

## Effect of Energy Efficiency Rating (EER) of Dwellings on Sale Prices in the ACT 1999-2020

Trevor Lee<sup>1</sup>, Yoke Yeong Fung, Chun Yin Wu

<sup>1</sup>*Exemplary Energy Partners, Wakool House, 32 Fihelly Street, Fadden ACT 2904, Australia*

Since the enactment of Energy Efficiency Rating (Sale of Premises) Act 1997<sup>1</sup> in the Australian Capital Territory, Energy Partners has been evaluating the conventional wisdom of “higher EER, higher prices” as a valuation tool underlying the Canberra property market. As a result of the legislation, not only possible energy performance improvements specific to the building can be set out but also market value of the property can be better justified. The overall benefit of this scheme lies in the expectation that it acts as an incentive for all potential stakeholders to improve the energy efficiency of their properties for higher sale prices and the market has responded by allowing buyers to sort their target dwellings by EER (e.g. Allhomes, ongoing).

Despite well documented successes in demonstrating a robust relationship between EER and sale prices (ABS, 2008) and (DECC, 2013)<sup>2</sup>, our ongoing study showed that their correlation was weak at best. Over time, an inverse correlation was observed for all dwellings together and this trend remained persistently so since late 2014. Key reasons for this apparent anomaly are posited to be:

1. The proximity of the worst performing property to the city centre (higher land values);
2. Data analysis and representation (i.e. mean instead of median home prices have been used. A small number of high value homes may skew the aggregated value upwards); and
3. Apartments, intrinsically the better performing dwelling type, are priced relatively low in the market. Their market share has also grown dramatically in the last decade.

To achieve better representation, a revised methodology has been implemented into our analysis:

- 1) Median prices, in lieu of mean prices<sup>3</sup>, and;

---

<sup>1</sup> This legislation, now superseded by Civil Law (Sale of Residential Property) Act 2003, requires sellers of residential properties in the Australian Capital Territory to disclose and provide information about their property's EER to potential buyers, including in any advertisements for that sale, since 31 March 1999.

<sup>2</sup> Department of Energy and Climate Change, United Kingdom, now superseded by Department for Business, Energy and Industrial Strategy

<sup>3</sup> Prices described here refer to web-based advertised/asking dwelling prices such as “Allhomes”, “Domain” and “Real Estate”

2) Disaggregated further by Dwelling Types (houses, townhouses, and apartments/units);

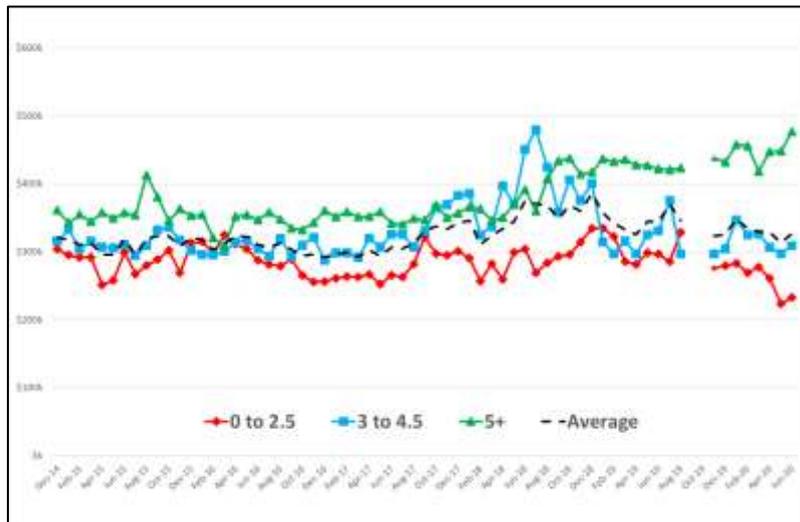
Refer to the series of graph presentations below.

Apartments with 5+ star band in Woden/Weston Creek area (south-west of Civic), although they are priced lower than other dwelling types, generally attract an average sale premium of between 16% (3-4.5 star to 5+ star) to 35% (0-2.5 star to 5+ star) in the last 12 months. The trend is similar with townhouses in Tuggeranong with average sale premium of 15%. Meanwhile, properties, especially detached houses, in inner regions are more prone to obscuration of \$/EER trends by virtue of old, inefficient housing occupying valuable sites.

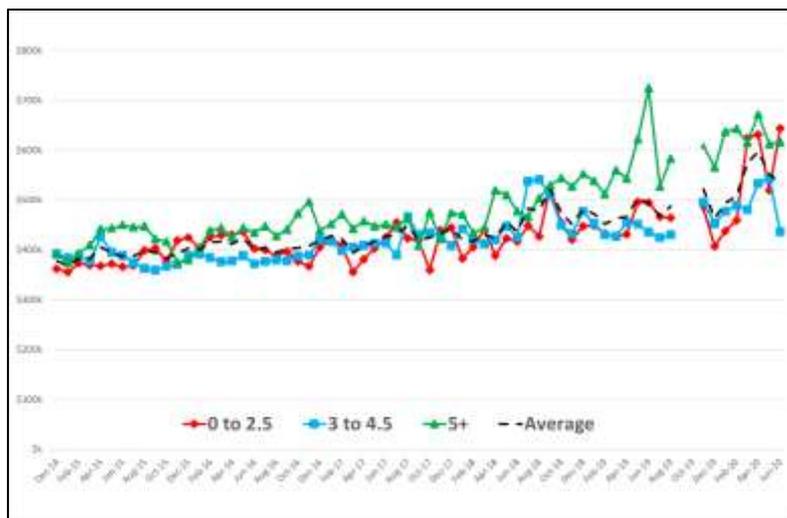
Our observation into the refined dataset is that the segregation by dwelling types does corroborate the intent of the legislation by revealing (and perhaps generating) a significant price margin of high EER dwellings over their low EER competition – confirming the conventional wisdom of “higher EER, higher prices”. This study is part of a growing body of research on the sentiments of property owners, tenants, real estate agents or building industry participants alike, to improve energy efficiency of their properties for higher sale/rental price (e.g. Daly et al 2019).

This paper will update this work to include the latest data at the time of the presentation at the APSRC in Melbourne.

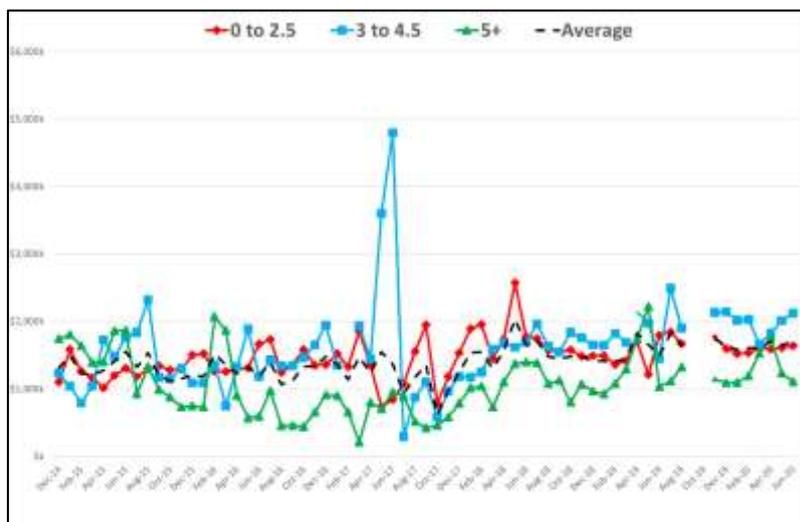
**Selected Graphs showing Price and EER Trends over Time**



**Figure 1. Median Prices for Apartments/Units in Woden/Weston**



**Figure 2. Median Prices for Townhouses in Tuggeranong**



**Figure 3 . Median Prices for Houses in Inner South**

## References

- ABS, “Energy Efficiency Rating and House Price in the ACT”, Australian Bureau of Statistics report to DEWHA, Canberra, 2008
- ACT Legislative Assembly, Energy Efficiency Rating (Sale of Premises) Act 1997, (EER(SOP) Act
- ACT Legislative Assembly, Civil Law (Sale of Residential Property) Act 2003, Civil Law (SRP) Act
- Allhomes, ongoing, <https://www.allhomes.com.au/ah/research/property-report> accessed July 2020
- BCA 2016, Building Code of Australia, Volumes 1 and 2 (part of the National Construction Code NCC).
- Daly, D., et al, 2019, “What are the effects of residential building energy performance disclosure policies on property values?”, CRC for Low Carbon Living, 2019, <https://builtbetter.org/node/8139>
- DECC, “An Investigation of the Effect of EPC Ratings on House Prices”, Department of Energy and Climate Change Final Report, UK, 2013
- Energy Partners, “Energy Efficiency Star Ratings Compliance - Analysis of eight years of EER compliance data for the Canberra real estate industry shows that even though more and more rental homes have EER ratings, real estate agents aren’t going to pass the information on to the tenants”, media release, Canberra, July 2007
- Energy Partners, “Energy Efficiency Star Ratings Compliance Collapse”, media release, Canberra, January 2004
- Energy Partners, “Energy efficient houses attract higher prices”, media release, Canberra, April 2002
- Energy Partners, “Five Star Advantage Returns: indicator of the ‘heat’ leaving the residential sales market”, media release, Canberra, September 2003
- Energy Partners, “Gas Guzzling Houses Lead ACT’s Price Decline”, media release, Canberra, May 2008
- Energy Partners, “Home Energy Efficiency pays off at sale time”, media release, Canberra, December 2008
- Hull, C., “Time to Consign Energy Audits to the Wastebasket”, August 2013, <http://www.smh.com.au/comment/time-to-consign-energy-audits-to-the-wastebasket-20130802-2r58h.html> [Accessed 11th July 2020]
- Lee, T. and McMahon, J. “EER Disclosure Non-Compliance in the ACT Rental Market”, Solar 07 Conference Proceedings, ANZSES, Alice Springs NT, 2007
- Lee, T. and Wang, Y., “Mandatory Disclosure of Energy Efficiency for Residences – History and Compliance in the A.C.T. Sales and Rental Markets”, Solar 2010, the 48<sup>th</sup> AuSES Annual Conference, Canberra, December 2010
- Lee, T., “Energy efficiency Mandatory disclosure at sale or lease”, BEDP Environment Design Guide News, Australian Institute of Architects, Melbourne, May 2009
- Lee, T., McMahon, J. and Stewart, J. “EER Disclosure Non-Compliance in the ACT Rental Market”, Solar 08 Conference Proceedings, ANZSES, Sydney, 2008
- Trobe, T., “Beware of Unintended and Costly Consequences when Upgrading Houses”, October 2014, <http://www.canberratimes.com.au/comment/beware-of-unintended-and-costly-consequences-when-upgrading-houses-20141008-10roqv%20> [Accessed 11th July 2020]
- Trobe, T., “Building Code is a Blunt Instrument”, February 2016, <http://www.smh.com.au/comment/building-code-is-a-blunt-instrument-20160211-gmrrpw.html> [Accessed 11th July 2020]