Australian Air Quality Group (AAQG) Submission (closing 13 Feb 26): Electricity pricing for a consumer-driven future

The AAQG would like to see efficient electricity tariffs with fair price signals that help create efficient distribution networks that minimize overall costs while serving the best interests of electricity consumers. This strategy will minimize the cost of electrification and reduce the need for polluting fuels such as wood, gas, petrol and diesel.

This submission covers two questions. Q4: Make it easier for consumers to compare offers & Q5: Implement reforms such that network tariff design is focused on efficiency. As explained overleaf, and in the modelling from this Renew Economy article, a fair and efficient network tariff seems inconsistent with higher fixed charges.

Q4: Make it easier for consumers to compare offers

Q. Do you have any suggestions regarding potential improvements to Energy Made Easy to facilitate consumers' ability to compare offers?

A. Draft recommendation 4 is to provide the AER with additional funding to upgrade Energy Made Easy so that consumers can easily compare electricity offers, including new and emerging types.

EnergyMadeEasy.gov.au has many flaws that make it unreliable. Currently, it can't distinguish between NSW Controlled Load 1 and 2. It doesn't provide good information on consumption rates. It can't compare the user's current plan with other available offers (which would be very helpful for users who are on a cheaper plan that is no longer available). In addition, it provides a very confusing list of special offers with no ability to filter out ones that do not apply (e.g. users without an EV do not want to see hundreds of offers exclusively for EV owners).

Two other comparison websites - https://www.automised.energy and https://wattever.com.au do a better job of comparing every plan available to the user. Wattever is free, but can't download the user's data, so it has to be typed into the website. Automised can download the data and is free, but requires a paid subscription ($50) to reveal any plans with projected savings of $250 or more per year. Automised also has a very nice interface, nice usage charts (limited to the last 7 days for non-paying subscribers) and also correctly compares the user's current plan with currently available offers. Paid subscribers can choose to have the software scan and compare all available offers and alert the subscriber when better plans become available.

Rather than funding the AER to try to fix up software that is riddled with problems, it might be worthwhile employing the designers of these comparison sites to provide a free service to replace EnergyMadeEasy that could later be extended as necessary to cover more complex issues such as demand tariffs and the needs of VPP and other users.

Q. How else can consumers be supported to compare offers in the market?

A. An essential part of a strategy to support consumers is to create an attractive, functional comparison website incorporating all the useful features available to Automised Energy subscribers. It is important to gain users' trust so that they are happy to allow the site to download personal data. Because of the current complexities of the market, it's impossible for any electricity user (except possible those on a single fixed rate with no controlled load) to find the best plan without making use of recent consumption data.

The strategy should also ensure the free comparison site has a feedback box asking if consumers were able to find a better plan or if they were satisfied they were on the best available plan and, if they had tried other comparison sites whether they were satisfied with the results. Possibly, consumers using commercial comparison sites that compare only plans paying referral fees will be less satisfied; this might deter them from future attempts to find and switch to the best available plan.

The strategy should also encourage anyone who has difficulty using the comparison site to seek help from trustworthy locals in neighbourhood centres or perhaps even Service NSW (or the equivalent in other states). Those seeking help will need to come equipped with relevant information such as their NMI and current retailer, or a copy of their bill.

Q5: Implement reforms such that network tariff design is focused on efficiency

A. Efficient tariffs are those with fair price signals that help create efficient distribution networks which minimize overall costs while serving the best interests of electricity consumers. This should replace the current requirement to require networks to set tariffs on a long-run marginal cost (LRMC) basis.

With the roll-out of smart meters to be completed by 2030, most consumers will have access to time-of-use tariffs and the option to switch some of their usage to times when networks have surplus capacity, thereby reducing peak demand and the need for costly upgrades to infrastructure. Other initiatives such as flexible solar export limits, virtual power plants for batteries, Peak Smart software to manage power-hungry appliances during periods of extreme demand can all play a part in reducing the overall costs of network infrastructure and therefore represent the best interests of all consumers.

The Consultation document states (Box 3, page 36): "We like fixed charges because they have a limited impact on customers' decisions. When customers are deciding to heat their home, buy a new television or install solar panels, the fixed charge should not influence their decisions. This helps customers make good decisions."

No evidence is provided to support this surprising claim, which ignores the substantial increase in predicted demand over the next 10 to 20 years and the potential for a massive increase in network costs which would be passed onto consumers – the worst possible outcome for all concerned. Fair price signals are essential for efficient distribution networks. In NSW, in 2025, both demand and prices peaked in winter. This is likely to continue in future years because rooftop solar is at its lowest in winter and batteries charged by surplus solar might not have enough capacity to supply heating for long winter evenings.

Johanna Bowyer & Jay Gordon note (Renew Economy, Dec 2025): "*There is currently upward pressure on network expenditure. The Australian Energy Market Operator (AEMO) has forecast steady growth in peak demand across a number of states – driven by factors ranging from large industrial loads to data centres to electrification and EVs. Victoria is projected to transition to a winter-peaking region by around 2040-41*.

"The costs of building new network assets, plus the return on capital (which covers both returns for equity investors and the cost of debt financing), are recovered by network businesses via regulated network tariffs over the assets' economic life, which can range from 35 years even up to 70 years. Higher network capex today can mean higher network tariffs for many years. Avoiding unnecessary investment can help limit bill increases."

Tristan Edis wrote (Renew Economy, Feb 2026): "*But in terms of fairness the AEMC's recommendation is like a Robin Hood scheme in reverse.*
"What the boffins in the AEMC don't seem to realise (or have perhaps chosen to ignore?) is that low income households consume noticeably less electricity than high income households.
"That has been found from survey after survey from bodies like the Bureau of Statistics, state regulators, and Energy Consumers Australia. This remains true even with the proliferation of solar systems. As an example, the chart below is taken from 2023 survey of energy consumers by Energy Consumers Australia.
"It clearly shows that as incomes rise so does the energy bill, with high income households paying almost double the energy bill of low income consumers. This suggests they would therefore likely consume around twice as much energy from energy suppliers (and not from their solar and battery system for which there is no energy bill)"

The NSW Government agrees with the need for fair price and efficient signals. Its Peak Demand Reduction Scheme aims to strengthen the price signals by providing rebates to encourage consumers to install energy-efficient appliances and avoid the need for costly increases in demand and network capacity. The fact that networks require nearly all households to install solar export limiters demonstrates that networks are currently under strain. As well as being unfair, removing effective price signals by increasing fixed charges and lowering usage charges when networks are already under strain is a recipe for disaster.

On page 37 of the document, the AEMC sets out network pricing principles that recognise the need for more efficient tariffs. The simplest principle, set out above, is to achieve fair price signals that lead to distribution networks which minimize overall costs while serving the best interests of electricity consumers. If this principle is adopted, none of the others are needed.

Don't force unpopular demand tariffs on consumers. Part C, page 81 notes that only 5.6% of retail customers are on a demand tariff. Demand tariffs based on maximum monthly demand in a specific period are highly unpopular because consumers are often unaware of spikes in their demand, e.g. turning the kettle on at the same time as the fridge or water heater or other appliances that cycle on and off. Such a spike is probably irrelevant for network costs because, by the law of averages, another household's spikes will be at a different time. Charges based on maximum monthly demand should not therefore be forced on unsuspecting consumers who do not have the software to manage them.

Setting outcome-based objectives for tariff design is complicated and may backfire if modelling is used to determine whether the objective will be met. Incorrect modelling of predicted future demand could lead to inefficient tariffs and increased costs to consumers. The same applies to clarifying how residual costs should be allocated. The consultation document expresses concerns about consumers and energy-service-providers unnecessarily changing their behaviour in response to poor signals in a way that does not reduce the cost, or improve the fair sharing of costs of the system, e.g., responding to signals to avoid a summer peak in winter.

The reality (see Appendix) is that NSW peak demand is now in winter, but responses to signals to avoid a summer peak also reduce winter peaks, so simple time-of-use tariffs, in conjunction other options such as dynamic pricing, peak smart schemes and retailers' specific rewards for reducing consumption during extremely high price events are likely to represent the best option for most consumers and the entire network.

Key points from a Renew Economy article, by Johanna Bowyer & Jay Gordon, IEEFA. Higher fixed charges
* penalise lower-consuming households, such as many low-income households and households who use energy more efficiently.
* reduce the signal for peak demand reductions, which could hamper our ability to avoid the "wall of capex", and to drive network cost reductions.
* reduce the signal for investment in rooftop solar, storage and energy efficiency upgrades, which are important technologies to support meeting emissions reduction targets and easing peak demand, and compromises consumers who have already invested expecting a given return

Bowyer & Gordon also note that increasing fixed network tariffs could penalise households that use less energy from the grid, such as many low-income households, and those with energy efficiency upgrades, rooftop solar and storage.

IEEFA's analysis indicates that tariff signals that maintain or strengthen signals for energy efficiency and peak demand reductions would be more effective in containing network and wholesale costs.

A first-principles review of the economic regulation of electricity networks should therefore be undertaken to ensure fair cost, risk and benefit allocation across all stakeholders.

Appendix: Submission on Policy Reform: NSW Energy Security Safeguard (ESS) & Peak Demand Reduction Scheme (PDRS), closing 20 Feb 26

MOST IMPORTANT ISSUE – extend the PDRS to cover winter peaks. This is vitally important because:

*In 2025, winter peaks exceeded summer peaks

In 2025, the highest peak in NSW electricity demand was in winter: 13,159 MW on 1 July at 17:50. The summer peak (13,063 MW, 16:10 EST, December 19) was lower.

*High solar output now mitigates summer peaks

Solar generation is increasing. There were 97,787 rooftop solar systems installed in NSW in 2024 and 61,878 in 2025, as well as 77,415 batteries in 2025. In total, 33.2% of NSW homes now have solar. Rather than adding to demand, many of these homes will be exporting power to the grid for use by their neighbours, thereby reducing the strain on the grid in late afternoons when NSW electricity demand used to be at its highest.

*Winter peaks are increasing rapidly as heat pumps/reverse cycle system replace gas heating

Households, especially those with solar panels, are replacing gas heating with reverse cycle systems, which have much lower running costs than gas. This increases wintertime demand. Weekday demand is shown below (Fig 1), by month (1=Jan, 12=Dec) and time of day, as averages for 2024 and 2025. June and July stand out as the months with highest average demand and therefore the highest risks to reliability in an extended period of cloudy, windless weather (Fig 1, based on Australian Energy Market Operator website data).

*The PDRS must address the highest risks, which are now in winter

The ABC, 9 January, 2026 and Australian Financial Review, 8 January, 2026 noted the decreasing risks on hot summer days but increasing risks in winter: "*This week, though, multiple consecutive days of 40-degree heat across almost all of eastern and southern Australia have so far proven largely uneventful for the grid operator. Instead, for Australia's renewables-heavy grid,* ***the largest risks are now in winter, when an extended period of cloudy, windless weather could leave the grid largely reliant on coal and gas generators****, or imported energy from other parts of the country."*

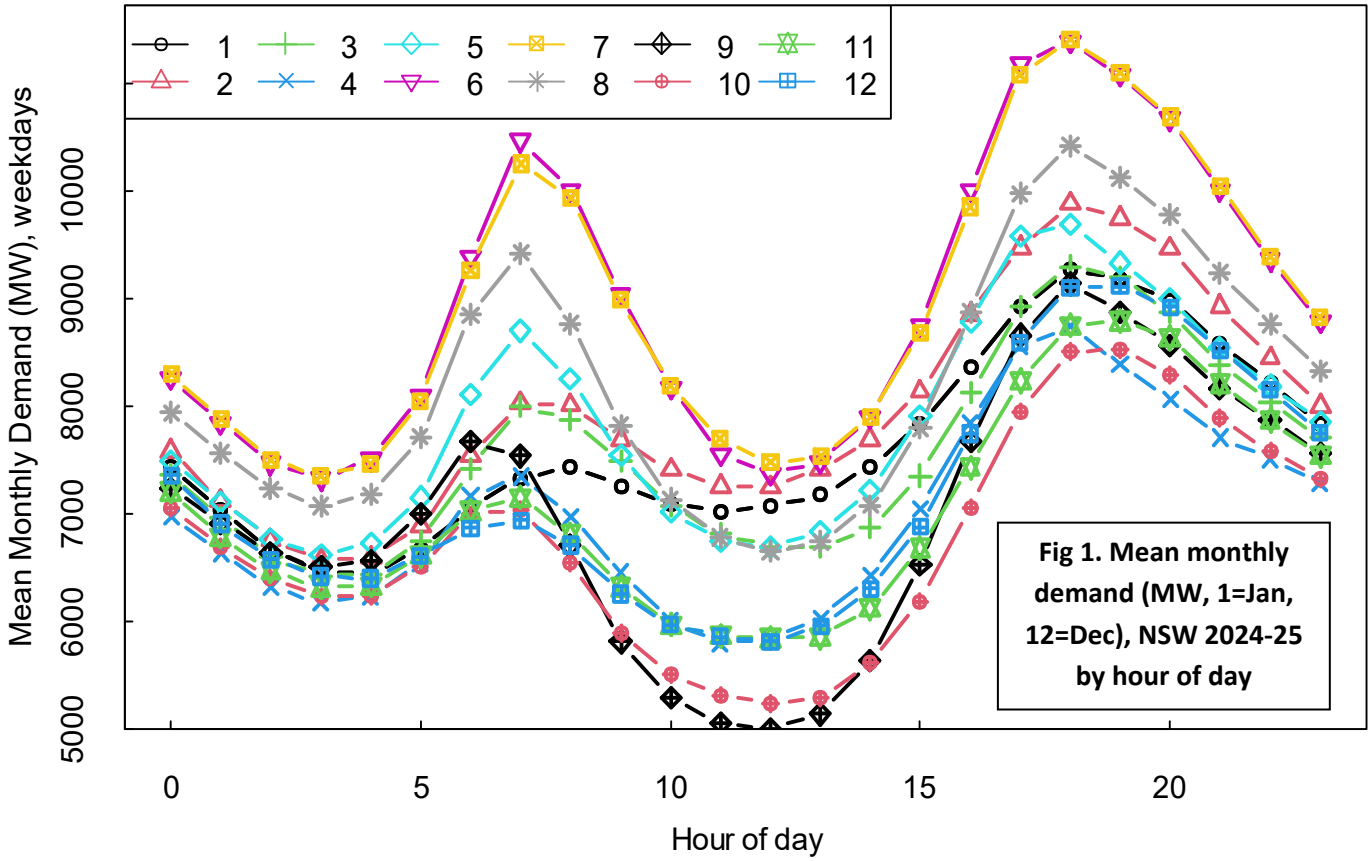


Fig 1. Mean monthly demand (MW, 1=Jan, 12=Dec), NSW 2024-25 by hour of day

*Tackling winter peaks is the best way to achieve the stated PDRS objectives: A) reliability B: reducing consumers' electricity costs and C) improving electricity generation sustainability.

PDRS Objective A): Reliability. As noted above, the greatest risks to future reliability are now in winter, especially extended periods of cloudy, windless weather that leaves the grid largely reliant on coal and gas generators.

*PDRS Objective B): Reduce consumers' electricity costs.

In 2025, high price spikes were in winter. Reducing high wintertime demands is therefore the best way to reduce electricity costs.

Fig 2 below shows mean monthly weekday wholesale electricity prices by time of day. The highest prices were for June (averaging $1370, $1224, $1370, $986 per MWh at 5, 6, 7 and 8 pm respectively), compared to $110, $177, $237 and $160 for the same time periods in summer (Jan, Feb and Dec 2025).

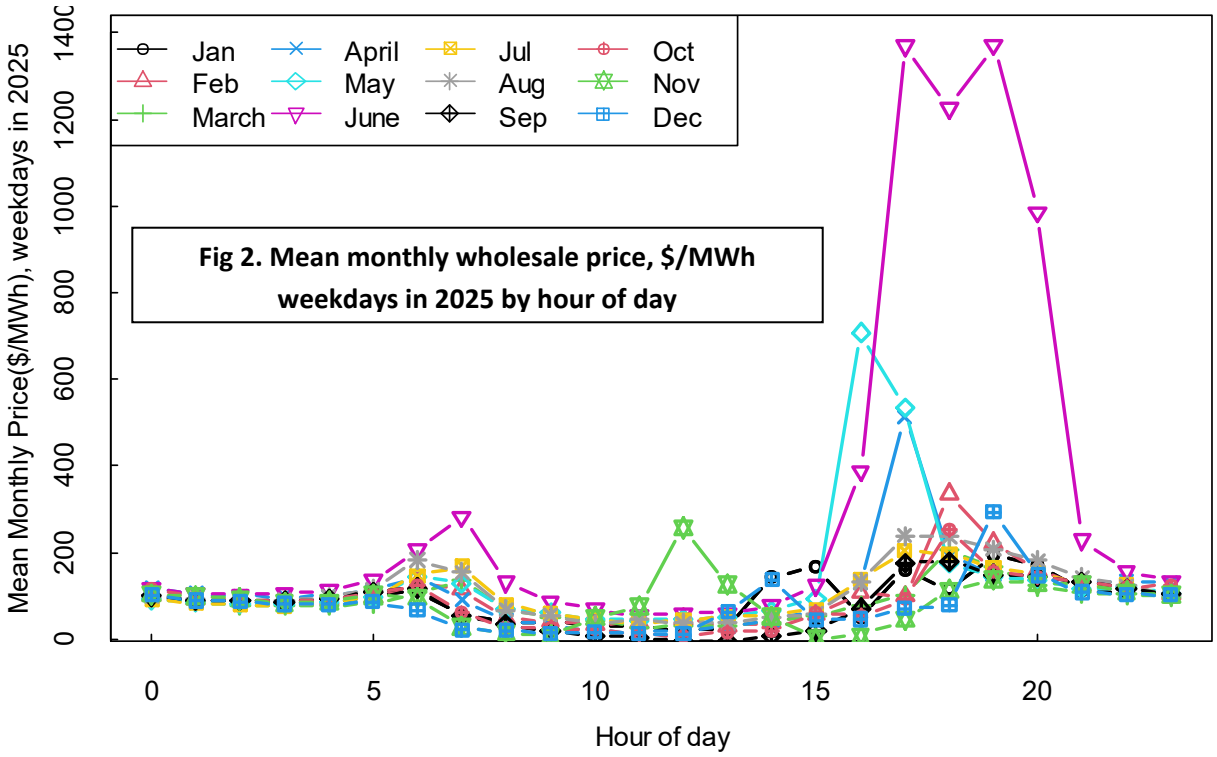


Fig 2. Mean monthly wholesale price, $/MWh weekdays in 2025 by hour of day

Although there were some high prices in April and May, June was the worst-affected month. It is interesting to compare prices by time periods: 10pm-7am, 7-8 am, 8am-2pm, 2-4pm, 4-5pm, 8-10pm and daily averages.

Table 1. Average Prices by time period for A) all weekdays B) all weekends, C) all days (weekdays & weekends) D) all weekdays except June 2025, E) all weekdays except June 2025, F) weekdays in June 2025, G) weekends in June 2025

	All Months, 2025			All months except June		June 2025	
	Weekdays	Weekends	All days	Weekdays	Weekends	Weekdays	Weekends
10pm-7am	10.3	9.0	9.9	10.1	8.8	13.1	10.9
7-8am	10.9	4.7	9.1	9.3	4.0	28.3	12.4
8am-2pm	4.3	1.0	3.3	4.0	0.7	7.8	4.7
2-4pm	6.5	3.5	5.7	6.2	3.2	10.1	7.4
4-5pm	16.0	8.4	13.8	13.9	7.8	38.7	15.8
5-8pm	28.5	13.7	24.3	19.1	13.2	132.2	18.6
8-10pm	17.6	11.8	15.9	13.7	11.6	60.8	14.4
Mean	11.6	7.2	10.3	9.8	6.9	32.1	10.6

Table 1 illustrates the impact of spikes on average prices for June and all of 2025. For all months except June, the average weekday price was 9.8 c/kWh. Including June increased the average weekday price *for the whole year* by 19% to 11.6 c/kWh. **This provides additional evidence of the benefits of improving the NSW Government PDRS to address the highest peaks in demand, which often occur in winter.**

High wintertime price spikes (> $5,000/MWh or $500/kWh) are described in an Australian Energy Regulator report. There were 6 in NSW (9 April $6,191; 13 May $6,870; 28 May $6,870; 11 June $9,140; 12 June $14,649; 26 June $14,006), the latter two being peaks across all-affected states in the National Electricity Market, not necessarily NSW.

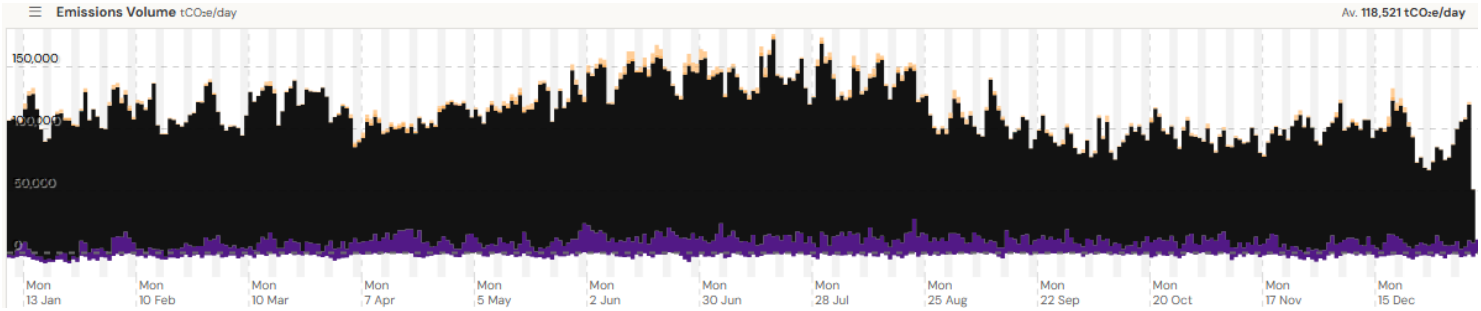
Reducing wintertime demand is much more cost effective than a new gas peaking plant.

The final statutory review report NSW Peak Demand Reduction Scheme (June 2025) notes that the "*average cost of a Peak Reduction Certificate (PRC) was around $1.90 in the 2022-23 period. The department has not conducted research on the cost of PRC creation. However, based on the $1.90 PRC price, the cost of creating a PRC could be 5.4 times higher*

than the current PRC price and would still be a more cost-effective means of providing peak demand reduction capacity compared to building a new peaking gas plant."

A graphic from the Open Electricity website (Fig 3) shows the contribution of gas to CO_2-eq emissions as the tawny pink blobs at the top of the black shading for coal generation. Use of gas, and therefore the need for gas peaking plants, is evidently highest in winter.

Fig 3. Source: Open Electricity website



Future Prices. Modelling by Paul Bandarian & David Leitch (**Renew Economy, Dec 2025)** predicts even higher monthly average prices of $500/MWh (50 c/kWh, Fig 4) by June 2040, highlighting the need to address winter peaks and reliability in winter as soon as practical.

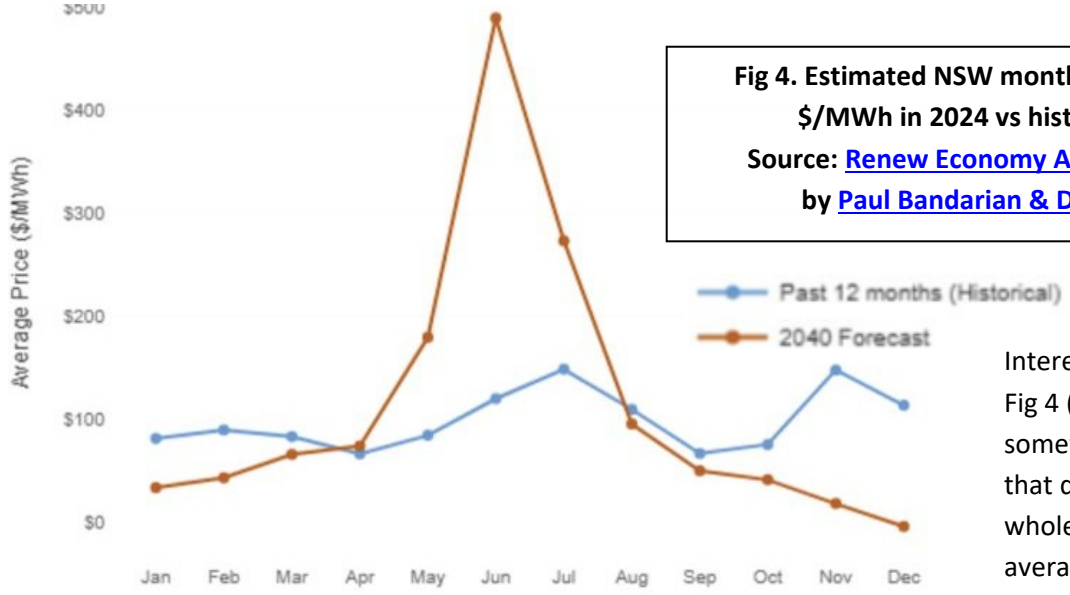


Fig 4. Estimated NSW monthly average price $/MWh in 2024 vs historical data.
Source: Renew Economy Article, Dec 2025
by Paul Bandarian & David Leitch

Interestingly, the blue line in Fig 4 (past 12 months) seems somewhat out of date, noting that demand-weighted wholesale prices in June 2025 averaged $303/MWh.

***PDRS Objective C): Improve sustainability of electricity generation.** Fig 3 above also illustrates the higher wintertime CO_2-eq emissions, again showing that tackling the high wintertime peaks is likely to represent a more cost-effective way to improve sustainability than the NSW Government's current proposal to focus on summertime emissions.

***Answer to Policy reform Q6: Calculate PRC to incentivise reducing peak winter demand.**

To focus on both winter and summer peaks, **Peak Demand Reduction Certificates (PRC) should be calculated over the entire year** using the appropriate coefficients of performance for heating in colder months and for cooling in warmer months. This question has been answered first, because it's the most important issue for which critical reform is needed as soon as practical. Neither the PDRS statutory review nor the Transgrid Transmission Annual Planning Report considered data for 2025 or the dramatic impact of the Cheaper Home Batteries program on summertime demand.

***First additional recommendation: reduce both winter and summer peak demand by promoting the benefits of flexible export limits in conjunction with the Emergency Backstop Mechanism.**

Emergency backstop mechanisms have already been implemented in Western Australia, South Australia, Queensland, and Victoria. From mid 2026, new and upgraded rooftop solar systems in NSW must be fitted with inverters that comply with the Common Smart Inverter Profile - Australia (CSIP-AUS). Essential Energy is introducing flexible export limits at the same time. In many rural and regional areas, exports are limited to 2 or 3 kW. Flexible exports will allow the ever-increasing numbers of battery owners to export more power (e.g. 5 kW or even 10 kW) at peak times when prices and demand are generally higher, while at the same time reducing the strain on the grid.

***Second additional recommendation: Consider a 'Peak Smart' option for NSW.** Qld has also introduced 'Peak Smart' software that allows air conditioners to be turned off remotely for short periods of time to avoid exceeding grid capacity. NSW should consider additional subsidies for air conditioners and other appliances that can be controlled in a similar manner to provide a last resort mechanism for reducing peak demand.