



Exemplary Advances

2017 December “*Exemplary Advances*” is the newsletter for Exemplary Energy Partners, Canberra. Feel free to forward it to friends and colleagues. Click here to [subscribe](#) or [unsubscribe](#). Feedback is most welcome. Past editions of “*Exemplary Advances*” are available on our [website](#).

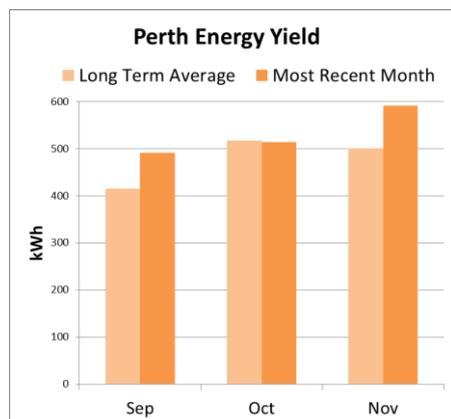
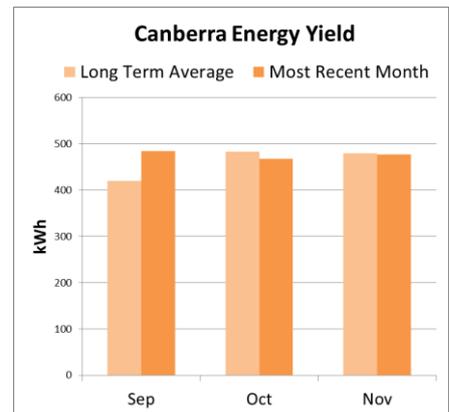
Exemplary Weather and Energy (EWE) Indexⁱ - November 2017

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

2017 November	Canberra		Perth		Sydney	
	Heat	Cool	Heat	Cool	Heat	Cool
10-Storey	N/A	0%	N/A	12%	N/A	-7%
3-Storey	N/A	1%	N/A	16%	N/A	-9%
Supermarket	-50%	1%	N/A	39%	N/A	-20%
Solar PV	0.5%		18%		15.2%	

Canberra had slightly warmer and cloudier than average weather in November. The solar PV array had an energy yield that was 0.5% more in this weather. The mean maximum, minimum and average temperatures were higher by 0.4°C, 1.1°C and 0.7°C respectively. The cooling consumptions of our 3 commercial building models were about the same as the average as a result.

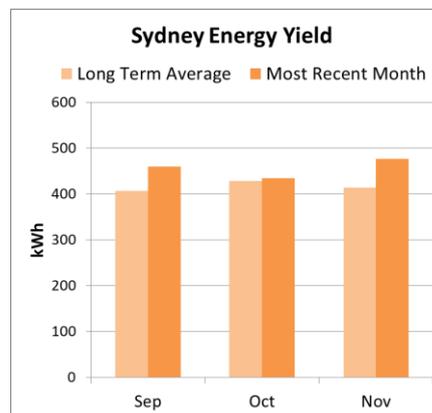
The 10-storey office cooling consumption in the North and South-facing zones was around 9.3% excess to the norm due primarily to the average warmer air temperatures. The supermarket heating consumption had 50% less but the actual amount was negligible.



Perth was warmer than the average in November. Although the mean maximum was lower by 1.3°C, the mean minimum and average were higher by 3.7°C and 1.8°C. It was sunnier as well, therefore, all the commercial building models had higher than average cooling consumptions as a result.

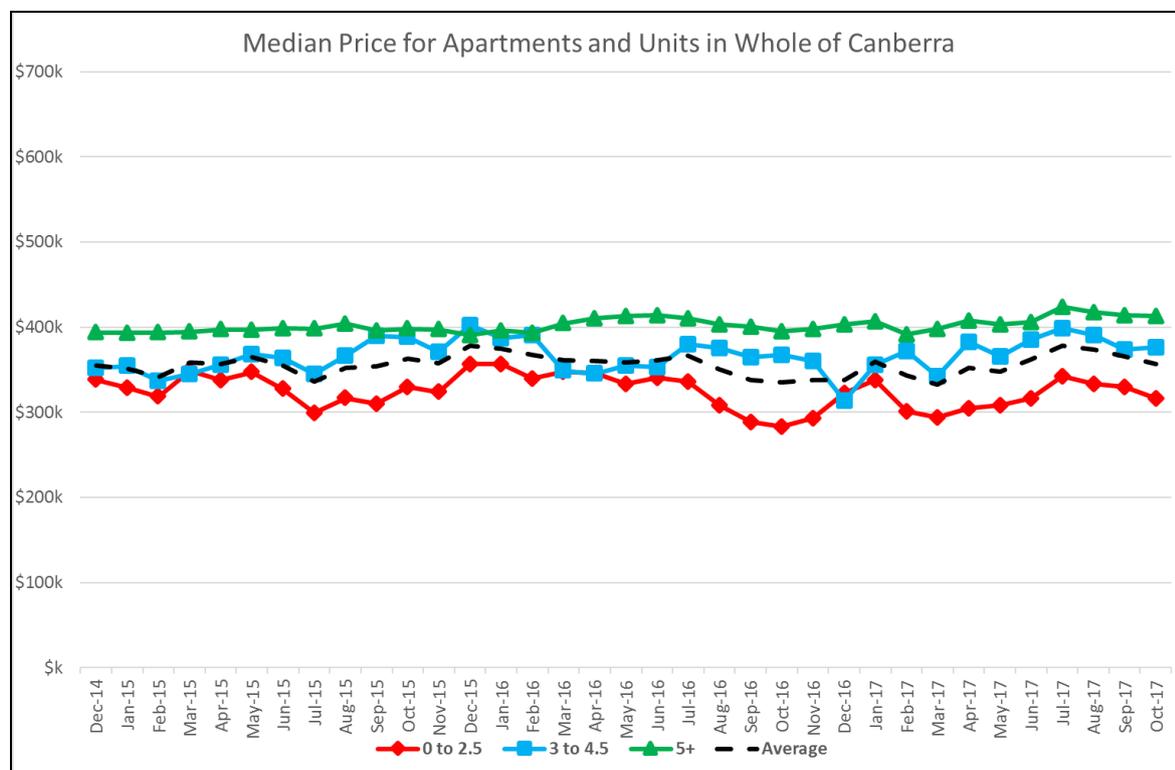
The 10-storey office North and West-facing zone had around 20% more cooling than the average due to the warmer and sunnier weather. The South-facing zone also consumed close to 20% more cooling than the climatic norm. The solar PV array had an energy yield that was 18% more in this weather.

Sydney also had cooler than average weather last month. The mean maximum and average temperature were lower by 6.6°C and 1.2°C respectively. Only the mean minimum temperature was higher than the average by 3.8°C. It was substantially sunnier as well. The solar PV array efficiency was benefited by this weather and the energy yield was 15.2% higher than the average. All our commercial building models had less cooling consumptions than the climatic average. The North and East-facing zones of our 10-storey office model consumed around 15% less cooling energy than the average. The South-facing zone also had around 20% less cooling consumption due to the cooler air temperatures.



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ⁱ 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_{peak} 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.