

The Senate

Economics
Legislation Committee

Safe Climate (Energy Efficient
Non-Residential Buildings Scheme) Bill

March 2010

© Commonwealth of Australia 2010

ISBN 978-1-74229-195-6

Senate Economics Legislation Committee

Members

Senator Annette Hurley, Chair	South Australia, ALP
Senator Alan Eggleston, Deputy Chair	Western Australia, LP
Senator David Bushby	Tasmania, LP
Senator Doug Cameron	New South Wales, ALP
Senator Louise Pratt	Western Australia, ALP
Senator Nick Xenophon	South Australia, IND

Participating Members participating in this inquiry

Senator Concetta Fierravanti-Wells	New South Wales, LP
Senator Christine Milne	Tasmania, AG

Secretariat

Mr John Hawkins, Secretary
Dr Richard Grant, Principal Research Officer
Mr Sam Bruce-Smith, Research Officer
Ms Hanako Jones, Executive Assistant
Mr Joshua See, Executive Assistant

PO Box 6100
Parliament House
Canberra ACT 2600
Ph: 02 6277 3540
Fax: 02 6277 5719
E-mail: economics.sen@aph.gov.au
Internet: http://www.aph.gov.au/senate/committee/economics_ctte/index.htm

TABLE OF CONTENTS

Membership of Committee	iii
Chapter 1.....	1
Introduction	1
The referral	1
Conduct of the inquiry	1
Structure of the report.....	2
Chapter 2.....	3
The non-residential building sector.....	3
Introduction	3
Base building and tenants load	3
Split incentives	4
Energy Efficiency in the Australian building sector	5
Current Australian Government initiatives	7
Chapter 3.....	11
The bill.....	11
Introduction	11
Provisions of the bill.....	11
Financial incentives—tradability of certificates.....	12
Penalties—reporting and certificate shortfall.....	13
Classes of non-residential buildings.....	13
Emissions intensity for each city or region	14
Table 3.1	15
'Cap and trade' or 'baseline and credit'?.....	16
Educating stakeholders.....	16
Summary.....	17

Chapter 4.....	19
Support for the bill.....	19
Overcoming 'split incentives' in the sector.....	20
The Carbon Pollution Reduction Scheme (CPRS) and voluntary measures.....	21
Mandatory disclosure	22
Summary.....	24
Chapter 5.....	25
Criticism (and counter criticism) of the bill	25
The importance of the CPRS and other complementary measures	25
The cost of administering, and complying with, the scheme	27
Targeting incentives	28
Chapter 6.....	31
The committee's view.....	31
The importance of an economy-wide cap on carbon emissions.....	31
Complementary measures	32
The CPRS & the bill—'double counting' the non-residential building sector	32
Definitional issues	33
Setting the baseline.....	33
Recommendation 1	34
Recommendation 2.....	35
Coalition Senators' Additional Comments.....	37
Introduction	37
Stand-alone program	37
Green Loans and Home Insulation Programs scandals.....	39
Conclusion.....	40
Dissenting Report from the Australian Greens	41

Introduction	41
Comments on the Recommendations.....	41
Recommendation 1	41
Recommendation 2.....	42
General comment on the body of the Committee Report.....	43
Supporters and detractors	44
More specific points	45
Errors that appear throughout the Committee Report	49
Additional Comments by Senator Xenophon.....	51
Introduction	51
APPENDIX 1	53
Submissions Received.....	53
Additional Information Received.....	53
APPENDIX 2	55
Public Hearing and Witnesses.....	55

Chapter 1

Introduction

The referral

1.1 The Safe Climate (Energy Efficient Non-Residential Buildings Scheme) Bill 2009 was introduced to the Senate on 17 September 2009 by Greens Senator Christine Milne. The same day, it was referred to the Senate Economics Legislation Committee for report by 10 March 2010.

1.2 The bill introduces an emissions intensity baseline and building efficiency certificate trading scheme for non-residential buildings. It creates a regulated market to reduce progressively greenhouse gas emissions from commercial buildings in Australia.

1.3 Under the bill's scheme, building owners will be given a specified number of building efficiency certificates (each worth one tonne of greenhouse gas) equal to the value of an emissions intensity baseline for their class of building. They will subsequently be required to surrender certificates to the value of their emissions, or face a fine. If building owners' emissions are above the baseline, they will have to buy certificates from owners with excess certificates whose emissions are below the baseline. The emissions intensity baseline will initially be set at an industry average for each class or type of building and will decline progressively over time. The Second Reading Speech notes that through this design:

The owners of all building types will have a long-term and predictable financial incentive to improve energy efficiency. Non-compliant building owners will face a shortfall penalty which in effect will act as a safety valve on the cost of the energy certificates.¹

Conduct of the inquiry

1.4 The committee received eight submissions, which are listed in Appendix 1. Lend Lease and WSP Lincolne Scott made two supplementary submissions.

1.5 The committee held a public hearing in Canberra on 12 February 2010. It received evidence from Lend Lease and WSP Lincolne Scott, the Energy Efficiency Council, the Green Building Council and the Department of Climate Change. On 25 February, the committee took evidence from the Property Council of Australia. A list of witnesses is provided in Appendix 2.

1.6 The committee thanks all those who gave evidence to the inquiry.

1 Second Reading Speech, *Senate Hansard*, 17 September 2009, p. 6829.

Site visit

1.7 On 12 February, the committee inspected the premises of 44 Mort Street in Braddon in Canberra. The building is leased by the Australian Crime Commission. It is owned by Lend Lease and has been designed to achieve a 5 star green rating and a 5 star Australian Building Greenhouse Rating.²

1.8 The inspection was led by Mr Ché Wall of WSP Lincolne Scott and Ms Maria Atkinson of Lend Lease. Mr Wall and Ms Atkinson showed and explained to the committee the building's passive chilled beam technology, which reduces energy consumption by over 30 per cent. The building also uses solar hot water heating and DALI lighting which enables each light in the building to be adjustable.

1.9 The committee thanks Mr Wall, Ms Atkinson and the Australian Crime Commission for their time and hospitality.

Structure of the report

1.10 The report has six chapters. Chapter 2 looks at the energy efficiency of the non-residential building sector in Australia and current federal government initiatives to improve the efficiency of the sector. Chapter 3 examines the provisions of the bill itself while chapter 4 canvasses the arguments in support of the bill. Chapter 5 presents various critiques of the legislation, including concerns that other measures would be more efficient and effective. Chapter 6 presents the committee's conclusions and recommendations.

2 Australian Crime Commission, 'National Headquarters: Building features and environment benefits'.

Chapter 2

The non-residential building sector

Introduction

2.1 This chapter looks at the energy efficiency of the non-residential building sector in Australia. It notes the division of use of electrical energy between the owner and tenant of a non-commercial building, the rate of increase in greenhouse gas emissions in the non-residential building sector and current government initiatives to rate and to improve the energy efficiency of the sector.

Base building and tenants load

2.2 Electrical energy for a building is usually metered separately for the services provided by the owner and the usage of the tenant.¹ The owner of a commercial building is usually responsible for the 'base building' which includes:

- the common area lighting;
- plug-in equipment;
- external lighting not associated with a tenancy;
- the building's main air conditioning and ventilation;
- lifts;
- fire protection;
- central domestic hot water; and
- irrigation systems.

2.3 The tenant of a building is responsible for covering bills for:

- lighting;
- supplementary air conditioning;
- supplementary ventilation systems;
- additional domestic hot water systems;
- exterior lighting; and
- central computing and other facilities.

1 If the building owner is the only tenant or if the building is small, there may be only one electrical energy meter for both the tenant and the base building.

2.4 The bill is targeted at building owners and will therefore provide a framework to reduce emissions from the base building. Base building emissions account for roughly 50–60 per cent of a building's total emissions.²

2.5 The main energy use systems of the base building services are the fans, the cooling systems and the pumping systems. The emissions intensity, and the corresponding cost of using these systems, varies depending on (among other factors) the size of the building and the local climate.³

2.6 Energy inefficiency in base building services can be costly for building owners. Take a three level building with a total floor area of 2000m² and a length to width ratio of 2:1. In this type of building, a five per cent increase in the energy consumption of the cooling and pumps due to inefficiencies can result in an increase in energy costs of approximately \$385 per annum in the coldest climate to \$1390 per annum in the hottest climate.⁴

Split incentives

2.7 Discussions around the energy efficiency of buildings often refer to the principal/agent problem or the problem of 'split incentives'. The Garnaut Climate Change Review's Issues Paper identified that split incentives:

...can arise when one individual makes decisions about building design and appliances, but another individual pays the ongoing cost of using the building. For example, landlords may choose which heating system to install in a building, and pay the upfront cost. However, tenants often pay the running cost of the heating system. This means that there may be insufficient incentive for the landlord to install a lower emission heating system, even if the total cost of the system is much lower over its lifetime.⁵

2.8 Lend Lease and WSP Lincolne Scott note in their submission that:

...in almost every commercial development the entity responsible for developing the building is not the owner, let alone the tenant. So there is no financial incentive for a developer to invest in energy efficiency and little incentive for an owner. Consequently uptake of energy efficiency and greenhouse gas emissions reduction initiatives has been poor.⁶

2.9 This issue of split incentives is considered in chapter 4.

2 Secretariat, Discussion with Ché Wall, 5 February 2010.

3 Australian Building Codes Board Office, 'Monitoring Electrical Circuits', June 2006, p. 6.

4 Australian Building Codes Board Office, 'Monitoring Electrical Circuits', June 2006, p. 8.

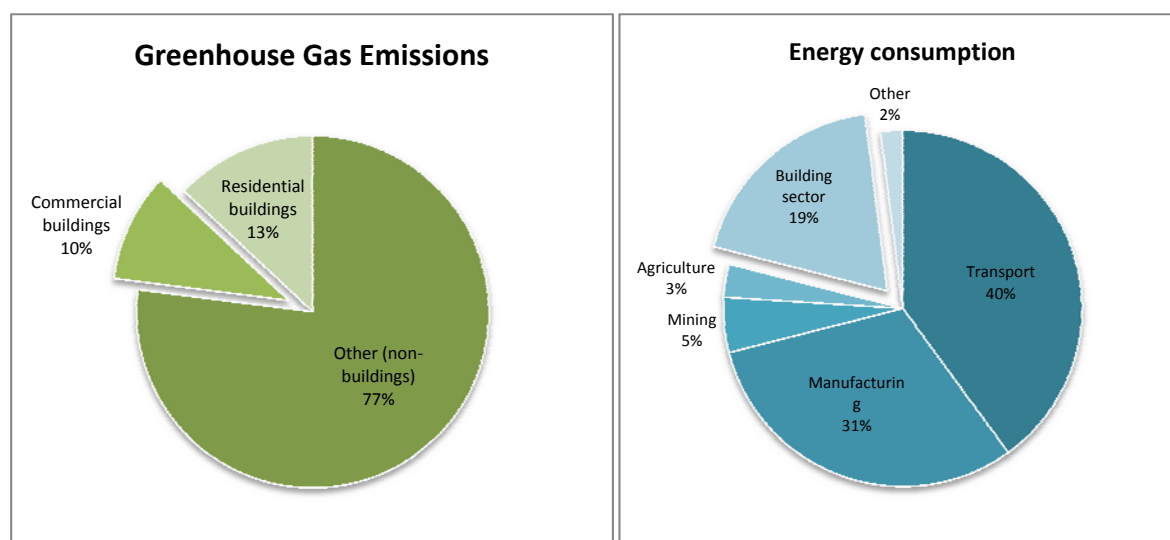
5 Garnaut Climate Change Review, Issues Paper–Forum 5, Transport, Planning and the Built Environment, p. 10.

6 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 4.

Energy Efficiency in the Australian building sector

2.10 Based on 2005–06 data, energy consumption in the building sector accounted for 19 per cent of total energy consumption in Australia. Greenhouse gas emissions from buildings account for 23 per cent of all emissions, of which roughly ten per cent come from commercial buildings (Chart 1). In other words, 'energy use from activities within buildings is the source of demand which when met produces nearly a quarter of national greenhouse gas emissions'.⁷

Chart 1



2.11 The rate of increase in greenhouse gas emissions from the commercial building sector in Australia has been rapid. In 1990, the sector generated 32 megatonnes of CO₂ equivalent gases; by 2006, this figure had increased to 60 megatonnes. The largest emitters within the commercial building sector are office buildings followed by hospitals.⁸

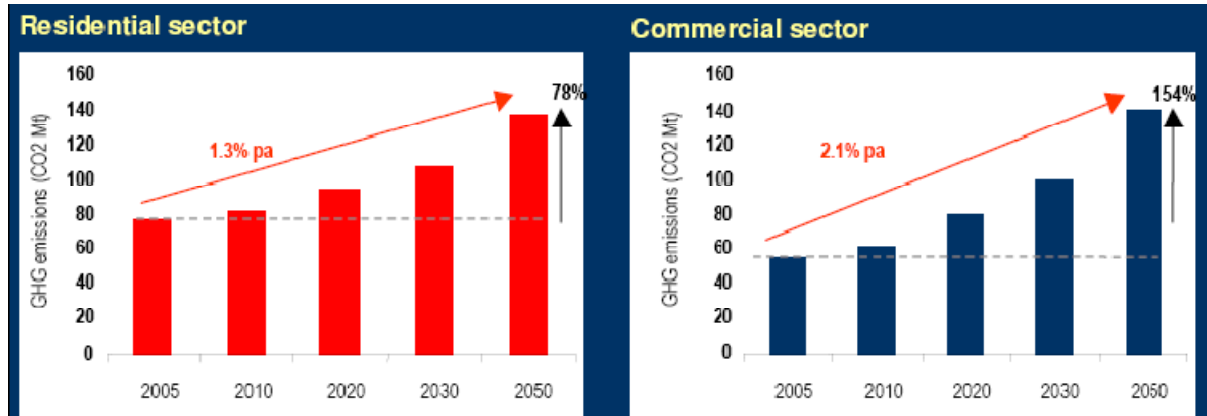
2.12 The emissions generated in the construction and refurbishment of buildings and appliances is also significant. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) estimate that '[T]he energy embodied in existing building stock in Australia is equivalent to ten years of the total energy consumption

7 Australian Sustainable Built Environment Council, 'The Second Plank, Building a low carbon economy with energy efficient buildings', September 2008, p. 8.
http://www.asbec.asn.au/files/ASBEC%20CCTG%20Second%20Plank%20Report%202.0_0.pdf (accessed 4 February 2010)

8 Department of Environment, Water, Heritage and the Arts, 'Mandatory disclosure of Commercial Office Building Energy Efficiency', Regulation Document, November 2009.

for the entire nation'.⁹ The bill does not address embodied energy in commercial buildings.

Chart 2



Source: Centre for International Economics, Based on energy consumption data from ABARE (2006) and Australia's National Greenhouse Accounts: National Inventory Economic Sector (2005). AGO (2007).

2.13 Chart 2 is reproduced from a 2008 publication from the Centre for International Economics.¹⁰ It shows that, from the 2005 baseline to 2050, both the [average] annual rate and the overall percentage increase in CO_{2e} emissions is projected to be significantly higher for commercial buildings than for residential buildings.

2.14 In September 2008, the Australian Sustainable Built Environment Council published a commissioned analysis from the Centre for International Economics. The key findings of the report were that:

- without complementary measures the building sector is expected to reduce emissions by around 8 megatonnes a year from higher electricity prices through the CPRS. This is 3–4 per cent of the sector's total emissions each year from the 'business as usual' projection;
- with complementary measures, greenhouse gas abatement of around 60 megatonnes per annum is achievable by 2030. This is an abatement of around 27–31 per cent against the baseline emission projections (without change) for the building sector; and

9 [http://www.garnautreview.org.au/CA25734E0016A131/WebObj/IssuesPaper5-Transport,planningandbuiltenvironment/\\$File/Issues%20Paper%205%20-%20Transport,%20planning%20and%20built%20environment.pdf](http://www.garnautreview.org.au/CA25734E0016A131/WebObj/IssuesPaper5-Transport,planningandbuiltenvironment/$File/Issues%20Paper%205%20-%20Transport,%20planning%20and%20built%20environment.pdf)

10 Centre for International Economics, Building energy efficiency and greenhouse gas emission abatement: potential and implications. Presentation at the Garnaut Climate Change Review Public Forum on Transport, Planning and the Built Environment, 19 February 2008, Perth.

- investment in energy efficiency in the building sector has the potential to reduce the sector's greenhouse gas emissions between 30–35 per cent by 2030.¹¹

2.15 The Garnaut Review's issues paper on transport and the built environment noted that many authors have identified significant opportunities for mitigation in the building sector using current technologies which 'would appear to be cost-effective'.¹² It is not clear whether this assumes that there will be a CPRS and a price on carbon.

2.16 A recent McKinsey report (2008) estimates that 60 megatonnes of carbon dioxide emissions reduction opportunities could be found in buildings by 2030 at low or negative cost. The report noted that:

Most of these opportunities (-50 Mt) will be available by 2020 and many can be implemented today. Significant opportunities include improving commercial air handling, air conditioning and residential water heating systems. Australia's relatively low level of insulation creates significant opportunities for increased energy efficiency in residential and commercial buildings. Other major areas of opportunities include reducing energy consumption through improvements in lighting and mandating that appliances have energy-efficient standby features. Many of these efficiency measures are 'perishable' once a building is complete, it is generally much more expensive to retrofit. Two of the key levers here are better aligning tenants' and developers' incentives to improve energy efficiency, and using direct regulation to establish appropriate building codes and standards.¹³

Current Australian Government initiatives

2.17 The Australian Government is currently developing initiatives to improve the energy efficiency of commercial buildings. Prime among these initiatives are the National Strategy on Energy Efficiency and the Mandatory Disclosure of Commercial Office Building Energy Efficiency.

The National Strategy on Energy Efficiency

2.18 In July 2009, the Council of Australian Governments' (COAG) National Strategy on Energy Efficiency identified as a key objective to make 'buildings more energy efficient'. Part of meeting this objective is 'to drive significant improvement in minimum energy efficiency standards to deliver substantial growth in the number of

11 Australian Sustainable Build Environment Council, 'The Second Plank-Building a Low Carbon Economy with Energy Efficient Buildings', p. viii. See Table 3.1.

12 Garnaut Climate Change Review, Issues Paper—Forum 5, Transport, Planning and the Built Environment, p. 9.

13 McKinsey & Company, 'An Australian Cost Curve for Greenhouse Gas Reduction', 15 February 2008, <http://tasmaniantimes.com/images/uploads/EMBARGOEDAustralianCostCurveforGHGReduction.pdf>

highly energy efficient homes and commercial buildings'. COAG noted that governments will set out a clear process and timetable for periodic review of energy efficiency standards.¹⁴

2.19 The Strategy will include various measures to improve the energy efficiency of non-residential buildings including:

- improving the efficiency of new buildings and major renovations by increasing the energy efficiency requirements in the 2010 update of the Building Code of Australia;
- requiring owners of commercial office buildings and government buildings to provide energy efficiency information to interested buyers and tenants, starting in the second half of 2010;
- collecting information on how energy efficient Australian homes and commercial buildings are now to help inform future policy;
- developing a national building framework to deliver consistency in how building energy efficiency is assessed and rated throughout Australia and for reviewing and setting stronger minimum energy efficiency standards for new and existing homes and commercial buildings over time; and
- offering financial support and information resources to homes and commercial buildings.¹⁵

2.20 The Strategy also announced that there will be measures 'to help raise the energy efficiency of existing building stock through cost-effective voluntary action in response to better information about building energy use'. In particular:

...people seeking to buy or lease properties will be provided with information about the energy efficiency of the buildings through proposed new mandatory disclosure provisions. Armed with this information, consumers and businesses will be able to make informed choices about the energy efficiency of the buildings they buy and lease - and builders and building owners will respond to those market signals by investing in energy efficiency.¹⁶

Mandatory Disclosure of Commercial Office Building Energy Efficiency

2.21 In November 2009, the Government released a regulation document outlining a national scheme for the mandatory disclosure of commercial office building energy efficiency. Starting in the second half of this year, building owners will need to provide up-to-date energy efficiency information when they sell or lease office space

14 National Strategy on Energy Efficiency, Council of Australian Governments, July 2009, p. 22.

15 Department of Environment, Water, Heritage and the Arts, 'National Strategy on Energy Efficiency', <http://www.environment.gov.au/sustainability/energyefficiency/buildings/> (accessed 2 March 2010).

16 National Strategy on Energy Efficiency, Council of Australian Governments, July 2009, p. 22.

covering more than 2000 square metres. Under the scheme, building owners will need to disclose a valid Building Energy Certificate which will include a National Australian Built Environment Rating System (NABERS) Energy base building star rating.¹⁷ The NABERS scheme is discussed in more detail in chapter 4.

17 Department of the Environment, Water, Heritage and the Arts, 'Mandatory Disclosure of Commercial Office Building Energy Efficiency', Regulation Document, November 2009, p. i. The Hon. Peter Garrett, 'Improving the energy efficiency of Australia's office buildings', *Media Release*, 12 November 2009.

Chapter 3

The bill

Introduction

3.1 The *Safe Climate (Energy Efficient Non-Residential Buildings Scheme) Bill 2009* has been introduced to improve the energy efficiency of commercial buildings. The bill introduces a building energy efficiency trading scheme. The scheme will set an emissions intensity baseline, which will decline over time, for each type of commercial building.

3.2 As chapter 1 noted, the bill establishes a Building Energy Certificate Scheme which will allocate tradeable certificates—each worth one tonne of greenhouse gas—to each participating building owner. These certificates will be allocated to building owners based on the intensity baseline for their building type and the size of their building. Participating building owners will then buy, sell or stockpile the tradeable certificates. They must report their building's energy intensity and surrender certificates to the value of this intensity. Where they fail to surrender sufficient certificates, the bill has a provision for a penalty.¹

Provisions of the bill

3.3 The Explanatory Memorandum (EM) details the provisions of the bill.

- Part 2, section 9 of the bill states that, at the start of the scheme, the Minister must determine through regulations to which types (or sizes) of buildings the Act will apply. Additional building types can be added in later years. The Minister must also determine the method which building owners must use to measure the emission intensity of buildings (section 10). This method may be varied according to different circumstances, such as building type, lease arrangement etc. Emission intensity is measured in greenhouse gas emissions per square metre.
- Part 2, section 12 of the bill states that a two year transitional reporting period will start on the next 1 July after the commencement of the Act. In this period the owners of a non-residential building types participating in the scheme from the outset must report their buildings emission intensity annually to the Greenhouse and Energy Data Officer. Building types brought into the scheme at a later date will similarly have a two year transitional reporting period.
- Section 13 of the bill states that, based on emission intensity data collected during the transitional reporting period, the Minister would then set an intensity cap for the relevant building types each year for 10 years. The

1 *Explanatory Memorandum*

intensity cap would be guided by the average intensity for each city or region and would decline predictably over time. Cap 'gateways' setting an upper and lower bound into the future may be used to balance investor certainty with the need for regulatory flexibility.

- Part 4 of the Act establishes a Building Efficiency Certificate Scheme which will be administered by the Greenhouse and Energy Data Officer. The Administrator will allocate tradable certificates, each worth one tonne of greenhouse gas, to each participating building owner. The amount of certificates each building owner will receive will be determined by the emission intensity baseline for their building type, and the size of their building.
- Part 4, section 18 of the bill states that the Minister must establish, within 12 months of the start of the scheme, a trading mechanism to allow building owners to buy, sell or stockpile the tradable certificates. Section 19 provides that participating building owners must continue to report their building's energy intensity and surrender to the Greenhouse and Energy Data Officer certificates to the value of the emissions intensity of their building.
- If the owner of a non-residential building fails to surrender sufficient certificates, the owner has a building efficiency certificate shortfall and is liable to pay a building efficiency certificate shortfall penalty (section 20). The amount of the building efficiency certificate shortfall penalty is calculated by multiplying the amount of the building efficiency certificate shortfall by the scheme penalty rate for a year prescribed by the regulations.
- The Greenhouse and Energy Data Officer must keep a register to be known as the Register of the Emissions Intensity of Non-Residential Buildings. The register may be kept completely or partly in electronic form and freely available for public inspection.²

Financial incentives—tradability of certificates

3.4 The bill incorporates financial incentives for building owners to improve the energy efficiency of their buildings. As noted earlier, all building owners will be given certificates equal to the value of the baseline for their class of building and will need to surrender certificates to the value of the emissions intensity of the building. To the extent that buildings in a given class emit below or above the baseline, there is opportunity for trading.

3.5 For example, owners of a particular class of office building will receive a certain number of certificates, equal to the emissions baseline, and reflecting the average emissions intensity of the building type. An owner whose building(s) emits below the baseline will be able to sell their excess certificates to an owner whose building(s) emits above the baseline. The more excess certificates—the lower the

building's emissions intensity relative to the baseline—the greater the potential to profit.

Penalties—reporting and certificate shortfall

3.6 The bill incorporates pecuniary penalties for failing to comply with the transitional and annual reporting requirements. Section 28 states that for each day that a person fails to comply with the reporting requirements in sections 12, 15 and 59, s/he is liable for a civil penalty of 100 penalty units. This equates to \$11 000 a day.³ The flat 100 penalty unit does seem a significant penalty to impose on small businesses. As Mr Peter Clinnick commented in his submission to the committee:

The Penalty Units applied in this and other sections might be insufficient in the case of very large companies and might be too much for small businesses. There needs to be a scaled approach to penalties, in line with the dimensions of the building, or better still the amount of energy consumed or emissions intensity.⁴

3.7 Section 20 of the bill also provides for a pecuniary penalty where the owner of a building that emits in excess of the baseline does not surrender permits to the value of the baseline. Subsection 20(4) states that the amount of the building efficiency certificate shortfall penalty is the amount (in dollars) calculated by multiplying the amount of the building energy certificate shortfall by the scheme penalty rate for a year prescribed by the regulations.

3.8 Unlike the failure to meet reporting requirements, the bill does not establish a penalty rate for failure to surrender adequate permits. This will be determined by regulations. In this case, the penalty will be proportionate to the quantity of excess emissions (the energy certificate shortfall).

Classes of non-residential buildings

3.9 Part 2, section 9 of the bill refers to 'classes of non-residential buildings'. It states that the Minister must determine by legislative instrument the different classes of non-residential buildings to which the Act applies (section 9(1)).

3.10 It is unclear from the bill how—or how many—of these classes of building might be devised. One option might be derived from volume 1, part A3 of the Building Code of Australia, which classifies various types of buildings (see Appendix 3).

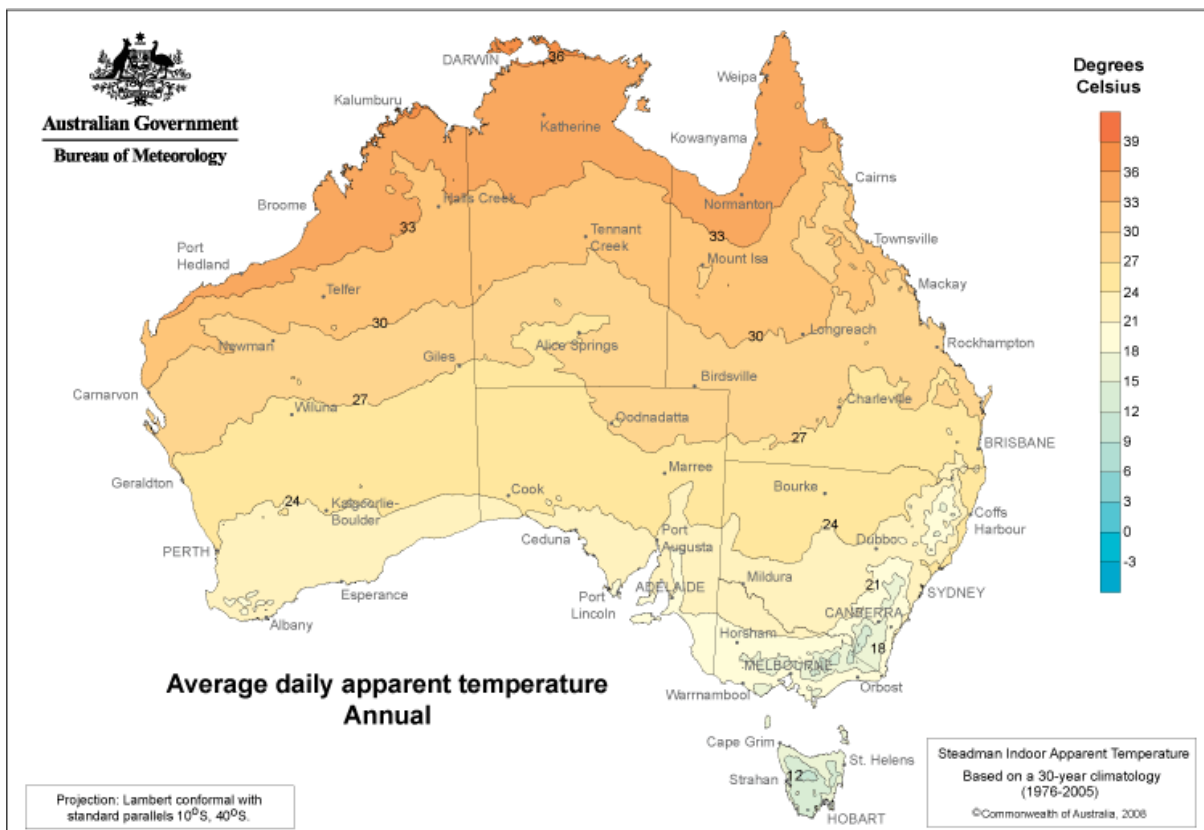
3 Penalty Unit Conversion Table,
[http://www.ag.gov.au/www/agdlrwpattach.nsfNAP!ICFD7369FCAE9B8F32F34IDBE09780IF\)-3TABLE+OF+DATA.htm!\\$file!3TABLE+OF+DATA.htm](http://www.ag.gov.au/www/agdlrwpattach.nsfNAP!ICFD7369FCAE9B8F32F34IDBE09780IF)-3TABLE+OF+DATA.htm!$file!3TABLE+OF+DATA.htm)

4 Peter Clinnick, *Submission 6*, p.3.

Emissions intensity for each city or region

3.11 The EM refers to the intensity cap being guided by the average intensity 'for each city or region'. Lend Lease's submission noted that the bill will set a benchmark for each building type 'in each climatic region'.⁵ However, the bill makes no reference to any region-based measures. This will presumably be covered in the regulations.

3.12 The map below is produced by the Australian Bureau of Meteorology (BoM). It shows the average annual and average monthly indoor apparent temperature across Australia over the period 1976 to 2005. Indoor apparent temperature describes the combined effect of temperature and humidity on the typical human. Apparent temperature is an estimation of what the temperature "feels like" to an appropriately dressed adult. The temperatures reflected in the map are the Steadman Indoor Apparent Temperatures and do not take into account the effect of sun or wind.⁶



Source: Bureau of Meteorology

3.13 The map shows that indoor apparent temperature increases towards the north of the continent, following the pattern of increasing air temperature towards the equator. The BoM notes that elevation also influences indoor apparent temperature,

5 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 22.

6 Bureau of Meteorology, 'Average daily apparent temperature', http://www.bom.gov.au/jsp/ncc/climate_averages/app-temperature/index.jsp (accessed 2 March 2010).

with cooler mountain areas such as the Flinders Ranges and the Great Dividing Range experiencing lower apparent temperatures.⁷

3.14 The table below shows that electrical energy consumption in the base building varies quite significantly between some of the major Australian cities. The data applies to a 'B-form' building: three levels with a total floor area of 2000m² and a length to width ratio of 2: 1. Energy consumption (kWh/rnz per annum) from cooling commercial buildings in Darwin and Cairns is more than four times higher than the energy from cooling commercial buildings in Melbourne.⁸

Table 3.1

Energy using services	Climate Zone				
	Darwin/ Cairns	Brisbane/ Mackay	Adelaide/ Sydney/ Perth	Canberra/ Hobart	Melbourne/ Albany
Tenant					
Lighting	33	33	33	33	33
Plug-in equipment	40	40	40	40	40
Sub-total	73	73	73	73	73
Base building					
Cooling	107	80	57	30	25
Pumps, other ancillaries*	9	10	9	8	7
Fans	35	37	39	34	31
Domestic hot water	6	6	6	6	6
Sub-total	157	133	111	80	71
Total	230	206	184	153	144

Source: ABCB Office: 'Monitoring of Electrical Circuits', June 2006, p. 2.

3.15 Table 3.1 shows that while electrical energy consumption in the base building varies quite significantly from city to city, the tenant's consumption is the same between the cities. What is not clear from the table is the extent to which tenants' use of the building contributes to varying consumption in the base building.

7 Bureau of Meteorology, 'Average daily apparent temperature', http://www.bom.gov.au/jsp/ncc/climate_averages/app-temperature/index.jsp (accessed 2 March 2010).

8 ABCB Office, 'Monitoring of Electrical Circuits', June 2006, p.2.

'Cap and trade' or 'baseline and credit'?

3.16 The committee received conflicting evidence as to whether the scheme proposed in the bill should be termed a 'cap and trade' scheme or a 'baseline and credit' (or emissions intensity) scheme. In its first submission to this inquiry, Lend Lease and WSP Lincolne Scott described their scheme as follows:

The scheme will set an emissions intensity baseline, which will decline over time, for each type of commercial building. Property owners that emit above the baseline will be required to buy emissions intensity certificates from those that emit below the baseline.⁹

3.17 However, in a supplementary submission, Lend Lease and WSP Lincolne Scott stated that the scheme in the bill:

...is NOT a baseline-and-credit scheme. This Scheme allocates permits to the cap, which is based on a decreasing trajectory. There is a mandatory obligation to acquit permits by trading with better performing buildings, where a building exceeds the cap.¹⁰

3.18 In the committee's view, the bill's scheme is more a variant of a baseline and credit (or an emissions intensity) scheme than a cap and trade scheme. Unlike a textbook cap and trade scheme:

- there is not an absolute cap on emissions—participants *can* emit more than the baseline if they fail to surrender adequate certificates;
- the scheme covers a single sector comprehensively rather than the major emitters within an economy; and
- the 'cap' in this scheme is based on average emissions intensity rather than the concentration of CO₂.

3.19 However, to the extent that the deterrence of a financial penalty ensures the integrity of the emissions 'cap', the scheme does have similarities with a cap and trade scheme. Above all, it will establish a market signal through a carbon price.

Educating stakeholders

3.20 A final aspect of the bill that has not received attention during this inquiry is the need to educate stakeholders about their responsibilities under the legislation, and to train and re-train these stakeholders in energy efficiency and green building technologies. The success of the scheme, and the capacity for the baseline(s) to be progressively reduced over time will depend crucially on informing building owners

9 Lend Lease, WSP Lincolne Scott and Advanced Environmental, *Submission 8*, p. 6.

10 Lend Lease, WSP Lincolne Scott and Advanced Environmental, *Supplementary submission*, p. 6. Emphasis in original.

of their legislative responsibilities and the opportunities they have to reduce their reliance on certificates.

3.21 In this context, it is of concern that a 2008 survey of 300 Australian business Chief Executive Officers found that 67 per cent of businesses are concerned or unsure about compliance obligations, and only a handful of businesses (three per cent) have implemented a strategic response to climate change.¹¹

Summary

3.22 The bill establishes a market for the trade of greenhouse gas certificates among non-residential building owners in Australia. Through the trade of certificates, a carbon price will be set. The bill establishes incentives for building owners to improve their energy efficiency—through selling and stockpiling certificates—and penalties for those who lag behind.

3.23 However, there is a lot of detail fundamental to the operation of the scheme that has been left to the regulations. This includes:

- the types and classes of buildings;
- the climatic regions where different baselines (or 'caps') will be set;
- the number of baselines that will be set for each type or class of building;
- the scheme penalty rate for failing to surrender adequate permits; and
- the downward trajectory of the baseline over time.

11 Cheryl Desha and Charlie Hargroves, 'Re-engineering higher education for energy efficient solutions', *ECOS Magazine* vol. 17, October-November 2009, p. 151.

Chapter 4

Support for the bill

4.1 This chapter identifies the key arguments in support of the bill.

4.2 The Second Reading Speech identified several advantages of the scheme proposed in the bill. They are as follows:

- it is mandatory rather than voluntary for the building owner, thus leading to the systemic upgrade of all of Australia's non-residential buildings. The scheme requires that many thousands of participants seriously apply themselves to the question of improving efficiency;
- it creates both incentives for action and penalties for inaction, in other words it can be characterised as a carrot and stick approach. By contrast a white certificate scheme¹ (from the point of view of the building owner) is just a carrot approach;
- in addition to creating an incentive to upgrade a building itself, including heating and cooling solutions for example, the scheme also creates an incentive to reduce energy consumption by changing behaviour;
- the price signal created by the scheme is long term and predictable, increasing investment confidence;
- it rewards early movers, advantaging those who have already undertaken improvements in energy efficiency;
- it requires the disclosure of energy and carbon performance information which in itself will improve the awareness of many building owners and tenants and motivate improvements especially when coupled with minimum standards for Government tenancy;
- it will stimulate the upgrade of inefficient buildings which will mean clean energy jobs;
- it will also stimulate investment in innovative solutions—clean energy products and materials; and
- it will serve as a much needed building performance measure for building occupants.²

1 A white certificate scheme establishes a reward for improved energy efficiency (the certificate). Certificates are tradeable among market participants. An leading example of a white certificate scheme is the New South Wales government's GGAS scheme.

2 Second Reading Speech, *Senate Hansard*, 17 September 2009, p. 6826.

4.3 WSP Lincolne Scott³, Lend Lease⁴ and Advanced Environmental⁵ have been key players in developing the ideas behind this legislation.⁶ In their submission to this inquiry, the companies note they have been working for the past three years 'to identify a simple, cost-effective and appropriate way to unlock the full abatement potential of non-residential buildings'.⁷ From this work, they recommended the Efficient Building Scheme, which is essentially a cap and trade scheme for non-residential buildings and very similar to this bill.

4.4 Lend Lease, WSP Lincolne Scott and Advanced Environmental argue that the scheme in the bill would be 'a simple, fair, affordable, and accurate process that will drive deep, fast, cost-effective reductions in the non-residential building sector'.⁸ Specifically, they claim that the bill offers:

- market benchmarking and decision-making through robust labelling;
- accurate carbon reporting; and
- the direct monetisation of carbon.⁹

Overcoming 'split incentives' in the sector

4.5 Chapter 2 noted the problem of split incentives in the non-residential building sector. Lend Lease and WSP Lincolne Scott argue that in so far as the scheme will offer strong financial incentives for the actual owners of builders, it will overcome the

3 Lend Lease is an Australian based multinational property management and investment company. Within this company they have subsidiaries that focus on Pharmaceuticals, Construction, Project Management & Private Finance Initiatives and Retail Development Investment. The largest of these subsidiaries, Bovis Lend Lease is an international construction management company, which operates in over 30 countries worldwide employing over 8000 people. In 2008, Lend Lease reported a net income of A\$259 million and a revenue of A\$15 billion.

4 WSP Lincolne Scott is an environmental building services and engineering consultancy lead by Managing Director Mr Ché Wall. In 2007, Lincolne Scott joined the WSP Group in a bid to expand across the US and European markets. The firm has more than 400 staff in 12 offices across Australia and the Asia Pacific.

5 Advanced Environmental is a green building consultancy firm that was established in Australia in 1996 by the now Managing Director of WSP Lincolne Scott, Mr Ché Wall. They have consulted on a number of globally recognised buildings such as the Melbourne Convention Centre. In Australia Advanced Environmental are fully integrated with WSP Lincolne Scott.

6 Second Reading Speech, *Senate Hansard*, 17 September 2009, p. 6825.

7 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 6*.

8 Lend Lease, WSP Lincolne Scott, Advanced Environmental, Efficient Building Scheme, <http://www.lendlease.com.au/sustainability/pdf/EfficientBuildingScheme.pdf>

9 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*.

'split incentives' problem and encourage owners to seek developments that meet high energy efficiency standards.¹⁰

4.6 However, the committee notes that the 'split incentives' problem in the non-residential building sector has not been clearly identified. A January 2010 report by Citigroup Global Markets was sceptical of the split incentives problem. It noted that:

If the owner invests to save the tenant's energy costs, this should eventually be reflected in rents. Direct industry feedback, however, suggests that in the recent weak Australian office market environment, where competition for tenants has been tough, owners have not been able to increase rents on this basis.¹¹

4.7 Citigroup commented that while energy efficiency is becoming a mandatory criterion in leasing deals, 'it is hard to find evidence that rentals are higher'.¹²

The Carbon Pollution Reduction Scheme (CPRS) and voluntary measures

4.8 Lend Lease and WSP Lincolne Scott argue that the federal government's CPRS, the voluntary measures in the National Strategy on Energy Efficiency (see chapter 2) and mandatory disclosure are all inadequate to drive energy efficiency improvements in the non-residential building sector.

4.9 Firstly, they argue that the CPRS will not send a sufficiently strong signal to create the right incentives throughout the economy. Mr Ché Wall, Managing Director of WSP Lincolne Scott, told the committee that it has been proven 'time and time again' in countries that have an emissions trading scheme that the signal is inadequate to deal with electricity and building owners specifically.¹³ He argued that even if a CPRS is introduced in Australia, it will have little impact on the sector because:

...energy costs are a small percentage of costs for non-residential building occupants, in the order of 1% of total costs; unlike householders who will bear the brunt of any energy price rises under the CPRS, non-residential building owners can negotiate cheaper prices; and building owners do not pay the electricity bills—those who occupy the building do because owners can pass the additional price increases through to tenants.¹⁴

4.10 Secondly, Lend Lease and WSP Lincolne Scott argue that voluntary abatement schemes have not worked. While they welcome the Council of Australian Governments' (COAG) initiatives on commercial buildings as part of the National

10 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 8.

11 Citigroup Global Markets, 'ASX-listed office trusts: Does "Green" pay?', January 2010, p. 48.

12 Citigroup Global Markets, 'ASX-listed office trusts: Does "Green" pay?', January 2010, p. 48.

13 Mr Ché Wall, *Proof Committee Hansard*, 12 February 2010, p. 4. Mr Wall noted that as the United Kingdom's Carbon Reduction Commitment covers only 50 per cent of built stock, they are now looking at whether they can apply the commitment to small and medium enterprises.

14 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 17.

Strategy on Energy Efficiency, they argue that these measures will not provide the financial incentives to drive investment in energy efficiency.

4.11 Mr Wall told the committee that there has been 'much international experience' that voluntary measures alone are inadequate to achieve meaningful emissions reductions in the non-residential buildings sector.¹⁵ He noted that:

- the Tokyo municipal government implemented mandatory disclosure and voluntary rewarding of carbon abatement in 2005. By 2008, however, 'they had only achieved a two per cent reduction in their building emissions';
- the UK has had a white certificate scheme since 2002 which allowed for voluntary recognition of carbon abatement towards their full emissions trading scheme. In 2007, the UK Government announced it will introduce a mandatory Carbon Reduction Commitment Scheme.¹⁶ This Scheme provides that public and private organisations that use more than 6000 MWh of electricity in 2008 will have to purchase and surrender allowances each year to cover their CO₂ emissions; and
- the New South Wales government's GGAS scheme—the first white certificate scheme in the world—targeted a 40 per cent yield for emission reductions from the non-residential building sector. It has realised a yield of 0.4 per cent.¹⁷

4.12 Thirdly, while Lend Lease and WSP Lincolne Scott strongly support mandatory disclosure they caution that it will:

...not benchmark standards and will not fully address the impacts of environmental externalities associated with buildings, nor will it provide reporting in a manner compatible with monetising carbon.¹⁸

Mandatory disclosure

4.13 The National Australian Built Environment Rating System (NABERS) scheme is a national initiative managed by the New South Wales Department of Environment, Climate Change and Water. It rates a building and parts of a building on a scale of one to five stars in terms of energy efficiency and whether there are proposals to improve it. A building will be rated for its energy efficiency from one star (very bad) to five stars (excellent).¹⁹

15 Mr Ché Wall, *Proof Committee Hansard*, 12 February 2010, p. 2.

16 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 20.

17 Mr Ché Wall, *Proof Committee Hansard*, 12 February 2010, pgs. 2 and 5. See <http://www.carbontrust.co.uk/cut-carbon-reduce-costs/reasons/impact-policylegislation/pages/carbon-reduction-commitment.aspx>

18 Lend Lease, WSP Lincolne Scott, Advanced Environmental, *Submission 8*, p. 19.

19 <http://www.environment.nsw.gov.au/government/nabers.htm>

4.14 This inquiry generated debate as to whether the NABERS scheme is adequate to achieve the result of the scheme proposed in the bill. Mr Rob Murray-Leach, Chief Executive Officer of the Energy Efficiency Council, told the committee that there is no need to create an alternative to NABERS. He argued that the bill's mechanism for measuring and calculating emissions intensity essentially replicates that of NABERS:

...there would be no reason to create a new tool. [NABERS] looks across a whole range of metrics of the building and it works out how to rate it based on its energy use per square metre. The only thing it does not do is say, 'What is an appropriate level? What is a benchmark for the industry?' It basically just rates it.

...

Our question is: why would you create a new tool to do something that is already done and is well accepted by industry?²⁰

4.15 Mr Dave Peebles, Director of National Policy and Public Affairs at the Green Building Council expressed similar sentiments. He told the committee that NABERS:

...is a standard that everyone is familiar with. We embed the NABERS standards into our own green star rating tool. So I think you would have to recognise that there would be a cost to business and industry in changing from a scheme which they are already familiar with, which is widely accepted and which is obviously a key part of the government's mandatory disclosure legislation and so on. Industry does support the current NABERS framework, as do we. So it really would be a question of: is this change for change's sake? Even if something is perceived to be simpler, nonetheless the industry is already familiar with the NABERS tool.²¹

4.16 However, in their second supplementary submission to this inquiry, Lend Lease and WSP Lincolne Scott countered that NABERS 'would not and could not' achieve the same result as the proposed scheme. It noted the following points:

- NABERS may encourage, but will not necessarily lead to, action on energy efficiency. Unlike NABERS, the bill imposes a financial penalty for inefficient buildings;
- NABERS is more costly than the reporting requirement needs to be. An assessment generally costs between \$1000 and \$4000, depending on the size of the space being rated; and
- the uptake of NABERS has been poor with an average of only 30 new ratings each year (230 in total) for the eight years it has been in operation.²²

20 Rob Murray-Leach, *Proof Committee Hansard*, 12 February 2010, p. 15.

21 Mr Dave Peebles, *Proof Committee Hansard*, 12 February 2010, p. 19.

22 Lend Lease, Lincolne Scott and Advanced Environmental, *Second supplementary submission*, p. 10.

4.17 The committee notes that while NABERS is an established scheme, its uptake has been quite poor and the cost of an assessment is high. It supports the bill's endeavour, through the Register of Emissions Intensity, to make the monitoring and disclosure of buildings' emissions mandatory.

Summary

4.18 The Greens, Lend Lease and WSP Lincolne Scott support this legislation on the grounds that mandatory reporting, financial incentives and financial penalties are crucial to improving the energy efficiency of the non-residential building sector. They argue that the CPRS and voluntary abatement measures are both inadequate to drive emission reductions in the sector.

4.19 In this context, the bill's supporters emphasise the importance of the mandatory disclosure of carbon performance information, the establishment of a carbon price and the penalties for inaction. This combination, it is hoped, will provide key information to building occupants on building performance, stimulate investment in energy efficient innovations and prompt the upgrade of inefficient buildings.

Chapter 5

Criticism (and counter criticism) of the bill

5.1 This chapter presents the three main criticisms of the bill presented in evidence to the committee:

- the greater importance of the government's Carbon Pollution Reduction Scheme (CPRS) and other complementary measures;
- the high cost of administering and complying with the scheme; and
- that the proposed scheme does not adequately target incentives.

The importance of the CPRS and other complementary measures

5.2 The first and main criticism of the scheme proposed in the bill is that other abatement measures should take precedence. The Property Council of Australia (PCA), for example, argued in its submission that the CPRS should provide the main price signal for modifying building energy use. It claimed that efforts to combine an economy-wide cap and trade with a sector-specific baseline and credit scheme 'will create confusion'.¹ Mr Peter Verwer, Chief Executive of the PCA, told the committee that:

...the CPRS is important. If we are going to proceed with the CPRS, which I understand is the policy of the Labor government, then that would be an argument to see how the CPRS goes or at least for it to be fully designed before we start implementing a complementary measure such as the one that is proposed in the bill.²

5.3 The PCA emphasised that existing and proposed programs designed to improve the energy efficiency of buildings should be tested before additional programmes are added.³ Mr Verwer explained that:

...a large number of energy efficiency programs that relate to the built environment have been launched in the past year. The National Strategy on Energy Efficiency and the climate change action programs which were launched mid last year contain a large number of specific programs that either address or touch upon improvements in energy and carbon performance—the greenhouse gas emissions from the built environment. Indeed, at our last count, adding them all up, there are about 54...[T]here is a lot going on in this area which is yet to be tested and which we believe will result in a substantial improvement in the energy efficiency of non-residential buildings. So to add a further program at this time before the

1 Property Council of Australia, *Submission 5*, p. 2.

2 Mr Peter Verwer, *Proof Committee Hansard*, 25 February 2010, p. 3.

3 Property Council of Australia, *Submission 5*, pp. 1–2.

other programs have been properly tested does not optimise the public policy approach to improving energy efficiency in buildings.⁴

5.4 In similar vein, the Energy Efficiency Council urged the 'rapid introduction of a strong and effective Carbon Pollution Reduction Scheme' (CPRS) in addition to a range of complementary policies to address market distortions that impede energy efficiency.⁵ Specifically, the Council recommended the following policies to drive retrofitting of existing commercial buildings:

- a National Energy Efficiency Scheme that covers commercial buildings and replaces the energy efficiency schemes introduced in New South Wales, Victoria and South Australia;
- design options include a white certificate scheme and expanded Green Building Programs;
- a National Demand-Management Scheme to address the existing distortions in the National Electricity Market (NEM) that favour supply-side over demand-side solutions;
- capacity building in the finance, property and energy efficiency sectors;
- mandatory disclosure of commercial building performance; and
- improvements in the energy efficiency of government operations.⁶

5.5 Mr Rob Murray-Leach, Chief Executive Officer of the Energy Efficiency Council, argued that these policies offered a more direct and targeted approach than the bill's scheme. He told the committee that:

We do not want to give people money every year because 10 years ago they upgraded their building and it is really efficient or tax people who have a building that is pretty old and it is very hard to get above a certain performance level. We think a better way of doing that is to provide targeted incentives that really help building owners sit up and pay attention. One of the reasons it has not worked before is that the schemes have generally been fairly badly designed.⁷

5.6 The Green Building Council of Australia also argued that other building efficiency measures, complementary to the introduction of the CPRS, should be prioritised over the bill's scheme. The Council cited the following priorities:

- reforming the Building Code;
- promoting accelerated depreciation and public funding for retrofitting; and

4 Mr Peter Verwer, *Proof Committee Hansard*, 25 February 2010, p. 2.

5 Energy Efficiency Council, *Submission 3*, p. 3.

6 Energy Efficiency Council, *Submission 3*, p. 3.

7 Mr Rob Murray-Leach, *Proof Committee Hansard*, 12 February 2010, pp. 15–16.

- government leadership in its own buildings and tenancies.⁸

5.7 In its submission, the Australian Institute of Architects cited a range of complementary measures identified in the 2008 report released by the Australian Sustainable Built Environment Council. These include:

- a national white certificate scheme, which minimises differences in existing state white certificate schemes;
- green depreciation, which involves the provision of accelerated depreciation allowances for building investments that involve specific energy efficient fittings, fixtures or fabric to raise the overall energy performance of a building to a specific standard;
- public funding for energy efficient retrofits, where the government provides grants, subsidies and rebates for improvements undertaken in the commercial sector; and
- enhancement of Minimum Energy Performance Standards, including enhancing the Mandatory Efficiency Performance Standards; and modernising the Building Code with higher standards.⁹

The cost of administering, and complying with, the scheme

5.8 A second criticism of the scheme is that it will be expensive to administer and will impose significant compliance burdens on the industry. The Energy Efficiency Council, for example, argued that the scheme is 'administratively cumbersome' with the administrator annually expected to collect data, set the baselines and levy penalties.¹⁰ It argued instead that a scheme to improve the energy efficiency of buildings should focus on 'the point at which buildings' efficiency is improved'.¹¹

5.9 Mr Murray-Leach of the Energy Efficiency Council described the administrative impost of the scheme in the following terms:

What you would need to do if it eventually got up and running is gather data from all these companies on every buildings every year, work out its appropriate rating and the average benchmarking for different climatic zones for that building and then tax them or give them a reward depending

8 Green Building Council of Australia, *Submission 7*, p. 1. See also Mr Dave Peebles, *Proof Committee Hansard*, 12 February 2010, p. 17.

9 Australian Institute of Architects, *Submission 4*, p. 2; Australian Sustainable Built Environment Council, *The Second Plank-Building a low carbon economy with energy efficient buildings*, September 2008, pp. viii-ix.
<http://www.asbec.asn.au/files/ASBEC%20CCTG%20Second%20Plank%20Report%202.00.pdf>

10 Energy Efficiency Council, *Submission 3*, p. 6.

11 In other words, a scheme that provides direct monetary incentives to invest in a particular green building technology.

on where they are at. So you actually have to have additional interactions with these building owners every single year. That is a relatively expensive way of doing it.¹²

5.10 The PCA has also argued that the scheme will burden non-residential building owners with an excessive compliance burden. It notes that the number of liable entities in the scheme would be far greater than those covered by the CPRS, and thus 'the compliance burden arising from the legislation would be significantly greater than even the CPRS'. The PCA argued that the legislation should not proceed until a comprehensive regulation impact assessment is undertaken.¹³

5.11 Mr Chè Wall, Managing Director of WSP Lincolne Scott, was asked for his response to this criticism that the scheme would cost too much to administer. He told the committee that:

The cost of compliance is really very low given the fact that all we are doing is collecting fuel bills on an annual basis on a building-by-building basis—which is a process every business does anyway because they have to pay for them—and then getting them settled. We see two points of interaction. For a small business where cost of compliance has to be kept incredibly low, there would be a market established for independent brokers, like an H&R Block tax adviser who simply receives the data, puts it in the right boxes, lodges that and does a transaction—it is almost a cash based transaction. Sophisticated investors—and Lend Lease corporation is a large building owner—or large property portfolios could interact directly with the carbon register and get all the fiscal benefits of being able to bank permits and do all the market smarts we know are beneficial from an emissions trading point of view. I believe that is truly based on misunderstanding of the scheme.¹⁴

Targeting incentives

5.12 A third criticism of the scheme proposed in the bill is that it does not adequately target incentives. This argument is a corollary of the broad preference for complementary measures to improve energy efficiency in the non-residential building sector.

5.13 Mr Murray-Leach of the Energy Efficiency Council told the committee that the key to complementary measures is to provide the incentive at the point at which the investment decision is made. He told the committee that the bill's scheme:

...duplicates the problem with the CPRS, which is that if you are a building owner under a CPRS or under alternative forms of carbon pricing like a carbon tax—and we think it is an important component and it does need to

12 Mr Rob Murray-Leach, *Proof Committee Hansard*, 12 February 2010, p. 15.

13 Property Council of Australia, *Submission 5*, p. 3.

14 Mr Che Wall, *Proof Committee Hansard*, 12 February 2010, p. 5.

be there because it sets the right level of energy efficiency for people investing—you will not notice and will not invest in the right level of energy efficiency because of background signal. It will just be something you pay every year.

...

We are suggesting that you have an incentive that really drives the retrofits and that it is at that point. Then it creates a point where people can see that upfront incentive and it really helps to change their business decisions. It needs to be linked back to the core business decisions in the way that these companies work. If they are already ignoring an energy bill that is three per cent of their expenses, unless you have an extremely high price in this scheme they probably will not notice that either. What you need is something that is at point of sale or at point of action and actually provides an incentive to invest in energy efficiency.¹⁵

Chapter 6

The committee's view

The importance of an economy-wide cap on carbon emissions

6.1 The committee believes that the challenge of reducing Australia's greenhouse gas emissions requires a suite of policy measures, of which a price on carbon and an absolute cap on emissions are key components. The federal government's Carbon Pollution Reduction Scheme (CPRS) sets an economy-wide price on carbon. The trade of carbon permits among the nation's largest 1000 (or so) emitters will filter through the economy and set clear market-based incentives for producers and consumers to reduce their reliance on carbon-intensive goods and services.

6.2 The committee is supportive of the bill's intent to establish a price signal for the build and retrofit of non-residential buildings in Australia. It agrees with WSP Lincolne Scott that 'it is much more appropriate to provide a clear market mechanism and let the market work out the best answers than to try and decide and pick winners in grant allocation'.¹ A price signal should be the primary mechanism to reduce greenhouse gas emissions; targeted grants could be a complementary measure.

6.3 A market-based mechanism would provide the least cost solution to abating greenhouse gas emissions. The 2007 Task Group on Emissions Trading noted that 'trading allows market forces to find least-cost ways of reducing emissions by providing incentives for firms to reduce emissions where this would be cheapest, while allowing continuation of emissions where they are most costly to reduce'.² This may or may not involve large reductions in emissions in the non-residential building sector. Accordingly, the committee believes that a price signal must be set across the economy as a whole, consistent with the objective of setting an overall cap on pollution. This is how the CPRS is designed.

6.4 The bill, on the other hand, is sector-specific and would not necessarily set a cap on emissions in the non-residential building sector. Large inefficient building owners will have the ability (and incentive) to pay the financial penalty for failing to surrender adequate certificates. Further, the bill's measures will only cover the owners of non-residential buildings, not the tenants. On some estimates, tenants account for 40–50 per cent of greenhouse gas emissions from non-residential buildings in Australia.

1 Mr Ché Wall, *Proof Committee Hansard*, 12 February 2010, p. 6.

2 Prime Ministerial Task Group on Emissions Trading, *Report*, 2007, p. 3, http://www.resourcesmart.vic.gov.au/documents/PMs_emissions_trading_report.pdf (accessed 3 March 2010).

6.5 The committee believes that the CPRS will act as an effective price signal for the non-residential building sector given that the carbon price will be embodied in the electricity and gas paid for by building owners.

Complementary measures

6.6 The committee believes that energy efficiency measures have, and will continue to play an important role in mitigating carbon emissions. The committee supports the federal government's initiatives on energy efficiency outlined in chapter 2 of this report.

6.7 By themselves, however, energy efficiency measures are inadequate. For energy efficiency measures to work well, they need to operate within the context of an overall cap on greenhouse gas emissions. As Mr Barry Sterland of the Department of Climate Change explained to the committee:

One of the well-known empirical observations is that energy efficiency measures by themselves without an overall cap on carbon give what is called a bounce-back. You provide energy efficiency measures and, say, people improve lighting efficiency. Whereas before they might have been a bit more diligent in turning the switch off because they knew they had less efficient lighting, now they are told that their lighting is much more efficient and lights are left on. There is a bounce-back in consumption that can partially, at least, offset some of the improvements made in energy efficiency by themselves.

Without an overall cap on pollution, partial measures can produce various secondary effects that frustrate the primary purpose. Countries that have relied only on those after a time I think have recognised that there are limits to how much they can achieve on their own. It is true that you can implement appliance efficiency standards, building efficiency standards and grant based funding, but in Australia's case—and the US has implemented a lot of these measures as well—emissions have kept going...³

The CPRS & the bill—'double counting' the non-residential building sector

6.8 A related point of concern is that a CPRS operating in conjunction with the bill's scheme would in effect impose a double carbon price for emissions from the non-residential building sector. To avoid this, the effect of the CPRS on the sector—from electricity and gas retailers selling to the sector—would have to be calculated and deducted from the cost of the bill's scheme certificates. As Mr Sterland told the committee, 'you would have a very complex apportionment...to avoid that double count'.⁴

3 Mr Barry Sterland, *Proof Committee Hansard*, 12 February 2010, p. 25.

4 Mr Barry Sterland, *Proof Committee Hansard*, 12 February 2010, p. 22.

Definitional issues

6.9 The committee believes that a fundamental problem with the design of the bill's scheme is how, precisely, different types of buildings will be identified. The Explanatory Memorandum notes that at the start of the scheme, the Minister must determine through regulations which types or sizes of buildings the Act will apply to. Buildings of different types and sizes will have different intensity caps.

6.10 However, there are definitional problems in establishing which types of buildings should have different thresholds. A neat division between 'office' and 'retail' buildings would often not be possible given that many buildings incorporate a mix of both office and retail space. Further, in setting intensity caps or thresholds for buildings of a certain size (2000 and 5000 square metre office buildings, for example) there will be many buildings that fall outside these classifications. If there are too few buildings within a given category, it may be difficult to identify a meaningful average.

6.11 The design of the CPRS offers a solution to these problems by focussing on comprehensive coverage of the upstream market. As the Department of Climate Change told the committee:

The solution in the CPRS is to decide on a coverage technique which makes them less important because of the comprehensive coverage upstream. That upstream coverage is not possible in this case because it is explicitly aimed at the liable facilities themselves.⁵

Setting the baseline

6.12 The other issue of concern for the committee is how the emission intensity baselines will be set. The impact of the scheme will be greater if a single emissions intensity baseline is set and if buildings' emissions around this baseline are significant.

6.13 For example, if the scheme establishes a single emissions baseline for all office buildings, the owners of old buildings that emit well above the baseline would be forced to purchase many certificates from the owners of new buildings which emit well below. On the other hand, if the scheme incorporated different baselines for buildings of different ages and for cities in different climates, the distributional impact would be less.

6.14 This point was made to the committee by the Department of Climate Change told the committee:

The baselines in this scheme reflect the ambition of the scheme and also how you distribute the impact of the scheme within the sector. So, to the extent that those variations are very wide between very old buildings and very new buildings, for example, this will have quite a differential effect on

5 Mr Barry Sterland, *Proof Committee Hansard*, 12 February 2010, p. 21.

the wealth of the different owners and on the clients and all the people who use the services of a building.

...

You can mitigate that to some extent by having multiple baselines...You might create a separate baseline for buildings that are of a certain age class. That will mitigate the distributional impacts.⁶

The lack of data

6.15 The committee is concerned that the proponents of this bill have not provided better data on how the age of non-residential building correlates with its carbon footprint. If the bill's scheme is to be considered, it is imperative that better data is made available to test the benefits of adopting baselines based on different criteria.

6.16 The committee received from the PCA as tabled evidence a scatter plot which showed little—if any—correlation between the net lettable area of 'investment grade' buildings in the Sydney CBD and North Sydney and their carbon emissions (kilograms of CO_{2e} per square metre per annum).⁷ Put another way, there is nothing in the scatter plot to suggest that smaller buildings are higher carbon emitters than larger buildings. Further, the information does not explain why some buildings are higher emitters than others. It is not clear whether high emitters perform poorly because their owners are 'lazy', because their building is old with outdated technology and/or whether the building is in use for more hours of the day than other buildings.

6.17 A detailed quantitative analysis of these issues—for each Australian capital city—is a prerequisite for considering the measures contained in the bill. It would give a sense of whether a building's age, intensity of use, size and location are significant determinants of a given building's carbon emissions.

Recommendation 1

6.18 The committee recommends that through its mandatory disclosure initiative, the federal government collect and analyse data to identify those factors that correlate with the emissions intensity of non-residential buildings. This information should be collated by location and made publicly available.

6.19 While this analysis is important, the committee does not support the legislation. Rather, the CPRS must be the priority, supported by the range of complementary energy efficiency measures currently being pursued by the federal government. Even if the data recommended above is made available, the committee

6 Mr Barry Sterland, *Proof Committee Hansard*, 12 February 2010, p. 22.

7 See Appendix 4. It should be noted that the data presented is based on NABERS which is a voluntary system of disclosure and may therefore under-represent highly emissions intensive buildings. This was noted by Mr Peter Verwer, Chief Executive Officer of the PCA: 'These are the most efficient buildings that the investors have...'. *Proof Committee Hansard*, 25 February 2010, p. 4.

considers that the decision-making process for setting the baselines in the scheme would be highly complex and contentious. The CPRS provides a simpler design and, through transmitting the carbon price, will provide a single and clear signal to all sectors of the economy.

Recommendation 2

6.20 The committee notes the CPRS legislation and recommends that in preparation for the full implementation of the scheme, steps be undertaken to analyse the data referred to in recommendation 1 and formulate an appropriate scheme to enforce energy efficiency for commercial buildings.

**Senator Annette Hurley
Chair**

Coalition Senators' Additional Comments

Introduction

The Coalition is impressed with the issues raised by the Committee and believes that they are certainly worthy of consideration.

However, the Coalition are of the opinion that the proposals listed here can stand on their own and there should be no link to:

- Carbon Pollution Reduction Scheme Bill 2010;
- Carbon Pollution Reduction Scheme (Consequential Amendments) Bill 2010;
- Australian Climate Change Regulatory Authority Bill 2010;
- Carbon Pollution Reduction Scheme (Charges – Customs) Bill 2010;
- Carbon Pollution Reduction Scheme (Charges – Excise) Bill 2010;
- Carbon Pollution Reduction Scheme (Charges – General) Bill 2010;
- Carbon Pollution Reduction Scheme (CPRS Fuel Credits) Bill 2010;
- Carbon Pollution Reduction Scheme (CPRS Fuel Credits) (Consequential Amendments) Bill 2010;
- Excise Tariff Amendment (Carbon Pollution Reduction Scheme) Bill 2010;
- Customs Tariff Amendment (Carbon Pollution Reduction Scheme) Bill 2010;
and
- Carbon Pollution Reduction Scheme Amendment (Household Assistance) Bill 2010.

Additionally, any such programme needs to be considered in light of the Green Loans and Home Insulation Programs

Stand-alone program

As stated in Chapter 5, the Property Council of Australia pointed out that the existing and proposed programs designed to improve the energy efficiency of buildings should be tested before additional programmes are added.¹ This was elaborated in the hearings.

... The National Strategy on Energy Efficiency and the climate change action programs which were launched mid last year contain a large number

1 Property Council of Australia, *Submission 5*, p. 1-2.

of specific programs that either address or touch upon improvements in energy and carbon performance—the greenhouse gas emissions from the built environment. Indeed, at our last count, adding them all up, there are about 54. I am happy to table an analysis of all of these bills. My point in raising this issue is that there is a lot going on in this area which is yet to be tested and which we believe will result in a substantial improvement in the energy efficiency of non-residential buildings. So to add a further program at this time before the other programs have been properly tested does not optimise the public policy approach to improving energy efficiency in buildings.²

Similarly, the Energy Efficiency Council argued that targeted incentives would really help building owners sit up and notice.³

While several submitters claimed that these were complementary to a Carbon Pollution Reduction Scheme (CPRS), it is the view of the Coalition that the proposals before the Committee can be applied independently of the CPRS. As pointed out by the Energy Efficiency Council:

...Leaders around the world are rapidly turning to energy efficiency. Obama committed \$26 billion to energy efficiency in 2009. Europe aims to cut its energy demand by 20 per cent by 2020. China is actually one of the world leaders in energy efficiency and aims to cut its energy use per unit of GDP. It was 20 per cent by 2020 and they have just upped that target. This is going to create a huge demand for energy efficiency services and products around the world. Global revenues ... from climate related businesses have grown a staggering 75 per cent over the past year. In one year they grew 75 per cent to reach US\$530 billion. That is from HSBC, which is one of the world's largest banks. They estimate it could reach US\$2 trillion by 2020. As you can see, energy efficiency currently forms 31 per cent of the pie. That is \$164 billion per year. The German government actually believes there is already over \$500 billion in energy efficient services and products. It depends where you draw the boundary in energy efficiency. We are looking at a sector that could very easily exceed—even by HSBC's estimate—\$600 billion per year. That is a really huge opportunity.⁴

The importance of energy efficiency is one that is often underestimated and has much potential to reduce Australia's carbon emissions.

2 Mr Paul Verwer, Property Council of Australia, *Proof Committee Hansard*, p. 2.

3 Mr Rob Murray-Leach, *Proof Committee Hansard*, 12 February 2010, p. 16.

4 Mr Rob Murray-Leach, *Proof Committee Hansard*, 12 February 2010, p. 9.

Green Loans and Home Insulation Programs scandals

Given the recent problems with the implementation of both the Home Insulation Program and the Green Loans Program, it needs to be noted that good intentions are not sufficient. There also needs to be competency of implementation.

Clearly, there needs to be a proper rollout of this program should this be introduced. With the new Home Insulation program to resume just three months after the debacle of the previous Home Insulation program, there is no guarantee that the same problems will not arise. The fact that the Minister and staff within the Department of the Environment, Heritage and the Arts were provided with repeated warnings of the risks to installers among other issues is extremely concerning.⁵ The operations of a program that would require building operators to retro-fit or new buildings to add additional costs through the measures proposed would have to be properly operated and the Department does not appear to be able to handle such a role appropriately.

Similarly, the Green Loans program has been poorly run, with the Auditor General being called in to investigate the program after just over six months of the program starting.⁶ Even the industry association charged by Environment Minister Peter Garrett to accredit the army of green assessors slammed the scheme as poorly managed and lacking quality checks.⁷

Association of Building Sustainability Assessors chairman Wayne Floyd said tens of thousands of home owners, eligible for the \$10,000 interest-free loans, were now likely to miss out on the Rudd government's new March 22 deadline on the loans.⁸

A further point to make on this issue is that even the banks started walking away from the scheme quickly.

Although the loan component of the scheme ends on March 22, Westpac and ANZ have said they are not taking any new applications.⁹

As a result of the introduction of a cap on the number of jobs any individual assessor

5 Padraic Murphy, 'Peter Garrett roofing insulation plan 'a lethal mix of ignorance and neglect'', *The Herald Sun*, 26 February 2010, <http://www.heraldsun.com.au/news/peter-garrett-roofing-insulation-plan-a-lethal-mix-of-ignorance-and-neglect/story-e6frf7jo-1225834939870> , accessed 8 March 2010.

6 Rosslyn Beeby, 'Scrutiny on green scheme for homes', *Canberra Times*, 10 February 2010, p. 1 and p. 6.

7 Michael McKenna, 'Green loan scheme 'hijacked'', *The Australian*, 5 March 2010, p. 6.

8 Michael McKenna, 'Green loan scheme 'hijacked'', *The Australian*, 5 March 2010, p. 6.

9 Rosslyn Beeby, 'Govt's green loans 'debacle' to be audited', *Canberra Times*, 26 February 2010, p. 4.

can do, several companies have been forced to lay off staff employed to do the assessments to start with.¹⁰

Conclusion

The Coalition understands that energy efficiency is an important issue and can be used to help combat Australia's carbon emissions.

The fact that the programs being recommended by this Bill could stand alone needs to be considered as an option for reducing carbon emissions. Further to that, any such program needs to be carefully considered to ensure that it is implemented properly, not just thrown together with good intentions.

Senator Alan Eggleston

Senator David Bushby

Deputy Chair

10 Nicola Berkovic, 'Green assessors lose jobs', *The Australian*, 8 March 2010, p. 5.

Dissenting Report from the Australian Greens

Introduction

The Safe Climate-Energy Efficient Non-Residential Buildings Scheme Bill 2009 is an exciting and innovative piece of legislation. It was drafted in consultation with leaders in the field of energy efficiency in non residential buildings and has the support of international organisations and experts such as William Sisson, Co-Chair of the World Business Council for Sustainable Development's Energy Efficiency in Buildings Project; RAND Corporation, one of America's oldest research institutes; and Dr David Vincent, Projects Director, Carbon Trust - an independent company set up by the UK Government to accelerate the move to a low carbon economy.

Given the level of support for this legislation outside the Parliament and the lack of any legislative measures that drive energy efficiency in non residential buildings in Australia, it is surprising that the Economics Committee's report fails to analyse the legislation in any serious way and delivers such a confused and superficial analysis of the issues or their relationship to a possible emissions trading scheme. It reflects the lack of internal consistency or whole of government approach to climate change and emission reduction under the Rudd government in Australia.

In several areas the report fails to represent the evidence received. Policy makers domestically and internationally are strongly encouraged to read the written and oral evidence provided by the original proponents of the scheme (Lend Lease, WSP Lincolne Scott and Advanced Environmental) rather than rely on the Committee's report.

The following comments outline the Green's response to the Committee's report and recommendations. These comments are intended to be read in conjunction with the submissions to the inquiry and the Hansard of the hearings.

Comments on the Recommendations

Recommendation 1

This recommendation misunderstands the scope of the Government's proposed mandatory disclosure of commercial office building energy efficiency program, which is limited to commercial office buildings only and is based on a measurement tool

which is designed for market comparison, not reporting, with no unified reporting period.

The essence of Recommendation 1 is that Government should collect and analyse data collected from the mandatory disclosure initiative to "identify factors that correlate with the emissions intensity of the non-residential buildings." One assumes that this means the government intends to investigate the relationship between building age or size and emissions intensity. This begs the question, what then? It is not at all clear to us how this information would be used in the future. Does it foreshadow a move for the government to pick winners in this sector with selective subsidies and exemptions? It does not seem to be a step towards introducing the Efficient Building Scheme (EBS) which would establish a level playing field on which all non residential buildings of a type, size, and climate zone would be treated equally, with the only exception being heritage buildings.

The data collected from the mandatory disclosure of building energy performance at the time of sale or lease will be too sparse to allow a future Government to establish energy performance caps for a range of building types in a range of climate zones as is envisaged in this Bill.

To reiterate, the mandatory disclosure program only applies to office buildings and not the schools, hospitals, shopping centres and other buildings that this legislation was designed to capture. Data collection is required to underpin the design of this scheme, but it has to be the right data: a fact that has escaped the Committee.

The EBS would introduce a cheap and simple method of collecting building energy and emission intensity data based on the annual reporting of electricity and gas bills together with building size. The Greens believe this methodology should be used for purpose of mandatory disclosure on an ongoing basis (not just at the time of sale or lease) and that in the future this information should inform the determination of other scheme design aspects such as which building types to include and the level of their emission intensity cap. Evidence given at the Committee hearing supported this information being made publicly available.

Recommendation 2

It is very difficult to understand what Recommendation 2 actually means. It seems to be saying that the Committee recommends that a scheme to enforce energy efficiency in commercial buildings, based on data from mandatory disclosure initiative, should be developed. However, there is no detail at all about what such a scheme may look like, and this idea was not proposed in any submission to the Committee. We can only

presume that it won't resemble the proposed EBS because the previous paragraph (6.20) says that "the committee considers that the decision-making process for setting baselines [ie the cap] in the scheme would be highly complex and contentious." In any case, as stated above the data collected by the mandatory disclosure initiative will not be useful for implementing proposed scheme.

As discussed further below, an "appropriate scheme to enforce energy efficiency" must balance incentives with an obligation to act, be based on mandatory participation, and include a carbon price set by the market if it is to be effective.

General comment on the body of the Committee Report

In general the Report fails to capture the essence of the arguments relating to the EBS Bill. That argument boils down to:

- (a) Which is the best method of assessing a building's energy performance?
and;
- (b) Which is the best complementary energy efficiency policy for non-residential buildings?

On the question of the method of assessing building energy and emission intensity performance, it was surprising that no evidence or witness challenged the methodology proposed by the original proponents of the EBS scheme, (Lend Lease, WSP Lincolne Scott and Advanced Environmental). This methodology is a simple and inexpensive measurement based on energy bills and building size.

Instead, many witnesses simply argued for retention of the National Australian Built Environment Rating System (NABERS) Energy rating tool. To an extent this is moot point because NABERS Energy, at least in its current form, is an inaccurate rating tool. Even if the technical flaws in NABERS Energy were corrected, it would rely on the use of independent expert assessors – greatly increasing transaction costs. We also highlight that the Committee received evidence that NABERS has been used to rate just 230 buildings in eight years.

A rating system like NABERS Energy may have its uses, but that is not the point. Rather, the point is that the Committee did not hear any arguments, convincing or weak, against the proposed simpler and cheaper option.

On the question of what is the best complementary energy efficiency policy, the two competing proposals are an energy efficiency credit trading scheme or accelerated depreciation for energy efficiency products.

Once again, no strong evidence was presented to the Committee to counter the assertion from the original proponents of the scheme that energy efficiency credit trading schemes (also called white certificate schemes) have not proved effective in the non-residential building sector, either domestically or internationally. On the contrary, the original proponents demonstrated instances where Governments have abandoned white certificate approaches in favour of schemes similar to the EBS.

With regards to accelerated depreciation, whether this would prove effective in the non-residential building sector was a contested point, but the Greens view is that either way it is compatible with and could be additional to the emissions trading scheme and/or white certificate trading or the proposed EBS. It is notable that the Property Council of Australia rejects a market mechanism to drive energy efficiency and prefers regulation and government largesse making it vulnerable to the whims of government in terms of both. Given that no government has this policy on the table why the PCA would take this approach is puzzling.

Supporters and detractors

The Committee Report fails to list the supporters of the Bill or supporters of the concept of a cap and trade scheme for buildings generally. A long list of supporters (both domestic and international), including statements of support, are listed in the first supplementary submission from Lend Lease, WSP Lincolne Scott and Advanced Environmental.

The Committee Report does detail opposition to the scheme, including from some energy efficiency advocacy organisations. To understand why some of these organisations may be opposed to the EBS, it is important to appreciate where conflicts of interest lie. There are essentially two types of building renovations:

- Minor upgrades using retrofit equipment – e.g. replacing inefficient lighting or fans with modern energy efficient substitutes.
- Major upgrades involving refurbishment of the building – eg to introduce more natural light through structural changes and reduce the need for artificial light or installing a passive heating and cooling system which does not require fans. Compared to minor upgrades, building refurbishment can achieve much greater improvements in energy efficiency.

Energy Service Companies (ESCOs) are companies that sell the efficient retrofit equipment, services to install this equipment and services related to guaranteeing savings on energy bills. They are often linked to product and equipment manufacturers and the installation of this furthers the financial interests of ESCOs.

ESCOs tend to support white certificate trading schemes because relatively simple equipment such as efficient lights and fans may earn valuable certificates. However, ESCOs are generally not in the business of major upgrades. They do not offer, for example, to upgrade the building's façade, introduce light wells, install chilled beam air-conditioning etc. ESCOs may even be hostile to policies which may supplant white certificate schemes. Equally those capable of major upgrades see the opportunity in major refurbishments and advocate for a total overhaul.

The fact is that we need both and both have their place.

More specific points

Paragraphs 2.17 and 2.20: It is implied that Mandatory Disclosure of Commercial Office Building Energy Efficiency is separate and additional to the National Strategy on Energy Efficiency. In fact the Mandatory Disclosure program is part of the strategy – indeed it is the only part that will create any incentive to improve the energy efficiency of existing buildings. Improving the Building Code is important but applies to major refurbishments that would have happened anyway. Critically, the mandatory disclosure policy applies only to office buildings whereas this Bill can apply to all non-residential buildings. Hospitals, shopping centres, hotels, etc are all major energy users.

Paragraph 3.6: With regard to the suggestion that the size of penalties is too large for small businesses, while there can be debate about the size of penalties, this Bill does not apply to small businesses, it applies to the owners of large buildings.

Paragraphs 3.16 to 3.19: With regard to whether the scheme should be termed a 'cap and trade' or a 'baseline and credit' system. I think the clearest indicator as to whether a trading scheme is one or the other is the method of allocating permits. The EBS allocates like a cap and trade scheme – that is, it allocates tradeable certificates up to the cap. If it was a baseline and credit it would allocate “credits” to building owners to the extent that their emission intensity was lower than a baseline.

There are elements of the scheme that borrow from typical baseline and credit schemes – particularly that the cap is based on emission intensity rather than absolute emissions. The word cap is still a valid descriptor however – the intent is to cap building emissions intensity.

It is worth noting the legal advice from Freehills submitted by Lend Lease, WSP Lincolne Scott and Advanced Environmental supporting the view that the correct terminology was cap and trade.

Paragraph 4.4: Regarding problems with NABERS Energy. Lend Lease, WSP Lincolne Scott and Advanced Environmental submitted a significant body of evidence critiquing the NABERS methodology, essentially giving numerous reasons to question the accuracy of the star ratings. This evidence is largely ignored by the Committee Report.

Paragraph 4.6: It is unbalanced to quote CitiGroup's (a bank not a property expert) arguments that 'split incentives' is not a real problem while ignoring evidence to the contrary. See for example RAND Corp report (especially page five), cited by Lend Lease, WSP Lincolne Scott and Advanced Environmental. http://www.rand.org/pubs/technical_reports/2009/RAND_TR728.pdf

Paragraph 4.12: To clarify, the cautionary comments from Lend Lease and WSP Lincolne Scott about mandatory disclosure were in the context that it has been proposed to use NABERS Energy as the energy performance metric.

Paragraph 5.5: With regard to the comment from the Energy Efficiency Council: We do not want to give people money every year because 10 years ago they upgraded their building and it is really efficient or tax people who have a building that is pretty old and it is very hard to get above a certain performance level.

An implicit reward for early action is consistent with all trading schemes, indeed it is one of the key benefits. Alternative 'carrot only' approaches such as white certificate schemes effectively provide a reward for early inaction by providing subsidies to late-movers. Note too that the early mover advantage diminishes over time as the cap is tightened.

Paragraph 5.3: The notion from the Property Council that there are 54 relevant policy measures is absurd. There is one substantive measure proposed for existing non-residential buildings; mandatory disclosure at the time of sale or lease. The EBS

proposal is potentially compatible with, but would build upon, a mandatory disclosure policy.

Paragraph 5.4: Similar to my comment in relation to paragraph 4.4. Lend Lease, WSP Lincolne Scott and Advanced Environmental submitted a significant body of evidence explaining why voluntary approaches have repeatedly proved ineffective. The Committee Report does not refer to this evidence in any detail.

Paragraph 5.5 and 5.7 discuss support for accelerated depreciation, but there is no mention of the contrary argument as to why this won't be effective in non-residential buildings. The second supplementary submission from Lend Lease, WSP Lincolne Scott and Advanced Environmental said:

"...listed property trusts pass all tax benefits to investors and the superannuation industry gets no benefit so accelerated depreciation is not a fiscal incentive for property trusts."

"Listed trusts cannot use this incentive as refurbishment capital. Unlike the [Efficient Building] Scheme, which is low-cost to Government, accelerated depreciation is high cost to Australians."

Paragraph 5.8: It is one thing to argue that the transaction costs of the proposed scheme could be expensive if a complex energy performance measurement tool (such as NABERS Energy), was used. But this is not what is proposed. It is clearly biased to say that the scheme will be necessarily expensive – after all the Bill defers this issue to the regulations.

Paragraph 6.1: The economy-wide price created by an emissions trading scheme will not “filter through” to “set clear market-based incentives” for the owners of existing non-residential buildings. The owners of non-residential buildings will not get an “effective price signal” because they don’t pay for the electricity and gas – the building occupants/tenants do, and energy costs are less than 1% of their total costs. Further, as large business owners they can negotiate cheaper energy costs than the rest of the market. This is fundamentally why all witnesses agree that complementary measures are required.

Paragraph 6.8: In relation to concerns raised about double counting. There is no suggestion in the Bill, the Explanatory Memorandum or the second reading speech that there should be any attempt to shield participants in the EBS from the impact of any emissions trading scheme. The observations from Mr Sterland, the representative from the Department of Climate Change, are true but irrelevant. It is disappointingly apparent that Mr Sterland was not across the detail of the Bill.

Paragraph 6.10 and 6.11: With regards to the assertion that there will be problems defining which types of office buildings should have different energy intensity thresholds. The Building Code of Australia clearly states how different types of buildings are identified. Refer, for example to section 2.3 'Building classifications' on pages 5-6 of the second supplementary submission from Lend Lease, WSP Lincolne Scott and Advanced Environmental. Note too that the 'neat division' referred to in paragraph 6.11 is made frequently. Each type of space needs an occupancy certificate from the local planning department, granted through a DA applicable to all fit outs. This is so issues of fire safety can be certified before people are allowed to occupy. Given the critical consideration of life safety, the separation of uses for carbon reporting purposes is far less onerous than already exists.

Paragraph 6.13-6.16: With regard to the assertion that there might be a single emission intensity cap for all office buildings. The Bill's Explanatory Memorandum clearly states "the Minister would then set an intensity cap for each building type, each year for 10 years, probably starting with the average intensity for a city or region. This would vary by city or region due to local climatic conditions impacting the average." Further, no evidence was presented to support the assertion that old buildings will emit "well above the baseline" while new buildings will emit "well below". Data collection may or may not lead to that conclusion in the future, but note that the scheme does not seek to relieve old buildings but to impose a price signal of sufficient magnitude to make it more attractive to upgrade the building. The assumption of the wealth of different owners being an important consideration suggests a misunderstanding of the ownership of Australia's existing building stock. This is not relevant consideration, whereas Heritage listing clearly is.

Paragraph 6.17: The meaning of this paragraph is unclear, but to try to clarify, the point that Property Council was trying to make was that if one estimated the median performance of buildings (which from the scatter graph they estimated at 128 Kg of CO₂ per square meter) it is apparent that while most buildings are clustered around the

median, there are some outliers that perform badly. The point of the graph seems to be to demonstrate that EBS would place an unfair impost on those inefficient buildings.

In giving evidence the Property Council acknowledged that there are other ways of calculating the median but asserted that these other methods don't make much difference. However, the Property Council took a CO₂e/m²/building number and then averaged, rather than a total CO₂e/total m² for the sector in question average, that is intended by the Bill. This makes a significant difference.

More importantly, however, the Property Council's thesis is based on outputs from NABERS Energy. These are not the emissions intensity figures proposed by the Bill. NABERS Energy distorts its reporting of CO₂ intensity per m² to 'correct' to externalities such as hours of use and numbers of computers in a workplace. They therefore bear no resemblance to the 'raw' CO₂e emissions that are considered in the Bill and in the calculation on the cap.

The Property Council displayed both a poor understanding of the intent of Bill and a determined effort to undermine a reasonable consideration of the pros and cons. This came as some surprise given that many members of the Property Council would presumably benefit from the EBS.

Errors that appear throughout the Committee Report

The words "commercial building" is understood by the sector to mean office buildings – nothing more. The scheme is intended to apply to 'non-residential' not just 'commercial' buildings.

The word 'baseline' should have been changed to 'cap'. Note that the word baseline does not appear in the Bill, the Explanatory Memorandum or my second reading speech.

In conclusion, it is clear that the argument against this Bill is in large part from individuals and organisations who wish to support the NABERS Energy rating tool and/or white certificate trading schemes. That is their prerogative. But it is the job of Governments, including Senate Legislation Committee's to navigate through all claims and counter claims and legislate in the long-term national interest. By producing a Committee report which fails to reflect the evidence submitted and by making recommendations which demonstrate a fundamental misunderstanding of the way the proposed scheme is intended to operate, the Committee has failed to meet this responsibility.

As a general comment the complete lack of engagement in the Bill's inquiry by both Government and Coalition senators is lamentable. The Inquiry analysis process and the drafting of the Committee Report has been a travesty that reflects very poorly on all members of the Committee and the Committee Chair, Senator Annette Hurley. The Australian public expects the Senate to exercise due diligence in considering such proposals and on this occasion the public has been let down. The failure to circulate my responses to the Committee Chair's Draft report meant that the other members of the Committee signed off on a report in ignorance of my responses to criticisms of a Bill which I have outlined above.

There was no considered response from either the Government or the Opposition, although the Chair has undertaken to provide her notes refuting my criticisms noted in this report. All in all there is no evidence that either Government or the Opposition have any significant interest in energy efficiency policy development in the area of non residential buildings. The Greens will continue to pursue this legislation until such measures are in place.

Senator Christine Milne

Additional Comments by Senator Xenophon

Introduction

1.1 During the inquiry into the Safe Climate (Energy Efficient Non-Residential Buildings Scheme) Bill 2009, it appeared that many held the view that formulating a plan to reduce Australia's emissions is a case of one or the other – a carbon pricing scheme or a certificates trading scheme.

1.2 However, complementary measures to a carbon pricing scheme, such as a certificates trading scheme, is not only necessary but is a workable plan.

1.3 White certificates are tradable documents which certify that a certain reduction of energy consumption has been attained by a building owner, and is partnered with an obligation to achieve a certain target of energy savings.

1.4 White certificates schemes currently operate in New South Wales (The Greenhouse Gas Reduction Scheme), the Australian Capital Territory, Victoria (The Victorian Energy Efficiency Target Scheme) and South Australia (Residential Energy Efficiency Scheme), and are a smart and effective way of reducing emissions.

1.5 Complementary measures, in addition to a carbon trading scheme is vital to reducing emissions.

1.6 Unfortunately an amendment in my name to introduce such a scheme was moved to the Carbon Pollution Reduction Scheme package of Bills but was unsuccessful.

Senator Nick Xenophon

Independent Senator for South Australia

APPENDIX 1

Submissions Received

Submission Number	Submitter
1	Dr Kevin Cox
2	Associate Professor Perry Forsythe (PhD, B.Build, Churchill Fellow)
3	Energy Efficiency Council
4	Australian Institute of Architects
5	Property Council of Australia
6	Mr Peter Clinnick (B.A.Sci.Hons. RPF)
7	Green Building Council of Australia
8	Lend Lease Corporation, WSP Lincolne Scott, Advanced Environmental
8a	Lend Lease Corporation, WSP Lincolne Scott, Advanced Environmental – supplementary submission

Additional Information Received

TABLED DOCUMENTS

Canberra, 25 February 2010

- **Property Council of Australia**

Gross Fixed Private Capital Formation as a % of GDP

- **Property Council of Australia**

Performance Investment Grade Buildings – Sydney CBD/North Sydney

- **Property Council of Australia**

Changes in GHG Emissions from the buildings sector in 2029-2030 Relative to BAU (MT CO₂)

APPENDIX 2

Public Hearing and Witnesses

CANBERRA, FRIDAY 12 FEBRUARY 2010

ATKINSON, Ms Maria, Global Head of Sustainability,
Lend Lease Corporation

MURRAY-LEACH, Mr Rob, Chief Executive Officer,
Energy Efficiency Council

PEEBLES, Mr Dave, Director, National Policy and Public Affairs, and ACT State
Manager, Green Building Council of Australia

STERLAND, Mr Barry Keith, First Assistant Secretary, Emissions Trading Division,
Department of Climate Change

WALL, Mr Che, Managing Director, WSP Lincolne Scott

CANBERRA, THURSDAY 25 FEBRUARY 2010

VERWER, Mr Peter, Chief Executive Officer, Property Council of Australia

