

Energy Enquiry.

I appreciate there has been some considerable thought into this process but there are some things that I would like to be brought to attention.

**1. The financial advantages of removing the peak periods between 7am-9am and 6pm-8pm.**

Just like the road network, the electrical network is built for maximum capacity and not average capacity. If we could stagger everyone's work times across a 24 hour period then we would require a much smaller network. Clearly this is not going to happen and nor are people going to take it in turns at using electricity at peak times. But if people did this would save the network distribution millions of dollars. The peaks could be removed at least in part with battery technology. If a household charged a battery between 12am and 5am in the morning when electricity is cheap then use the stored electricity during the peak time this would reduce the morning peak usage. The afternoon peak could be reduced if solar customers charged their batteries during the day and then released it at peak times.

Although this has obvious network advantages however, currently there is no financial motivation for anyone to remotely do this. The costs of using electricity between 12am and 5am are overly inflated and costs during peak time don't come remotely close to the real costs.

In the past there has not been a way of making a far system but now with smart meters and batteries this is now a possibility. With the right incentive you can reduce peak times and solar customers are part of this solution.

**2. Solar Panel Customers use less electricity.**

When customer buy solar panels they become more conscious of how they are using electricity. When solar become top of mind what happens is that people use less of it. One of the most popular devices at the moment is fitbit and all it does is provide a reminder for a person to exercise more. Once someone gets solar they take more notice of how and when they use electricity and prompts people to reduce wastage. On top of the savings that the solar panels provide customers use less themselves because they think about it.

**3. You don't want customers to go off the grid.**

It is the dream of every solar customer to go off the grid, however, unless they are living in the middle of nowhere this is something that society would benefit from. If for instance there is 10 households living in a street and there is \$20 000 of electrical infrastructure in the street then that is \$2000 of infrastructure per household. If one of these households decides to go off the grid what would happen. There would still be \$20 000 of infrastructure but only 9 households at an average cost of \$2222 per household. People going off the grid means that fewer people have to pay grid without any reduction in infrastructure costs.

The only people who go off the grid are those who can produce more electricity than what they use. This excess electricity that they use is effectively wasted. So

not only do people going off the grid means that power lines still run past their house which the rest of society have to pay for but we don't even get their excess electricity.

There needs to be a consideration that there is a benefit for keeping people in the grid and give them a fair price.

#### **4. Solar Customers Cluster Together**

People are always doing things that they believe reflect well on their neighbours. The keeping up with the Jones' is a real effect. The more people with solar panels in a street the more that people feel the need to buy solar panels. So the more incentive there is for solar customers the more people will buy them and this leads to peer pressure for others to get them. There have been many studies on tipping points for people to consider it to be necessity.

#### **5. Avoided Losses vs Income**

People are not rational in an economic sense. They do not view money in the same way. People value getting a dollar more than avoiding losing a dollar. When people switch off their lights they save money by avoiding a loss. People in general don't value avoided losses at all and this is why saving can be so difficult for many people. People value getting money more. So what happens with a decent feed-in tariff people will use less electricity just to get the feed-in tariff.

#### **6. People pay more if they feel good about what they get.**

During the most recent drought many people bought tanks even though there was no financial reason to do so. People bought tanks because they felt that they were contributing to society at large. Now solar customers have had the feel good factor taken away by a very low feed-in tariff. Solar customers now feel like suckers and one of the important things is that not only is there increase in the feed-in tariff but customers are made to feel that their commitment to society is acknowledged. If this can be achieved, then the uptake of solar will be quicker and with more benefit. Also becoming a solar customer is seen as 'good' then the rest of society would be more inclined to accept higher electricity prices to pay for solar subsidies.

#### **7. Price needs to be set for long periods.**

When you become a solar customer there you remain a solar customer as the panels will continue to produce solar for 20 years with no additional costs unless something breaks. There needs to be certainty about future feed-in prices. Unfortunately feed-in tariffs were allowed to drop from 60 to 5 cents which means there is little confidence in the feed-in tariff system. A base price needs to be set for 10 years with only upward increase allowable, otherwise potential customers won't become solar customers because they would be worried that the next government will just drop the price back down to 5c again.