CBD Program and NABERS: An Australian case study

Nicole Thomas, Department of the Environment and Energy

177 Pacific Highway (North Sydney) have successfully achieved a 5 Star Green Star As Built Certified Rating. The commercial building has also achieved a 5.5 Star NABERS Rating above and beyond the 5 Star requirement under the contract.

https://www.leading-edge-automation.com/177-pacific-highway-exceeding-energy-expectations/
2015 - NATIONAL ENERGY PRODUCTIVITY PLAN (NEPP)

The NEPP is a Council of Australian Governments Energy Council package of measures to improve Australia’s energy productivity by 40% between 2015 and 2030.

The NEPP takes a whole-of-system approach to energy policy.

1. Energy market reforms

2. Energy efficiency measures
WHAT IS THE COMMERCIAL BUILDING DISCLOSURE (CBD) PROGRAM?

The CBD Program was introduced by the Commonwealth in 2010 and fully implemented in 2011.

It allows buyers and tenants to compare office buildings based on the energy rating of the base building and its lighting system.

Building owners must obtain a Building Energy Efficiency Certificate when offering office floor space over 1000m² for sale or lease, including:

- National Australian Built Environment Rating System (NABERS) Energy rating (a ‘base-building’ rating, excluding tenant energy usage)
- Tenancy Lighting Assessment.

Owners of affected buildings must include their NABERS Energy rating in all advertising when offering office space for sale or lease.
COMMERCIAL BUILDING DISCLOSURE

• The CBD Program is an initiative of the Council of Australian Governments (COAG). It was established by the Building Energy Efficiency Disclosure Act 2010 and is managed by the Australian Government Department of the Environment and Energy.

• The Commercial Building Disclosure (CBD) Program requires energy efficiency information to be provided in most cases when commercial office space of 1000 square metres or more is offered for sale or lease.

• The aim is to improve the energy efficiency of Australia's large office buildings and to ensure prospective buyers and tenants are informed.
NABERS KEY FEATURES

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 to appear on all advertisements

The NABERS Energy star rating must be provided on all forms of advertising
BUILDING ENERGY EFFICIENCY CERTIFICATE (BEEC)

BUILDING ENERGY EFFICIENCY CERTIFICATE

BUILDING DETAILS

<table>
<thead>
<tr>
<th>Building name</th>
<th>Example Building</th>
<th>Certificate no.</th>
<th>B0065-2018/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner's name</td>
<td>LEADING OWNER PTY LTD</td>
<td>Current from</td>
<td>29 Jan 2018</td>
</tr>
<tr>
<td>Building address</td>
<td>1 Example St, Sydney, NSW, 2000</td>
<td>Current to</td>
<td>22 Jan 2019</td>
</tr>
<tr>
<td>Net Lettable Area of the building</td>
<td>16,678.7 m²</td>
<td>CBD assessor name</td>
<td>Sample Assessor</td>
</tr>
<tr>
<td>CBD assessor no.</td>
<td></td>
<td>CBDA00XX</td>
<td></td>
</tr>
</tbody>
</table>

PART 1 - NABERS ENERGY RATING

This building has

2.5 STAR 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

The average tenancy lighting efficiency in the assessed spaces of your building is ‘Very Poor’.

<table>
<thead>
<tr>
<th>YOUR LIGHTING</th>
<th>NATIONAL AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Median</td>
<td>Median</td>
</tr>
<tr>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Very Poor</td>
<td>Very Poor</td>
</tr>
</tbody>
</table>

This table shows how your building compares with other buildings that were issued a BEEC nationally in 2017. These averages are area-weighted. Individual spaces may perform better or worse than the average.

The worst performing space in this building is Level 12 – Whole Floor (27.0 W/m²). The full Tenancy Lighting Assessment is on page 3, and shows details of all assessed spaces.
NABERS FAST FACTS

Some key industry achievements over the past 2 decades...

400 million dollars
in energy bills saved by NABERS users since 2010

826,578 tonnes
of CO2 emissions saved - enough to power 75,200 homes for 1 year

81 percent
of Australia’s office space rated with NABERS

LEARN MORE
https://www.nabers.gov.au
From inception in 2006 there has been recognisable increases in NABERS star ratings both voluntary and mandatory.
CONTINUOUS IMPROVEMENT THROUGH REPEAT RATINGS

![Bar chart showing improvement over repeat ratings.](chart.png)
NABERS AVERAGE RATINGS

• Prior to the start of CBD the average area-weighted rating for a commercial office building was 2.5 stars

• The area-weighted average rating as at 2018 was 4.1 stars

This translates to an energy saving in the office sector of 25%-33%
REVIEW OF THE COMMERCIAL BUILDING DISCLOSURE PROGRAM

In 2014/15, ACIL Allen Consulting were appointed to undertake an independent review of the program. 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 delivered $44 million in benefits over the first four years by assisting to improve the energy efficiency of Australia’s large office buildings

- The review recommended expansion of the program by lowering the threshold to 1000m2, which was implemented on 1 July 2017