Submission No 3

SUSTAINABILITY OF ENERGY SUPPLY AND RESOURCES IN NSW

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Submission To Renewable Energy Enquiry

Please bear with me, as this is the first submission of this type I have done.

I live in an "average" house, in an "average" suburb in NSW. It receives an "average" amount of sunshine. On my roof sit 12 solar panels, which right now are producing large amounts of pollution-free, and almost $$$ free energy. What I don't use it exported aposematically to be used by others. WONDERFUL!

My house if on a hill, so I can see maybe 100 houses down below in the valley – all of them getting plentiful sunshine. Yet only maybe 15% have solar panels, so 85% don't. That's a huge potential gain they we are neglecting. The question is…….Why? This is the gist of my submission.

1) Change Pricing Polity to make it fairer.

I think the answer largely lies in the "Energy Australia" bill sitting in front of me.

It has a line item…."Supply Charge" of around $1.04 / day (rounded up). Fair enough – Energy Australia need to maintain the poles and wires. In fact, if they needed to increase this somewhat, I'd be OK with that.

Right now it's midday Thursday, so any power I consume is billed at peak rate. I (and all other EA customers at this time) get charged $0.58 / Kw Hour. But right now I'm producing more power that I consume, so I am "forced" to sell my spare power to EA for a measly $0.125 / Kw Hour. This means that excess power that I produce using MY infrastructure is purchased from me by EA*, and then immediately resold by EA to me neighbors at approximately a 400% markup!!*

How can it be sensible, reasonable, or fair for EA to make a MASSIVE and immediate wind-fall profit off power that I produced using my own infrastructure???

EA might ague…"Yes…but we have the cost of providing the distribution system". But that's covered by the daily Supply Charge!

The way the system is set up in NSW, rooftop solar is being actively discouraged by the enforced pricing policy, which essentially robs the individual producer to fatten the wallets of the distributor. It's legalized extortion.

I'd advocate that the supplier be only allowed to make a marginal (say 10%?) profit on reselling my solar power. So if this was implemented, and they wanted to sell at $0.58 /Kw Hour, then they'd need to buy my power at around $0.52 / KW hour. This would mean that my return would go up from around $41.00 credit per bill to around $173. Even more in Summer.

If the individual solar producer was paid **fairly**, there would be a huge increase in the incentive to go with rooftop solar. While this in itself is a good thing – it does lead to potential supply peaks and valleys……which leads to the 2nd part of my submission.

2) Storage Is King

It's absolutely clear that the missing part of the jigsaw right now is mass storage. This will become increasingly the case as renewables come on. IMHO distributed storage could be a large part of the solution.

Right now I could potentially solve my own problem (and get back at EA) by installing batteries in my house. There are two things stopping me – and they are interrelated.

a) Batteries and the related infrastructure are still quite expensive for the individual consumer to install. This is especially true if the warranty on the battery is only a few years.
b) I'm not sure how long I'll be living in this house (which I own), so not sure if I'd ever get my money back if I invested in costly battery storage.

I'd advocate the NSW Government should "lead the way" be doing two things:

a) Making localized in-house batteries much more affordable. Not sure how….low interest loans, subsidies, other options???
b) Legislate that all large scale batteries should have a minimum warranty period – something in the order of 6 to 8 years.

Such improvements would lead to a virtuous circle where as more batteries are installed, and the unit cost would get cheaper. We've clearly see this happen with solar panels. Maybe in 5 years the cost of such installs would decrease by close to 50%, making it much less of a problem for individuals.

If (say) 75% or houses in NSW has rooftop solar, and (say) 50% of houses had decent battery storage, and if excess power produced and put into the grid (from either panels or batteries) was purchased a at a fair and reasonable rate, then I suspect we'd be MUCH closer to removing the need for coal-fired power stations altogether. Supplement mass household supply with some commercial industrial-scale storage, solar farms, wind turbines and the odd gas-powered booster station, and I suspect we'd be close to a 100% coal free based system.

Regards……..Anthony Learmonth

PS: And as a bonus, rather than coal-fired, battery-powered cars, why not liquid feel systems based on Ammonia – produced using sea water, atmospheric nitrogen and solar power. The Ammonia gets split in the car's engine, producing Hydrogen which is burned, and liberating only Nitrogen and water back into the atmosphere. Australia could become the world's largest exporter of liquefied, Carbon free energy!