



Exemplary Advances

2018 August “*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.

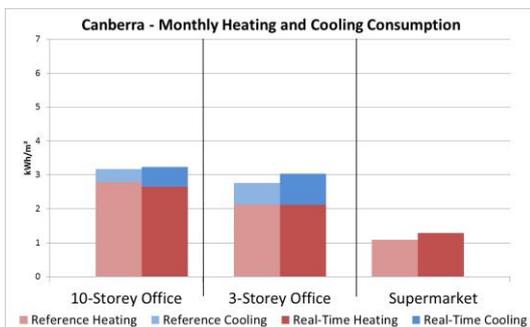
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Exemplary Weather and Energy (EWE) Indexⁱ - July 2018

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

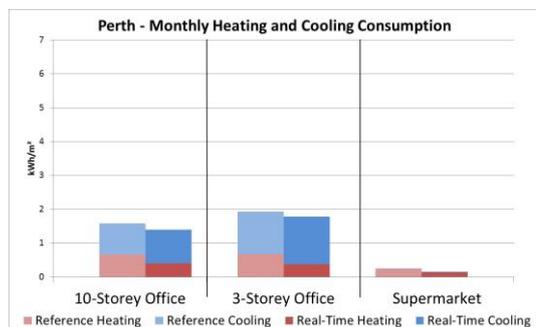
2018 July	Canberra		Perth		Sydney	
	Heat	Cool	Heat	Cool	Heat	Cool
10-Storey	-5%	50%	-41%	10%	-	-
3-Storey	-0.2%	44%	-44%	12%	-	-
Supermarket	17%	N.A.	-44%	N.A.	-	-
Solar PV	20.3%		-14.2%		-	

The Exemplary Real Time Year weather files ([RTYs](#)) used for these monthly simulations are available for [purchase](#) to allow clients to simulate their own designs for energy budgeting and monitoring rather than rely on analogy with the performance of these archetypical buildings and systems.



Canberra had cooler than average weather in July. Although the mean maximum and minimum was higher by 1.2°C and 0.2°C respectively, the mean average temperature was lower by 0.3°C. However, the 3 and 10-storey office building models had calculated heating consumptions lower than the averages due to the warmer temperature during the day (office hours). In contrast, the supermarket model had higher heating consumption due to its longer operating hours and cooler than averages temperature during the night and early morning. It was sunnier as well, therefore, the solar PV array energy yield was 20.3% higher.

Perth had warmer than average weather in July. The mean maximum, minimum and average were higher by 2.1°C, 1.8°C and 1.9°C respectively. All the commercial building models had heating consumptions lower than the averages and higher consumption in cooling. The 10-storey office South facing zone had heating consumption less than the averages by 42% due primarily to the warmer air temperatures. It was cloudier as well. The solar PV system had a lower efficiency in this weather and thus the energy yield was 14.2% lower.



Sydney – no data available. See detailed advice next month.

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. RTYs are available for purchase for your own simulations.