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Sent: Monday, 17 September 2012 12:31 AM
To: General Electricity Address
Subject: FW: Submission on the 8c wholesale Feed in Tariff and the sillyness of Gross Metering

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RE:

I note the Terms of Reference provided to the QCA by the Minister

Defining fair and reasonable

In establishing a fair and reasonable value for energy generated from small-scale solar PV generators and exported into the Queensland electricity grid, the terms of reference require that the Authority should have regard to the following:
(a) the COAG's first National Principle for feed-in tariffs and the concept of fair and reasonable value;
(b) there must be no consequential increase in electricity prices in Queensland or cost to the Queensland Government budget;
(c) the benefit gained by electricity customers, distributors and/or retailers from electricity produced by small scale solar PV customers; and
(d) other issues the Authority deems relevant.

I note this is consistent with the National Feed in Tariff Principles of COAG in 2008

Micro renewable generation to receive fair and reasonable value for exported energy
1. That Governments agree that residential and small business consumers with small renewables (small renewable consumers) should have the right to export energy to the electricity grid and require market participants to provide payment for that export which is at least equal to the value of that energy in the relevant electricity market and the relevant electricity network it feeds in to, taking into account the time of day during which energy is exported.
Any premium rate to be jurisdictionally determined, transitional and considered for public funding
2. That any jurisdictional or cooperative decisions to legislate rights for small renewable consumers to receive more than the value of their energy must:
a) be a transitional measure (noting that a national emissions trading system will provide increasing support for low emissions technologies), with clearly defined time limits and review thresholds;
b) for any new measures, or during any reviews of existing measures, undertake analysis to establish the benefits and costs of any subsidy against the objectives of that subsidy (taking into account other complementary measures in place to support small renewable consumers);
c) give explicit consideration to compensation from public funds or specific levies rather than cross-subsidised by energy distributors or retailers; and
d) not impose a disproportionate burden on other energy consumers without small renewable generation.

http://www.coag.gov.au/sites/default/files/20081129_national_principles_fits.pdf

My Submission:

1. The Generous and heavily subsidised 44c PFIT has done a wonderful job to launch a Qld Solar installation industry but it was a very generous cross subsidy that is already costing other customers $59M for the next 18 years, and is not sustainable, and to boom-bust cycle it any more is silly, or to continue rolling out PV on the basis of ongoing "solar welfare" is not "fair or reasonable", but the proposed "final call for all about" and ongoing 44c for those already on it is fair.

2. 8c-10c is clearly the real economic value of the export, the work by IPART, ESCOSA and VECC have shown that, and there has been no contradicting evidence showing errors in those analysis or outcomes, and so that should become the price so that future installations (and buyers) are not maintaining this entitlements and expectation of solar welfare.

3. There is little or no benefit or value derived in the Distribution Network, the capacity of the Distribution Network is built to meet the increasing airconditioning demand, that demand peaks between 4pm to 6pm but is still at a value of at least 90% or more some 3-5 hours later at 9pm, long after all solar PV (including tracking and west facing units) has ceased providing any demand support.

Hence the lack of reliability of supply from PV, makes it of little value to the Distributor, and in fact its localised voltage rises cause voltage gradient problems for other customers, and where there is PV saturation, or a small dedicated distribution substation/transformer, the reverse flow into the HV network is not adequately protected.

Voltage control on the LV network is largely with fixed tapchangers and the HV outgoing feeder and its zonesubstation provide the only dynamic voltage regulation for all down stream customers.

There may be avoided use of the transmission network during the day while the su shines, implying a retailer saving of perhaps 1c/kWh that the PV industry would arge should be passed onto, or shared with the customer, however that in itself doesnt really avoid the full capacity of the Transmission network being utilised at 9pm.

But this is the problem with the volume based usage charge of the Grid Infrastructure, in that it over collects from large users, and under collects from small users, creating a catch 22 as prices rise, incentivising avoidance of use but pushing up the costs to all remaining usage, a capacity charge based on demand, along with a fixed supply charge as already in place, could better reflect the real cost of grid access and implied reserved capacity.

In addition the network pricing should introduce a seasonal or hot day premium fee between 4pm and 10pm, triggered by a temperature event.

4. PV costs have reduced sufficiently for the cost of small systems - right sized against a customers daytime usage (9am-5pm) to be at grid parity to import avoidance pricing, and such a system will achieve an attractive ROI. More information and training, and obligations, should be placed on solar sellers to calculate the "right sizing" of solar systems for customers based on their existing daily usage and existing daytime usage so as to provide a "rightsized" payback picture based on Xc avoided import and 8c export. There is no need to continue cross subsidised FIT pricing, to incentivise larger systems to create profits at the cost of other customers or the taxpayer.

5. You will no doubt recieve many submissions pointing to the great success of German Gross Feed in tariffs. Germany was investing in "manufacturing export" jobs making solar panels and inverters, but that investment is now funding factory jobs in China, and Spain implemented the German Gross FIT model and discovered all it did was generate a mountain of debt, and fund German Factory workers and later Chinese Factory Workers, and put Spain in the dole queue and soup lines behind Greece.

6. The massive focus of RE subsidies on the small scale PV market such as the premium Feed in Tariffs and 5x RECS Multiplier have been at the detriment of large scale RE, and so we should have been investing in all those stalled large scale RE projects and developing R&D, design, construct and project management capabilities to produce that equipment factories here and to export and install it overseas.
Our small scale PV investment is building an army of PV telemarketers and PV roof installers that will not be providing us with any export capability to install PV on the roofs in Asia or elsewhere in the world!

7.Australian building codes, and State and local governments should quickly put in place a mandatory building code requirement on new residential dwellings having a 1.5kW to 2kW PV installed by the builder / developer and built into the purchase price and therefore paid off in the 25 year home loan just like the house underneath the PV system and the

roof tiles its sitting on. That strategy will create more than enough work for the existing solar industry workforce other than the snake oil salesmen.

8. The 2x RECS multiplier comes off next year and at that time new PV installations should instead retain their RECS and retailers should be permitted to offer a wholesale green energy payment of perhaps 2c-3c on top of the 8c.
6.Existing large system owners on the 44c will get a full return on investment literally twice over, and new buyers of large systems should be fully informed by government/solar industry and retailer websites that their excess capacity for export will earn them just 8c and may not be a good investment. (see 3 above)

9. Section 4.2 proposes consideration of a Gross Metering solution in place of Net Metering.

Net is Good, Gross is Not

In a subsidised FIT in excess of the retail import price, Gross is a rort or double dip, allowing customers to sell energy to themselves for a 40c windfall gain as per the NSW Gross 60c FIT where many customers 100% export was simply imported immediately to their own loads at 20c, ie 60c-20c=40c wingfall gain.

Net Metering simply requires the existing meter to be replaced with a bi-directional meter in compliance with NER chapter 7.
Gross Metering requires at least 2 meters to be installed, at its ultimate deployment, resulting in a doubling of the metering fleet, and a doubling of the reading, data processing and data delivery processing and storage load.

Gross metering requires the inverter to be wired directly to the meter, limiting efficient and cost PV locations to the house roof, and the meter board end, making for higher costs for south facing houses and rendering outbuilding roofs unviable. these problems do not exist in Net.

Net incentivises energy efficiency and energy conservation, a far lower cost delivery of carbon emission reductions and demand reductions that PV generation.

I would recommend QCA simply quietly "bin" their section 4.2 blaming the Net metering for all their problems, (I spoke to some people in Victoria involved in the VECC process and they admitted this was rejected there as a joke), I have some minor training in economics and the "logic" that sits behind that section is simply "silly" and started in NSW Essential Energy's submission to IPART (their economist must have had a brainsnap) and successive submissions have simply cut and pasted it into Victoria and now Qld.

Under Gross Metering, the Distributor (and retailer) are being paid retail import energy income on PV generated energy instantaneously generated and delivered to the meter board via the Gross export meter, and then instantaneously imported back into the customers own premise for his own consumption.

It was a rort for the PV customer to make 40c windfall gain in the NSW 60c Gross PFIT for supplying himself with his own energy (60c Export-20cImport=40c Windfall gain)

It is just as big a Rort for the Distributor and retailer to acquire the FIT Export now at 8c, (paid for by the retailer) through a Gross Export Meter, and then deliver and retail it straight back of the meter board into the premise via the Import Meter at 20c-25c, ie making a 12c-17c windfall gain.

The Distributor has not carried any of that Gross Metered export energy over their network, its still on the customers premise, it hasnt left his meter board, and hasnt got past his letter box, yet they argue for this model to recover lost of reduced revenue because the customer is using less energy and paying less under the volume pricing model.

Yet the same thing happens to empty nester couples, or energy efficiency/energy conservation consumers, or in the simple comparison of an empty block to a 6 person house, both are valued due to their location and ammenities such as the power being available, but the empty block is currently making no contribution to the cost of the network, nor consuming anything, but will expect to connect whenever it wants, and have capacity available.

This is the silly end result of the fractured economic logic proposed in section 4.2 of the QCA paper, and of course its intention is that customers will sell 100% of production at the FIT, and buy it back at retail.

It is an ambit claim to have the new "fair and reasonable" FIT of @8c reverse the rort of Gross Metering against the PV rather than for it, or in its benefit.

ie you put in a 2kW system, its 100% output during the day might be say 10kWh (depending on where you are longitude wise) and so you get paid 10x$0.08 = 80c

Then as your home during the day, that 10kWh never actually leaves your meterboard or property, its never actually got past your letter box and out in the street.

Instead, that exact same 10kWh goes out your gross export meter, and straight back in your import meter, and you use it, and pay retail import pricing on it, say 10x$0.25=$2.50

So your Solar investment of @$3k earns you at 80c discount off your $2.50 use of electricity.

As against avoiding use of any import energy (saving $2.50)

Or even if you only used 9kWh and Net Exported 1kWh – saving $2.25 + earning $0.08 = $2.33

Gross metering for Generous subsidised FITs is silly because it over subsidises and doubles up on what should simply be an avoided import saving.

Gross metering for a wholesale based FIT is rediculous because its paying the Distributor for delivering energy from one side of the meter panel to the other (out the Gross export meter and into the Import consumption meter) and for no energy sourced at that time from their grid or the other generation sources, its forcing solar customers to sell their electricity and then buy it back.

Its silly economics and fails all electricity market, let alone any free market economic theory.

It is based on a basic argument that by reducing their usage, PV customers are not fully contributing to the standing cost of the grid assets sitting there available for their reduced use.

10.
This is not a metering problem, its a pricing problem, which can be solved a number of ways:
1. Increase the fixed price component of the grid fee.
2. Increase the summer peak price for the aircon load that is actually driving network investment.
3. Increase a Capacity charge relating to both the availability and size of the usage, when the grid is used.

Review the pricing and pricing method, rather than corrupt the market model with inefficient metering that doubles the cost of providing and installing additional metering for Gross, along with the societal cost of the additional customer wiring work required, and then of course the maintenance and reading /processing/billing costs of the additional metering.

If PV is reducing customer's usage causing them not to pay their fair share, then how is the same metering solution to the problem of customers who use energy efficiency, or load shifting into Off-peak to be specially metered to make them contribute.

Indeed there is a vacant block next to my house, the owner has access to the grid passing right past his gate, but is currently not connected or consuming anything (not unlike a customer with a right sized PV) and in fact this empty block is actually not metered or billed at all, and consequently its not contributing its fair share of the cost of the grid it might one day want to use, so how do we Gross meter them?

Or simply the empty house that is using nothing but still connected, and so still paying the existing standing charge, but not making any additional contribution to the costs of the grid, as they are not consuming any energy – do we Gross meter them as well?

It was silly enough when Essential Energy first proposed it to IPART, it was sillier when some Victorian Distributors proposed it to VECC, but its most silly for a regulator such as QCA to propose it themselves!!!!

If you put in a large PV system the silliness reduces to simply approaching the pointless investment of high cost small scale PV as a wholesale source (ie if most of your system investment is for export income, then 8c at Gross or Net is still 8c).

The primary advantage and suitability of right sized PV remains as an import avoidance or substution energy source at the load point, and in a wholesale market price world of 8c, that means right sizing systems to cover your daytime consumption (Not daily – Just daytime!), so that your saving or avoiding retail priced import energy at 20c+++.

Regards

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