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Submission to Senate Select Committee Inquiry into Electricity Prices

SEIA is an association representing solar installers and retailers whose main engagement is in the residential and small to medium commercial market.

Rooftop Solar PV, following energy efficiency measures, is currently the best way for Australian families and businesses to produce some or all of their own energy, and thereby insure against future electricity price rises.

Energy from Solar PV is clean and cost competitive:

Solar PV is now at "socket parity" in Australia. As the following graph from Bloomberg New Energy Finance demonstrates with recent Levelized Cost Of Energy (LCOE) figures, it is cheaper to produce electricity from rooftop PV than to purchase the same quantity of energy from the electricity grid.

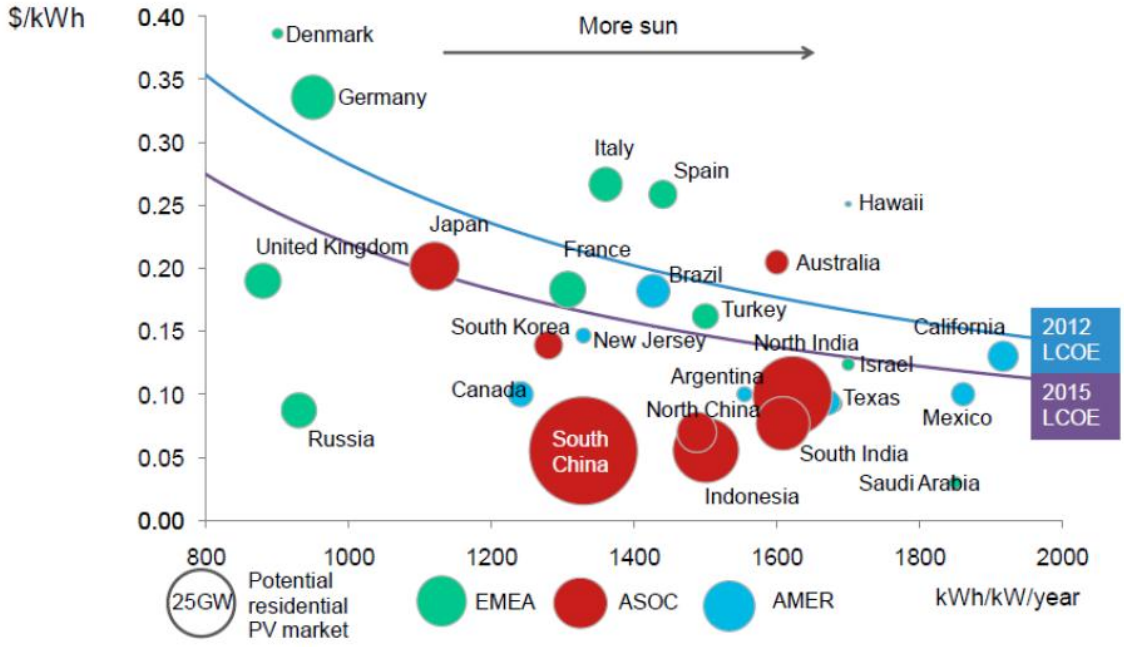


Figure 6: Residential PV price parity (size of bubbles refers to market size) (BNEF, 2012a).
Note: LCOE based on 6% weighted average cost of capital, 0.7%/year module degradation, 1% capex as O&M annually, $3.01/W capex assumed for 2012, $2.00/W for 2015.

Falling costs of residential rooftop PV installations have flowed through to the Australian consumer, and are currently averaging below $AU 2.50 per Watt installed.[1] The lower the capital cost, the lower the cost of the energy delivered to the consumer.

The cost and benefit of the Renewable Energy Target (RET):

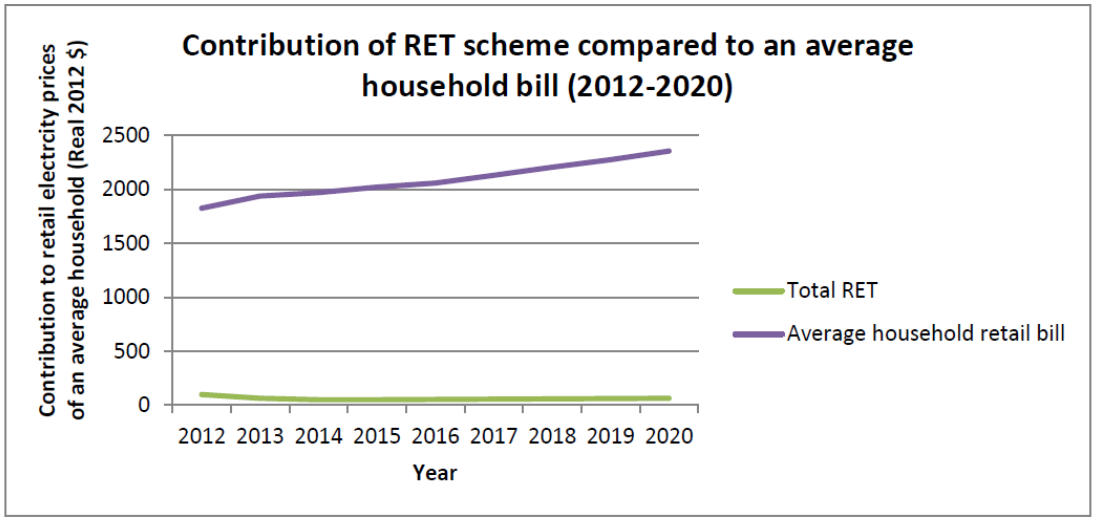
The RET has been the single most important element in supporting and growing the solar industry for the residential and small commercial market. This has resulted in thousands of jobs in the sector as well as many businesses joining the industry. This jobs and market growth has been especially beneficial for regional areas where employment and business opportunities are fewer.

The RET has provided a baseline stability under the various State government based "stop- start" Feed in Tariffs of the recent years. Overall, the RET has been an essential component of the industry for Australian solar businesses.

It is essential that the RET is retained in its current form of a fixed target of 41,000 GWh , or expanded to bring us ever closer to a clean energy future.

The cost of the RET to the community is small:

The cost of the RET is often exaggerated by energy retailers and generators, supported by some in the media – it's easy to blame electricity price rises on "green schemes", however the facts as illustrated on page 8 of the Clean Energy Council Response to the RET Issues Paper [2] below, show otherwise:

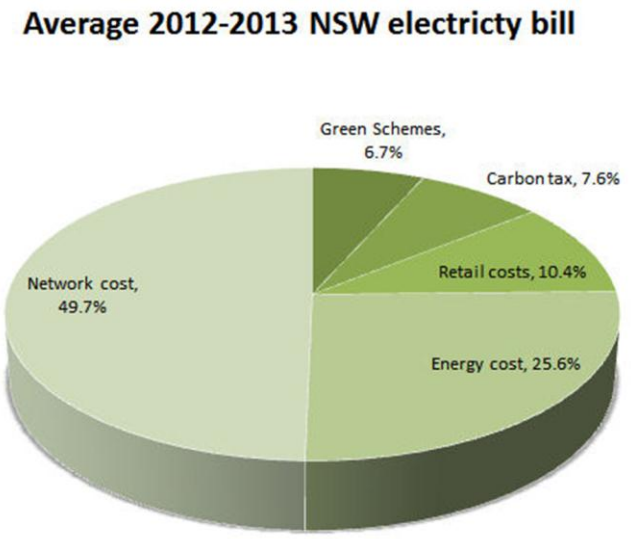


Forecast cost of LRET on an average residential consumer annual electricity bill ($) (assumes usage of 7300 kWh pa)										
Carbon Price Trajectory	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
CPT -5%	$31	$38	$38	$34	$37	$40	$44	$48	$51	$54

[1] PV Price check Sept 2012: http://www.climatespectator.com.au/commentary/solar-choice-solar-pv-price-check-september

[2] http://www.cleanenergycouncil.org.au/dms/cec/policy/submissions/CEC-response-to-RET-Issues-paper-110912/CEC%20response%20to%20RET%20Issues%20paper%20110912.pdf

The "Green Schemes" proportion of a current NSW consumer's electricity bill is minute; however these schemes are providing critical support and momentum to move Australia closer to a low carbon emissions economy. The following graph from analysis by Nigel Morris of Solar Business Services[3] is testament to the real costs of electricity.



Federal Government support for rooftop solar PV:

Whilst the government has shown support for rooftop through the RET, there has been little support in terms of a consistent national approach to the value of energy that is produced. A national Feed in Tariff, at or marginally below the retail value of electricity has been difficult to work towards, due to the State government responsibility for the essential service of electricity supply.

Support in the form of a guaranteed fair rate for the energy produced is critical to the uptake of rooftop solar, as can be seen in the way the solar markets surge then collapse at the termination of the various State premium Feed in Tariffs.

There has been a COAG agreement on Feed in tariffs (date), in which the principles attempt to define a fair value for solar energy exported.

Since the winding back of Premium Feed in Tariffs across Australia, this principle has been overridden by various State Government enquiries conducted by NSW IPART, SA ESCOSA and VIC VCEC which have all essentially placed a "fair & reasonable" value of solar exports at around 5 to 10c, compared to a residential retail buy price of 20c to 40c.

This has been a terrible shock for the solar industry. SEIA NSW members experienced an almost immediate drop from 60c down to 6c for exported energy, and as a result many jobs were lost and businesses closed or moved into the conventional electrical contracting market.

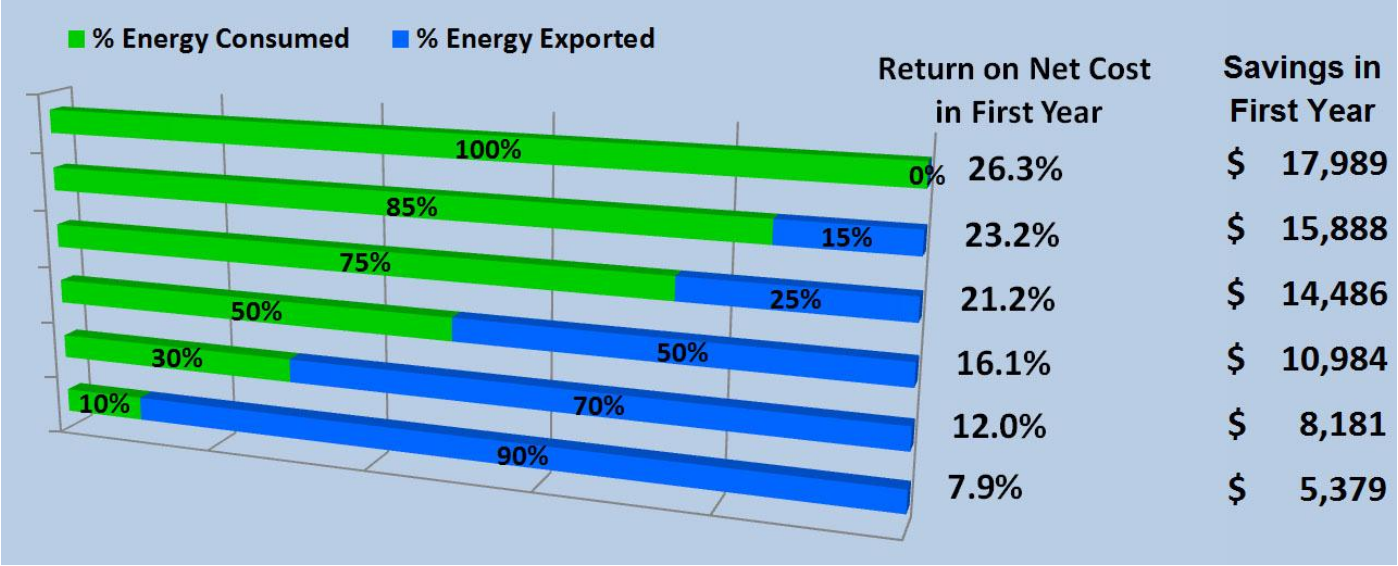
The Emergence of self-consumption solar:

[3] Data provided by IPART final determination on 2012 -2013 electricity prices in NSW http://www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Retail_Pricing/Changes_in_regulated_electricity_retail_prices_from_1_July_2012

By making exports worth about a third to a quarter of the retail price of electricity, the NSW government and other state governments subsequently, have created a self-consumption market where the greatest value is in consuming the solar energy as it is produced.

Net metering as adopted by the majority of states allows solar customers to produce and consume the solar energy produced with a value at the full retail price, with only excesses being exported at the lower FiT rate. Providing a reasonable proportion of the energy is consumed on site, a reasonable rate of return on investment is delivered, saving on electricity charges and insulating the customer from future price rises.

The graph below identifies various scenarios of return, based on different ratios of energy self-consumed and exported. It represents a 28.8 kWp commercial system installed in Regional NSW, STCs @ $29, electricity @ 36.18c/kWh, solar exports @ 8c/kWh (ex GST).



Threats to self-consumption solar:

The ironically named Queensland Competition Authority is currently conducting a review into a "Fair & Reasonable Feed in Tariff for Queensland" and are taking the view that there should be a Gross FiT at around this 8c rate.

This essentially would create a situation where consumers would be prevented from producing a proportion of their own energy with solar PV, unless they were prepared to introduce expensive on-site storage and prevent exports. It is effectively endorsing an anti-competitive position.

If this were allowed to happen, it would put an end to the self-consumption market in Queensland, and could spell disaster for the solar PV industry nationally if the concept were allowed to spread.

Such a policy could lead to perverse outcomes where consumers will purchase less kWh from the grid anyway through the use of solar PV & on-site storage. By more people effectively leaving the grid, connected only as a backup in extended inclement weather periods, this will lead to the very situation such a policy is trying to avoid – the death spiral of the electricity generation & distribution industry; they will price themselves out of the market.

Another threat to the self-consumption solar market is the ability of energy retailers to increase the standing charges, or "service availability charges" disproportionately compared to the kWh energy rates. Shifting charges in

this way does not encourage energy efficiency, and also discourages the consumer from creating their own cheaper and cleaner energy with solar rooftop PV.

Energy networks and retailers who make their money by selling kWh appear to be positioning themselves to block out PV where possible, naturally defending their business model. The problem is that regulators appear to be encouraging this behaviour, at the expense of a technology of the future which holds benefits for all.

The True Value of Distributed Generation:

State government agencies developing a "fair & reasonable" value have not given sufficient value to distributed generation.

NSW IPART[4] recognises that the current National Electricity Rules were written before distributed generation was material, and thus need review. So long as the National Electricity Rules' discrimination against distributed generation continues, provision to PV owners of 'fair and reasonable' value for solar exports is impossible without regulation.

A recent CSIRO report has shown that a lack of incentives and appropriate policies are hindering the uptake of distributed energy. Distributed energy generation could save up to $130 Billion in the overall cost of energy supply.[5]

Summary:

Rooftop Solar PV is one part of the solution to high electricity prices. The public expects government at all levels to support clean, distributed energy, and the current regulatory environment is hindering the uptake, not encouraging it. Poor rates for solar exports described by state governments as "fair and reasonable" are viewed by the Australian people as anything but fair and reasonable. From the consumer's point of view, "Why should I be credited 8cents for the same energy I pay 30c for? It's just not fair."

Recommendation 1:

Federal government move to develop a national Feed in Tariff that is fair, and accounts for the true value of distributed generation.

Recommendation 2:

The Federal government legislate to ensure that state government regulators, electricity generators, distributors and retailers cannot manipulate connection approvals, Feed in Tariffs, or electricity rates to lock out solar PV as a competitor in the Australian electricity market.

[4] http://www.ipart.nsw.gov.au/files/81824c4b-8b4b-475f-8e28-a01400f5d55e/Final_Report_-_Solar_feed-in_tariffs_-_March_2012.pdf

[5] http://www.sciencewa.net.au/topics/industry-a-resources/item/1670-$130-billion-saving-possible-now-by-decentralised-energy-grid.html

SEIA appreciates the opportunity to provide a submission to the Select Committee Enquiry into Electricity Prices.

We trust that the committee will see that Rooftop solar PV can be a significant contributor to easing cost of living pressures for the average Australian.

Yours Sincerely,

Geoff Bragg

NSW Chairman, SEIA

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