



Exemplary Advances

2017 October “*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 - September 2017

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

| 2017 September | Canberra | | Perth | | Sydney | |
|----------------|----------|------|-------|------|--------|------|
| | Heat | Cool | Heat | Cool | Heat | Cool |
| 10-Storey | N/A | N/A | -25% | 0% | -38% | 3% |
| 3-Storey | N/A | N/A | -23% | 1% | -33% | 5% |
| Supermarket | N/A | N/A | -7% | 56% | -64% | 57% |
| Solar PV | N/A | | -3.5% | | 6.8% | |

Canberra – data not available.

Perth had warmer than the average weather in September. The mean average and minimum were higher by 0.8°C and 1.4°C respectively. Only the mean maximum temperature was 0.1°C lower than average. All the commercial building models had lower than average heating consumptions. The 10-storey office East-facing zone had over 44% more than average heating due to the cooler air temperature in morning. The North-facing zone also consumed over 85% more heating than the climatic norm. The PV panel efficiency benefited from this weather and therefore the energy yield was 4.8% higher. The supermarket cooling consumption had dropped to nil due the cold weather.

Sydney had warmer than the average weather in September. The mean maximum and average temperature were higher by 2.8°C and 0.9°C respectively. Only the mean minimum temperature was lower than the average by 0.1°C. It was also sunnier. The PV energy yield was 6.8% higher than the average. All commercial building models had higher cooling consumptions and lower heating than average. The supermarket model had a much bigger increase in cooling consumption as our data shows that the air temperature continued to be warmer than the average during the later afternoon and evening while the supermarket is still operating. The North and East-facing zones of our 10-storey office model had consumed around 12% - 15% more cooling energy than the average. The South-facing zone also had around 10% higher cooling consumption due to warmer air.

Mandatory Home Energy Rating in the ACT for 222 Months

Mandatory energy efficiency [rating](#) and disclosure of existing homes at time of sale has been [law](#) in the ACT since April 1999. We have been tracking \$/star value correlation since then.

Home Energy Rating OptiMizer – HERO - available for free trial

The service is now available for [AccuRate](#) and [BERS Pro](#). [Contact us](#) for your free trial.

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.