



Exemplary Advances

2018 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.

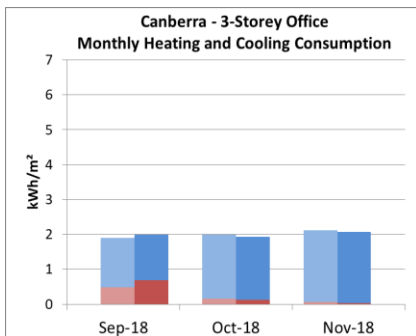
Past editions of “Exemplary Advances” are available on our [website](#).

Exemplary Weather and Energy (EWE) Indexⁱ - November 2018

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

2018 November	Canberra		Perth		Sydney	
	Heat	Cool	Heat	Cool	Heat	Cool
10-Storey	N.A.	-3%	N.A.	-5%	-	-
3-Storey	N.A.	-1%	N.A.	-5%	-	-
Supermarket	N.A.	-9%	N.A.	-33%	-	-
Solar PV	-6.0%		0.5%			

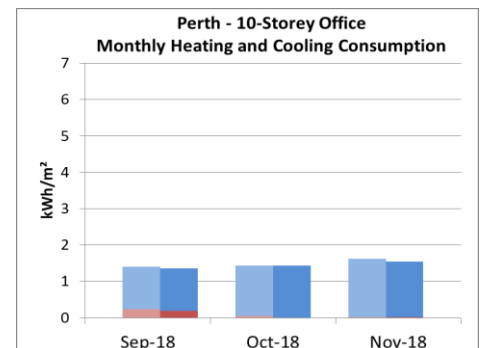
The Exemplary Real Time Year weather files ([RTYs](#)) used for these monthly simulations are available for [purchase](#) to allow clients to simulate their own designs for energy budgeting and monitoring rather than rely on analogy with the performance of these [archetypical](#) buildings and systems.



Canberra had slightly warmer than average weather in November in terms of air temperature. The mean maximum and average temperatures were higher by 1.1°C and 0.7°C respectively. Only the mean minimum temperature was 0.4°C lower. The two office buildings and supermarket models had cooling consumptions lower than the averages despite the warmer air temperature because it was cloudier and windier. Although the total cooling consumption has dropped, the cooling consumption of the 10-storey office South facing zones was close to 6% above the norm due primarily to the warmer air temperatures. In contrast, the West facing zones had a 6% lower cooling

consumption because it was cloudier than the average. The solar PV array efficiency was affected by this warm and cloudy weather and thus the energy yield was 6.0% lower.

Perth had cooler than average weather in November. The mean maximum and average temperatures were lower by 2.7°C and 1.8°C respectively. Only the mean minimum was higher than the climatic norm by 0.3°C. All the commercial building models had cooling consumptions lower than the norm due to the cooler air temperatures. The cooling consumption of the 10-storey office South facing zone was over 14% lower than the norm. The North facing zone also had a cooling consumption close to 10% lower. It was slightly sunnier as well. The solar PV array had an energy yield of 0.5% higher than average.



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.