Submission to Essential Services Commission on the proposed feed-in tariffs for 2025-2026

With reference to the proposed Feed-in Tariffs from 1st July 2025, although I see the logic of the ESC's calculation method (except for the avoided line losses calculation which just seems to be wrong), I believe that the ESC needs to take a broader view and look at the bigger picture. We need to try and prevent further climate change by reducing our fossil fuel usage. One of the easier things that we can do is to install more solar power and storage to reduce and eventually eliminate our coal fired power. The ESC needs to take into account state and federal government policies on emissions reduction and consider what effect their decision on feed-in tariffs will have. What will be the effect on the uptake of rooftop solar and the rooftop solar industry if the feed-in tariff is reduced to 0.004c/kWh ? We do not want to slow down the growth in rooftop solar. To encourage more people to invest in rooftop it makes sense to continue to pay rooftop solar owners for their solar feed-in.

I offer the following 12 separate points for your consideration:

(1)

Referring to the document ***'Minimum Electricity Feed-in Tariffs from 1 July 2025 - Draft Decision'*** dated 10 January 2025:

Quoting from page 12 and 13:
"The value of the line losses are negative as we calculate this by multiplying our forecast wholesale electricity price by line losses factor. Because our forecast for wholesale price is negative, this means the value of line losses are also negative."

This does not seem to be a logical approach to calculating the avoided line losses. I don't believe that the avoided line losses are a simple function of the wholesale price and should not be treated as such. Just because wholesale prices go negative doesn't mean that the avoided line losses go negative. If this were true it would mean that transporting electricity over short distances results in greater line losses than transporting over long distances, which seems absurd.

If the value of the avoided line losses was calculated by a more scientific and logical method it would be a positive number and this would result in a higher positive value for the calculated minimum feed-in tariff. The difference may be small but any increase on the proposed 0.04 cents/kWh would be better than nothing.

(2)

The negative wholesale prices during the middle of the day are because the network companies, generators and retailers have not built enough storage to keep up with the growth in rooftop solar.

Rather than penalising households for the failure of those companies to keep up with the growth in rooftop solar, perhaps a better approach would be to force the retailers to pay solar households a higher feed-in tariff. This would provide an incentive for them to invest in building more storage. If the power companies will not build enough storage to cope with the growth in rooftop solar then this should be a job for the SEC.

(3)

The flat rate of 0.04c/kWh is ridiculous. With my 3kW system I calculate that I would earn less than a $1 a year from the feed-in tariff. With either of the time varying options I could earn a little more but why would the retailers bother to offer this option when it is going to cost them money. At least give us homeowners a chance to earn something from our feed-in by making it a **requirement** that the retailers **must offer customers at least one of the time varying options** (preferably both options, so that customers can decide for themselves).

It should also be a requirement that the electricity retailer must provide information to the customer about how much they are likely to earn from each feed-in-tariff option. A statutory statement must be included in any quote for electricity, including example figures such as the suggested format shown below:

A typical north facing 5kW rooftop solar system in Melbourne with 50% feed-in* can expect to earn:

- $ X per year from the 0.04 c/kWh flat rate feed-in tariff
- $ Y per year from Time Varying Option 1
- $ Z per year from Time Varying Option 2

* Assuming 50% of generated solar power is fed-in to the grid consistently throughout each day and throughout the year.
** For estimates for other feed-in assumptions see the ESC website.

(4)

If there is too much electricity being generated in the middle of the day then why do retailers not offer significantly lower rates at the times when wholesale prices go negative, to encourage more usage at those times.

Currently in Melbourne, off-peak is from 9pm to 3pm and peak is from 3pm to 9pm every day. So there is no differentiation in retail pricing between midnight and midday even though we are told there is a problem of too much electricity being generated at midday.

My retailer is currently quoting 20.3c/kWh for the off-peak period. This is more than their quote from 6 months ago and that was more again than their quote from 18 months ago. So off-peak retail prices have been going up for at least the last 18 months even though midday wholesale prices have been going down.

Why is there not another period from about 11am to 3pm with lower retail prices ?

Why doesn't the ESC look into this issue ? Instead of reducing the feed-in tariff why doesn't the ESC force the retailers to offer a lower retail price during the solar peak to try and encourage people to shift their energy use to this time. If this was successful, over time this would tend to reduce the frequency and extent of negative wholesale prices.

(5)

Referring to the document ***'Minimum Electricity Feed-in Tariffs from 1 July 2025 - Draft Decision'*** dated 10 January 2025:

Why does the document not include a graph showing the ESC's estimated solar weighted prices for 2024-25 and for 2025-26 ?

Also, there is no detail given of how the ESC's predictions of wholesale prices for previous years compared to actual wholesale prices. So how do we know if the ESC's predictions are accurate ?

(6)

How much battery storage is in the construction pipeline in Victoria ?
I found the following information from this website:
https://reneweconomy.com.au/big-battery-storage-map-of-australia

Big Batteries Operating in Victoria

Battery:	**Storage Capacity:**	**Operational Date:**
Hazelwood	150 MWh	2023
Victoria Big Battery	450 MWh	2021
Ballarat	30 MWh	2019
Bulgana	34 MWh	2021
Gannawarra	50 MWh	2019
Total:	**714 MWh**	

Big Batteries Under Construction & Recently Completed in Victoria:

Battery:	**Storage Capacity:**	**Operational Date:**
Rangebank BESS	400 MWh	December 2024
Melbourne Renewable Energy Hub	1600 MWh	2025
Koorangie Energy Storage System	370 MWh	2025
Total:	**2370 MWh**	

So, by the end of 2025 the total big battery storage capacity in Victoria is expected to be more than 4 times bigger than it was in November 2024. Has this been taken into account in the ESC's estimates for 2025-26 ?

(7)

The times used in Time Varying Option 1 seem odd:

- Why is 9pm-10pm on weekdays a period of zero feed-in tariff ?
- At weekends, why does the zero feed-in tariff last until 10pm when the Peak Period is 3pm – 9pm on Time of Use electricity tariffs.

(8)

Why do the proposed feed-in tariffs not include any seasonal variation ? There are significantly fewer negative price events in July than there are in January.

(9)

For many people it is not practical or possible for them to maximise the use of their solar power during the middle of the day because they are at work at this time.

(10)

We still need more renewable energy to meet our net-zero targets. The recent CSIRO draft gencost report concluded that solar with firming is the cheapest method of generating electricity. I believe that the most efficient way to add more 'solar + firming' is to add more rooftop solar owned by individual households and businesses combined with grid scale batteries owned by network companies or electricity generators. In this case there is no capital cost for the electricity generator for the construction and installation of solar panels, only for the storage. If you add 3.3c/kWh (the current feed-in tariff) how does this compare to other methods of generating electricity ? I suspect it would still be cheaper.

We do not want to slow down the growth in rooftop solar. To encourage more people to invest in rooftop it makes sense to continue to pay rooftop solar owners for their solar feed-in.

(12)

I think that the figure of 2.5c/kWh is a relatively small amount for the environmental and social cost. Based on the graph reproduced below, I estimate that the average CO_2 emissions for Yallourn and Loy Yang A and B power stations is approximately 1.3tonnes/MWh.

1.3 tonnes/MWh = 1.3kg/kWh

Therefore an environmental cost of 2.5c/kWh represents a cost of 2.5 cents per 1.3kg of CO_2 emissions which is avoided by using solar power instead of brown coal.

2.5c/1.3kg equates to about $19 per tonne of CO_2
This is quite a low figure for the cost of carbon when you consider that the carbon price in the European ETS is currently about 75 euro per tonne (approx. $125 per tonne) and has been over 50 euro per tonne since mid 2021.

Based on these figures, I think that the environmental cost used in the ESC's calculation should be more than 2.5c/kWh

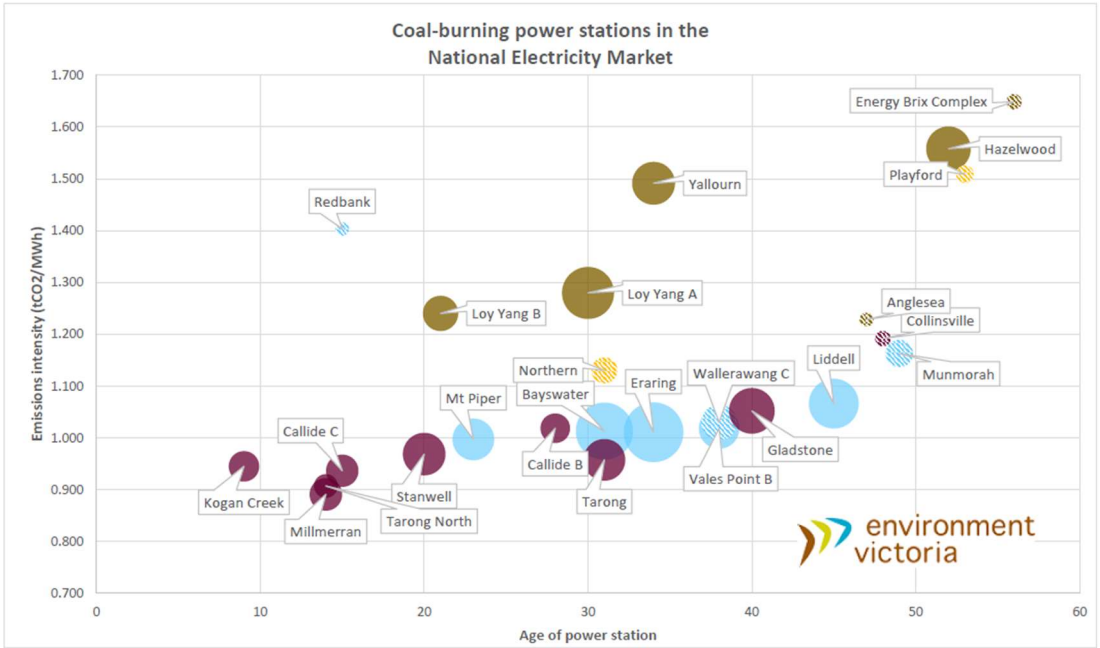

Figure 1. Coal-burning power stations in the NEM. The size of each circle represents the capacity of each generator. Victorian generators = brown circles; NSW = blue circles; QLD = maroon circles; SA = gold circles. Power stations that have closed in the past two years are represented by the diagonal lines through the circles.

Figure 1 taken from Environment Victoria submission to the Senate Environment and Communications References Committee Inquiry into retirement of coal fired power stations 2017.