

2008-2009-2010

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

SENATE

BUILDING ENERGY EFFICIENCY DISCLOSURE BILL 2010

REVISED EXPLANATORY MEMORANDUM

(Circulated by authority of the Minister for Climate Change, Energy Efficiency and Water,
Senator the Honourable Penny Wong)

THIS MEMORANDUM TAKES ACCOUNT OF AMENDMENTS MADE BY
THE HOUSE OF REPRESENTATIVES
TO THE BILL AS INTRODUCED

BUILDING ENERGY EFFICIENCY DISCLOSURE BILL 2010

OUTLINE

The Building Energy Efficiency Disclosure Bill ('the Bill') provides for the establishment of a new national scheme, the Commercial Building Disclosure (CBD) Scheme ('the scheme'). The scheme requires disclosure of certain energy efficiency information relating to commercial office buildings in the context of sales and lease transactions.

Phasing in a national scheme for the disclosure of commercial building energy efficiency was agreed to by the Council of Australian Governments on 2 July 2009 under the National Strategy on Energy Efficiency. The parameters of an initial scheme for office buildings were subsequently agreed to by the Ministerial Council on Energy on 2 November 2009, including that the scheme be enacted through Commonwealth legislation.

The scheme will require the disclosure of energy efficiency information relating to prescribed classes of 'disclosure affected buildings'. Relevantly, when advertising a disclosure affected building for sale, lease or sublease, the building owner or lessee must include an energy efficiency star rating in the advertisement. At the time of offering the building for sale, lease or sublease, the owner or lessee must also disclose additional information about the energy efficiency of the building and the office lighting. Equivalent requirements apply where an area of building (rather than the whole building) is advertised or offered for lease or sublease.

The Bill sets out the framework for obtaining and disclosing energy efficiency ratings and office lighting assessments.

Broadly, before advertising the building for sale, lease or sublease, the relevant owner or lessee must obtain a certificate, that satisfies the requirements of a building energy efficiency certificate (BEEC), from a recognised issuing authority. The BEEC will have three primary components: an energy efficiency star rating for the office building; information about the energy efficiency of the office lighting (either for the whole building, if it is the subject of the sale or lease, or the area of the building that is to be leased); and general guidance on how the energy efficiency of the building may be improved. BEECs will be required to be registered on the online Building Energy Efficiency Register, where they will be accessible to potential purchasers and lessees.

The scheme will provide the commercial office market with credible information about the relative energy efficiency of offices that are for sale, lease and sublease. This will enable potential purchasers and lessees to consider energy efficiency as part of their decision making processes. In so doing, the scheme will empower the market with information that will encourage energy efficiency improvements to be carried out..

To ensure the costs of compliance are proportionate to the transactions costs, leases and subleases of 12 months or less (including any options to extend) are excluded from the scope of the disclosure obligations under the scheme.

The Bill provides transitional assistance to industry before and during the first 12 months of the scheme, by recognising certain non-BEEC energy ratings and assessments as sufficient to meet the disclosure obligations in the Bill during this period.

Financial Impact Statement

Funding of \$5.3 million over four years was committed by the Government in the 2009-10 Budget to support the development and implementation of the scheme. The allocation of this funding commenced in 2009-10. This funding is intended to cover both the initial phase of the scheme, covering office buildings, and the expansion of the scheme over the coming years to include other types of commercial buildings. Administration of the scheme will be undertaken with the objective of moving to full cost recovery at the cessation of this funding.

Regulation Impact Statement

A Regulation Impact Statement for the scheme has been prepared in accordance with the Council of Australian Governments' guidelines for best practice regulation and cleared by the Office of Best Practice Regulation. The Regulation Impact Statement is included in the following section of the Explanatory Memorandum.

REGULATION IMPACT STATEMENT

| | |
|--|------------|
| <i>Executive Summary</i> | <i>iii</i> |
| The rationale for government intervention | iii |
| Assessment of options | iii |
| The recommended approach — mandatory disclosure of energy efficiency at the point of sale or lease (buildings with NLA over 2000m ²) | iv |
| Assessment of other options | ix |
| <hr/> | |
| Chapter 1 | 1 |
| <i>The nature and extent of the problem</i> | <i>1</i> |
| 1.1 The commercial office market in Australia | 1 |
| 1.2 Current measures and ratings of energy efficiency for commercial office buildings | 2 |
| 1.5 Non-market barriers — Organisational failures | 12 |
| 1.6 Can current initiatives address the problem? | 12 |
| 1.7 Is there a rationale for further government intervention? | 15 |
| <hr/> | |
| Chapter 2 | 18 |
| <i>Objective of government action</i> | <i>18</i> |
| <hr/> | |
| Chapter 3 | 19 |
| <i>Options that may achieve the government objective</i> | <i>19</i> |
| 3.1 The base case — maintain current approach | 19 |
| 3.2 Option 1 — Mandatory disclosure of energy efficiency | 19 |
| 3.3 Option 2 — Industry managed energy efficiency disclosure scheme | 23 |
| 3.4 Option 3 — Mandatory minimum energy efficiency standards | 24 |
| <hr/> | |
| Chapter 4 | 25 |
| <i>Impact analysis</i> | <i>25</i> |
| 4.1 The 'base case' | 25 |
| 4.2 Costs | 30 |
| 4.3 Direct benefits of Options 1 and 2 | 35 |
| 4.4 Longer term indirect benefits of Options 1 and 2 | 42 |
| 4.5 Benefits of Option 3 — Mandatory minimum energy efficiency standards | 44 |
| 4.6 Comparison of benefits across all options | 45 |
| 4.7 Sensitivity analysis | 46 |
| 4.8 Combined sensitivity analysis — Monte Carlo analysis | 50 |
| <hr/> | |
| Chapter 5 | 52 |
| <i>Conclusion and recommended option</i> | <i>52</i> |
| 5.1 The preferred option — Mandatory disclosure (Option 1(a)) | 52 |
| 5.2 Assessment of the proposal for annual tenancy assessments (Option 1(b)) | 53 |
| 5.3 Assessment of the inclusion of NABERS Energy simulation protocol (Option 1(c)) | 53 |
| 5.4 Assessment of Industry-lead voluntary disclosure (Option 2) | 53 |

5.5 Assessment of minimum standards for energy efficiency (Option 3)54

| | |
|--|----|
| Chapter 6 | 55 |
| <i>Consultation</i> | 55 |
| 6.1 Consultations conducted for this RIS | 55 |
| 6.2 Stakeholder input in the development of the Consultation RIS | 55 |
| 6.3 Nature of stakeholder feedback on Consultation RIS | 56 |
| 6.4 How stakeholder comments have been reflected in this Decision RIS | 57 |
| <hr/> | |
| Chapter 7 | 59 |
| <i>Implementation and review</i> | 59 |
| 7.1 Implementation | 59 |
| 7.2 Interaction with existing regulation of the sector | 60 |
| 7.3 Timing | 60 |
| 7.4 Review | 60 |
| <hr/> | |
| Appendix A | 61 |
| <i>Submissions</i> | 61 |
| <hr/> | |
| Appendix B | 63 |
| <i>Impact analysis assumptions</i> | 63 |
| B.1 General | 63 |
| B.2 Base Case | 63 |
| B.3 Option 1 | 65 |
| B.4 Option 2 | 67 |
| B.5 Option 3 | 67 |
| B.6 Summary of cost estimates | 67 |
| <hr/> | |
| Appendix C | 68 |
| <i>References</i> | 69 |
| <hr/> | |

Executive Summary

Mandatory disclosure of commercial building energy efficiency was proposed in December 2004 under the Stage One implementation plan of the National Framework for Energy Efficiency (NFEE) — a joint initiative of the Commonwealth, State and Territory Governments under the Ministerial Council on Energy (MCE).

This Regulation Impact Statement (RIS) assesses options for improving the energy efficiency of the commercial office building sector in Australia. It has been commissioned by the Department of the Environment, Water, Heritage and the Arts on behalf of State and Territory Governments to assess the proposal under the NFEE to introduce a national scheme for the mandatory disclosure of the energy efficiency at the point of sale or lease for office buildings above certain size thresholds.

The rationale for government intervention

This RIS found a number of factors in the market for commercial office space in Australia that impede the take-up of economically feasible energy efficiency improvements:

- there are information asymmetries between building owners and prospective tenants or buyers, where tenants and buyers are placed at a disadvantage in understanding the energy efficiency performance of premises on the market;
- split incentives occur in the market, where those in the best position to effect change have little or no incentive to do so; and
- organisational failures exist, where there are information asymmetries and split incentives within firms which mean that low or no cost opportunities are not taken-up.

Existing measures do not currently address these problems. The Carbon Pollution Reduction Scheme will assist in reflecting environmental costs of energy use, but will not necessarily address information failures and split incentives in the market. This RIS therefore focuses on potential options that will address these barriers.

Assessment of options

Consistent with the COAG guidelines for best practice regulation, this RIS provides an assessment of the ‘problem’ requiring government action, the objective of government action, and three options for change (compared with the status quo option of no further government intervention). The following options are assessed in this RIS from which the preferred option was chosen (Option 1(a) with a 2000 m² threshold).

Option 1(a) — Mandatory disclosure of energy efficiency at the point of sale and lease.

Under this Option property owners would have to report a National Australian Built Environment Rating System (NABERS) Energy star rating, tenant lighting details and energy efficiency guidance to buyers or tenants, where the property meets certain criteria. Two permutations of the size of properties to which obligations would apply are assessed (either Net Lettable Area [NLA] larger than 2000 m² or larger than 5000 m²).

This option also includes the consideration of two additional sub-options:

- *Option 1(b):* tenants of properties over 2000m² be required to conduct annual NABERS Energy tenancy assessments; and
- *Option 1(c):* owners of new buildings be required to disclose an energy efficiency rating through using a NABERS Energy simulation protocol (similar to the modelling requirements of a NABERS Energy Commitment Agreement).

It should be noted that neither of these sub-options were supported by the economic analysis.

Option 2 — Industry code of practice.

This Option is similar to Option 1, except that there is no explicit regulation. Instead, the industry (in this case, representing building owners) develops an industry code of practice, which participants can voluntarily adopt. By signing up to the code, building owners are making a commitment to provide energy efficiency information in sale or lease transactions.

Option 3 — Mandatory minimum energy efficiency standards.

This Option moves away from an information approach to addressing the problem, instead mandating that building owners meet minimum energy efficiency standards within a stated timeframe. Where applicable, the triggers would be the same as for Option 1(a) — mandatory disclosure. That is, where the NLA is greater than 2000 m² or greater than 5000 m².

The recommended approach — mandatory disclosure of energy efficiency at the point of sale or lease (buildings with NLA over 2000m²)

This RIS concludes that the recommended approach by governments should be a requirement for mandatory disclosure of NABERS Energy base building ratings, tenant lighting details and energy efficiency guidance for buildings being sold or leased over 2000m² NLA. The analysis found that this scheme — Option 1(a) (over 2000 m²) — is the most cost effective option to address the identified problems in the market.

The impact analysis of options found that this scheme would cost \$18.7 million over 10 years (NPV). These costs include costs to building owners of purchasing energy efficiency information and costs to government of administering the scheme. The costs also include time costs for building owners in providing information for assessments on their property.

The estimate of costs is low considering the scope of the scheme, reflecting the low cost nature of information tools in comparison to other regulatory options. The key costs incurred are those relating to the production of the information itself, as the scheme does not mandate upgrades or increased energy efficiency *per se* (though the intention of requiring the provision of the information is to encourage these indirectly).

The assessment of benefits of the scheme considered both direct and indirect impacts:

- *direct benefits* of the scheme are to those tenants and/or prospective buyers who are able to use the disclosed ratings to choose a premise with a higher energy efficiency rating — the benefits achieved are through savings for these parties of occupying higher rated premises.
- *indirect benefits* of the scheme can be achieved through voluntary energy efficiency improvements, and associated greenhouse gas abatement, that may occur with a better informed marketplace.

Direct benefits of mandatory disclosure

The direct benefits of mandatory disclosure are assessed in this RIS using a break-even analysis. This approach sets a threshold point where benefits are sufficiently high to cover costs. It is important to note in this analysis that the break-even target is *not*:

- the expected total benefit of the scheme, *or*
- the target benefit for government to be satisfied that the scheme is a ‘success’.

What the break-even analysis does is set a threshold specifically for the cost benefit analysis to test the reasonableness of the costs imposed against potential *direct* benefits.

The break-even point for direct benefits from mandatory disclosure is **3.9 per cent** of property transactions per year over the 10 year period of the scheme (when applied to buildings with NLA over 2000m²). This means that *at least* this proportion of buyers or tenants need to use the information in their property decisions (this means that there would need to be at least 114 transactions over 10 years where the tenant or buyers used the information provided to rent or buy a property with a NABER Energy rating 1 star higher than other properties they may be considering on the market). Sensitivity testing of this option concludes, with 90 per cent confidence, that the estimate of the break-even level of application by buyers and tenants is in the range of 2.6 to 4.9 per cent.

The low break-even point reflects the low costs of the scheme. The critical test for this analysis is whether this threshold is reasonable, given the nature of the information being provided. The analysis found that, while information disclosure is an indirect method to influencing behaviour (and thus its impact should not be overstated), there is sufficient evidence of growing interest in the market in ‘green’ performance to indicate that this threshold is certainly achievable.

Potential indirect benefits

This analysis shows that direct benefits from the scheme are likely to be sufficient to justify the costs of the scheme. There is also scope for benefits through a more informed market place. Problems of information asymmetry in markets often lead to adverse selection — where higher quality products are under supplied or driven out of a market because consumers cannot distinguish them from poor quality products. The provision of information can, where it is sufficient across a market, assist in the identification of higher quality products, and allow the market to provide a differentiated product. In the case of energy efficiency, information disclosure through ratings and reports on potential improvements in performance can assist in increasing awareness of energy efficiency opportunities within organisations — thereby addressing some organisational failures.

The potential for voluntary energy efficiency improvement through a more informed market is set out in the table below. This provides scenarios for potential voluntary improvement in energy efficiency. It shows that voluntary improvement in a relatively small proportion of the market results in benefits (through energy savings) in the range of \$13.5 million to \$54 million for Option 1(a) (over 2000 m²). These incremental improvements can be achieved through low cost opportunities such as improved management, maintenance or behavioural change on the part of occupants. A key factor in this analysis is that as these improvements are voluntary — they should only occur where owners consider the improvement are cost effective for their property (that is, specific improvements are not mandated).

ES.1

POTENTIAL BENEFITS OF VOLUNTARY ENERGY EFFICIENCY IMPROVEMENT

| | Proportion of building stock | >2000 m ² NPV (millions) over 10 years |
|--|------------------------------|---|
| Improvement by ½ a NABERS Energy star rating | 5 per cent | \$13.5 |
| | 10 per cent | \$27.0 |
| Improvement by 1 NABERS Energy star rating | 5 per cent | \$27.0 |
| | 10 per cent | \$54.0 |

Characteristics of the proposed scheme

Under the mandatory disclosure scheme recommended in this RIS, building owners would be required to disclose the energy efficiency of their building — expressed as a Building Energy Efficiency Certificate (BEEC), which would include:

- a National Australian Built Environment Rating System (NABERS) Energy star rating for the base building;

- brief guidance material that provides owners and tenants with information on energy efficiency investment opportunities (These opportunities are measured in potential star improvements and given a difficulty rating of high, medium or low that is dependent on cost and operational impact); and
- information on tenant lighting power density and controls.

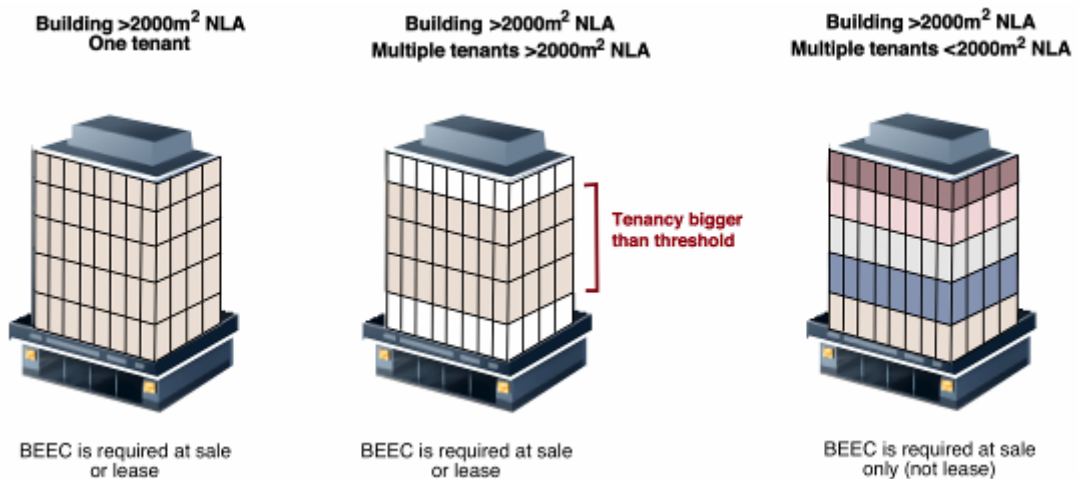
The NABERS Energy rating tool is already available to building owners and tenants, with many of them making use of the tool on a voluntary basis.

Mandatory disclosure will require that when a commercial office building with a NLA greater than 2000 m² or any part of such a building that is greater than 2000 m² NLA, is to be sold, leased or sub-leased, an appropriate energy efficiency certificate for the building must be disclosed.

Figure ES.1 illustrates the central requirements of the mandatory disclosure proposal.

Figure ES.1

GRAPHICAL OVERVIEW OF THE CENTRAL REQUIREMENTS FOR MANDATORY DISCLOSURE



Source: Allen Consulting Group illustration, data sourced from Mandatory Disclosure Regulation Document

The scheme will apply to three main scenarios:

1. when a whole building with an NLA above the threshold is sold;
2. when a whole building with an NLA above the threshold is leased or subleased;
and
3. when a part of a building with an NLA above the threshold is leased or subleased.

Table ES.2 summarises the types of energy efficiency information required depending on the scenario under which mandatory disclosure is applied.

Table ES.2

OVERVIEW OF ENERGY EFFICIENCY RATING REQUIREMENTS FOR OPTION 1

| Whole building >2000m² NLA | Sale | Lease | Sublease |
|--|-----------------------------------|--------------|-----------------|
| Base building rating | ✓* | ✓* | If available |
| Tenancy lighting details | ✓ (for all tenancies in building) | ✓ | ✓ |
| Base building guidance | ✓ | ✓ | If available |
| Tenancy guidance | ✓ (for all tenancies in building) | ✓ | ✓ |
| Part building > 2000 m² NLA | Sale | Lease | Sublease |
| Base building rating | × (Strata titles excluded) | ✓* | If available |
| Tenancy lighting details | ✓ | ✓ | ✓ |
| Base building guidance | × (Strata titles excluded) | ✓ | If available |
| Tenancy guidance | ✓ | ✓ | ✓ |

Note: *When a building has inadequate metering to obtain a base building rating a whole building rating must be disclosed.

Complementarity with a Carbon Pollution Reduction Scheme

An information-based scheme such as mandatory disclosure can complement price-based policy tools where information works to address market failures. Where information asymmetries exist, price signals in the market (such as new taxes or subsidies) can have limited effectiveness. Where higher prices are used to provide an incentive to change behaviour, information asymmetries can block this incentive if they do not allow consumers to act on the price signal. Research commissioned by the Australian Sustainable Built Environment Council (ASBEC) supports this conclusion, indicating that energy efficiency improvements in the building sector will support the CPRS, and lower the cost of the scheme because investments in energy efficiency will lower the cost of permits in the scheme (due to lower demand) (ASBEC 2008).

On this basis, mandatory disclosure can complement the Carbon Pollution Reduction Scheme. Analysis in this RIS suggests that a carbon price is unlikely to place significant cost pressures in the commercial office building sector within the next 10 years, if the Carbon Pollution Reduction Scheme commences with a low to moderate carbon price trajectory.

Assessment of other options

Proposal for annual tenancy assessments (Option 1(b))

The proposal to require annual tenancy assessments is not recommended because of the high costs that it would impose on tenants, with insufficient ability for costs to be offset with energy savings. This option would impose a cost of \$101.2 million over ten years (NPV) when applied to tenancies greater than 2000 m². Offsetting these costs would require voluntary investment in energy efficiency improvement to 24 per cent of the building stock. The ability of tenants to offset the assessment costs annually would diminish over time as lowest cost energy efficiency improvements are implemented. The likelihood of voluntary action to offset assessment costs will therefore reduce over time, making it more likely that tenants would pay assessment costs (as required) but not act on the assessment information to achieve energy savings.

Reducing the frequency of the assessment period from 12 to 36 months would lower the cost of assessment, and set a more realistic break-even target for energy efficiency savings. The benefit of this approach is that it includes (in a more cost effective manner) those long term tenants, which are not receiving information through engaging in sale or lease transactions. That said, there are likely to be more efficient information-based approaches that would have a similar impact, without as high a regulatory burden.

Proposal to require modelling under a NABERS Energy simulation protocol for new buildings (Option 1(c))

This RIS also assessed the option of requiring that new buildings be rated under a NABERS simulation protocol. This requirement would apply to all buildings sold within 12 months of construction, and therefore not able to be rated using the normal NABERS method.

Analysis of this option found that it adds an additional \$14.8 million in costs to building owners (for properties larger than 2000 m²). While the total quantum of these costs is not large, the actual costs to individual owners are significant (around \$40 000), for a simulation of energy efficiency which is not necessarily a better indicator than the lower cost assessments that can be undertaken 12 months after occupation. The cost effectiveness of this option is therefore lower than requiring a NABERS Energy assessment 12 months after occupation.

It is also worth noting that the energy efficiency of new buildings is typically higher than that of existing building stock, because of requirements in the Building Code of Australia and because the cost of investment in energy efficiency design and equipment is significantly lower for new construction, compared with investing in improvements in existing buildings.

Industry-led voluntary disclosure (Option 2)

This RIS also assessed the option of implementing an industry-led code of practice for disclosure of energy efficiency performance at the point of sale or lease. The assessment found that, while there is already some voluntary action being taken by industry, a code would have a positive impact on disclosure (compared with the current practice), though this impact would be less than for mandatory disclosure. Further, it is likely that there would be positive bias in disclosure on a voluntary basis, in favour of better performing buildings. Such a scheme would therefore have lower benefit for buyers and tenants, as it would provide less information with which to compare properties, and would have reduced impact on the information in the market, compared with mandatory disclosure.

Minimum standards of energy efficiency for existing buildings (Option 3)

As an alternative to an information-based tool, this RIS also assesses the option of imposing a more stringent regulatory requirement than mandatory disclosure — minimum standards for energy efficiency for existing buildings.

Mandatory minimum performance standards would impose the highest cost on building owners of all options, with benefits from energy savings not offsetting costs within a 10 year timeframe of the minimum standard being achieved. As such the net cost of the option would be \$334 million for properties larger than 2000 m² or \$277 million for properties larger than 5000 m².

Chapter 1

The nature and extent of the problem

Best practice regulation aims to address market failures at minimum cost to consumers and industry. In order to make a case for government intervention, a RIS must first establish the problem that the proposed regulations are seeking to address. This is necessary in order to develop appropriate options — whether regulatory or non-regulatory — that can directly address the problem, and establish an objective framework, within which the relative performance of options can be compared.

In accordance with COAG guidelines for best practice regulation¹, this chapter:

- presents evidence on the magnitude (scale and scope) of the problem;
- documents relevant existing regulation at all levels of government, and demonstrates that it is not adequately addressing the problem;
- identifies the relevant risks and explains why it may be appropriate for government to act to reduce them; and
- presents a clear case for considering that additional government action may be warranted, taking into account existing regulation and any risk issues.

This chapter considers the extent to which there is a need for government intervention to improve the energy efficiency of commercial office buildings.

This assessment suggests that an option which focuses on provision of information at transactions may provide a benefit to market participants. Alternatively, mandatory minimum standards may be a viable option where the requirement for market signals is removed and regulation sets standards for performance (effectively assuming that the market is not able to achieve those standards through the willingness to pay of consumers).

1.1 The commercial office market in Australia

For the purposes of this analysis, commercial office buildings are taken as being defined by the NABERS Energy Protocol, which states:

Office Building: As defined by the NABERS Energy Protocol i.e., as a place in which business, clerical or professional activities are conducted. A typical office also includes areas that are not technically considered “office” spaces but support the people carrying out those tasks. This includes meeting rooms, kitchenettes, storage spaces, computer rooms, and speciality areas such as child minding.

New office building: A recently constructed office building which is not in a stage where it can be rated under NABERS Energy.

Existing office building: A building which is at a stage where it can be rated under NABERS Energy i.e., which has been occupied for more than 12 months. (DEWHA 2008)

¹ *Best Practice Regulation – A Guide for Ministerial Councils and National Standard Setting Bodies (COAG October 2007)*. RISs developed under the COAG guidelines are reviewed by the Office of Best Practice Regulation (see <http://www.obpr.gov.au>)

² One of the data inputs to a NABERS rating is 12 months worth of energy expenditure data. Buildings that have not been occupied or operational for 12 months will not have the associated data, and are treated differently.

The size of the commercial office property market in Australia is not known exactly, however, there are good data on the number of buildings and the floor space of commercial office buildings in the major built-up areas in and around the capital cities. Currently, there are over 21 million square metres of commercial office property in major Australian business centres, spread across 3980 buildings (Property Council of Australia 2008). Of this, around 19 million square metres are accounted for by 2170 buildings with NLA of greater than 2000m², and just over 16 million square metres are accounted for by 1174 buildings with Net Lettable Area (NLA) of greater than 5000m² (Property Council of Australia 2008).

Information on sales of commercial properties for 2002 shows that owner-occupiers make up less than one per cent of the market, however, it is not known the extent to which this applies to the commercial office property market in more recent years (IBISWorld 2008). There is also not currently reliable data on the proportion of commercial office stock that have been built (or redeveloped) to be compliant with energy efficiency requirements in the BCA. However, given the relatively short time since these requirements were introduced, it is expected that it remains a low, but growing, proportion.

As an aid to comparison, a 5000m² building encompasses an area a little over two-thirds the size of a standard soccer field or would comprise eight storeys of floor space measuring 25 metres by 25 metres. A 2000 m² property would comprise a little over three of these floors.

1.2 Current measures and ratings of energy efficiency for commercial office buildings

Research suggests that the commercial building sector (of which office buildings are one component) has experienced sustained growth in energy use in the 15 years to 2006 (87 per cent growth between 1990-91 and 2005-06). This trend is likely driven by strong economic conditions, expanded working hours in the services sector and greater use of energy-intense equipment, such as computers, and fixtures, such as air-conditioning and feature lighting.

This growth in energy *use* does not necessarily correlate with lower energy efficiency *performance* — energy efficiency is a measure of the ratio of inputs to outputs, therefore efficiency can improve while use increases. Growth in energy use does indicate, however, that efficiency is more important for that sector, as the potential gains from higher efficiency are increased at higher rates of energy use.

Understanding the potential problem in relation to energy efficiency requires an assessment of current performance. The actual energy efficiency performance of the commercial office building stock may be determined by assessing current building energy efficiency ratings, as well as identifying where there are minimum standards for performance (such as through building regulation).

NABERS Energy rating tool

The NABERS Energy assessment tool is the most extensively used rating tool in the commercial office property market in Australia. It was previously known as the Australian Building Greenhouse Rating (ABGR). The Commonwealth, NSW, Victorian, WA, SA and ACT Governments have adopted NABERS Energy targets in their procurement policies for office accommodation.

The NABERS Energy scheme benchmarks the actual operational energy use of existing commercial office buildings, measuring energy use per m² of NLA. This energy efficiency measure is given a greenhouse conversion factor, taking into account regional variations in the greenhouse intensity of the energy supplied to the building. The NABERS Energy benchmark requires 12 consecutive months of a building's energy efficiency and greenhouse performance, which is compared against the benchmarks to award star ratings. 0 provides details on the 5 star ratings under NABERS.

Figure 1.1

NABERS ENERGY BANDWIDTHS



Source: NSW DECC

Among office tenants, research suggests that 61 per cent have some level of awareness of NABERS (Colliers International 2008). A recent survey of building owners found that 26 per cent of organisations were reporting using NABERS (then ABGR) ratings (Jones Lang LaSalle 2008). NSW DECC advise that:

The NABERS ratings are actively promoted through advertising, media relations and other marketing initiatives, supported by funding from states across Australia. It is also promoted through third party initiatives, such as the CitySwitch and Building Tune-up programs, and by building and portfolio owners who publicise their ratings.

Indicators of energy efficiency of the commercial office building stock

Measuring the current energy efficiency of commercial office buildings requires a significant proportion of buildings to have undergone energy efficiency assessment. Unfortunately, in Australia, while the proportion of rated stock is growing each year, a majority of buildings are currently not rated for energy efficiency. Those that are rated, are predominantly large and higher grade quality buildings (that is, Premium, A or B grade buildings). Even in the large end of the market, a majority of buildings have not yet been rated for the energy efficiency:

- for properties between 2000m² and 5000m² in size, only 13 per cent of properties have had a NABERS assessment.
- in the over 5000m² category, it is estimated that up to 70 per cent of properties have not had *at least one* NABERS assessment in the period from 1999 to 2007.

Assessment of a sample of reported NABERS Energy star ratings conducted between 2004 and 2008 found an average rating from 2.8 stars (without adjustments for green power) for a first assessment, and 3 stars for a second assessment. These figures were derived from averaging data from buildings which have been voluntarily rated under NABERS Energy. Industry best practice is currently defined as a rating of 3 stars under NABERS Energy. This was determined in 1999 when the scheme was established. However, a more recent survey of ratings indicates that a performance of 4 to 4.5 NABERS stars is a more accurate indication of 'best practice', with several buildings achieving this performance level. It is reasonable to estimate that industry (on average) is lagging at least one to one and a half stars behind current best practice – this equates to a 20 to 30 per cent lag in energy efficiency between the an average building and industry best practice.

Determining performance based on currently rated buildings is likely to result in a positively biased result. There are strong incentives for owners of high quality, better performing buildings to invest in an energy efficiency rating to promote the energy efficiency performance of their building in the market. This observation is supported by research by the Warren Centre which found that disclosing a NABERS rating to tenants is *positively correlated* with a higher NABERS rating (by 0.5 stars) (Warren Centre 2009).

Another benchmark for a ‘good’ or desirable minimum energy efficiency standard is the star rating achieved by new or redeveloped buildings that comply with the Building Code of Australia’s (BCA’s) minimum energy efficiency standards (discussed further below). The compliance standards in the BCA do not directly translate to NABERS star ratings, because the BCA standards are design based, whereas NABERS ratings are derived from actual occupation, and operations in a commercial building over a 12 month period. Estimates of the approximate NABERS rating associated with a BCA compliant building are shown in Table 1.1. A simple average across the jurisdictions gives an average of 3 stars — the same as the current industry best practice.

Table 1.1

IMPLIED NABERS RATINGS OF BCA COMPLIANT BUILDINGS

| City | Raw NABERS score | Minimum adjusted rating* | Maximum adjusted rating* |
|-----------|------------------|--------------------------|--------------------------|
| Adelaide | 4.0 | 2.5 | 3.0 |
| Brisbane | 4.0 | 2.5 | 3.0 |
| Canberra | 4.0 | 2.5 | 3.0 |
| Darwin | 4.0 | 2.5 | 3.0 |
| Hobart | 5.0 | 3.5 | 4.0 |
| Melbourne | 3.5 | 2.0 | 2.5 |
| Perth | 3.5 | 2.0 | 2.5 |
| Sydney | 4.5 | 3.0 | 3.5 |

Source: (Team Catalyst 2008)

Note: *The raw NABERS score is adjusted for the difference in scope between the BCA requirements and the NABERS criteria. This includes adjustments for estimated ABGR stars compensated for ventilation, car parks, external lighting, lifts (within NABERS, but not BCA, scope), discrepancy between simulated and measured (that is, design versus operational energy efficiency), and gross floor area (BCA) versus net lettable area (NABERS) measurements.

1.3 The potential for energy efficiency improvement — the energy efficiency ‘gap’

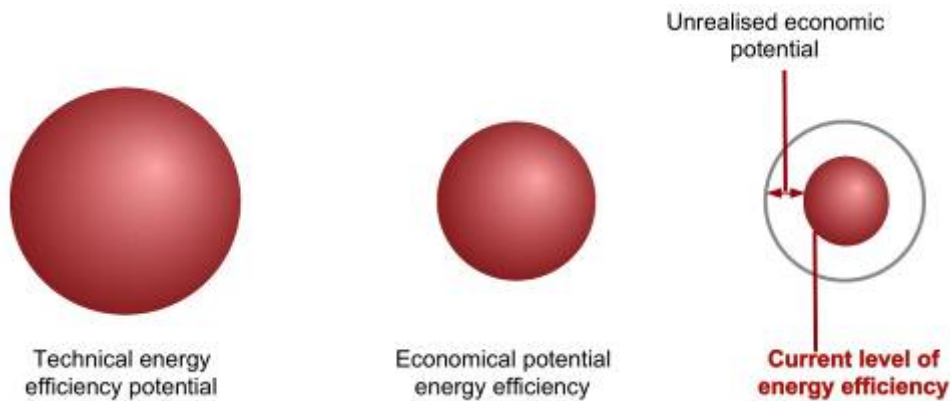
Where the benefits of higher energy efficiency out-weigh the costs, or are likely to be recouped in a short period, economic theory suggests that these performance improvements will be implemented (in the absence of market failures). Evidence suggests, however, that these low or zero cost options are not always implemented — what is known as the ‘energy efficiency gap’. The Productivity Commission defines the energy efficiency gap as ‘the gap between actual energy efficiency and the level of energy efficiency believed to be achievable and affordable’. (PC 2006, p.xxvi).

It is estimated that current technologies can produce energy savings of 60 to 70 per cent (NFEE 2003). However, not all current technologies are currently *economically* feasible (see Figure 1.2). As noted in the NFEE concept report:

...while there is scope for improvement, it is difficult to say what the optimal level of efficiency is for existing buildings. If the cost of improving buildings is greater than the cost of reducing the same level of emissions elsewhere in the economy, then it will not be optimal. Importantly, the cost of reaching a given level of energy efficiency will differ between buildings and, hence, the optimal level of energy efficiency (NREE 2008).

Figure 1..2

TECHNICALLY FEASIBLE, ECONOMICALLY FEASIBLE AND CURRENT ENERGY EFFICIENCY



Source: (NREE 2003)

There is a range of improvements that can be made within the commercial office property market. Energy efficiency technologies in the built environment commonly include efficient heating, ventilation and air conditioning (HVAC), motor systems, efficient lighting systems and (for new buildings) insulation. Industry estimates put the economically feasible abatement potential in the building industry at 30-35 per cent (Centre for International Economics 2008).

A carbon abatement cost curve for Australia recently produced by McKinsey & Company, demonstrates that the potential abatement from building energy efficiency improvements can be achieved at negative cost (McKinsey & Company 2008). This study identified that the building sector has the lowest average cost of abatement — the sector could reduce 60Mt of CO₂e per annum by 2030 at a negative cost of \$130 per tonne.

The fact that investments in these improvements are not being made by all businesses suggests barriers to investment in energy efficiency improvement. As the McKinsey study notes:

Most of these positive- return (or 'negative-cost') opportunities are energy-efficiency measures related to improvements in buildings and appliances. Many can be categorised as market failures arising from misaligned incentives, for example, those between builders and tenants, where it benefits the tenant but not the builder to install insulation or energy-efficient lighting. (McKinsey & Company 2008, p.6)

Consultations for this RIS heard views that there are potentially considerable energy savings available immediately through improved maintenance of building systems (e.g. HVAC, hot water boilers) with no additional costs or requirements for capital investment. In this context, facility management practices and maintenance programs were considered to play a critical role in the delivery of 'quick wins' as well as contributing to ongoing energy efficiency and cost savings.

If this is the case, then the Australian economy has an opportunity to reduce energy usage and greenhouse gas emissions in an economically efficient manner, by taking advantage of these ‘no regrets’ opportunities. In light of Australia’s commitment to reducing greenhouse gas emissions, a failure to exploit these ‘no regrets’ opportunities would mean the cost of abatement would shift onto other activities — most likely at higher cost. This naturally raises the question of why, if these opportunities are both technically *and* economically feasible, industry is not already adopting these initiatives?

1.4 Market failures which influence energy efficiency performance

The preceding discussion highlights the potential gains in energy efficiency for commercial office buildings in Australia. In order to determine the best course of action for government to address a problem, RIS analysis needs to identify:

- first, whether market failures exist, and
- second, whether there is a need for government intervention to address the market failures

Market failures are typically considered to fall within the following three categories:

- Public goods — public goods are those which are non-rivalrous and non-excludible, which significantly limits the incentive for private providers to supply these goods, resulting in an undersupply or no supply at all without government intervention — public goods are *not* relevant for this RIS
- Externalities — Externalities are those benefits (or costs) that are consumed by (or incurred by) third parties outside of the market. As such, these benefits or costs are not accounted for in the market demand-supply decision, and lead to a potential under-supply or over-supply in the market — externalities are *marginally* relevant for this RIS
- Information asymmetry — Information asymmetries occur when one party in the market, usually the buyer, does not have sufficient information about the good they are considering purchasing, or the actions of the seller, to make a decision in their best interest — information asymmetries are *highly* relevant for this RIS.

Information asymmetries are the most relevant type of market failure for this RIS. The Productivity Commission, in its assessment of the private cost effectiveness of improving energy efficiency, concluded that the most important barriers to the adoption of privately cost-effective energy efficiency improvements are:

- a failure in the provision of information, and
- the different incentives facing those who take decisions about installing energy-efficient products and those who might benefit from using them (known as split incentives, which often occur in the presence of information asymmetries) (PC 2005, p.xx). The role of information asymmetries, and their impact, is discussed in detail in the following sections.

Information asymmetries in the commercial office market

Information asymmetries in a market occur where there may be insufficient information for all parties in the market, or where one party has an information advantage over another. Market failure occurs where conditions, such as cost, time or accessibility, result in continued lack of, or asymmetric, information. Market failure can arise as a result of this because of a lack of transparency of value, quality and performance. Providing this information can often come at a cost — and individuals may need to pay for this information over and over again.

There are three aspects of information provision to consider for this RIS:

- Do new tenants or prospective buyers of property have sufficient information to make judgements about energy efficiency performance of premises?
- If energy efficiency gains are beneficial, why do some buyers or tenants not seek sufficient information on energy efficiency to inform their decisions?
- What are the motivations of building owners to not provide information on energy efficiency?

Is there sufficient information in the market place?

There are number of different ways that prospective tenants or buyers of property judge the quality of premises on the market. These include their own observations, information provided through real estate agents and other forms of professional advice. In this scenario, it is most favourable for qualities of premises to be directly observable — often amenities such as lifts, toilets, location, size are all easily observable and comparable. Other qualities, may only be partial observable. For some sorts of information there will be search costs or professional fees incurred, which may deter some parties from investing in the information (in this instance the individual or firm will make a judgement as to the value of the information to them, compared with the cost of obtaining it).

In the case of energy efficiency of commercial buildings, there is evidence to suggest that this characteristic is not readily observable for tenants and buyers. Research comparing design qualities against energy efficiency performance found that there was very weak correlation between ‘good’ design features³ and energy efficiency performance, other than for very poorly designed buildings. The research concluded that buildings with high design scores (meaning the fundamental design parameters were ‘right’) were still capable of poor NABERS Energy performance. (Bannister, no date)

This research suggests that, even when tenants or buyers have some level of knowledge about the quality of building design, this is not a substitute for actual energy efficiency performance ratings (such as through NABERS Energy ratings). As previously reported, a majority of the current commercial office building stock in Australia has never had a NABERS rating conducted, which indicates an important information gap for tenants and buyers.

Why building tenants or prospective owners may not seek information on energy efficiency

The above discussion highlights the need for energy efficiency ratings to determine energy efficiency performance, and the lack of this type of information in the market. The important next question in the analysis is, if this information is valuable, why has there not been more pressure from buyers and tenants in the market for this information to be provided?

There are a number of reasons why tenants and prospective buyers may not seek energy efficiency information:

³ In this study the ‘good design’ scale was derived by applying basic features such as good quality chillers, HVAC design and aspect.

- Tenants who are looking at different offices may feel that they can obtain a good idea of the energy efficiency of the building based on the newness of the building, and/or through one or two visual aspects (such as whether or not there is double glazing, or the orientation of the facade). As a result, a formal energy efficiency assessment may be seen as being of little additional value to them, except as a way of confirming what they already believe. Unfortunately, research reported above suggests that, in this case these quality aspects may be providing an inaccurate perception of the energy efficiency of a premises.
- NABERS Energy ratings need to be initiated by the building owner, as energy data is required for the assessment. A tenant who has limited time to make a decision may not be able to negotiate access to the information necessary for building energy efficiency from several potential lessors. As a result, while the tenant may value the information, and may even be willing to pay for that information (through a formal NABERS assessment), they may not have the opportunity to demonstrate that willingness to pay.
- Finally, some tenants may not value this information — particularly if they do not know about the potential savings associated with improved energy efficiency. They may simply be prepared to sacrifice energy efficiency for a better street location, nicer view or a pre-existing fit out that suits their needs. Tenants cannot always get the perfect rental, and often need to compromise. Individuals are also limited in their ability to obtain and process complex information and to handle uncertainties in decision making. This concept is known as bounded rationality, and is used to explain why people may not behave in the way that is expected. The Productivity Commission observes that individuals, given bounded rationality, may follow ‘rule-of-thumb’ routines when arriving at a decision, such as:
 - purchasing the same make or brand of a good that a competitor, family member or friend purchases (following the pack)
 - purchasing the same make or brand of good as previously (relying on past experience)
 - using simplified selection criteria that focus on key features and overlook more technical and (to them) seemingly less important considerations, such as energy efficiency.

In practice, it is likely that each of these factors has some influence — there will be some tenants and buyers who have no interest in energy efficiency, while others do value the information but have difficulties accessing it. A global survey of commercial building occupiers conducted in September 2008 by Jones Lang LaSalle and CoreNet Global found that 82 per cent of respondents consider green building ratings in building selection, but 64 per cent cited limited to no availability of sustainable solutions. The same study found that 42 per cent of respondents reported being willing to pay up to 10% more rent to occupy a sustainable building. These findings suggest an emerging understanding of the financial benefits of energy efficiency improvement.

Why building owners may not supply information on energy efficiency

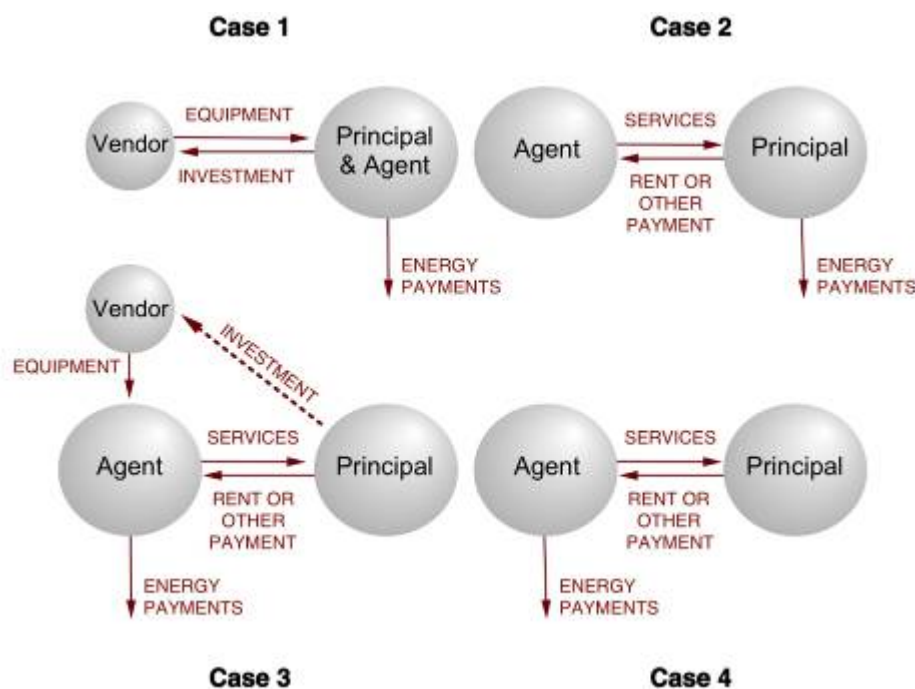
Data on energy efficiency assessment activity suggests that only a small proportion of commercial office buildings in Australia have an energy efficiency rating. Energy efficiency ratings on commercial base buildings must be conducted by the property owner (as they require data on energy consumption). Tenants and prospective buyers, therefore, rely on sellers or landlords to invest in energy efficiency information. Low take-up of assessments may be because the seller or landlord considers that the investment will not increase the return from the sale or lease (that is, an assumption that higher energy efficiency does not raise the purchase price or rent). In this case, the problem may not be an under-supply or lack of demand for energy efficiency information, but a problem from both sides in achieving a complementary level of information provision.

Such an outcome may be due to split incentives in the market. Split incentives can exist where, for example, the incentives facing a builder (to choose a technology with low capital costs) diverge from the incentives facing the user (to choose the technology with lower running costs). This is an example of the classic economic ‘principal-agent’ problem (also see Figure 1.3):

[I]f the potential adopter is not the party that pays the energy bill, then good information in the hands of the potential adopter may not be sufficient for optimal diffusion; adoption will only occur if the adopter can recover the investment from the party that enjoys the energy savings. Thus, if it is difficult for the possessor of information to convey it credibly to the party that benefits from reduced energy use, a principal/agent problem arises (Jaffe and Stavins 1994).

Figure 1.3

FOUR PRINCIPAL AGENT PROBLEMS



Note: principal-agent problems in the commercial building sector can take on different forms depending on who pays for the equipment and who pays the energy bills. From an end-user perspective, Case 1 is not a principal-agent problem as principal and agent are the same entity. Case 2 shows an efficiency problem as the agent selects and uses the technology while the principal pays for the energy use. In Case 3 and Case 4, the end user does not pay the energy bill which produces a usage and efficiency problem (case 3), as well as a usage problem (Case 4) (Murtishaw and Sathaye 2006) and (International Energy Agency 2007), quoted in (NFEE 2008).
 Source: (International Energy Agency 2007), quoted in (NFEE 2008).

While these problems may be acute where information asymmetries are present, they may exist even where both parties have the same information. For example, both landlord and tenant could benefit from installing insulation or a solar hot water system, if they could agree on a rent adjustment that makes both better off. Yet frequently this does not happen because of difficulties and risks in negotiating the rental adjustment. However, the importance of split incentives as a market failure needs to be kept in perspective. To the extent that energy costs are important, it will become worthwhile for both parties to sort out a new contract. And as energy costs become more important, this incentive will grow.

The impact of asymmetric information — adverse selection

The lack of information, or the existence of barriers and costs associated with obtaining that information, can lead to sub-optimal market outcomes. In order to achieve an efficient outcome, markets rely on all parties having sufficient (but not necessarily perfect) information to make decisions in their best interests. In some cases, information is not just imperfect, but is asymmetric. Information asymmetries occur when one party in the market, usually the buyer, has less information than another – usually the seller).

This information asymmetry problem can create a situation of ‘adverse selection’. Adverse selection occurs when a buyer is not able to differentiate between high quality and low quality goods in the market at the time of purchase, and perhaps also not until a significant period of time after purchase. In the presence of this uncertainty, high quality products can be driven out of the market and lower quality products tend to attract a disproportionate level of patronage because errors in judgement or decisions made on observable factors (e.g. price) work in its favour.

This phenomenon is known as the ‘market for lemons’, first noted by Akerlof, who explained how the pressure of competition, in the presence of information asymmetries, may cause quality to deteriorate to such low levels that the market may fail to exist (Akerlof 1970). This concept is most commonly described using the example of a used car market, where there are both good quality cars and poor quality cars (‘lemons’). Purchasers know that there is a risk that they will purchase a lemon, but they have no reasonable means of separating the lemons from the high quality cars until they have driven the car for several months after purchase (in the absence of any other third party assistance). This scenario can lead to a less than efficient social outcome because:

- buyers do not have sufficient information to make a rational informed decision about quality of a good, and therefore risk inadvertently purchasing a ‘lemon’
- as a result, consumers will offer a price which is less than what they would be willing to pay for the high quality product, as they are uncertain as to the quality of the product that they will receive
- this, in turn, drives higher quality goods out of the market (as the price is too low to make a positive return for a ‘quality’ product).

The result is that consumers, by offering a lower price given the risk of purchasing a ‘lemon’, inadvertently increase their chances of purchasing a ‘lemon’, as at the lower price fewer ‘quality’ products will be offered for sale. At the extreme, *only* the lowest quality products will be sold, and all higher quality products will be removed from the market. Warranties can alleviate, but not totally correct, this problem because they themselves suffer from enforcement costs. These problems (and transaction costs) are a fact of life. But that does not mean policymakers should not continuously explore options for reducing these costs and their impacts. Coordinated action and transparency can reduce cost duplication and the ability of ‘lemons’ to attract normal prices.

Adverse selection is most common for those products where it is difficult for consumers to ascertain quality at the time of purchase (and even for some period after purchase), and where they do not have sufficient prior experience on which to base their decision. There are a number of characteristics of commercial office building energy efficiency that increase the risk of adverse selection in the market for commercial office space:

- energy efficiency is a difficult attribute to identify without specialist advice

- properties tend to be large, one-off or low frequency investments where the purchaser cannot rely on significant previous personal experience to determine the quality of the good. Even if the occupier is a tenant rather than a buyer, they still incur costs associated with moving, such as removalists, shutting down the business over the period of the move, updating letter heads, business cards, signage, and so on.

In markets where there are information asymmetries, adverse selection can drive down the amount of energy efficiency ‘premium’ achievable — essentially making it more difficult to achieve higher rents or a higher price that reflect the investment made in energy efficiency improvements. This can occur where potential buyers and tenants are unable to differentiate on energy efficiency grounds — that is, where information on energy efficiency information is not provided or not available for tenants or buyers.

Where adverse selection occurs, there is a greater risk to the return on investment from energy efficiency improvements. For instance, if an investor had an opportunity to invest in energy efficiency improvements, but had limited ability to signal the quality of this property over and above others in the market, the investment is less likely to take place. As research notes, for adverse selection:

The risk of opportunism is highest when only infrequent, expensive transactions are conducted, such as buying a second-hand car or house. Car dealers and residential estate agents in such situations have strong incentives to maximise their returns at the expense of either purchasers or sellers. Even if the car or property dealers are honest, sellers and purchasers have no way of knowing because only repeated experience will provide them with appropriate information. This information gap tends to drive quality out of the market, because sellers of quality second-hand cars have to accept the low-quality price because purchasers have no effective means of discriminating. (Ball, Lizieri et al. 1998)

A quantitative test of the presence of adverse selection could be conducted if data allowed a test for the correlation between energy efficiency and price (be it rent or purchase price), holding all other factors constant (as energy efficiency is likely to be correlated with other quality factors, such as building age, which may raise prices). Unfortunately there is insufficient data on energy efficiency across the commercial office sector in Australia for this analysis to be conducted, as only a relatively small proportion of the commercial office market have had energy efficiency assessments conducted. This factor alone, however, provides an indication of the available information on energy efficiency in the market, and therefore the scope of consumers to make informed choices on the basis of energy efficiency. Currently, this choice is limited to very large properties, with purchasers or tenants of properties less than 5000m² having very limited capacity to compare properties on the basis of energy efficiency (or even to use energy efficiency as one of several factors in their decision).

There is currently no organised commercial tenant body in Australia, in any jurisdiction, which exacerbates the information asymmetry problem. Residential tenants have a number of advocacy and stakeholder groups that can represent their interests in the market, as well as tribunals that will hear disputes between tenants and landlords at a relatively low cost to both parties. In contrast, commercial tenants do not have a similar representative body. In addition, agreements between tenants and lessors are usually negotiated through lawyers on either side, and not centrally lodged or noted by a jurisdictional regulator, as is the case with residential leases. As a result, there is no ‘industry body’ that can undertake information and awareness campaigns for commercial office tenants. At the same time, commercial office tenants are difficult to isolate as a stakeholder group for consultation purposes. This can mean that their interests may not be adequately represented or reflected in policy development — a risk that must be managed.

1.5 Non-market barriers — Organisational failures

There is evidence to suggest that there are number of non-market barriers to the take-up of economically feasible energy efficiency improvements. A number of these barriers can be characterised as organisational barriers — problems within the decision making process or management arrangements within firms, which limit the firm's capacity to make sound judgements on the financial benefits of energy efficiency improvements.

Research by the Warren Centre sought information from firms on a range of organisational characteristics, and tested these against energy efficiency performance. The study found the following important relationship between management and organisational factors and energy efficiency:

- Buildings perform better where all members of the building management chain feel they can influence building energy efficiency.
- Buildings perform better when the manager reports a higher level of energy efficiency knowledge.
- Buildings perform better when there is an energy efficiency training program in place.
- Sites where managers were conservative about the implementation of efficiency measures tended to perform poorer than sites where managers were prepared to accept some risk in efficiency outcomes.
- Managers who considered that they had a greater level of energy efficiency skills were generally found to operate buildings more efficiently. (Warren Centre 2009)

This research also found that incentive structures within organisations have an influence on building performance — higher levels of management are more likely to be motivated by policy than building managers, who are more likely to be motivated by their own environmental concerns.

In many ways these organisational failures are information asymmetries at an organisational level rather than at a market level. There are often split incentives within an organisation, where the party making the decision has no, or very little, sensitivity to cost, or has higher priorities over cost in an organisation. Much of energy efficiency performance is behavioural — such as very basic actions like turn off lights or computers. Attitudes within organisations therefore have a significant influence on energy use.

These issues need to be managed at an organisational level, though would be supported through measures that address information asymmetries at a market level.

1.6 Can current initiatives address the problem?

Rather than introducing new regulation, it may be possible to address the market failure through stronger compliance or implementation arrangements around existing regulatory tools or initiatives. The following section provides a description of current initiatives to address the problem.

National Framework for Energy Efficiency

The Commonwealth, State and Territory governments are committed to improving energy efficiency, and have set up the National Framework for Energy Efficiency (NFEE) as a means of:

unlock[ing] the significant but un-tapped economic potential associated with the increased uptake of energy efficient technologies and processes across the Australian economy. It aims to achieve a major enhancement of Australia's energy efficiency performance, reducing energy demand and lowering greenhouse gas emissions (NFEE 2008).

The focus of NFEE is the demand side of energy efficiency, based around the assumption that energy consumers are not fully aware of the potential benefits available to them from improved energy efficiency.

State and territory government initiatives

All States and Territories have adopted the BCA energy efficiency provisions applying to new commercial buildings. Beyond this, the Commonwealth Government and all States and Territories have set, or are planning to set, minimum standards for their government property portfolios according to either NABERS Energy or Green Star (Green Building Council Australia) rating tools. Victoria has extended this to also cover all major projects in the State. In addition, a number of local governments in Victoria and South Australia are using planning controls to set standards for commercial buildings.

Some states and territories have implemented, or are planning to implement, voluntary initiatives to encourage new building owners to achieve higher energy efficiency standards than those mandated in the BCA and/or to improve the performance of existing buildings, including:

- Green Buildings Tune Ups Program (South Australian Government) — provides \$2 million over four years for projects to improve the performance of commercial buildings, as part of a broader agreement to improve the sustainability of the built environment.
- Resource Smart Commercial Buildings Program (Sustainability Victoria) — aims to deliver greenhouse gas and water savings through specific support initiatives, while also building the capacity of the broader market to improve existing building performance in Victoria over the longer term.
- Green Business Program (New South Wales Government) — provides \$30 million over five years for projects that will save water and energy in business operations in NSW – activities which are eligible for funding include projects which improve the efficiency of buildings and appliances.
- Commonwealth Green Building Fund (Commonwealth Government) — provides \$90 million over four years to help Australian businesses implement cost saving energy efficiency measures through retrofitting and retro-commissioning of existing commercial office buildings.

Industry initiatives

Industry-led programs operate in the majority of states, the most notable of which is the CitySwitch Green Office initiative. CitySwitch Green Office (previously known as the 3CBDs) is a national tenant energy management program coordinated through the Council of Capital Cities Lord Mayors and run in partnership between the cities of Sydney, North Sydney, Parramatta, Melbourne, Perth, Adelaide and Brisbane and state government agencies (representing approximately 70 per cent of Australia's office space).

CitySwitch signatories commit to achieve and maintain an accredited 4 stars or higher NABERS Energy tenancy rating. The program was established in 2005 and, to date, 57 organisations covering more than 600 000 m² of commercial office space have committed to the program.

Another notable program is *Grow Me The Money*. This program is a joint initiative between the Victorian Employers' Chamber of Commerce and Industry and the Environment Protection Authority Victoria with funding from the Victorian Government. The program is designed to improve the environmental impact of Victorian businesses through providing assistance to businesses interested in reducing their water and energy use and waste production.

In addition to these programs, there are a number of voluntary building rating schemes, including:

- Green Star (Green Building Council of Australia) — a capability rating program for office buildings based on a scale of 4-6 stars. Ratings can be performed on office design, office as built, office interiors and existing office buildings. Design ratings can be performed when the majority of the design is complete. 'As built' ratings are performed when the building is complete and before occupation. The program was established in 2004 and, to date, 135 projects have been certified with a Green Star rating.
- Office Quality Grade Matrix (Property Council of Australia) — determines quality according to a number of parameters, including lift speed, security, amenities and parking. Buildings are rated as Premium or Grades A, B, C or D. The revised guidelines published at the beginning of 2006 now stipulate that for a new commercial office to be considered 'premium' or 'A-grade', it must achieve a minimum 4-star Green Star and 4.5-star NABERS Energy (previously ABGR) rating.
- Sustainable Design Scorecard (City of Port Phillip and Moreland City Council in Victoria) — voluntary tool developed to assess the environmental impact of commercial, industrial and retail buildings in the respective council areas.

Building Code of Australia

New energy efficiency standards for commercial and public buildings were introduced from 1 May 2006 into the Building Code of Australia (BCA) (Building Commission 2005). All states and territories have adopted the BCA, albeit with some variations within legislation. The BCA does, however, only apply to new buildings and refurbishments of existing buildings (where a development approval is required). The extent to which these requirements apply to the commercial building stock is therefore limited.

These energy efficiency measures use performance-based provisions to ensure that commercial and public buildings achieve minimum levels of efficiency. The measures are designed to reduce the use of artificial heating and cooling, improve the energy performance of lighting, air conditioning and ventilation, and reduce energy loss through air leakage. The standards apply to:

- all classes of commercial and public buildings
- buildings being refurbished, altered or extended
- new buildings.

Compliance with the BCA can be achieved by complying with the 'deemed-to-satisfy' requirements in the BCA or by developing an alternative solution, which demonstrates that the proposal meets the relevant BCA performance requirements.

Carbon Pollution Reduction Scheme

The Commonwealth Government has committed to establish a national Carbon Pollution Reduction Scheme. The current proposal, as outlined in the *Carbon Pollution Reduction Scheme Bill 2009*, is for a cap and trade scheme where the Government sets a cap on the annual emissions across the economy, and issues permits to polluters in line with the annual cap. The trading of permits allows emitters who need more permits than they have on hand, to buy additional permits from those who are prepared to sell their excess permits at the prevailing price, and therefore live with a lower emissions output.

A key impact of the scheme will be an increase in energy bills across the economy as the energy industry passes on the costs associated with the purchase of emissions permits. In relation to the office building sector, this is likely to result in an increase in demand for energy efficient buildings, fit-outs and office equipment as the share of energy costs, as a proportion of total costs, increases. The extent of the price response will depend on the price of traded permits and the degree to which emitters can pass on such costs. A carbon price is unlikely to place significant cost pressures in the commercial office building sector within the next 10 years, if the scheme commences with a low to moderate carbon price trajectory.

1.7 Is there a rationale for further government intervention?

The discussion in this chapter has provided evidence of current information asymmetries in the commercial office market, and the lack of current measures which directly address these market failures. The analysis has also highlighted how organisational factors have an impact on decisions within firms, which ultimately impact on energy use.

Bringing this information together, it is important for a RIS to conclude whether there is a case for government intervention to address the identified problem, over and above what is currently occurring.

Under best practice regulation guidelines, government intervention can be justified when:

- there is an inherent failure in the market's ability to deliver fair and equitable outcomes, and
- the benefits from correcting the failure are greater than the costs associated with doing so.

The mere presence of information asymmetries, or externalities, does not *automatically* justify government intervention. Market failures are an everyday event; buyers are rarely as informed as sellers, and most transactions have consequences for third parties. For example, the Wallis Inquiry noted that:

There is nothing unusual about asymmetry of information available to a supplier and a consumer. Many products or services are complex, difficult to compare, have considerable importance for the well-being of their customers or are provided over a period of time.⁴

Furthermore, in the context of consideration of professional regulation, the Productivity Commission has noted that:

The need for government regulatory intervention does not immediately follow from the identification of information deficiencies: information deficiencies are pervasive yet most markets continue to function reasonably efficiently. ... it is not generally efficient to eliminate all negative externalities or promote infinitely large quantities of positive externalities. In many cases, externalities do not create significant problems (Productivity Commission 2000).

⁴ Financial System Inquiry 1996, *Discussion Paper*, Canberra, p. 97.

Assessing the need for government regulation requires the identification of the potential cost of not addressing the problem. For this RIS, this would be the impact of a decision based on incomplete information or a decision that has negative consequences for third parties (where externalities are present).

In broad terms, government intervention might be justified where the potential harm is significant (for example, where the nature of the risks posed by a particular transaction would have serious consequences). In assessing the significance of the harm,⁵ there must be consideration not only of the potential consequences, but also:

- whether or not the impacts are reversible
- whether the risk is involuntary or voluntary
- the likelihood of that harmful outcome occurring.
- In this case, unequal access to information on commercial building energy efficiency has the potential to give rise to situations or outcomes that are sub-optimal, including but not limited to:
 - tenants and buyers being unable to demonstrate their preference (and willingness to pay) for more energy efficient accommodation
 - tenants or buyers being misled as to the energy efficiency of a commercial office building — something that may not be discovered until after committing resources to relocating, or fitting out the space
 - owners of more energy efficient buildings being unable to differentiate their product in the market from less energy efficient buildings, and a further reduction in the incentive for building owners to upgrade or improve building energy efficiency
 - spillovers to the environment and to society in general from greenhouse gas emissions associated with expenditure on energy (such as reduced air pollution, reduced stress on energy infrastructure, and so on) that could have been avoided through investments in energy efficiency improvements to commercial office buildings. These spillovers are over and above the private gains associated with better choice and more efficient resource use. These ‘spillover’ benefits are a ‘bonus’ for the purposes of this RIS and are not called on to estimate the full set of costs or benefits from energy efficiency disclosure. Nevertheless, their existence highlights the potential for public and private co-benefits from more efficient resource use.

In addition, the information asymmetry type of market failures identified above are exacerbated by complexity in the market. As observed by Golove and Eto in the context of organising energy efficiency across a chain of players, small imperfections can combine to create a substantial market failure:

An intriguing illustration of the magnitude question [of the energy efficiency gap] examined from the point of view of transaction costs suggests that market barriers can sometimes accumulate and reinforce one another the idea of chains of market barriers refers to small imperfections, any of which individually represents an insignificant distortion to efficiency, but which in combination are of a magnitude sufficient to be considered a market failure. ... The chain of market barriers phenomenon explicitly recognizes that there are series of decisions, actions, and transactions between the production of goods and their ultimate sale to the end user (Golove and Eto 1996).

⁵ The significance of the harm can refer to significant harm to a few people or moderate harm to a large number of people.

Existing measures in the market (and potential future measures in the case of the CPRS) either do not directly address these information asymmetries (such as the CPRS and minimum standards) or are limited in scope (such as voluntary measures which are most effective for those parties in the market who have an existing interest and knowledge of the issues). On this basis, there is a rationale for government to consider alternative options to address the problems identified. These options are explored in the following chapters of this RIS.

Chapter 2

Objective of government action

Prior to assessing options to address the identified problems, it is important to establish the objectives of government action. It is important to establish the objective independent of any individual solution. The objective should be sufficiently broad to allow consideration of a range of alternative solutions.

The previous chapter established that:

- the current energy performance of commercial office buildings is lower than is technically feasible
- split incentives in the market present a barrier to buyers and tenants using energy efficiency performance in property decisions, therefore reducing incentives for energy efficiency investment by building owners.

Given these problems, the objective of government should be to improve the energy efficiency of commercial office buildings in Australia by addressing current market failures. This objective can be addressed by correcting the market failures which currently limit the ability of future energy users — buyers and tenants — from signalling their needs in the market and, in turn, establishing incentives for building owners to undertake energy efficiency improvements.

Chapter 3

Options that may achieve the government objective

As part of the RIS process, it is necessary to describe and consider the different options that can be used to achieve the stated objective. OBPR guidelines require that options considered represent the spectrum of regulatory approaches — including explicit regulation, co-regulation and non-regulatory approaches.

3.1 The base case — maintain current approach

Cost-benefit analysis seeks to estimate the incremental or induced impacts to stakeholders that can be directly attributed to the proposed options. In order to do so, it is necessary to have some idea of what would have happened if none of these options were exercised — effectively, if the current approach were maintained. In this assessment, the current approach includes not only a continuation of actions (that is, extrapolating the past into the future) but also reported future policies that can reasonably be expected to have an impact on the problems identified in chapter 2.

This RIS assesses options to improve the energy efficiency of commercial office buildings in Australia. This objective, however, is currently already being pursued through voluntary initiatives on the part of business (such as having assessments conducted, and voluntarily acting to improve energy efficiency in their premises). Industry representatives, such as the Property Council of Australia) have encouraged voluntary action through their own initiatives (for example, energy efficiency ratings incorporated into the Property Council of Australia's criteria for grading buildings). Voluntary action is also being driven, to a degree, by government initiatives, seeking to:

- improve knowledge about energy efficiency and the potential savings for business of energy efficiency improvements
- provide a means for comparing of energy efficiency and broader environmental performance (such as water efficiency) by developing and encouraging the use of assessment tools (such as NABERS Energy and Green Star)
- set standards for business by agreeing green leases as tenants in commercial office buildings.

There are also current and expected regulatory schemes which could improve energy efficiency in commercial office buildings. The most direct of these is the regulation of energy efficiency standards for new buildings, through the Building Code of Australia (BCA). This raises standards across the building stock (albeit at a slow rate). Second, the introduction of a carbon price through the proposed Carbon Pollution Reduction Scheme will set a price signal in the market for energy, which may increase incentives for energy purchasers (both building owner and tenants) to reduce their energy consumption through efficiency improvements.

More details on this suite of initiatives are provided in Appendix A of this RIS.

3.2 Option 1 — Mandatory disclosure of energy efficiency

The first option is the proposal put forward by the Australian, State and Territory Governments under NFEE for the mandatory disclosure of energy efficiency information at the time of sale or lease of commercial office property.

Regulated obligations

Under this option, building owners would be required to disclose the energy efficiency of their building — expressed as a Building Energy Efficiency Certificate (BEEC), which would include:

- a National Australian Built Environment Rating System (NABERS) Energy star rating for the base building
- a brief survey that provides owners and tenants with information on energy efficiency investment opportunities. These opportunities are measured in potential star improvements and given a difficulty rating of high, medium or low that is dependent on cost and operational impact; and
- a tenancy lighting rating.

The NABERS Energy rating tool is already available to building owners and tenants, with many of them making use of the tool on a voluntary basis — more information on the NABERS Energy tool is given in Box 3.1.

Box 3.1

NABERS ENERGY FOR OFFICES (FORMERLY ABGR)

In 1999 the then NSW Sustainable Energy Development Authority (SEDA) developed the Australian Building Greenhouse Rating (ABGR) scheme for building owners (landlords) and tenants to rate the performance of their commercial office buildings in terms of greenhouse gas production.

The rating is based on billed energy use for a 12 month period and is corrected for climate, area, hours of occupancy and internal loads. There are three types of ratings available; a tenancy rating, which considers the light and power used by the tenant only; a base building rating, which considers the energy consumption of Central Services, HVAC, lifts etc, and a 'whole building' rating, which is essentially a combination of the tenancy and base building ratings.

ABGR was launched nationally in 2000 and by 2002 over 100 accredited rating certificates were issued by a small number of trained assessors contracted to SEDA and the Sustainable Energy Authority Victoria (now Sustainability Victoria).

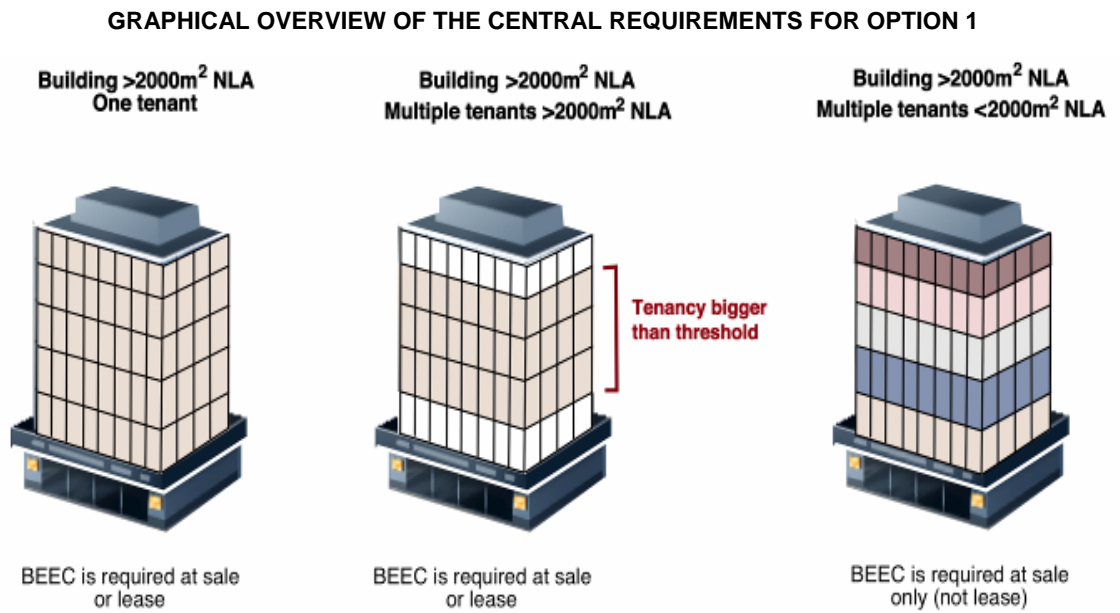
In late 2002 the scheme expanded to a system of third party Accredited Assessors. Currently there are over 200 Accredited Assessors around Australia and over 950 officially certified ratings have been performed by Accredited Assessors since the scheme's inception.

ABGR was renamed NABERS Energy in 2008.

Source: (NABERS 2008)

Option 1 requires that when a commercial office building with a net lettable area (NLA) of 2000 m² or more, or any part of such a building that is greater than 2000 m² NLA, is to be sold, leased or sub-leased, an appropriate energy efficiency certificate for the building must be disclosed.

Figure 3.1 illustrates the central requirements of option 1.



Source: Allen Consulting Group illustration, data sourced from Mandatory Disclosure Regulation Document

The scheme will apply to three main scenarios:

- whole building sales — when a whole building with an NLA above the threshold is sold
- whole building leases — when a whole building with an NLA above the threshold is leased or subleased
- part building leases — when a part of a building with an NLA above the threshold is leased or subleased.

Table 3.1 summarises the types of energy efficiency ratings required depending on the scenario under which option 1 is applied.

Table 3.1

OVERVIEW OF ENERGY EFFICIENCY RATING REQUIREMENTS FOR OPTION 1

| Whole building >2000m² NLA | Sale | Lease | Sublease |
|--|-----------------------------------|--------------|-----------------|
| Base building rating | ✓* | ✓* | If available |
| Tenancy lighting details | ✓ (for all tenancies in building) | ✓ | ✓ |
| Base building guidance | ✓ | ✓ | If available |
| Tenancy guidance | ✓ (for all tenancies in building) | ✓ | ✓ |
| Part building > 2000 m² NLA | Sale | Lease | Sublease |
| Base building rating | × (Strata titles excluded) | ✓* | If available |
| Tenancy lighting details | ✓ | ✓ | ✓ |
| Base building guidance | × (Strata titles excluded) | ✓ | If available |
| Tenancy guidance | ✓ | ✓ | ✓ |

Note: *When a building has inadequate metering to obtain a base building rating a whole building rating must be disclosed.

In this RIS three sub-options under Option 1 are assessed:

- Option 1(a) is mandatory disclosure at sale or lease, as described above;
- Option 1(b) is a requirement for annual tenancy ratings (which is distinct from tenancy lighting assessments under the mandatory disclosure Option 1(a)); and
- Option 1(c) is the requirement that owners of new buildings enter into NABERS Energy simulation protocols.

These sub-options could be implemented together (as combined Option 1, or in parts).

It is important to note that, under Option 1, the thresholds for the size of property apply directly to leased space, as well as sold space. Therefore, small leased spaces *within* properties of 2000m² and 5000m² **would not** be captured under mandatory disclosure requirements (for example, a leased space of 1000m² in a 5000m² building **would not** require an assessment to be disclosed). The intent is therefore to capture only owners or tenants of large properties.

Tool for demonstrating compliance

This Option assumes that NABERS Energy is the most suitable tool for achieving compliance. It is noted, however, that modifications to the current NABERS Energy tool may be required in the event that this option pathway is to be pursued further. This matter is discussed in the Regulation Document.

Monitoring and enforcement

Mandatory disclosure will be enforced through civil penalties for non-compliance. A National Administrative Unit established by the Australian Government could have the overall responsibility for ensuring compliance and enforcement. More information on the enforcement and compliance mechanism for the scheme is explained in the Regulation Document. The scheme could enforce a maximum penalty of \$100,000 for each offence of non-disclosure. More details on proposed monitoring and enforcement are provided in Chapter 7 of this RIS.

3.3 Option 2 — Industry managed energy efficiency disclosure scheme

Regulated obligations

This Option is similar to Option 1, except that there is no explicit regulation. Instead, the industry (in this case, building owners) develops an industry code of practice, which participants can voluntarily sign up to. While there is no regulated obligation to comply, it is anticipated that building owners accounting for around 40 per cent of the market share will participate in an industry-managed scheme.

The code of practice can be given government support in a number of ways, including:

- maintenance and dissemination of a list of businesses that have signed up to and complied with the code of practice;
- giving preferential treatment to businesses that comply with the code of practice, for example when it comes to tenders for goods and services; or
- information provision and promotion to consumers or final users so that businesses that have signed onto the code of practice can more easily differentiate themselves from those that have not.

Box 3.2 provides an example of industry quasi-regulation among financial institutions. Other examples of industry co-regulatory or quasi-regulatory options include codes of practice in relation to radiation safety, telecommunications, and building and construction.

Box 3.2

EXAMPLE: ELECTRONIC FUNDS TRANSFER CODE OF CONDUCT

The Electronic Funds Transfer Code was introduced in 1986 and originally applied to financial transactions effected through the use of a card and a personal identification number. Industry, consumer and government representatives contributed to the development of the code, which was endorsed by the Commonwealth, state and territory governments.

In 2002 the Code was expanded to cover all types of electronic funds transfers, including telephone and internet banking, credit card transactions and stored value facilities. The Code sets out rules on matters such as provision of information to users, liability for unauthorised transactions, complaint procedures, protection for users of stored value facilities and privacy.

While the Code is voluntary, a wide range of financial institutions have signed up to it.

Source: (OBPR 2007)

Under this Option, industry would administer a scheme whereby there was consistent reporting of base building energy efficiency using the NABERS Energy standard. Reporting would not be mandatory, but would be supported and encouraged by leading industry associations (such as the Property Council of Australia). This Option would build on existing efforts but provide a consistent approach (a single industry-backed scheme). Participation in the scheme would mean that owners would agree to have their buildings assessed, provide this information to prospective buyers or tenants, and update the information within a given timeframe.

3.4 Option 3 — Mandatory minimum energy efficiency standards

This Option moves away from an information approach to addressing the problem, instead mandating that building owners meet minimum energy efficiency standards within a stated timeframe. Where applicable, the triggers would be the same as for mandatory disclosure. That is, where the NLA is greater than 2000 m² or greater than 5000 m².

Building owners would be required to refurbish or upgrade buildings to a 3 star NABERS Energy star ratings — the rating for current industry best practice. At the same time, it is estimated that:

- the average rating for commercial office space currently ranges from 2 to 2.5 stars (Team Catalyst 2008); and
- the minimum energy efficiency standards required under the BCA translate to NABERS Energy star ratings of 2 to 4 (depending on the state or territory),⁶ with an unweighted average star rating of 2.5 to 3 stars (Team Catalyst 2008).

This Option sets a standard for energy efficiency improvement, and requires building owners to meet this standard how they choose (that is, it does not prescribe specific types of improvements. An alternative approach to mandatory minimum standards is a mandatory investment requirement, where governments:

- mandate energy efficiency audits (for a segment of the market)
- require that building owners invest in all energy efficiency opportunities with a pay-back period not greater than 3 years (or another terms as decided by government).⁷

This Option is consistent with the approach that has been adopted by the Victorian Government, through its Environment Protection Authority, to foster greater energy efficiency in the industry sector and amongst large energy and water users.

In the context of building energy efficiency, this Option was considered, but not progressed because:

- unlike the experience in Victoria, there is no baseline of energy efficiency from audits already conducted. Therefore, there is no available information on the opportunities for energy efficiency improvement for the commercial office building sector (without which it is not possible to conduct a credible cost-benefit analysis, as the optimal pay-back period cannot be determined)
- principal-agent problems within the property market limit the applicability of this Option to specific central services.

⁶ This is because the BCA minimum energy efficiency standards are based on building design principles, whereas the NABERS ratings are based on energy usage.

⁷ The pay-back period is the length of time required for an energy efficiency saving investment to offset its initial investment cost through energy savings.

Chapter 4

Impact analysis

This chapter assesses the costs and benefits of the options set out in Chapter 3, compared with the 'base case' option of no change to the current approach

4.1 The 'base case'

The purpose of a cost-benefit analysis is to identify the extent of the marginal regulatory impact — that is, the change that can be directly attributed to the proposed options. To do this, the base case must be established. The base case represents the outcome of no further action — essentially what would occur in the absence of any of the options being implemented.

In the context of mandatory disclosure, the base case establishes what could be achieved through continuation of current voluntary actions. The costs and benefits of a mandatory scheme should reflect the marginal change from the base case — the marginal change in the provision of energy efficiency information in property transactions from that provided through voluntary action.

The base case therefore needs to reflect the outcomes from current voluntary actions and expected future policy settings. This involves identifying:

- the future level of energy efficiency assessments that will be conducted
- the extent to which such assessment information may be provided in property transactions
- expected impact of this action, compared with options for change.

An estimate of the level of expected voluntary assessments is required for both the assessment of costs and benefits. For costs, where voluntary assessments are expected to occur, these are not included as costs of mandatory disclosure. Similarly, any benefits from voluntary actions should not be attributed to mandatory disclosure.

Estimating the base case requires

- an estimate of expected future NABERS Energy assessments (by property size), using historical data and assumptions of future policy influence on voluntary action
- an estimate of the proportion of these assessments which would be used in property transactions, using turnover data.

Expected future trend in voluntary NABERS Energy assessments

The NABERS Energy scheme has been in operation since 1999, and in its current form since 2002. Any building owner or tenant can invest in a NABERS Energy assessment, with the scheme providing whole building, base building or tenancy assessments. They can choose to use the information in the assessment in any number of ways, including:

- reporting the information (such as through corporate strategy or corporate social responsibility initiatives)
- using the information as a basis to improve the energy efficiency of their property

- providing the information to prospective buyers or tenants for the property (particularly where higher ratings are used as a positive characteristic of the property).

The base case for this RIS needs to identify both the extent to which NABERS Energy assessments are likely to be conducted voluntarily, and whether information from these assessments would be provided for prospective tenants and buyers without a requirement for mandatory disclosure.

An assessment of NABERS Energy data provides an indication of both:

- the total number of assessment conducted in the period since NABERS Energy was first introduced (1999-2007)
- the growth in the take-up of the scheme by building owners (that is, the number of buildings being rated for the first time in any given year).

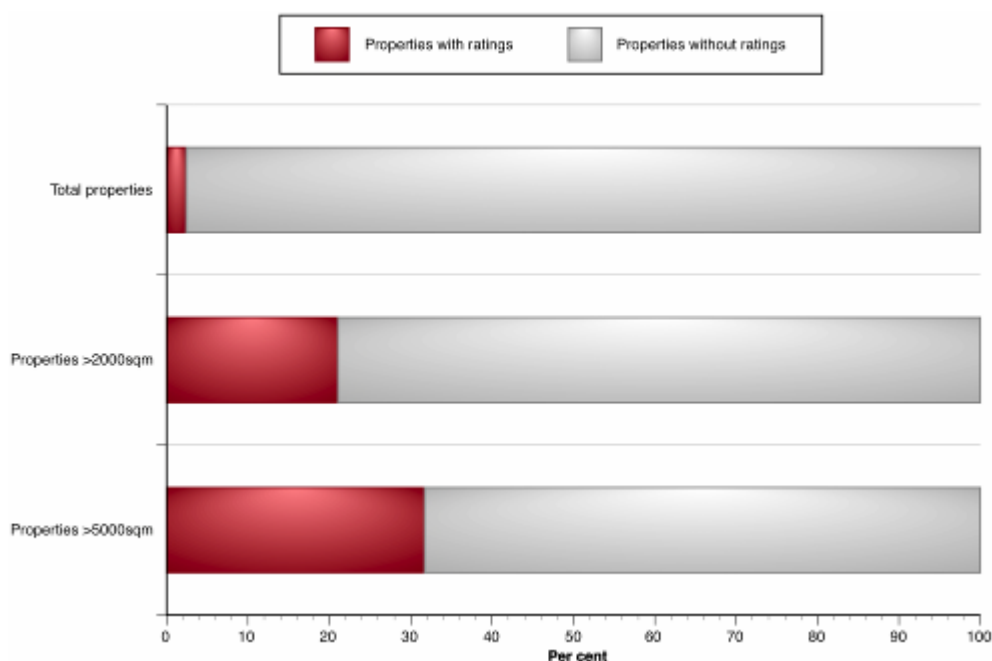
This second trend is important as it provides an indication of how awareness of energy efficiency has changed in the commercial office building sector, as opposed to the aggregate assessment numbers which included repeat assessments (some buildings have been assessed up to six times in this period). Trends in the uptake of assessments provide an insight into potential growth in interest in building energy efficiency from building owners.

The volume of future NABERS Energy assessments can be estimated by extrapolating from historical trends, and reflecting future policy influences (such as price signals or higher awareness).

Historical data on NABERS Energy assessments is available from 1999 to 2007, as aggregated national data. In this period, 1213 NABERS Energy assessments have been conducted, on 614 properties. Of these properties, 296 have had two or more assessments. Figure 4.1 shows the number of NABERS Energy rated properties as a proportion of the total number of properties.

Figure 4.1

NABERS ENERGY RATED PROPERTIES AS A PROPORTION OF TOTAL PROPERTIES



Source: NSW DECC unpublished data.

The overall number of assessments has been growing steadily across the period (1999-2007), driven to some degree by repeat assessments. The number of ‘first time’ assessments — and indicator of take-up from owners — shows more variation (Figure 4.2). These data show a drop in first time assessments in 2002, with a subsequent increase in assessments from 2002 to 2005. NSW DECC, who administer NABERS, report that the scheme changed to accreditation of assessors in 2002, with a period of transition accounting for the fall in first time assessments conducted in 2002. These data also show a fall in assessments conducted from 2005 to 2007, though the overall trend in assessments from 2002 remains positive.

Figure 4.2

NUMBER OF ‘FIRST TIME’ NABERS ENERGY ASSESSMENTS CONDUCTED, AUSTRALIA, 1999-2007



Note: New assessments are those conducted on a property for the first time. In this period renewal assessments were also conducted on properties, which are not represented in this analysis.

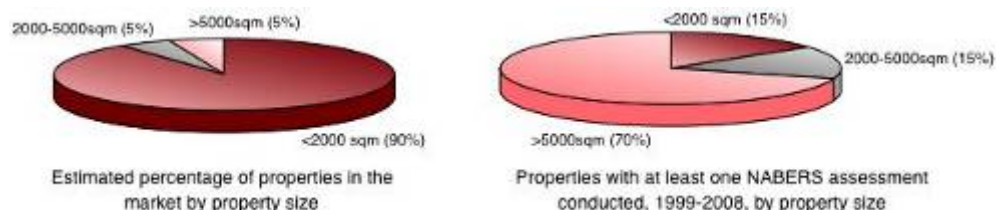
Source: NSW DECC unpublished data

The majority of total assessments conducted since 1999 have been for large properties greater than 5000m² in size. As shown in Figure 4.3, 75 per cent of total NABERS Energy assessments conducted since 1999 have been for properties over 5000m². That said, there remains significant scope for growth in assessments conducted across all property sizes.

Even in the over 5000m² category, it is estimated that up to **70 per cent of properties have not had at least one NABERS Energy assessment in the period from 1999 to 2007**. For properties between 2000m² and 5000m² in size, only 13 per cent of properties have had a NABERS Energy assessment. It is therefore reasonable to assume continued growth in assessments for both property size categories. Further, expectations are that awareness of energy efficiency will continue to increase with government awareness raising efforts (given the prominence of complementary climate change policies), which is likely to drive growth in demand from property owners for energy efficiency assessments.

Figure 4.3

COMPARISON OF TOTAL DISTRIBUTION OF PROPERTIES BY SIZE AND NABERS ENERGY ASSESSMENTS BY SIZE, 1999-2007



Source: NSW DECC data on assessments (unpublished), Jones Lang LaSalle data on properties (unpublished)

Expected impact of a carbon price

A future policy that needs to be recognised in the base case is the expected introduction of the Carbon Pollution Reduction Scheme (CPRS). It is expected that the resulting carbon price will increase the retail cost of both electricity and gas for commercial and residential property owners.

The CPRS will lead to higher energy costs for building owners and tenants. It could therefore, lead to greater awareness and interest in energy efficiency, where the costs of additional energy consumption increase. It will certainly lead to a higher return per dollar of energy efficiency investment — if that investment is made.

In practice, however, the impact of the CPRS on the commercial office building sector is likely to be minimal. This is due to the following three factors.

- It is quite feasible that the carbon price will remain within a range of \$10-\$40 per tonne CO₂e out to 2018, with the Australian government signalling a preference for an ‘easing-in’ period for obligations under the CPRS and a low start carbon price during the Kyoto period. The recent announcement of a revised start date of July 2011 and a fixed price of \$10 per tonne CO₂e for the first year confirms this outlook. And uncertainty associated with the passage of the legislation continues to undermine planning around a future carbon price regime and its level.
- At these carbon price levels, the impact on energy expenditure for commercial office buildings will only be in the order of an additional \$3/m² in energy costs by 2018 (i.e. at \$40 per tonne CO₂e).
- Energy costs only account for around 3-5 per cent of total occupancy costs in the commercial office building sector, making a small increase in these costs relatively insignificant for owners and tenants.

The price impact from CPRS is likely to be small, however, this RIS has factored in a small growth in assessment activity on the basis of a carbon price. It depicts a 1.4 per cent total growth in assessments from 2011 to 2019.

Expected provision of energy efficiency information in property transactions

The final element of the base case is to consider the extent to which energy efficiency information (in the form of NABERS Energy assessments conducted through voluntary action) may be provided to prospective buyers and tenants in transactions, in the absence of a requirement for mandatory disclosure of ratings.

Estimating this future trend requires a judgement of the incentive of property owners to provide assessment information to prospective buyers or tenants, without compulsion by government. Where assessments are conducted voluntarily, there should be incentives in favour of disclosure of energy efficiency information. This is because there is a likely positive bias in the stock of properties that have NABERS Energy ratings — properties being rated voluntarily are likely to have a higher energy efficiency performance than the average building stock. This is because:

- the investment in a NABERS Energy assessment can be recovered for those owners who are able to use the information to promote the energy efficiency credentials of their property, therefore there is lower incentive for property owners of less energy efficient buildings
- the Property Council of Australia's classifications of buildings requires all new or refurbished buildings seeking Class A and Premium ratings to achieve at least a 4.5 star NABERS Energy rating, establishing demand for assessments at the higher quality end of the market.

This RIS has therefore assumed that, under the base case, a majority of NABERS Energy ratings conducted would be disclosed by owners during property sales.

Turnover data provides an indication of how many transactions (sales and leases) for which this information could be provided. At the large end of the market (2000m² and above) the turnover of stock, both for sales and leases, is very low. Each year, on average:

- 8 per cent of properties in this size range are sold; and
- 6 per cent are leased.

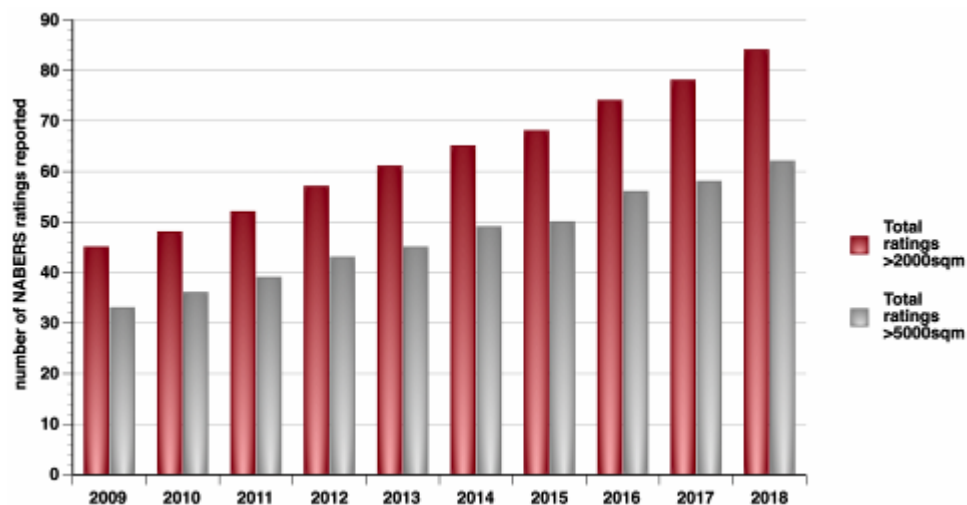
The average rate of sales remains the same for the 5000m² and above group; however, the turnover of leases drops even lower, with only 3 per cent of properties in this size range leased every year. Hence, in aggregate, 14 per cent of properties 2000m² and above or 11 per cent of properties 5000m² and above would require a NABERS Energy rating in any given year.

Applying these turnover rates to the expected volume of assessments conducted provides a trend of expected voluntary reporting of energy efficiency information in property transactions (Figure 4.4). These estimates provide an expected trend in the extent to which information on energy efficiency would be provided during negotiation or sale or lease, without mandatory disclosure.

In the following analysis of options, the costs and benefits of options are estimated *net* of this base case estimate of future voluntary assessment and provision of information in property transactions.

Figure 4.4

ESTIMATED NABERS ENERGY RATINGS INFORMATION VOLUNTARILY PROVIDED IN SALE AND LEASE TRANSACTIONS, 2009 TO 2018



Source: ACG analysis

4.2 Costs

The options assessed in this RIS each impose costs for business, through compliance requirements, and government, in administering and enforcing regulations.

This RIS assesses the costs of each option over a ten-year time period (2009-2018). Costs of options are assessed against the base case — that is, the costs estimated (in Net Present Value [NPV] terms with a 5 per cent discount rate applied) are those incurred over and above the base case. Options have been costed against two thresholds for property size: over 2000m² and over 5000m².

The method and underlying assumptions for the costing of options are provided in detail in 0 of this report. provides a summary of the types of costs quantified and key assumptions in the analysis. This table shows that the primary costs for building owners of mandatory disclosure (Option 1) or a voluntary scheme (Option 2) will be from purchasing energy efficiency assessments. A NABERS Energy star ratings requires a number of information inputs, including:

- area of office premises (m², preferably to PCA standards);
- occupancy (in hours per week);
- location;
- energy use of the premises over the last 12 months.

NABERS Energy assessors then use this information to benchmark the energy and greenhouse performance of a commercial office property, and assign it a star rating. The information gathering process varies across NABERS Energy assessors, but usually involves interviews with staff, verifying energy expenditure bills, and a survey of the premise.

Since the NABERS Energy star rating relies on actual expenditure on energy over a 12 month period, it cannot be assigned to new buildings that have not been occupied or operational for a 12 month period. Instead, building owners of new buildings can undertake a NABERS Energy simulation protocol (similar to the modelling requirements of a NABERS Energy Commitment Agreement), where an accredited assessor will generate a simulation of energy usage in a property, based on the plans or design of the building. The building owner then commits to achieving a particular NABERS Energy star rating within 12 months.

Signing a Commitment Agreement requires the developer/owner to undertake a series of risk management and administrative steps designed to ensure the completed project will have taken all reasonable precautions to mitigate the risk of not achieving the rating committed to; and has marketed the brand name in a fair and equitable manner. These steps include notifying the design team, and future tenants; arranging for a building energy simulation analysis (mandatory for ratings > 4.0 star), and carrying out an independent design review as stipulated in the Commitment Agreement document (Team Catalyst 2008).

Accredited assessors conduct NABERS Energy assessments. Once accredited, assessors are able to set their own prices for assessments. For this impact analysis, the cost of assessments was estimated using the median of 48 quotes for assessments received by NSW DECC (who manage NABERS Energy). The estimates used were cleared by NSW DECC as being within a reasonable range. Less information is available about the cost of NABERS Energy simulation protocol. This is because the rating is simulation based, and the cost can vary considerably depending on the size of the building or the complexity of the building design. Estimates of the cost of the Energy Commitment Agreements are based on consultations with NSW DECC, DEWHA and NABERS Energy assessors.

The costs of a full base-building plus tenancy light and power assessment for properties greater than 2000 square metres is estimated to cost the property owner \$5,919. This is the cost for:

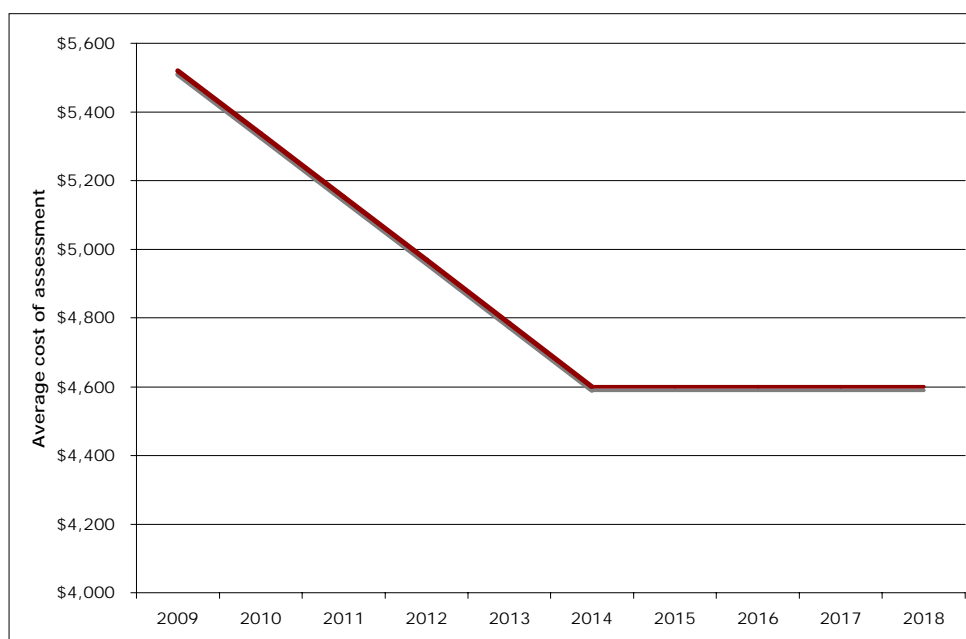
- a NABERS Energy base building assessment (\$3,100)
- a tenancy lighting assessment and advisory report (\$1,500)
- registration fee (\$905)
- eight hours spent preparing information for the assessor (\$414).

Under a mandatory scheme, it has been assumed that there will be an initial cost increase for assessments (20 per cent above the current average price for assessments). This growth in costs will result from an increase in demand for assessments without an increase in assessors. It has been further assumed that over the first five years of the program the number of assessors will grow to meet demand and the cost of assessments (in real terms) will return to historical levels. Figure 4.5 illustrates the change in time of the average cost of assessments for a mandatory scheme.

The potential impact of an increase in assessment costs is also included in sensitivity analysis at the end of this chapter.

Figure 4.5

ESTIMATED COST OF ASSESSMENTS



For Option 3, the primary cost is the cost of improving the energy efficiency of a building to meet mandatory minimum performance targets by 2018.

It is important to note that the costs of upgrades to buildings are **not** included as costs of mandatory disclosure. Decisions to upgrade buildings are an investment decision of the property owner, rather than being required as part of mandatory disclosure. Information disclosure acts to improve incentives in the market for this type of investment, but the decision to make improvements remains outside of the requirement to disclose information on energy efficiency.

Option 1: Mandatory disclosure (and sub-options)

- Option 1 can be separated into three sub-options:
- Option 1(a) is mandatory disclosure at sale or lease
- Option 1(b) is a requirement for annual tenancy ratings (which is distinct from tenancy lighting assessments under the mandatory disclosure option 1(a))
- Option 1(c) is the requirement that owners of new buildings enter into NABERS Energy simulation protocols (as described in chapter 3).

These sub-options could be implemented together (as combined Option 1, or in parts).

A combined Option 1 incurs costs to business and government of:

- \$134.7 million (NPV) for properties larger than 2000m²
- \$76.3 million (NPV) for properties larger than 5000m².

The majority of costs can be attributed to sub-option (b), where tenants would be required to conduct annual energy efficiency assessments. The costs of this sub-option are significant because assessments would be required annually. Costs of these assessments decrease significantly where they are required every 24 or 36 months.

Option 1(a) — requiring mandatory disclosure of NABERS Energy assessment information at sale or lease imposes costs of:

- \$18.7 million where mandatory disclosure is required for sale and lease of properties over 2000m² in NLA
- \$10.9 million where mandatory disclosure is required for sale and lease of properties over 5000m² in NLA.

Adding the requirement for owners of new buildings, who intend to sell them, to undertake NABERS Energy simulation protocols (Option 1(c)) increases the cost by \$14.8 million where required for buildings over 2000m², and \$7.8 million for required for buildings over 5000m². The cost of this Option is due to the small number of buildings that will be affected; the cost to individual owners of those buildings will be substantial (in excess of \$35 000).

Option 2: Industry code of practice

Option 2 (industry code of practice) has the lowest cost of all options, due to the voluntary nature of industry participation in the scheme. The cost estimate assumes 40 per cent coverage of properties in the scheme; therefore costs of the scheme are lower than for a mandatory scheme. Option 2 imposes costs of:

- \$3.4 million for sale and lease of properties over 2000m² in NLA
- \$0.5 million for sale and lease of properties over 5000m² in NLA.

Costs in this Option are less than in Option 1(a), because a lower level of compliance is assumed. While it is not possible to know for certain what proportion of an industry will sign up to and comply with a voluntary code of practice, it is reasonable to assume some level of compliance in this instance, due to:

- current take-up of NABERS Energy assessments voluntarily by industry
- the marketing or promotional opportunities associated with a high NABERS rating
- nine organisations between them covering off 40 per cent of the market share of commercial office buildings (IBIS World 2008)
- an existing framework of industry defined and industry monitored building classifications (for example, the Property Council of Australia requires new buildings to have a 4.5 NABERS Energy star rating for premium and A grade buildings).

The level of compliance with or participation in the industry scheme is assumed to account for 40 per cent of the commercial office space *at minimum*. This is equivalent to the share of the market controlled by the major players. The value of costs to building owners under this Option is therefore 40 per cent of the corresponding value in Option 1.

The NABERS administration would continue to process and record NABERS Energy ratings, so the value of cost of administering the scheme would be 40 per cent of the corresponding for Option 1.

Option 3: Minimum energy efficiency standards

Option 3 (minimum energy efficiency standards) has the highest costs of all the options, as estimates of cost include upgrading the building stock by one star rating. This Option gives rise to between \$576.7 and \$693.6 million of costs to government and business, consisting of:

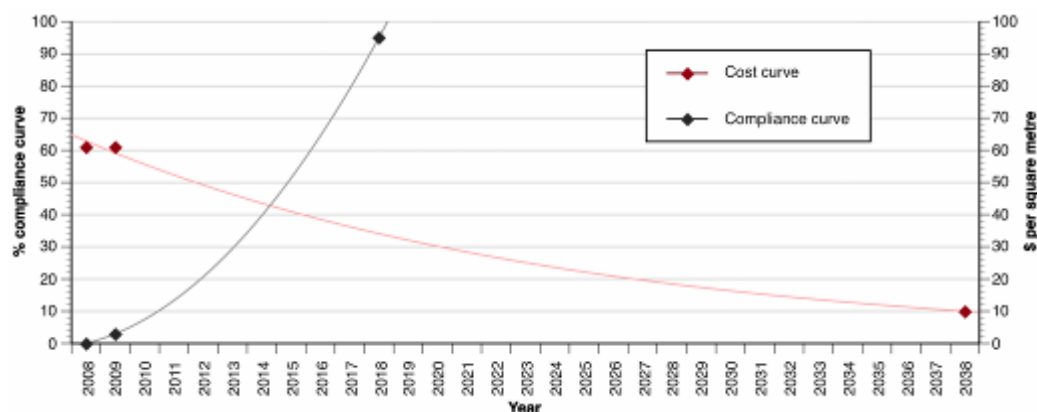
- \$680.6 million (\$567.4 million) in costs associated with upgrading the existing building stock from an average of 2 NABERS Energy stars to 3 NABERS Energy stars
- \$8.5 million (\$4.9 million) in assessment costs for property owners with properties of greater than 2000 m² NLA (5000 m² NLA), to demonstrate compliance with the minimum energy efficiency standard
- \$4.4 million in establishment costs to regulators.

The *NFEE Mandatory Disclosure of Commercial Building Energy Efficiency: Concept Report* costs upgrading from a two to three star building at \$61 /m². However this cost can be mitigated if equipment is replaced at the end of its useful life, at which time the cost of upgrading represents a 10 to 15 per cent premium (approximately \$10/m²). The maximum lifespan of any building equipment is 30 years. The cost curve for upgrading the energy efficiency of a building assumed for this analysis is illustrated in Figure 4.6.

Figure 4.6 also illustrates the compliance curve used in the analysis. It has been assumed that by the final year, the program will have achieved 95 per cent compliance and that rate of compliance increasing in later years as the cost of upgrades decreases.

Figure 4.6

COMPLIANCE AND COST CURVES



Source: ACG analysis

In consultations for this RIS, there was a range of views from stakeholders on whether this cost estimate is reasonable, with some stakeholders indicating it was too low and others reporting it was too high (particularly at the \$61/m² range, given that other research suggests that there are negative cost opportunities for the building sector).

In practice, it is likely that the cost of upgrading will vary significantly depending on:

the starting point for upgrading, given that for some buildings an upgrade can be conducted at low cost because owners are starting from a low performance point (and therefore are yet to take advantage of the lowest cost, or negative cost, opportunities)

the nature of the building itself — some buildings, by design, age or other characteristics, are limited in the number of potential low cost opportunities for upgrades.

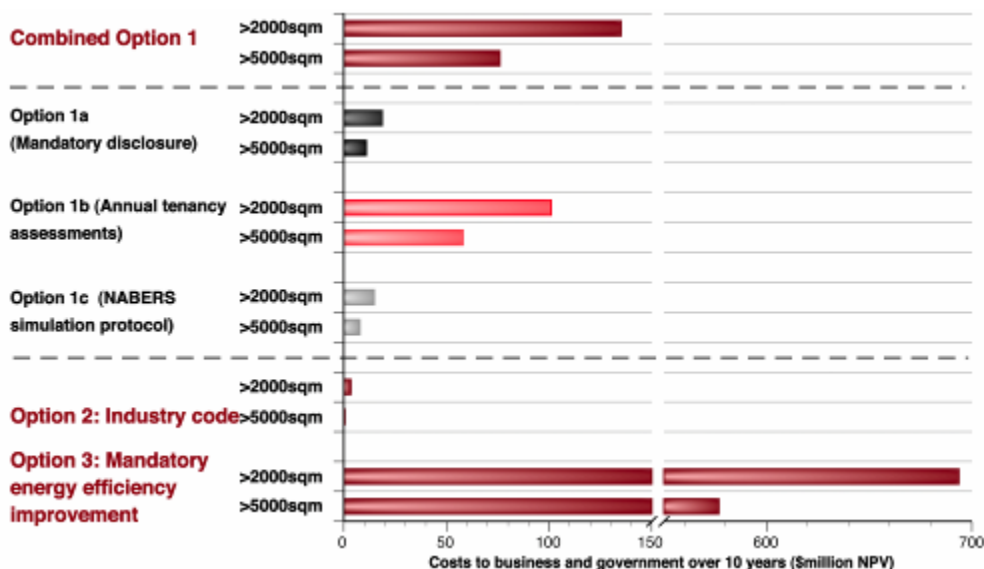
The cost of upgrades for improved energy efficiency, therefore, is likely to be a trajectory along which the building stock will be represented. For this analysis, where an average cost is needed, the use of the estimates above is within reasonable bounds for the options being assessed.

Comparison of costs across options

Figure 4.7 provides a summary of the costs of each option. The figure provides a comparison of the three options, as well as sub-options under Option 1. The costs of each of the sub-options that could be considered as part of Option 1 have been presented separately. Such that, to calculate the cost of Option 1(a+b), the costs from Option 1a and Option 1b, for the appropriate threshold, would be summed.

Figure 4.7

COMPARISON OF OPTION COSTS, 2009-2018 (NPV)



Source: ACG analysis

For a summary of the costing estimates used in these calculations please refer to Appendix B.

4.3 Direct benefits of Options 1 and 2

The options assessed in this report include two options to address the problem through information tools, and one explicit regulation approach.

The use of information tools by government seeks to address market failures that arise from information asymmetries or split incentives between buyers and sellers in a market. Information disclosure requirements typically have two key advantages compared with more intrusive government intervention.

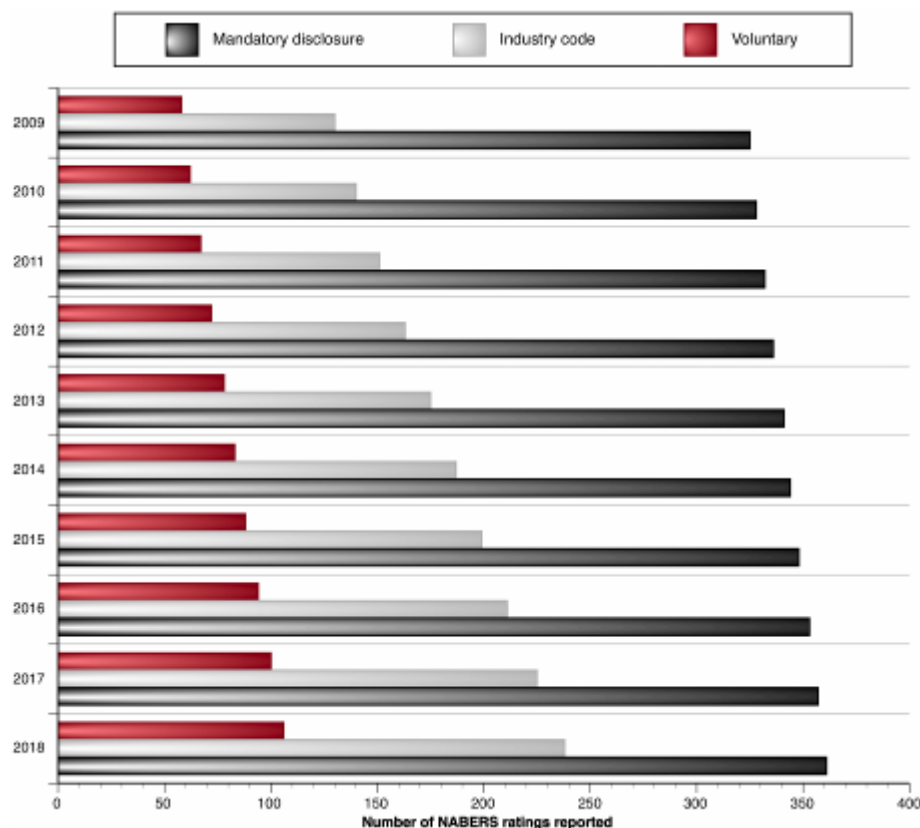
- Because they simply provide information to consumers, the final decision about whether to purchase a product remains with the consumer. This is in contrast to other regulatory options (such as product bans) that directly prevent consumers from making particular trade-offs or choices.
- Disclosure requirements do not prevent firms from providing new products or otherwise innovating. Nor do they prevent new firms from entering an industry, providing those firms meet disclosure requirements. And they do not preclude provision of additional information where this may be helpful and valued by consumers. (Productivity Commission 2005)

To be most effective, information disclosed to buyers should be easy to understand and interpret. Consumers are most likely to use the information when they understand how it relates to their decision and can use it to compare products on a like with like basis. In this context, star-ratings tools can prove useful for buyers or tenants where they can compare buildings using these measures. It is important, however, that consumers are aware of the implications for them for each point on the scale of the rating (i.e. what the savings for them would be for an addition ‘star’).

As discussed earlier, building owners currently provide energy efficiency information to buyers and tenants voluntarily. Estimates of how assessments would be provided in sale and lease transactions under mandatory disclosure or an industry code are provided in Figure 4.8. This figure shows an increase in assessment information provided in sales or lease transactions for both the industry code (Option 1) and mandatory disclosure (Option 2).

Figure 4.8

ESTIMATED NABERS ENERGY RATINGS INFORMATION PROVIDED IN SALE AND LEASE TRANSACTIONS, 2009 TO 2018



Source: ACG analysis

Increased provision of energy efficiency information in transactions can achieve benefits where:

consumers use the information to inform their decision to buy or lease a property, and accrue direct energy savings by using the information (by choosing a more energy efficient property)

greater disclosure of energy efficiency information in the market provides opportunities for owners to capture a premium for higher rated buildings, which provides an incentive for improvements in energy efficiency across the building stock (effectively addressing the problem of adverse selection in the market).

These types of benefits apply where information is used directly to either obtain a saving or provide an incentive for investment in energy efficiency upgrades. It is possible, however, to conceive that information disclosure can provide a benefit to buyers or tenants, even if they do not act on it directly. Box 4.1 provides further discussion on this concept. For this RIS analysis, these benefits have not been included in estimates, but they remain important to acknowledge in assessment of the broader benefits of information disclosure in the market.

Direct savings for buyers or tenants of choosing a more energy efficient property

Disclosure of energy efficiency information in property transactions through either a mandatory or voluntary scheme will most benefit those parties who value the information and will use the information in decisions. For this set of buyers and tenants, information with which to compare energy efficiency will provide benefits through savings on energy expenditure (where a higher rated building is chosen).

As discussed in Box 4.1, it is likely that the proportion of buyers or tenants who will accrue direct benefits will be low.

Box 4.1

WHY INDIVIDUALS MAY NOT ACT ON ENERGY EFFICIENCY INFORMATION

The analysis of benefits from information disclosure in this RIS focuses on where buyers or tenants are able to use information on energy efficiency to achieve savings (by choosing a higher rated property). It is likely that this scenario will only apply to a relatively small group of prospective buyers or tenants. Other parties may either not be able to use the information to achieve these benefits or they may use the information but not choose the higher rated property.

Buyers or tenant may be unable to use the information to achieve a saving where:

they are not able to compare properties on a like-with-like basis and choose a more energy efficient option (for instance, where all properties of the size and location that they are seeking have the same rating)

their preferences are such that they have minimal choice in the market, which may be the case with large organisations (in such cases energy efficiency performance may be achieved through other means, such as customising properties as part of sale negotiations)

low vacancy rates in the market dictate that tenants and buyers have few options and are not in a position to compare a set of properties on the basis of energy efficiency performance.

Buyers or tenants may be in a position to compare properties on the basis of energy efficiency performance, but don't choose the more energy efficient option. Reasons for this may be:

the potential energy efficiency savings are not sufficient to overcome other characteristics (i.e. location, amenities)

decision makers within organisations do not place a high value on energy savings and therefore do not pursue them as an option in property choice.

These scenarios are different to where a buyer or tenant does not understand the ratings information correctly, or is not aware of its potential use as part of a property transaction.

A key conceptual question for analysis of mandatory disclosure benefits is — do consumers benefit from information disclosure even if they can not, or do not achieve a direct benefit from using the information?

For those buyers and tenants who are unable to use the information due to market characteristics, information disclosure has little to no benefit. These parties may wish to use the information but are unable to, and therefore derive little gain from disclosure. Conversely, those buyers or tenants who are able to use the information to compare properties, but choose not to purchase or lease the higher rated property *are* deriving a benefit from the information provided. These parties are able to use the information, along with other characteristics to make an informed choice, but there are other barriers or issues which prevented them from choosing the most energy efficient option (such as cost).

Break-even analysis of direct benefit to buyers or tenants

The analysis presented in this section is in the form of a break-even analysis. A break-even analysis identifies the minimum quantum of benefits needed for a regulatory proposal to provide a net positive outcome. A break-even analysis is attractive because it does not directly seek to value benefits, but tests the reasonableness of potential levels of benefit, compared with costs.

A break-even approach establishes the minimum benefits required to at least cover total costs. Where the break-even target can be exceeded, the option provides a net benefit to the community. Break-even analysis sets a level of benefit required, meaning an assessment can be made on the likelihood of this target being achieved. Where multiple options meet the break-even target, the option with the potential for the greatest level of benefit is the preferred option (as it provides the greatest benefit for investment by business and government).

The first component of the analysis is to determine the level of direct benefit for prospective tenants or buyers required to cover costs of the scheme. This level of benefit is measured as the direct saving resulting from a tenant or buyer choosing to rent or buy a property with a rating one star higher than other properties on the market. As Table 4.2 demonstrates, for Option 1(a) (2000m² or larger), if 3.9 per cent of transactions each year are influenced by mandatory disclosure the direct benefit will balance the cost of the scheme. This is equivalent to 114 transactions over the ten-year life of the program. Whereas, Option 2 only requires 1.8 per cent of transactions from those buildings participating in the voluntary scheme to be influenced by the disclosure of energy efficiency information to balance the cost of the scheme. This is equivalent to 21 transactions.

Table 4.2

LEVEL OF DIRECT BENEFIT NEEDED TO RECOVER COSTS

| Option | >2000 m ² | | >5000 m ² | |
|----------------|----------------------------|------------------------------|----------------------------|------------------------------|
| | % of transactions per year | Total number of transactions | % of transactions per year | Total number of transactions |
| Option 1(a)* | 3.9% | 114 | 3.3% | 42 |
| Option 1(a+c)^ | 7.0% | 207 | 5.8% | 74 |
| | (22%, 4%) | | (14%, 3.2%) | |
| Option 2 | 1.8% | 21 | 0.3% | 2 |

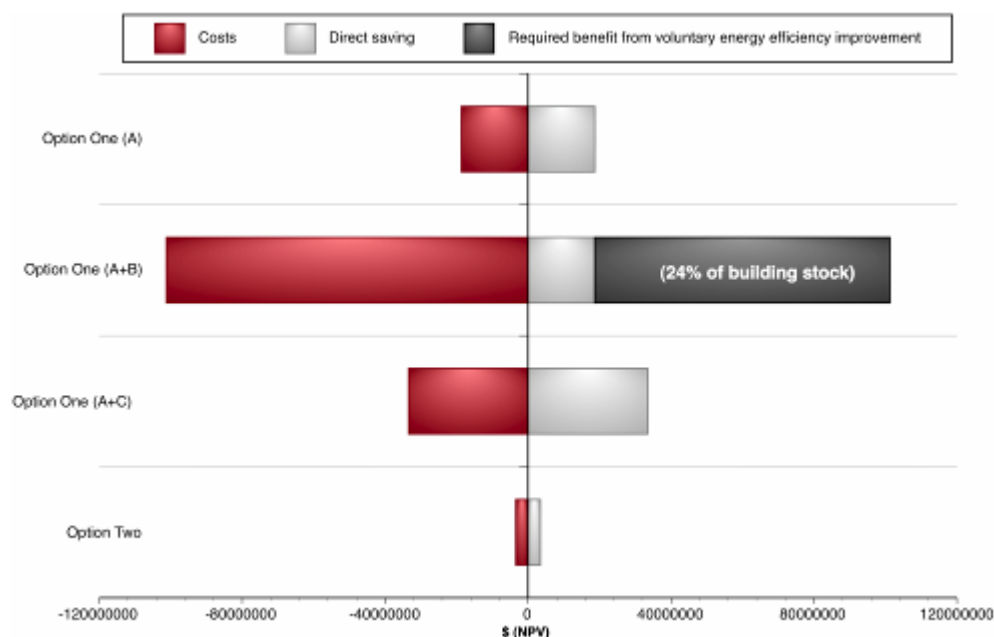
Note: *The level of direct benefit in Option 1(a) would also be expected in Option(a+b) however additional voluntary energy efficiency improvement motivated by the annual tenancy assessments would also be required to break-even for Option(a+b). ^The percentages in brackets for Option 1(a+c) denote the level of direct benefit required in the new building stock and in the existing building stock to break-even.

Source: ACG analysis

The direct benefit arises from decisions of buyers or tenants when purchasing or agreeing a new lease. Option 1(b) is a requirement for tenancy assessments. As such, this sub-option is not designed to influence the decision making process in property transactions. Benefits from these tenancy assessments can only be achieved through savings from voluntary energy efficiency improvements. The level of required benefit from energy efficiency improvement to reach the break-even point has been estimated. Figure 4.9 shows the minimum voluntary energy efficiency improvement required to cover the cost of adding this sub-option to mandatory disclosure.

Figure 4.9

BREAK-EVEN ANALYSIS OF OPTIONS ONE AND TWO – GREATER THAN 2000M²



Note: Numbers in brackets denote the percentage of building stock that would have to improve by one star rating (through voluntary action) over the 10-year period, to offset costs.

Source: ACG analysis

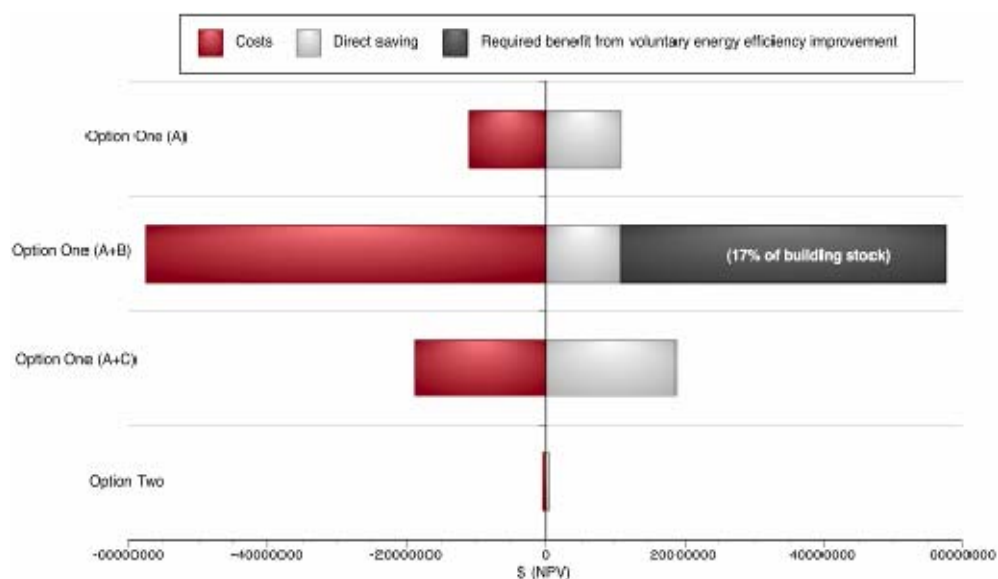
Results of the break-even analysis illustrate the relatively low cost of mandatory disclosure. The requirement for annual tenancy assessments imposes significantly higher costs than other options, with an unrealistic break-even target, meaning, if implemented, the proposal would likely impose a net cost. The requirement for NABERS Energy simulation protocol would impose a relatively small additional cost overall. However, as noted above, it would impose a large cost for individual new building owners, for minimal additional benefit.

Figure 4.10 provides the same analysis but with the threshold set at properties greater than 5000m².

This analysis shows that the break-even target for tenancy assessments is that 234 leased buildings increase their energy efficiency by one star. This target is lower than for the 2000m² or greater group, reflecting the improved opportunities for larger size properties to recoup costs of assessments through energy savings. The target for the 5000m² or larger group is still high (17 per cent of building stock), given that these savings would have to be achieved through voluntary action.

Figure 4.10

BREAK-EVEN ANALYSIS OF OPTIONS ONE AND TWO – GREATER THAN 5000M²



Note: Numbers in brackets denote the percentage of building stock that would have to improve by one star rating (through voluntary action) over the 10-year period, to offset costs.

Source: ACG analysis

Is the break-even threshold reasonable and achievable?

The Consultation RIS presented a break-even threshold point where the costs of the scheme would be equal to the benefits — essentially the point where the scheme could be justified on net benefit grounds. In consultations we tested with stakeholders whether this target was reasonable. While stakeholders did provide some comments on the cost-benefit analysis in the RIS, few provided their judgement of the break-even target specifically (though several commented that it was very low).

It is important to note in this analysis that the break-even target is *not*:

- the expect total benefit of the scheme, *or*
- the target benefit for government to be satisfied that the scheme is a ‘success’.

What the break-even does is set a threshold specifically for the cost benefit analysis to test the reasonableness of the costs imposed against potential *direct* benefits.

The tool being tested in an information tool — information tools by their nature are low cost but less direct methods of government intervention in markets. A low threshold is therefore appropriate in this instance as it would be inappropriate to overstate the direct benefit of information in the market.

The direct value of information for prospective buyers or tenants is contingent on:

- choice in the market — in tighter market conditions direct benefits through enabling choice will be reduced, and
- buyers or tenants understanding the information and placing a priority on energy efficiency.

While market conditions are currently tight, there is evidence to suggest that there is growing interest from property owners and tenants in energy efficiency (such as recently published research from Jones Lang LaSalle which reports growing interest, and higher yields for higher performing properties). In this environment, the low cost of the scheme is likely to be outweighed by these direct benefits in the marketplace.

In making a judgement about the most appropriate option it is necessary to consider the potential level of benefit that may be generated individually and overall. The options that target the greater than 5000m² population and the voluntary option have a lower cost but also target a smaller population and have less scope for generating benefits. On the other hand, some stakeholders suggested that the 1000m² threshold be considered for the mandatory schemes. At this threshold the population captured by the scheme would be significantly larger as would the scope to generate benefits. The individual benefits derived by each tenant or prospective building owners, however, would be diminished while the cost to each scheme participant would remain substantially unchanged. These competing issues must be balanced when assessing the option with the most acceptable break-even target.

4.4 Longer term indirect benefits of Options 1 and 2

In addition to the direct benefit of generated by the disclosure of energy efficiency information there are two types of longer term indirect benefits that are likely to flow from the program:

- voluntary improvement in the energy efficiency of commercial office buildings; and
- reduced greenhouse gas emissions.

Potential benefit through increased energy efficiency of commercial office buildings

A longer term benefit from disclosure of energy efficiency information is the voluntary improvement to the energy efficiency of the commercial office building stock. Such benefits can be achieved where investment in energy efficiency improvements are driven by:

- increased volume of information in the market leading to increased awareness of energy efficiency as a characteristic of commercial office buildings
- demand for higher energy efficiency increasing the premium for higher rated buildings, and thus the return on investment for energy efficiency improvements.

The potential impact resulting from voluntary energy efficiency improvement through a more informed market is set out in Table 4.3. This provides scenarios for potential voluntary improvement in energy efficiency performance. It shows that voluntary improvement in a relatively small proportion of the total building stock (2000m² or larger) results in benefits (through energy savings) in the range of \$13.5 million to \$54 million. These incremental improvements can be achieved through low cost opportunities such as improved management, maintenance or behavioural change on the part of occupants. A key factor in this analysis is that these improvements are voluntary — they should only occur where owners consider the improvements are cost effective for their property (that is, specific improvements are not mandated).

Table 4.3

POTENTIAL BENEFITS OF VOLUNTARY ENERGY EFFICIENCY IMPROVEMENT

| | Proportion of building stock | >2000 /m ² NPV (millions) over 10 years |
|--|------------------------------|--|
| Improvement by ½ a NABERS Energy star rating | 5 per cent | \$13.5 |
| | 10 per cent | \$27.0 |
| Improvement by 1 NABERS Energy star rating | 5 per cent | \$27.0 |
| | 10 per cent | \$54.0 |

The level of potential improvement presented in the above table is more likely to be achieved under a mandatory scheme rather than the voluntary scheme because:

- a mandatory scheme will ensure that there is more information in the market
- a mandatory scheme will ensure a greater population across which to encourage voluntary energy efficiency improvement
- a voluntary scheme is likely to only attract the best performers (i.e. the most energy efficient buildings), as such there will be less scope for improvement.

Benefits through greenhouse gas abatement

In addition to the benefits associated with the reduction in expenditure on energy consumption there will be benefits to the environment through reduced greenhouse gas emissions. These emission savings are generated as a result of reductions in energy consumption at an individual level, and are estimated in Table 4.4.

For an accurate assessment of actual savings, details of energy mix and emission intensity are required, and this can differ by building and location. Nevertheless, it can be useful to bear in mind the greenhouse gas emission ‘spin-offs’ associated with actions resulting in energy efficiency improvement. While not explicitly valued in this study — apart from the added ‘savings’ associated with energy savings in an emissions trading environment — the notion of an environmental pay-off can be a strong additional motivating factor or source of ‘psychic income’ for many individuals and companies with a ‘triple bottom line’ orientation.

Importantly, these greenhouse ‘savings’ remain valid even in an emissions trading environment characterised by a ‘cap and trade’ approach (as proposed under the national CPRS). While strictly speaking, the capped emissions pool under the CPRS means that unused emissions go back into the pool and are available for others to use, energy efficiency efforts are nevertheless a powerful ally of over-arching greenhouse objectives. The abatement they generate lowers the cost of further greenhouse action. Unlocking these savings makes more ambitious greenhouse targets more affordable in the future, and is therefore an important part of the longer term greenhouse solution. From a policy and individual perspective, it is important that individual action to save energy also gives (and receives) appropriate recognition of how this supports wider greenhouse and environmental objectives.

Table 4.4

GREENHOUSE GAS ABATED

| | Proportion of building stock | >2000 /m ² CO ₂ e reduction (kt) over 10 years |
|--|------------------------------|--|
| Improvement by ½ a NABERS Energy star rating | 5 per cent | 95 |
| | 10 per cent | 190 |
| Improvement by 1 NABERS Energy star rating | 5 per cent | 190 |
| | 10 per cent | 380 |

4.5 Benefits of Option 3 — Mandatory minimum energy efficiency standards

Minimum energy efficiency standards have a direct, quantifiable benefit — savings from energy expenditure attributable to a more efficient use of energy.

Under the option, building owners (and potentially also tenants) will benefit from the energy cost savings achieved through the operation of a better performing building. These benefits will accrue to building owners who own a building which is under the threshold point of 3 NABERS Energy stars and is required to be upgraded (i.e. for those owners with buildings already meeting the threshold, there is no change). The estimates of benefit are taken on the basis of a 1 star improvement in the building stock, based on estimates of the average building stock performance, though in practice some buildings will not require any upgrades, while others will require more than a 1 star improvement.

Benefits to owners and tenants are estimated using the \$3/m² saving estimate for upgrading by 1 star (as used in previous estimates for benefits for Options 1 and 2). This \$3/m² saving estimate is based on energy savings alone and represents a conservative approach to estimating the benefits of upgrading by one star. It is highly probable that during the course of the ten-year period over which the costs and benefits are modelled, energy prices will increase as a result of increased demand and the introduction of the CPRS. However, given the uncertainty over when and by how much the cost of energy will increase, no increase in energy costs have been assumed in this analysis. This price also does not include the other benefits associated with investing in a more energy efficient office environment such as: avoided pollution, improvements in staff morale and health and green marketing benefits.

Over the ten year period following the investment in the upgrade, benefits are estimated to be:

- \$360 million for the 2000 m² or larger group
- \$300 million for the 5000 m² or larger group.
- As noted in Section 4.2 above, the costs of this measure are estimated to be:
- \$694 million for the 2000 m² or larger group
- \$577 million for the 5000 m² or larger group.
- Hence, requiring mandatory minimum energy efficiency standards comes at a net cost of:

- \$334 million for the 2000 m² or larger group
- \$277 million for the 5000 m² or larger group.

These estimates are based on the aggregate estimate that a 1 star improvement will cost between \$61/m² and \$35/m² to implement. It is important to note that these estimates are based on a 10 year horizon, to be comparable with the other options in this RIS. In practice, benefits of improvements will likely continue to accrue beyond this period (though this will depend on the type of upgrades conducted, and the economic life of assets purchased).

The assessment of this option shows the net costs associated with a relatively blunt approach to mandatory minimum energy efficiency improvement. The costs of the scheme are high because the average costs factors in the potential that some building owners may be required to invest in energy efficiency improvements through moderate or high cost upgrades. It is reasonable to assume that, faced with a requirement to upgrade, owners will seek the lowest cost option for them. For some owners, these options will be incurred at a lower cost than that estimated for this option, but for others the costs will be higher (as discussed in the previous discussion on costs of this option). This means that, for some building owners, investing in upgrades *will* result in a direct net benefit through energy savings, because they are able to implement lower cost upgrades. For others, however, there will be a net cost (as they do not have a flexibility in this option to *not* invest in upgrades at a higher cost).

There are potentially other forms of a mandatory investment approach that would incur lower costs than this Option. For instance, an alternative approach would be to require mandatory investment where the pay-back period is below a defined threshold. This type of approach, linked to energy audit procedures, takes the economics and pay-offs of particular options into account. It recognises a menu of energy improvement options available in particular locations and specifically targets those offering the greatest economic pay-off (i.e. the ‘low hanging fruit’).

4.6 Comparison of benefits across all options

The preceding sections provide an analysis of the types of potential benefits from the options assessed in this RIS.

The analysis of Options 1 and 2 focused on the potential *direct benefit* of information in the market (savings for buyers or tenants), and the longer term *indirect benefits* of voluntary energy efficiency improvements that occur where the market is better informed about potential cost savings through higher energy efficiency performance.

The analysis of Option 3 focuses on potential benefit resulting from mandatory energy efficiency improvement, which is the direct cost savings through higher energy efficiency performance.

For Option 1 (and sub-options) and Option 2 the direct benefit analysis uses a break-even assessment, to test the reasonableness of the level of benefit need to recover costs of the option. This assessment was conducted against two building NLA thresholds — 2000m² and 5000m². The break-even assessment sets a target for benefits equivalent to costs — as it seeks to understand the require benefit to *at least* achieve a balance between benefits and costs. Lower cost options will, therefore, have smaller breakeven targets. The test is not to identify the option with the lowest break-even target, but to make a judgement about which option has the best balance of cost and benefits (that is, the option which has the great scope for benefits, but with costs that are still within reasonable limits).

Our analysis, of the Option 1 sub-options analysis found that:

- Option 1 (a) — mandatory disclosure — requires direct benefits to be realised in around 4 per cent of transactions each year for the 2000m² threshold, and 3.3 per cent of transactions each year for the 5000m² threshold.
- Option 1(b) — Combining mandatory disclosure with annual tenancy assessment — resulted in significant costs which would require a large (and potentially unrealistic) level of induced energy efficiency improvement (this is the case for both size thresholds).
- Option 1 (c) — Combining mandatory disclosure with NABERS Energy simulation for new buildings increases the break-even threshold to 7 per cent, the costs for which are concentrated on a small number of new building owners (this is the case for both size thresholds).

On this basis, Option 1 (a) is assessed as being the preferred approach within the Option 1 sub-options, because it sets a reasonable target for break-even benefit, without the additional costs incurred through the proposals in the (b) and (c) sub-options. Further, Option 1 (a) with a 2000m² NLA threshold is preferred because it presents greater scope for benefit (as it influences a larger proportion of the building stock), but its costs are still at a low level and within a reasonable range (i.e. only requiring a small proportion of direct benefit means that there is strong scope for a *net* benefit to be achieved — i.e. benefits to be greater than costs).

Comparing these results with Options 2 and 3:

- Option 2 is the lowest cost of all options, requiring only 1.8 per cent of transaction per year to realise a direct benefit
- Option 3 is the highest cost option, as it reflects the costs of upgrades through a mandatory energy efficiency improvement.

In this analysis, Option 3 has been discounted because of the high costs for building owners, and the potential low efficiency of the option (as it may not be the best approach to ensure that the lowest cost opportunities are taken-up).

Comparing Option 1 (a) with Option 2, Option 2 may appear to be the better option because it is lower cost. It is, however, also likely to be a lower impact option because, as it is a voluntary scheme:

- there will be fewer participants than in a mandatory scheme; and
- there is likely to be a bias in the participant group towards owners of higher performing buildings (as under the voluntary scheme there is little incentive for owners of poorly performing buildings to participate).

This factor is reflected in the assessment of indirect benefits in earlier sections. Option 1 (a), while higher cost than Option 2, will result in more information being provided to the market, and this information will not be biased towards better performing buildings. These factors make it significantly more likely to achieve the indirect benefits discussed above, and therefore make it the preferred option over Option 2.

4.7 Sensitivity analysis

There are a number of assumptions in this analysis that, in practice, may vary either side of the estimate used. It is therefore important to sensitivity test assumptions to ensure the robustness of the final estimates.

Key assumptions to sensitivity test are:

- *the costs of assessments* —depending on the availability of assessors there is the potential for mandatory disclosure to inflate assessment costs due to higher demand for assessments.
- *the rate of transactions* — the rate of transactions is dependent on market and as such is subject to change.
- *the annual benefit from energy efficiency improvements* — this amount is currently estimated at \$3/m².
- *the validity period for assessments* — the current proposal is for assessments no more than 12 months old when disclosed. Varying this amount may reduce costs for business.

Cost of assessments

The sensitivity of the results to possible increases in the price of NABERS Energy assessments during the initial years of the regulations is provided in Table 4.5. Such price increases may arise due to increases in demand for the services of NABERS Energy assessors that outstrip supply during the initial years. The sensitivity analysis was conducted for three different price scenarios as follows:

- constant – price constant over 10 year period
- low initial increase (central estimate — refer to Table 4.5)
- high initial increase – price increases by 50 per cent of the 2008 price in 2009 and then declines back to the 2008 by 2014.

Table 4.5

COST OF ASSESSMENTS

| | Constant (millions) | Low increase (millions) | High increase (millions) |
|--|---------------------|-------------------------|--------------------------|
| Option 1a | | | |
| Total cost to owners (>2000m ²) | \$17.9 | \$18.7 | \$19.7 |
| Total cost to owners (>5000m ²) | \$10.6 | \$10.9 | \$11.5 |
| Option 1 (a+b) | | | |
| Total cost to owners and tenants (>2000 m ²) | \$90.0 | \$101.2 | \$119.6 |
| Total cost to owners and tenants (>5000 m ²) | \$51.2 | \$57.6 | \$68.2 |
| Option 2 | | | |
| Total cost to owners (>2000m ²) | \$3.1 | 3.4 | \$3.9 |
| Total cost to owners (>5000m ²) | \$0.3 | \$0.5 | \$0.8 |
| Option 3 | | | |
| Total cost to owners (>2000m ²) | \$693.3 | \$693.6 | \$694.1 |
| Total cost to owners (>5000m ²) | \$576.5 | \$576.7 | \$577.0 |

Source: Allen Consulting Group analysis

The impact of price rises in the cost of assessment on the overall cost of the proposals is most severe for Option 1(a+b). For all other scenarios the variation in price between the constant price and the high increase is very moderate. As Table 4.6 demonstrates under the high increase scenario, Option 1(a) for the 2000m² or greater group, would require an extra 5 transactions over the ten-year life of the program to break-even.

Table 4.6

LEVEL OF DIRECT BENEFIT NEEDED FOR THE HIGHER INCREASE

| Option | >2000 m ² (Higher costs) | | >2000 m ² (Central estimate) | |
|-------------|--|------------------------------|--|------------------------------|
| | % of transactions per year | Total number of transactions | % of transactions per year | Total number of transactions |
| Option 1(a) | 4.1% | 120 | 3.9% | 114 |
| Option 2 | 2.1% | 24 | 1.8% | 21 |

Source: ACG analysis

Rate of transactions

Changes in transaction rates for sales and leases are usually a response to market conditions. Given the time period over which this program is being assessed there is likely to be some variation in the rates of sale and or leases. Therefore, sensitivity analysis has been conducted to determine the impact of a 10 per cent increase or decrease in total transaction rates. As Table 4.7 demonstrates, the impact on the break-even point of changes in transaction rates is very marginal.

Table 4.7

LEVEL OF DIRECT BENEFIT NEEDED UNDER ALTERNATIVE TRANSACTION RATES >2000m²

| Transaction rate outside the CBD | Option 1(a) | | Option 2 | |
|-----------------------------------|----------------------------|------------------------------|----------------------------|------------------------------|
| | % of transactions per year | Total number of transactions | % of transactions per year | Total number of transactions |
| 90% of 2008 transaction activity | 3.9% | 105 | 1.8% | 19 |
| Central estimate | 3.9% | 114 | 1.8% | 21 |
| 110% of 2008 transaction activity | 3.8% | 123 | 1.8% | 23 |

Source: ACG analysis

Annual benefit from energy efficiency improvements

The average annual benefit of increasing the NABERS Energy rating of a building by one star is currently estimated at \$3/m². This estimate has been reported by multiple sources, is based on energy savings alone and represents a conservative approach to estimating the benefits of upgrading by one star. It is highly probable that during the course of the ten-year period over which the costs and benefits are modelled, energy prices will increase as a result of increased demand and the introduction of the CPRS. However, given the uncertainty over when and by how much the cost of energy will increase, no increase in energy costs have been assumed in this analysis. This price also does not include the other benefits associated with investing in a more energy efficient office environment such as: avoided pollution, improvements in staff morale and health and green marketing benefits. This estimate is, therefore, considered reasonably robust. Nonetheless, given the central role this estimate plays the sensitivity of the results to this variable has been tested. The results of a sensitivity analysis are summarised in Table 4.8.

Table 4.8

LEVEL OF DIRECT BENEFIT NEEDED UNDER ALTERNATIVE ANNUAL BENEFITS >2000m²

| Annual saving /m ² | Option 1(a) | | Option 2 | |
|-------------------------------|----------------------------|------------------------------|----------------------------|------------------------------|
| | % of transactions per year | Total number of transactions | % of transactions per year | Total number of transactions |
| \$2 | 5.8% | 171 | 2.7% | 32 |
| \$3 | 3.9% | 114 | 1.8% | 21 |
| \$4 | 2.9% | 85 | 1.4% | 16 |
| \$5 | 2.3% | 68 | 1.1% | 13 |

Source: ACG analysis

Assessment validity period

In order to test the sensitivity of the results to changes in the validity period of NABERS Energy assessments, the results of a sensitivity analysis are provided for Option 1(b) in Table 4.9. This analysis has only been conducted for Option 1(b) because changing the validity period would only affect Option 1(b). Under the other proposals assessments are only required when the property is sold or leased. As office properties are generally only sold or leased once every 5-10 years they would require a new rating every time they were sold or leased.

Table 4.9

OPTION 1B SENSITIVITY ANALYSIS – VALIDITY PERIOD

| | 12 months (millions) | 24 months (millions) | 36 months (millions) |
|--|-------------------------|-------------------------|-------------------------|
| Total cost to tenants (>2000m ²) | \$95.5 | \$39.5 | \$25.4 |
| Total cost to tenants (>5000m ²) | \$52.5 | \$20.7 | \$12.7 |

Source: ACG analysis

The cost impact on tenants would be significantly reduced if the validity period for mandatory tenancy assessments was increased to once every 24 or 36 months. With a 36 month validity period, the break-even proportion of the building stock that would be required to be voluntarily improved decreases:

- from 630 properties to 187 for the 2000 m² or larger group
- from 232 properties to 69 properties for the 5000 m² or larger group.

4.8 Combined sensitivity analysis — Monte Carlo analysis

In addition to varying different parameters and design features, it is instructive to examine the expected level of direct benefit represented as a percentage of total transactions each year required for the program to break-even under different combinations of factors.

Monte Carlo analysis makes it possible to vary all of the design parameters and assumptions discussed above simultaneously and explore the effect of their potential interactions on the program. This involves performing 10 000 simulations of the cost benefit model using different values, and combinations of values, for the assumptions adopted. This analysis makes it possible to determine the robustness of the results reported above.

Table 4.10

SENSITIVITY ANALYSIS: VARYING COMBINATIONS OF ASSUMPTIONS

| Assumption/ design parameter | Minimum | Most likely | Maximum | Distribution |
|------------------------------------|-----------------------|--------------|------------------------|--------------|
| The costs of assessment | Constant | Low increase | High increase | Triangular |
| Annual benefit | \$2 | \$3 | \$5 | Triangular |
| Rates of transactions | 90% of 2008 levels | 2008 levels | 110% of 2008 levels | Triangular |

Note: The triangular distribution is a continuous probability distribution with a lower limit, mode and upper limit. The 'most likely' payback periods reflect observed average values for the target population.

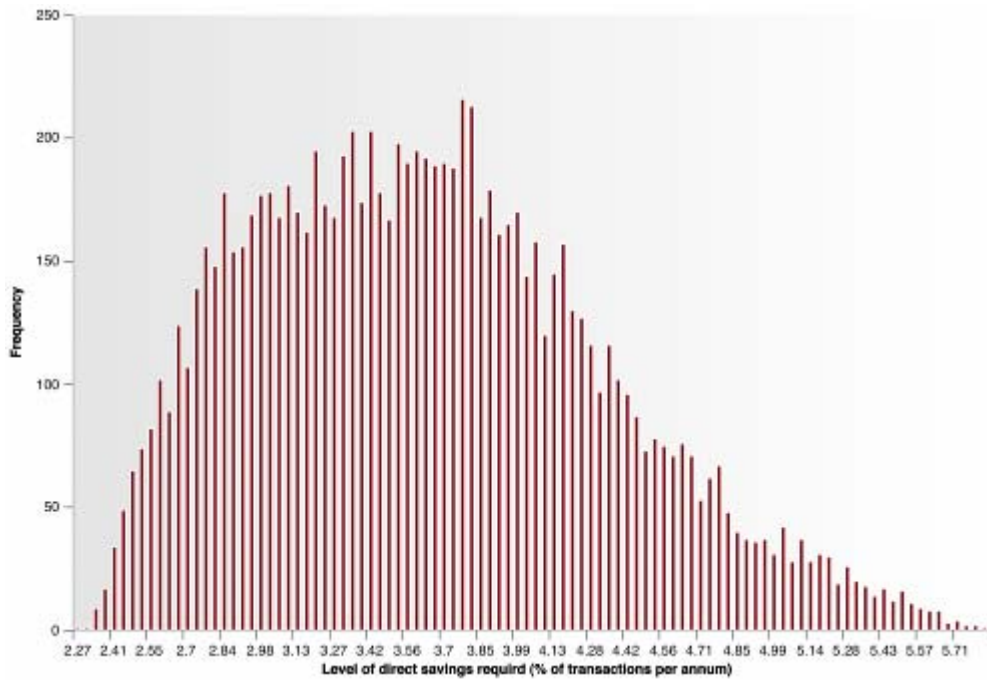
2000m² or larger group

The sensitivity analysis found that the mean number of transactions per year required for Option 1(a) for the 2000m² or larger group under the value ranges outlined in Table 4.10 to break-even was 3.6 per cent. The maximum required number of influenced transactions for the program to break-even was 5.9 per cent — and the likelihood of such a poor result is low.

Figure 4.11 provides a diagrammatic representation of the sensitivity analysis and highlights the robust nature of the central estimate for the program. Given the assumption range and best estimates, the analysis suggests a likely break-even point for the Option 1(a) between 2.6 per cent and 4.9 per cent.

Figure 4.11

SENSITIVITY ANALYSIS OF BREAK-EVEN REQUIREMENT FOR >2000m²



Source: ACG analysis

Chapter 5

Conclusion and recommended option

5.1 The preferred option — Mandatory disclosure (Option 1(a))

The analysis shows that mandatory disclosure of energy efficiency ratings (under the NABERS Energy system) is the recommended policy option for governments. The costs of mandatory disclosure are \$18.7 million over 10 years (NPV), a level which requires only a very modest application by buyers and tenants who receive the information in property transactions — 3.9 per cent of transactions over 10 years. While an industry code of practice also imposes very low costs, the capacity of this option to influence change is lower because it has smaller coverage of properties. Sensitivity testing of this option concludes, with 90 per cent certainty that the estimate of the break-even level of application by buyers and tenants is in the range of 2.6 per cent and 4.9 per cent.

The best option for the application of a mandatory disclosure scheme would have the following parameters.

Mandatory disclosure required for properties 2000m² or greater in size.

It is recommended that mandatory disclosure (Option 1(a) in this RIS) should be applied to commercial office buildings with a NLA greater than 2000m². As described in Chapter 4, the impact assessment found that the additional benefit of applying mandatory disclosure to 2000m² threshold, compared with a 5000m² threshold, outweighed the additional costs.

Assessment of data on property size and turnover suggests that, even at a threshold of 2000m², turnover rates are low and the number of properties leased is lower (than for properties smaller than 2000m²). At the 2000m² level the costs to building owners can be reasonably offset by a small response from consumers to the information provided at transactions. Assessment of a threshold of 5000m² or greater yielded lower costs (\$10.9 million NPV over 10 years) but has a smaller impact for buyers and tenants.

It is likely that requiring mandatory disclosure at lower size thresholds will involve more costs, because of the higher turnover rates and number of properties, with a low capacity to offset costs with direct benefit from energy savings (because the savings are lower opportunities for smaller properties, but the costs of assessments are significant for smaller properties).

Assessment validity period

This RIS found that, because of low turnover rates at the property sizes tested, the validity period of assessments was not a significant determinant of costs. That is, lengthening the period from 12 months does not reduce costs because turnover is around 10-15 per cent per year.

5.2 Assessment of the proposal for annual tenancy assessments (Option 1(b))

The proposal to require annual tenancy assessments is not recommended because of the high costs that it would impose on tenants, with insufficient ability for costs to be offset with energy savings. This option would impose a cost of \$101.2 million over ten years (NPV) when applied to tenancies greater than 2000m². Offsetting these costs would require voluntary investment in energy efficiency improvement to 25 per cent of the building stock by one NABERS Energy star rating. The ability of tenants to offset the assessment costs annually would diminish over time as lowest costs energy efficiency improvements are implemented. The likelihood of voluntary action to offset assessment costs will therefore reduce over time, making it more likely that tenants would pay assessment costs (as required) but not act on the assessment information to achieve energy savings.

Reducing the frequency of the assessment period from 12 months to 36 months would lower the costs of assessment, and set a more realistic break-even target for energy savings. In this form, the proposal may reach those long term tenants which are not receiving information through mandatory disclosure (which only provides information in transactions). That said, there are likely to be more cost effective information-based approaches that would have a similar impact, without as high regulatory burden.

5.3 Assessment of the inclusion of NABERS Energy simulation protocol (Option 1(c))

Requiring new buildings to invest in a NABERS Energy simulation protocol adds an additional \$14.8 million in costs to building owners (for properties larger than 2000m²). While the total quantum of these costs is not large, the actual costs to individual owners are significant (around \$40 000), for a simulation of energy efficiency performance that is not necessarily a better indicator than the cheaper assessments that can be done 12 months after construction. The cost effectiveness of this option is therefore lower than requiring a NABERS Energy assessment 12 months after construction. It is also worth noting that the energy efficiency of new buildings is typically higher than that of the building stock, because of requirements in the Building Code of Australia, and because investment in energy efficient design and equipment is significantly cheaper for new construction compared with investing in improvements in existing buildings.

5.4 Assessment of Industry-lead voluntary disclosure (Option 2)

This RIS also assessed the option of implementing an industry-lead code of practice for disclosure of energy efficiency performance at the point of sale or lease. The assessment found that, while there is already some voluntary action being taken by industry, a code would have a positive impact on disclosure (compared with the current practice), though this impact would be less than for mandatory disclosure. Further, it is likely that there would be positive bias in disclosure on a voluntary basis, in favour of better performing buildings. Such a scheme would therefore have lower benefit for buyers and tenants, as it would provide less information with which to compare properties, and would have reduced impact on the information in the market, compared with mandatory disclosure.

5.5 Assessment of minimum standards for energy efficiency (Option 3)

This RIS assessed the option of imposing a more stringent regulatory requirement than mandatory disclosure — minimum standards for energy efficiency.

This option would impose the highest cost on building owners of all options, with benefits from energy savings not offsetting costs within a 10 year timeframe of the minimum standard being achieved (the 20 years out to 2028). As such the net cost of the option would be \$334 million for properties larger than 2000m² or \$277 million for properties larger than 5000m².

Chapter 6

Consultation

6.1 Consultations conducted for this RIS

There are have been two distinct consultation phases in the development of this RIS:

- consultations with government and industry in for development of the Consultation RIS, which were primarily for information and data gathering purposes; and
- consultations with a broader range of stakeholders on the Consultation RIS, which were more extensive consultations seeking stakeholder input on the analysis in the Consultation RIS.

Revisions were made to the Consultation RIS (resulting in this Decision RIS), which reflect stakeholder comments. Details of the consultation processes and revisions are provided in this Chapter.

6.2 Stakeholder input in the development of the Consultation RIS

Consultations for the Consultation RIS focused on data gathering and collecting research to support assumptions. Table 6.11 provides a list of those individuals consulted in the development of the Consultations RIS, primarily to collect and advise on data on the property industry.

A Consultation RIS and Consultation RD on the proposed scheme were released for public comment on 18 December 2008. Information forums were subsequently held in each capital city during January and February 2009 and a special industry workshop was held in February 2009 to discuss the disclosure of tenancy energy efficiency.

Over 400 representatives from industry and government attended these events and over 40 written submissions were received on the consultation documents. A full list of submissions received is provided at Table A.1 of Appendix A of this RIS.

Table 6.11

INDUSTRY AND GOVERNMENT STAKEHOLDERS CONSULTED FOR DATA COLLECTION AND ANALYSIS

| Name | Organisation | Issues discussed | Method of consultation |
|-------------------|--|---|-------------------------|
| Matthew Clarke | New South Wales Department of Environment and Climate Change | Data on and background information about the NABERS scheme | In person and telephone |
| Paul Waterhouse | Property Council of Australia | Background information on the commercial property market. | In person and telephone |
| Tom Foster | Property Council of Australia | Building data | Telephone |
| Darren Davis | RP Data Information Services | Consultations on property data | Telephone |
| Nerida Conisbee | Jones Lang LaSalle | Consultations on property data, lease and sale turnover data. | Telephone |
| Matthew Khoo | Jones Lang LaSalle | Consultations on property data, lease and sale turnover data. | Telephone |
| Nora El-Fahkri | Knight Frank | Consultations on property data. | Telephone |
| Stephen Wilkinson | Real Estate Institute of Australia | Consultations on property data. | Telephone |
| Jennifer Beard | CB Richard Ellis | Consultations on property data. | Telephone |
| Rory McLeod | Colliers International | Consultations on property data. | Telephone |

6.3 Nature of stakeholder feedback on Consultation RIS

Overall the consultations found broad support expressed for the proposal for mandatory disclosure, though there were some specific aspect of the proposed scheme which stakeholders had some concerns about. The main issues arising out of the consultation process related to:

1. the treatment of tenancies under the scheme, in particular the requirement of tenancy assessments, as proposed in the Consultation RD and Consultation RIS;
2. the availability of skilled practitioners and the administration of NABERS Energy;
3. the provision of rebates for the installation of sub-metering;
4. the cost estimates in the Consultation RIS;
5. the public display of BEECs;
6. the 2000 m² threshold; and

7. the content of energy efficiency assessment reports.

As a result of this process a number of changes have been made to the scheme that was originally proposed in the Consultation Regulation Document. The two most significant changes are described below.

The Consultation Regulation Document proposed that NABERS Energy tenancy ratings be disclosed at the point of sale and lease in addition to NABERS Energy base building ratings. It also proposed the disclosure of separate energy efficiency assessment reports, which would be valid for seven years.

The following concerns were raised with respect to these two requirements:

- NABERS Energy tenancy ratings are generally a measure of tenant behaviour rather than the energy efficiency of the tenancy itself.
- There are significant legal, practical and technical barriers to obtaining the necessary energy use information from tenants in a timely manner prior to a sale or lease transaction.
- The configuration and area of tenancies can vary substantially from one tenant to the next.
- Tenancy energy efficiency is largely beyond the control of building owners, hence the disclosure of NABERS Energy tenancy ratings should be the responsibility of the tenant.
- Metering limitations could prevent building owners from obtaining tenancy ratings for older office buildings.
- Concern was raised about the usefulness of the information to be provided in energy efficiency assessment reports, the additional burden they created and whether the seven-year validity period is too long.
- Energy efficiency assessment reports should be more comprehensive if they are to be useful to potential purchasers and lessees.
- Specific expertise is required to produce accurate energy efficiency assessment reports and there is a general skills shortage in this area.

How stakeholder comments have been reflected in this Decision RIS

The most important way in which stakeholder comments have been reflect in this Decision RIS is through changes to the options for mandatory disclosure (Option 1 and sub-options).

In response to concerns listed above, the following refinements were made to Option 1 (Mandatory disclosure):

- the requirement for full tenancy assessments was removed from Option 1 (all sub-options) and replaced with a requirement for disclosure of tenancy lighting power density and lighting control details because tenancy lighting commonly transfers to the incoming tenants.
- the sub-option for mandatory disclosure with separate energy efficiency assessment reports (which was tested as Option 1(d) in the Consultation RIS) was removed. Option 1 (a) was adjusted to require guidance on potential energy efficiency improvements to be assessed concurrently and disclosed as part of BEECs. This will streamline the assessment process and ensure that the guidance provided is meaningful and up-to-date. BEECs will remain valid for 12 months, which means that the energy efficiency guidance will need to be updated on a more regular basis than was proposed for the separate energy efficiency assessment reports.

As a result of these changes, the number of sub-options assessed under Option 1 reduced from four to three.

The impact analysis in this RIS was revised to reflect stakeholder comments on the estimates for the cost of assessment, and changes to the composition of the options that impacted on the cost of assessment.

Stakeholder comments received included some concern that the estimates did not properly reflect the cost of very large buildings, and that there should be a greater reflection of the potential impact of assessment costs as a result of constrained supply of accredited assessors. The estimates in the Consultation RIS already reflected an increase in assessment costs in the first five years of the scheme (highest in year 1, reducing to year 5).

The costs used in this Decision RIS are higher than those in the Consultation RIS, reflecting:

- the new options including energy efficiency advice to be provided with all NABERS Energy assessments — estimates for these costs were provided by a sample of assessors, as advised by DEWHA
- Revised registration fees estimates, as advised by NSW DECC
- Advice from stakeholders on the potential cost for assessment of larger buildings.

Assessment costs there increased from \$3129 (2000m²) and \$3392 (5000m²) in the Consultation RIS to \$5919 (2000m²) and \$6219 (5000m²) in the Decision RIS.

Chapter 7

Implementation and review

The Best Practice Guide to Regulation specifies that a RIS should provide details on how the preferred option would be implemented and reviewed. This chapter provides details on how the proposed mandatory disclosure option is intended to be implemented and reviewed.

7.1 Implementation

The scheme will be implemented under Commonwealth legislation based on the corporations power of the Australian Constitution to ensure coverage of at least all constitutional corporations and the consistent application of the scheme across the States and Territories. In addition, there will be provision for voluntary participation for those not covered by the mandatory scheme, such as governments.

The scheme will apply to the sale or lease of existing buildings which have been occupied for more than 12 months and therefore have 12 months of energy use data for determining the applicable NABERS Energy rating. A small number of transactions will be exempt from the scheme, including short-term leases of less than 12 months duration.

If an office building has been substantially refurbished within the previous 12 months of an impending sale or lease, the scheme will allow the star rating to be modelled in accordance with the NABERS Energy simulation protocol.

A National Administrative Unit (NAU) will be created to oversee the delivery of the scheme. This unit will reside within an Australian Government department such as the Department of the Environment, Water, Heritage and the Arts (DEWHA). The unit is expected to be established through government program funding. Once established, the scheme will move towards full cost recovery.

The NAU will have overall responsibility for training, accreditation, auditing and quality control under the scheme. The NAU may engage other government agencies, including New South Wales Department of Environment and Climate Change, to perform some of these functions.

Given the national scope of this scheme, it will be important that the unit responsible for its delivery has appropriate governance and coordination processes, including strong linkages with NABERS Energy and any other tools accredited in the future. Formal governance of the NAU – for example, with respect to financial and human resources, and accountability and reporting mechanisms – will be delivered by the management structure of DEWHA as discussed above. However, appropriate oversight by the Australian, State and Territory Governments would facilitate the successful development and delivery of the mandatory disclosure scheme in a coordinated manner across Australia. In addition, there is a wide range of industry and other stakeholders with interests in the scheme, and both the scheme and the rating and assessment tools possess a degree of technical complexity that demands strong engagement with stakeholders at a technical level.

It is therefore proposed that the legislation/regulations would provide the discretion for the NAU to convene advisory committees, as it deemed necessary and appropriate. It is expected that, at a minimum, the NAU would create two committees, vis:

- A National Advisory Committee formed of State and Territory Governments, to advise the NAU on policy and broad administrative aspects of the mandatory disclosure scheme; and
- A Technical Advisory Committee, formed of industry stakeholders, to advise on technical and operational aspects of the mandatory disclosure scheme, including at the request of the National Advisory Committee.

It is not proposed that such committees would possess decision-making powers, as this could conflict with the proposed legal and governance structures for the scheme. However, it is intended that these committees would play a valuable advisory and coordination role, facilitating close and productive working relationships between all parties to the scheme, and thereby contributing materially to the scheme's success.

7.2 Interaction with existing regulation of the sector

For this RIS, the most relevant existing regulations are State and Territory disclosure obligations on tenancies, and regulation of building construction in the Building Code of Australia (the BCA).

As noted above, the scheme will be designed to ensure that it does not override any existing energy efficiency disclosure obligations relating to building sales or leases which are imposed by State or Territory law. As an example, s 11 of the *Retail Tenancies Act 1994* (NSW) requires particular disclosures, including some energy information, to certain retail tenancies. It is intended that such obligations will remain unchanged on the implementation of the Commonwealth scheme.

The scheme is complementary with the BCA, as it supports the improvement of energy efficiency improvement in existing building stock, in concert with the BCA which sets requirements for energy efficiency performance in new and redeveloped buildings. The scheme also complements the BCA because it provide disclosure of actual performance of buildings, compared with the BCA which sets standards to achieve this performance at the completion of construction — mandatory disclosure, therefore, is likely to provide a valuable measure of actual building performance compared with the objectives in the BCA (which should assist in determining the effectiveness of requirements in the BCA).

7.3 Timing

The cost-benefit analysis has assumed that the options came into effect from 1 January 2010 onwards. As a result, the net present values are calculated from 2010 to 2019. The exact timing of the implementation of the preferred option has not been finalised by the Council of Australian Governments. However, COAG gave an undertaking on 30 April 2009 that the measure would be implemented from 2010, subject to a favourable regulation impact assessment.

7.4 Review

The program will be monitored and reviewed by the NAU on an ongoing basis. A formal review of the national regime will be undertaken by 30 June 2013. This review will be able to use data collected by the NAU to assess the extent to which disclosure occurs, the performance of buildings were energy efficiency ratings have been conducted.

Appendix A

Submissions

Forty public submissions on the proposed scheme were received by DEWHA. A list of the respondents is listed below. An industry workshop on mandatory disclosure of tenancy energy efficiency was also held to seek additional industry feedback on the design of the scheme. The RIS and Regulation Document incorporate the outcomes of this extensive consultation process in the design of the proposed scheme. The submissions authorised for public viewing are available at: www.environment.gov.au/settlements/energyefficiency/buildings/submissions.

Table A.1 provides a list of organisations and individuals that provided submissions.

Table A.1

LIST OF RESPONDENTS

| | Organisation |
|-----|--|
| 1. | Association of Consulting Engineers Australia |
| 2. | Australian Institute of Architects |
| 3. | Australian Institute of Refrigeration Air Conditioning and Heating |
| 4. | Australasian Energy Performance Contracting Association |
| 5. | Big Switch Projects Ltd |
| 6. | Brisbane Airport Corporation Ltd |
| 7. | Brookfield Multiplex Ltd |
| 8. | Chartered Institution of Building Services Engineers |
| 9. | City of Sydney |
| 10. | City of Ipswich |
| 11. | Connell Wagner Ltd |
| 12. | D & E Air Conditioning Ltd |
| 13. | Davis Langdon Australia Ltd |
| 14. | Dynalite Intelligent Light Ltd |
| 15. | Ecolateral Pty Ltd |
| 16. | Energy Conservation Systems Ltd |
| 17. | Eureka Funds Management Ltd |
| 18. | Exergy Australia Ltd |
| 19. | Facilities Management Association of Australia |
| 20. | George Floth Ltd |
| 21. | Goodman Ltd |
| 22. | Green Building Council of Australia |
| 23. | Industry Superannuation Property Trust Ltd |
| 24. | JG Service Pty Ltd |
| 25. | Kingspan Insulated Panels Ltd |
| 26. | Lend Lease Corporation, Lincolne Scott, Advanced Environmental Ltd |
| 27. | Louise Rhodes |
| 28. | Macquarie Assest Services Ltd |
| 29. | Michael Shaw |
| 30. | Mirvac Ltd |
| 31. | Napier & Blakeley Ltd |
| 32. | Nett Zero Pty Ltd |
| 33. | Northorp Consulting Engineers Ltd |
| 34. | Royal Institution of Chartered Surveyors |
| 35. | Property Council of Australia |
| 36. | The GPT Group Ltd |
| 37. | Stockland Corporation Ltd |
| 38. | Szencorp Group |
| 39. | University of Queensland |
| 40. | Urban Taskforce Australia |

Chapter B

Impact analysis assumptions

B.1 General

Key assumptions:

- Options are assumed to come into effect on 1 January 2009.
- Net present value is measured over ten years — 2009 to 2018.
- The discount rate is 5 per cent.
- Costs associated with obtaining a NABERS Energy star rating are based on the median price of 48 quotes – figures supplied by the NSW Department of Environment and Climate Change. Figures are only available for whole building ratings and tenancy ratings. Costs for base building ratings are assumed to be equivalent to those for a whole building rating. Estimates for the different costs are as follows:
 - Whole building (>5000m²): \$3400
 - Whole building (>2000 m²): \$3100
 - Whole building (average): \$2800
- Costs associated with conducting energy efficiency guidance and tenancy light and power assessments are based on discussions with DEWHA. It has been assumed that these requirements will add \$1500 to the cost of a base-building assessment.
- Costs associated with entering a NABERS Energy simulation protocol are based on discussions with DEWHA, NSW DECC and an accredited NABERS assessor. Estimates of the cost vary considerably, based on the size of building, the complexity of the building design, and the assessment components that are included. As a result, costs can vary from as little as \$15 000 to as much as \$50 000. For the purposes of this analysis, a value of \$35 000 was used. In addition to this, a registration fee of \$4400 is also applicable.
- NSW DECC has provided the cost of certification, under a full-cost recovery regime. They estimate it will cost \$905 per NABERS Energy base building rating. If EEAR is also included in the certificate, the costs are estimated to rise to \$1065 per certificate.

B2 Base Case

Key assumptions:

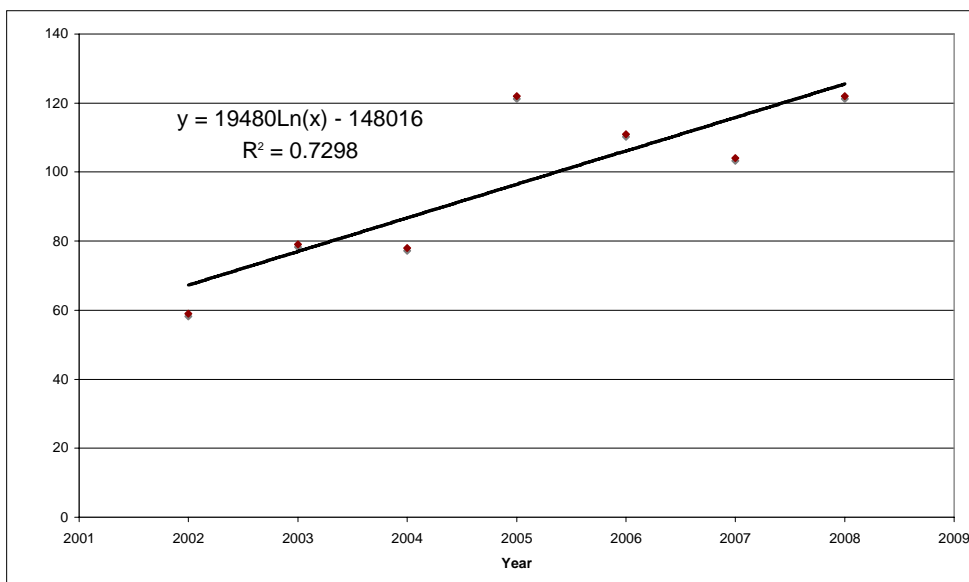
- Buildings that comply with the Australian Building Code (new buildings) and those with a Green Star (GBCA) or Property Council rating will require a NABERS Energy rating to comply with the regulations as the difference between these other schemes and NABERS Energy is significant enough that ratings or compliance is not transferable.

- The number of voluntary NABERS Energy ratings in the base year varies between 2 and 153, depending on the type of rating and the state in question, and is based on data supplied by the NSW Department of Environment and Climate Change on the number of NABERS Energy ratings between September 2007 and August 2008.
- The base case for comparison with Option 1(a) (mandatory base building ratings upon sale or lease) assumes that only a certain proportion of overall voluntary base building ratings are motivated upon sale or lease of a property. This proportion varies between 9 and 51 per cent depending on the size of the building and the state in question. The proportions are estimated as the ratio of the total number of properties sold and leased to the total stock of properties.
- Annual growth rates for the number of voluntary NABERS Energy ratings each year are calculated as the sum of:
 - the current growth rate
 - an incremental growth rate resulting from the demand induced by a future carbon price.

The current growth rate is based historical NABERS Energy ratings data for new assessments from 2002 to 2008 that has been supplied by the NSW Department of Environment and Climate Change. The growth rate has been determined by fitting a logarithmic trendline to the data (see Figure B.1). A logarithmic trendline rather than a linear trendline has been selected because it is anticipated that the growth rate will decrease as the percentage of the building stock that has undergone an assessment increases.

Figure B.1

HISTORICAL GROWTH IN VOLUNTARY NABERS ENERGY RATINGS



Source: ACG analysis

- The incremental growth rate resulting from a future carbon price is based on the assumption that a one per cent increase in average total office occupancy costs per square metre per annum translates to a 0.2 per cent increase in the annual growth rate in the number of voluntary NABERS Energy star ratings.

- The impact of a future carbon price on average total office occupancy costs per square metre per annum is based on ACG projections for a likely future carbon price (high carbon price scenario) and the following assumptions:
 - 100 per cent pass through of the carbon price to energy consumers
 - commercial office buildings only consume electricity, i.e. no natural gas
 - average full cycle greenhouse gas coefficients for electricity generation vary from 0.13 to 1.31 kg of CO₂-e per kWh depending on the state in question, based on National Greenhouse Accounts Factors (Dept of Climate Change 2008).
 - average commercial energy tariffs vary from 14.2 to 17.2 cents per kWh depending on the state in question, based on an assessment of prices offered by energy retailers in each state
 - the average annual electricity bill for a building with a 1.5 to 2 Star ABGR rating is \$17/m², based on figures in the Concept Report – value consistent across all states (NFEE 2008)
 - average total office occupancy costs per annum are \$325/ m², based on the lowest of two figures (the other is \$780) quoted in the Concept Report – values consistent across all states (NFEE 2008)

B.3 Option 1

Building owners

Key assumptions:

- Building owners face the cost of the NABERS Energy assessment, the internal cost of time spent preparing information for the NABERS Energy assessment and the cost of certification.
- Disclosure of NABERS Energy ratings upon lease or sale of office properties does not, on average, influence rental yields for office properties.
- The number of properties affected by Option 1(a) varies between 200 and 2500, depending on the state in question, and is equivalent to the average number of properties sold and leased annually over the 10 years to 2007, based on data from the Jones Lang LaSalle (JLL) Sales and Leases Database, plus a growth rate (see below).
- JLL data on the number of office properties sold and leased annually is only available for the Canberra, Sydney, Brisbane, Adelaide, Melbourne and Perth CBDs. The number of non-CBD properties sold and leased annually is estimated by multiplying the CBD figure for each state by the ratio of the non-CBD to CBD building stock in each state. Figures for the CBD and non-CBD building stock were provided by the PCA from their internal database.
- The number of office properties sold annually in Tasmania (not available from the JLL database) is derived by multiplying figures for Hobart's building stock, taken from the PCA database, by the ratio of Adelaide CBD sales to Adelaide CBD building stock. Adelaide is chosen as it represents smaller cities such as Hobart. The number of office properties leased annually in Tasmania is estimated in the same fashion.
- The number of office properties sold and leased annually, as well as growth rates, in the Northern Territory (not available from the JLL database and not derivable as figures for

NT's building stock are not available from the PCA data) are derived by applying a population ratio to the figures for Tasmania.

- The growth rate in the number of properties sold and leased annually varies by between 0.67 and 2.75 per cent, depending on the state in question, and is equivalent to the growth rate in the building stock, based on figures from the PCA database for the average growth rate of the building stock (square metres) over the last 18 years.
- The number of new properties that would trigger a NABERS Energy simulation protocol is assumed to be equivalent to the growth in the building stock over time.
- Costs associated with obtaining a NABERS Energy rating are as listed in Table B.2.
- Building owners (or their staff) spend, on average, eight hours preparing information for a NABERS Energy rating. This time is valued at the average hourly wage rate for employees in the Property and Business Services Sector plus a multiplier for on-costs. The average hourly wage rate is \$29.58, based on ABS data (Cat. 6306.0). The multiplier for on-costs is 1.75, as advised by the Victorian Guide to Regulation (VCEC). The total value of time spent preparing information for a NABERS Energy rating is \$414.11 per assessment.

Regulators

Key assumptions:

The initial implementation and start-up of monitoring and enforcement is assumed to come to \$5 million, equally distributed over four years. This is based on estimates from DEWHA.

Building tenants

Key assumptions:

- Assuming that mandatory disclosure encourages some building owners to invest in energy efficiency improvements on their properties, tenants in improved buildings will face savings in their energy bills.
- The average saving on energy bills from a one star increase in a building's energy efficiency is around \$3/m² annually, based on figures in the Concept Report (NFEE 2008). This figure is used to calculate the number of square metres required to be voluntarily upgraded by one star, as motivated by the proposed disclosure schemes, in order for the benefits under each scheme to balance the costs.
- The break-even number of square metres is expressed in terms of the number of properties required to be voluntarily upgraded by one star, where an average property size is determined using estimates for the number of properties and total floor space (in square metres) of the building stock.
- The break-even number of square metres is also expressed as a proportion of total building stock in square metre terms, based on PCA data taken from the Australian Office Market Report (July 2008). The stock of square metres for properties above 2000 and 5000 m² is not available separately for each state. State figures for the stock of square metres for properties above 2000 m² are estimated by multiplying the total stock of square metres in each state by the ratio of Australia's stock of square metres for properties above 2000 m² to Australia's total stock of square metres. The stock of square metres for properties above 5000 m² is calculated in a similar fashion.

B.4 Option 2

Key assumptions:

- Option 2 is equivalent to Option 1(a) (mandatory base building ratings upon sale or lease, with no obligations on tenants), but with a lower take-up rate due to the scheme being voluntary. The take-up rate is assumed to be 40 per cent in the first year of the scheme, with growth in participation marginally higher than that for the base case (assuming that the scheme has a positive impact on industry awareness, though the growth in the base case level already has an assumed level of growth in assessments from greater awareness).
- There are no costs to government under this option.

Option 3

Option three assumes that building owners of buildings with NLAs of greater than 2000 m² (or greater than 5000 m²) will need to upgrade their NABERS Energy rating by one star. This is based on:

- a 3 star rating indicating current best practice; and
- the current commercial office building stock is estimated to have a rating of 2 stars on average.

Estimates of the current stock of commercial office space are taken from the PCA's Office Market Report. The PCA also provided a breakdown of office space across NLAs of greater than 2000 m² and 5000 m² at a national level. It has been assumed that this proportion holds across all states and territories. It has also been assumed that the average NABERS Energy rating of buildings with NLAs greater than 2000 m² and 5000 m² is the same as the average NABERS Energy rating for commercial office buildings in general — 2 stars.

It is further assumed that building owners will have ten years to comply with the requirement, and that compliance will grow non-linearly over the period. With the majority of building owners investing in the last few years of the ten-year compliance period. This growth in compliance is assumed to be correlated with improvements in the cost effectiveness of upgrading from 2 to 3 stars. Over the ten-year compliance the cost of upgrading drops from \$61 m² (NFEE 2008) to \$35 m². 0 illustrates this relationship between rate and the cost per square metre of compliance.

As property owners comply with the mandatory minimum energy efficiency standards, they will also be required to undertake a NABERS Energy assessment to demonstrate compliance. The cost of the NABERS Energy assessment are assumed to be the same as in options one and two.

The benefit to tenants is calculated as a saving in energy expenditure, estimated to be \$3 for each square metre upgraded (NFEE 2008).

B.6 Summary of cost estimates

Table B.2 provides a full summary of the costs applied to each of the options considered in the cost benefit analysis.

Table B.2

| Item | Cost per item | Applies to... |
|--|---|--|
| COSTS TO BUILDING OWNERS AND/OR TENANTS | | |
| Assessment costs — base building and tenancy lighting rating | | Option 1 (all sub options a-c) |
| <i>NLA of 2000 m² or greater</i> | \$5,919 | |
| <i>NLA of 5000 m² or greater</i> | \$6,219 | Option 2 |
| <i>Accredited NABERS assessor</i> | | |
| <i>NLA of 2000 m² or greater</i> | \$4,600 | |
| <i>NLA of 5000 m² or greater</i> | \$4,900 | |
| <i>Time to prepare materials</i> | \$414 | |
| 8 hours of effort at average weekly earnings with a 75 per cent mark-up for overheads. | | |
| <i>Registration fee</i> | \$905 | |
| Assessment costs — tenancy lighting rating | \$1,367 | Option 1 (all sub options a-c) |
| | | Option 2 |
| <i>Accredited assessor</i> | \$1,000 | |
| <i>Time to prepare materials</i> | \$207 | |
| 4 hours of effort at average weekly earnings with a 75 per cent mark-up for overheads. | | |
| <i>Registration fee</i> | \$160 | |
| NABERS Energy simulation protocol costs | | Option 1 (c) |
| <i>NLA of 2000 m² or greater</i> | \$39,814 | |
| <i>NLA of 5000 m² or greater</i> | \$39,814 | |
| <i>Accredited NABERS assessor</i> | | |
| <i>NLA of 2000 m² or greater</i> | \$35,000 | |
| <i>NLA of 5000 m² or greater</i> | \$35,000 | |
| <i>Time to prepare materials</i> | \$414 | |
| 8 hours of effort at average weekly earnings with a 75 per cent mark-up for overheads. | | |
| <i>Registration fee</i> | \$4400 | |
| Cost of building upgrades | | Option 3 |
| Cost of upgrading from 2 to 3 NABERS Energy stars, per m ² | \$35-\$61 | |
| COSTS TO REGULATORS | | |
| <i>Establishment costs</i> | \$5,000,000 over first four years of the scheme | Option 1 (all sub options a-c) Option 3 |

Source: Various. Refer to Appendix B

Appendix C

References

- Akerlof, G. (1970). "The market for lemons: Quality uncertainty and the market mechanism." Quarterly Journal of Economics 84(3): 488-500.
- Ball, M., C. Lizieri, et al. (1998). The Economics of Commercial Property Markets, CRC Press.
- Centre for International Economics (2008). Market barriers in the commercial and residential building sectors. Centre for International Economics. Canberra: 1-21.
- Colliers International. (2008). "Environment and workplace wellbeing key issues for Australian office tenants." Retrieved 21 October, 2008, from <http://www.colliers.com/Markets/Australia/News/0808OfficeTenantSurvey>.
- DEWHA (2008). REQUEST FOR TENDER: REGULATORY IMPACT STATEMENT FOR THE MANDATORY DISCLOSURE OF COMMERCIAL OFFICE BUILDING ENERGY EFFICIENCY W. Department of the Environment, Heritage and the Arts. Canberra, AusInfo. **0708-1170**.
- Golove, W. and J. Eto (1996). Market Barriers to Energy Efficiency: A Critical Reappraisal of the Rationale for Public Policies to Promote Energy Efficiency. Berkeley, University of California.
- IBIS World (2008). Office Property Operators in Australia: L7713. Melbourne.
- IBISWorld (2008). Office Property Operators in Australia. IBISWorld Industry Report. IBISWorld. Melbourne, IBISWorld: 1-72.
- International Energy Agency (2007). Mind the gap - quantifying principal-agent problems in energy efficiency. Paris, International Energy Agency,.
- Jaffe, A. B. and R. N. Stavins (1994). "The energy-efficiency gap - what does it mean?" Energy Policy 22(10): 804-810.
- Jones Lang LaSalle. (2008). "Costs of sustainability reporting increase." Retrieved 21 October, 2008, from <http://www.getesp.com.au/downloads/pr/Cost%20of%20sustainability%20reporting%20Feb%202008.pdf>.
- Murtishaw, S. and J. Sathaye (2006). Quantifying the effect of the principal-agent problem on US residential energy use, Lawrence Berkeley National Laboratory.
- NABERS. (2008). "Training Fact Sheet 2008." Retrieved 2 September 2008, 2008, from http://www.nabers.com.au/downloadFile.aspx?file_id=235.
- NFEE (2003). Towards a National Framework for Energy Efficiency - Issues and Challenges. National Framework for Energy Efficiency. Canberra, AusInfo.
- NFEE (2008). Mandatory Disclosure of Commercial Building Energy Efficiency: Concept Report. Canberra.
- NFEE. (2008). "What is NFEE?" Retrieved 30 September, 2008, from http://www.nfee.gov.au/about_nfee.jsp?xcid=62.

OBPR (2007). Best Practice Regulation Handbook. Department of Finance. Canberra, Australian Government.

Productivity Commission (2000). Inquiry Report: Review of Legislation Regulating the Architectural Profession. Productivity Commission. Canberra, AusInfo.

Productivity Commission (2005). The Private Cost Effectiveness of Improving Energy Efficiency. Canberra.

Property Council of Australia (2008). Office Market Report, Property Council of Australia,.

Team Catalyst (2008). Review of ABGR as a Reporting Mechanism. Sydney, Team Catalyst.

Team Catalyst. (2008). "Team Catalyst Homepage." Retrieved 2 September 2008, 2008, from <http://www.teamcatalyst.com.au/index.html>.

Warren Centre (2009). Energy High Rise Project: Stage 1 Sydney, Australian Government Department of the Environment, Water, Heritage and the Arts.

Carbon Pollution Reduction Scheme Bill 2009 (House of Representatives)

ABBREVIATIONS

The following abbreviations are used in the next section of the Explanatory Memorandum:

| | |
|---|---|
| BEEC | Building Energy Efficiency Certificate |
| Bill | Building Energy Efficiency Disclosure Bill 2010 |
| Commercial Building Disclosure (CBD) Scheme or 'scheme' | The Scheme established by the Bill |
| Minister | Minister for Climate Change, Energy Efficiency and Water |
| NABERS Energy | National Australian Built Environment Rating System for Energy Efficiency |
| Secretary | Secretary of the Department of Climate Change and Energy Efficiency |

NOTES ON CLAUSES

Part 1 – Preliminary

Clause 1: Short title

1. Clause 1 is a formal provision specifying the short title of the Bill.

Clause 2: Commencement

2. Paragraph 1 of the table in subclause (1) provides that the commencement date for clauses 1 and 2 and anything in the Bill not covered elsewhere in the table in subclause 2(1) is the day on which the Act receives Royal Assent.
3. Paragraph 2 of the table in subclause (1) provides that the commencement date for clauses 3 to 72 is 1 July 2010. However, while the substantive provisions will commence on 1 July 2010, the energy efficiency disclosure obligations in the Bill will not apply until the 'implementation day'. The implementation day will be a date fixed by Proclamation, in accordance with clause 22. It is anticipated that the implementation day will be a date in October 2010.
4. The lead time between the commencement of the substantive provisions of the Bill (on 1 July 2010) and the operation of the disclosure obligations (anticipated in October 2010) will provide persons who will be subject to disclosure obligations with a period of time in which to prepare to meet those obligations. It will also enable the Government to ensure that adequate numbers of assessors and auditors are trained and accredited before the implementation day.

Clause 3: Definitions

5. Clause 3 provides definitions of terms used in the Bill. The following items provide comments in relation to the more substantive terms defined in clause 3.
 - 'accredited assessor' means a person accredited under clause 25 of the Bill, unless the person's accreditation has been suspended or revoked under Division 2 of Part 3 of the Bill. Accredited assessors have information gathering powers under clause 18 of the Bill to enable them to undertake energy efficiency assessments in accordance with the scheme requirements. The Bill also places certain obligations on accredited assessors in relation to the undertaking of assessments - see clause 20. It is an offence for a person who is not an accredited assessor to hold him or herself out to be an accredited assessor - see clause 32.
 - 'auditing authority' means a person or body who has been appointed by the Secretary (or delegate) under clause 33(1). Auditing authorities have a function of directing auditors in the performance of their work to ensure that certain standards are met - see clause 33(2). An auditing authority must notify the Secretary if it becomes apparent after an audit is conducted that a building energy efficiency rating or lighting assessment in a BEEC is not appropriate for the building or area of the building to which it relates - see clause 33(4).

- ‘auditor’ means a person appointed by the Secretary (or delegate) under clause 34(1). Auditors' functions are set out in clause 34. Broadly, they are to conduct audits of assessments and to supervise assessments, in accordance with any directions given by the auditing authority - see clauses 34(3) and 34(4).
- ‘building energy efficiency certificate’ (BEEC) means a certificate relating to a building or area of a building that meets the requirements set out in clause 13 of the Bill. Broadly, it is any certificate issued by an issuing authority that contains:
 - the energy efficiency rating for the building (assessed in accordance with the methods and standards prescribed under clause 21);
 - an assessment of the energy efficiency of the lighting for the building (or area of the building, as appropriate) that might reasonably be expected to remain if the building (or area) is sold, let or sublet (assessed in accordance with the methods and standards prescribed under clause 21); and
 - guidance (prescribed in a legislative instrument under clause 21) on how energy efficiency might be improved. Persons subject to energy efficiency disclosure obligations under the Bill are, in general, required to obtain and register a BEEC in order to meet those obligations. See further clauses 11, 12, 13 and 15.
- ‘current’ is a term that is relevant to both BEECs and energy efficiency ratings. A BEEC is current for a period, of no more than twelve months, which is specified in the BEEC and which begins on the day that the BEEC is issued - see clause 13(4). An energy efficiency rating for a building is current if the BEEC in which the rating is specified is current - see clause 16. In order for a person to meet an energy efficiency disclosure obligation under clauses 11 or 12, the relevant BEEC must be current, valid and registered (see clauses 11 and 12). In order for a person to meet an energy efficiency disclosure obligation under clause 15, the relevant energy efficiency rating must be current and valid - see clauses 15 and 16.
- ‘disclosure affected area of a building’ means an area that is used or capable of being used as an office, and that is of a kind determined by the Minister under subclause 10(2) to be ‘disclosure affected’. See further the notes on clause 10.
- ‘disclosure affected building’ means an area that is used or capable of being used as an office, and that is of a kind determined by the Minister under subclause 10(2) to be ‘disclosure affected’. See further the notes on clause 10.
- ‘energy efficiency disclosure obligation’ means an obligation under clauses 11, 12(6) or 15. Broadly, these obligations relate to the disclosure of energy efficiency information in BEECs in relation to the advertisement, or sale, lease or sublease, of a disclosure affected building or disclosure affected area of a building.
- ‘inviting an offer to lease’, ‘inviting an offer to purchase’, and ‘inviting an offer to sublease’ have meanings affected by clauses 5, 4 and 5 respectively. Certain energy efficiency disclosure obligations must be met in relation to these activities - see the notes on clauses 11 and 12.

- 'issuing authority' refers to a person or body who has been recognised under clause 13(7) as an issuing authority. In order for a certificate to meet the requirements of a BEEC set out in subclause 13(1), it must (amongst other things) be issued by an issuing authority.
- 'monitoring powers' are the powers set out in clause 37. The powers may be exercised by an auditor for the purpose of determining whether an accredited assessor has properly applied the assessment methods and standards determined under clause 21 for the purposes of working out a proposed energy efficiency rating or performing an assessment of the energy efficiency of lighting for a building or area of a building. See further the notes on clause 36.
- 'monitoring warrant' means a warrant issued under clause 47. An auditor may apply to a magistrate for a monitoring warrant. The magistrate may issue a monitoring warrant if the magistrate is satisfied, by information on oath or application, that it is reasonably necessary that one or more auditors should have access to the building for the purposes set out in clause 47(2). See further the notes on those clauses.
- 'offer to let', 'offer to sell', and 'offer to sublet' have meanings affected by clauses 5, 4 and 5 respectively. Certain energy efficiency disclosure obligations must be met in relation to these activities - see clauses 11 and 12.
- 'person assisting' an auditor has the meaning given by clause 38. Broadly, a 'person assisting' gives certain assistance to an auditor (who is entering and exercising monitoring powers in a building, area or associated place under clause 36) where that assistance is necessary and reasonable.
- 'registered', in relation to a BEEC, means that the BEEC has been registered on the Building Energy Efficiency Register (Register) established under clause 14. In order for a disclosure obligation under clauses 11 or 12 to be met, the relevant BEEC must be current, valid and registered. Once registered, BEECs are publicly accessible on the internet.
- 'valid' is a term relevant to both a BEEC and an energy efficiency rating. A BEEC for a building or an area of a building is valid in the circumstances set out in subclauses 13(5) and 13(6) respectively. An energy efficiency rating for a building is valid if the BEEC for the building that contains the rating is valid - see clause 16. In order for a disclosure obligation under clauses 11 or 12 to be met, the relevant BEEC must be current, valid and registered.

Clause 4: Offering to sell and inviting offers to purchase a building

5. The scope of the terms 'offer to sell' and 'invite offer to purchase' are relevant to the scope of the disclosure obligations under clauses 11 and 12. This clause affects the ordinary meaning of those terms (see the definitions of those terms in clause 3).
6. As well as the usual circumstances of a person offering to enter into a contract of sale, clause 4(1) provides that a person will be taken to offer to sell a building if the person offers to enter into a contract under which a contingent obligation or right to sell the

building would be created. A person is taken to continue to offer a building for sale for as long as the person continues to offer to enter into such a contract (clause 4(2)).

7. Similarly, as well as the usual situation in which a person invites an offer to enter into a contract to purchase a building, clause 4(3) provides that a person is taken to invite an offer to purchase a building if the person invites an offer to enter into a contract under which a contingent obligation or right to purchase the building would be created. A person is taken to continue to invite an offer to purchase a building for as long as the person continues to invite an offer to enter into such a contract (clause 4(4)).
8. A contract under which a contingent obligation or right to sell (or purchase) the building would be created would include, for example, a contract that provides the relevant party with an option to sell (or purchase) a building. This extended meaning is designed to ensure that energy efficiency disclosure occurs as early as possible in relation to a sale or purchase transaction, to overcome information barriers and to provide for energy efficiency considerations to be taken into account during substantive negotiations relating to the sale and purchase of a building.
9. This clause is not intended to capture sales and purchases of shares or units of interest in a building. Selling and purchasing shares in a building or units of interest in a building will not trigger a disclosure obligation under the Bill. Further, the clause does not capture a sale or purchase of an area of a building (for example, a sale of a strata-titled area of a building). Disclosure obligations relating to sales and purchases only apply in cases where an entire building is sold or purchased. See further the notes on clause 21.

Clause 5: Offering to let or sublet and inviting offers to lease or sublease a building or an area of a building

10. The scope of the terms 'offer to let', 'offer to sublet', 'invite offer to lease' and 'invite offer to sublease' are relevant to the scope of the disclosure obligations under clauses 11 and 12. This clause affects the ordinary meaning of those terms (see the definitions of those terms in clause 3).
11. As well as the usual circumstances of a person offering to enter into a contract to let or sublet a building or an area of a building (referred to collectively as a 'space' in this clause), clauses 5(1) and 5(3) provide that a person will be taken to offer to let or sublet a space if the person offers to enter into a contract under which a contingent obligation or right to let or sublet the space would be created. A person is taken to continue to offer to let or sublet a space for as long as the person continues to offer to enter into such a contract (clauses 5(2) and 5(4)).
12. Consistently with this, as well as the usual situation in which a person invites an offer to enter into a contract to lease or sublease a space, clauses 5(5) and 5(7) provide that a person is taken to invite an offer to lease or sublease a space if the person invites an offer to enter into a contract under which a contingent obligation or right to lease or sublease the space would be created. A person is taken to continue to invite an offer to lease or sublease the space for as long as the person continues to invite an offer to enter into such a contract (clauses 5(6) and 5(8)).

13. A contract under which a contingent obligation or right to enter a leasing arrangement would be created would include, for example, a contract that provides the relevant party with an option to enter into a leasing arrangement. This is designed to ensure that energy efficiency disclosure occurs as early as possible in relation to a lease or sublease, to overcome information barriers and to provide for energy efficiency considerations to be taken into account during substantive negotiations relating to the lease or sublease of a building.
14. Unlike the disclosure arrangements relating to sales and purchases of buildings, the disclosure obligations relating to leasing arrangements apply in relation both to whole buildings and to areas of buildings (see also the definitions of 'disclosure affected building' and 'disclosure affected area of a building' in clauses 3 and 10).

Clause 6: Further subleases

15. This clause establishes that any further subleasing of a building or area of a building (referred to in these notes as a 'space') by a sublessee is to be treated in the same way under the scheme as the subleasing of a space by a lessee. That is, the disclosure obligations will arise in relation to any further offers to sublet or further invitations to offer to sublease by a sublessee.
16. It follows from this that if an accredited assessor is asked to assess a space for the purposes of applying for a BEEC in order to satisfy a disclosure obligation arising from the offer to further sublease (or invitation to offer to further sublease), the information gathering provisions in clause 18 will apply.

Clause 7: Relationship with State and Territory law

17. This clause acknowledges that there may be State and Territory laws that also require disclosure obligations in relation to the sale, lease and sublease of a building or area of a building. The Bill will not displace such State and Territory laws unless they are directly inconsistent with the Bill.

Clause 8: Act binds the Crown

18. This clause establishes that the Bill applies to the Australian, State and Territory Governments. This means that a disclosure obligation, or an obligation to provide access or information, may be triggered where a government is involved in a sale, lease or sublease transaction involving a constitutional corporation.
19. Subclause (2) establishes that an Australian, State or Territory Government cannot be made liable for a pecuniary penalty or prosecuted for an offence under the Bill. However, subclause (3) establishes that an authority of an Australian, State or Territory Government may be made liable for a pecuniary penalty or prosecuted for an offence.

Clause 9: External Territories

20. Clause 9 establishes that the scheme will apply in all of Australia's external Territories. It is unlikely that there will be any disclosure affected buildings or disclosure affected

areas of a building in Australia's external Territories at this point in time, however, this clause ensures that any future development that falls within the scope of the Bill will be subject to the disclosure provisions.

Part 2 – Obligations to disclose energy efficiency information

Clause 10: Buildings and areas of buildings affected by energy efficiency disclosure obligations

21. The disclosure obligations in the Bill only apply in relation to sale or lease transactions relating to disclosure affected buildings and areas of buildings (see further the notes on clauses 3, 11 and 12). 'Disclosure affected building' is not presently a term that is used by government or industry in relation to buildings. There are several definitions that relate to office buildings used by government and industry (one common example is the definition of office building in the Building Code of Australia, which is used to identify the design and construction standards applying to that particular building type). However, none of the existing definitions are universally applied, and none are able to be directly utilised to meet the policy objectives of the Bill. The Bill therefore introduces the new terminology of 'disclosure affected building' and 'disclosure affected area of a building'.
22. In order to fall within the definition of 'disclosure affected building' or 'disclosure affected area of a building' in the Bill, a building or area of a building must:
 - be used or be capable of being used as an office (see clause 3); and
 - be of a kind determined by the Minister to be disclosure affected under clause 10.
23. Clause 10 provides for the Minister to determine, by legislative instrument, that certain kinds of buildings and areas of buildings are 'disclosure affected'.
24. It is anticipated that the Minister will determine that all buildings with a Net Lettable Area equal to or greater than 2000 square meters will be disclosure affected, unless one or more of the following exceptions apply:
 - (for recently constructed buildings) it is less than two years since the building occupancy certificate for the building was issued. This is because newly constructed buildings often remain vacant for a period after completion, which means it can be difficult or impossible to assign an appropriate energy efficiency rating to the building. It should be noted however that offices and major refurbishments must meet the minimum energy efficiency standards prescribed in the Building Code of Australia; or
 - the building is held under strata title. There is no practical method for assessing the energy efficiency of strata titled offices at this time.
25. It is anticipated that the Minister will determine that all areas of buildings with a Net Lettable Area equal to or greater than 2000 square meters will be disclosure affected, unless one or more of the following exceptions apply:
 - (for areas located within recently constructed buildings) it is less than two years since the building occupancy certificate for the building was issued. This is because newly constructed buildings often remain vacant for a period after completion, which means it can be difficult or impossible to assign an

appropriate energy efficiency rating to the building. It should be noted however that offices and major refurbishments must meet the minimum energy efficiency standards prescribed in the Building Code of Australia; or

- the area of the building is held under strata title. There is no practicable method for assessing the energy efficiency of strata titled office buildings at this time.

26. The use of a legislative instrument provides some flexibility where there is a need to make changes to this definition to account for technical issues. For example, strata titled office buildings may be brought within the operation of the scheme when a practicable assessment tool becomes available for those kinds of buildings.

Clause 11: No sale or sublease without a building energy efficiency certificate

27. There are a variety of types of commercial property transactions. The most predominant types of transactions are standard sales, leases and subleases that take place through advertisement, negotiation, contract exchange and settlement procedures. More complex transaction types include call options, put options, put and call options, right of pre-emption, agreement for lease and sale by court order, sale by sale of shares or units and sale of a partial interest. Clause 11 (when read with clauses 4 and 5) has been drafted in order to require energy efficiency information disclosure in the case of all standard property transactions (except in relation to certain short term leasing transactions) and some, although not all, of the more complex transactions. See further the notes on clauses 4 and 5.

28. Subclauses (1), (2), (3) and (4) provide that a constitutional corporation must not do certain things in relation to a building or area of a building unless a valid, current BEEC relating to that building (or area) is registered. Specifically, those things are as follows:

- if a constitutional corporation owns a disclosure affected building (subclause (1)):
 - offer or continue to offer to sell the building;
 - invite offers or continue to invite offers to purchase the building;
 - offer or continue to offer to let the building; or
 - invite offers or continue to invite offers to lease the building;
- if a constitutional corporation leases a disclosure affected building (subclause (2)):
 - offer or continue to offer to sublet the building; or
 - invite offers or continue to invite offers to sublease the building;
- if a constitutional corporation owns a building (whether or not it is a disclosure affected building) (subclause (3)):
 - offer or continue to offer to let a disclosure affected area of the building;
or
 - invite offers or continue to invite offers to lease a disclosure affected area of the building;
- if a constitutional corporation leases a disclosure affected area of a building (subclause (4)):
 - offer or continue to offer to sublet the area; or

- invite offers or continue to invite offers to sublease the area.
29. The maximum civil penalty for a single contravention of any of subclauses (1), (2), (3) or (4) has been set at 1000 penalty points. The average cost of providing a valid, current and registered BEEC is estimated to be around \$6,000. For more complex buildings, this cost is estimated to be around \$15,000. These costs are estimated to be less than half a per cent of the overall value of a property transaction. The proposed penalty units have been determined taking into consideration such compliance costs and with a concern to create a sufficient deterrent against non-compliance. Higher penalty provisions were considered necessary in some instances to give an appropriate level of rigour to the Act. A court may exercise its discretion and impose a lower penalty where appropriate.
 30. Subclause 11(5) enables additional penalties to be imposed on corporations that continue to contravene the requirements of this clause, by providing that a separate contravention occurs for each day that the constitutional corporation fails to comply with a requirement under this clause. This provision is necessary to support the rigorous application of the scheme and to discourage ongoing non-compliance.
 31. It should be noted that this clause does not cover the transfer of buildings or areas of buildings through the sale of shares or units and the sale of a partial interest. These types of transactions do not trigger disclosure obligations under the Bill.
 32. Subclauses (6) - (8) operate to remove the disclosure obligations in circumstances where the lease or sublease has a term of 12 months or less from, provided certain criteria are met.
 33. Subclause (6) provides that the obligations under subsections (1) to (4) will not apply if an offer is made to let or sublet a building or an area of building, if:
 - at the time the offer is made, the proposed term of the lease or sublease is 12 months or less; and
 - a term of more than 12 months is not proposed at any time while the offer is continuing.
 34. Subclause (7) provides that the obligations under subsections (1) to (4) will not apply if an invitation is made to make offers to let or sublet a building or an area of building, if:
 - at the time the invitation is made, the proposed term of the lease or sublease is 12 months or less; and
 - a term of more than 12 months is not proposed at any time while the invitation is continuing.
 35. Subclause (8) provides that when working out the proposed lease term for the purposes of subclauses (6) or (7), any options to extend the lease or sublease must be included. For example, if there was a proposed lease term of six months with an option to extend for another 12 months, the total proposed lease term would be 18 months. The clause 11 disclosure obligations would therefore apply in relation to that lease.

Clause 12: Rights of a prospective purchaser, lessee or sublessee

36. This clause provides constitutional corporations that have a good faith interest in buying, leasing or subleasing a disclosure affected building, or a leasing or subleasing a disclosure affected area of a building, with the power to require the owner, lessor or sublessor of a building or area of a building to provide a valid, current BEEC that has been registered. The request by a constitutional corporation must be in writing, which includes, for example, an email or formal letter. The request may be given at any time while the building or area of a building is being offered for sale, lease or sublease.
37. However, subclause (5A) operates to limit the right of a prospective lessee or sublessee of a building under this clause in certain circumstances that relate to short term leasing transactions. Specifically, subclause (5A) provides that no notice to provide a BEEC may be given under subclauses (2), (3), (4) or (5) if:
- the term proposed for the lease or sublease at the time the offer or invitation is made is 12 months or less; and
 - a term of more than 12 months is not proposed at any time while the offer or invitation is continuing. Consistently with subclause 11(8), any options to extend the lease must be included when working out the proposed term for the lease (see paragraph (5A)(a).
38. The subclause (5A) limitation is consistent with clause 11, which excludes equivalent short term leases and subleases from the scope of the scheme.
39. If a person is given a notice in accordance with clause 12, the person must give the constitutional corporation the required BEEC copy as soon as is reasonably practicable - see subclause 12(6). A civil penalty may be imposed on a person who fails to provide a copy of a BEEC in accordance with this clause. The average cost of providing a valid, current and registered BEEC is estimated to be around \$6,000. For more complex buildings, this cost is estimated to be around \$15,000. These costs are likely to be less than half a per cent of the overall value of a property transaction. The maximum penalties for individuals and bodies corporate under this subclause (350 penalty units and 1000 penalty units respectively) have been determined taking into consideration such compliance costs and with a concern to create a sufficient deterrent against non-compliance. It should be noted that this subclause allows a court to exercise its discretion and impose a lower penalty where appropriate.

Clause 13: Building energy efficiency certificates

40. This clause prescribes a number of matters relating to BEECS. Broadly, it:
- provides for a certificate issued by a third party 'issuing authority' to be recognised as a BEEC for the purposes of this scheme, provided certain criteria in relation to the certificate are met;
 - provides for certain information to be included in a certificate of this kind;
 - prescribes the circumstances in which a BEEC will be 'valid' and 'current'; and
 - authorises the Secretary to recognise a person or body as an 'issuing authority'.
41. The following comments provide more specific information about each of these aspects.

What is a BEEC?

42. Subclauses 13(1) and 13(2) provide that a certificate will meet the requirements of a BEEC for the purposes of the Act if it is issued by a recognised 'issuing authority', and contains the information specified in those subclauses.

'Issuing authority'

43. An issuing authority is a person or body recognised by the Secretary as an issuing authority, under subclause 13(7). The Secretary will recognise issuing authorities by written instrument. This instrument will not be a legislative instrument. Subclause 13(8) explicitly states this, to assist readers.
44. Subclause (7A) limits the general discretion of the Secretary to recognise a person or body as an issuing body under subclause (7), by providing that a person or body will not be recognised as an issuing authority unless the Secretary is satisfied that the person or body:
- has the competency to apply the assessment methods and standards determined under clause 21; and
 - has systems in place to ensure that BEECs are issued in good faith.
45. Initially, it is proposed that the NSW Department that manages the National Australian Built Environment Rating System (NABERS) program will be recognised as an issuing authority (and, consequently, will be able to issue certificates that meet the requirements of a BEEC as set out in this clause). Other issuing authorities may be recognised over time.

Information included in a BEEC

46. The information that is required to be included in a certificate issued by an issuing authority (in order for a certificate to fall within the definition of a BEEC) is as follows.
- A BEEC for a building must set out:
 - the energy efficiency rating for the building;
 - an assessment of the energy efficiency of the lighting for the building that might reasonably be expected to remain if the building is sold, let or sublet; and
 - guidance of a kind determined by the Secretary (by legislative instrument) on how energy efficiency might be improved.
 - A BEEC for an area of a building must set out:
 - the energy efficiency rating for the building in which the area is located;
 - an assessment of the energy efficiency of the lighting for the area that might reasonably be expected to remain if the area is let or sublet; and
 - guidance of a kind determined by the Secretary (by legislative instrument) on how energy efficiency might be improved.
47. The energy efficiency rating of a building is to be established using the assessment methods and standards determined by the Secretary by legislative instrument under clause 21. The assessment methods and standards will apply the protocols of NABERS Energy. A NABERS Energy base building rating will be required except where there is inadequate submetering of the building, in which case a NABERS Energy whole building rating will be required. See further the notes below in relation to clause 21.

48. The tenancy lighting assessment will also be conducted using NABERS Energy methods and standards prescribed under clause 21. The reason that the assessment is only required to relate to the lighting which might reasonably be expected to remain after the relevant sale or lease transaction is that it is not uncommon for the lighting in an office building to be removed or altered prior to a sale, lease or sublease occurring. The approach taken in the Bill means that a prospective new owner or lessee will be able to review a lighting assessment that relates to the lighting that is likely to be in the building (or area) when the owner or lessee takes possession of the building (or area).
49. The tenancy lighting assessment information will be the only area of difference between a BEEC for a building and a BEEC for an area of the building. The difference is that a BEEC for an area of the building will include a tenancy lighting assessment that covers the lighting in the relevant area of the building, rather than the whole building. By contrast, the energy efficiency rating in a BEEC will cover the whole building, irrespective of whether the BEEC is issued for to the whole building or for an area of the building.
50. The energy efficiency guidance contained in a BEEC is also to be determined by the Secretary through legislative instrument. It is expected that the guidance will be general in nature and designed to initiate investigation of specific improvements that may be carried out on a particular building or area of a building.
51. A certificate may also include other information, but only if that information is of a kind prescribed in regulations made under the Bill - see subclause 13(3). It is anticipated that this additional information will include details of on-site renewable or low-emissions energy sources, green power usage, and past years' energy efficiency ratings.

Using a BEEC to fulfil disclosure obligations

52. If a certificate meets the requirements of a BEEC, it can be used to fulfil certain disclosure obligations under clauses 11, 12 and 15 of the Bill in certain circumstances. In order to be used to meet a clause 11 or 12 disclosure obligation, a BEEC must be valid, current, and registered. In order to be used to meet a disclosure obligation under clause 15 of the Bill, a BEEC must be valid and current. Subclauses 13(4), (5) and (6) set out the requirements that must be met for a BEEC to be valid and current. (Clause 14 sets out matters relating to registration). Relevantly:
 - a BEEC is *current* for the period specified in the certificate, which must be no more than 12 months. The period begins on the day the certificate is issued (see subclause 13(4)); and
 - a BEEC is *valid* if the issuing authority is satisfied that the energy efficiency rating and the tenancy lighting assessment in the BEEC (the 'assessments') are both assessments which, if the assessment methods and standards determined under clause 21 are applied, are appropriate for the building or area (as relevant) (see further the notes on clause 21). The subclauses require that the issuing authority must be satisfied of these matters on the basis of either an application made by an accredited assessor, or information provided by an auditing authority.

Obtaining a BEEC

53. Given the requirements of this clause, the usual process for issuing a certificate is expected to be as follows:
- the relevant owner, lessee or sublessee will engage an accredited assessor to undertake an assessment of the building;
 - the accredited assessor will then make an application to an issuing authority, on the basis of that assessment; and
 - the issuing authority, if satisfied of the matters set out in subclauses 13(5) and 13(6), will issue a certificate that contains the information specified in subclause 13(1) as well as any additional information prescribed in the Regulations, and which specifies a period of currency of up to 12 months.
54. Subclause (5) allows for a BEEC to be reissued in a corrected form if it is determined through an audit that an assessor had not appropriately applied the assessment methods and standards under clause 21 to produce the BEEC. In such circumstances, the auditing authority rather than an accredited assessor would provide the information on which the energy efficiency rating and lighting assessment are based.

Clause 14: Building Energy Efficiency Register

55. This clause requires the establishment of an electronic register for BEECs, known as the Building Energy Efficiency Register (the Register or BEE Register). Certain information contained in BEECs will be available on the Register for public access. The Register will enable prospective purchasers, lessees and sublessees to access the BEEC information for offices that they may have an interest in buying, leasing or subleasing.
56. Subclause (1) provides that the Secretary must maintain the Register or cause it to be maintained. In practice, it is expected that the Register will be similar to the online database that currently exists for buildings that have been assessed under NABERS Energy, and will be managed by the NSW Department that manages NABERS Energy (under an agreement with the Commonwealth).
57. The subclause specifies that the Register is a register in which the Secretary includes particulars of valid BEECs. The general process for registering a BEEC is expected to utilise a field on the form used to apply for a certificate. The person applying for a BEEC will tick a box requesting the BEEC issued as a result of that application to be entered on the Register.
58. Subclause (2) allows the Register to include details of BEECs that are no longer current. This will enable potential buyers, lessees and sublessees to obtain information about the historical performance of buildings in which they may have an interest.
59. Subclause (3) enables a BEEC entry to be removed from the Register if it has been found by audit that either the energy efficiency rating or the assessment of the energy efficiency of lighting has not been carried out in accordance with the assessment methods and standards prescribed under clause 21. The purpose of this clause is to maintain the integrity of the Register by ensuring that only valid BEECs are displayed on the Register.

60. Subclauses (4) and (5) allow, but do not require, the Secretary to alert the relevant owner, lessee or sublessee to the removal of a BEEC from the Register. It is likely that the audit of a BEEC will be completed after the property transaction has been completed and it may be difficult to ascertain the current owner, lessee or sublessee of a building or an area of a building. It is also possible that there will be circumstances under which a building or an area of a building has been sold, leased or subleased more than once making it even more difficult to notify the present owner, lessee or sublessee. These subclauses enable the Secretary to contact any person who the Secretary reasonably believes to be the current owner, lessee or sublessee of a building or area of a building, without placing an onerous burden on the Secretary to attempt to identify those persons where to do so may not be straightforward. The notification functions under subclauses (4) and (5) may be delegated to an issuing authority - see clause 71.
61. Subclause (6) requires the Register to be maintained electronically and to be available for inspection on the Internet. In practice it is anticipated that access to the Register will be available via a link on the scheme website.
62. Subclause (7) clarifies that the Register is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.
63. As a matter of administration, it is expected that building owners and lessors will be advised, prior to being issued with a BEEC, that it will be published on the Register where it will be publicly accessible.

Clause 15: Advertisements to include energy efficiency ratings

64. This clause places certain obligations on constitutional corporations that own or lease disclosure affected buildings or areas of buildings in relation to advertising those buildings or areas for sale, lease or sublease.
65. Subclause 15(1) provides that a constitutional corporation that owns a disclosure affected building must not advertise or continue to advertise the building for sale or lease unless a valid, current energy efficiency rating for the building is included in the advertisement. Subclause 15(2) provides that a constitutional corporation that leases a disclosure affected building must not advertise or continue to advertise the building for sublease unless a valid, current energy efficiency rating for the building is included in the advertisement. Subclause 15(3) provides that a constitutional corporation that owns a building must not advertise or continue to advertise a disclosure affected area of the building for lease unless a valid, current energy efficiency rating for the building is included in the advertisement. Subclause 15(4) provides that a constitutional corporation that leases a disclosure affected area of a building must not advertise or continue to advertise the area for sublease unless a valid, current energy efficiency rating for the building is included in the advertisement. The meaning of 'valid, current energy efficiency rating' is set out in clause 16. See the notes on that clause below.
66. There is no obligation to include energy efficiency ratings in advertisements for leases or subleases that have a term of 12 months or less - see subclause (6). Any options to extend the lease must be included when determining whether the proposed lease has a term of 12 months or less. For example, a six month lease term that includes an option

to extend for another 6 months would fall within the exception. However, the exception would not apply in the case of a proposed six month lease term with an option to extend the lease for another twelve months.

67. Where there is an obligation to include an energy efficiency rating in an advertisement, the rating must be expressed in the advertisement in a manner determined by the Secretary by legislative instrument (subclauses 15(1)(b), 15(2)(b), 15(3)(b), 15(4)(b)). This legislative instrument is anticipated to prescribe minimum standards relating to visual clarity, size, location and prominence.
68. A constitutional corporation that does not meet a disclosure obligation under this clause is liable for a civil penalty. The maximum civil penalty for a single contravention under subclauses (1), (2), (3) and (4) is 1000 penalty units. The average cost of providing a valid, current and registered BEEC is estimated to be around \$6,000. For more complex buildings, this cost is estimated to be around \$15,000. These costs are likely to be less than half a per cent of the overall value of a property transaction. The maximum penalty has been determined taking into consideration such compliance costs and with a concern to create a sufficient deterrent against non-compliance. It should be noted that under this provision a court may exercise its discretion and impose a lower penalty where appropriate.
69. It should be noted that, under this clause, each separate advertisement that does not include an appropriate energy efficiency rating will be considered as a separate contravention. For example, a person is considered to commit three separate contraventions if the person advertises the same building or area of a building on an internet website, in a newspaper and on a shopfront, and none of the advertisements include an energy efficiency rating as required by this section. This approach has been determined taking into consideration the compliance costs for obtaining BEECs and with a concern to create a sufficient deterrent against non-compliance. See the Supplementary Explanatory Memorandum tabled with the Government amendments for more information on penalties for ongoing non-compliance.
70. Subclause (5) enables additional penalties to be imposed on corporations that continue to contravene the requirements of this clause, by providing that a separate contravention occurs for each day that the constitutional corporation fails to comply with a requirement under this clause. This provision is necessary to support the rigorous application of the scheme and to discourage ongoing non-compliance.

Clause 16: Energy Efficiency ratings

71. This clause defines what is a valid, current energy efficiency rating for a building for the purposes of meeting disclosure obligations under clause 15.
72. Subclause 16(1) provides that an energy efficiency rating for a building is the energy efficiency rating specified in a BEEC for the building. Subclause 16(2) provides that an energy efficiency rating for a building is valid and current if the BEEC for the building (in which the rating is contained) is valid and current.
73. This means that, in order for a constitutional corporation to meet a disclosure requirement relating to advertising under clause 15, it needs to have obtained a

certificate that meets the requirements of a valid and current BEEC for the building under clause 13. See the notes on clause 13 for information about the requirements of a valid and current BEEC.

Clause 17: Exemptions

74. This clause provides that, in certain circumstances, a person who would otherwise be subject to a disclosure obligation under clause 11, 12 or 15 of the Bill may obtain an exemption from that obligation.
75. Subclause 17(1) provides that a person who would otherwise be subject to an energy efficiency disclosure obligation may apply to the Secretary for an exemption from that obligation. Subclause 17(2) sets out the requirements for an application for exemption. Specifically, an application must be in writing in a form approved by the Secretary, must include the information that is prescribed in the Regulations for the purposes of this subclause, and must be accompanied by the relevant fee prescribed in the Regulations.
76. Subclause 17(3) prescribes the grounds on which the Secretary may grant an exemption. Those grounds are as follows.
 - if the building, or the relevant area of the building, is used for police or security operations (paragraph 17(3)(a)). This exemption is available because the secure nature of facilities occupied by police and government security forces may mean that it would not be possible to undertake an assessment of the facility;
 - if the characteristics of the building or the relevant area of the building are such that it is not possible to assign an energy efficiency rating to the building in accordance with the clause 21 methods and standards, or alternatively to assess the energy efficiency of the lighting in the building or relevant area of the building in accordance with the clause 21 methods or standards, or both (paragraph 17(3)(b));
 - if the requirements set out in the Regulations made for the purposes of this subclause are met (paragraph 17(3)(c)).
77. Subclause (4) requires the Secretary to notify an applicant in writing of the Secretary's decision on the application.
78. Subclause 17(5) establishes that the Secretary may by notice revoke or vary an exemption granted under this clause. Subclause (5) also clarifies that the notice is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.
79. A decision to refuse to grant an exemption, or to revoke or vary an exemption, is a 'reviewable decision' for the purposes of the Bill. See further the notes on clauses 67, 68 and 69, which relate to internal and external review of decisions made under the Bill.

Clause 18: Information gathering

80. It is not uncommon for the energy use of a building or an area of a building to be controlled by two or more entities, for example, the building owner plus one or more lessees or sublessees. The leasing arrangements may prevent the flow of energy use

information between these entities. One of the purposes of this Bill is to address these information barriers by facilitating the disclosure of information about the energy efficiency of office buildings. For this reason, it is important to include an information gathering provision to enable owners, lessors, lessees and sublessees to meet their energy efficiency disclosure obligations.

81. Without an information gathering provision, the ability of industry to comply with the requirements of the Bill is likely to be substantially diminished. In turn, this would minimise the overall effectiveness of the Bill and create an undesirable situation where a significant portion of the industry would need to be exempted from its disclosure obligations solely due to its inability to gather information.
82. Subclauses 18(1) and 18(2) therefore provide accredited assessors, who have been engaged to assess a building or an area of a building for the purposes of applying for a BEEC, with a power to obtain the information that is necessary to enable the assessment to be made. The assessor may request the information from an owner, lessee or sublessee of the relevant building or area, if the assessor reasonably believes that the person possesses the information. The notice must be in writing, and must specify the information that is required. The notice must also specify the period in which the assessor requires the information to be provided (subclause 18(3)). This period must not be less than 14 days. This minimum period has been determined in consideration of the time that may be reasonably required to gather the information.
83. In addition to particular information, an assessor may need access to certain parts of the building in order to conduct an assessment that meets the standards required under clause 21 of the Bill. Subclause 18(4) therefore provides an accredited assessor with a power to require an owner, lessee or sublessee of the relevant building or area to give the assessor access to a place in or associated with that building or area in certain circumstances. Those circumstances are that access to the place is necessary for the purposes of the assessment and the assessor reasonably believes that the person to whom the notice is given either occupies or controls access to the place. Subclause (5) provides that the notice must specify the date and time on which access is required, and that this date and time must be reasonable. It is expected that access should be sought during normal business hours, or what is otherwise a reasonable time given the particular use of the building.
84. A person who is given a notice under this clause requiring information or access must comply with the notice. A civil penalty may be imposed for failure to comply, as provided for in subclause 18(6). The maximum penalties for individuals and bodies corporate under this subclause have been determined taking into consideration such compliance costs and with a concern to create a sufficient deterrent against non-compliance. It should be noted that this subclause allows a court to exercise its discretion and impose a lower penalty where appropriate.
85. Subclause (6) is not intended to displace the protections against self incrimination. That is, a person is not required to comply with a notice to provide information under this section if the information might tend to incriminate the individual or expose the individual to a penalty.
86. Subclause (7) enables additional penalties to be imposed on persons who continue to contravene the requirements of clause 18. A person who fails to provide information

within the period specified in a notice under subclause (3) commits a separate contravention on each day after the specified period. Similarly, a person who fails to provide access at a day and time as per subclause (4) commits a separate contravention on each day after the specified period. This provision is necessary to support the rigorous application of the Bill and prevent ongoing non-compliance. See the Supplementary Explanatory Memorandum tabled with the Government amendments for more information about penalties for ongoing non-compliance.

87. Subclauses 18(8) - 18(10) establish an exemption scheme in respect of the information and access provisions in this clause. Subclause (8) provides that an owner, lessee or sublessee of a building or an area of building may apply to the Secretary for an exemption from the operation of clause 18. Subclause (9) provides that an application must be made in writing in a form approved by the Secretary, must include the kinds of information set out in Regulations made for the purposes of this subclause, and must be accompanied by the relevant fee set out in the Regulations. The prescribed fee will be commensurate with the administrative costs for providing this service.
88. It is anticipated that the Secretary will grant an exemption if exceptional circumstances mean that the obligation cannot be met. For example, if under an exceptional circumstance, it is not possible for an owner, lessee or sublessee to gain information or access to a given floor in a multi-storey building then this provision will enable an exemption to be granted so that the floor can be excluded from the building assessment. It should be noted that in some instances, a person who is granted an exemption under this clause may also be exempted from an energy efficiency disclosure obligation in accordance with clause 17. For example, this could occur in instances where an exemption granted under subclause (10) would result in a substantial information gap such that it is not possible to assign an energy efficiency rating to the building or area of the building, as prescribed under subclause 17(3)(b).
89. It should be noted that this clause does not impose a minimum period within which the Secretary must grant or reject an application for an exemption. It is anticipated that an application for an exemption under this clause could be reasonably assessed in 14 days from the date of application. However, the nature of some investigations may require a longer consideration period and imposing a time restriction in such cases could adversely impact the Secretary's decision. For example, it may be necessary to conduct an on site investigation to establish the facts of an application for exemption under this clause.
90. It is expected that the administrative arrangements for the Act will be structured such that a person will not be subject to a civil penalty under subclauses (6) and (7) in the time between making an application for an exemption under subclause (8) and receiving written notification of the Secretary's decision under subclause (11). However, an explicit legislative provision to this effect has not been included in the Act as it may have the undesired effect of exemptions being sought as a delaying tactic by applicants wishing to avoid their obligations without good reason.
91. Subclause (12) clarifies that the notice is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.

Clause 19: Offences relating to information obtained or generated in applying for a certificate

92. This clause prohibits the misuse of information that is given to a person, or obtained or generated by a person, for the purposes of this Bill. The clause imposes a criminal penalty of imprisonment of 2 years for a contravention of the clause. The penalty for an offence under this clause is high, due to the serious nature of such an offence and the need for deterrence of such activities. Some of the information necessary to assign an energy efficiency rating could be commercially sensitive. For example, lease documents may need to be sighted by an accredited assessor for assigning an energy efficiency rating to a building. The financial implications from the misuse of commercially sensitive information contained in leases could be significant.
93. Subclause (1) provides that it is an offence to use, copy, make a record of or disclose information that is obtained or generated for the purposes of obtaining or issuing a BEEC, and information that is gathered under the information gathering provisions of clause 18, unless an exception in subclause (2) applies. The lists of the activities included under subclause (2) are provided to remove any ambiguity or obstacle to the genuine usage, copying, recording, or disclosure of information that is necessary for the effective functioning of the scheme.

Clause 20: Damages for failure to properly carry out assessments

94. In some instances, the improper energy efficiency assessment of a building or an area of a building could lead to financial loss. This clause is designed to allow owners, lessors and tenants subject to an energy efficiency disclosure obligation to recover damages in certain circumstances. Under this clause, damages may be recovered from an assessor for any loss suffered as a result of the assessor not applying the methods and standards stated under clause 21, or not complying with the assessor's condition of accreditation, when carrying out an assessment for the purposes of obtaining a BEEC.
95. Subclause (3) provides a list of people who will be entitled to seek damages from an assessor. This list is restricted to the owner, lessor, lessee or sublessee of a building or area of a building in question and does not extend to prospective buyers or tenants. This approach overcomes the difficulty of ascertaining who is a prospective buyer or tenant and recognises that the damage suffered by a prospective buyer or tenant are too remote.

Clause 21: Methods and standards of assessment

96. Subclause (1) allows the methods and standards for the determination of the energy efficiency rating of a building and the energy efficiency assessment of the lighting for the building or an area of a building to be determined by the Secretary by legislative instrument. In practice, and for the foreseeable future, it is anticipated that the legislative instrument would state the energy efficiency rating of a building is to be assessed using the methods and standards for the assessment of the energy efficiency rating of a base building under NABERS Energy. Similarly, it is anticipated that the legislative instrument would also state that the energy efficiency assessment of the lighting for the building or an area of a building is to be made using the NABERS assessment methods and standards for assessing lighting energy efficiency.

97. It should be noted that the clause 21 legislative instrument mechanism enables the scheme to recognise other appropriate methods and standards in the future. This approach was recommended by industry during the consultation process as a means of promoting greater innovation and competition among building rating tools. However, it is anticipated that NABERS will remain the only suitable rating tool in the foreseeable future, and the decision to recognise other methods and standards will be based on rigorous analysis, and will be subject to further industry and government consultation.
98. As with any assessment method and standard, the NABERS methods and standards that will be prescribed in the legislative instrument are subject to minor technical refinements and are reissued from time to time as the NABERS Energy for Offices Rules for Collecting and Using Data. It is therefore necessary to engage a flexible mechanism under which the methods and standards can be refined without the need to repeatedly amend a legislative instrument. Therefore, subclause (2) enables the Secretary to refine an assessment method or standard by applying, adopting or incorporating technical documentation that it in force at a particular time or from time to time. Only the technical elements of NABERS Energy are intended to be incorporated by way of reference to information that exists at a particular time or from time to time under subclause (2).
99. It should be noted that any change to the NABERS Energy for Offices Rules for Collecting and Using Data requires industry consultation and approval from an inter-jurisdictional National Steering Committee for NABERS that is chaired by the Commonwealth and composed of State and Territory government officials. The delegation to determine the Commonwealth's agreement to any refinements to the NABERS Energy for Offices Rules for Collecting and Using Data will reside with a SES employee or an acting SES employee.

Clause 22: Application of energy efficiency obligations

100. Subject to being passed by the Parliament and receiving Royal Assent, the Bill will commence on 1 July 2010 with the energy efficiency obligations applying at a date to be proclaimed. This date must be before the end of 2010 in order to meet the scheme's commencement timeframe that was specified in the National Strategy on Energy Efficiency, and is currently anticipated to be a date in October 2010.
101. This clause sets out the commencement timeframe for the application of obligations under clauses 11, 12 and 15 and establishes that the implementation date is to be determined by proclamation by the Governor-General.
102. Subclause (4) is included to ensure that the obligations under the Bill are implemented no later than 6 months from the day on which the Bill commences. There is likely to be several months between the commencement of the Bill and the implementation date (which is the date of commencement of the disclosure obligations). This will enable the administrative structure of the scheme to be formalised and adequate numbers of assessors to be trained and accredited to service the demand for BEECs. It is expected that the existing pool of NABERS Energy assessors will receive further training (which will be prescribed in regulations made for the purpose of clause 25) on the assessment of the energy efficiency of lighting and the legislative requirements of the scheme.

Clause 23 Satisfying energy efficiency disclosure obligations during the transition period

103. This clause provides that certain non-BEEC ratings will be sufficient to satisfy disclosure obligations during the transition period.
104. Subclause (1) specifies that the transition period is for 12 months beginning on the day of implementation.
105. Subclause (2) provides that a rating will be a 'recognised rating' if it is made before or during the transitional period by a person or body that is recognised as an issuing authority at the start of the transition period. (As noted above in relation to clause 13, it is presently expected that the NSW Department of Environment, Climate Change and Water will be recognised as an issuing authority at the start of the transition period.)
106. By including ratings made both before and within the transition period, this clause provides significant transition assistance for persons who are not yet ready to apply for BEECs on the implementation date. In particular, the persons who are already in the process of obtaining a rating but will only obtain it after the implementation date will benefit from being able to use that rating as a recognised rating under these transitional arrangements.
107. Subclauses (3)-(8) operate so that a recognised rating will in effect be equivalent to a BEEC, for the purposes of satisfying a disclosure obligation, if the rating is valid, current and registered (as set out in subclauses (9) to (11) - see notes on those subclauses below). Both buildings and areas of buildings are covered by these subclauses. Specifically:
 - subclauses (3) and (4) have the effect that a valid, current and registered recognised rating will satisfy the obligations in clause 11 that require a valid and current BEEC to be registered at the time of any offer or invitation to sale, lease or sublease;
 - subclauses (5) and (6) have the effect that giving a person a copy of a valid, current and registered recognised rating will satisfy the requirement in subclause 12(6) to give to another person a valid, current and registered BEEC; and
 - subclauses (7) and (8) have the effect that a valid and current recognised rating will satisfy the requirement in clause 15 to include a valid and current energy efficiency rating in an advertisement for the sale, lease or sublease of a building or an area of a building.
108. Subclause (9) provides that a rating will be valid if the issuing body considers that the rating is appropriate, based on assessment methods and standards that are substantially similar to those determined under paragraph 21(1)(a). It is intended that the assessment of a recognised rating should be substantially the same as the assessment of a BEEC.
109. Ratings issued before the transition period will need to be assessed according to substantially similar standards that are in effect at the start of the transition period. This is important to ensure, for example, that for those ratings made a reasonable period prior to the implementation of the CBD Scheme, recognition will only occur where the assessments for those ratings are consistent with those of the CBD Scheme. Ratings made during the transition period will need to be assessed according to standards

(which are substantially similar to the paragraph 21(1)(a) standards) that are in force at the time the ratings are issued.

110. Subclause (10) provides that a rating will be current in the period beginning at the time it is issued and ending either at the time stated on the rating as the expiration date of the rating, or the end of the transition period, whichever is earlier. The effect of this is that all recognised ratings must expire at the end of the transition period if not before. This ensures that the recognised rating is not relied upon indefinitely and the transition period is actually used to transition towards obtaining a BEEC within 12 months of the implementation date.
111. Subclause (11) provides that a rating will be registered if it is included in a register electronically maintained by the issuing authority and if that register is available for inspection on the internet. This establishes registration requirements which are substantially similar to those that apply in relation to BEECs under subclause 14(6). For ease of use, it is expected that the CBD website will include a search function that enables users to search both the BEE Register and the recognised ratings at the same time.
112. It should be noted that the issuing authority will be required to handle any personal information contained on recognised ratings in accordance with relevant privacy legislation.

Clause 23A: Information gathering during the transition period

113. This clause sets out the circumstances in which the information gathering powers in clause 18 apply in relation to assessments carried out for the purposes of obtaining recognised ratings.
114. Subclause (1) provides that the information gathering powers will apply when a person requests an assessment from an issuing authority assessor (which is defined in subclause (2)). The request must occur before or during the transition period. The person must be requesting the assessment so that the person can apply for a recognised rating in order to satisfy an energy efficiency disclosure obligation. This extends the operation of subclause 18(1) to recognised ratings.
115. An issuing authority assessor is defined in subclause (2) as a person accredited by the issuing authority to perform assessments of buildings for the purpose of applying for recognised ratings.
116. Subclause (3) has the effect that the powers given to accredited assessors under subclauses 18(2)-(12) that relate to information gathering will apply equally to an issuing authority assessor before or during the transition period.
117. Subclause (4) provides that the information gathering powers under clause 18 apply where a notice is given by an issuing authority assessor under subclause (3). This means that an issuing authority assessor has the same information gathering powers as an accredited assessor. This also means that a person who receives a notice from an issuing authority will have to comply with clause 18 in the same way as if that person received the notice from an accredited assessor.

118. Any confidential information given to an issuing authority assessor will be protected. The issuing authority will be required, under an agreement with the Commonwealth, to ensure that the contract of engagement between the issuing authority and the issuing authority assessor includes appropriate clauses dealing with the handling of confidential information.
119. Subclauses (5) and (6) provide for exemptions to be granted by the Secretary from a requirement to provide information. Persons may apply to the Secretary for an exemption, in accordance with the requirements of subclauses 18(8) and 18(9). The Secretary may grant an exemption in relation to any matter that is set out in subclause 18(10). Any exemption is taken to be granted under subclause 18(10). This means that the Secretary will be required to notify the applicant about the outcome of the exemption application, in accordance with subclause 18(11).
120. Subclause (7) provides that the offences created under subclause 19 do not apply if the information was given to the issuing authority assessor in compliance with a notice given by the issuing authority assessor under subclause (3). This provides protection for the issuing authority assessor that is equivalent to the protection (in subclause 19(2)(a)) that is accorded to information copied, recorded, used or disclosed for the purpose of obtaining a BEEC.

Part 3 – Accreditation of assessors

Division 1 – Accreditation

Clause 24: Application for accreditation

121. To ensure the quality and credibility of BEECs, assessors who are engaged to apply the assessment methods and standards that underpin BEECs are required to become accredited under the scheme. Applications for accreditation need to be made in writing to the Secretary in an approved form and to include certain prescribed information that will enable the Secretary to determine whether accreditation should be granted. A fee will be charged for this service to cover administrative costs. The clause provides for the amount of the fee to be prescribed in regulations.
122. It is intended that only natural persons will be able to be accredited as assessors. A corporate entity would not be eligible for accreditation. This is consistent with the eligibility criteria set out in clause 25.

Clause 25: Accreditation of assessors

123. This clause establishes the criteria that will be applied to persons who have applied to become accredited assessors.
124. Subclause (1) lists various offences related to the provision of false and misleading information that would preclude a person from being accredited under the scheme. Being convicted of any of the offences mentioned in this subclause will automatically preclude a person from being accredited. The Secretary must also refuse accreditation if satisfied that the applicant has otherwise provided false and misleading information in

relation to a rating of energy efficiency of a building on which another person might rely. There is no latitude for leniency with respect to any of the refusal of accreditation under this subclause.

125. Subclause (2) lists matters where the Secretary may decide not to accredit a person. Specifically, paragraph 25(2)(a) requires consideration of the record of those applicants that have been previously accredited. That is, whether damages actions have been brought against them or if there is sufficient grounds to indicate that the person has not properly applied the assessment methods and standards, or whether they have failed to comply with a condition of accreditation.
126. Alternatively, for all applications, paragraph 25(2)(b) permits refusal to accredit where the amount of training that the applicant has undertaken with respect to the assessment methods and standards is insufficient or not successfully completed or where the applicant has insufficient qualifications and experience to correctly apply the assessment methods and standards.
127. Paragraph 25(2)(c) requires consideration of whether an applicant is capable of complying with a likely condition of accreditation under clause 27. A likely condition may include a condition that the applicant carry out assessments under the supervision of an auditor or undertake specified further training.
128. Where accreditation has not been refused under subclause (1) and there are no matters under subclause (2) that may prevent accreditation, the person must be accredited in accordance with subclause (3).
129. Subclause (4) requires a person to be advised in writing of whether their application for accreditation has been approved or rejected. This will ensure that there is no ambiguity about whether a person is accredited. In the case of a person's application being rejected, this will enable a person to initiate a review of the decision under clause 68 or clause 69.

Clause 26: Period of accreditation

130. This clause establishes that the maximum period that a person may be accredited as an assessor under the scheme is 3 years. A person will have to reapply for their accreditation at the end of the accreditation period. The minimum period of accreditation is 12 months.

Clause 27: Conditions of accreditation

131. This clause allows for conditions to be placed on a person's accreditation as an assessor under the scheme.
132. Subclause (1) establishes that standard conditions that may be applied to all or certain classes of assessors will be prescribed in the Regulations. Additional conditions may be imposed on an assessor by the Secretary in accordance with subclause (2).
133. Subclause (3) describes some of the additional conditions that may be imposed by the Secretary. These conditions are the most typical that are likely to be imposed by the

Secretary, that is, that the assessor carry out assessments under the supervision of an auditor or undertake further training. Such conditions are likely to be imposed where a person is considered to have sufficiently satisfied clause 25, but requires the supervision of an auditor or additional training in order to retain a sufficient level of competency throughout the accreditation period.

134. Subclause (4) allows the Secretary to vary or revoke a condition of accreditation at any time. For example, a condition to work under the supervision of an auditor may cease to become necessary if it becomes apparent that the assessor will correctly apply the assessment methods and standards without supervision.
135. Subclause (5) establishes that the conditions imposed on the accreditation of an assessor, and the varying or revocation of such conditions, must be in writing. This is to ensure that there is no ambiguity about a person's conditions of accreditation.
136. Subclause (6) clarifies that the written notification with respect to the conditions of a person's accreditation is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.

Division 2 – Suspension and revocation of accreditation

Clause 28: Suspension of accreditation

137. This clause establishes circumstances under which the Secretary may suspend the accreditation of an assessor. Those circumstances are that the person has been found in proceedings for damages brought under clause 20 not to have properly applied the assessment methods and standards, or if the Secretary is otherwise satisfied that the person has not properly applied the assessment methods and standards, or if the person has failed to comply with a condition of accreditation (see clause 27).
138. The competence of accredited assessors and the correct application of the assessment methods and standards are critical to the integrity of the scheme. The purpose of this provision is to protect this aspect of the scheme by ensuring that a minimum standard of performance is maintained by those that are accredited. In turn, this will ensure that BEECs registered under the scheme are credible and reliable.
139. Subclause (2) establishes that a person must be notified in writing about the suspension of their accreditation so that there is no ambiguity about the status of their accreditation.

Clause 29: Lift of suspension

140. This clause enables the Secretary to lift the suspension of a person's accreditation under the scheme. This gives the person whose accreditation has been suspended the opportunity of addressing those issues that led to the suspension and thereby having their suspension lifted.
141. Where a person's accreditation has expired while it was suspended, subclause (2) allows the Secretary to waive all or part of the need for the person to supply information and fees under paragraphs 24(2)(b) and (c) for their re-accreditation. For

example, where a person wishes to be re-accredited after a suspension is lifted, the Secretary may waive all or part of these requirements where the suspension has significantly reduced the next accreditation period. If reduced, the amount of information and fees is likely to be proportional to the remainder of the accreditation period.

142. Subclause (3) requires the person to be notified in writing about the lifting of their suspension or the waiving of all or part of the information and fees required by paragraphs 24(2)(b) and (c). This is to ensure that there is no ambiguity about the status of a person's suspension or need for them to provide information and fees for their re-accreditation.

Clause 30: Revocation of accreditation

143. For more serious offences, clause 30 gives the Secretary authority to revoke a person's accreditation. The bases provided for revoking a person's accreditation relate to the provision of false and misleading information, incorrectly applying the assessment methods and standards or failing to comply with a condition of accreditation. For example, in circumstances where a person is convicted of providing false or misleading information or the Secretary is satisfied that the person has otherwise provided false and misleading information, the Secretary must revoke accreditation due to the serious nature of such an activity. In other circumstances, where a person's technical proficiency to apply the methods and standards under clause 21 or meet the conditions of accreditation is found to be deficient, the Secretary may use discretion in deciding whether to revoke a person's accreditation.
144. As with the suspension of a person's accreditation, this provision is intended to protect the integrity of the scheme by ensuring that only competent assessors are accredited and that registered BEECs are credible and reliable.
145. Subclause (3) requires the Secretary to notify a person in writing where the person's accreditation has been revoked. This will ensure that there is no ambiguity about the status of a person's accreditation.

Division 3 – General provisions relating to accreditation

Clause 31: Register of Accredited Assessors

146. This clause requires that the Secretary maintain, or cause to be maintained, a Register of Accredited Assessors (Assessors Register) which is accessible to the public on the internet. The Assessors Register will assist persons who need to engage an accredited assessor by providing the name and registration number of each accredited assessor, together with any other information the Secretary considers relevant in assisting a person in engaging an accredited assessor. This may include the assessor's location or geographic area in which they are able to provide assessment services.
147. Subclause (4) clarifies that the Assessors Register is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.

148. Assessors will be delisted from the Register when they cease to be assessors or if their accreditation has been revoked or suspended. This is because the term 'accredited assessor' does not extend to including persons whose accreditation has been revoked or suspended - see clause 3.

Clause 32: Offence – holding out to be an accredited assessor

149. This clause establishes that it is an offence for a person to make false statements, either orally or in writing, that would lead another person to believe that they were an accredited assessor at that time. This is because there could be potentially serious consequences if a person deliberately misleads a building owner or lessor to believe that the person is an accredited assessor under the scheme. An offence under this clause attracts a penalty of 60 penalty points due to the serious nature of such an offence and the need for deterrence of such activities.
150. The purpose of this provision is to protect the integrity of the scheme by ensuring that only accredited assessors are engaged to obtain BEECs, thereby ensuring that the certificates are credible and reliable. Note that 'accredited assessor' does not include a person whose accreditation has been suspended or revoked - see clause 3.

Part 4 – Auditing accredited assessors

Division 1 – Appointment of auditing authority and auditors

Clause 33: Auditing authority

151. To ensure that accredited assessors are correctly applying the assessment methods and standards and are not being influenced by a conflict of interest, a system of auditing is to be established. This clause enables the Secretary to appoint a person or body as an auditing authority who, in turn, will be responsible for directing the work of auditors (see subclauses (1) and (2)).
152. Subclause (3) establishes that in performing this function, an auditing authority must abide by policies notified in writing by the Secretary. This provision provides the Secretary with the power, for example, to notify a policy that would require an auditing authority to increase the frequency of audits or to undertake certain activities to ensure the effective functioning of the scheme.
153. Subclause (5) clarifies that a policy determined by the Secretary under subclause (3) is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.
154. Subclause (4) provides that an auditing authority must notify the Secretary in writing where the results of an audit reveal an inconsistency between an energy efficiency rating or lighting assessment that have been carried out by an accredited assessor and the outcomes that should have been derived from the correct use of the assessment methods and standards. This information will be used by the Secretary to determine whether action should be taken against the accredited assessor, such as the suspension or revocation of their accreditation under clauses 28 and 30.

Clause 34: Auditors

155. Given the importance of their function, auditors may only be appointed from the public service of the Australian, State and Territory Governments or through direct engagement by the Australian Government.
156. It should be noted that in the vast majority of cases, the auditing of BEECs will be conducted via desktop audits to ascertain whether an accredited assessor has indeed conducted an assessment as per the methods and standards under clause 21. It is intended that desktop audits will be conducted by a person who is engaged by the Australian Government as an auditor under contract.
157. It is also important to be able to conduct on site audits of BEECs in a small number of cases to investigate a recurring concern over an assessor's conduct under the scheme or to investigate instances where a deliberate collusion to subvert the assessment methods and standards under clause 21 is suspected.
158. Auditors must be capable of auditing the assessments, documentation and record keeping of accredited assessors to determine whether the assessment methods and standards are being correctly applied. They must also be capable of supervising assessments, if such supervision is required as a condition placed on an accredited assessor under paragraph 27(3)(a).
159. Auditors must perform their functions in accordance with directions given by an auditing authority.
160. Subclause (5) clarifies that a direction set in writing by an auditing authority is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.

Clause 35: Identity cards

161. Auditors are to be issued with identity cards and carry such cards when exercising the powers of an auditor. The purpose of the identity card is to demonstrate an auditor has the authority to enter buildings and gather information while performing an audit. An auditor may be requested to show his or her identity card to a building occupier prior to being granted consent to entry under paragraph 36(3)(a).
162. To prevent the misuse of identity cards, subclause (3) establishes a criminal offence where a person retains an identity card after ceasing to be an auditor. This offence is a strict liability offence with a penalty of 1 penalty point. The defence of mistake of fact remains available (see section 6.1 of the Criminal Code). In determining that strict liability should apply to this offence, the relevant principles contained in the Guide to Framing Commonwealth Offences were considered. Relevantly;
 - the offence is not punishable by imprisonment, and the penalty is less than 60 penalty units for an individual;

- the offence would be difficult to establish if the prosecution was required to prove intention, as it can be very difficult to prove intention with respect to an omission to do a thing. The proposed clause 35 is consistent with provisions in a number of other Acts including section 154C of the *Trade Practices Act 1974*, which also relates to identity cards;
- auditors are given considerable powers under the Bill, including powers to enter premises and seek warrants. It is important to place a clear and unambiguous obligation on persons who cease to be auditors to return the identity card, to ensure that there is no opportunity for misuse of auditor powers. Externally engaged auditors would be placed on notice in relation to the obligation to return the identity card, as part of the contractual arrangements between the auditor and the Commonwealth. Auditors who are APS or other Government employees would be given notice of the requirement by their employer.

163. Subclause (3) does not apply where the identity card is lost or destroyed. The defendant bears the evidentiary burden in relation to proving loss or destruction.

Division 2 – Powers of auditors

Clause 36: Auditor may enter building or area by consent or under warrant

164. In performing an audit, auditors may need to enter a building, area of a building or associated area. Under subclause (3), an auditor may not enter a building or area without either the consent of the occupier of the building or a monitoring warrant obtained in accordance with clause 47. Where consent is provided by the occupier of the building or area, it must be provided under the conditions set out in clause 40.
165. It is expected that auditors who enter premises under warrants will be Commonwealth, State or Territory government employees.

Clause 37: Monitoring powers of auditors

166. Clause 37 provides auditors with the necessary monitoring powers to undertake a full investigation into whether an assessor has correctly applied the assessment methods and standards, and powers to inspect any document, observe any function, and take copies of documents and other powers as necessary to perform auditing functions as required under clause 34.
167. In addition, subclause (2) provides auditors with the power to operate electronic equipment already in the building or area, including computer equipment, to determine whether it has information of relevance to the investigation. Subclause (3) then provides auditors with the power to remove information that is found to be of relevance to the investigation. Subclause (4) restricts the powers in relation to equipment such that the auditor must have a belief on reasonable grounds that the operation of the equipment will not cause damage to the equipment.

Clause 38: Persons assisting auditors

168. Auditors may be assisted by another person who is not an auditor where necessary and reasonable. However, the person assisting the auditor may only enter a building or area and exercise monitoring powers under the direction of the auditor.
169. To assist readers, subclause (4) confirms that where direction given to a person assisting is given in writing, that direction is not a legislative instrument.

Clause 39: Auditor may ask questions and seek production of documents

170. Subclauses (1) and (2) provide that, if authorised to enter a building or area either by consent or under warrant, an auditor may ask questions and request documents from the occupier of a building or area in relation to an investigation into whether an accredited assessor has correctly applied the assessment methods and standards.
171. A monitoring warrant provides assessors both with the authority to enter a building or area, where consent has not been granted by the occupier, and to compel the occupier to answer questions and provide documents in relation to the investigation. This power is provided under subclause (2) and is reinforced by subclause (3), which establishes an offence for failing to answer questions or provide documents where entry was obtained under a monitoring warrant. An offence attracts a penalty of 30 penalty units due to the serious nature of such an offence and the need for deterrence of such activities.
172. Despite these powers, subclauses (4) and (5) establish that an individual is not obliged to answer a question or provide documents if it might incriminate them. The offence in subclause (3) does not apply if the person is not capable of complying with the requirements of the clause. In cases where subclauses (4) and (5) apply, the individual bears an evidential burden under the *Criminal Code*.
173. In relation to addressing the issue of the self incrimination, there was no intention to abrogate client legal privilege and hence it was not specifically mentioned in clause 39. It is difficult to see how a person would need to rely on client legal privilege in relation to actions under this clause, or it is anticipated that the cases would be few. However, for the purposes of clause 39, it is intended that persons will be able to rely on client legal privilege.

Division 3 – Obligations of auditors

Clause 40: Consent

174. Clause 40 establishes that the consent afforded to an auditor to enter a building or area by an occupier in accordance with clause 36(3)(a) must be completely voluntary. The auditor must comply with any limitations placed upon the period for which consent is granted and must leave the building as soon as the consent ceases to have effect.

175. The purpose of this clause is to preserve an occupier's right to refuse entry to an auditor. Only a magistrate has the capacity to oblige the occupier of a building or area to provide access by issuing a monitoring warrant under clause 47.

Clause 41: Announcement before entry under warrant

176. This clause establishes the manner in which an auditor must enter a building or area when exercising a warrant. The auditor must announce that they are authorised to enter, show their identity card and provide an opportunity for the occupier or other person at the premises to allow entry. Those requirements before entry do not require compliance if the auditor believes on reasonable grounds that immediate entry is required to ensure the effective execution of the warrant is not frustrated. Under this scenario, an auditor must present his or her identity card as provided under subclause (3).

Clause 42: Auditor to be in possession of warrant

177. In exercising a monitoring warrant, the auditor must be in possession of the warrant or a copy of the warrant, so that there is no question about whether or not a monitoring warrant has been obtained.

Clause 43: Details of warrant etc. to be given to occupier

178. This clause provides that if, when an auditor is exercising a monitoring warrant, the occupier or person apparently representing the occupier is present at the premises, an auditor must as soon as practicable provide a copy of the warrant to the occupier or person representing the occupier and inform them of their rights and responsibilities under Division 4.

Clause 44: Compensation for damage to electronic equipment

179. This clause establishes that if, as a consequence of an auditor carrying out an investigation, damage occurs to electronic equipment or data or programs are damaged or corrupted, the Commonwealth must pay reasonable compensation to the owner or user of the equipment. For this to occur, however, the damage or corruption must be as a consequence of insufficient care being exercised in selecting the person to operate the equipment or insufficient care being exercised by the person operating the equipment. The Commonwealth and the owner or user would be required to agree on the compensation to be paid. If they cannot agree, the owner or user can apply to the federal court for reasonable compensation.

Division 4 – Occupier's rights and responsibilities

Clause 45: Occupier entitled to observe execution of warrant

180. This clause establishes that an occupier or person representing an occupier of a building or area that is the subject of a monitoring warrant may observe the work being carried out by an auditor executing the warrant, provided that they do not impede the work of the auditor. The purpose of this clause is to preserve the right of an occupier to know

generally what is being carried out within the building or area that they occupy. In this regard, subclause (3) provides that this entitlement does not prevent the execution of the warrant in two or more areas at the same time.

Clause 46: Occupier to provide auditor with facilities and assistance

181. This clause establishes that the occupier or person representing an occupier of a building or area that is the subject of a monitoring warrant must provide to an auditor and a person assisting an auditor with all reasonable facilities and assistance that they require to carry out their investigation.
182. Given the importance of this provision to the effectiveness of an investigation, subclause (2) establishes a criminal offence where an occupier or person representing an occupier fails to provide the necessary facilities and assistance. The offence attracts a penalty of 30 penalty units, which is considered necessary to deter non-compliance with the requirement to provide facilities and assistance.

Division 5 – Monitoring warrants

Clause 47: Monitoring warrants

183. This clause establishes the process for obtaining a monitoring warrant and the information that it must contain. Subclause (1) gives auditors standing to apply to a magistrate for a warrant.
184. Subclauses (2) and (3) establish that sufficient information must be provided to satisfy the magistrate that a monitoring warrant is reasonably necessary for the auditor to properly investigate whether an accredited assessor has properly applied the assessment methods and standards.
185. Subclause (4) lists the information that a monitoring warrant must contain. The purpose of this subclause is to ensure that there is no ambiguity about the terms and limitations of the monitoring warrant.

Division 6 – Powers of magistrates

Clause 48: Powers of magistrates

186. This clause establishes the power of magistrates in relation to Part 4 of the Bill. Subclause (1) provides that the power is conferred on the magistrate in the personal capacity of the magistrate and not as a court or a member of a court. A magistrate is not required to accept the power conferred (subclause (2)).
187. A magistrate must not exercise the power conferred under Part 4 unless that conferral is in accordance with an agreement between the Commonwealth and the relevant State or Territory. Subclause (4) provides the same protection and immunity to a magistrate exercising such powers as the court of which the magistrate is a member or as a member of that court.

Part 5 - Enforcement

Division 1 – Obtaining information and documents

Clause 49: Secretary may obtain information or documents

188. The purpose of this clause is to enable the Secretary to obtain, by notice, information from any person that relates to the compliance with a civil penalty provision, if the Secretary reasonably believes the person knows the information or has custody or control of the documents. The notice must specify the period for compliance with the notice and the manner in which the person must comply. Subclause (3) provides that at least 14 days must be given for compliance with a notice.

Clause 50: Failure to comply with a notice

189. Clause 50 sets out the consequences of non-compliance with a notice under clause 49. Under subclause (1) non-compliance is a criminal offence. Subclause (2) provides that the offence is a strict liability offence with a maximum penalty of 30 penalty points. A higher range penalty is required in order to ensure compliance with the clause and hence achievement of the Act's objectives. The defence of mistake of fact remains available (see section 6.1 of the criminal code). In determining that strict liability should apply to this offence the relevant principles contained in section 4.2 of the Guide to Framing Commonwealth Offences were considered. Relevantly:

- the offence is not punishable by imprisonment, and is punishable by a penalty of less than 60 penalty units for an individual;
- this offence would be difficult to establish if the prosecution was required to prove intention, as it can be very difficult to prove intention with respect to an omission to do a thing. This section is consistent with provisions in a number of other Acts under which an obligation to comply with a notice or direction is imposed with an offence of strict liability. An example of this approach can be found in section 154 of the *Renewable Energy (Electricity) Act 2000*, which also relates to failure to provide documents; and
- the strict liability nature of the offence would enhance the effectiveness of the enforcement of the obligation by deterring non-compliance. Widespread non-compliance with s 49 notices would severely inhibit the effective enforcement of the legislative scheme, as compliance with s 49 notices enables the Secretary to obtain information and documents that relate to compliance with the civil penalty provisions of the Bill. A person will be served a notice under section 49 only after preliminary informal requests for the relevant information or documents have been rejected. As part of the preliminary requests the person would be made aware of the Secretary's need for the information. The person would then be advised of the strict liability nature of the offence in the s 49 notice.

190. Subclause (3) provides that a person is not required to provide information or produce a document that might tend to incriminate them or expose them to penalty. In specifying such a provision, there was no intention to abrogate client legal privilege and hence it

was not specifically mentioned in clause 50. Therefore, for the purposes of clause 50, it is intended that persons will be able to rely on client legal privilege.

Division 2 – Civil penalties

Clauses 51 - 57: Civil penalty provisions

191. Division 2 establishes a civil penalty regime in the Bill. The provisions allow the Secretary to apply to a Court, being the Federal Court of Australia or the Federal Magistrates Court, for an order that the person who has contravened a civil penalty provision must pay a pecuniary penalty. An application to the Court must be made within 6 years of a person contravening the civil penalty provisions (see subclause 53(1)).
192. The provisions establishing the civil penalty regime include that the Court may make a single civil penalty order for multiple contraventions of a civil penalty provision and that if there are two or more contraventions, proceedings may be instituted against a person in relation to the contravention of any one or more of those provisions - see subclauses 53(6) and 53(7). There are no dual offences in the Bill in relation to the same type of criminal offences and hence no double jeopardy situation arises.
193. Clause 53 also limits the penalties that may be imposed in relation to ongoing contraventions of clauses 11, 15 and 18. Under the civil penalty provisions in those clauses, each new day of contravention is a separate contravention to which the maximum penalty can be attributed. However, subclauses 53(5A), (5B), (5C) and (5D) operate so that for every day after the first day of contravention, the maximum penalty is less than the maximum penalty for the first day of the contravention.
194. Clause 54 sets out that the Court may direct that 2 or more proceedings that relate to a civil penalty order may be heard together. The insertion of this provision is to ensure consistent procedures for such matters in both the Federal Court and the Federal Magistrates Court.
195. Clause 56 provides that the Court must apply the rules of evidence and procedure for civil matters when hearing proceedings for a civil penalty order under this Act. Given the similarity of the provisions under this Act to the framing of criminal offences, the purpose of this provision is to provide absolute clarity that civil evidence and procedure applies.
196. Clause 57 establishes that a person is not liable to have a civil penalty order made against them if the person was under a mistaken but reasonable belief about facts which, if true, would mean that there was no contravention. The person relying on this provision bears the evidential burden in relation to the matter.

Division 3 – Infringement Notices

Clauses 58-64

197. Division 3 establishes an infringement notice scheme.

198. The infringement notice scheme sets out the circumstances in which an infringement notice may be issued by the Secretary in relation to a contravention of a civil penalty provision. The scheme sets out the matters that must be included in an infringement notice, a process for a person to whom an infringement notice has been issued to apply for an extension of time to pay the infringement notice penalty and for the person to make written representations to the Secretary seeking the withdrawal of an infringement notice.
199. As an infringement notice is an alternative to taking court proceedings, the provisions clarify that if a person pays an infringement notice, the liability for the alleged contravention is discharged. In addition, civil proceedings may not be brought against the person for that alleged contravention and the person is not regarded as having admitted liability - see clause 62.
200. In circumstances where a person to whom an infringement notice has been issued chooses not to pay the infringement notice penalty, it would be possible for a decision to be made at that time to institute civil proceedings against the person for the contravention of the relevant civil penalty provision or provisions (see clause 63).
201. The power to issue an infringement notice does not remove the liability of a person to be prosecuted for an offence or ordered to pay a pecuniary penalty if an infringement notice has not been issued in relation to the conduct (see clause 63).
202. Clause 61 sets out the provisions in relation to the withdrawal of infringement notices. Subclause (1) provides that a person to whom an infringement notice has been given may write to the Secretary to seek withdrawal of the notice. Subclause (2) provides that evidence or information that a person gives when seeking such a withdrawal is not admissible in evidence against the person in any proceedings other than proceedings for an offence based on that evidence or information being false or misleading. Subclause (2) is a usual approach used in Commonwealth legislation. Excluding such matters from evidence in court proceedings may encourage persons to engage in the enforcement procedures under this Bill and facilitate the resolution of disputes in an efficient and effective way.
203. Clause 64 will enable regulations to be made in relation to infringement notices. This regulation making power will allow procedural/administrative matters which relate to the infringement notice system to be specified in the regulations. Such regulations cannot be inconsistent with the Act.
204. It should be noted that penalties of up to 35 penalty units for an individual and 100 penalty units for a body corporate will be able to be imposed by way of infringement notices. The average cost of providing a valid, current and registered BEEC is estimated to be around \$6,000. For more complex buildings, this cost is estimated to be around \$15,000. These costs are likely to be less than half a per cent of the overall value of a property transaction. The penalty units imposed by way of infringement notices have been determined taking into consideration such compliance costs and with a concern to create a sufficient deterrent against non-compliance. Higher penalty provisions were considered necessary in some instances to give an appropriate level of rigour to the Act.

Division 4 – Other Matters

Clause 65: Energy Efficiency Non-disclosure Register

205. This clause enables the creation of a Register in order to name persons (including corporations) who repeatedly contravene the provisions of the Act. In some instances, it could be argued the cost of penalties under the Act is minor when compared to overall value of a property transaction. This Register is set up to weaken this situation and discourage industry from discounting the cost of penalties as a minor transaction cost.
206. Subclauses (1) and (2) enable the Secretary to maintain, or cause to maintain, a public Register of people who are responsible for two or more instances of non-disclosure within a period of 12 months. An instance of non-disclosure is defined as being issued an infringement notice or a court making a civil penalty order against the person for contravening an energy efficiency disclosure obligation.
207. Subclause (4) provides the Secretary with powers to withhold or delete an instance of non-disclosure from the Register if the Secretary is satisfied that the instance is not part of a continuing pattern of conduct demonstrating disregard for the scheme.
208. Subclause (5) provides that the Secretary must remove, or cause to be removed, an instance of non-disclosure where an infringement notice has been subsequently withdrawn. The Secretary must also remove, or cause to be removed, an instance of non-disclosure where a Court made a civil penalty order and that order is overturned on appeal.
209. Subclause (7) clarifies that the Register is not a legislative instrument within the meaning of section 5 of the *Legislative Instruments Act 2003*. This subclause has been included to assist readers.

Clause 66: Evidentiary certificate relating to the Building Energy Efficiency Register

210. In order to gain efficiencies in court proceedings, it may be helpful to establish the validity of the technical details of an expired or a current BEEC for a building or an area of a building from the Building Energy Efficiency Register.
211. Subclause (1) enables the Secretary to issue a written evidentiary certificate that relates to certain matters relating to a BEEC for a building or an area of a building for evidentiary purposes to assist with any court proceeding. Subclause (2) provides that such a certificate is prima facie evidence of the matters stated in it. Subclause (3) sets out that the evidentiary certificate must be taken to be such a certificate and to have been properly given unless the contrary is established.
212. It should be noted that the power to issue evidentiary certificates by the Secretary will be non-delegable (see paragraph 71(1)(j)).

Part 6 – Miscellaneous

Clause 67: Reviewable decisions

213. Clause 67 details those decisions made under the Bill for which a review may be instigated under clauses 68 and 69. Reviewable decisions under the scheme cover the determination of exemptions and decisions made in relation to the accreditation of assessors.

Clause 68: Internal review of certain decisions

214. Where a reviewable decision (see clause 67) has been made by a delegate of the Secretary, clause 68 establishes the process for a person affected by a reviewable decision to apply in writing to the Secretary for a review of that decision. The Secretary must review the decision and either affirm or vary the decision or set aside the decision and make a new decision.

Clause 69: Administrative review of certain decision

215. This clause establishes that an application may be made to the Administrative Appeals Tribunal for review of a reviewable decision made by the Secretary, or a review of a reviewable decision made by the Secretary under clause 68. Reviewable decisions are set out in clause 67.

Clause 70: Protection of information obtained or generated by issuing authorities, auditors, etc.

216. Subclause (1) establishes a criminal offence for misusing information that has been legitimately obtained or generated under the scheme. The purpose of this clause is to ensure that information obtained or generated under the scheme is only copied, recorded, used or disclosed under legitimate circumstances, thereby protecting the integrity of the information and, where relevant, the privacy or confidentiality of participants in the scheme.

217. The penalty for such offences is imprisonment for up to 2 years. Given the potential seriousness of unauthorised misuse or disclosure, such penalties are not uncommon in Commonwealth legislation.

218. Subclause (2) provides that subclause (1) does not apply to a number of instances including if the information is copied, recorded, used or disclosed for the purposes of issuing a BEEC or for the purposes of proceedings for an offence against section 137.1 of the *Criminal Code*, or the information is publicly available.

219. It is expected that accredited assessors and auditors will be required under their conditions of appointment to maintain all records that relate to BEECs in a secure and confidential manner.

Clause 71: Delegations

220. Subclause (1) enables all of the powers and functions of the Secretary, except for the most critical, to be delegated to an SES employee, or acting SES employee, of the Department. This is a practical provision that enables less critical powers and functions

to be carried out by responsible officers of the Department. Subclause (1)(a) to (k) sets out the critical exceptions.

221. Also for practical reasons, subclause (2) enables an issuing authority to be delegated with the Secretary's powers and functions in relation to the accreditation of assessors under Part 3, and the notification of deletion of BEECs from the Building Energy Efficiency Register under subclauses 14(4) and (5).
222. Delegations must be made in writing so that there is no ambiguity about what has been delegated and to whom.

Clause 72: Regulations

223. This clause allows for regulations to be made under this Bill to prescribe matters explicitly required or permitted by a clause of the Bill to be prescribed, as well as other matters which are necessary or convenient to be prescribed. This regulation making power will allow, for example, procedural/administrative matters which relate to the matters in the Act to be specified in the regulations. Such regulations cannot be inconsistent with the Act.