ESC feed in price submission Jan 2025

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Overview

While I appreciate that the ESC must estimate the PV feed-in price using Victorian government guidelines, The present methodology is deeply flawed, and must be changed. Key flaws include:

- No consideration of the real costs to network operators and retailers of managing PV output relative to the income they receive, and the case for PV owners sharing some of this money
- No consideration of the substantial investments many households have made in large PV systems based on the (aggressively promoted by both governments and industry) assumption that reasonable export prices would continue. This will potentially undermine behaviour of consumers considering investment in rooftop PV and broad consumer confidence in energy regulators, policy makers, governments and the energy supply sector
- No consideration of seasonal variations in PV output and the broader energy demand profiles. PV output in cloudy, cold winter periods when wholesale prices and emission intensity of electricity are high can be low but is potentially very valuable: it is not rewarded. Failure to provide simple seasonal pricing signals for renewable electricity exports means that energy consuming activities that increase daytime electricity demand in winter when solar output is low, such as inefficient electric space and water heating, are being sent perverse price signals. It provides no incentive for seasonal optimisation of PV system design.
- Low and negative wholesale prices when PV generation is occurring reflect the inflexibility of coal fired generators, which are being phased out and are becoming increasingly unreliable, so it is not clear why PV generators should be penalised for the ongoing use of these outdated and high emission generators.
- Some retailers are now offering lower daytime electricity prices to reflect the impact of PV on wholesale market prices in sunny weather. In theory, this is a positive step, especially for consumers who do not have PV generation. However some retailers seem to be incorporating this into tariffs with significantly higher evening and morning peak prices, so consumers face difficult decisions to assess how the ‘swings and

roundabouts' will affect their overall energy bills. This complicates their decisions, potentially undermining behaviour change.

- Encouraging PV owners to invest in expensive batteries and behaviour change reflects a failure to understand consumer realities. Batteries are expensive and many consumers are not able to invest in them because they are renters, constrained by Owners Corporations, may not have space to meet fire and other regulatory factors, or do not have the financial capacity.

While it is beyond the ESC's role, it is obvious that the present situation is a mess. The Victorian government must quickly step in to address the situation.

It is also beyond ESC's charter, but it may be preferable to change the approach to retail pricing to provide more stable base prices and quarterly separate payments to recognise the efforts people make to shift demand and the realities of the balance between supply and demand profiles. Complex pricing and small incentives do not encourage consumers to focus on energy, which is a relatively small proportion of overall living costs for most retail consumers.

The following is an article of mine published by Reneweconomy that explores these issues.

My Reneweconomy article

See https://reneweconomy.com.au/why-the-latest-draft-feed-in-solar-tariffs-are-wrong-and-not-fair/

I reject the fundamental logic of the present method of calculation of the solar PV feed-in price.

I can understand how the feed-in price is calculated, but the methodology is fundamentally wrong and does not acknowledge the realities of local generation. The regulatory treatment of local network-based 'community' batteries faces similar distortions.

At the same time, I recognise that the Essential Services Commission – the regulator in the state of Victoria – must follow specified methodologies – but these are wrong. Government and energy market policy makers must act to fix this.

Most of the time, rooftop solar is fed into the local electricity network, and is consumed locally. As the ESC notes, a PV owner pays full retail prices for electricity it imports and will be paid the (near zero) feed-in price for exports from July.

However, a kilowatt-hour of electricity exported, for much of the time, is sold to a nearby neighbour for the full retail price, and the network operator is paid a 'postage stamp' price for use of the network averaged over the whole system, not the actual marginal cost of providing the local network.

How much profit do the network operator and retailer make from this kilowatt-hour of electricity? Should it be treated as a windfall profit? Should the PV owner be entitled to a share of this profit to offset the periods of time when PV output is 'excess'?

'Excess' PV output is relative. PV generation pushes wholesale prices down because large coal-fired generators 'must run', and have priority.

Should PV generators be punished because coal generators are not very flexible? Maybe ESC modelling should be based on maximum operation of 'least cost' generation, not propping up of fossil fuel generation?

As the ESC states, it considers only wholesale electricity prices (at times when PV exports occur), avoided transmission and distribution *losses* (which are small), and an (outdated) avoided social cost of carbon. It does not seem to consider the profits made by network operators and retailers and how they should be allocated.

ESC considers the costs retailers avoid when buying PV exports. But they do not seem to consider the profits retailers (and network operators) make when selling that electricity to a customer at 26 to 35 cents or more per kWh. Shouldn't PV generators get a share?

Local networks are often significantly oversized, to cope with expected peak demand. What is the marginal cost to the network of sending PV output to nearby neighbours relative to occasionally sending it further across the network? A network operator could choose to install profitable neighbourhood batteries instead of investing in network upgrades to cope with negative flows of electricity.

Under the recent change in the National Energy Objective, policy makers must factor in a carbon price, at present around $70/tonne of emissions. If a kWh of PV export avoids the need for a kWh of gas generation, should it get credit for avoiding the social cost of about 4 cents/kWh? The ESC does incorporate a carbon price in its calculation. ESC says it allows 2.49 cents/kWh according to a 2017 ruling. It is now 2025.

The ESC's suggestion that PV owning households can save more by using more PV output within their properties is not a rationale for near zero export pricing.

As Energy Consumers Australia has found, many people can't or won't change their energy consumption patterns. This just seems to be an attempt to shift responsibility onto PV owners.

Is the ESC suggesting that PV owners should be expected to buy expensive batteries with long payback periods to further subsidise the electricity supply industry's profits? Or to make changes in their behaviour that most other households can't or won't make?

The ESC uses St Vincent de Paul analysis to point out that PV owners will have annual bills $655 to $895 less than non-PV households. But the PV owner has paid thousands of dollars for the PV system with a payback period that often is 5-10 years, even after subsidies.

What is a 'fair' rate of return for a PV owner? Based on my extensive experience, most businesses will reject investment in energy efficiency measures with more than a 2-3 year payback period. So investors in PV are acting beyond the typical investment criteria applied widely across the energy market. Shouldn't they get credit for this?

Governments proudly say PV reduces overall *retail* electricity prices for all retail consumers. Shouldn't that be recognised? Yet that's not what is happening.

The low wholesale prices for electricity at times of high solar generation are an outcome of our electricity market and existing generation technologies, and have 'swings and roundabouts'.

For example, Tas Hydro imports lots of 'excess' renewable electricity from the mainland via the Basslink cable at low and even negative prices in sunny weather. This allows them to hoard stored water in dams to generate electricity they can sell to the mainland in winter for much higher prices. That's how markets work.

But allowing energy retailers to sell PV output for 26 to 35 cents/kWh to a buyer a few streets away from a generator that has been paid virtually nothing, driven by distorted market rules, not real markets, is yet another serious energy market design failure.

Additional comments

Some retailers are now offering lower daytime electricity prices but many of them also seem to then charge significantly higher evening/morning prices, which hits people who can't shift demand or afford a battery and complicates consumer decision-making – 'Will I be better off given the swings and roundabouts'?

In my recent submission to the AEMC consultation on a consumer-led system (see 004 Submission Alan Pears AEMC Consultation Final.pdf or https://www.aemc.gov.au/sites/default/files/2025-01/004%20Submission%20Alan%20Pears%20AEMC%20Consultation%20Final.pdf) I outlined the potential for affordable plug-in storage/smarts (eg German 'balcony PV and US induction cooktops) for renters and people in OCs who have little control beyond their powerpoints so home batteries and PV, building upgrades etc are outside their control. Further, home scale batteries are expensive, occupy space and involve significant installation costs, so ESC's suggestion that PV owners invest in them offer limited scope to adjust to a near-zero feed-in price.

Plug-in options could allow more PV owners and other consumers to respond to variations in supply, cost and emission intensity of electricity. They could be sold through appliance retailers and avoid the need to engage with the energy sector and trades. Government mechanisms such as incentive schemes could support innovation to develop and supply such options.