considering the planning permit. Often these ESD officers only work part time and further delays in these situations add to costs.*

8.3 Discussion

The Committee notes the evidence of Mr Harrington in relation to cost-benefit analysis and whilst his methodology and results were questioned, no other parties called evidence to refute his fundamental findings.

In addition to the positive cost benefit ratios provided by Mr Harrington, the Committee is satisfied that there appear to be clear social and environmental benefits of improved sustainable development outcomes including:

- resilience to a warming climate with amenity and health benefits;
- higher thermal performance of buildings leading to reduced energy consumption, lower peak demand and better consumer outcomes;
- reduced water consumption; and
- at a broader planning level, better designed suburbs and urban environments with improved social, environmental and economic outcomes.

The Committee notes submissions that raise housing affordability as a reason for not implementing more effective sustainability outcomes. However, the Committee was not presented with evidence of this and numerous submitters suggested that improved life cycle costs over the life of the dwelling would more than negate higher capital costs, if indeed there are higher capital costs. In addition, the Committee agrees there is credence to the argument presented by Darebin City Council that affordability considerations need to go further than just construction cost, and should also consider ongoing servicing costs.

Whilst the Committee accepts there will be an increased regulatory burden on Councils to undertake sustainability assessments, it is not convinced this is a significant issue given the relatively modest estimates of resourcing suggested by local Councils. Councils advised the ability to successfully implement the policies was a consideration in defining the thresholds for each policy.

Whilst concern was raised there may be a shortage of qualified or skilled sustainability assessors at this time, the Committee considers that with an increased focus on sustainability, the market will see the opportunities available and respond accordingly to ensure a greater pool of assessors develops over time.

8.4 Findings

The Committee finds:

There are clear positive economic, social and environmental benefits to be gained through improved sustainable development outcomes in planning.

The proposed Local Policies are unlikely to impose an unreasonable impost on the resources and administrative costs of participating Councils.

The proposed Local Policies are unlikely to impose an unreasonable regulatory cost burden on applicants.

The consideration of 'affordability' should extend beyond construction and consider ongoing servicing costs.

9 Planning and building – a way forward

9.1 The potential role of planning and suggested improvements

There is already significant direction provided in the *Planning and Environment Act 1987* and planning schemes on sustainability. The Committee considers the current content of the VPP and planning schemes do not, however, provide sufficient clarity or guidance on this issue, and the Committee considers this could be strengthened.

The Committee considers there are a number of ways in which planning schemes could be used to achieve sustainable outcomes and these are discussed below.

As discussed in Chapter 5.6, the Committee has already stated it is firmly of the view that a Statewide approach would be the most effective way to achieve the greatest sustainability outcomes, providing greater coverage, consistency, fairness and simplicity. Therefore the options discussed below are generally based on the adoption of a Statewide approach, with the option of a local policy also considered given the Amendments being considered.

(i) Improvements common to all options

In addition to the various options that will be discussed, there are a number of improvements which can be made to the 'front and back' of the planning scheme that are common to all. These include the following:

Improvements to the SPPF

A key improvement involves the strengthening of the SPPF to highlight the importance of sustainability, these improvements could include:

- an increased emphasis on sustainability being a fundamental principle that should inform all planning decisions;
- the recognition in Clause 13 – *Environmental Risks* that sustainable design is critical in adapting to climate change;
- amending the preamble to Clause 15 – *Built Form*, to recognise the importance of sustainable design and the importance of adopting a proactive and integrated approach to sustainability; and
- amending Clause 15.02 – *Sustainable development – energy efficiency* to give greater recognition to the range of elements that go towards designing a sustainable building, to emphasise the importance of taking an integrated approach to sustainability and that these issues need to be considered earlier in the design process, rather than 'tacked on' at the end.

Expanded Clause 65 – Decision guidelines

These guidelines could easily be amended to include consideration of whether an application for development or subdivision will achieve sustainability outcomes, particularly given this is one of key factors that needs to be considered in balancing competing objectives.

Expanded Clause 72 – General terms

Given the lack of clarity around the term sustainability and what it actually applies to, the Committee considers the effectiveness of the planning scheme could be improved with the inclusion of a definition of this term. The Committee does not think it necessary in the local policies discussed in Part B.

(ii) Options for providing guidance on sustainability

Having established a clear policy framework and ensuring this is an issue which is given proper consideration as discussed above, it is then necessary to consider how the policy objectives should be implemented through particular planning scheme mechanisms.

The Committee considers there are five potential options for providing the detail. These options are based on the principle that all development that requires a planning permit would need to be designed in a sustainable manner. It may also be appropriate that there is a combination of these approaches.

These options are discussed below.

OPTION 1 - Section 81 - Incorporated document approach

Incorporated documents are considered essential to the proper functioning of the planning scheme and decision-making and must be taken into account by responsible authorities.

One of the benefits of an incorporated document is that the document carries the same weight as other parts of the planning scheme and can only be changed through a planning scheme amendment.

Another benefit is that Councils also have the ability to incorporate their own documents, so should Councils wish to 'raise the bar' or provide some more detailed guidance in relation to a specific location this would be possible, provided it does not conflict with the Statewide based incorporated document.

The Committee considers there is a potential role for a 'Sustainable Design and Development' incorporated document which could outline objectives to be achieve, thresholds, targets and benchmarks to be achieved. The incorporated document could also provide guidance on what is defined as 'best practice sustainable design' and could adopt an approach similar to the *'Urban Stormwater best practice environmental management guidelines.'*

The Committee considers such a document should provide direction in relation to residential, industrial, commercial and community developments throughout the State.

An incorporated document by its nature, however, is difficult to amend or replace as it requires a planning scheme amendment. Incorporated documents are generally better suited to situations where a degree of certainty is needed around technical specifications for a 'single issue'. They also tend to be mandatory in nature and thus may move away from the flexibility and performance based approach of much of the planning scheme.

OPTION 2 – Local Planning Policy Framework approach

As proposed by the Amendments, an option is to address this issue through both a specific LPPF approach. This would involve a strengthening of the MSS to provide the strategic direction in relation to sustainability, and the potential inclusion of a local policy or policies which outline how discretion will be exercised.

This approach would enable individual Councils to establish their own specific thresholds which can be tailored to their individual conditions and the wishes of their own communities.

The six specific amendments considered by the Committee are discussed in Part B.

OPTION 3 – Amend existing Particular Provisions approach

Through Clauses 54 and 55, the VPPs already provide specific guidance in relation to establishing both objectives and standards for how single dwellings (which require a planning permit) and two or more dwellings (up to four storeys) should be developed, and some of this relates to sustainability and energy efficiency principles.

The Committee considers there is scope to expand these provisions to provide greater emphasis on sustainability in terms of both objectives and standards to be achieved. They could also be expanded to include residential developments of 5 storeys and above.

The Committee also considers there is scope to include particular provisions in relation to other forms of development which require a permit such as industrial, warehousing, commercial or community based facilities which should also be sustainably designed.

In addition, the Committee considers Clause 56 (or a new Clause) could be expanded to provide similar guidance to both industrial and commercial subdivisions although at present they have a specific residential focus.

OPTION 4 – New Particular Provision approach

The Committee considers there is a potential option to create an entirely new particular provision which outlines a range of permit requirements, objectives and standards in relation to the various elements of sustainability for a range of developments across the State, with associated permit triggers. This could include all of the sustainability measures within one place in the planning scheme.

OPTION 5 - Design and Development Overlays

There is also an option to use a Design and Development Overlay that establishes a series of design objectives, permit requirements and related decision guidelines in order to achieve 'Sustainability outcomes'. These Overlays could apply to broader geographic areas or more specific locations.

(iii) Assessment of options

A summary of the strengths and weaknesses of the options above is provided in Table 4 below. As indicated, in addition to all these possibilities the Committee supports consideration of a strengthened SPPF, as well as the suggested improvements to Clause 65 and 72.

Table 4 Summary of strengths and weaknesses of approaches

Approach	Strengths	Weakness/threats
Option 1 **Incorporated Document**	• Ensures a consistent Statewide approach. • Can include permit triggers based on specific thresholds, including exclusions where specific standards are met. • Could include a series of diagrams to illustrate how to achieve sustainable design, which could be defined as 'best practice'. • Could apply to a range of developments. • There is scope for local variations for those municipalities that wish to 'raise the bar higher'.	• Difficult to amend or replace. • A number of incorporated documents may be needed to cover the range of sustainability issues. • May prevent local innovation.
Option 2 **Local Planning Policy**	• Can be tailored to the specific development characteristics of a municipality. • Can be site or issue specific and ensure an integrated approach is adopted to particular redevelopment sites.	• May not ensure a consistent Statewide approach. • Relies on continued Council and community support. • Raises questions of equity if not all planning schemes include such a policy or have differing thresholds. • Not as strong as a Statewide approach. • No specific permit trigger, relies on other controls.
Option 3 **Amended existing Particular Provision Approach**	• Ensures a consistent Statewide approach. • Builds on an existing regime which is already well established and accepted.	• Would need to refer to a number of areas within the planning scheme. • ResCode specific low rise residential development focus.
Option 4 **New Particular Provision**	• Ensures a consistent Statewide approach. • Would ensure 'Sustainable Design' is dealt with in one specific section of the VPPs making it easier to apply.	• Would need to refer to a number of areas within the planning scheme.
Option 5 **Design and Development Overlays**	• Could include more stringent controls over development and ensure all developments are required to be designed in a sustainable manner if covers all land.	• Could be onerous and costly to implement if applied across large areas. • There is no specific sustainability overlay and would need to rely on a DDO. • Would not cover industrial/commercial subdivision.

9.2 Discussion and conclusions

The Committee considers each option has its own advantages/disadvantages, but does not recommend one specific approach at this time. This is primarily because whilst the Committee has reviewed the sustainability provisions in the context of the six Amendments, the final option, or combination thereof, will ultimately be determined by the permit triggers to be applied and level of detail to be provided. The Committee considers that further consideration of how this is best achieved and broader consultation is required before wholesale changes are made.

In the interim, in the absence of a coordinated Statewide approach, the Committee is recommending the adoption of the proposed local polices, recognising it may be appropriate to review them if a Statewide approach is developed. For this reason the Committee recommends the inclusion of a sunset clause. This is discussed in detail in Part B of this report.

9.3 Findings

The Committee finds:

The approach to sustainability in planning schemes be further reviewed to provide a more coherent, strengthened approach to implementation. This should be based on a Statewide approach and include stronger, higher guidance in the State Planning Policy Framework and Clause 65, as a minimum, with consideration of a range options.

The use of Local Policies until such time as a Statewide approach is developed should be supported, with the inclusion of a sunset clause.

9.4 The potential role of building and suggested improvements

Historically, it has been the responsibility of the building regulatory system to ensure buildings are constructed in a way that protects the health and safety of their occupants. With the introduction of the NCC, building control moved to a national performance based system. While it is the responsibility of an applicant to satisfy the decision maker (the relevant building surveyor) that a performance requirement is met, the BCA prescribes how this may occur, although it is open to an applicant to come up with a different solution which will be deemed to satisfy a particular performance requirement.

Although the BCA provides an applicant with the flexibility to choose how a performance requirement may be met, the relevant building surveyor does not have the discretion to reject an application if it meets the DTS prescriptive measures.

With the notable exception of single dwellings, most development requires planning consent. Where a single dwelling only requires building approval, the Clause 54 siting requirements, 'called up' by the VBRs have to be satisfied, unless a report and consent is provided by the Council (usually the Municipal Building Surveyor) to vary these controls. As previously mentioned the VBR does not include Clauses 54.03-5 and 54.05-3, which deal with the siting and design of a dwelling and solar access to secluded private open space of a new dwelling. These are important considerations when it comes to designing a dwelling that will be energy efficient.

In relation to the above the Committee believes that the provision of Clause 54.05-3 could be added to the VBR siting provisions, to require the appropriate level of solar access is available to secluded private open space. Inclusion of the provisions of Clause 54.03-5 in the VBR and the level of discretion associated with it would require a major shift in how the building control process currently operates. The other option, which is to increase the minimum thermal rating, is worth considering and may well occur over time in the Committee's opinion.

The alternative is for the planning system to continue to deal with the broader sustainability issues at the commencement of the design process with the building process left to deal with details, such as choice of building materials, fittings and fixtures.

In relation to non-residential buildings, the BCA sets out the requirements relating to energy consumption. Given this form of development generally requires planning consent, items such as integrated water management and green travel plans can be dealt with as part of that approval process, leaving the detail associated with the building itself in the building arena.

The Committee considers it is appropriate for the Building Regulations to be reviewed to determine whether it can achieve more in terms of environmental sustainability, whether that be an increase in the Star rating or greater coordination with existing relevant provisions, recognising there is an established approval process for change in the NCC. The Committee considers this would be best undertaken following the development of the recommended Statewide planning approach to ensure an integrated approach.

9.5 Findings

The Committee finds:

There is value in reviewing the Building Regulations to determine whether they can achieve more in terms of sustainability. Such a review would be best undertaken following the development of the recommended Statewide approach.

10 Other initiatives to support sustainability

10.1 The issue

In addition to planning and building, which are principally regulatory frameworks, there are a range of other non-regulatory initiatives which can be explored in order to achieve greater levels of sustainability in development. This section will explore some of these initiatives.

10.2 Training

As discussed earlier in this report, the best way to achieve sustainable development is to incorporate it as part of the design phase as early as possible. This not only allows the consideration of sustainability opportunities in an integrated manner, but it is also the most cost effective way as it minimises the need for costly redesign or retrofitting at a later stage.

In order to ensure development is undertaken in a sustainable manner, there is a need for all professions and trades involved in the development industry to have greater understanding of sustainability and how it can be incorporated into development. To achieve this it is important that all tertiary and trade qualifications include sustainability as a central theme in their curricula and give clear guidance about how this can be achieved and the opportunities that this also presents. It is through this increased awareness and acceptance that the greatest sustainability outcomes will be achieved. Increasingly Universities and TAFEs are incorporating sustainable design into their curricula and courses, which is considered a vital step.

There is also a need for additional training opportunities for professions and trades already involved in the development industry, to increase their understanding of sustainable design principles, how it can be achieved and the opportunities it also offers.

There are a number of training courses offered at this time through a range of organisations, some of these include:

- **Moreland Energy Foundation (MEFL)** is a not-for-profit organisation dedicated to sustainable energy. It addition to research undertaken and community engagement, the Foundation also offers a range of professional development courses across energy management, sustainability and community engagement. The courses offered include:
    - Introduction to residential auditing and energy management.
    - Small and medium facilities management.
    - Integrated facility management.
    - Passive design and thermal performance.
    - Community behaviours change essentials: What's in your tool box?
    - Community Bulk Buys – Sustainable Technology.
    - Engaging CALD communities.
    - Sustainable urban development.
    - Introduction to Sustainable Design Assessment in the Planning Process.
    - STEPS and SDS assessment tools for both Local Government and industry.
    - Tailored training – sustainability and energy management to meet the particular needs of an organisation.

- **Housing Industry Association (HIA)** conducts a 'Green Smart Professional' training course which is open to all builders and designers, as well as any other interested parties. This course focuses on increasing environmental awareness and skills for more sustainable residential design and construction and focuses on:
    - global and local context of sustainable development;
    - thermal performance;
    - passive solar design and natural ventilation;
    - design and operational issues for water and energy efficiency;
    - selection of water and energy efficient appliances; and
    - marketing sustainable housing to clients.

  Participants who successfully complete the training establish their status as an accredited HIA GreenSmart Professional.
- **Green Building Council of Australia –** The role of the Council is to educate built environment professionals on green building, and the application of the Green Star sustainability rating system. The Council offers a variety of education programs, professional development activities, Green Star qualifications, courses and workshops to expand and enrich industry and individual knowledge of Green Star.

The Committee considers education is key to achieving sustainability and supports and commends these organisations for taking these initiatives. Continued development and support of educational programs which increase awareness of the need for sustainable design will be critical to achieving sustainable development.

10.3 Incentives

A number of possible incentives were raised which could encourage developers to incorporate greater levels of sustainability, including sustainable design assistance, rate reductions to the waiving of application fees, etc. Whilst these are potential incentives, it was submitted these are costs that can be factored into project planning and would not be determining factors. At the Hearing it was submitted the greatest incentive would be a streamlined approval process and an assurance that incorporating sustainability into developments will not extend either the complexity or the time taken to get a planning permit. This was seen as a critical issue.

Through an examination of VCAT decisions, it became evident to the Committee that increased height has at times been seen as an appropriate trade-off or incentive for the incorporating sustainable design elements into major developments. The Committee is concerned with this trend.

As discussed in previous Sections of this report, there is strong policy emphasis on the need for sustainable development at a Federal, State and in most cases the Local level. Whilst the inclusion of sustainable design may have been innovative and cutting edge in the past, it is increasingly becoming more mainstream and is likely to become the norm in the future. The appropriate height of a building is determined by a range of matters, and the Committee considers sustainable design should not be seen as a 'bargaining chip' to achieve greater heights going forward.

10.4 Awards

Design Awards are a good way to stimulate innovation and not only show case, but also raise awareness of, what can be achieved in the field of sustainable design. These need not only apply to major architecturally designed projects, but can also include smaller scale projects undertaken by individuals. There are a number of awards offered at various levels, examples of these include:

(i) Professional Associations

Australian Institute of Architects – offers an award in Sustainable Architecture which recognises projects which excel in architecture and also display innovation and excellence in terms of environmental sustainability.

Design Institute of Australia – offers the Australian International Design Awards – Award for Excellence in Sustainable Design. This award acknowledges and rewards outstanding examples of sustainable design.

(ii) Local Government

Bayside City Council – offers the Built Environment Awards including an award for 'Sustainable Design and Development'. This award showcases the expertise of building designers and encourages high standards of design excellence within the municipality. The 'Best ecologically sustainable design award' recognises contributions to innovation, leadership and exemplar level of practice that is above and beyond ecologically sustainable development and includes consideration of the adoption of measures to reduce environmental footprint, including reduction in energy and water use, waste minimisation and use of materials, improvement of stormwater quality, improvement of indoor air quality and sustainable transport.

Whitehorse City Council – offers the Built Environment Awards, with one category being 'Sustainable Design and Development.'

The Committee considers award programs such as these are important both in terms of recognising efforts as well as educating and inspiring others to adopt similar design practices.

10.5 Leadership by example

Often what is required to achieve greater acceptance and uptake of sustainable design are demonstrations of how it can be achieved and the costs involved. In addition to award programs, this can be achieved through demonstration projects, particularly major housing developers which supply a large proportion of new home builds. Several of these display home companies have embraced sustainability in their designs and exceed the 6 star minimum required by the Building Code, recognising it gives them a market edge over their competitors.

In addition, in order to encourage others to incorporate sustainability into design, it is important to ensure government buildings as well as other community facilities also embrace sustainable design.

10.6 Energy/Resource Pricing

The recent escalation in energy prices has seen increased uptake of sustainable design and domestic scale renewable energy production. In addition, the cost of renewable energy infrastructure is dropping. There becomes a point when the cost of installing renewable energy production is more cost effective than continually paying increasing energy and water costs.

Given the need to adopt more sustainable development principles, there may be opportunities to consider a range of costs mechanisms as a means of encouraging greater sustainable design, whether this includes increases energy/resource costs to subsidies for sustainable design infrastructure.

As has been discussed in Chapter 8, there is already a positive cost benefit ratio for sustainable design.

10.7 Effectiveness of incentives

Achieving sustainable design will require a coordinated effort amongst all levels of government, the development industry, educational institutions and individuals to ensure our houses, places of work, community buildings and schools are all sustainable. This coordinated effort will need to extend beyond regulatory regimes to achieve the best outcomes. The incentives themselves certainly go part way toward educating, inspiring and encouraging developers and individuals to incorporate sustainable design, but they are unlikely to be sufficient on their own within a reasonable timeframe. They must be seen as part of a package of measures put in place to achieve the sustainability objective.

The Committee considers that what is required is a combined approach with a strong and clear regulatory system, where planning and building work together with clearly defined roles, backed up by a range of other initiatives to support sustainable development.

10.8 Finding

The Committee finds:

Other initiatives are an important component of achieving sustainable development outcomes, however they need to be part of package of measures supported by a strong and clear planning and building regulatory framework.

PART B – PROPOSED AMENDMENTS

11 The Amendments

11.1 Introduction

In the absence of a Statewide approach to sustainable design, the Councils of Moreland, Port Phillip, Yarra, Stonnington, Whitehorse and Banyule took the initiative to prepare Amendments to:

- Amend Clause 21 (MSS) of their respective planning schemes; and
- Insert a new Clause 22 - local planning policy for Environmentally Sustainable Development.

Changes to each MSS and the new local policies under the Amendments are consistent in so far as the overarching objective of each local policy is that *development should achieve best practice in environmentally sustainable development, including from the design stage through to construction and operation*.

The one area where there are differences concerns the adoption of different thresholds (triggers) in requiring a sustainability assessment as part of a planning application.

11.2 Changes to Clause 21 - Municipal Strategic Statement

Each of the Amendments makes changes to Clause 21 (MSS) of the respective planning schemes. The format of each MSS dictates how the environmental sustainability provisions are expressed in each of the planning schemes.

Clause 21.02-2 of the Stonnington Planning Scheme has been amended to include strategies for 'Energy, Water and Waste Efficiency' as has Clause 21.05 (Environment) of the Whitehorse Planning Scheme.

Clauses 21.05 (Natural Environment) and 21.06 (Built Environment) of the Banyule Planning Scheme have been amended to refer to the *Environmentally Sustainable Development Local Policy* under 'Implementation'.

The Moreland Scheme inserts an Objective and Strategies under each of its key strategic statements ('Housing', 'Industry and Commerce', 'Retail', 'Urban Design, Urban Character and Street landscapes', 'Open space', 'Integrated transport systems' and 'Infrastructure').

The Yarra Planning Scheme is the most succinct of the Amendments, simply referring to its Local Policy under the 'Environmental Sustainability' clause. The Port Phillip Planning Scheme on the other hand introduces a separate clause, 'Ecologically Sustainable Development'.

The Committee has no issue with the proposed changes to each MSS.

11.3 Changes to Clause 22 - Local planning policies

Under the Amendments a new local planning policy will be introduced in each of the six planning schemes. These Policies will be applied to development, within certain thresholds, that requires planning consent within those municipalities.

Following exhibition the name of these policies was changed from 'Environmentally Efficient Design' to 'Environmentally Sustainable Development'[55]. Some minor changes were also made to the text of the Policies post-exhibition to provide overall consistency.

The main difference between the policies relates to the thresholds used to trigger the need to provide sustainability information as part of a planning application. The thresholds chosen generally reflect the different level of intensity of development within the municipalities concerned and the ability of Councils to administer their local policy. The thresholds are discussed in Section 13.2.

[55] This terminology was originally sought by the Councils as discussed in Section 2.1.

12 Strategic planning context

Each of the Councils provided a response to the Strategic Assessment Guidelines as part of its Explanatory Report to its Amendment.

In summary, it was asserted that each Amendment was required to strengthen the ability of the Responsible Authority to consider built form sustainability through its LPPF. Each of the proposed policies provide the objectives and application requirements for residential, mixed use and non-residential development to implement sustainable policy directives in the SPPF and their respective MSSs.

Fundamentally, the local policies are to provide guidance in achieving 'best practice' in sustainable development.

12.1 Policy Framework

(i) State Planning Policy Framework

In their respective Explanatory Reports the Councils submitted their Amendments were supported by the following clauses of the SPPF:

- Clause 11 – Settlement
- Clause 12 – Environmental and landscape values
- Clause 13 – Environmental risks
- Clause 14 - Natural Resource Management
- Clause 15 – Built Environment and Heritage
- Clause 16 – Housing
- Clause 17 – Economic Development
- Clause 18 – Transport
- Clause 19 – Infrastructure

These are discussed in detail in Chapter 5.

(ii) Local Planning Policy Framework

It was submitted that each of the Amendments was either supported by the respective MSS, or the MSS revisions.

12.2 Other Planning Scheme provisions

The municipal-wide Amendments do not affect zones, overlays or other particular or general provisions in the planning schemes.

12.3 Ministerial Directions and Practice Notes

The Committee considers the following Ministerial Directions and Practice Notes are the most relevant to the Amendments:

- Ministerial Direction 11: *Strategic assessment of Amendments*
- Planning Practice Note 13, October 2013: *Incorporated and reference documents*
- Planning Practice Note 8, September 2013: *Writing a local planning policy*

The Committee has considered these directions and practice notes and consider the Amendments are consistent with them. Specific issues raised by the directions and practice notes are considered in specific sections below where necessary.

12.4 Discussion and conclusions

Much of the strategic and high level support for the Amendments is discussed in general terms in Part A of this report. Having considered the legislative and strategic planning framework for the Amendments, the Committee is satisfied they should be adopted. Sustainability has been a core part of the planning framework at a high level for some decades and these policies can be seen as a logical next step in providing a local focus to supporting sustainable outcomes.

As discussed elsewhere in this report, there is strong support for improved Statewide controls, but until such time as these occur, the ability of Councils to pursue a more local approach should not be discouraged.

13 The local policies

In addition to the general issues which have been discussed in Part A of this report, there were also submissions in relation to certain specific aspects of these policies, these included:

- The permit triggers applied;
- Variation between the policy thresholds;
- Targets and benchmarks;
- The role of the sustainability assessment tools;
- The wording of Fact Sheets and reliance on Reference documents; and
- Implications for Large non-residential development.

The issues are discussed below.

13.1 The policies and permit triggers

(i) The Issue and submissions

One of the issues raised in the Councils' submission, and discussed in other recent sustainability amendments such as Melbourne C187 and Moonee Valley C108, is that of the operation of the policies in relation to permit triggers.

The issue is that the sustainability policies are to be considered in all planning permit applications, even when the specific permit trigger does not relate directly to sustainability. Examples may include permits triggered by the Heritage Overlay, Significant Landscape Overlay, Design and Development Overly etc.

Ms Forsyth, for the Councils, submitted that even though there may be uncertainty around this issue and the 'National Trust principle', that in itself is not a reason for the Committee to not support the Amendments.[56]

(ii) Discussion and conclusion

The 'National Trust principle' is well established in planning and generally fetters the decision making consideration of a responsible authority to the particular provision that has given rise to the need for a decision.[57]

The Committee agrees with Ms Forsyth that there is some uncertainty around whether this principle extends to the application of these policies. The Committee notes the approach adopted in these Amendments is similar to the approach included in Clause 22.19 of the Melbourne Planning Scheme, where the policy is called up for buildings and works for certain developments regardless of the permit trigger. This policy has been in place since early 2013 and the Committee is not aware whether this aspect of that policy has been challenged.

[56] Council submission, p33.

[57] See discussion of the principle in Section 4.2.2 of the *Review of Heritage Provisions in Planning Schemes* Advisory Committee Report, August 2007.

Whilst the Committee accepts there may be uncertainty around this aspect of the Amendments, the Committee does not consider it detracts from the fundamental intent and merits of these policies.

The Committee has already made it clear it considers all development should be sustainably designed and that there are clear economic, social and environmental benefits to be gained from doing so. The question is how is this best achieved?

The Committee considers this issue highlights the importance of adopting a Statewide approach to sustainable design which ensures all development is undertaken in a sustainable manner. This is just one of the many issues that will need to be considered in developing a Statewide approach.

The Committee considers it also highlights the benefit of adopting an integrated planning and building approach, to ensure that over time development will continue to improve sustainability outcomes.

13.2 Thresholds

(i) The Issue

The issue relates to whether the policies should have the same threshold or whether it is appropriate to vary the threshold between planning schemes, having regard to the type and intensity of its development within each municipality and Council's ability to implement the policy.

In the case of the Yarra, Port Phillip, Banyule and Stonnington Local Policies, a SDA is required for proposals of one to nine dwellings, while the Moreland Policy requires a SDA for two to nine dwellings and the Whitehorse Policy requires a SDA for three to nine dwellings.

In the case of a SMP, the threshold in each of the policies is 10 or more dwellings.

Turning to non-residential development, the Port Phillip and Whitehorse Policies are the exceptions to the rule in relation to the adopted floor space thresholds.

In Stonnington, Yarra, Moreland and Banyule a SDA is required for development or alterations between 100m^2 and 1,000m^2, in Port Phillip it is for development / alterations of floor areas between 50m^2 and 1,000m^2 while for Whitehorse, the floor area requirement is between 500m^2 and 1,000m^2.

In all six municipalities for floor areas above 1,000m^2 a SMP and GTP is required.

The Tables to each of the Policies (as amended) are included in Appendix D.

(ii) Submissions and evidence

There were submitters who raised concerns in relation to the adoption of different thresholds for residential and non-residential development.

GIW Environmental Solutions submitted *The threshold for accommodation/mixed use with residential component developments should be set as 1-9 dwellings (small); 10-19 (medium); and 20 or more dwellings (large). The specific Tools to be applied should vary accordingly as they can result in developments with more appropriate ESD features befitting their size.*

The Green Building Council of Australia submitted there should be a Green Star certification for large development while Ark Resources – (Banyule submission 12) stated *... problems with the LP, as currently drafted, include ... failure to clearly identify quantitative performance measures or benchmarks for each element.*

The BDAV submitted that if the policies were to be adopted, it was be preferable to have the same threshold triggers for all six municipalities. The thresholds preferred by the BDAV were to require a SDA for 2 to 9 dwellings and for non-residential buildings between 50m^2 and 1,000m^2, with a SMP for 10 or more buildings and floor areas of more than 1,000m^2 for non-residential buildings.

On the other hand, Cardinia Shire Council (PPV submission 18) submitted. *The number, size and type of planning permit applications differ greatly between local government areas. Thresholds are best set at a local level due to these variances. The process should definitely apply to larger developments though of over 10 or more dwellings or 300 m^2 of commercial space*.

In relation to the adoption of different thresholds by the Councils, it was Mr Milner's evidence that while they were responsive to the circumstances and expectations of each of the municipalities, they lacked *the consistency that is the hallmark of the VPPs between the same issue in similar circumstances.*

(iii) Discussion

As discussed in Chapter 9, the Committee considers all development should be required to be designed and built sustainably and that this is best achieved through a Statewide planning approach integrated with building. In this scenario, it would be appropriate to have a consistent threshold for all municipalities, that being any dwelling that requires a planning permit. Yet the Committee considers in the absence of a Statewide control or policy, local policies can play an important role in ensuring developments are undertaken sustainably. As discussed, the Committee considers there is also a scope for local policies to 'raise the bar' where municipalities wish to exceed the Statewide requirement.

With the exception of the thresholds, the proposed local policies are highly consistent in their content. In relation to the different thresholds, the Committee believes they reflect the individual characteristics of the municipalities they will apply to. In the case of Yarra, Port Phillip, the western part of Stonnington and parts of Moreland the intensity of development is generally greater than what is found in the middle and outer municipalities, such as Banyule and Whitehorse.

Council's also advised the thresholds adopted reflect Council's ability to successfully administer and implement the policies.

(iv) Conclusions

Having considered all written submissions and those made to it at the Hearing the Committee concludes that, as amended post exhibition, the ability of the individual Councils to set particular thresholds should be retained.

There may be disbenefits in lack of consistency across Councils, but the Committee does not consider this is a significant issue. Planning schemes already contain significantly different

triggers for similar issues[58] and many practitioners are familiar working across municipal boundaries.

13.3 Targets and benchmarks

(i) The issue

The issue related to the decision not to use prescriptive measures or targets to assess the environmental sustainability of proposals; and the balance between 'certainty' and 'flexibility'.

(ii) Evidence and submissions

The Council submissions and evidence referred to the processes and documentation required to demonstrate achievement of the (qualitative) objectives, rather than the achievement of specific targets or benchmarks (quantitative).

On this qualitative compared to quantitative question, Mr De Waard in his evidence for the Councils stated:

> *One of the key philosophical issues related to the local policy, and to ESD requirements generally, is how, or on what basis, Council's determine whether an application presents a satisfactory ESD outcome. This could be based on highly prescriptive, quantitative measures. Or it could be based on ESD Officer Opinion, drawing on qualitative measures - or anything in-between.*[59]
>
> *The consideration of prescriptive performance outcomes is, at its core, a balancing between two potentially competing goals. On one hand, it is about maintaining flexibility for permit applicants and designers. On the other, it is about providing certainty for all parties with respect to the sustainable development outcomes that are expected.*[60]

Mr Healy's evidence for the Councils was that:

> *Applicants seek both certainty and flexibility from the planning scheme – certainty that their efforts put them on a path to planning permission, and flexibility to meet site and project-specific objectives. Quantitative benchmarks such as percentage targets for reduction in energy use, water use per square metre per year, or ratio of cycle parking spaces per building user provide clarity and certainty on the Council's expectations for best practice.*
>
> *My view is that it is appropriate for Councils to provide quantitative benchmarks for standard or best practice in fact sheets or tools. However, it is not necessary to provide these in the Local Policy, provided such benchmarks are readily available and widely accepted.* [61]

[58] Consider for example Design and Development Overlay or other overlay triggers.
[59] Ben De Waard Expert Witness Statement, p28.
[60] Ibid, p31.
[61] Gerard Healey Expert Witness Statement, p10-11.

Mr Milner for the Councils expressed concern that not having specific targets in the decision guidelines for the local policies may lead to conflict at the application stage. He noted:[62]

> *The construction of the decision guideline suggests that each sustainability plan will be assessed on its individual merits. Such an outcome is fine while both proponent and assessor are in agreement but such an open ended and imprecise guidelines is problematic differences of weight and priority are applied and there is no common or consistently applied target.*

Submissions from some industry groups and community groups highlighted the lack of specific targets or benchmarks in the policy as key weakness which contributed to uncertainty.

Mr Pearce for Urbis submitted the targets and fact sheets:[63]

> *… provide standards that are ambiguous and boundless...*

and

> *Given that these documents also sit outside the planning scheme (or as reference documents as recommended by the various experts) there is significant scope for variation which will lead to a variety of 'moving EED targets'. We submit that these 'moving targets' will create significant uncertainty in the community... Even if such a policy is applied across the entire state, there is a strong prospect that these types of policies will be administered by each authority differently and in a manner that gives rise to a range of different and potentially conflicting standards.*

(iii) Discussion

The Committee understands that a balance needs to be found between providing guidance and flexibility on the one hand, and referencing specific targets or benchmarks on the other. Given the Amendment seeks to introduce local planning policies, the Committee is concerned with the inclusion of any target that must be met, as this is a mandatory control and is inconsistent with the Practice Note for local policies which makes it clear that policies must not include mandatory provisions.

Whilst there is a risk of a disagreement between an applicant and Responsible Authority leading to delays and possibly a hearing at VCAT associated with the qualitative approach, the exercise of discretion is an essential part of the use of a local policy and allows flexibility for a Council to approve an application which, for example, may underperform on one sustainability measure but be far superior on another, or to respond to specific site/locational aspects. The Committee also considers the qualitative approach provides greater opportunity for innovation.

The Committee considers the preferred approach is that as proposed; that is the consideration of assessment tool results and the SDAPP fact sheets, rather than specific targets in the policies.

[62] Rob Milner Expert Witness Statement, p34.
[63] Document 22, p5.

The Committee notes this approach is not dissimilar to that of the NCC, which allows an applicant to either meet its 'deemed to comply' provisions or to use a different method to meet the Objective and required rating.

(iv) Conclusions

The Committee concludes that specific targets and benchmarks should not be included in the local policies themselves but rather be considered by reference to the SDAPP Fact Sheets. The SDAPP Fact Sheets are considered later in this Chapter.

13.4 The role of sustainability assessment tools

(i) The issue

An overview of the key assessment tools is provided in Chapter 2. The issue is whether the tools as proposed are appropriate for consideration in the local policies.

A number of the tools referred to in the proposed local policies have been developed and implemented by some of the Councils for the best part of a decade. These tools are now used in the SDAPP program, which is currently being implemented in over 20 Councils across Victoria.

(ii) Evidence and Submissions

Expert evidence from Mr De Waard and Mr Healy was that the nominated tools are both appropriate and adequate to assist in the assessment of the ESD objectives in applications. The value of the tools is that they:

- Provide a source of benchmark information that can be used by applicants to satisfy the requirement to provide targets;
- Help to identify opportunities for meeting sustainability outcomes and those measures that would contribute the most;
- Can provide flexibility in meeting targets within the tools; and
- Provide a consistent framework for documenting the proposed measures.

Mr White's evidence included reference to the Green Star tool and noted that:

> *…. for partial redevelopments or extensions between approximately 1,000m2 - 4,000m2, the Green Star tool cannot be applied. Green Star also does not acknowledge or reward the availability of existing services or sustainable features of the site; i.e. if stormwater tanks were previously installed as part of a sustainability master plan to accept future development, a Green Star rating for that future development could not necessarily include this benefit.*

Following consideration of submissions, the Councils proposed an amended matrix of the applicable tools, leading to greater consistency. The Committee also notes that, in response to submissions, the Councils have proposed an expanded Clause 22.13-4, to acknowledge that in some cases only certain parts of the tool may be relevant to the application, and that references to the 'tools' should be interpreted to mean the tools and any relevant part of the tools.

This would mean, in summary, that the requirements would be as shown in Table 5.

Table 5 Development scale and tools matrix

Accommodation and mixed use residential	**Application Requirements**	**Example Tools**
Small scale	SDA	STEPS NatHERS (e.g. First Rate) STORM
Large scale	SMP	STEPS NatHERS (e.g. First Rate) Green Star MUSIC STORM
Non Residential		
Small Scale	SDA	SDS MUSIC STORM
Large Scale	SMP GTP	Green Star SDS MUSIC STORM

(iii) Discussion

The assessment tools are a key mechanism used in the SDAPP to 'define' best practice and demonstrate achievement of sustainability objectives.

The Application requirements state that an application must be accompanied by a SDA or SMP, as appropriate which, in the case of an SDA:

- Provides an assessment of the development using the appropriate tools; and
- Identifies sustainability measures proposed in response to the policy objectives.

For a SMP, the requirements are that:

- The assessment using relevant tools is detailed;
- Appropriate environmental targets or performance standards to address the policy objectives are identified; and
- It is demonstrated that:
  - The building has the design potential achieve the relevant environmental targets or performance standards, and
  - The means to achieve the targets or performance standards is documented

In the proposed Decision Guidelines, the Responsible Authority will consider, as appropriate:

- …
- …
- …
- …
- *Whether appropriate tools or alternative assessment measures have been used*
- *In circumstances requiring a SDA, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools*
- *In circumstances requiring a SMP:*
  - *Whether appropriate environmental targets have been set; and*

- *Whether the development has been designed to be able to meet the environmental targets*

The applicability of the respective tools to the ESD elements is set out below.

Table 6 Rating tools and environment impact areas

	Energy	Water	Indoor Air Quality	Materials	Waste	Stormwater	Transport	Ecology	Innovation
NatHERS	X								
First Rate	X								
Green Star	X	X	X	X	X	X	X	X	X
SDS	X	X	X	X	X	X	X	X	
STEPS	X	X		X	X	X	X		
STORM						X			
MUSIC						X			

Table 1 in the Application Requirements of the local policies refers to a range of assessment tools. The assessment tools ultimately drive the sustainability initiatives that will be included within a development. The Committee notes that the tools are listed as 'example tools' and there may be others that are equally suited to the task developed over time.

(iv) Conclusions

In relation to the assessment tools, the Committee concludes:

- Sustainability tools are a useful mechanism to demonstrate the achievement of sustainability objectives;
- The example tools listed in the proposed policies are generally appropriate and adequate to assist in the assessment of ESD objectives;
- Other tools may also be appropriate for such assessments and applicants should have the opportunity to use such tools in preparing and SDA or SMP (as proposed);
- The proposed expanded Clause 22.13-4 acknowledges that in some cases only certain parts of the tool may be relevant to the application, and that references to the 'tools' should be interpreted to mean the tools and any relevant part of the tools is supported; and
- It would be sensible if the example tools in the proposed policies were consistent across all the Councils.

13.5 Wording of the fact sheets and reliance on reference documents

(i) Issues

The SDAPP is supported by a set of 10 Fact Sheets that provide information in relation to sustainable design. They are presently used by Councils in assessing proposals and there was some discussion as to whether they should be a Reference document in the local policies proposed by these Amendments.

As drafted, they refer to two levels of compliance when it comes to sustainability principles. These are the 'mandatory requirements' set out under the BCA and 'best practice', which the local Policies aim to achieve. The SDAPP Fact Sheets refer to the mandatory BCA requirements and go on to recommend that these minimum standards be 'substantially exceeded'.

(ii) Submissions and Evidence

In his submission for Australand Mr Woodland stated as follows:[64]

> *The proposed policy requires applicants for planning permits to prepare assessments and reports using one of a number of tools such as STEPS, Sustainable Design Scorecard (SDS), NatHERS, Green Star, etc. Many of these tools require the applicant to select which design features they anticipate that their development will include ... This itself is a challenge on many projects as the design of the project is not sufficiently advanced for the applicant to confidently commit to such design features ... The various fact sheets which have been produced to support the sustainability assessment tools refer to the need to impose conditions on planning permits to require all items in endorsed sustainable design assessments to be incorporated to the satisfaction of the responsible authority ... Putting in place a policy which requires Council planners to be responsive to such design changes after approvals are granted will impose a significant burden on their resources and expertise...*

In his submission for Ark Resources Mr Talacko stated:

> *…there would be no disadvantage in including performance measures in the Policy rather than in an incorporated or reference document (such as the SDAPP fact sheets) ... It would be preferable for applicants in adjoining municipalities to use consistent policy formats.*

(iii) Discussion

The SDAPP Fact Sheets recommend that standards higher than those in the BCA be adopted which could be seen as a form of 'mandating' a particular outcome. If the Fact Sheets are adopted as Reference documents, however, they only provide background information to assist the Responsible Authority in making decisions guided by the Local Policy. The Committee considers this approach is appropriate and that the Fact Sheets should be made Reference documents for precisely this reason; to inform decision making. Two other issues arise which require comment; the actual documents to be referenced and whether they should be the same across all municipalities.

On the first matter, it was suggested in the Hearing that a general reference to the 'SDAPP Fact Sheets' is appropriate. The Committee does not agree as this would enable the addition of more Fact Sheets as Reference documents without any opportunity for third party input. The Committee does not consider this is fair or in the interests of sound planning. Thus the Committee recommends that the SDAPP Fact Sheets approved at the time of exhibition of the Amendments should be separately listed in the policies as Reference documents.

The other matter is whether the SDAPP Fact Sheets should be consistent across all Councils. The Committee considers this approach would have advantages in terms of sharing the costs of development and production, and enabling the planning and building industry to become familiar with the one set of guidance notes.

[64] Document 38, p12.

The Committee also notes there are other SDAPP Fact Sheets that could be developed over time. Two that come to the Committee's mind are 'subdivision' and 'siting of buildings', and a Fact Sheet to discuss the range of sustainability tools. The former the Committee considers would provide an opportunity to take account of sustainability principles at the very beginning of the design process.

(iv) Conclusions and recommendations

The Committee supports the adoption of the SDAPP Fact Sheets as Reference documents in the proposed policies.

The Fact Sheets refer to elements that are relevant to the planning and building approval processes in encouraging applicants to consider alternative solutions to achieve sustainable outcomes.

The Committee recommends:

3. **The Sustainable Design Assessment in the Planning Process Fact Sheets in existence at the time of Amendment exhibition be adopted in the local policies as Reference documents.**
4. **The development of a single consistent set of Fact Sheets be considered by the Proponent Councils and the Municipal Association of Victoria.**

13.6 Implications Large non-residential development

(i) Issues

The issue raised in submissions was whether larger shopping centres should be subject to the policy triggers for all centre expansions on a 'piecemeal' basis, or whether sustainability is better addressed through centre wide master planning.

(ii) Submissions and Evidence

Ms Porter presented a submission on behalf of Colonial First State Global Asset Management Pty Ltd (Colonial), and while supporting the Amendments in principle, raised a number of concerns.

Ms Porter advised that Colonial owns and manages Forest Hill Chase in the City of Whitehorse and Chadstone Shopping Centre in the City of Stonnington. In May 2010, Colonial adopted a Direct Property Sustainability Policy.[65] The Policy sets out a number of objectives to utilise best practice benchmarks and frameworks in the setting of performance targets, including Green Star and NABERS. Colonial is also a sponsor of the Green Star Retail Centre v1 tool.

Colonial's submission focused on the Chadstone Shopping Centre. Ms Porter submitted that in January 2013, Stonnington City Council approved an ESD Framework under the provisions of the Chadstone Shopping Centre Incorporated Plan Overlay Schedule 2 (IPO2) (May 2012) that applies to the site[66]. This requires that if a permit is issued that will result in an increase

[65] Colonial submission p2.
[66] Through Amendment C154.

of floor space by more than 5,000m^2, recommendations contained within the sustainability framework must be adhered to.

The IPO2 relating to Chadstone requires the following:

- Applications for permits for development of more than 5,000m^2 are to include a condition requiring a project-specific SMP;
- Applications for permits for less than 5,000m^2 trigger a SDA during the concept design phase. This will determine the appropriate sustainability rating and targets that will be applicable using the sustainability framework as a basis for that process.

Colonial submitted that large shopping centres have characteristics that make them different to other commercial or retail development. These include the fact that:

- They involve multiple small and large tenancies within them under a single ownership;
- Developments such as Forest Hill and Chadstone were originally built at a time when environmental sustainability was not considered by either the building or planning regimes and over the years they have been incrementally redeveloped/extended; and
- They are energy-intensive as they have large indoor floor space, which is often dispersed over multiple floors accessed by elevators and escalators. There are also a number of large void spaces.

In her submission for Colonial, Ms Porter stated the Amendments should ensure that the proposed local policies take into account the incremental nature of shopping centre alterations and extensions, and should also take into account any sustainability framework.

Ms Porter stated that as the proposed policies currently stand, whether or not an approved sustainability master plan is in existence, any future expansion of a shopping centre of greater than either 100m^2 or 1,000m^2 respectively, will require an SMP. The SMP will need to be submitted to the Responsible Authority, with the outcome dependent on the discretion exercised by the Council officer.[67]

In relation to Chadstone, Ms Porter requested that Stonnington adopt the same position it has adopted in relation to two previous Amendments (July 2012 and January 2013).

Ms Porter considered that shopping centres (and other large scale non-residential developments) should be exempt from the application requirements of Table 1 where a sustainability master plan is in place. If there is no such plan in place, the application requirements of Table 1 would apply.[68]

Alternatively, if this suggestion is not agreed to by the Committee, Ms Porter suggested a number of changes to the local policies, as set out in the alternative version. Colonial suggested that the only substantial item of controversy in the alternative version related to the Table 1 triggers. The triggers require an SDA for extensions of between 1,500 and 3,000m^2, and an SMP for extensions over 3,000m^2.[69]

Ms Porter's submission for Colonial stated:

[67] Colonial submission p7.
[68] See Hearing Document 14.
[69] See Hearing Document 15.

> *For the sake of certainty, practicality and fairness, the policy should at the very least make specific reference to already-approved ESD frameworks or plans and how they are to be treated. Colonial's preference is that existing sites in respect of which an approved document is in place should be regulated by the terms of that document, and not subject to the application requirements set out in Table 1.*[70]

Ms Porter did not consider it would be reasonable, under the terms of the IPO and the approved sustainability framework, for Stonnington to require an SMP for an application to extend by less than 5,000m^2.

In response, Ms Forsyth for the Councils stated there would be no opposition to the following sentences being added to note 2 to the table, to provide for flexibility:

> *Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions. However the ESD initiatives proposed to meet the objectives of this policy are not confined to the alterations and additions areas. SDAs and SMPs for alterations and additions may propose ESD initiatives to the existing part of the building or site, as relevant, as long as the objectives of this policy are met to the satisfaction of the Responsible Authority.*[71]

The Councils would also be satisfied if the following words were added to clause 22.13-4:

> *Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. In some cases only certain parts of the tools may be relevant to the application. References in this policy to the 'tools' should be interpreted to mean the tools or any relevant part of the tools.*[72]

The Council's submission was that they would be comfortable with the *... inclusion of the words 'relevant criteria' in the definition of SDA and SMP as proposed by Colonial First National. The words 'selected' are unnecessary and have the potential to create confusion.*[73]

In relation to Colonial's preferred policy, the Councils' view was that they did not support the words Colonial proposed in clause 22.22-3 on the basis that:

> *... what is proposed is messy, does not have a statutory basis, and is unfair... Any number of permit applicants may pull out documents from the bottom drawer and argue that they meet the criteria such as to qualify the project for exemption.*[74]

[70] Colonial submission, p9.
[71] Councils' closing submission, p4.
[72] Councils' closing submission, p4.
[73] Councils' closing submission, p5.
[74] Councils' closing submission, p5.

This is because:

- Approval should require a statutory process;
- Council resources would be spent assessing the proposed 'plan', and if decisions were appealed, there is no specific provision in the VCAT Act to deal with the merits of non-statutory approval processes;
- If Colonial decides to suggest an alternative to the application requirements, by providing Council with a reason to not require the policy (for instance, they introduce an acceptable framework plan instead), there is the option for them to do so ... *note the words 'as appropriate' under the application requirements;*[75]
- It is likely that in the future Chadstone will undertake a structure planning process, and the IPO2 would therefore be changed.

In relation to Colonial's alternative wording, Ms Forsyth submitted it does not provide content as to what the sustainability framework must specify. It also does not provide a mechanism to ensure permit applications are in accordance with the plan.

Ms Forsyth stated the Councils agreed to the words 'relevant criteria from the example tools' but do not approve of the word 'selected'. Furthermore the Councils:

- *... accept the statement that Green Star accreditation is not required...;*
- *... entirely reject the different thresholds for non-residential development in single ownership in excess of 20,000 sqm of GFA;*
- note that *By Mr White's own evidence, the selection of the thresholds proposed by him and Colonial were arbitrary. In contrast, the selection of 1000sqm by the Councils reflects a typical 'large' scale development in the relevant municipalities; and*
- consider *... There is no reason why a 100sqm extension to Chadstone should not be subject to the same requirements as a 1000sqm extension to other shopping centres.*
- consider*... the words proposed by Colonial have far reaching implications, and have the potential to pick up large business parks, education facilities and the like ...*
- consider*... the words of the policy could be relied upon to exempt new development on sites which contain floorspace over 20,000 sqm, not just extensions and alterations. For example, if only part of the site is taken up with the main building, and new buildings are proposed, such a proposal could be characterised as a new development, not as an alteration and addition to an existing building;*
- *do support the minor changes to the last 2 decision guidelines, but do not support the other changes:*
    - *Re the first change: The councils' first decision guideline already refers back to the objectives of the policy. The councils third decision guideline focuses on the effectiveness of the ESD measures to actually result in environmental improvements, which is an appropriate decision guideline*

[75] Councils' closing submission, p6.

having regard to the policy basis, which includes 'more environmentally sustainable urban form'.

- *The councils submit that Note 2 (revised) covers the field, and that the decision guideline proposed do not use the same words at Note 2 and hence provide internal inconsistencies in the policy.*[76]

In relation to Colonial's submission and Mr Rogers' evidence, that there is a distinction in the IPO2 between the requirement which triggers the ESD Framework and the provision which enables the Council to require the submission of an SMP 'as appropriate', Ms Forsyth submitted:

> *That distinction makes perfect sense. The trigger for a framework being prepared for the whole centre should be based upon a very substantial extension. To provide otherwise would fail the test of nexus.*[77]

(iii) Discussion

The discussion in the Hearing focused mainly on Chadstone Shopping Centre and to some extent on Forest Hill Chase, Colonial's main assets potentially affected by the Amendment.

The Committee has considered the submissions from Colonial and the Councils in reply and makes the following observations.

In principle, if a shopping centre (or other large non-residential development) has in place an approved site specific sustainability plan or framework, then the Committee considers it reasonable that expansion or redevelopment within the framework need not be subject to the particular requirements of the local policy.

That is, if the objectives of the policy are being met by other, site specific means, it would seem unreasonable to attempt to 'double dip' and apply further specific conditions on individual permits.

Chadstone Shopping Centre seems to be a case in point. Having gone through a lengthy Amendment process to establish a sustainability framework, Colonial may now need to undertake an additional layer of assessments if the new policy is applied in Stonnington. The Committee does not consider this fair or necessary.

Ms Forsyth expressed concern that the wording in Colonial's key suggested changes in Clause 22.22-3 does not provide the certainty of approval via a statutory process for resolution of any conflict regarding the sustainability plan or framework.

The Committee does not accept this on the basis that there are statutory pathways for such approval in the planning process; Stonnington C154 is a prime example. There are other statutory processes such as the use of a Section 173 agreement if a particular planning control is not being considered.

If a non-statutory pathway, such as endorsement or adoption by the responsible authority is pursued, this may give rise to difficulties in enforcement or implementation, but that is a matter for the applicant and particular Council to pursue.

[76] Councils closing submission p8.
[77] Councils submission p8.

Having reviewed the proposed text from Colonial, the Committee notes:

- There is a minimum floor space set of 20,000m^2 to ensure the exemption only applies to large centres where sustainability gains can be made at a broad scale;
- The sustainability framework must have been approved by the Responsible Authority and not be a 'bottom drawer' document;
- The clause sets out targets and performance standards that will achieve the objectives of the Local Policy; and
- It requires that future applications have a clear pathway for sustainability assessment.

The Committee considers the Colonial alterations to Clause 22.22-3 should be endorsed and applied to the policy.

Whilst the issue has been raised in the context of Stonnington and Whitehorse, for consistency the Committee considers it should be applied to all six proposed policies.

(iv) Conclusions

The Committee concludes the suggested text in Clause 22.22-3 recommended by Colonial, with the aim of removing the application requirements under the proposed local policy where a sustainability framework already exists, be included in the Amendments.

The proposed text is included in Appendix D to this report and a recommendation on the Amendment made in Chapter 14.

14 Recommendations on Amendments

For the reasons outlined in this Section of the report, the Committee makes the following recommendations in relation to the Amendments.

Banyule Planning Scheme

5. **Adopt Banyule Planning Scheme Amendment C73 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Moreland Planning Scheme

6. **Adopt Moreland Planning Scheme Amendment C71 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Port Phillip Planning Scheme

7. **Adopt Port Phillip Planning Scheme Amendment C97 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Stonnington Planning Scheme

8. **Adopt Stonnington Planning Scheme Amendment C177 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Whitehorse Planning Scheme

9. **Adopt Whitehorse Planning Scheme Amendment C130 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Yarra Planning Scheme

10. **Adopt Yarra Planning Scheme Amendment C133 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

PART C – Summary of findings and recommendations

15 Summary of findings and recommendation

15.1 Findings

The Committee makes the following findings in this report:

a) **A particular definition of 'sustainable development' or similar is not required in the policies as the term and its derivatives is generally understood.**
b) **If changes are made to Statewide provisions, a consistent terminology around sustainable development may need to be considered.**
c) **The range of tools available are appropriate to assist in assessing the environmental impact of residential and commercial development.**
d) **It is appropriate to have a consistent term to define 'best practice'.**
e) **All built form can incorporate elements of sustainability but there are divergent opinions as to when and how this is to be achieved and to what extent.**
f) **There are many factors that go into designing a development that is considered to be 'sustainable'. The ten elements or design criteria included in the Sustainable Design Assessment in the Planning Process appear to provide a sound basis for assessment, but it should be recognised that developments may not need to embrace all elements to achieve an acceptable level of sustainability.**
g) **There is a strong legislative and policy framework that supports the need for sustainable development and which recognises that both planning and building have a significant role to play in achieving it.**
h) **Achieving sustainability in planning and development should be undertaken using the most efficient mechanisms to minimise cost to consumers and industry.**
i) **There is a role and a statutory obligation for planning to advance sustainability.**
j) **Whilst the existing State Planning Policy Framework and Victoria Planning Provisions provide a good starting point for the inclusion of sustainability, there are clear areas for improvement.**
k) **The role of planning in achieving sustainability is limited by the fact that it can only influence development that requires a planning permit.**
l) **A Statewide approach to sustainability in planning would be the most effective way to achieve the greatest sustainability outcomes; however, there is still a potential role for local policies to play in achieving greater local sustainability outcomes.**
m) **Any local approach should include a sunset clause that would enable the review of these policies upon the introduction of any Statewide approach.**

n) **The fact that the building regulatory system is generally not involved at the initial design stage of a development, when the orientation and internal layout of buildings is determined, can result in a less desirable design outcome, even though the minimum thermal energy rating is met.**
o) **The involvement of planning at the initial site planning stage enables the orientation, internal layouts and site development to be dealt with in a manner that may assist at the building approval stage in achieving the best design outcome in achieving the minimum or even a higher thermal energy rating of the building.**
p) **There is a clear need for an integrated planning and building approach to achieve sustainable outcomes.**
q) **It is important to clearly define the roles of planning and building.**
r) **Planning is best suited to dealing with the 'big picture' upfront issues, whereas building is best suited to managing the detailed aspects.**
s) **There are clear positive economic, social and environmental benefits to be gained through improved sustainable development outcomes in planning.**
t) **The proposed Local Policies are unlikely to impose an unreasonable impost on the resources and administrative costs of participating Councils.**
u) **The proposed Local Policies are unlikely to impose an unreasonable regulatory cost burden on applicants.**
v) **The consideration of 'affordability' should extend beyond construction and consider ongoing servicing costs.**
w) **The approach to sustainability in planning schemes be further reviewed to provide a more coherent, strengthened approach to implementation. This should be based on a Statewide approach and include stronger, higher guidance in the State Planning Policy Framework and Clause 65, as a minimum, with consideration of a range options.**
x) **The use of Local Policies until such time as a Statewide approach is developed should be supported, with the inclusion of a sunset clause.**
y) **There is value in reviewing the Building Regulations to determine whether they can achieve more in terms of sustainability. Such a review would be best undertaken following the development of the recommended Statewide approach.**
z) **Other initiatives are an important component of achieving sustainable development outcomes, however they need to be part of package of measures supported by a strong and clear planning and building regulatory framework.**

15.2 Recommendations

The Committee makes the following Recommendations:

1. **The policy title be reinstated to 'Environmentally Sustainable Development' as proposed pre-exhibition and shown in Appendix D.**

2. **The following definition of 'best practice' as provided by the proponent Councils should be included in the local policies:**

   A combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

3. **The Sustainable Design Assessment in the Planning Process Fact Sheets in existence at the time of Amendment exhibition be adopted in the local policies as reference documents.**

4. **The development of a single consistent set of Fact Sheets be considered by the Proponent Councils and the Municipal Association of Victoria.**

5. **Adopt Banyule Planning Scheme Amendment C73 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

6. **Adopt Moreland Planning Scheme Amendment C71 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

7. **Adopt Port Phillip Planning Scheme Amendment C97 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

8. **Adopt Stonnington Planning Scheme Amendment C177 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

9. **Adopt Whitehorse Planning Scheme Amendment C130 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

10. **Adopt Yarra Planning Scheme Amendment C133 generally as exhibited with the Local Policy wording as shown in Appendix D to this report.**

Appendix A List of Submitters

Amendment C71 to the Moreland Planning Scheme

No.	Submitter
1	Chris Phillane
2	City of Stonnington
3	Baw Baw Shire Council
4	Knox City Council
5	City of Moonee Valley
6	Campaspe Shire Council
7	Hobsons Bay City Council
8	Mornington Peninsula Shire Council
9	City of Whittlesea
10	Yarra Ranges Shire Council
11	Greater Dandenong City Council
12	Australand Holdings
13	Boroondara City Council
14	Ark Resources
15	CASBE
16	Housing Industry Association
17	GIW Environmental Solutions
18	Sustainable Development Consultants (SDAPP)
19	Urbis Pty Ltd
20	Green Building Council Australia
21	Building Designers Association Victoria
22	Manningham City Council
23	VPELA
24	Melbourne Water
25	Colonial First State on behalf of Forest Hill Chase shopping centre

Amendment C133 to the Yarra Planning Scheme

No.	Submitter
1	Chris Spillane
2	City of Stonnington
3	Baw Baw Shire Council
4	City of Knox
5	Shire of Campaspe
6	Pina Fiocca
7	Mornington Peninsula Shire Council
8	City of Moonee Valley
9	Yarra Ranges Shire Council
10	City of Whittlesea
11	City of Greater Dandenong
12	Moreland Energy Foundation
13	Ark Resources
14	Sustainable Development Consultants
15	CASBE
16	City of Boroondara
17	Yarra Climate Action Now
18	City of Manningham
19	Australand
20	Colonial First State
21	Urbis
22	Housing Industry Association
23	Melbourne Water
24	GIW Environmental Solutions
25	Lend Lease
26	Green Building Council Australia
27	SALTA
28	VPELA
29	Building Designers Association of Victoria

Amendment C73 to the Banyule Planning Scheme

No.	Submitter
1	Chris Spillane
2	City of Stonnington
3	Baw Baw Shire Council
4	Knox City Council
5	City of Moonee Valley
6	Shire of Campaspe
7	Hobsons Bay City Council
8	Mornington Peninsula Shire Council
9	City of Whittlesea
10	Yarra Ranges Shire Council
11	City of Greater Dandenong
12	Ark Resources
13	Sustainable Development Consultants
14	Housing Industry Association
15	CASBE
16	Colonial First State
17	GIW Environmental Solutions
18	Urbis
19	Australand
20	City of Boroondara
21	City of Manningham
22	Melbourne Water
23	Green Building Council of Australia
24	Building Designers Association of Victoria
25	VPELA
26	DPH Investments Pty Ltd
27	Tim D'Agostino
28	Moreland Energy Foundation

Amendment C130 to the Whitehorse Planning Scheme

No.	Submitter
1	Chris Spillane
2	City of Stonnington
3	Baw Baw Shire Council
4	Knox City Council
5	Moonee Valley City Council
6	Shire of Campaspe
7	Dr Paul Fox
8	Hobsons Bay City Council
9	Mornington Peninsula Shire Council
10	City of Whittlesea
11	Yarra Ranges Shire Council
12	City of Greater Dandenong
13	Ark Resources
14	Sustainable Development Consultants
15	HIA
16	Blackburn and District Tree Preservation Society Inc.
17	CASBE
18	Colonial First State
19	GIW Environmental Solutions
20	Blackburn Village Residents Group Inc.
21	Urbis
22	Australand
23	Boroondara City Council
24	Manningham City Council
25	Melbourne Water
26	Green Building Council Australia
27	BDAV
28	VPELA

Amendment C177 to the Stonnington Planning Scheme

No.	Submitter
1	Ark Resources
2	Sustainable Development Consultants Pty Ltd
3	Boroondara City Council
4	Green Building Council Australia
5	Colonial First State Global Asset Management on behalf of Chadstone Shopping Centre
6	GIW Environmental Solutions Pty Ltd
7	Lend Lease Apartments Pty Ltd
8	City of Whittlesea
9	Building Designers Association of Victoria
10	Martin Ryan
11	Master Builders Association of Victoria
12	Melbourne Water

Amendment C97 to the Port Phillip Planning Scheme

No.	Submitter
1	Manningham City Council
2	Colonial First State
3	Municipal Association of Victoria
4	GIW Environmental Solutions
5	Urbis
6	Australand Property Group
7	Housing Industry Association
8	Ark Resources
9	Sustainable Development Consultants Pty Ltd
10	Yarra Ranges Shire Council
11	Mornington Peninsula Shire Council
12	Greater Dandenong City Council
13	Mornington Peninsula Shire Council
14	Baw Baw Shire Council
15	Hobsons Bay City Council
16	Shire of Campaspe
17	City of Moonee Valley
18	City of Stonnington
19	Knox City Council
20	Chris Spillane
21	Melbourne Water
22	Boroondara City Council
23	Green Building Council Australia
24	Building Designers Association of Victoria
25	VPELA

Submissions received by the Committee following direct invitation.

No.	Submitter
1	Office of Living Victoria
2	South Gippsland Shire Council
3	Places Victoria
4	eTool
5	City of Monash
6	Wyndham City Council
7	Maribyrnong City Council
8	Golden Plains Shire Council
9	Sustainability Victoria
10	City of Kingston
11	Victorian Local Governance Association
12	City of Darebin
13	Mount Alexander Shire Council
14	EPA Victoria
15	Colac Otway Shire Council
16	Property Council of Australia
17	City of Melbourne
18	Cardinia Shire Council
19	Greater Shepparton City Council
20	Office of the Victorian Government Architect
21	Australian Building Codes Board
22	Frankston City Council

Appendix B Organisations invited to make a submission by Advisory Committee

Agencies and Organisations
Victorian Government Architect
Places Victoria
Growth Areas Authority
Sustainability Victoria
Victorian Building Authority
Office of Living Victoria
Planning Institute of Australia (Vic)
Property Council of Australia (Vic)
Urban Development Institute of Australia
Environment Protection Authority
Municipal Association of Victoria
Victoria Local Governance Association
Real Estate Institute of Victoria
Environment Victoria
Australian Institute of Building Surveyors (Vic)
Australian Institute of Architects (Vic)
Councils
The Committee wrote to all Councils in Victoria inviting submissions except for those already part of the process as Amendment proponents or submitters.

Appendix C Terms of Reference

TERMS OF REFERENCE

Environmentally Efficient Design Local Policy Advisory Committee

Advisory Committee appointed pursuant to Part 7, Section 151 of the *Planning and Environment Act 1987*.

Name

1. The Advisory Committee is to be known as the Environmentally Efficient Design (EED) Local Policy Advisory Committee.
2. The Advisory Committee is to have members with the following skills:
   - detailed knowledge and understanding of the planning and building systems
   - environmental sustainability; and
   - engineering (Environmental/Civil).

Purpose

3. The purpose of the Advisory Committee is to provide advice to the Minister for Planning on the applicability and suitability of including environmental sustainability requirements in planning schemes generally as proposed in the following local policies:
   - Banyule Planning Scheme (Amendment C73)
   - Moreland Planning Scheme (Amendment C71)
   - Port Phillip Planning Scheme (Amendment C97)
   - Stonnington Planning Scheme (Amendment C177)
   - Whitehorse Planning Scheme (Amendment C130); and
   - Yarra Planning Scheme (Amendment C133).

Background

4. The six Councils have requested the Minister for Planning appoint a Panel pursuant to Sections 153 and 155 of the *Planning and Environment Act 1987* (the Act), to review matters relating to the six planning scheme amendments listed above.
5. DPCD considers that it appropriate that the Minister appoint an Advisory Committee under Section 151 of the Act to complement the Panel hearing.

6. The Amendments seek to introduce a local policy into the respective planning schemes that will require applicants to consider EED at the planning stage of development and submit information on how EED principles have been achieved.

7. It is considered appropriate that the Panel(s) and Advisory Committee operate concurrently with the dual role of hearing submissions in response to the amendments and reviewing the appropriateness of the policies more broadly for inclusion within planning schemes. The Advisory Committee and Panel will provide interested parties, who have made submissions on the amendments, the opportunity to have their views heard in the one forum.

8. The Advisory Committee will provide its advice to the Minister for Planning and the six Councils. It is likely the Advisory Committee report will also be a Panel report under Section 25 of the Act provided to the six Councils.

Method

9. The Advisory Committee must:
   - Review and assess all submissions made in regard to the draft policies.
   - Review and assess all relevant building and planning issues relating to the draft policies.
   - Review and assess the issues relating to EED beyond planning, as appropriate including the respective roles of the building and planning systems in relation to the regulation of EED matters.
   - Review and assess the effect of the policies, having regard to:
     a) The appropriateness of the recommended assessment tools including their efficiency when compared with nationally recognised rating tools such as FirstRate.
     b) The effect on any existing intergovernmental agreements relating to the role and function of planning and building systems.
     c) The ambit of the policies and interaction with building system requirements and other relevant legislation.
     d) Whether the policies are more appropriately applied through consistent Statewide requirements.
     e) Appropriate thresholds for applying the application requirements.
     f) Effect of policies when used in conjunction with a range of non-statutory measures aimed at encouraging environmentally efficient development. For exam[le, educating residents and applicants, assisting applicants to use EED tools, leading by example with Council projects, promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.
     g) Whether quantitative or qualitative assessment is more appropriate in a local policy.
     h) Whether mandatory or discretionary controls are appropriate and in what form.
     i) The ability of Councils to assess applications and support applicants.
   - Assess the costs and benefits of the policies with regard to the effect of:

a) implementing the new provisions on the resource and administrative costs of the Council.
b) policy requirements on applicants at application stage/building stage.
c) the policy on life cycle of building costs (including operational costs).
d) the policy on removing cost of retrofitting buildings in the future, with regard to future proofing.

- Define what 'Best Practice' means in relation to the objectives of the policy and whether that term is appropriate.
- If the policy approach is considered acceptable, advise on whether it should be a local planning policy provision or State planning policy provision (in the SPPF or a particular provision).

10. The Advisory Committee may inform itself further in any way it sees fit, but must have regard to:
    - Relevant documentation submitted with the amendments
    - The objectives of the *Planning and Environment Act 1987*, and any relevant provisions of the planning schemes of the six Councils, including those proposed under these amendments.
11. The Advisory Committee is not expected to carry out any additional public notification or referral, but may do so if it considers it to be appropriate.
12. The Advisory Committee is expected to carry out a public hearing in conjunction with the Amendments Panel hearing.
13. The Advisory Committee shall provide the following parties with an opportunity to make a submission and be heard:
    - All six Councils
    - Any person who has made a submission regarding the draft Policies.
14. The Advisory Committee must consider all relevant submissions.
15. In the case of pro-forma submissions or petitions, the Advisory Committee will only be required to notify the organiser of the submission or the head signatory of the petition.
16. Any briefings or discussion sessions must be conducted in an open, orderly and timely manner, with the minimum of formality and without the need for legal representation.

Submissions are public documents

17. The Advisory Committee must retain written submissions and other documents provided to it until a decision has been made on its report or five years has passed from the time of its appointment.
18. Written submissions and other documents provided to the Advisory Committee must be available for public inspection until the submission of its report, unless the Advisory Committee specifically directs that the material is to remain confidential.

Outcomes

19. The Advisory Committee must produce a written report for the Minister for Planning and the six Councils providing:
    - An assessment of all relevant planning issues outlined in points 9 and 10.
    - An assessment of submissions to the Advisory Committee.
    - Any recommendations in relation to the draft Policies.
    - Any other relevant matters raised in the course of the Advisory Committee hearing.
    - A list of persons who made submissions considered by the Advisory Committee.
    - A list of persons consulted or heard.
20. The Advisory Committee report should also be a Panel report under Section 25 of the Act considering submissions on the six planning scheme amendments.
21. On the same day the Advisory Committee's report is released to the Minister for Planning, a copy of the report will also be released to each of the six Councils.

Timing

22. The hearing is to be conducted as soon as practicable once all parties have been advised and a directions hearing held.
23. The Advisory Committee is required to submit its report in writing as soon as practicable but no later than eight (8) weeks from the completion of the final hearing date.

Fee

24. The fee for the Advisory Committee will be set at the current rate for a Panel appointed under Part 8 of the *Planning and Environment Act 1987*.
25. The costs of the Advisory Committee will be met in equal shares by the six Councils and the Department of Planning and Community Development.

Project Manager

26. Day to day liaison for this matter will be through:
    - Dan Biggs, Senior Planning Officer, DPCD, on telephone number 9098 8932 or by email at dan.biggs@dpcd.vic.gov.au

MATTHEW GUY MLC
Minister for Planning
Date: 13.6.13

Appendix D Recommended local policy text

22.07 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2013
C73

This policy applies throughout the City of Banyule to residential and non- residential developments that require a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.07-1 Policy Basis

This policy builds on and implements the sustainability objectives and strategies expressed in Clause 21.06 of the MSS relating to sustainable design.

Banyule is committed to creating an environmentally sustainable city. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design
- Reduction of costs over the life of the building
- Improved housing affordability
- Improved amenity and liveability
- More environmentally sustainable urban form
- Integrated water management

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.07-2 Objectives

The overarching objective of this policy is that development should achieve best practice in environmentally sustainable development, including from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.
The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.

- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.07-3 Policy

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.07-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.07-4 Application Requirements

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents to guide applicants, such as the *Sustainable Design Assessment in the Planning Process Fact Sheets.*

Table 1 – ESD Information Required

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOLS
Accommodation and Mixed Use with residential component of:		
▪ 1 – 9 dwellings; or ▪ Development of a building for accommodation other than dwellings with a gross floor area between 50m² and 1000m²; or ▪ Alterations and additions to a building creating 50m² or more of additional gross floor area (excluding outbuildings)	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ 10 or more dwellings; or ▪ Development of a building for accommodation other than dwellings with a gross floor area of more than 1000m²	Sustainability Management Plan (SMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star MUSIC STORM
Non - Residential		
▪ Development of a non-residential building with a gross floor area between and including 100m² and 1000m²; or ▪ Alterations and additions of between 100m² and 1,000m².	Sustainable Design Assessment (SDA)	SDS MUSIC STORM
▪ Development of a non-residential building with a gross floor area of more than 1000m²; ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	Green Star SDS MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for single dwelling additions that are less than 50% of the gross floor area of the existing dwelling do not require an assessment using a relevant tool despite sub-clauses 22.07-3 and 22.07-4.

Note 4: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.07-5 Decision Guidelines

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Site constraints and opportunities.
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact.
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development.
- Whether appropriate tools or alternative assessment methods have been used.
- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools.
- In circumstances requiring a Sustainability Management Plan:
    - whether appropriate environmental targets have been set; and
    - whether the development has been designed to be able to meet the environmental targets.

22.07-6 Reference Documents

Banyule Planet: Environmental Sustainability, Policy and Strategy 2013-2017, Banyule City Council, *www.banyule.vic.gov.au*

Green Star, Green Building Council of Australia www.gbca.com.au

Guide for Best Practise for Waste Management in Multi-Unit Developments, Sustainability Victoria, 2010

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency, www.nathers.gov.au

STEPS (Sustainable Tools for Environmental Performance Strategy), Moreland City Council, www.sustainablesteps.com.au

STORM, Melbourne Water, www.storm.melbournewater.com.au

Sustainable Design Assessment in the Planning Process Fact Sheets, Banyule City Council, *www.banyule.vic.gov.au* **PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.**

Sustainable Design Scorecard (SDS) Non-Residential environmental assessment tool, Moreland City Council and City of Port Phillip, www.portphillip.vic.gov.au/sds, 1999.

Urban Stormwater Best Practice Guidelines, CSIRO, www.publish.csiro.au, 1999.

Your Home Technical Manual, Department of the Environment, Water, Heritage and the Arts, www.yourhome.gov.au, 2001

The above reference documents and websites include reference to those documents and website as amended from time to time.

22.07-7 Expiry

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.

22.14 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2012
C71

This policy applies throughout the City of Moreland to residential and non-residential development that requires a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.14-1 Policy Basis

Moreland City Council is committed to creating an environmentally sustainable and liveable city; where development meets the needs of the present without compromising the ability of future generations to meet their own needs. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design;
- Reduction of costs over the life of the building;
- Improved housing affordability and running costs;
- Improved amenity and liveability;
- More environmentally sustainable urban form and
- Integrated Water Management.

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.14-2 Objectives

The overarching objective is that development should achieve best practice in environmentally sustainable development from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the

scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight, and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.

- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.14-3 Policy

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.14-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.14-4 Application Requirements

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents) to guide applicants such as the Moreland Sustainable Design Assessment in the Planning Process (SDAPP) Fact Sheets.

Table 1 – ESD Application Requirements

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOLS
Accommodation/Mixed Use with residential component of:		
▪ 2- 9 dwellings; or ▪ Development of a building for accommodation with a gross floor area between 50m^2 and 1000m^2.	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ Development of 10 or more dwellings. ▪ Development of a building for accommodation other than dwelling with a gross floor area of more than 1000m^2.	ESD Management Plan (ESDMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star MUSIC STORM
Non-residential		
▪ Development of a non-residential building with a gross floor area between 100m² and 1000m²; or ▪ Alterations and additions of between 100m² and 1000m².	Sustainable Design Assessment (SDA)	SDS MUSIC STORM
▪ Development of a non-residential building with a gross floor area of more than 1000m²; ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	Green Star SDS MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.14-5 Decision Guidelines

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Site constraints and opportunities.
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact.
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development.
- Whether appropriate tools or alternative assessment methods have been used.
- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools.
- In circumstances requiring a Sustainability Management Plan:
    - whether appropriate environmental targets have been set; and
    - whether the development has been designed to be able to meet the environmental targets.

22.14-6 Reference Documents

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency, www.nathers.gov.au

Green Star, Green Building Council of Australia www.gbca.com.au

Guide for Best Practise for Waste Management in Multi-Unit Developments, Sustainability Victoria, 2010

Moreland Greenlist (prepared by Moreland City Council and based on information adapted from VicUrban's 'Eco Selector' in conjunction with RMIT's Centre for *Design)*

STEPS (Sustainable Tools for Environmental Performance Strategy), Moreland City Council, www.sustainablesteps.com.au

Moreland Stormwater Quality Targets, Moreland City Council, 2012.

Moreland Sustainable Design Assessment in the Planning Process (SDAPP) 10 Key Sustainable Building Categories Fact Sheets (Cities Port Phillip, Stonnington, Yarra and Melbourne) *www.wmoreland.vic.gov.au* **PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.**

STORM, Melbourne Water, www.storm.melbournewater.com.au

Sustainable Design Scorecard (SDS) Non-Residential environmental assessment tool, Moreland City Council and City of Port Phillip, www.portphillip.vic.gov.au/sds, 1999.

Urban Stormwater Best Practice Guidelines, CSIRO, 2006.

Your Home Technical Manual, Department of the Environment, Water, Heritage and the Arts, www.yourhome.gov.au, 2001

Note: The above reference documents and websites may be amended from time to time. It is intended that these documents and websites (or amended versions) are relevant reference documents to this policy.

22.14-7 Expiry

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.

22.13 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2013
C97
Proposed

This policy applies throughout the City of Port Phillip to residential and non-residential developments that require a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.13-1 Policy Basis

--/--/2013
C97
Proposed

This policy builds on and implements the sustainability objectives and strategies expressed in Clause 21.03 of the MSS relating to sustainable design and development.

Port Phillip City Council acknowledges that the built environment has a significant impact on the wider natural environment and most current development practices are not sustainable in the long term, and is committed to promoting sustainable design and development. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design
- Reduction of costs over the life of the building
- Improved housing affordability and running costs
- Improved amenity and liveability
- More environmentally sustainable urban form
- Integrated water management.

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.13-2 Objectives

--/--/2013
C97
Proposed

The overarching objective of this policy is that development should achieve best practice in environmentally sustainable development, including from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.

- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.
- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.13-3 Policy

--/--/2013
C97
Proposed

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.13-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.13-4 Application Requirements

--/--/2013
C97
Proposed

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents to guide applicants, such as the *Sustainable Design Assessment in the Planning Process Fact Sheets.*

Table 1 – ESD Application Requirements

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOLS
Accommodation and Mixed Use with residential component of:		
▪ 1- 9 dwellings or ▪ Development of a building for accommodation other than dwellings with a gross floor area between 50m² and 1000m²; or ▪ Alterations and additions to a building creating 50m² or more of additional gross floor area (excluding outbuildings.	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ 10 or more dwellings; or ▪ Development of a building for accommodation other than dwellings with a gross floor area of more than 1000m².	Sustainability Management Plan (SMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star MUSIC STORM
Non-residential		
▪ Development of a non-residential building with a gross floor area between 50m² and 1000m²; or ▪ Alterations and additions of between 50m² and 1000m².	Sustainable Design Assessment (SDA)	SDS MUSIC STORM

▪ Development of a non-residential building with a gross floor area of more than 1000m²; ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	Green Star SDS MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for single dwelling additions that are less than 50% of the gross floor area of the existing dwelling do not require an assessment using a relevant tool despite sub-clauses 22.13-3 and 22.13-4.

Note 4: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.13-5 Decision Guidelines

--/--/2013
C97
Proposed

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Site constraints and opportunities.
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact.
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development.
- Whether appropriate tools or alternative assessment methods have been used.
- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools.
- In circumstances requiring a Sustainability Management Plan:
  - whether appropriate environmental targets have been set; and
  - whether the development has been designed to be able to meet the environmental targets.

22.13-6 Reference Documents

--/--/2013
C97
Proposed

City of Port Phillip: Sustainable Design Strategy (2013)
Port Phillip Sustainable Design in the Planning Process (SDAPP) 10 Key Sustainable Building Categories Fact Sheets (Cities of Port Phillip, Stonnington,

Yarra and Melbourne) www.portphillip.vic.gov.au **PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.**

STEPS (Sustainable Tools for Environmental Performance Strategy), Moreland City Council, www.sustainablesteps.com.au

Sustainable Design Scorecard (SDS) Non-Residential environmental assessment tool, Moreland City Council and City of Port Phillip, 1999 www.portphillip.vic.gov.au/sds

STORM, Melbourne Water, www.storm.melbournewater.com.au

City of Port Phillip Water Sensitive Urban Design Guidelines, City of Port Phillip & Melbourne Water, 2009

Urban Stormwater Best Practice Guidelines, CSIRO, 2006

Green Star, Green Building Council of Australia, www.gbca.com.au

Guide for Best Practise for Waste Management in Multi-Unit Developments, Sustainability Victoria, 2010

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency, www.nathers.gov.au

Your Home Technical Manual, Department of Environment, Water, Heritage and the Arts, 2001 www.yourhome.gov.au

Healthy by Design: A guide to planning environments for active living in Victoria, National Heart Foundation, 2012

The above reference documents and websites include reference to documents and websites which may be amended from time to time.

22.13-6 Expiry

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.

22.22 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2013
Proposed
C177

This policy applies throughout the City of Stonnington to residential and non-residential developments that require a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.22-1 Policy Basis

--/--/2013
Proposed
C177

This policy builds on and implements the sustainability objectives and strategies expressed in the MSS relating to sustainable design and development.

The City of Stonnington promotes the concept of sustainability and the adoption of sustainable energy options and environmental design practices. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design
- Reduction of costs over the life of the building Improved housing affordability and running costs
- Improved amenity and liveability
- More environmentally sustainable urban form
- Integrated water management

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.22-2 Objectives

--/--/2013
Proposed
C177

The overarching objective of this policy is that development should achieve best practice in environmentally sustainable development including from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight, and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.
- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.22-3 Policy

--/--/2013 Proposed C177

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.22-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.22-4 Application Requirements

--/--/2013
Proposed
C177

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents to guide applicants, such as the Stonnington Sustainable Design Assessment in the Planning Process (SDAPP) Fact Sheets.

Table 1 – ESD Application Requirements

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOL
Accommodation and Mixed Use with residential component of:		
▪ 1- 9 dwellings ▪ Development of a building for accommodation other than dwellings with a gross floor area between 100m² and 1000m²**.**	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ Development of 10 or more dwellings ▪ Development of a building for accommodation other than dwellings with a gross floor area of more than 1000m².	Sustainability Management Plan (SMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star STORM MUSIC
Non- residential		
▪ Development of a non-residential building with a gross floor area between 100m² and 1000m²; or ▪ Alterations and additions of between 100m² and 1000m².	Sustainable Design Assessment (SDA)	SDS MUSIC STORM
▪ Development of a non-residential building with a gross floor area of more than 1000m²; or ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	SDS Green Star MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.22-5 Decision Guidelines

--/--/2013 Proposed C177

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Site constraints and opportunities.
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact.
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development.
- Whether appropriate tools or alternative assessment methods have been used.
- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools.
- In circumstances requiring a Sustainability Management Plan:
    - whether appropriate environmental targets have been set; and
    - whether the development has been designed to be able to meet the environmental targets.

22.22-6 Reference Documents

--/--/2013 Proposed C177

Water Sensitive Urban Design Guidelines, City of Stonnington and Melbourne Water, 2009

Stormwater Management (Water Sensitive Urban Design) Local Planning Policy, Cities of Melbourne, Port Phillip, Stonnington and Yarra, 2010

Council Plan 2013 -2017, City of Stonnington, 2013

Stonnington Sustainable Design Assessment in the Planning Process (SDAPP) Sheets. **PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.**

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency www.nathers.gov.au

Green Star, Green Building Council of Australia www.gbca.com.au

STEPS (Sustainable Tools for Environmental Performance Strategy), Moreland City Council, www.sustainablesteps.com.au

STORM, Melbourne Water, www.storm.melbournewater.com.au

Sustainable Design Scorecard (SDS) assessment tool, City of Port Phillip www.portphillip.vic.gov.au/sds

The above reference documents and websites include reference to documents and websites which may be amended from time to time.

22.22-7 Expiry

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.

22.18 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2013
C130

This policy applies throughout the City of Whitehorse to residential and non-residential developments that require a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.18-1 Policy Basis

--/--/2013

Whitehorse City Council is committed to creating an environmentally sustainable city. Critical to achieving this commitment is for development to meet appropriate environmental design standards. This policy aims to integrate environmental sustainability principles into land-use planning, new developments and redevelopment of existing infrastructure. This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design
- Reduction of costs over the life of the building
- Improved housing affordability and running costs
- Improved amenity and liveability
- More environmentally sustainable urban form
- Integrated water management

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally sustainable development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.18-2 Objectives

--/--/2013
C130

The overarching objective of this policy is that development should achieve best practice in environmentally sustainable development, including from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are

demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.
- To minimise car dependency.
- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.18-3 Policy

--/--/2013
C130

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.18-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.18-4 Application Requirements

--/--/2013
C130

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents to guide applicants, such as the *Whitehorse Sustainable Design Assessment in the Planning Process Fact Sheet Suite.*

Table 1 – ESD Application Requirements

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOLS
Accommodation and Mixed Use with residential component of:		
▪ 3- 9 dwellings; or ▪ Development of a building for accommodation other than dwellings with a gross floor area between 500m² and 1000m²; or ▪ Alterations and additions creating 500m² or more of additional gross floor area (excluding outbuildings).	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ 10 or more dwellings; or ▪ Development of a building for accommodation other than dwellings with a gross floor area of more than 1000m².	Sustainability Management Plan (SMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star MUSIC

		STORM
Non-residential:		
▪ Development of a non-residential building with a gross floor area between and including 500m² and 1000m²; or ▪ Alterations and additions of between and including 500m² and 1000m².	Sustainable Design Assessment (SDA)	Green Star SDS MUSIC STORM
▪ Development of a non-residential building with a gross floor area of more than 1000m²; or ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	Green Star SDS MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.18-5 Decision Guidelines

--/--/2013
C130

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.
- Site constraints and opportunities.
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact.
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development.
- Whether appropriate tools or alternative assessment methods have been used.

- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools.
- In circumstances requiring a Sustainability Management Plan:
  - whether appropriate environmental targets have been set; and
  - whether the development has been designed to be able to meet the environmental targets.

22.18-6 Reference Documents

--/--/2013
C130

Whitehorse Sustainable Design Assessment in the Planning Process (SDAPP) 10 Key Sustainable Building Categories Fact Sheet Suite
www.whitehorse.vic.gov.au/esd.html

First Rate, tool contained within the Nationwide House Energy Rating Scheme (NatHERS) suite of software, www.nathers.gov.au

Green Star, Green Building Council of Australia, www.gbca.com.au

Moreland "STEPS" (Sustainable Tools for Environmental Performance Strategy), Moreland City Council, www.morelandsteps.com.au **PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.**

STORM, Melbourne Water, www.storm.melbournewater.com.au

Sustainable Design Scorecard (SDS) Non-Residential environmental assessment tool, Moreland City Council and City of Port Phillip, www.portphillip.vic.gov.au/sds

Urban Stormwater Best Practice Guidelines, CSIRO, 1999

Guide for Best Practice for Waste Management in Multi-Unit Developments, Sustainability Victoria, 2010

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency, www.nathers.gov.au

Your Home Technical Manual, Department of Environment, Water, Heritage and the Arts, 2001 www.yourhome.gov.au

Whitehorse Sustainability Strategy 2008-2013, April 2008

Whitehorse Integrated Transport Strategy, May 2011

The above reference documents and websites include reference to documents and websites which may be amended from time to time.

22.18-7 Expiry

--/--/2013
C130

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.

22.17 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

--/--/2012
CXXX

This policy applies throughout the City of Whitehorse to residential and non-residential developments that require a planning permit in accordance with the thresholds in Table 1 of this Policy.

22.17-1 Policy Basis

This policy builds on and implements the sustainability objectives and strategies expressed in Clause 21.07 of the MSS relating to sustainable design and development.

The City of Yarra is committed to creating an environmentally sustainable, economically sound and socially inclusive city. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

This policy provides a framework for early consideration of environmental sustainability at the building design stage in order to achieve the following efficiencies and benefits:

- Easier compliance with building requirements through passive design;
- Reduction of costs over the life cycle of the building;
- Improved housing affordability and running costs;
- Improved amenity and liveability;
- More environmentally sustainable urban form and
- Integrated Water Management approach

If environmentally sustainable design is not considered at the time of planning approval the ability to achieve environmentally efficient development may be compromised by the time these matters are considered as part of a building approval or there may be difficulties or extra costs associated with retro-fitting the development to implement environmentally sustainable design (ESD) principles.

This policy does not prescribe performance outcomes. The policy enables the provision of information and provides decision guidelines which will assist in the assessment of whether development achieves environmentally sustainable development objectives.

This policy is to be implemented in conjunction with a range of non-statutory measures aimed at encouraging environmentally sustainable development. These measures include: educating residents and applicants, assisting applicants to use ESD tools, leading by example with Council projects and promotion of exemplary private projects, promotion of use of materials with favourable life cycle impacts.

22.17-2 Objectives

The overarching objective of this policy is that development should achieve best practice in addressing the principles in environmentally sustainable development from the design stage through to construction and operation.

In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build.

It is a policy objective to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

The following objectives should be satisfied where applicable:

Energy efficiency

- To ensure the efficient use of energy.
- To reduce total operating greenhouse gas emissions.
- To reduce energy peak demand.

Water resources

- To ensure the efficient use of water.
- To reduce total operating potable water use.
- To encourage the collection and reuse of stormwater.
- To encourage the appropriate use of alternative water sources (eg. greywater).

Indoor Environment Quality

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, natural daylight, and appropriate levels of lighting.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by use of materials with low toxic chemicals, minimal off-gassing and production of allergens.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To use flexible internal controls for any mechanical systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Stormwater Management

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Transport

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport in that order.

- To minimise car dependency.
- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Waste management

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure the built environment can adapt to future needs in a waste-efficient manner.

Urban Ecology

- To protect and enhance biodiversity within the municipality.
- To provide environmentally sustainable landscapes and natural habitats and minimise the urban heat island effect.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.
- To encourage productive gardens.

22.17-3 Policy

It is policy that applications for the types of development listed in Table 1 be accompanied by a Sustainable Design Assessment or Sustainability Management Plan which:

- utilises relevant assessment tools; and
- addresses relevant policy objectives.

It is policy that applications for larger non-residential developments (as specified in Table 1) be accompanied by a Green Travel Plan.

The application requirements set out in 22.17-4 do not apply to alterations or extensions to existing non-residential developments over 20,000sqm gross floor area in respect of which an ESD plan or framework:

- has been approved by the Responsible Authority (whether under a planning control or otherwise);
- sets out environmental targets or performance standards for that development that have the capacity to satisfy the objectives of this policy; and
- set out specific ESD assessment requirements for future permit applications in respect of that development.

22.17-4 Application Requirements

An application must be accompanied by either a Sustainable Design Assessment or a Sustainability Management Plan as specified in Table 1, as appropriate.

A Sustainable Design Assessment will usually not need to be prepared by a suitably qualified professional. It should:

- provide a simple assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify environmentally sustainable development measures proposed in response to policy objectives.

A Sustainability Management Plan should:

- provide a detailed assessment of the development using relevant tools from the example tools listed in the table (or equivalent tools);
- identify appropriate environmental targets or performance standards having regard to the objectives of this policy (as appropriate);
- demonstrate that the building has the design potential to achieve the relevant environmental targets or performance standards;
- document the means by which the targets or performance standards will be achieved.

Various 'tools' have been listed in Table 1 which may be used to assess how the proposed development addresses the objectives of this policy, as appropriate. It is not intended that this is an exhaustive list and applicants may use other tools or methods to the satisfaction of the Responsible Authority. Council has also developed a range of documents to guide applicants such as the *Yarra Sustainable Design Assessment in the Planning Process (SDAPP) Fact Sheets.*

Table 1 – ESD Information Required

TYPE OF DEVELOPMENT	APPLICATION REQUIREMENTS	EXAMPLE TOOLS
Accommodation and Mixed Use with a residential component of:		
▪ 1- 9 dwellings ▪ Development of a building for accommodation other than dwellings with a gross floor area between 100 m² and 1000 m²	Sustainable Design Assessment (SDA)	STEPS NatHERS accredited tool (eg. FirstRate) STORM
▪ Development of 10 or more dwellings **Development of a building for accommodation other than dwellings with a gross floor area of more than 1000m².**	Sustainability Management Plan (SMP)	STEPS NatHERS accredited tool (eg. FirstRate) Green Star MUSIC STORM
Non-residential		
▪ Development of a non-residential building with a gross floor area between 100m² and 1000m²; or ▪ Alterations and additions of between 100m² and 1000m².	Sustainable Design Assessment (SDA)	SDS MUSIC STORM
▪ Development of a non-residential building with a gross floor area of more than 1000m²; or ▪ Alterations and additions greater than 1000m².	Sustainability Management Plan (SMP) Green Travel Plan (GTP)	Green Star SDS MUSIC STORM

Note 1: Mixed Use developments are required to provide the information applicable to each use component of the development and apply the relevant tools for each, as identified in Table 1.

Note 2: In the case of alterations and additions, the requirements of the Policy apply only to the alterations and additions.

Note 3: Applications for development types that cannot be assessed by a rating tool can be assessed by an alternative form of assessment to the satisfaction of the Responsible Authority.

22.17-5 Decision Guidelines

In determining an application, the Responsible Authority will consider as appropriate:

- The extent to which the development responds to the objectives of this policy from the design stage through to construction and operation
- Site constraints and opportunities
- Whether the proposed environmentally sustainable development initiatives are functional and effective to prevent or minimise environmental impact
- Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development
- Whether appropriate tools or alternative assessment methods have been used
- In circumstances requiring a Sustainable Design Assessment, whether the development has been designed to be able to meet any minimum environmental targets set within relevant tools
- In circumstances requiring a Sustainability Management Plan:
    - Whether appropriate environmental targets have been set; and
    - Whether the development has been designed to be able to meet the environmental targets

22.17-6 Reference Documents

City of Yarra: *Yarra Environment Strategy*, (2013)

City of Yarra: Sustainable Design Assessment in the Planning Process Fact Sheets
PANEL NOTE: THE FACT SHEETS IN EXISTENCE AT THE TIME OF EXHIBITION SHOULD BE LISTED.

Sustainable Design Scorecard (SDS) assessment tool, City of Port Phillip www.portphillip.vic.gov.au/sds

Sustainable Tools for Environmental Performance Strategy (STEPS) assessment tool, City of Moreland www.sustainablesteps.com.au

Guide for Best Practice for Waste Management in Multi-Unit Development, Sustainability Victoria (2010)

Nationwide House Energy Rating Scheme (NatHERS), Department of Climate Change and Energy Efficiency www.nathers.gov.au

Your Home Technical Manual, Department of Environment, Water, Heritage and the Arts, 2001 www.yourhome.gov.au

Green Star, Green Building Council of Australia www.gbca.com.au

STORM, Melbourne Water, www.storm.melbournewater.com.au

Urban Stormwater Best Practice Guidelines, CSIRO, 1999.

The above reference documents and websites include reference to documents and website which amended from time to time.

22.17-7 Expiry

This policy will expire if it is superseded by an equivalent provision of the Victoria Planning Provisions.