ACIL ALLEN CONSULTING

REPORT TO
OFFICE OF BEST PRACTICE REGULATION
MARCH 2016

IMPROVING THE ENERGY EFFICIENCY PERFORMANCE OF SMALL OFFICE BUILDINGS

REGULATION IMPACT STATEMENT
FOR CONSULTATION

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1 PROBLEM IDENTIFICATION AND DEFINITION

The problem that the proposed regulation seeks to address is **excessive energy consumption and greenhouse gas emissions by smaller office buildings in Australia**, that is, those with under 2,000 m^2 of floor area, which result in inefficient use of finite energy resources and negative environmental consequences.

1.1 Energy consumption of office buildings

The building sector in Australia accounts for approximately 19 per cent of total energy consumption and 23 per cent of the nation's overall greenhouse gas (GHG) emissions.

Commercial buildings (including office buildings) account for roughly 10 per cent of overall energy consumption in Australia.[1] Standalone office buildings, in turn, account for about a quarter of the energy consumption by commercial buildings.[2]

In 2009, standalone offices were estimated to have contributed some 36.6 million square metres to the Net Lettable Area (NLA) across Australia as a whole.[3] The commercial building stock grew at an average rate of 2.2 per cent per year between 1999 and 2011, and is projected to continue to grow at approximately 2 per cent per year to 2020.

Total energy consumption in standalone offices in 2009 was estimated by pitt&sherry at some 33.6 PJ, a 14 per cent increase over the 1999 value of 29.4 PJ. This was projected to increase steadily to just over 38 PJ in 2020 according to prevailing trends.[4]

Smaller office buildings tend to be particularly energy intensive, as can be seen in Figure 1.1. While larger offices exhibit a reasonably symmetrical distribution of values around the mean, the overall distribution shows a skewed 'tail' of smaller and more energy intensive offices. For very small office buildings, energy intensity can be as high as 4,000 MJ/m^2.

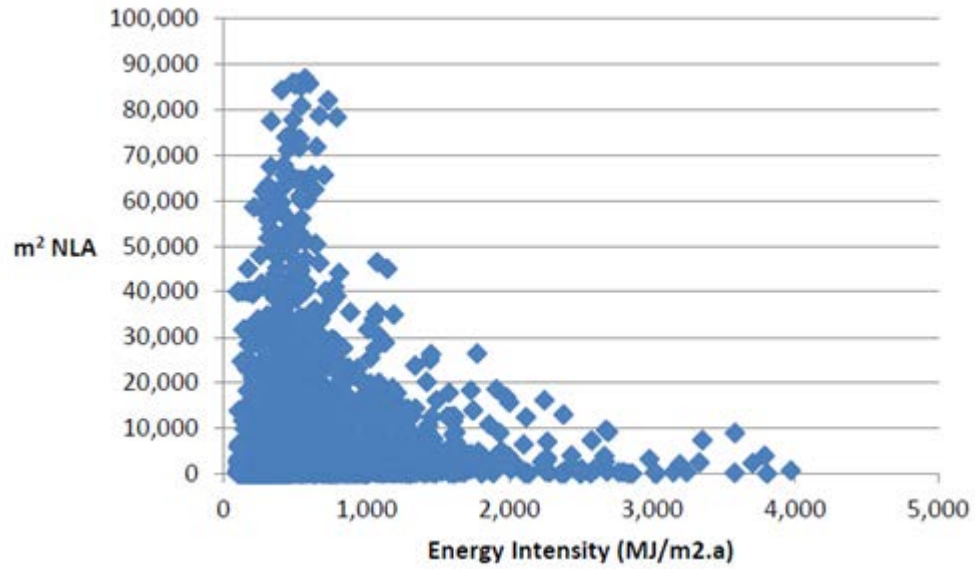
There are a number of important reasons why the energy consumption of office buildings is excessive:

— While tenants can benefit from improved energy efficiency, through savings in their expenditure on heating and cooling and lighting, improved energy efficiency often involves extra capital expenditure, upgrades and improvements which represent a cost to the landlord, who often cannot fully recoup these costs through higher rental payments from the tenant. Unless all landlords are compelled to disclose the energy efficiency performance of their properties, a lack of transparency and comparability can impede their ability to charge tenants a premium for rental space with high energy efficiency.

[1] ClimateWorks Australia, *Tracking Towards a Low Carbon Economy: 4. Buildings*, Melbourne, VIC, 2013.
[2] Pitt&sherry, *Baseline Energy Consumption and Greenhouse Gas Emissions in Commercial Buildings in Australia – Part 1 – Report*, Australia, 2012
[3] Ibid.
[4] Ibid.

— Building owners typically have more information about the energy efficiency of the building than the buyer or tenant. There is an ongoing incentive to exaggerate this area of performance, or avoid this as an issue in cases where performance is poor. The incentive for a building owner to avoid or delay disclosure of the energy efficiency of the property to the tenant or buyer, can lead to bad choices, poor resource allocation and 'thinness' in the quality end of the market. In the economic literature, this is the 'market for lemons' problem in which quality providers struggle to obtain a premium (or appropriate demand) for their product. This is a classic information-induced market failure.

FIGURE 1.1 – OFFICE BUILDING ENERGY INTENSITY BY BUILDING SIZE



SOURCE: FIGURE 5.3, P.36, PITT&SHERRY (2012)

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 more efficient heating, ventilation and air conditioning (HVAC) systems, motor systems, lighting systems and (for new buildings) better insulation. Industry estimates put the economically feasible abatement potential in the building industry at 30-35 per cent.[5]

A carbon abatement cost curve for Australia produced by McKinsey & Company demonstrated that the potential abatement from building energy efficiency improvements can be achieved at negative cost.[6] This study identified that the building sector has the lowest average cost of abatement – the sector could reduce 60 Mt of CO_2-e per annum by 2030 at a negative cost of $130 per tonne.

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 reduce greenhouse gas emissions, a failure to exploit these 'no regrets' measures would mean that other abatement opportunities would have to be pursued – 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.

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

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

[5] Centre for International Economics (2008), *Market barriers in the commercial and residential building sectors*, Canberra.
[6] McKinsey & Company (2008), *An Australian Cost Curve for Greenhouse Gas Reduction*

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.[7]

Market failure issues affecting the commercial office building sector are discussed in Chapter 2, and the case for government action to reduce the energy consumption of smaller office buildings presented.

1.2 Successful program for larger office buildings

The Commercial Building Disclosure (CBD) Program, introduced in July 2010 to address some of the market failures outlined above, has been successful in reducing the energy consumption and greenhouse gas emissions of larger office buildings, specifically those with floor areas 2,000 m^2 or above.

The program, an initiative of the Council of Australian Governments (COAG) delivered by the Department of Industry, Innovation and Science (the Department), is a light-handed regulation that requires sellers or lessors of office spaces with a floor area of 2,000 m^2 or more to provide energy efficiency information in the form of a Building Energy Efficiency Certificate (BEEC) to prospective buyers or tenants at the time of sale, lease or sub-lease.

The scheme currently covers an estimated 5,000 buildings with approximately 26 million m^2 of Net Lettable Area (NLA), housing approximately one million office workers, with approximately 900 buildings holding a certificate at any one time.

A BEEC has two components: a NABERS Energy for Offices star rating and a Tenancy Lighting Assessment (TLA).

The NABERS Energy for offices rating reports an office building's energy efficiency performance on a scale of zero to six stars. The NABERS Energy for offices rating on a BEEC should be a base building rating covering the performance of the building's central services and common areas, which are usually managed by the building owner. However, if a base building rating cannot be calculated because utility meters are not sufficient to distinguish between base building energy use and tenancy energy use, then a whole building rating that includes the tenanted spaces may be used instead.

The NABERS Energy scheme benchmarks the actual operational energy use of existing commercial office buildings, measuring energy use per m^2 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.

The TLA measures the power density of the installed general lighting system of affected buildings. It does this by working out the Nominal Lighting Power Density (NLPD) of the relevant functional space in the building as well as the capacity of installed lighting control systems. The assessment covers installed lighting and, where relevant, also proposed lighting systems. It is based on a methodical survey of the general lighting system reasonably expected to be left in place after the tenant leaves and the tenancy fit-out is removed.

By requiring advertisements for sale or lease to include the NABERS rating, the CBD program makes comparative energy performance information readily and conspicuously available to prospective buyers and tenants. The program provides the commercial office market with credible information about the relative energy efficiency of offices that are for sale, lease and sub-lease. This enables potential purchasers and lessees to consider energy efficiency as part of their decision making processes. In so doing, the scheme empowers the market with information that encourages energy efficiency improvements to be carried out.

ACIL Allen's 2015 review of the CBD program showed that it has been successful in inducing a change in the behaviour of building owners, operators and tenants in regards to commercial building energy efficiency.[8] In particular, buildings which performed poorly before the introduction of the

[7] Ibib page 6.
[8] ACIL Allen Consulting (2015), *Commercial Building Disclosure Program Review*

program have achieved a marked improvement in NABERS Energy star ratings and a significant reduction in energy intensity.

The CBD Program review showed that the impact of the program to 2014 is likely to result in a cumulative reduction in energy consumption of 10,020 terajoules (TJ) and a 2,051 kilotonne reduction in CO_2-equivalent ($ktCO_2$-e) emissions between 2010 and 2023. ACIL Allen's analysis showed that the resource cost savings from the reduced consumption of electricity, gas and diesel will exceed the administrative and compliance costs of the program by $44 million in present value terms.

1.3 Absence of programs for addressing the problem in smaller office buildings

The CBD Program only applies to buildings with floor areas equal or greater than 2,000 m^2. There are currently no energy efficiency programs that specifically target the range of market failures in office buildings with floor areas less than 2,000 m^2. Some of the current state- and Commonwealth-level building energy efficiency programs are discussed below.

The National Construction Code (NCC) contains a range of energy efficiency requirements, including requirements relating to the building itself – such as glazing, insulation and draught proofing – as well as major energy using equipment such as heating and cooling systems, water heating and lighting. However, the NCC sets standards for the design and construction of new or heavily refurbished buildings only. It does not address the problem of energy efficiency in older office buildings.

Minimum Energy Performance Standards (MEPS) are mandatory minimum standards that a range of appliances must meet in order to be sold in Australia. Appliances that are currently covered by MEPS include refrigerators, motors, water heaters, air-conditioners and a range of lighting products. However, MEPS only address the problem of energy efficiency in older office buildings when appliances are replaced.

The Energy Efficiency in Government Operations (EEGO) policy aims to reduce the energy consumption of Australian Government operations with particular emphasis on building energy efficiency. The program is mandatory for Australian Government agencies and incorporates energy intensity targets, annual reporting and green lease requirements into new office lease arrangements. The EEGO policy requires each agency to report its energy consumption against core performance indicators to their portfolio minister. However, the program only applies to Australian Government office buildings that are new, or have undergone major refurbishment affecting 2000 m^2 or greater, or are subject to a new lease (or MOU where the building is Government owned) of greater than two years duration, including options for lease extension.

The Efficient Government Buildings program, developed and managed by the Victorian Department of Treasury and Finance (DTF), involves energy service providers identifying and installing cost-effective energy and water efficiency solutions and providing a guarantee on project savings. Service providers not only design and install energy and water saving solutions, but must guarantee annual cost savings. The presence of this guarantee provides greater certainty that energy and water savings will be achieved, and enables the project costs to be financed, with annual cost savings used to repay the loan over the life of the investment. However, the program only applies to government buildings in Victoria.

In theory, smaller office buildings could participate in the Commonwealth Government's Emissions Reduction Fund (ERF) auctions, which are a key element of its Direct Action Plan to address climate change. However, a minimum bid size for participation in the auction is 2,000 tonnes of CO_2-equivalent and this may only be achievable through projects aggregated over four or five larger buildings. Hence, owners of smaller buildings are unlikely to be able to access the scheme.

The CBD program is complementary to other programs that aim to increase energy efficiency in commercial buildings. While the NCC also targets split incentives, it applies only to newly constructed buildings whereas the CBD applies to existing buildings.

While MEPS and state and local government information and assistance programs target inadequate and asymmetric information, the information provision is primarily targeted at building owners. The CBD complements these programs by providing information to tenants.

In summary, the CBD program carefully targets important gaps in the other programs that operate in this area.

The next section of the RIS explains why a government program that targets the energy efficiency performance of smaller buildings might be needed.

2 RATIONALE FOR GOVERNMENT ACTION

In this RIS, the objective of government action is to facilitate a significant reduction in energy consumption and greenhouse gas emissions by smaller office buildings in Australia. This section of the RIS explains why government intervention is necessary and desirable.

2.1 Improving energy productivity as a key policy objective

The Australian Government has several policy reasons for pursuing energy efficiency opportunities. On 11 August 2015, the Prime Minister announced that Australia is committed to reducing GHG emissions to 26–28 per cent below 2005 levels by 2030.[9] As the energy sector is the major contributor to emissions, improving energy productivity is a major part of the effort to meet the government's emissions reductions commitment.

The Australian Government's *Energy White Paper 2015* has identified improving energy productivity as a key mechanism to promote growth.[10] On 4 December 2015, the Council of Australian Governments (COAG) Energy Council launched the *National Energy Productivity Plan* to improve energy productivity by 40 per cent by 2030. There are clear opportunities for energy savings and energy productivity improvements across the building sector. The question is whether realising those opportunities requires prudent government intervention rather than relying solely on the actions of private parties in free markets.

2.2 Market failures

The rationale for government action in reducing the energy consumption and GHG emissions of smaller office buildings by improving their energy efficiency lies in the existence of multiple market failures. That is, left on its own, the market is not likely to deliver the optimal outcome for the broader Australian community.

2.2.1 Split incentives and information asymmetry

A major market failure is the 'split incentive' problem, namely where building owners incur the costs of improving the energy efficiency of their buildings (such as upgrading air conditioning and heating systems) while tenants benefit from those improvements in terms of lower energy costs.

Building owners are often unable to recover the costs of the improvements in the form of higher rents because of a second market failure – the information asymmetry between building owners and tenants concerning energy efficiency. In essence, tenants are unable to distinguish office spaces with high energy efficiency from those with low energy efficiency because very few building owners voluntarily

[9] Prime Minister of Australia, *Australia's 2030 Emissions Reduction Target* [media release], 11 August 2015, http://www.pm.gov.au/media/2015-08-11/australias-2030-emissions-reduction-target, (accessed 14 August 2015).
[10] Commonwealth of Australia, *2015 Energy White Paper*, Canberra, ACT, 2015.

have their buildings rated and make the information public. In normal office rental market conditions, not many potential tenants have the bargaining power to demand verifiable information on the energy efficiency performance of properties they are considering, in part because landlords know that potential tenants take into consideration (and often value more highly) many attributes besides energy efficiency in their rental decisions.

A 2015 Ernst & Young (EY) study found that mid-tier office buildings (defined as buildings that fall outside of the Property Council of Australia premium and A-Grade categories, such as B, C and D-grade assets) tend to attract smaller organisations with no corporate sustainability agenda or limited knowledge of energy efficiency.[11] Mid-tier buildings are generally under 10,000 m^2 and tend to be older (built before 2000) with older heating, ventilation and air conditioning (HVAC) plant and lighting.

The EY study indicated that the cost of rent per square metre is usually the most important concern of mid-tier building tenants when leasing a new space. Being located close to their client base, or close to transport, are the next most important considerations. Issues such as building outgoings and operational energy costs of the tenancy are often not taken into account in making a leasing decision. In addition, mid-tier tenants are often time-poor, with one person often taking responsibility for a multitude of tasks, such as sustainability, OH&S, office administration, accounts payable, procurement etc. These tenants may be interested in energy efficiency, but only if it does not cost money or take much time or risk to implement.

Relative to their larger counterparts, commercial office buildings smaller than 2,000 m^2 are more likely to be mid-tier or lower ranked buildings and, as illustrated in Figure 1.1, have poorer energy performance. They tend to have a greater percentage of ownership by small, private and unlisted entities. Private owners tend to be less active managers of property and have less knowledge about energy efficiency. Likewise, tenants of smaller buildings (which tend to be smaller businesses) might be less knowledgeable about energy efficiency. Information failure is therefore likely to be more common in this sector, with the result that fewer efficiency upgrades will be undertaken in the sector than is economically optimal. While a tenant has a say in how they run their own tenancy in terms of energy use, they have no say in how the owner runs the base building. A NABERS Energy for Offices rating provides them with information on whether the owner is running the building in a way that means low or high costs for energy.[12]

2.2.2 Adverse selection

The information asymmetry problem discussed above can lead to '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.

The best-known example of adverse selection relates to the used car market, where used car buyers know that they have a risk of purchasing a poor quality vehicle but have no reasonable means of identifying it from the higher quality cars until they have driven the car for several months after purchase (in the absence of any other third-party assistance). To account for this risk, used car buyers will offer a price that is below what the seller of a high quality vehicle would be willing to accept. This drives higher quality cars out of the market.

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

[11] Ernst & Young (2015), *Mid-tier commercial office buildings in Australia: Research into improving energy productivity*
[12] The Fifth Estate 10-12-15, *NEPP: expanding CBD and NABERS on the cards*, http://www.thefifthestate.com.au/products-services/rating-tools/nepp-expanding-cbd-and-nabers-on-the-cards/79369

down the business over the period of the move, updating letter heads, business cards and 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 to reflect the investment made in energy efficiency performance. 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. Therefore, even 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.

2.2.3 Capital market imperfections

In addition to the split incentive and asymmetric information problems, landlords and tenants may also face capital market imperfections in financing investments in energy saving measures. In particular, less well-resourced landlords and tenants without a strong financial track record may experience difficulties in accessing loans from the financial markets to undertake energy efficiency investments that have high rates of return.

2.2.4 Behavioural failures

Over time, increasing attention has been given to the role of "behavioural failures" as impediments to take-up energy efficiency opportunities that would yield private benefits in excess of private costs and achieve an economically efficient level of abatement, even in the context of a well-designed emissions pricing regime.

More than 25 sources of "behavioural failure" have been identified in the behavioural economics literature. Key sources, some of which overlap, include[13]:

- *computational issues* (limited attention, decisional conflicts, over-optimism and over-confidence, self-serving bias, limited analytical capacity including bounded rationality and rule of thumb (heuristic) decision-making)
- *self-control issues* (time inconsistency, procrastination, temptation, channelling and framing)
- *preference issues* (reference-dependent preferences including endowment effects, status quo bias and loss aversion, outward looking or other-regarding preferences including altruism, fairness concepts and social norms).

Bounded rationality has been suggested as a reason why landlords and tenants do not undertake discounted cash flow calculations, preferring to fall back on rules of thumb, before deciding on an energy efficiency investment or whether a more energy efficient property justifies a higher rental cost.

Loss aversion and salience have been put forward as reasons why extra up-front costs of buildings and appliances with better fuel efficiency appear to be given more weight than energy savings over the life of the investment. Framing through advertising could help explain why buyers give less attention to energy efficiency than other features of commercial accommodation.

2.2.5 Impact of uncertainty on decision-making

The apparent under-valuation of energy efficiency in selection of commercial accommodation might also reflect the (real option) values buyers place on deferring energy efficiency investments to maintain flexibility or wait for more information in the context of:

- a significant degree of irreversibility of extra acquisition or construction costs because of uncertainty regarding capitalisation of future energy savings on resale
- uncertainty regarding future energy prices, energy savings, and realisable energy savings, investment life, and future accommodation requirements

[13] For simple summaries of these potential sources of behavioural failure, see Thaler, Sunstein (2009), ch. 1 and Congdon et al (2011), ch.2. For discussions in the context of the environment and energy efficiency, see Shogren, Taylor (2008); Brekke, Johansson-Stenman (2008); Gillingham, Newell, Palmer (2009); Tietenberg (2009).

— imprecise expectations of ongoing improvements in technologies for energy savings.

It is rational for tenants and investors considering leasing or buying office spaces to allow for these considerations when making decisions regarding transactions.

2.3 Need for benefits of government intervention to exceed costs

Because of the market failures identified above, the opportunity to undertake energy efficiency improvements that can potentially be mutually beneficial to landlords and tenants (and to the wider community) is foregone because of the inability of the market to apportion the benefits of those improvements.

However, the existence of market failures by itself is insufficient justification for government intervention. Government action must be shown to generate benefits greater than costs, which include both government administrative costs as well as compliance costs incurred by private parties.

As noted above, the CBD Program for office buildings larger than 2,000 m^2 has been shown to be a cost-effective means of encouraging behavioural change in landlords and tenants with consequent improvements in the energy efficiency of buildings currently targeted by the scheme.

The CBD program addresses some, if not all, of the key market failures identified above. It addresses information asymmetry, and enables purchasers (or leasers) to better understand, and take into account, relevant financial and environmental information about a building's energy efficiency performance. As a consequence of this, the split incentive and adverse selection problems are overcome as the prices and rents of commercial buildings will, over time, begin to reflect a 'green premium', which in turn will:

— encourage investment in energy efficiency
— reduce energy bills for tenants
— help reduce energy consumption and emissions, and therefore deliver benefits for society and the environment.

The CBD program is well understood and supported in the property sector and has an established staff and infrastructure. Reducing the threshold for the program below 2,000 m^2 could potentially result in similar net benefits for smaller office buildings.

The continuation of the status quo represents a continuation of excessive energy consumption and greenhouse gas emissions by smaller office buildings through owners not pursuing economically feasible investments in energy efficiency. Left on its own, the market is not likely to deliver the optimal outcome.

As referred to in section 1, the potential abatement from building energy efficiency improvements can be achieved at negative cost. 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 reduce greenhouse gas emissions, a failure to exploit these 'no regrets' measures would mean that other abatement opportunities would have to be pursued – most likely at higher cost.

3 POLICY OPTIONS CONSIDERED

In arriving at the options to be assessed in detail through this RIS, the department considered a broad range of measures. These ranged from "doing nothing" through to heavy-handed regulatory options such as mandating minimum energy efficiency operating standards for commercial office buildings. The recent CBD Program review examined a number of options adopted by governments internationally in countries such as China, the US and the UK. In general, these countries impose greater regulation on their commercial buildings than the Australian government does under the CBD scheme.[14]

The three policy options shortlisted by the department for assessment in this RIS are:

1. Status quo – including continuing the Commercial Building Disclosure Program with no change: this option provides the base case, and involves continuation of the CBD program in its current format for large buildings (>2,000 m^2) only.
2. Lowering the disclosure threshold for the Commercial Building Disclosure Program to **≥1,000 m^2**: this option expands the coverage of the CBD Program to include non-owner occupied office buildings with floor areas between 1,000 m^2 and 2,000 m^2.
3. Alternative instrument: this non-regulatory option relies on government to develop resources and administer an information campaign that targets tenants and owners of small office buildings.

Each of the three policy options are discussed in turn below.

3.1 Option 1: The Status Quo – including continuation of the current Commercial Building Disclosure requirements

Option 1 is the status quo. Under this option the small office building space market would continue to operate under the current market conditions. The CBD Program would continue in its current format. As such, there would be no additional regulatory cost applied and no changes required to the *Building Energy Efficiency Disclosure Act 2010* and sub-ordinate legislation. The CBD Program is a light handed regulatory program that currently requires building owners to disclose information about the energy efficiency of large commercial office spaces (≥ 2,000 m^2) at the time of sale, lease or sub-lease. The scheme currently covers an estimated 5,000 buildings with approximately 26 million m^2 of Net Lettable Area (NLA), housing approximately one million office workers.

[14] ACIL Allen Consulting, *Report to the Department of Industry and Science: Commercial Buildings Disclosure Program Review*, 2015, p. 26-30.

3.2 Option 2: Lowering the disclosure threshold for the Commercial Building Disclosure Program to 1,000 m^2

This option involves amending the *Building Energy Efficiency Disclosure (Disclosure Affected Buildings) Determination 2015* to reduce the NLA threshold for mandatory disclosure to ≥1,000 m^2 while retaining all other existing parameters as is. This proposal extends the regulatory reach of the existing CBD program to a larger cohort of buildings, potentially resulting in significant energy efficiency improvements at the smaller end of the commercial office sector.

The Department proposes restricting the mandatory disclosure threshold to 1,000 m^2 to maximise the energy efficiency benefits that can be achieved by addressing current market failures. Market failures (split incentives and information asymmetry) are less relevant for office space less than 1,000 m^2 as there is an increased proportion of owner-occupiers within this cohort. In addition, the compliance cost per m^2 is higher for very small office buildings because some elements of the energy efficiency assessment costs are independent of building size. This means that a heavier regulatory burden will fall on owners who are likely to be less well resourced than owners of larger buildings.

Based on the available evidence, the department has estimated that approximately an additional 1,000 buildings between 1,000 m^2 - 1,999 m^2 would be disclosure affected at the point of sale or lease if the program threshold were lowered to ≥1,000 m^2 (maintaining all other legislative parameters). It is estimated that some 33 per cent of these buildings would be required to obtain a BEEC each year.[15] Excluding the 110 buildings per annum known to have voluntarily obtained NABERS Energy for Offices ratings, though not necessarily for market disclosure, only an additional 220 buildings per annum[16] will be required to comply with mandatory disclosure obligations.

As a regulatory offset to this option, the Department proposes to extend the validity period of the Tenancy Lighting Assessment from 12 months to 5 years. This proposed change to the TLA is expected to result in a reduction of the regulatory burden of $1.763 million per year (see Attachment A).

3.3 Option 3: Alternative instrument

Option 3 proposes that the government develop resources and administer an information campaign that targets tenants and owners of small office buildings. The campaign would aim to educate tenants and owners about the costs and benefits of energy efficient office buildings as well as opportunities to improve energy efficiency.

While the effectiveness of information campaigns is contested and difficult to measure[17], literature in the area of energy efficiency suggests that the most effective public information campaigns are targeted, directly connect with actors, and adapt information to specific audiences[18]. For this reason, a communication model is proposed that distributes information to intermediaries, such as managing agents, realtors, facility managers and solicitors, which is then passed on to tenants and owners. Distributing information through intermediaries provides two benefits:

1. It is low cost as it does not require the use of expensive mass media channels.
2. It uses professionals that have direct access to owners and tenants, which is important, as tenants have been identified as a 'particularly hard to reach group'.[19]

Information materials to be distributed would include fact sheets and case studies, and the department would hold workshops to provide training and information to intermediaries.

[15] Based on analysis of Property Council of Australia, RP Data, City of Sydney, Colliers International and Jones Lang Lasalle building stock estimates, excluding strata title and mixed use office buildings of <75% office space.
[16] Based on NABERS data held by the NSW Office of Environment and Heritage, 110 of the 330 buildings required to disclose are doing so voluntarily.
[17] United Nations Environment Programme and Central European University, *Assessment of Policy Instruments for Reducing Greenhouse Gas Emissions from Buildings*, 2007
[18] Ibid; B. Boza-Kiss, S. Moles-Grueso and D. Urge-Vorsatz, 'Evaluating policy instruments to foster energy efficiency for the sustainable transformation of buildings', *Current Opinion in Environmental Sustainability,* Vol. 5, 2013, p. 163-176.
[19] Grosvenor Management Consulting, *Review of the Operational Efficiency of the Commercial Buildings Disclosure Program,* Australia, 2013, p. 42.

4 ASSESSMENT OF SHORTLISTED OPTIONS

4.1 Economic appraisal of Option 2 relative to Option 1

In analysing the costs and benefits of Option 2 relative to Option 1 (the base case), ACIL Allen has drawn on (and built upon) the modelling and analysis undertaken as part of the 2015 review of the existing CBD Program.

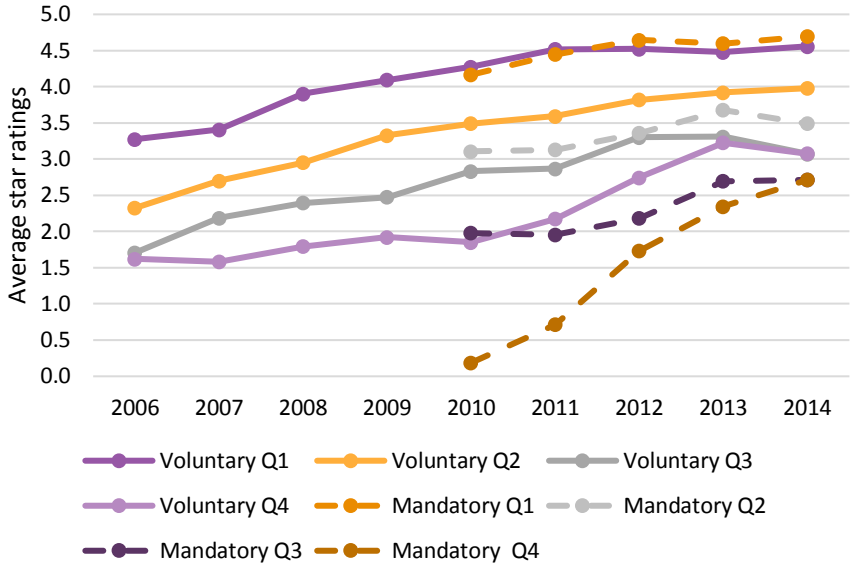
4.1.1 Net benefits from reduced energy consumption

An indicative estimate of the net benefit of lowering the disclosure threshold has been calculated by first estimating the unit benefits ($ per m^2 of additional floor space covered by mandatory disclosure) and unit costs (also $ per m^2) from ACIL Allen's cost-benefit analysis of the CBD Program between 2010 and 2014, and then applying the unit net benefits to the additional volume (m^2) of floor space that is expected to be covered by lowering the threshold.

In particular, the unit benefits for the additional buildings which will be covered under the proposed lowering of the CBD Program threshold (that is, buildings between 1,000 and 2,000 m^2) are derived from ACIL Allen's previous estimate of net energy efficiency benefits for the buildings 2,000 m^2 or larger that only obtained a NABERS Energy for Offices rating after the introduction of the CBD program.

In ACIL Allen's CBD Program review, these ≥2,000 m^2 buildings were divided into four quartiles according to their initial energy efficiency performance (NABERS star rating) after the introduction of the CBD program. The change in the average star ratings of the four quartiles (labelled Mandatory Q1, Mandatory Q2, Mandatory Q3 and Mandatory Q4, in descending order of initial energy efficiency performance) over time is shown in Figure 4.1, which also shows the improvement over time of buildings that had been voluntarily rated prior to the introduction of the CBD program. (The voluntary cohort was also divided into four quartiles in ACIL Allen's analysis.)

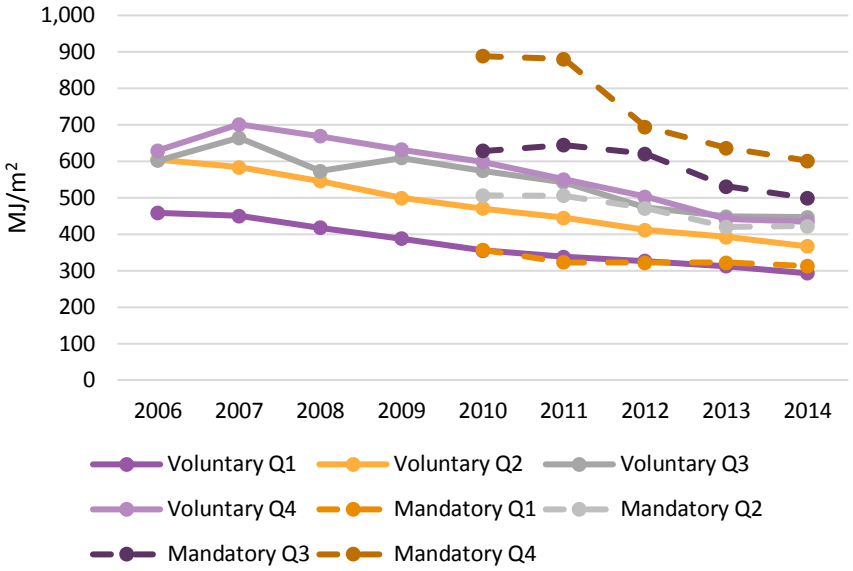
FIGURE 4.1 – AVERAGE ANNUAL STAR RATING BY SEGMENT (CBD PROGRAM REVIEW 2014)



SOURCE: ACIL ALLEN CONSULTING ANALYSIS OF NABERS DATA

The corresponding improvements in the building energy intensity of the four mandatory quartiles (and the four voluntary quartiles) are shown in Figure 4.3.

FIGURE 4.2 – AVERAGE ANNUAL ENERGY INTENSITY BY SEGMENT (CBD PROGRAM REVIEW 2014)



SOURCE: ACIL ALLEN CONSULTING ANALYSIS OF NABERS DATA

To model the likely impact of the CBD program on buildings with floor areas between 1,000m^2 and 2,000 m^2, it is assumed that these buildings have the following profile:

- 60 per cent will experience improvements in energy efficiency performance similar to that achieved by Mandatory Q4
- 30 per cent will experience improvements similar to Mandatory Q3
- 10 per cent will experience improvements similar to Mandatory Q1.

The above assumption is based on the evidence that, on average, smaller office buildings are less energy efficient than their larger counterparts (see Figure 1.1).

In ACIL Allen's cost-benefit analysis of the CBD Program, the modelling indicated that Mandatory Q4 experienced $33.9 million worth of energy savings in present value terms, net of the costs of energy efficiency upgrades. The total floor area for Mandatory Q4 was estimated to be 1,597,593 m^2. The unit net benefits for that segment (calculated as the total Present Value of benefits divided by total floor space) was thus estimated to be $21.22 per m^2 in present value terms over a 5-year time horizon under a 7 per cent real discount rate. This unit estimate pertains only to the value of energy savings and excludes the value of GHG reduction. The corresponding unit benefits for Mandatory Q3 and Mandatory Q1 were $2.35 per m^2 and $1.77 per m^2 respectively.

Based on the assumption stated above on the profile of 1,000-1,999 m^2 buildings relative to the ≥2,000 m^2 buildings analysed in the CBD Program review, it is expected that the smaller buildings that become liable for disclosure when the threshold is lowered from 2,000 to 1,000 m^2 will experience an average benefit of $13.61 per m^2 in terms of energy savings after subtracting the cost of upgrades undertaken to achieve those savings.

4.1.2 Administrative and compliance costs

Under Option 1 (the Base Case), the annual administrative cost is estimated to be $1.50 million while annual compliance costs are estimated to be $5.30 million. The present value of administrative costs over 5 years under a 7 per cent real discount rate is therefore approximately $6.15 million while the present value of compliance costs over that period is estimated to be $21.74 million.

The Department estimates that lowering the disclosure threshold of the CBD Program from 2,000 m^2 to 1,000 m^2 (Option 2) will result in the following additional administrative costs:

- Communications and promotional campaign costs ($150,000 prior to commencement and $50,000 annually thereafter)
- Salary for one additional APS4-level staff member ($60,000 per annum plus on-costs).

These additional administrative costs will total approximately $0.665 million in present value terms over 5 years under a 7 per cent real discount rate, representing an increase of 10.8 per cent over Option 1.

The potential industry burden for floor spaces between 1,000 m^2 and 2,000 m^2 has been estimated based on discussions with energy performance assessors. The estimate takes into account:

- a 'mobilisation' fixed cost component of $2,000 per assessment
- a variable cost component of 20 cents per m^2
- a NABERS lodgement fee of $490 (for buildings less than 2000m^2)
- an assumed average assessment floor area of 1,500 m^2.

An average compliance cost expressed in dollars per square metre per year of $0.64/$m^2$/year has been calculated based on an assumed rating frequency of once every three years.

In present value terms, over the period to 2023 (which reflects the assumed 5-year duration of the next phase of the CBD Program) under a 7 per cent real discount rate, the unit compliance costs are estimated to be $2.62 per m^2 (or $3,930 for a 1,500 m^2 building) This estimate is virtually identical to a bottom-up estimation undertaken using the OBPR Commonwealth Regulatory Burden Measure compliance costing tool (which calculates compliance costs based on a number of activities required by business to comply with the reduction in disclosure threshold).[20] The compliance costing using the latter approach is shown in Attachments A and B.

4.1.3 Net present value

Conservative estimates of small building floor space suggest that approximately 1.5 million m^2 of additional floor space will be captured by the CBD program if the threshold is lowered to 1,000 m^2.[21] The volume of floor space between 1,000 and 2,000 m^2 that is voluntarily rated is approximately 0.23

[20] In present value terms over a 5-year time horizon, the incremental compliance costs of Option 2 (relative to Option 1) are estimated to be $3.33 million using the method described above and $3.29 million using the Commonwealth Regulatory Burden measure compliance costing tool.

[21] Based on analysis of Property Council of Australia and RP Data stock estimates, excluding strata title and mixed use office buildings.

million m^2 (estimated based on analysis of NABERS data). This has been subtracted to arrive at an estimate of the additional 'mandatory' floor space that would be covered by the lowering of the CBD Program threshold of 1.27 million m^2. The present value of incremental compliance costs is therefore estimated to be 1.27 million x $2.62 = $3.33 million, an increase of 15.3 per cent compared with Option 1.

Lowering the disclosure threshold is projected to reduce energy consumption by a cumulative 2,830 TJ and GHG emissions by 550 $ktCO_2$-e. Taking into account the additional administrative and compliance costs, the indicative projected net benefits of lowering the disclosure threshold for the next five years is estimated at **$13.2 million in present value terms under a 7 per cent real discount rate**, excluding the value of GHG emissions reductions, or $18.4 million in present value terms under a 7 per cent real discount rate if GHG emissions reductions are valued at $14 per tCO_2-e.

4.1.4 Likely outcomes of Option 2

Based on the above quantitative analysis, lowering the disclosure threshold of the CBD program is expected to deliver substantial net economic benefits by inducing owners of smaller office buildings to upgrade the energy efficiency performance of their properties in order to remain competitive in the rental market. This enables their tenants to reduce their energy consumption and greenhouse gas emissions, leading to lower energy bills and a cleaner environment. All these benefits are possible because Option 2 overcomes the split incentive, asymmetric information and adverse selection market failures.

4.1.5 Distribution of impacts

The distributional impacts of Option 2 by stakeholder are summarised in Table 4.1 and discussed below.

TABLE 4.1 IMPACT OF OPTION 2 ON STAKEHOLDERS

	Building owners	Tenants	Australian government	Energy efficiency industry (e.g. assessors, HVAC installers)	Broader Australian community	Rest of the world
Certification costs	✓ (-)	✓ (-)		✓ (+)		
Energy savings	✓ (+)	✓ (+)				
Costs of energy efficiency improvements	✓ (-)			✓ (+)		
Program costs			✓ (-)			
Productivity gains		✓ (+)			✓ (+)	
GHG reductions			✓ (+)		✓ (+)	✓ (+)

Note: Costs are denoted by (-) while benefits are denoted by (+).

SOURCE: ACIL ALLEN CONSULTING

Small building owners and operators benefit from Option 2 through increased rents paid by tenants (including the green premium) who have lower utility bills. They also benefit directly from reduced costs of heating and cooling the common areas of buildings. On the other hand, they incur assessment and certification costs as well as the capital costs of upgrading the energy efficiency performance of buildings.

Tenants enjoy energy savings and potential workforce productivity gains as a result of mandatory disclosure but bear part of the assessment and certifications costs passed onto them by landlords. (The value of the productivity improvements have not been included in the cost-benefit analysis described previously.)

The operational costs of the CBD program are currently borne by the Australian Government. The reduction in GHG emissions made possible by the CBD program means that the Government

potentially has to spend less on other measures to meet its announced emissions reduction targets and climate change abatement goals.

The energy efficiency industry (broadly defined) benefits from the CBD program in several ways, from NABERS and TLA assessment revenues, to earnings from the manufacture, importation, distribution, retail and installation of energy efficiency upgrades (such as new HVAC, lighting and control systems).

The broader Australian community benefits from GHG reductions made possible by Option 2 as well as the economic spillovers from the higher wages resulting from productivity improvements achieved by workers in more energy efficient buildings.

The rest of the world benefits from the reduction in Australian GHG emissions enabled by the CBD program.

4.1.6 Sensitivity analysis

ACIL Allen tested the sensitivity and robustness of the cost-benefit analysis results to the following assumptions:

- Unit net benefits that are 20 per cent higher or lower than the central assumption of $13.61 per m^2.
- Unit compliance costs that are 20 per cent higher or lower than the central assumption of $2.62 per m^2.
- Additional floor space captured by lowering the threshold that is 20 per cent higher or lower than the central assumption of 1.5 million m^2.

The results of the sensitivity analysis are summarised in Table 4.2. The NPV of the option ranges from $9.9 million to $16.5 million – in all cases, benefits considerably exceed costs.

TABLE 4.2 SENSITIVITY ANALYSIS RESULTS

Assumption		Central assumed value	20% lower than central value	20% higher than central value
Unit net benefits	Assumed parameter value	$13.61/$m^2$	$11.07/$m^2$	$16.16/$m^2$
	NPV (excluding GHG benefits)	$13.2 M	$10.0 M	$16.5 M
Compliance unit costs	Assumed parameter value	$2.62/$m^2$	$2.10/$m^2$	$3.15/$m^2$
	NPV (excluding GHG benefits)	$13.2 M	$13.9 M	$12.6 M
Additional floor space captured	Assumed parameter value	1.5 M m^2	1.2 M m^2	1.8 M m^2
	NPV (excluding GHG benefits)	$13.2 M	$9.9 M	$16.5 M

SOURCE: ACIL ALLEN CONSULTING

4.2 Qualitative assessment of Option 3

The owners, purchasers and tenants of small commercial office space (less than 2000 m^2) are the focus of this option involving a targeted information campaign. While building owners are represented by the Property Council of Australia (PCA), there is not a similar industry body that represents the interests of tenants. As such, this option would need to involve a national information campaign targeting intermediaries to ensure adequate reach.

The objective of the campaign is to increase awareness of energy efficiency opportunities and therefore encourage a change in behaviour by owners, purchasers and tenants to drive energy efficiency improvements across the small office sector.

4.2.1 Costs

A department-led information campaign would be outlined in a stakeholder engagement plan . The scale of the campaign would be dependent on departmental budget but would likely involve:

- a website update
- fact sheets

— training of intermediaries
— targeted advertising
— seminars / presentations / workshops / roadshows
— webinar / teleconference / videoconference

To administer this information campaign the department would incur the cost of two ongoing Average Staff Level (ASL) at an estimated annual cost of $200,000.

Additional to staff costs it is estimated that the department would seek $800,000 through budget processes to implement this campaign.

Thus the estimated total cost to the department for this information campaign is $1,000,000 per annum.

There are no compliance costs associated with this option.

4.2.2 Evidence on benefits of informational programs

Local governments in Australia and government bodies overseas have undertaken similar tenant / owner targeted information campaigns.[22] However, limited evaluations have been undertaken to analyse and compare the reach of the campaigns and their success in triggering retrofitting actions, or to conduct cost-benefit analysis. This deficiency of evaluative information is typical of information and awareness campaigns, as it is difficult to isolate and determine the direct impacts of a campaign[23], and there is a paucity of well-developed methods for measuring and attributing behavioural changes that might result from information materials.[24]

General research on energy efficiency in buildings programs has found that the cost effectiveness of awareness raising and information programs varies widely[25], and that they are typically more effective for the residential than the commercial sector.[26]

An evaluation of an information campaign that ran in France supports this view. The French Environment and Energy Management Agency conducted an extensive evaluation of their local energy information centres program, which ran from 2001-2004, disseminating information and advice through 160 information centres. Three years after the start of the program, it was found that 26 per cent of households, 20 per cent of building professionals and 18 per cent of other organisations had implemented an energy efficiency action after visiting an information centre.[27] Of the responsive visitors, an average of 1.9 actions were undertaken, with actions ranging from maintenance of a boiler, to installing a new heating system. Overall, the program was found to have net societal costs. It was expensive, costing €45 million and had a low to moderate response rate, with only selective energy efficiency improvement actions undertaken.

A study carried out by the Australian Productivity Commission in 2005 provides some assessments of the effectiveness of energy efficiency information programs.[28] The Productivity Commission reviewed the effectiveness of a range of energy efficiency programs (including information programs) operating at the time[29] based on interviews / consultations with key stakeholders. The study concluded that

[22] See http://www.cityswitch.net.au and https://www.energystar.gov/sites/default/files/buildings/tools/8-Great-Strategies-to-Engage-Tenants.pdf
[23] United Nations Environment Programme and Central European University, *Assessment of Policy Instruments for Reducing Greenhouse Gas Emissions from Buildings*, 2007.
[24] D. Urge-Vorsatz, A. Novikova, S. Koppel, B. Boza-Kiss, 'Bottom-up assessment of potentials and costs of CO_2 emission mitigation in the buildings sector: insights into the missing elements', *Energy Efficiency,* Vol. 2, 2009, p. 293-316 ; T. Jackson, 'Motivating Sustainable Consumption: A Review of evidence on Consumer Behaviour and Behavioural Change', *a Report to the Sustainable Development Research Network*, 2005.
[25] Boza-Kiss, S. Moles-Grueso and D. Urge-Vorsatz, 'Evaluating policy instruments to foster energy efficiency for the sustainable transformation of buildings', *Current Opinion in Environmental Sustainability,* Vol. 5, 2013, p. 163-176.
[26] United Nations Environment Programme and Central European University, Assessment of Policy Instruments for Reducing Greenhouse Gas Emissions from Buildings, 2007.
[27] H. Vreuls, 'Evaluating Energy Efficiency Policy Measures and DSM Programmes: Volume II Country Reports and Case Examples Used for the Evaluation Guide Book', *International Energy Agency (IEA)*, 2005,
[28] Australian Productivity Commission (2005), *The Private Cost Effectiveness of Improving Energy Efficiency.* Productivity Inquiry Report (Report no. 36), Canberra
[29] Examples of the key energy efficiency information programs operating at the time of the 2005 Productivity Commission review include: the ACT Ecobusiness program and the Western Australian Energy Smart Business program, the New South Wales Energy and Water Green

energy efficiency information programs are generally less effective in achieving behaviour change among energy users. The Commission noted that:

A frequent criticism of general information provision programs is that they do not guarantee outcomes, particularly if there are barriers within an organisation to the processing or implementation of the information. However, non-action on the basis of received information may also reflect rational decision making by the firms. There is also usually a trade-off between the generality of information and its relevance and usefulness to the recipient.[30]

The Productivity Commission cited the views of a number of stakeholders interviewed for the purpose of their report. For example, Moreland Energy Foundation observed that:

Our experience indicates that firms prefer targeted information to general information.

A review of the Energy Efficiency Best Practice program run by the Commonwealth Department of Industry, Tourism and Resources (DITR) concluded that:

Its original approach of general information provision was relatively ineffective in changing energy user behaviour in the industrial sector. General information provision '… did not directly assist companies in improving their energy efficiency …'

The Australasian Energy Performance Contractors Association commented that, compared to energy audits, general information provision programs:

… provide information on the benefits of energy efficiency, … provide information on specific technologies, but don't provide enough information for a consumer to actually exploit the opportunity. They may still not be certain how to specify a technology, how to be sure they are paying the right price for the technology.

The Productivity Commission discussed the issue of public versus private goods. They noted that:

This illustrates the fine line between public and private goods and the dilemmas facing governments in pursuing anything but the most basic information provision. If information is specific enough to the needs of a particular firm, there should be sufficient incentives for others (consultants, performance contractors and ESCOs) to provide it.[31]

4.2.3 Likely outcomes of Option 3

Based on the evaluative information available, it is likely that an information campaign would have a limited effect in triggering retrofitting action and equipment upgrades by owners of smaller office buildings. As in the case of France's local energy information centres, the distribution of generic, non-technical information is likely to generate a low response rate, with few substantial retrofitting investments undertaken. The limitations of general energy efficiency informational campaigns were also acknowledged in the 2005 Productivity Commission study.

Finally, in the case of small commercial buildings, providing information about the benefits of energy efficiency without mandatory disclosure would have limited impact. This is because encouraging tenants to look for energy efficient buildings is not very effective when there is no obligation to provide ratings that allow tenants or buyers to determine the relative energy efficiency of different buildings. In essence, an informational program does not address the split incentive problem.

Globe Award scheme and the Western Australian Government maintains an Energy Smart Directory of suppliers of 'sustainable' energy products and services.

[30] Australian Productivity Commission (2005), *The Private Cost Effectiveness of Improving Energy Efficiency*. Productivity Inquiry Report (Report no. 36), Canberra, page 135.

[31] Ibid.

5 STAKEHOLDER CONSULTATIONS

The Department of Industry, Innovation and Science undertook public consultations on the Regulatory Impact Statement (RIS) and proposed changes to the CBD Program from 4 February to 12 March 2016. This section summarises the outcome of the additional consultations. A list of all stakeholders who made a submission is at Attachment C.

The stakeholders were asked the following questions: –

1. What do you think of the proposal to reduce the mandatory disclosure threshold for commercial office properties and tenancies from a net lettable area of 2,000 square metres or more to 1,000 square metres or more? and
2. What do you think of the proposal to extend Tenancy Lighting Assessment (TLA) certification validity from one to five years?

Participants were asked to indicate their involvement in the commercial property industry (eg. were they a building owner, assessor, tenant, facility manager, industry or NGO) and were provided an opportunity to make additional comments against each question and the program.

A total of fifty one submissions were received. These included written submissions and responses provided through the online public consultation hub. A clear majority supported the proposal to increase the mandatory reporting threshold to 1000m^2 to extend the TLA validity from one to five years.

In response to Question 1 on lowering the disclosure threshold: -

- 86% of the submissions supported lowering the mandatory reporting threshold to 1000m^2
- 12% did not support changing the program
- The remaining 2% were neutral on the proposal or did not answer this question.

Several stakeholders, mostly NGOs, proposed that the threshold should be lowered even further to 500m^2 and suggested that the program could be expanded to include other building types such as hospitals, shopping centres and schools.

Most building owners did not support lowering the disclosure threshold and were concerned about the cost burden and inconvenience of mandatory reporting. One stakeholder who owned several properties argued that

the change will add considerable expense and delays to our business … the NABERS assessments are costly, time consuming and occasionally inconclusive.

Not all building owners were convinced of the benefits of investing in energy efficiency in their commercial buildings. However, most of the peak bodies did support the proposed changes.

One stakeholder who supported lowering the threshold believed that there is a currently an unfair advantage held by smaller buildings in the market. These buildings provide a significant amount of

commercial space below 2000m^2 . However, they currently do not have to meet the same energy efficiency or compliance measures that larger buildings do. Another stakeholder argued that:

a tenant looking to occupy a commercial office space of 1000m^2 should have an equal right to knowledge about the energy performance of their building as a tenant who is looking to occupy a space greater than 2000m^2.

In response to Question 2 on extending the TLA validity from one to five years: –

- 65% supported the extension
- 24% disagreed with extending the validity period
- The remaining 12% were neutral on the change or did not answer the question.

The majority of respondents (NGOs, building owners and industry) felt that the current requirement for annual TLA assessments was a waste of resources for building owners as there is not enough change in lighting efficiency from year-to-year to justify the annual assessment. They agreed that extending the validity period of a TLA would reduce the cost burden for building owners, while still providing potential tenants (or buyers) with information to inform their decision-making when considering a lease agreement (or purchase).

Several stakeholders proposed the validity period should only be increased to three years instead of five years. The proposal to extend the validity of a TLA to five years was based on advice that there would normally be little or no change in the efficiency of lighting for time intervals shorter than that. For example, a submission from a real estate agent noted that:

…the TLA is time consuming and repetitive. There is very little change in the lighting tenancy from year-to-year and lighting usually changes only when a lease does and so the TLA should be the average length of a lease which is about every 3-5 years.

The change to a five year validity period also provides an offset to the increased regulatory burden and cost for owners; associated with lowering the reporting threshold.

The Energy Efficiency Council supported the five year validity period. They noted that:

…TLAs are likely to remain reasonably accurate for up to five years but not beyond.

Most of the building assessors did not support increasing the TLA validity period. Some expressed concern about a potential reduction in business as fewer lighting assessments would be required. However, the Department notes that the increase in the number of buildings that would be subject to the CBD program, if the disclosure threshold is lowered, would benefit this stakeholder group.

Some stakeholders expressed the view that tenants and building owners were still unfamiliar with TLAs. For example, the Property Council of Australia stated that although the TLA scheme was designed to provide information to stakeholders (particularly tenants) about the efficiency of the installed or proposed lighting scheme in a tenancy, there is no evidence that the market is using this information effectively. Several stakeholders suggested there should be a communications strategy to increase awareness about TLAs among tenants and building owners.

When provided with the opportunity to make additional comments on the CBD Program, a significant majority of stakeholders agreed that the program was a success and that it should continue. Most of the NGO submissions highlighted the opportunity to link the CBD Program to existing state government programs.

The City of Melbourne and the National Australian Built Environment Rating System (NABERS) both recognised that reducing the threshold of the program provided a significant opportunity to improve energy performance in the commercial office building sector and reduce greenhouse gas emissions.

The Council of Capital City Lord Mayors proposed the CBD Program should be aligned to existing programs. The Green Building Council of Australia supported both changes and added that:

… a range of initiatives and policies will be required if the building sector is to reach its potential for emissions abatement.

They went on to stress that:

…it is critical that mandatory disclosure - which has proven to be effective in buildings over 2000m² - must be a part of a suite of complementary measures, both voluntary and mandatory, that targets buildings and tenancies below 2000m².

The written submissions from NGOs and industry organisations listed increased tenant comfort, improved energy efficiency and reducing emissions among the incentives for change. For example, Sustainability Victoria supported changing the program and noted that building energy efficiency improvements lead to productivity gains. However, few of the submissions received from the building owners or assessors referenced energy efficiency and reduction targets.

The public consultation was advertised through the Australian Financial Review Real Estate Supplementary Section (news print) and digitally through the Australian Financial Review, Business Review Weekly and Business Day with 168,982 placements from 8 February to 12 March. Banner Ads were also placed on realcommercial.com.au, the principal commercial office space advertising website in Australia, with 141,667 placements over the consultation period.

Information about the Review and the public consultation process was also advertised through the CBD Program and NABERs newsletters. The Australian Financial Review and The Fifth Estate also published articles about the review and the proposed changes.

The Department utilised Twitter to advertise the release of CBD review and the public consultation process on proposed changes to the program. Twitter was used in this way 15 times during the consultation period to reach over 3000 followers of @Yes2Savings. The release of the report and public consultation was re-tweeted five times by NGOs during the public consultation period, reaching an additional 8,941 followers of those organisations.

In summary, 86% of respondents supported the change to lowering the threshold to 1000m² and 65% of respondents supported extending the TLA validity period. Individual building owners were concerned about the cost of complying with the CBD program requirement to acquire a rating, but others acknowledged that extending the period of validity of the TLA would provide savings. Assessors welcomed lowering the threshold but did not support extending the validity of the TLA. The majority of Industry Associations and NGOs, who have a high level of knowledge about the program supported the changes and some proposed that the government should lower the mandatory reporting threshold even further.

Should the proposed changes to the Program be agreed, the Department of Industry, Innovation and Science acknowledges the need for a targeted communications strategy to increase awareness about the changes to the program among owners of smaller commercial buildings, including the compliance requirements and the timing for the introduction of the new mandatory reporting.

6 PREFERRED OPTION

ACIL Allen's cost-benefit analysis of Option 2 'Lowering the disclosure threshold for the CBD program to 1000m^2' and the qualitative analysis of Option 3 'Information Campaign' indicate that Option 2 is the preferred option.

The cost-benefit analysis indicated that the benefits of Option 2 are likely to significantly exceed its costs, and that this conclusion is robust to changes in key assumptions and uncertainties. Key stakeholders (landlords, tenants and government) are also expected to enjoy net benefits under this option. Conversely, the qualitative analysis of Option 3 suggests that the effectiveness of that option will be limited.

Option 2 is likely to achieve the goal of cost-effectively lowering the energy consumption and greenhouse gas emissions of smaller office buildings in Australia, thereby enhancing resource use efficiency and reducing the negative impacts of energy use by commercial office buildings on the environment.

This assessment was substantiated by the public consultation.

7 IMPLEMENTATION AND EVALUATION

The CBD Program is an established, government regulatory program that is underpinned by existing legislation and supported by an efficient and effective administration, compliance and program management structure. The accountable authority for the program is the Secretary of the Department of Industry, Innovation and Science, who delegates decision-making powers in accordance with legislative requirements. There is also an established stakeholder advisory mechanism, the Commercial Building Disclosure Forum (CBDF) whose membership is drawn from a range of industry bodies.

In order to extend the mandatory threshold to ≥1,000 m^2, minimal changes are required to the Building Energy Efficiency Disclosure legislation and the program's administrative arrangements, governance and infrastructure. As a government regulatory program, CBD has adopted a suite of performance indicators to be reported annually to the CBDF and the Minister for Industry, Innovation and Science in accordance with the Regulator Performance Framework.

To allow sufficient preparation for newly regulated entities to understand and meet the mandatory disclosure requirements, a transition period of 12 months is proposed for office space between 1,000 m^2 and 2,000 m^2. As with the introduction of the CBD Program in 2010, the department would conduct an extensive national communication and awareness-raising campaign during this period.

It is proposed that the department will work in partnership with key stakeholder groups including the PCA, local government councils, the Law Society of Australia, the Real Estate Institute of Australia and through existing communication channels. Advertising would be delivered through relevant commercial real estate websites and industry publications.

The communication and training material developed by the department and would:

- encourage the uptake of ratings prior to the commencement of mandatory disclosure
- provide advice on disclosure obligations and the process for obtaining a Building Energy Efficiency Certificate (BEEC)
- provide information about the benefits of improving energy productivity in offices
- connect regulated parties with industry professionals (e.g. accredited energy efficiency assessors).

The department will require some additional resourcing to provide sufficient support throughout the transition and implementation period and to administer the increase in BEEC applications.

To support building owners in complying with regulatory requirements, the CBD Program adopts a best-practice approach to compliance management. The department's *CBD Education, Compliance and Enforcement Policy* articulates an intelligence-led, risk-based approach to compliance monitoring and is published on the CBD website.[32] This policy would apply to newly-regulated entities upon

[32] See www.cbd.gov.au

commencement of the proposed expansion of the CBD Program following a 12-month transition period.

Attachments:

Attachment A *CBD Review Implementation RIS Regulatory Burden Estimation Explanatory Notes*

Attachment B *CBD Review Implementation RIS RBM Calculations.*

Attachment C *Summary of public consultation submissions*

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