

Double Glaze Matters

OCTOBER 2016

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Changes in Home Batteries

Last Friday Tesla announced their Powerwall 2 which has twice the capacity of the original 7 kwh unit for the same price. This 14 kwh unit will be available for just under \$10,000 fully installed in Australia.

In addition to its extra capacity, the Powerwall 2 now contains an inverter which makes it cheaper and simpler to connect to solar panels.

While it is still not cheap, it does allow the possibility of pay back over a 10 year period. More importantly it confirms the direction that batteries are headed and that it won't be long before they are well within the price range of anyone with excess solar power.

I was rather interested in a talk I went to last month by Reposit Power. They are a Canberra based company that has built a smart controller to add to your home battery system. Its primary purpose is to help manage your batteries so as to charge the batteries when the power is cheapest

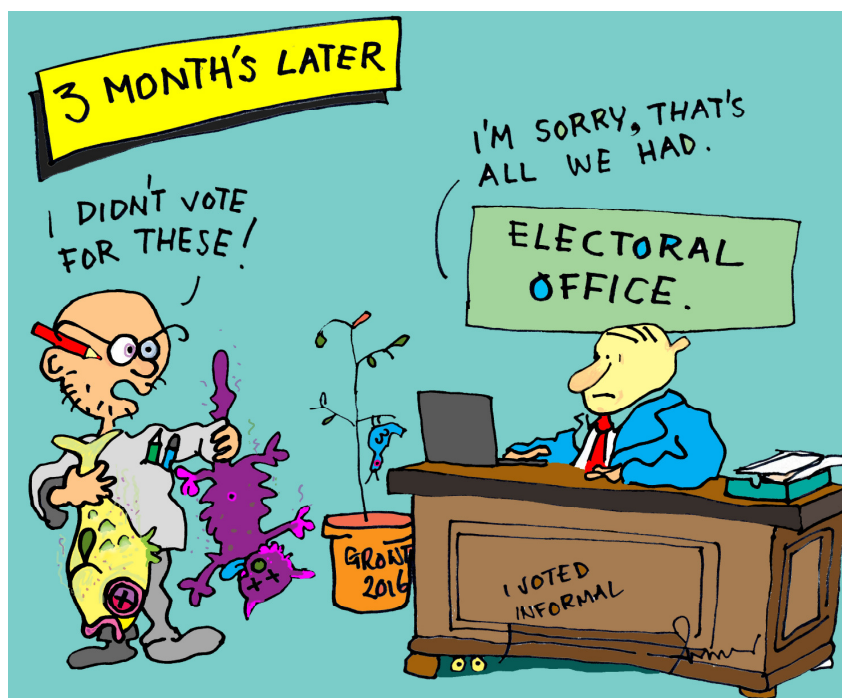
(normally when you export power) and use it when your tariff is highest. But it has a secondary benefit of stabilizing the grid.

It is clever enough to determine when the grid is under stress and within a second will start delivering power from the batteries back into the grid. While it would take a lot of home battery systems, if there had been enough such systems in Adelaide, they could have avoided their recent power outages.

The interesting thing is that the power companies are willing to pay for this functionality. Effectively they say "if you make your power available to us in an emergency, we will pay you even if we never use it",

The amount they are willing to pay will increase in locations where the generation is less predictable, such as

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Changes in Home Batteries- (cont)

South Australia which has a high concentration of renewable power.

It also allows users to take advantage of times where power prices surge. Although it doesn't happen often, in times of critical shortages, wholesale prices will surge to more than \$1 a kwh. This system allows home users to export their power to take benefit of this surge in price. Not only do you make money but you help support a grid under stress.

There are also other potential benefits for power companies. Often they have areas of the grid which lack infrastructure to deliver peak power requirements. To resolve it would require large expenditure for additional power-lines. A cheaper solution is for power companies to install batteries to meet the shortfall. A more efficient solution is to be able to draw on the batteries that home owners have installed.

It is good to see that the new technologies that are making grid power less predictable are also helping to make it more reliable.

For more info:

<https://onestepoffthegrid.com.au/powerwall-2-tesla-doubles-battery-storage-slashes-costs/>

Increase in Victoria' Feed in Tariff

I received an email from Solar Citizens saying that the Victorian Government has decided to increase the feed in tariff from next July. It has been steadily reducing to a figure less than 6 cents.

Apparently they are proposing an 8 cent feed in during peak times and less for off peak.

Part of the argument is that while this is higher than the figure power companies pay for wholesale power, it is cheaper when you include line losses. Solar power doesn't suffer line losses, since it is normally delivered to the house next door.

Our Thermal Camera

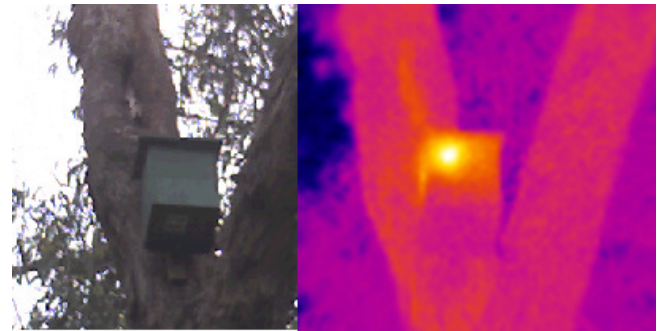
I have mentioned before the thermal camera that the council bought for the Montmorency Community Group to use when doing home energy Assessments. Here are some other photos I have taken with it.

The first photo shows hot spots on the bottom and side of a sugar glider nesting box. This shows a family of sugar gliders in residence. The second shows a hot spot at the top of the sugar glider box. This is a hive of bees!

And the third photo is that of a king parrot. I think it looks cute!



Thermal Image—Sugar Gliders



Thermal Image—Bees



Thermal Image—King Parrot