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Tasmanian Energy Reform
FEED-IN TARIFFS
MOTION FOR THE LEGISLATIVE COUNCIL

August 2014

The Motion

‘We call on the Government to re-visit the solar feed in tariff rate arrangements with a view to adjusting the formula used to determine the feed in tariff in order to implementing a strategy that will remove the cross subsidy that currently exists and promote installation of solar grid systems by providing a level of return that is both reasonable and acceptable to both the home owner and the energy provider.’

Why did solar generation commence?

Solar really evolved as a good investment originally under the SHCP (Solar Homes and Communities Plan) rebate that was active in Australia up until late June 2009. They doubled the grant from $4,000 to $8,000 as part of the then Howard governments plan to promote the use of renewable energy in the general public. World demand grew and solar system prices dropped by 75%. More efficient panel technology drove the acceptance of the solar investment as a mainstream product. Then the rebate system implemented changes to a system of renewable energy certificates which were to be traded on a free market to enable companies to offset their carbon emissions. Massive energy price rises prompted home owners in particular, baby boomers set to retire, along with savvy D.I.N.K.S (Dual income no kids) families, and a lesser portion of environmentally minded people to keenly invest. The market matured under great R.O.I's (return on investment figures) and the motivation for buying changed to an investment focus. At the time a 1-1 FIT seemed modest against the other states that were offering 40 cent and 60 cent FITs with 15 year contracts. The Tasmanian 1:1 feed in tariff allowed for a system to pay for itself in around 6 years. As power prices started to escalate and with policy of the power companies to upgrade the poles and wires and infrastructure, they were seemingly set to spiral forever out of control. Then as the realisation that power prices would never return to the same levels as before, confidence of investment grew and the security of our 1-1 fit rate validated the investment. The incentive to invest in larger solar systems of 5 kW systems and even up to 10 kW hit mainstream acceptance for homes. The multiplier system used to subsidise the renewable energy certificate system was dialled back to the point it is now where the government does not subsidise solar anymore. Solar owners are allocated a certain number of certificates which are then traded on a free market to big companies who are offsetting their carbon emissions.

Benefits

First the solar owners. Every solar owner has invested to contain their cost of living or cut their cost of business. The first benefit a solar owner gets is from the reduced need to buy all their power. The second benefit they receive is in the power they feed into the grid. The level of FIT they get from the power company directly impacts the value they receive back for their large investment in solar. A FIT drop from 28cents to 8.282 cents almost halved the annual returns from their solar system. For example the production in dollar terms from a high end 5Kw system went from around $2200 per year to just over $1100 per year. It meant that a system which took 6 years to pay for itself, now took almost 10 years to pay for itself. With the new feed in tariff of 5.551 cents we now have a situation where the annual value is currently around $900. This push the payback period out another couple of years.

Second, the grid owners and Tasmania. The uptake of solar can provide the state with a valuable contribution to the power system.

Jobs, jobs, jobs. The solar industry creates more jobs. We believe that there could have been some 1200 jobs maintained and then more created over the coming years if there wasn't a significant drop in the FIT rate. These precious jobs and the future job growth opportunities need to be re-instated then encouraged to grow.

The solar industry is able to contribute to the economy with no subsidy from government either federal or state at all. Solar should be heavily encouraged in Tasmania because we have the opportunity to sell our clean energy to the mainland. This has been an old argument which the power company and The Tasmanian Economic Regulator (TER) have ignored. They have argued that the there is no possibility of benefit from solar contributions to the power system because it cannot produce power at the peak times. It is very straight forward. The simple answer is, any power generated at any time reserves capacity in the dams. This strengthens Hydro Tasmania's position for export at premium rates than it would otherwise have by selling in the local market. The spot wholesale price along with the Hydro Tas' mainland retail arm can further expand revenues from the mainland market and add value to Hydro Tas' and the State's coffers.

The issues paper released by the then governement, through Treasury, mentioned an example where, in April 2008, Hydro Tas had to import all of their power from mainland because dam levels were so low. If the solar industry were to thrive and continue on the growth rate of 2013, then we would have around 20% participation rate of solar in Tasmania in ten years' time. With that many installations, we would have been able to avert a similar event to the one in April 2008 with just 12 months of solar production

There is of course an indirect impact. Advertising, suppliers, transport and the like. When you multiply that effect around the state, you can easily see how this impacts on the local economy.

Where did the Previous Government and Regulator go wrong in their working out?

There were a number of places where fundamental mistakes were made. First of all, we saw the information supplied by Aurora had some glaring errors. They showed production figures that were simply not able to be gauged and also made assumptions that 30% of power was fed into the grid. The other mistake made was counting possible lost revenue as a cost to the business.
The issues paper also had some serious errors. They related to the potential cost of the feed in tariff (FIT). Also their projections were based on one off events of the previous year which were communicated to them but they continued to use them. Also the impact examples showed solar systems connected to tariff 41. There are no solar systems connected to tariff 41. A supplementary paper was issued with some different examples giving a wider range of scenarios. Half of the scenarios still included the use of the tariff 41 section of power which doesn't happen. Other errors were also exposed but seemingly ignored.

The terms of reference set out by the Minister are a clear indication of his vision (or lack thereof) for renewables in Tasmania. The main problem with the terms of reference was the undue emphasis on looking to other jurisdictions. At no stage during the process did anyone recognise that there are unique circumstances in Tasmania. If all our state did was look to other states for guidance we probably would not have a Hydro system in the first place and also would not have a thriving Poppy industry and so on.

The terms of reference also included the statement that there should not be any cross subsidy between customers or customer classes. This is the big one and it takes some explaining. Simply put, it is inherently unfair that PV owners subsidise a lower price of power through a reduced FIT just as a too high FIT should not be subsidised by non PV customers. This is why it is most important that the correct level of FIT be implemented.

So the question was asked, "Where did they get the calculations wrong?" They got it wrong by not including the transmission and distribution costs in the determination of the FIT. There is a part of the cost of power which includes the travelling along the power lines (high and low voltage) and converting and maintaining that power from high to low voltage. This part of the cost of power is avoided when a house feeds power into the grid. The power that is fed into the grid from solar is already refined and at low voltage. It also does not have to travel very far at all. It just travels in the local neighbourhood. There are 2 parts to the network costs. First is the cost to transport power from the dam face to the substations is the high voltage transmission. Second is the distribution system (poles, wires and substations). This is the part where the power is refined to be used in our properties and transported over long distances to eventually end up at the user's property.

The argument from the power companies is that those costs are there no matter how much you use the system and anyone who touches the system has to pay those costs. This is an archaic and fundamentally unfair system. They go on to say that all customers benefit from reduced network costs. **But, the benefit of avoided network cost belongs to the solar owners. Not the whole network.** Sharing that benefit across the network results in cross subsidy and the TER should have, in its determinations, reflected that in an increased FIT with the costs to be passed through to the Distribution Company. Therefore the true price of power has been skewed by the fact that these network costs are being avoided and the benefit not being passed on in the FIT.

There is also a more current issue to be looked at here. The network costs for the system currently stands at around 13 cents per KwH. This cost is paid by small domestic customers and small business. But when big business gets their power they pay little or no network cost. If a large company is purchasing their power for as little as 4 - 8 cents per KwH, there is next to no provision for use of the network. Also we believe that some very large customers are buying in blocks of power and on-selling the excess for a handsome profit. So it is quite clear that regardless of your opinion on the solar issue that the system for charging for network costs is archaic and fundamentally flawed and we see unfairly burdens the biggest employers and economy drivers, small business whom by in large see no relief with higher than domestic T31 rates, and no off peak or hydro heat rates either.

The previous opposition already acknowledged that power prices were a massive impost on the cost of doing business and also agreed that solar was a big opportunity to solve that problem. While we can see the obvious hole that has been dug to maintain a few large industries by discounting power and services far too much, it seems blatantly obvious that small uncontestable business customers are unfairly bearing the load of the network costs. Small businesses are also buying much higher amounts of power than typical domestic customers. They don't get a hydro heat discounted rate (30%) or an off peak discount rate (50%), yet they have to pay a tariff price higher than the general public.

Small business is not only supporting Tasmanian household power bills but also big industry.

Is it worth buying solar now?

The current state of the industry would tell you no, it is not. So what has changed? The main thing that has changed is that the numbers don't work anymore. When you look at the motivation for buying solar now, the numbers hardly justifies the spending. Systems with a over 10 year payback period and power bills at such high amounts mean the solar systems aren't putting much of a dent in them. An average family of 4 with a power bill of $3,000 per year will need roughly 30 panels on their roof to reduce that bill by half. Most homes cannot fit 30 panels on them. The unfair low FIT, coupled with negative attitudes by Government, drove away domestic customers in Tasmania and stripped confidence, further heavily eroded sales opportunities.

What is that doing to the industry? Well to put it simply, installations are down, right down. Some companies are reporting drops of around 90% and some even higher. This has huge direct and indirect effects.

Looking at the number of installations statistics we can see that in the other states, when the FIT dropped their number of installs almost halved. In Tasmania there were 7552 installations in 2013. That is the highest rate for any year because it was the last year of the 1:1 feed in tariff. If the same trend were to take place in Tasmania then we would see around 4,000 installs wiped off the potential total. We also see a trend in the other states with regard to the number of installation companies. In the table below you can see the fall in the number of installations in the periods following the drop in the FIT for those jurisdictions. These effects on the industry are already being felt right now.

ANNUAL NUMBER OF SOLAR PV SYSTEM INSTALLATIONS IN AUSTRALIA[54]

YEAR INSTALLED	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	NATIONAL
2007	102	670	2	348	719	26	606	156	**2629**
2008	277	14,026	225	18,377	8592	1454	8735	11,166	**62,852**
2009	803	14,009	215	18,283	8573	1452	8429	11,157	**62,921**
2010	2390	69,887	637	48,691	16,703	1889	35,680	22,292	**198,169**
2011	6944	80,115	401	95,261	63,476	2475	60,203	51,658	**360,533**
2012	1560	53,825	512	130,158	41,803	6358	66,198	42,628	**343,042**
2013	2553	36,605	986	79,581	28,247	7552	33,666	24,050	**213,239**
TOTAL*	**14,658**	**269,748**	**2983**	**390,987**	**169,679**	**21,230**	**214,291**	**163,200**	**1,246,775**

*includes pre 2007

Source: Clean Energy Australia Report 2013 p50

Many solar businesses report a possible 90% loss of their solar business due to the reduced feed in tariff. One local business reported that it has caused the loss of 5 jobs which is 1/3 of our workforce. But more than that, it has impacted on them where they were about to employ 3 more skilled workers to expand our business and meet demand. Overall 8 full time jobs worth over $500,000 in wages were lost to our economy. There is of course an indirect impact of advertising, suppliers, transport and the like. This has possibly taken more than $150,000 out of that part of the local economy. When you multiply that effect around the state, you can easily see how dramatic this impact has been on the local economy.

We had 144 registered installers heading installation crews within businesses in Tasmania in 2013. Looking at the statistics provided by the Clean Energy Council we can expect a drop in maintaining licence registration markedly as training and significant costs apply to maintain valid status.

Why the Feed in Tariff (FIT) should be Increased.

At the risk of sounding like a broken record, the most important reason is that the feed in tariff (FIT) is not 'fair and reasonable.' This was the most important part about the legislation that was introduced and it was the most important part of the terms of reference directed to the Economic Regulator. The transmission and distribution parts of the power companies are benefitting from the avoided network cost of the power supplied by solar PV owners. They don't have a right to it and the excuse that the way they work out the network cost doesn't allow for it is ridiculous. Also the second excuse that everyone benefits from reduced network costs is also not 'fair and reasonable.' Just as ordinary power customers must not subsidise the solar PV systems on the grid, the solar owners should not subsidise the network.

An increased FIT with the networks costs avoided included would increase the value of a solar grid system dramatically. This means that the returns for consumers in Tasmania make the investment worthwhile again. The time is takes for domestic systems to pay for themselves is reduced to around 6-7 years. And then the motivation for buying solar will return. Every solar owner has invested to contain their cost of living or cut their cost of business. In both areas the flow on benefit is positive for Tasmania and Tasmanians economically.

The solar PV industry provided hundreds of direct jobs in Tasmania through system installation, plus office-based retail and administrative jobs. It provided jobs for the whole gamut of skill levels, from the low-skilled to the tertiary-qualified. It also supported diverse indirect jobs in sectors such as utilities (installing the metering), manufacturing in balance of system components, freight and distribution, financial, PR, vehicles, safety, industry associations, government and also hardware.Every solar system purchased by mums and dads contributed valuable GST revenues to the state coffers.

The jobs that were lost could return but with increased numbers. With a 20% participation rate in solar would have 54,000 solar installations. That is around 7 times what it is now. If the FIT was at the correct level this type of target could be achieved in less than 10 years.

The solar industry is able to contribute substantially to the economy with no subsidy from government either federal or state at all and should not be shunned.

Solar should be heavily encouraged in Tasmania because we have the opportunity to sell our clean energy to the mainland. This has been an old argument which the power company and TER have ignored. They have argued that the there is no possibility of benefit from solar contributions to the power system because it cannot produce power at the peak times. It is very straight forward. The simple answer is, any power generated at any time reserves capacity in the dams. This strengthens Hydro Tasmania's position for export at premium rates than it would otherwise have by selling in the local market. The price in Tasmania is restricted by the fact that we have a single wholesaler and distributor that see a regulated fixed wholesale price.

Under the SOST proposal the retail preserves their full retail margin and, under the formula, would not be affected by the FIT. Also the Government would not have to subsidise the increased FIT from the public purse.
The price on the mainland is in a competitive market. Spot pricing effects the price over there. Hydro Tas maximises returns on every KwH they send over Basslink. This is possible because of the flexibility of the hydro system. It can wind up and wind down to meet demand and take advantage of higher mainland spot pricing where their fuel driven systems are not flexible.

History shows that when you establish a long term strategy, you get confident investment and certainty that drives an economy of jobs and solid economic benefits.
The beauty of a supported, healthy and expanding rooftop solar sector is already seen in places like California where we saw the government embrace solar and now they are benefiting greatly and see prosperity replace despair.

100 years ago when Henry Ford cracked production line efficiency for manufacturing cars, just like our Australians have done with solar at the University of NSW. Many people said you cannot replace the efficiency of the horse and cart and this will never work. But what happened? The answer is obvious. History tells us that new industries need to be embraced not hindered. Solar is one of those industries.

We see world-wide and Australia wide, major projects that make solar power at wholesale value (5.551 cents). Rooftop solar in Tassie has almost 4 times the value (19 cents) if fed in to the grid. Rooftop solar power has almost 5 times the value (24.717 cents) when used directly on site by both domestic and small businesses. This allows local investment to occur with no need for to Hydro or the Government to raise and maintain finance capital and also with no ongoing liability for maintenance costs. It is not experimental anymore. It is well established. Going back to a thriving solar power industry is an opportunity to show the rest of the country that even in tough economic times, new and emerging industries can make it without subsidies and direct support. Just by doing what is ‘fair and reasonable.’