



# Exemplary Advances

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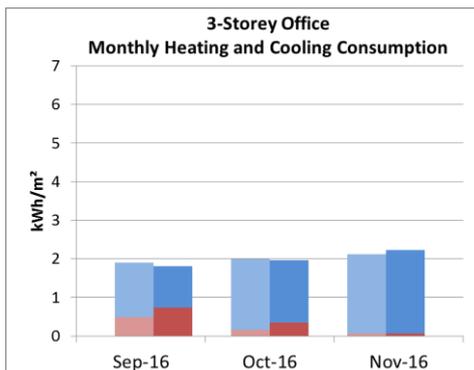
## Exemplary Weather and Energy (EWE) Index<sup>i</sup> - November 2016

Monthly tabulation and commentary relative to the climatic norm – the Reference Meteorological Years

2016 November	Canberra		Perth		Sydney	
	Heat	Cool	Heat	Cool	Heat	Cool
10-Storey	N.A.	4%	N.A.	-1%	N.A.	-2%
3-Storey	N.A.	5%	N.A.	-2%	N.A.	-2%
Supermarket	-55%	18%	N.A.	-18%	N.A.	2%
Solar PV	15.3%		12.7%		10.9%	

**Canberra** had warmer than average weather in November. The mean maximum, minimum and average temperatures were higher by 0.7°C, 0.4°C and 0.8°C respectively. It was sunnier than the

average as well, which improved the solar panel efficiency and hence the energy yield was 15.3% higher. The 10-storey office East facing zone had over 23% more cooling consumption over the long term average due to the warmer and sunnier weather. The cooling consumption in the North and West facing zones were also more than the average, by 12.9% – 16.3%. The South facing zones had around 18% more cooling than the norm primarily due to the higher air temperatures. The supermarket heating consumption had dropped by 55% but the actual values were negligible.



**Perth** had cooler and sunnier than average weather in November. Although the mean maximum and minimum were higher by 0.6°C and 1.4°C respectively, the mean average was lower by 0.3°C. All the commercial building models had lower than average cooling consumptions under this weather. The 10-storey office North and West facing zones had cooling consumptions which were less than the average due to the cooler weather, by around 2-3%. South facing zones also had around 7% less cooling consumption. Only the East facing zone had 6.8% more cooling due to the higher air temperature in the morning and the sunnier weather, which warmed up the Eastern side of the building. The PV panel efficiency benefited from this weather and therefore the energy yield was 12.7% higher.

**Sydney** had slightly cooler than average weather in November. The mean maximum and average temperatures were lower by 5.3°C and 0.3°C, only the mean minimum was higher by 3.4°C. The cooling consumptions of our 2 office building models were lower than the average as a result. Only the supermarket consumed more energy for cooling than the average due to the warmer weather during the late evening when it was still operating. The 10-storey office South facing zone had 3% less than average cooling due to the cooler weather. It was sunnier as well. The North and West facing zones had more cooling than average due to the sunnier weather, by around 1% - 7%. The PV panel had an energy yield that was almost 11% greater than average in this weather.

## Another Exemplary Intern Graduates

Huge congrats to **Yoke Fung** for graduating with a Bachelor of Engineering (Honours) from the ANU! Yoke started working with Exemplary Energy Partners as an intern in January 2016 because he had a keen interest in the energy industry.



He has worked on a variety of tasks including the production of customised weather data for key sites across Australia and simulation of Real Time Year ([RTY](#)) weather data to analyse energy consumption by different types of buildings for the Exemplary Weather and Energy ([EWE](#)) Index. He also gained experience in utilising energy modelling softwares

such as EnergyPlus and System Advisor Model (SAM). One of Yoke's biggest accomplishments yet at Exemplary Energy Partners is his work in co-authoring an article which reviews the correlation between dwelling price and Energy Efficiency Rating (EER) in the ACT.

Yoke's stint at Exemplary Energy Partners has prepared him for future jobs because it has given him a platform that has enabled him to develop many of the essential skills necessary for the professional world. *"As an aspiring engineer, my experiences with Exemplary have definitely trained me to be more detail oriented and improved my problem solving skills,"* commented Fung.

The photo shows him celebrating his graduation with family who came to Canberra from their home in Malaysia to grace the occasion. We wish him the best of luck in your job search and know he will do great things!

## Mandatory Home Energy Rating in the ACT for 212 Months

Mandatory [rating](#) and disclosure of the energy efficiency of existing homes at the time of sale has been [law](#) in the ACT since April 1999 and we have tracked the \$/star value correlation since then. Recently, we have disaggregated the data by housing type and will be publishing those results soon.

## Home Energy Rating OptiMizer – HERO - available for free trial

The service is now available for AccuRate and BERS Pro files with a version to handle FirstRate5 files under advanced development. [Contact us](#) for your free trial.

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<sup>i</sup> Exemplary publishes the [EWE](#) for three archetypical buildings and a residential solar PV system each month; applying the RTYs to [EnergyPlus](#) models developed using [DesignBuilder](#) for a 10-storey office, a 3-storey office and a single level supermarket as well as an [SAM](#) model of a typical 3 kW<sub>peak</sub> solar PV system designed by [GSES](#). All values are % increase/decrease of energy demand/output relative to climatically typical weather. Especially during the mild seasons, large % changes can occur from small absolute differences.