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Submission on rule change ERC0311, RRC0039 - Integration of DER – Export Services

About WATTeVer – Australia’s retail energy price experts

WATTeVer was founded in 2017 to provide transparency on retail energy pricing to empower better decision making by households, small business and energy providers. WATTeVer’s whole of market online electricity comparison service (wattever.com.au) for residential and small business consumers. We also provide a Retail Pricing Data and Analytics service to electricity and gas retailers and other businesses in the sector enabling clear oversight of competitors market pricing.

WATTeVer’s comprehensive electricity comparison service includes all publicly-listed generally available electricity plans from all retailers in contestable and non-contestable networks in Australia. WATTeVer is also Australia’s largest publisher of retail pricing data for consumers to browse from general usage, time of use and controlled load rates to daily supply charges and solar feed-in tariffs.

We created WATTeVer in 2017 because both commercial and Government comparison services failed to support the full range of electricity consumers, with solar owners being largely unsupported when it came to receiving accurate electricity comparisons. By valuing solar feed-in tariffs and concessions and supporting the broadest range of tariffs and plans, including demand tariffs, VPP and electric vehicle plans, we aim to support the widest range of consumers to find the best electricity deals for their individual circumstances.

Summary of Key Points

1. We accept that export services should be formally recognised in the national electricity rules.
2. We believe that exporting renewable energy on distribution networks provides a net financial benefit to all consumers through reduced wholesale and retail electricity prices along with reductions in CO2 emissions and air pollution.
3. Consequently, costs for export services should be shared across all consumers who receive the financial benefits of exports into distribution networks. This would be best recovered through network usage charges for all consumers as the primary benefit of increased local energy exports (lower retail rates) accrues based on the amount of energy consumed from the grid.

4. **We strongly disagree with the notion (inherent in the draft determination) that energy exporters pay for all of the costs of export services, while other consumers receive the benefits (effectively ‘free-riding on cheap solar energy without contributing to the costs of export services).**
5. We believe that all consumers should be incentivised to behave in a way that reduces cost for other consumers e.g. increasing demand during periods of export congestion.
6. **We believe that networks must meet essential meet requirements (safeguards) before charging for export services. Those should be targeted to provide access to financial incentives to consumers to play a role in balancing supply and demand.**

Introduction

The key trends that will continue to drive solar costs and subsequently renewable generation in distribution networks in coming years are well-established.

- Electricity generated from solar PV is now the lowest cost electricity source with forecasts predicting further reductions into the future ([ref](#)).
- The majority of Australians want to avoid the environmental and economic damage that climate change will cause to our communities, in a cost effective manner.
- Ongoing reductions in installation costs for solar PV along with household, business and Government CO2 targeting reducing emissions, will continue to drive more renewable energy installations in distribution networks across Australia.

This is positive news for all consumers who will benefit from lower wholesale electricity prices, driven by increasing levels of renewables, particularly during hours of peak solar generation. The significant reductions in wholesale costs have been passed through to electricity consumers in 2020 and 2021 with retail prices falling significantly. The benefits of the reduction in wholesale prices has accrued to both non-solar owners and solar owners when they purchase grid electricity.

According to the ACCC, \$900 million of annual savings are available to consumers (refer - <https://www.accc.gov.au/media-release/900-million-in-electricity-bill-savings-available-to-households>). This has been caused by "A significant increase in generation capacity, attributed to renewable generation and falling fuel costs, (which) has led to much lower wholesale electricity costs". These annual cost reductions significantly outweigh the costs of augmenting the portion of the distribution networks that are currently experiencing network congestion due to high daytime solar exports.

The AEMC draft suggest benefits to consumers in the realm of \$25p.a. to transfer all costs of export services to solar exporters. These consumers have just received savings in the order of \$90 p.a. largely through reductions in wholesale prices.



It is solar owners - households, small and large businesses – by using their own savings (and borrowings) to install solar who have provided a benefit to all consumers. Let's imagine for a moment that they had not done so. Those reductions in wholesale generation would be greatly reduced. The subsequent benefit of lower retail prices would be greatly reduced. Non-solar owners would be worse off, paying higher retail prices. The proposal to target energy exporters to pay all export services costs when everyone benefits from increased low cost generation, is unfair and asymmetrical.

Solar owners are not demanding a portion of the savings they have created for non-solar owning consumers through lower wholesale prices. After all, WATTeVer's mission is targeted at reducing energy costs for all consumers. However, we take exception to the draft determination position where the costs for export services are borne exclusively by the energy exporters, while others benefit financially, without making any contributing to the export services that are enabling lower prices for the entire community.

In effect, the proposal in the draft determination to charge export services only to energy exporters risks killing the (solar) goose that lays the golden egg (of lower prices for all).

Customer Incentives

The AEMC draft determination states that:

“Letting networks give customer incentives to use the system better means supply and demand on the grid can be smoothed out over the course of the day. It helps address large amounts of solar being exported in the middle of the day when it benefits the system least.”

While we agree that customer incentives to balance supply and demand are a positive step, they need to be incentives that consumers can and are likely to act upon. Preferably, they should also be incentives that the widest number of consumers can access to enhance their impact on both demand and supply. This is where the notion that the “incentive” of applying export charges to energy exporters (to promote solar self-consumption) falls short. It is in fact a penalty.

Currently solar owners face grid electricity prices of 17c to 40c per kWh (for anytime rates) which are significantly higher than (uncapped) feed-in tariffs of 3c to 12c per kWh they receive when exporting. For any given plan, we see grid prices are generally 2-3 times higher than the feed-in tariff with solar owners commonly paying 15-20c per kWh more for grid electricity. This 15-20c differential is already a significant incentive for solar owners to self-consume their own generation. The draft determination suggests that the rules may cost solar owners 2c per kWh.

The draft determination infers that solar owners are going to behave differently due to a 2c per kWh charge when there is already an incentive of 15-20c per kWh to use their own solar electricity. We don't believe that 2c per kWh would have any impact on their behaviour especially if it's applied as a flat export charge. It certainly doesn't incentivise consumers to self-consume at the times of day or in the areas of the network where there is export congestion.

This simplistic measure, applied only to solar owners will have very little, if any, impact on solar self-consumption and export congestion. There are many other far more significant opportunities to incentivise consumption of high renewable generation including:

- running of controlled loads during peak renewable generation periods e.g. 10am-3pm daily
- supporting all consumers to access the lower costs provided solar sponge tariffs through expedited smart rollouts
- removal/replacement/redirection of Government premium feed-in tariffs that disincentive solar self-consumption in QLD, SA and Victoria.
- offering solar sponge tariffs in all networks to promote increased usage of peak renewable generation during the day by all consumers including the majority who don't have solar e.g. the Powercor network is often cited as having export congestion but doesn't offer a solar sponge tariff despite having the smart meter and controlled load infrastructure that could be leveraged by the network and consumers to alleviate export congestion.

Social equity

Our governments have agreed to support the adoption of renewable energy through the RET and other mechanisms, with consumers being given financial payments (through RECs) because the community benefits from the reductions in CO₂ and air pollution that renewable energy provides. The cost of those RECs is reasonably borne by the whole community because the whole community receives the benefits.

The approach should be no different to the costs and benefits of solar exports. The whole community benefits from the lower prices that increasing solar penetration has provided. As all energy consumers receive the financial benefits of solar exports, the costs of the proposed export services should be shared by all energy consumers.

To apply the costs of export services only to energy exporters will create a disincentive for consumers to add solar to their properties. The subsequent effect will be less new installations and less downward pressure on wholesale electricity prices - halting reductions in bills for all consumers.

Appendix F of the draft determination looks at the savings achieved by solar owners from avoiding buying expensive grid electricity and from receiving feed-in tariffs. These solar owners have every right to these savings. Just like utility-scale generators, they also have the right to earn income from exporting to the grid. They invested in purchasing and installing solar panels specifically to avoid buying more expensive grid electricity. The competitive retail market or regulator determine the price for their feed-in tariffs, and solar owners receive that financial return on fair terms.

Further, the analysis does not consider the imminent fall in feed-in tariffs across Australia that will prove that “the benefits of solar PV to the asset owner are predominantly from export” to be incorrect. In Victoria, the rate will fall from 10.2c to 6.7c from July 1 2021. The size of reductions is likely to be similar across all NEM states and territories.

It appears that the justification for charging solar owners is based on them achieving savings from not buying grid power (and earning income from being a generator). This is the equivalent of Woolworths justifying why they should charge their customers who shop at Aldi more because those customers have achieved savings by doing some of their shopping at Aldi rather than Woolworths.

The analysis ignores the direct and indirect costs, both upfront and on-going, associated with solar PV system purchase, installation, maintenance, and replacement.

More importantly, the analysis completely ignores the benefits that energy exports provide to all energy consumers through lower wholesale prices.

Energy exporters are being singled out to pay for network augmentation costs in a way that other energy consumers are not. For example, air conditioner use during peak periods significantly increases wholesale electricity prices and these costs are passed on to all consumers. Networks do not apply additional charges to households or businesses with air conditioners to pay for the costs to augment the distribution network to support air conditioners use at peak periods. These costs are shared by all (through network usage charges) despite no financial benefit to households who do not own air conditioners.

There has been a tacit acceptance of equity issues such as those between air conditioner and non-air conditioner owners for many years. We understand why networks have been happy to accept the inequity of private benefit (to air conditioner owners) and public costs (all energy consumers). This increases a network’s capital base and their allowed revenue.

However, we are perplexed why supposed social equity groups (that proposed the rule changes) believe that the current system creates social inequity issues when:

- solar exports provide a net financial benefit to all consumers; and
- more significant and “decades old” equity issues such as the network cost of air conditioners are shared by those who either cannot afford, do not need or are unable to install air conditioners where they live.

One-way traffic

We recognise that as solar penetration increases, there will be limitations in our one-way “20th century” distribution networks that need to be addressed. We need to transition to a 21st century bidirectional network that reflects the higher value of local zero-emissions renewable generation. This needs to be funded by all consumers who receive benefits enabled by such network infrastructure enhancements.

The draft determination primarily focuses on charging solar exporters to fund this network augmentation. Where is the mechanism in the rule changes to reward them for the community benefits of reducing electricity prices for all? There isn’t one. However, there is plenty of

analysis in the draft determination of the private benefits of solar (cost savings through self-solar consumption) that does not even require export services. The draft determination focuses on whichever benefits and costs bolster the AEMC's intention to support charging energy exporters for export services. The rules may not state that per se, but that is evident in many sections of the draft determination.

The electricity market rules should take a holistic view of costs and benefits and include their consideration within the safeguards established around the rule changes.

The notion of two-way pricing is a positive one. However, the reality is that electricity networks and networks have shown little to no interest in providing rewards to consumers for behaviours that reduce network costs e.g. exporting during peak consumption periods in the evening. Certainly not in any residential or small business tariffs that our service covers.

We look forward (but won't hold our breath) to seeing DNSPs offering tariffs that provide credits to consumers for providing services (such as exporting during peak consumption periods) that more effectively use existing network infrastructure, avoiding increased capital expenditure and revenue. We find it very hard to believe that DNSPs will of their own volition, establish tariffs for export services that financially incentivise consumers to reduce peak export congestion which cannibalises their DNSP revenues. The AEMC's apparent intention to hand another revenue stream to the networks with vague and weak controls looks a lot like offering Dracula another set of keys to the blood bank.

By way of example, solar PV owners have significantly narrowed the window of peak consumption on hot summer days as they continue to provide power into the early evening. Have they been rewarded for the reduction in peak network traffic? No. Have they been rewarded for reductions in wholesale electricity prices during that period – again no, at least not directly. Have all consumers benefited from this - yes, through reduced local outages and reduced wholesale prices in recent summers, which feeds into retail prices.

The result of these proposed new rules leaves it wide open to misalignments of costs and benefits that perpetuate the kind of distortions in consumer behaviour that we currently see in the market. As an example of these distortions, we need to look no further than existing anytime/flat rate and demand tariffs. These have little correlation between consumer and network costs, with limited incentives for consumers to use energy in a manner that provides lower costs for others.

The risk here is that there appears to be little in the draft determination around how export services will be charged other than strong indications that solar owners will pay for all of the export services. The latter having little justification when we look at the total costs/benefits of exporting energy. In effect, it looks like the rule changes are targeting energy exporters to pay increased charges even though that is not what is stated in the rules. No wonder solar owners are unhappy with the proposed changes, the draft determination only includes scenarios where energy exporters foot the bill for export services when the proposed rule change "doesn't mandate export charges" nor specifically state who will pay for them.

Any rule changes should stipulate safeguards that the costs for export services should be charged based on those who benefit. As all consumers gain from increased solar

penetration through lower wholesale and subsequently retail prices, all consumers should share the additional costs of export services.

Engaging all consumers to balance supply and demand

Currently, only a minority of non-solar owners face cost-reflective tariffs, let alone solar sponge-style tariffs and subsequently, very few non-solar owners have incentives to change their energy use to take advantage of low cost, low emissions renewable generation.

We support moving all electricity consumers to cost-reflective tariffs – specifically solar sponge style Time Of Use tariffs in order to allow all consumers to access the financial savings of the lowest-cost energy source - solar. As an aside, we believe that demand tariffs, as they are designed by the networks and priced by retailers are confusing and complicated. Consumers are very wary of being ‘punished’ for their highest peak 30/60 minutes of usage in a month. The demand charges rarely align with the actual usage peaks that drive network costs and should be redesigned or scrapped.

We should be following a strategy of lowering energy costs and writing rules that support consumers in accessing the technologies, tariffs etc that achieve that. While the draft rule changes don’t preclude this from happening, certainly, the supporting documentation does little to recognise that there are means to mitigate the costs of export services through broader demand-side incentives.

Charging for export services – pre-requisites

In our view, charging for export services is not the first nor the only option to support increasing low-cost renewable generation in the grid.

We acknowledge that as more renewable generation is installed in the future, there will be a need to better manage the distribution networks and that we will need to enhance the infrastructure to support that.

However, as the draft determination notes – installing more infrastructure is not the only answer. We need to use infrastructure more efficiently.

Before charging energy consumers for export services, we need to ensure that key players in the industry - networks, retailers and regulators - are all enabling efficient infrastructure investment, including giving all consumers incentives to play a part in achieving that goal. To that end, we believe that where export charges are required, the following pre-requisites should apply:

1. DNSPs must show proof of existing or forecast congestion in distribution networks.
2. DNSPs must offer a solar sponge tariff or equivalent low-cost daytime tariff that provides an incentive to all energy consumers to utilise electricity and reduce export congestion.
3. The AER requires that all retailers serving that network offer a solar sponge tariff to incentivise all energy consumers to utilise electricity and reduce export congestion.
4. DNSPs must change some or all controlled loads to run during times of export congestion.
5. The AEMC/AER/ESB work with State and Federal Governments to remove/redirect replace programs that encourage consumers not to self-consume their own solar e.g. premium feed-in tariffs in QLD, SA and Victoria currently incentivise solar owners to minimise the use of their own solar in order to increase the total value of the solar feed-in credit (44-60c per

kWh premium feed-in tariff). Commonly, premium FIT recipients shift loads into the evening peak, particularly the majority who are on anytime tariffs and do not face cost-reflective tariffs.

6. The AER requires that all retailers offer a time-varying feed-in tariff to encourage solar owners to maximise their self-consumption during times of potential export congestion e.g. 11am-2pm and maximise their solar exports outside the peak export window where there are greater benefits to the network and wholesale electricity prices.
7. The AER provides direction to networks to establish a far more rapid shift of all consumers to cost-reflective solar sponge tariffs (than the “only on meter” replacement approach, which applies today).

Thank you for the opportunity to provide feedback on the draft determination.

Regards,

David Hiley

Director

WATTeVer

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