



Australian Government

Department of the Environment and Energy

NABERS and mandatory disclosure

Stanford Harrison, Director, Commercial Buildings, Department of the Environment and Energy





What I'll cover

- Policy Environment
- Overview of NABERS and CBD Program
- Performance of Program
- Insights





Policy Environment – Buildings Emissions

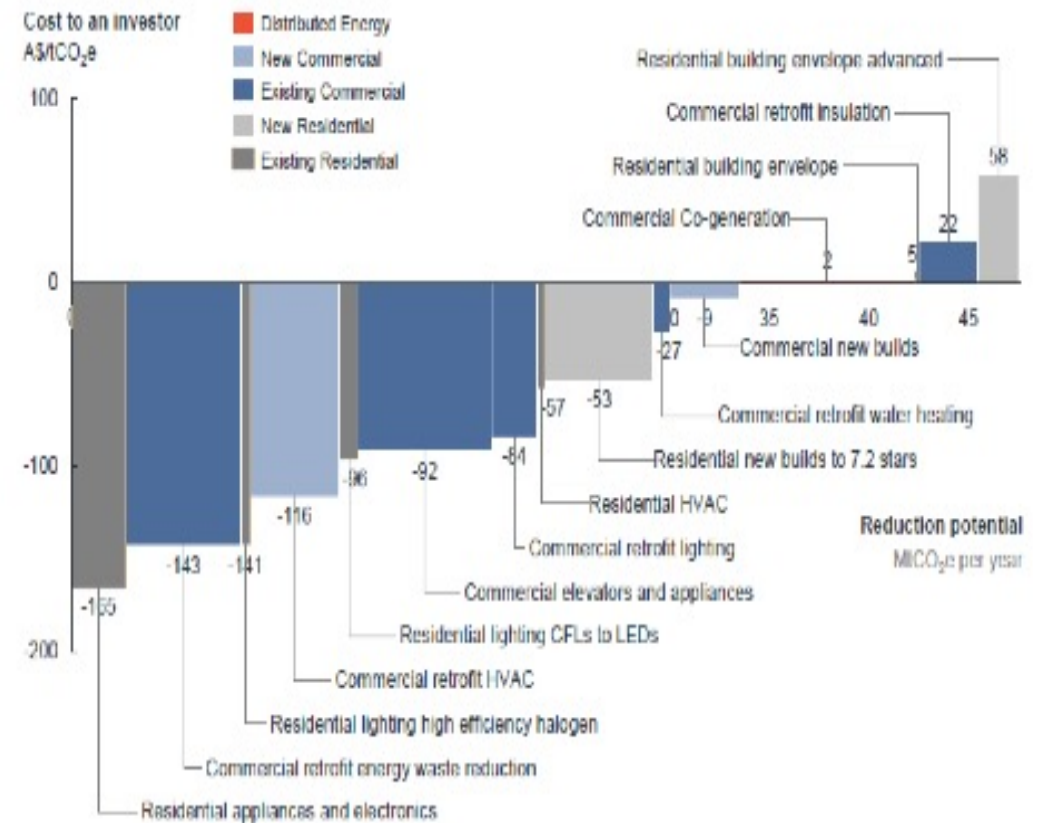
- Commitment to reduce emissions
- Buildings account for 19% energy and 23% emissions
- Many market failures in buildings energy efficiency
- Efficiency improvements should pay for themselves
- How to get market to work properly?
- Tools of government: regulation, funding, persuasion
- How to avoid government paying owners to upgrade?



Policy Environment – Barriers to action

- Energy efficiency makes \$ sense
- Investment generates returns
- Negative cost of abatement
- But many owners don't invest

Exhibit 4.6: Sectoral investor abatement cost curve (ClimateWorks Australia, 2011)

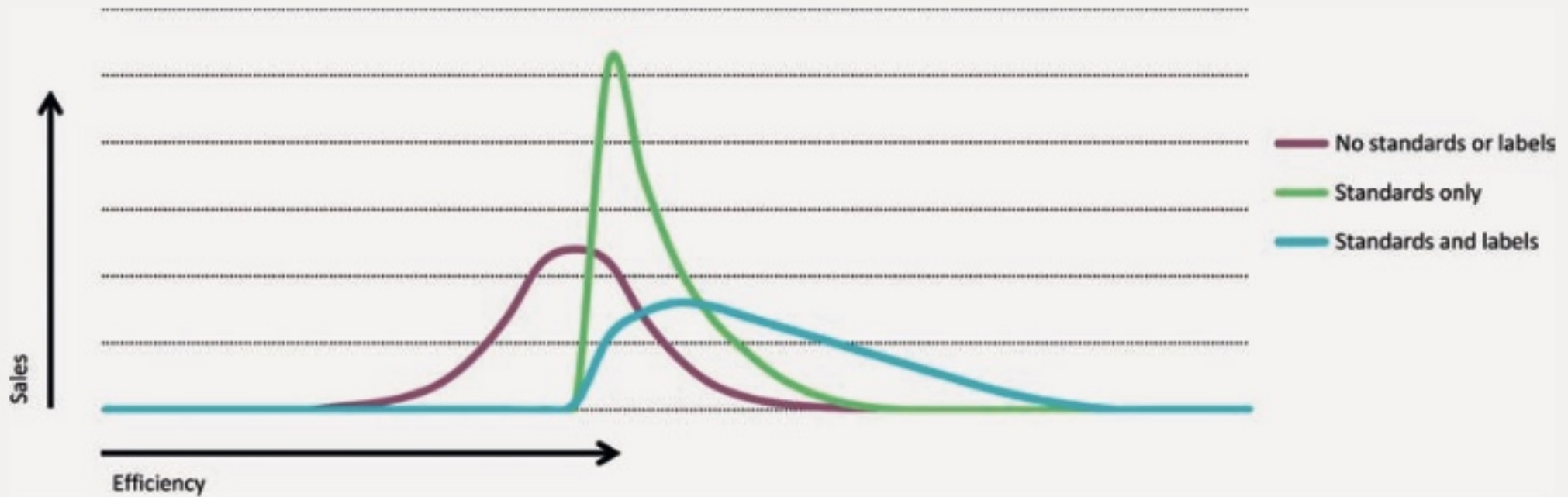




Policy Options - Standards and Labelling

Figure 6.6

Standards and labelling policy impact on market

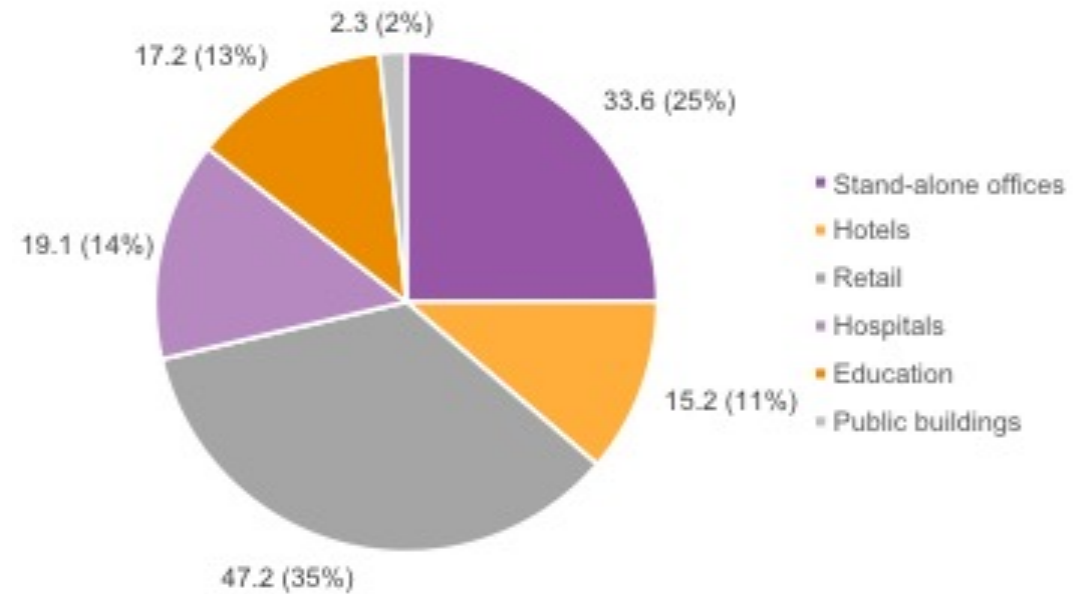


Source: CLASP, 2013b.



Policy Option – Labelling Buildings

- Labelling means assessing energy efficiency and displaying
- Makes invisible feature visible to market
- Allows market forces to work
- Works best at point of sale or lease
- Offices, retail and hotels strongest case
- Need credible, simple rating - NABERS





National Australian Built Environment Rating System (NABERS)

NABERS is a performance based rating system for operational buildings - separately rates energy, water, waste, IEQ.

NABERS has an excellent reputation as it is based on:

- real energy use measured over 12 months,
- independent accredited assessors and
- Government certification.

NABERS ratings are available for offices (base building, whole building and tenancy), hotels, large shopping centres, data centres, public hospitals (in development), apartments (in development).





NABERS - setup

- Administered by New South Wales Office of Environment and Heritage
- Governed by a committee of all Australian governments with representation from New Zealand and industry stakeholders.
- Ongoing operations of the NABERS National Administrator are funded on a cost recovery basis from fees (more than \$2m per annum).
- Australian governments have funded most of the development since it commenced and are committed to ongoing development of new tools.





NABERS Stakeholders

NABERS ratings are strongly supported by industry stakeholders, including the Better Buildings Partnership and:

- Air Conditioning and Mechanical Contractors Association (AMCA)
- Australian Institute of Architects (AIA)
- Australian Institute of Refrigeration Air Conditioning and Heating (AIRAH)
- Australian Property Institute (API)
- Australian Sustainable Built Environment Council (ASBEC)
- Chartered Institute of Building Services Engineers (CIBSE)
- Energy Efficiency Council (EEC)
- Facility Management Association of Australia (FMA)
- Green Building Council of Australia (GBCA)
- Property Council of Australia (PCA)
- Real Estate Institute of Australia (REIA)
- Royal Institute of Chartered Surveyors (RICS)
- Shopping Centre Council of Australia (SCCA)

It is recognised by GRESB.



Accredited Assessors

- Assessments are undertaken by assessors engaged and paid for by building owners, who are accredited by NABERS, having undertaken training, signed a contract with NABERS and have up-to-date insurance coverage.
- There are more than 600 currently accredited assessors.
- Accreditation is renewed annually.

Auditing

- Level 1 auditing occurs for all received assessments
- Level 2 audits are undertaken by independent auditors
- Level 2 audits set at 5%





From voluntary to mandatory

- Voluntary rating is usually undertaken by market leaders
- This leads to adverse selection
- For market forces to act effectively, all owners need to disclose
- Regulation for mandatory disclosure is needed





Commercial Building Disclosure (CBD) Program

Legislative program, introduced in 2010, requiring the mandatory disclosure of energy efficiency information:

- applies when a large office building or office space (1,000m² or more) is offered for sale or lease
- provides clear and credible information to the office building market
- overcomes non-price barriers
- Requires a NABERS rating and Tenancy Lighting Assessment (TLA)
- The NABERS Energy star rating must be provided on all forms of advertising.
- Building Energy Efficiency Certificates (BEECS) issued by Australian Government must be provided to prospective purchasers and tenants





COMMERCIAL BUILDING DISCLOSURE

Sample BEEC

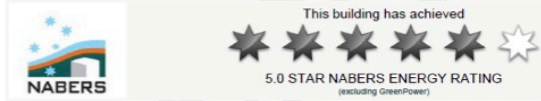


BUILDING ENERGY EFFICIENCY CERTIFICATE

BUILDING DETAILS

Building name	Sample Plaza	Certificate no.	B9999-2016/1
Owner's name	TRUSTEE FOR EXAMPLE PROPERTY TRUST	Current from	15 Jul 2016
Building address	123 Sample Street, City, STATE, 9000	Current to	15 Jul 2017
Net Lettable Area of the building	33,800.0 m ²	CBD assessor name	CBD Assessor
		CBD assessor no.	CBDA9999

PART 1 - NABERS ENERGY RATING



HOW DOES YOUR BUILDING COMPARE?
The highlighted building on the adjacent graph compares the NABERS Star rating of your building to other buildings that were issued a BEEC nationally in 2015.

PART 2 - TENANCY LIGHTING ENERGY EFFICIENCY ASSESSMENT

An assessment of the buildings lighting energy efficiency is contained in part 2 of this certificate.

ENERGY EFFICIENCY GUIDANCE

Guidance on how building energy efficiency might be improved for building owners and tenants may be found at www.cbd.gov.au/get-and-use-a-rating/what-is-a-beec

Issued under the Building Energy Efficiency Disclosure Act 2016 to disseminate information and encourage energy efficiency in large commercial office buildings in Australia.

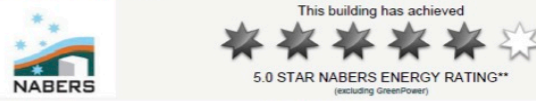


PART 1 - NABERS* ENERGY RATING

BUILDING DETAILS

Building address	123 Sample Street, CITY, STA 9000	NABERS rating no.	N99999
		Certified date	15 Jul 2016
		Current to	15 Jul 2017

NABERS ENERGY RATING



Rating scope	Base Building
Rated area	30,735.2 m ²
Rated hours	52.9

BUILDING CONSUMPTION & EMISSION DETAILS

Annual emissions	2,005,964 kg CO ₂ -e per year
Annual emissions intensity	65.3 kg CO ₂ -e/m ² per year
Annual consumption	12,908,784 MJ per year

NABERS ASSESSOR DETAILS

Assessor name	Joe Citizen
Assessor number	CBDA9999

ABOUT NABERS ENERGY RATINGS

0.....	Very poor
1.....	Poor
2.....	Below average
2.5 to 3....	Average
4.....	Good
5.....	Excellent
6.....	Market leading

* National Australian Built Environment Rating System is a joint initiative of the Australian, State and Territory governments.
** This rating must be used in all advertising.



PART 2 - TENANCY LIGHTING

ENERGY EFFICIENCY ASSESSMENT

ASSESSMENT SUMMARY

Building address	123 Sample Street, City, STATE, 9000
Assessment scope	All Office Space
Assessed NLA	32,541.7 m ²

Assessor name	Assessor no.	Assessment no.	Version no.	Space ID	Certified date	Current to
CBD Assessor	CBDA9999	A9999	V.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38	15 Jul 2016	15 Jul 2017

Space ID	Functional space name	NLA (m ²)	NLPD (W/m ²)	NLPD Performance comparison	Lighting System Existing/Proposed	Control Capacity	Performance comment
1	Level 3 - Whole Floor	1,394.0	15.4	Poor	Existing	Poor	
2	Level 4 - Whole Floor	1,355.0	15.5	Very Poor	Existing	Poor	
3	Part Level 7 - Suite 701	351.1	15.5	Very Poor	Existing	Poor	
4	Part Level 7 - Suite 702A	50.6	15.5	Very Poor	Existing	Moderate	
5	Part Level 7 - Suite 702B	134.1	15.5	Very Poor	Existing	Moderate	
6	Part Level 7 - Suite 703	271.0	15.5	Very Poor	Existing	Poor	
7	Part Level 7 - Suite 704	253.9	15.5	Very Poor	Existing	Poor	
8	Level 8 - Whole Floor	1,236.1	8.6	Good	Existing	Good	
9	Level 9 - Whole Floor	1,236.2	8.6	Good	Existing	Good	
10	Part Level 10 - Suite 1001	225.2	8.6	Good	Existing	Good	
11	Part Level 10 - Suite 1002	791.9	8.6	Good	Existing	Good	
12	Part Level 10 - Suite 1003	128.2	8.6	Good	Existing	Good	
13	Level 11 - Whole Floor	1,265.6	8.6	Good	Existing	Good	
17	Level 15 - Whole Floor	1,696.3	8.6	Good	Existing	Good	
18	Level 17 - Whole Floor	1,236.0	8.6	Good	Existing	Good	
19	Level 18 - Whole Floor	1,236.9	8.6	Good	Existing	Good	
20	Part Level 19 - Suite 1901 & 1902	827.9	15.4	Poor	Existing	Poor	
21	Part Level 19 - Suite 1902	875.1	15.4	Poor	Existing	Poor	
22	Part Level 20 - Suite 2001	875.5	10.7	Median	Existing	Good	
23	Part Level 20 - Suite 2002	875.1	8.6	Good	Existing	Good	
24	Level 21 - Whole Floor	1,233.5	12.4	Median	Existing	Good	
25	Level 22 - Whole Floor	1,157.7	10.7	Median	Existing	Good	
26	Level 23 - Whole Floor	1,236.1	10.7	Median	Existing	Good	
27	Level 24 - Whole Floor	1,228.8	10.7	Median	Existing	Good	
28	Level 25 - Whole Floor	1,297.4	10.7	Median	Existing	Good	
32	Level 29 - Whole Floor	1,298.3	10.7	Median	Existing	Good	
33	Part Level 30 - Suite 3001	841.8	19.4	Very Poor	Existing	Poor	

Disclaimer: The Australian New Zealand Standards 1680 series makes recommendations for the lighting of interiors and workplaces. This assessment makes no judgment about the performance of the installed lighting system against the recommendations of those standards. Prospective tenants or owners should check that the lighting system is fit for their requirements.

Definitions and other information on how to interpret the lighting assessments are at Attachment A.





Compliance

- NABERS Energy for Offices ratings have been subject to mandatory disclosure since 2010 whenever office space is offered for sale or lease. Ratings have to be disclosed on all forms of advertising.
- Compliance is very good, with most non-compliance being inadvertent.
- Ongoing monitoring of advertising, through web crawlers and physical observation of billboards.
- Supported by Act of Parliament providing for up to \$210,000 per day fines, auditing of assessments, accreditation of assessors and statutory liability for assessors, public register if found non-compliant twice in one year.



Building Energy Efficiency Disclosure Act 2010

No. 67, 2010

Compilation No. 3

Compilation date: 1 July 2015

Includes amendments up to: Act No. 1, 2015

Registered: 5 August 2015

About this compilation

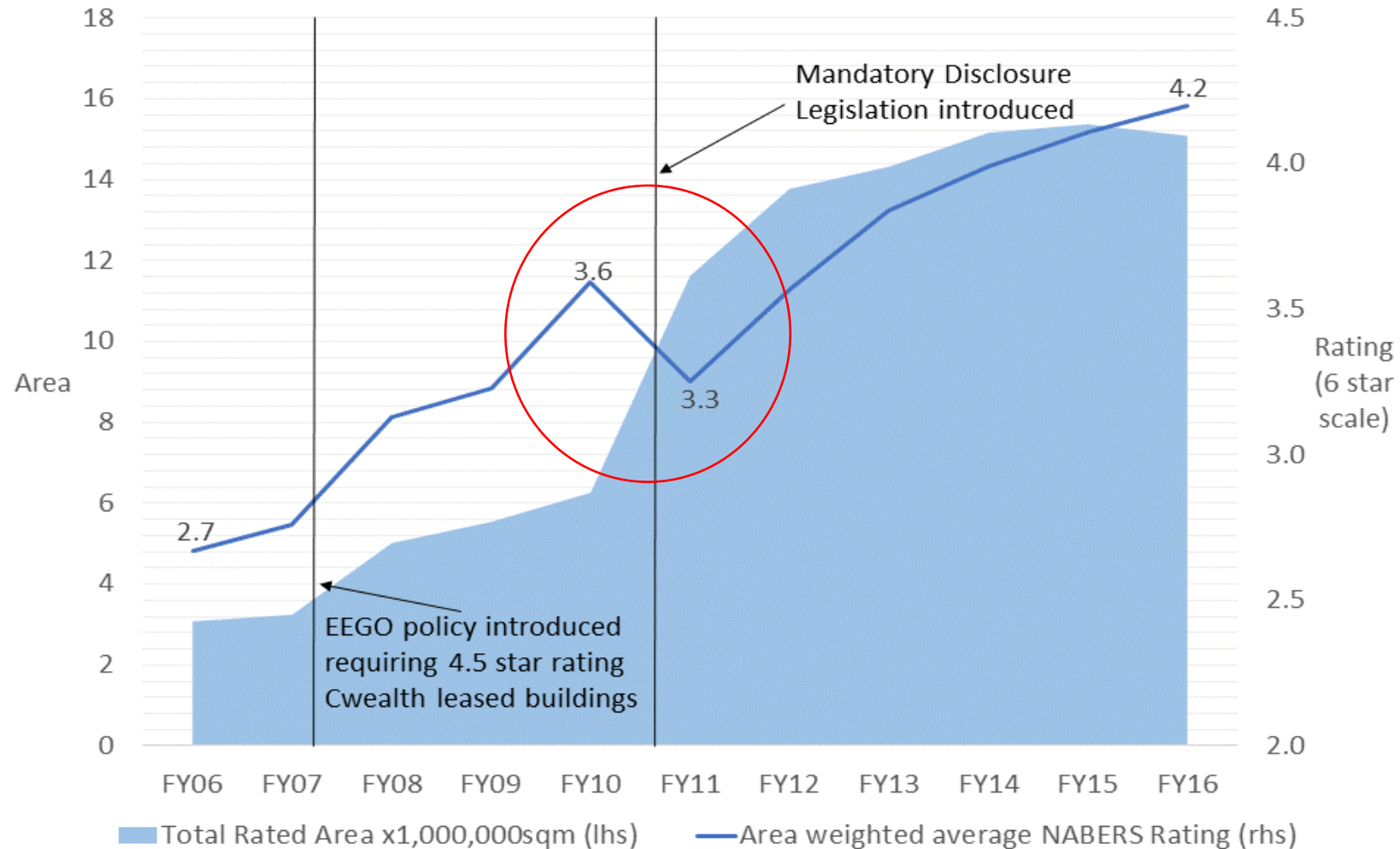


Performance of mandatory disclosure

- What difference did mandatory disclosure of NABERS ratings make?

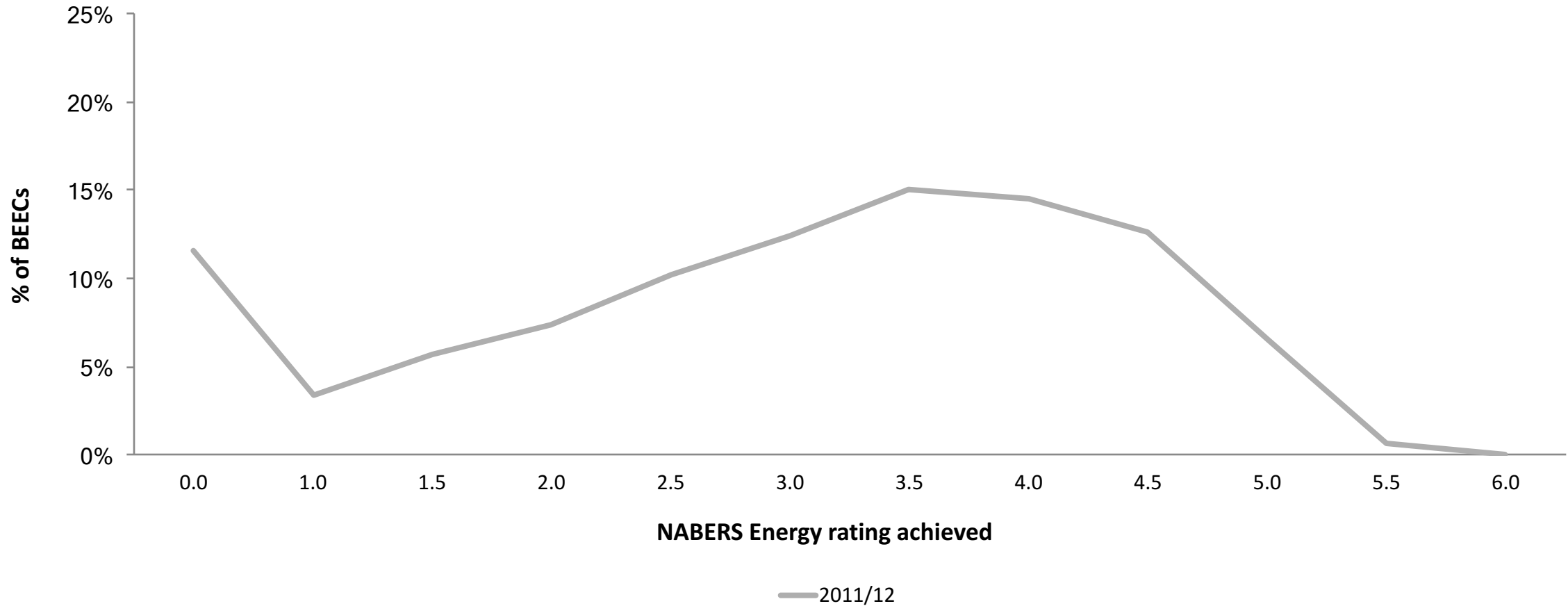


Performance: Average NABERS Rating Over Time



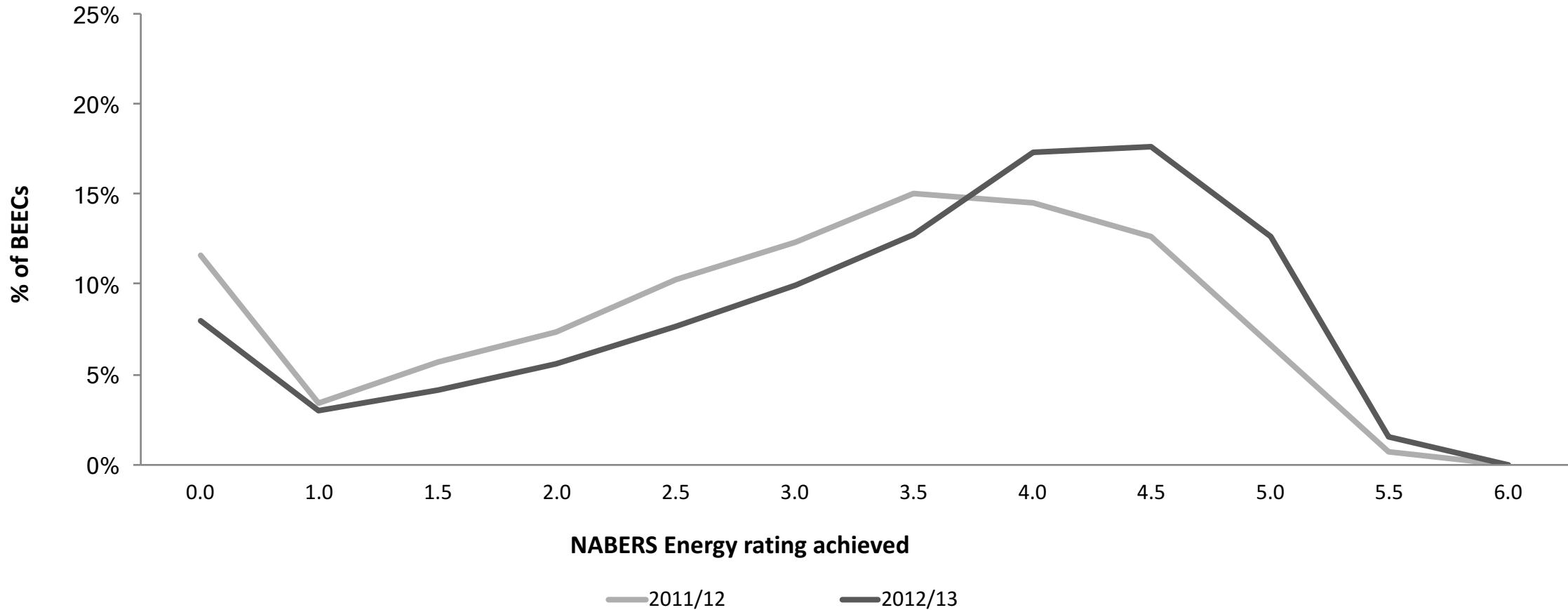


Evolution of BEECs over the program



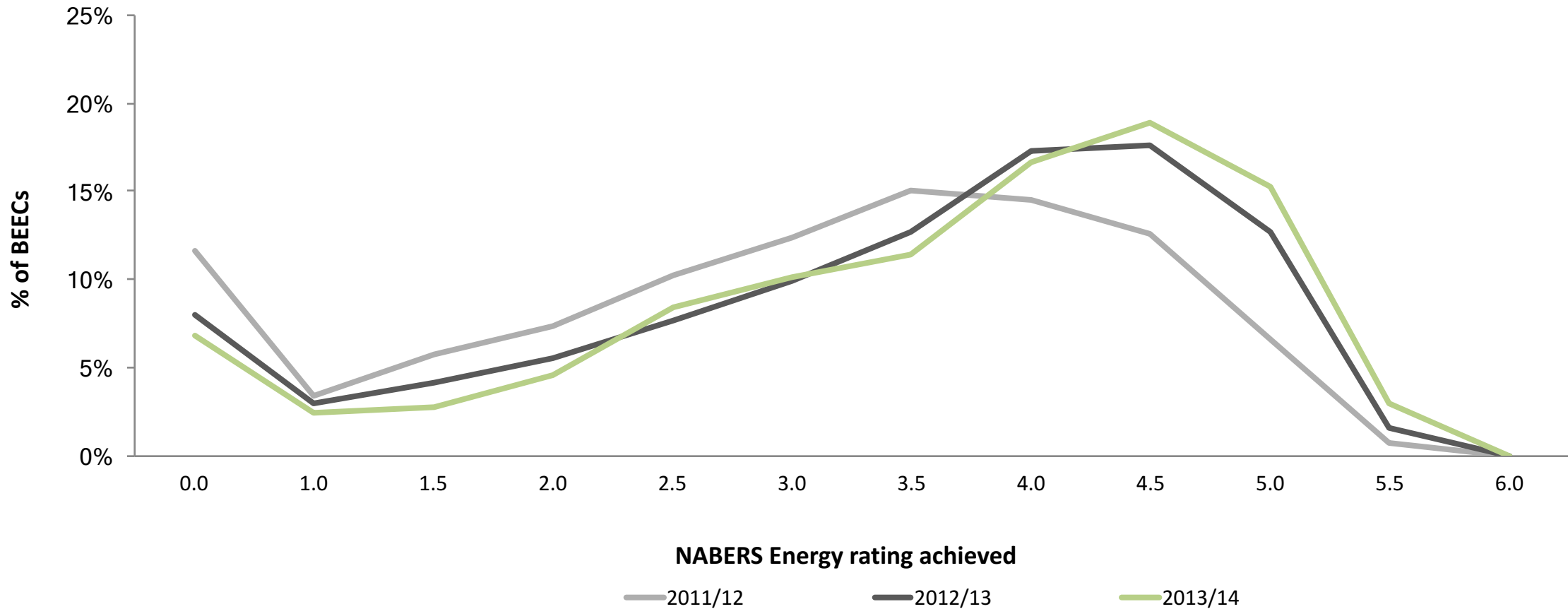


Evolution of BEECs over the program



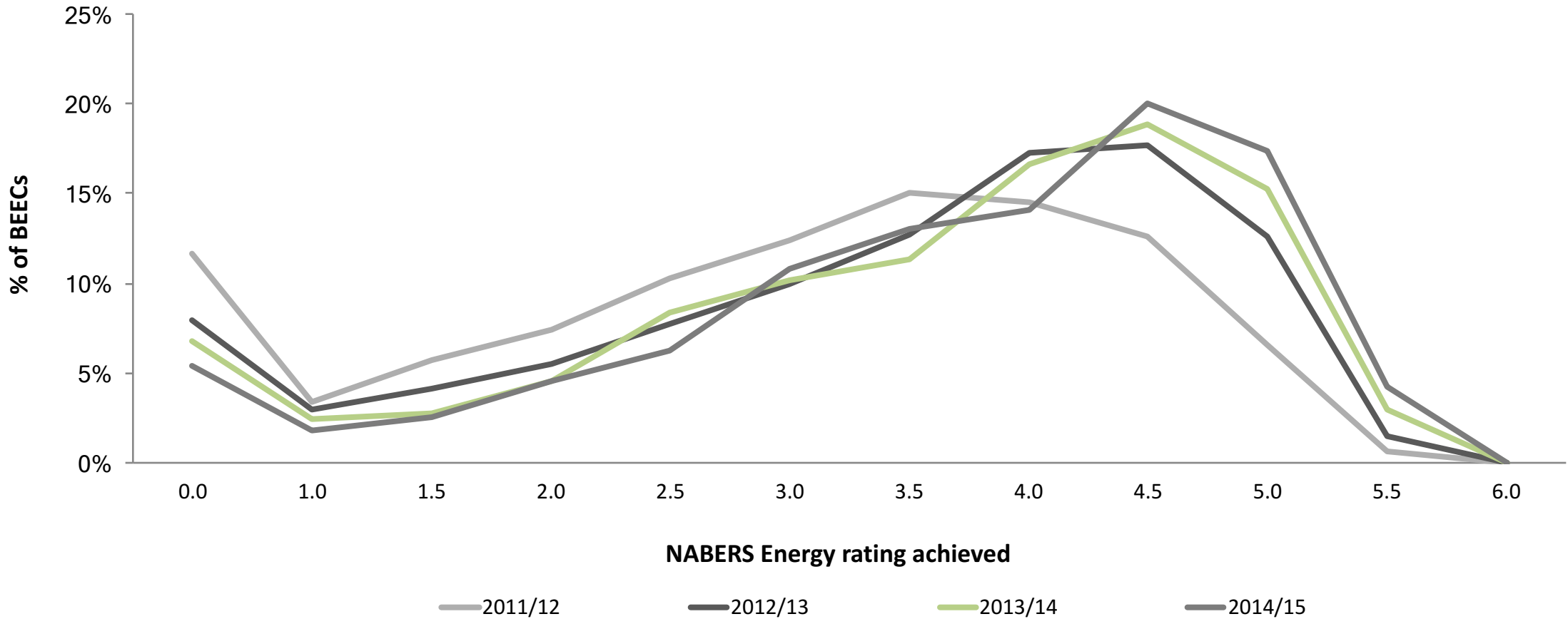


Evolution of BEECs over the program



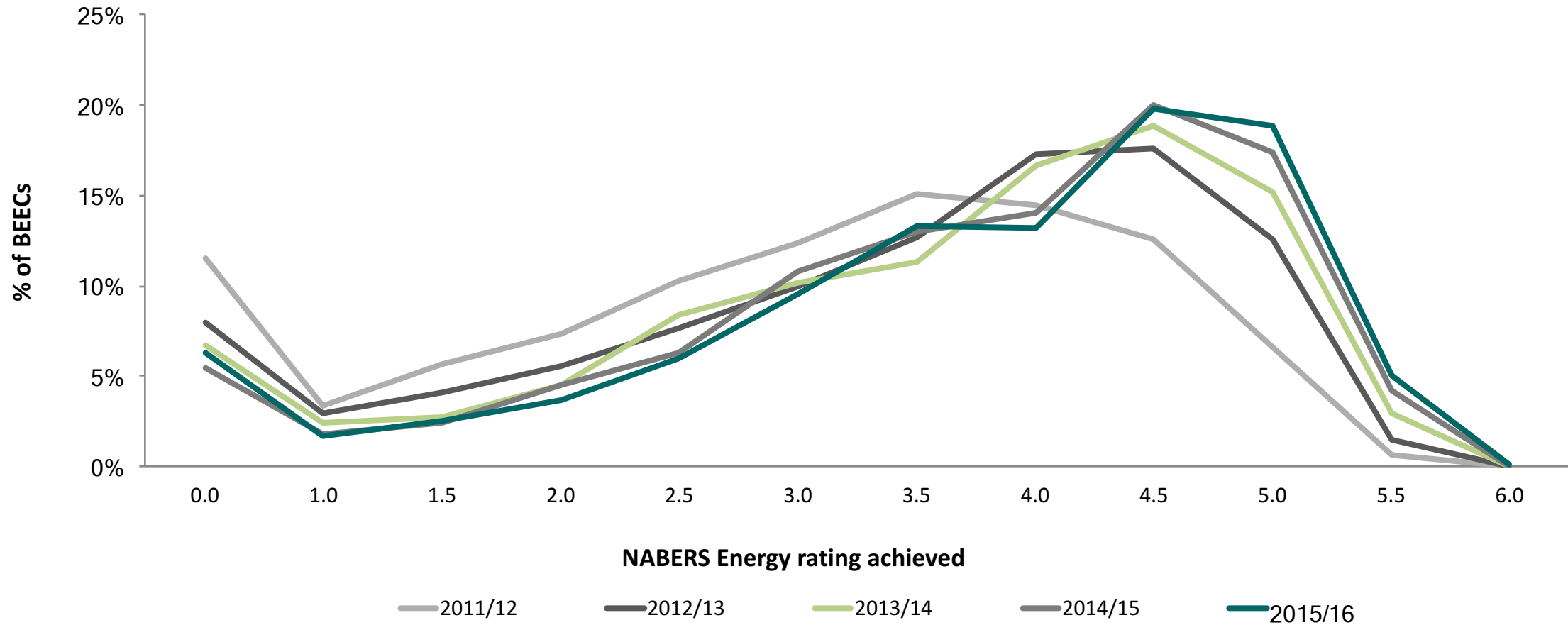


Evolution of BEECs over the program





Evolution of BEECs over the program





Change in Nominal Lighting Power Density (NLPD)

2011/12

2012/13

2013/14

2014/15

2015/16



14.15 W/m² 12.87 W/m² 12.52 W/m² 11.84 W/m² 11.24 W/m²

Excellent: ≤ 7 W/m²

Good: 7.1 – 10.0 W/m²

Median: 10.1 – 15.0 W/m²

Poor: 15.1 – 18.0 W/m²

Very Poor: ≥ 18.1 W/m²



Buildings, BEECs and Exemptions

	National
Number of unique office buildings since commencement of program	1771
Number of current BEECs on register	933
Floor area currently rated	12,000,000 m ²
Number of current exemptions on register	92

Review of the CBD Program

In 2016, ACIL Allen Consulting reported on an independent review of the CBD program from an economics perspective.

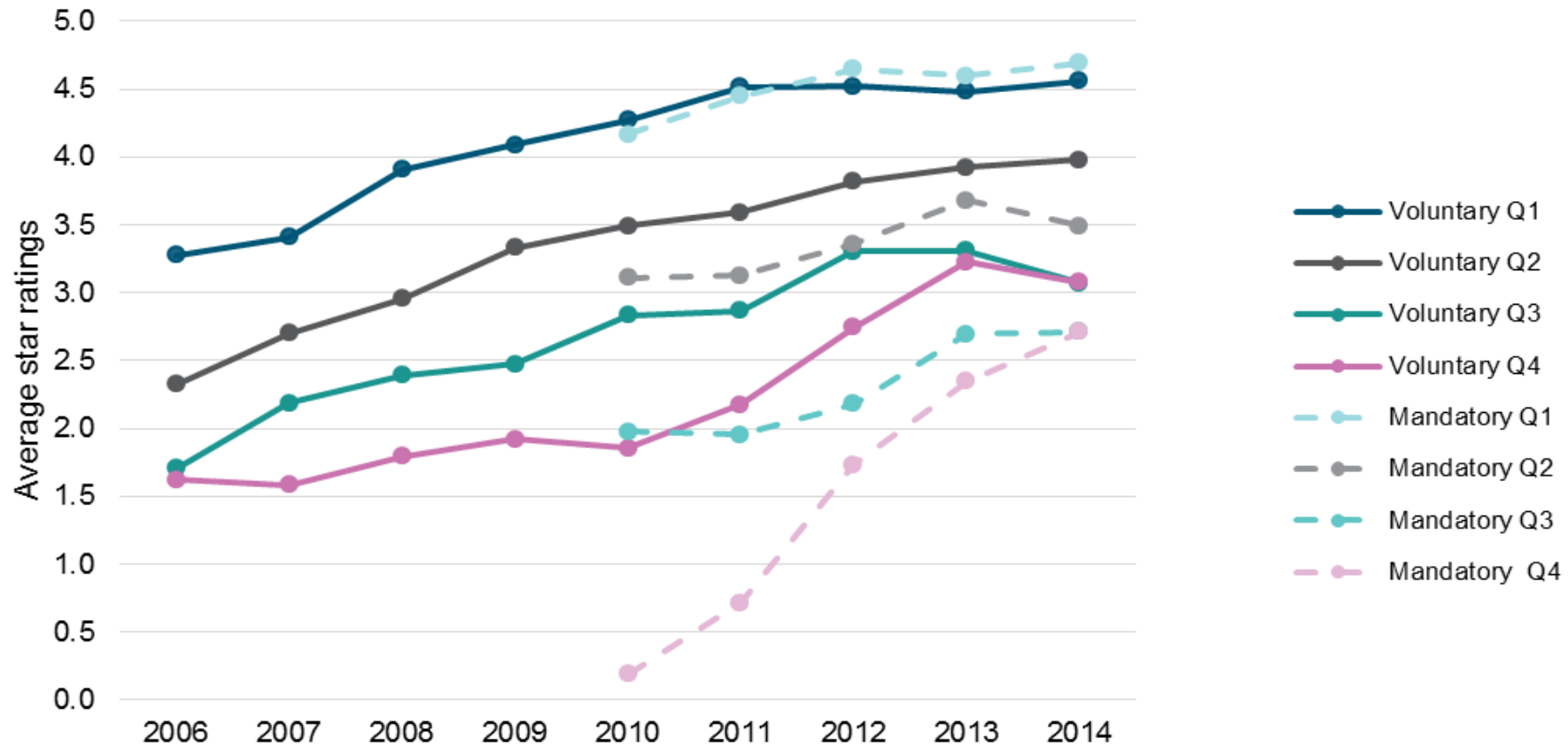
The CBD Review found the program to be:

- a *successful and effective way* to deliver significant benefits at a minimal cost to industry and government
- *effective in inducing positive behaviour change* in relation to commercial building energy efficiency in affected buildings

The review concluded the program has delivered **\$44 million in benefits** over the first four years by assisting to improve the energy efficiency of Australia's large office buildings.

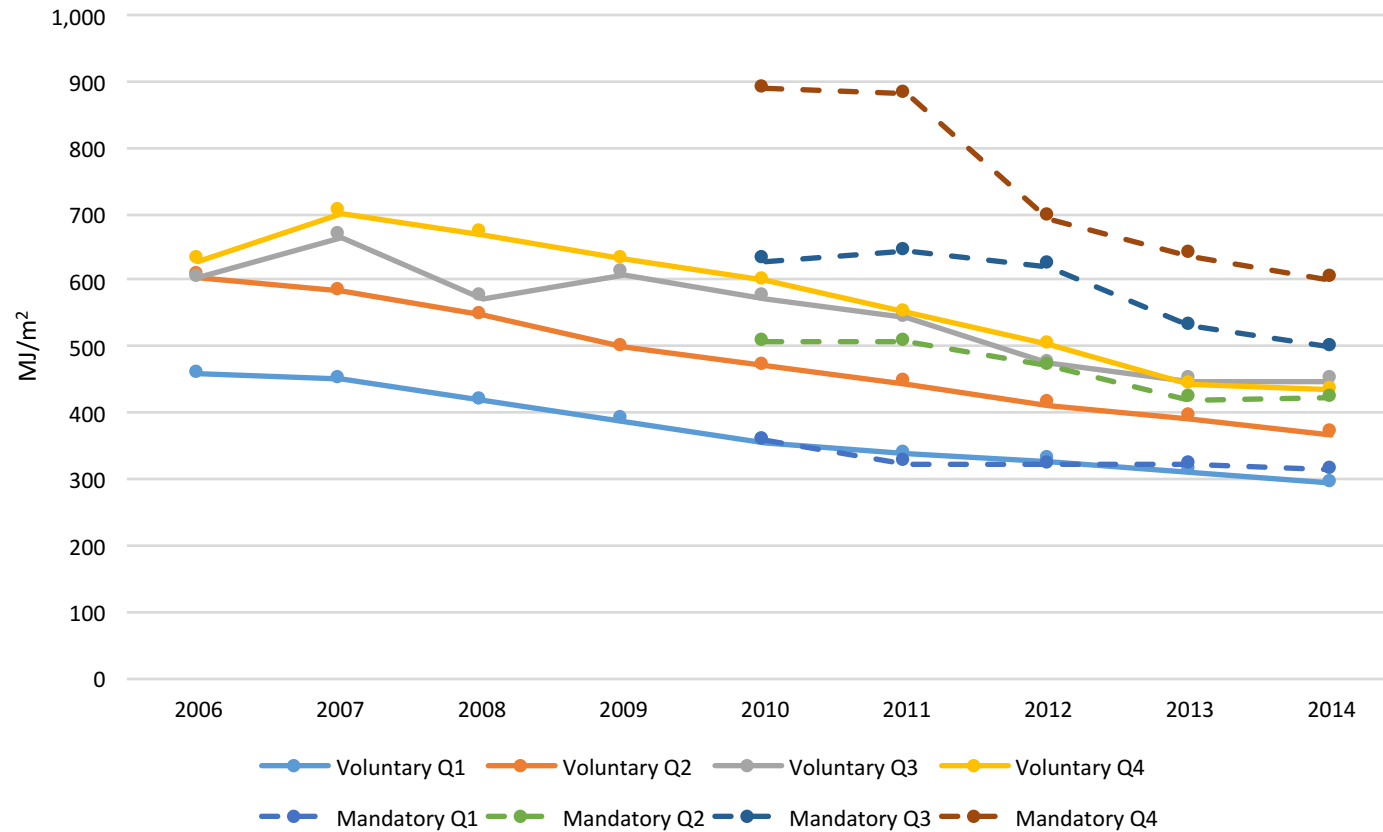


CBD has been effective in inducing behaviour change particularly in poor buildings – demonstrated additionality





CBD has been effective in inducing behaviour change particularly in poor buildings – demonstrated additionality





Higher rated buildings generate better returns

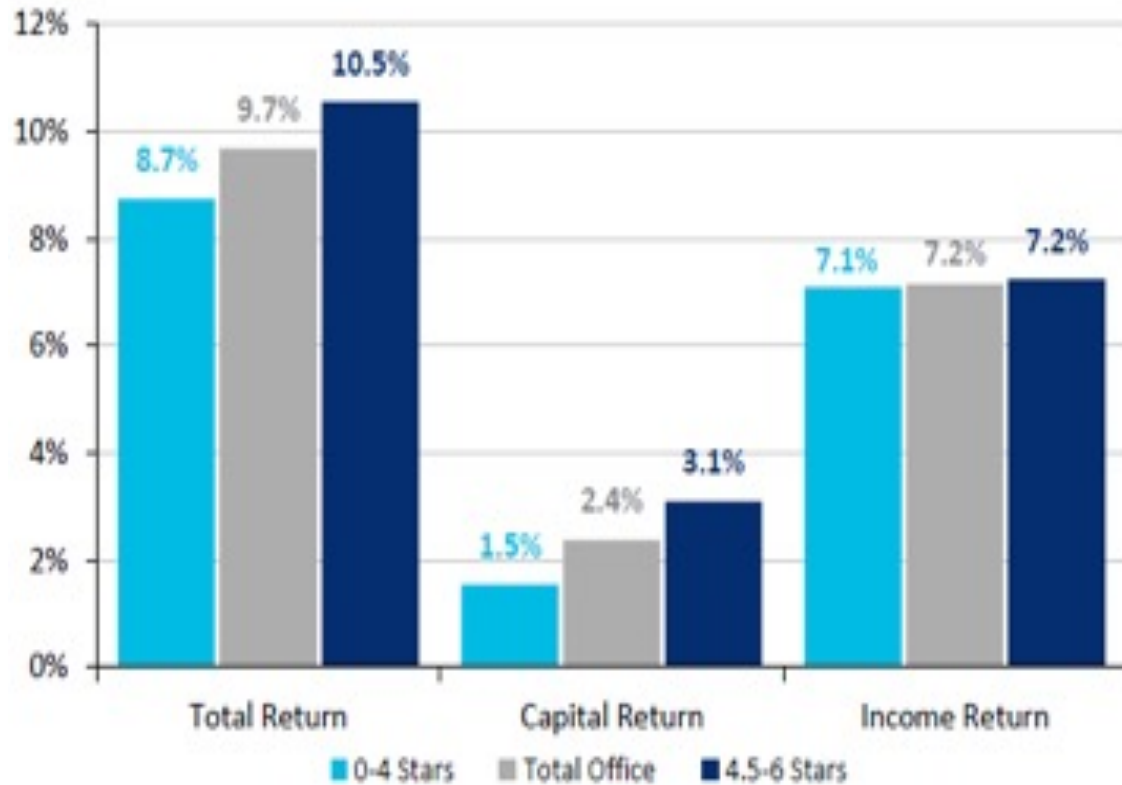
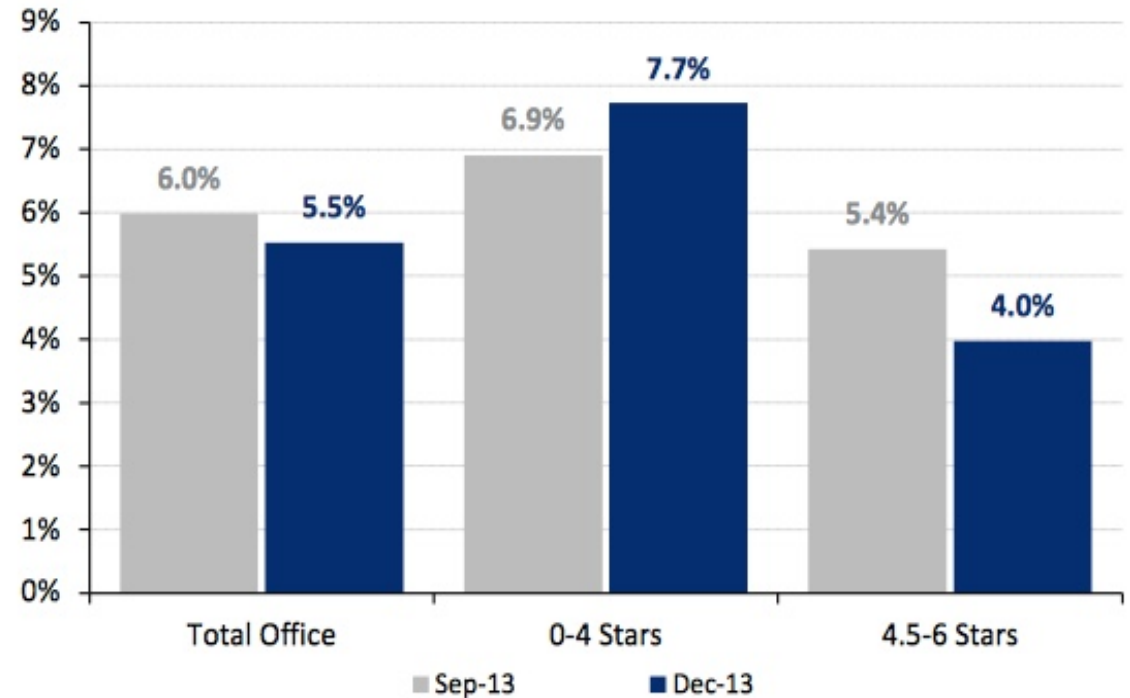


Figure 16. Market Vacancy Rate comparisons
Percentage, Period End



Source: NABERS, IPD



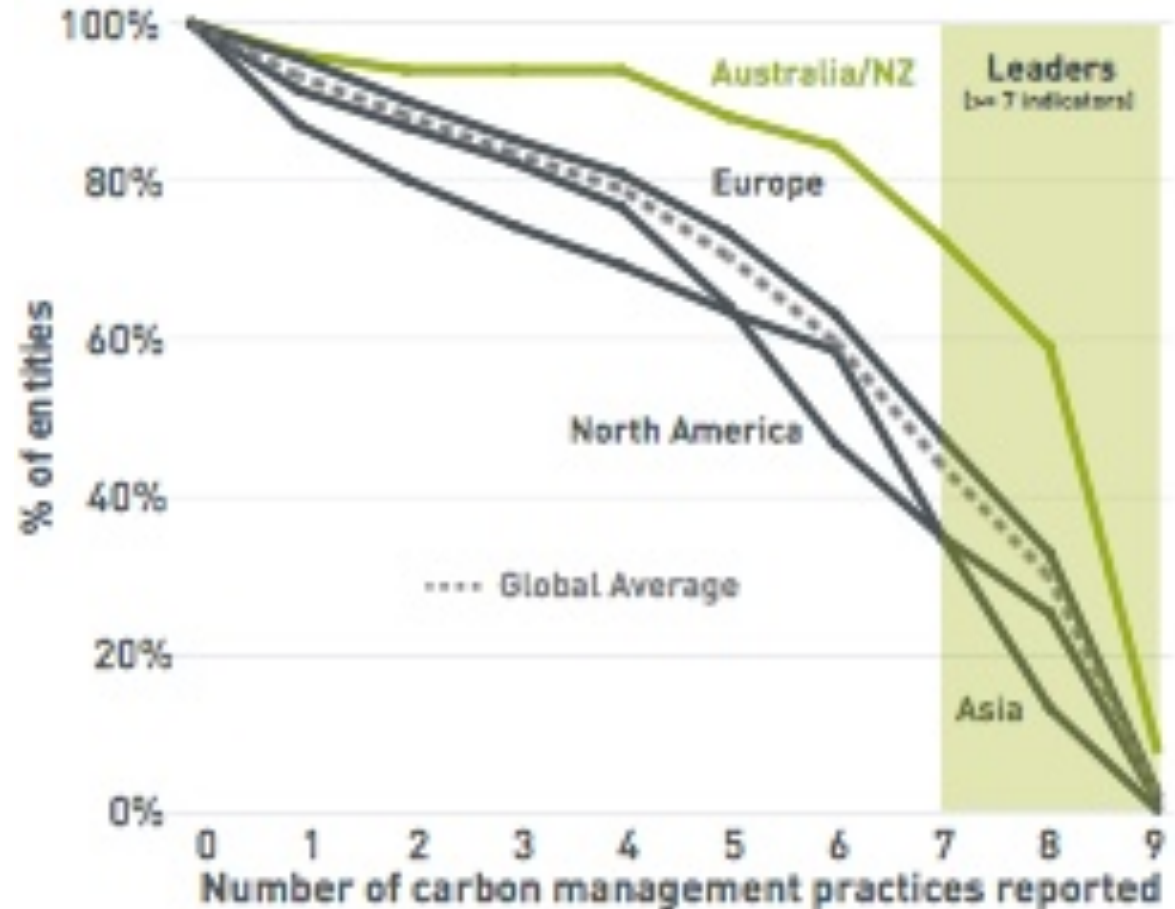
Insights – mandatory disclosure

- Simple comparative star rating is effective in making energy efficiency ‘market visible’
- Ratings having a normative impact on owners once disclosed
- Performance based rating means owners focus on improving performance
- Low rated buildings are the most responsive
- Reputation matters in the property market - which leads to high compliance (if prosecution risk is real)
- Market barriers of information asymmetry, adverse selection and tenant/landlord split incentive addressed



Insights

- The role of investors is rising in the top end of the market
- Most large property owners are now trusts
- Their rating with green investors through GRESB &c matters
- The boardroom is motivated to establish green credentials
- Portfolios setting 5 star targets and sustainability policies





Insights – complementary policies

- Impact of complementary policies is significant:
 - government 4.5 star office lease requirement (government purchasing power);
 - building code improvements in 2006 and 2010 and proposed for 2019 (minimum standards for new builds);
 - NABERS commitment agreements for new buildings to commit builders to deliver specified NABERS performance once operational (overcoming builder/owner split incentive); and
 - new buildings can use Greenstar rating (voluntary attribute based labelling)



Australian Government

Department of the Environment and Energy

Questions?

Stanford Harrison

Stanford.Harrison@environment.gov.au

Further information available on the CBD Website

www.cbd.gov.au