ERM Power Limited
Level 3, 90 Collins Street
Melbourne VIC 3000

ABN 28 122 259 223

+61 3 9214 9333
ermpower.com.au

Thursday, 10 September 2020

Mr Jashan Singh
Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000

Dear Mr Singh

RE: Distributed Energy Resources (DER) Integration – Updating Regulatory Arrangements rule change

ERM Power Retail Pty Ltd (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) Distributed Energy Resources (DER) Integration – Updating Regulatory Arrangements rule change consultation paper.

About ERM Power

ERM Power (ERM) is a subsidiary of Shell Energy Australia Pty Ltd (Shell Energy). ERM is one of Australia's leading commercial and industrial electricity retailers, providing large businesses with end to end energy management, from electricity retailing to integrated solutions that improve energy productivity. Market-leading customer satisfaction has fuelled ERM Power's growth, and today the Company is the second largest electricity provider to commercial businesses and industrials in Australia by load[1]. ERM also operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, supporting the industry's transition to renewables.

http://www.ermpower.com.au
https://www.shell.com.au/business-customers/shell-energy-australia.html

General comments

ERM Power observes that these three rule changes all present valuable options to improve arrangements for the integration of distributed energy resources (DER) within the distribution system. If DER are better integrated, then all consumers stand to benefit. We are relatively neutral as to the exact solution to the issues. We see benefits in all three rule changes, and some potential risks that arise in each as well.

At a basic level we consider that there are three principles that guide our responses and we contend should guide the AEMC's approach. Firstly, any charge that results from this process – be it an export tariff or a supplementary connection charge – should not be retrospective. Consumers have made investments based on existing market settings and changes such as those proposed could undermine these assets. Secondly, we believe that the end result of these rule changes should be improved signals for DER investments, so that consumers have better incentives to better integrate DER into the system as a whole and therefore provide greater overall value. This could be achieved by better sizing and orienting panels to maximise self-consumption, or by installing battery storage to enable excess energy to be dispatched into the grid at peak times rather than (typically) in the middle of the day. This needs to be done in such a way that further investments in solar PV and potentially storage are not disincentivised.

[1] Based on ERM Power analysis of latest published information.

Thirdly, the imposition of any export charge should only reflect the additional costs imposed on the distribution network to facilitate DER exports and should be assessed net of the benefits that DER provides including the deferral of network upgrades that would have been required absent the installation of DER.

These rule changes also overlap with some of the concepts raised in the Energy Security Board's (ESB) post-2025 review of the National Electricity Market (NEM). Chiefly, these relate to the two-sided markets and DER integration workstreams. In its consultation paper on two-sided markets, the ESB raised the concept that two-sided markets would help to address the fact that "the amounts of electricity provided by DER to the system are currently largely uncontrolled and do not respond to market signals."[2] A two-sided market, the ESB argues, would lead to better responses from DER.

In our submission to the ESB, we responded that a two-sided market was not a pre-requisite to allow for better DER integration, and these rule changes support this. The rule changes represent a far lower cost approach to achieve these aims rather than a comprehensive redesign of the energy market. We recommend that the AEMC, in its role contributing to the post-2025 market design work, use the work underpinning these rule changes to inform the post ESB's post-2025 NEM market design.

South Australian Power Networks' (SAPN) and St Vincent de Paul's (SVDP) proposals for distribution charges for export merit further consideration. If implemented properly, where costs reflect the net marginal costs of export by DER to the distribution network, the rule change would provide an incentive for self-consumption, storage or better sizing of PV installations relative to a premises' consumption. We believe a properly implemented export charge would need to be levied on a time-of-export rather than a flat charge across all exports regardless of when they occur. This would encourage exports from DER at times where DER export would be helpful to the power system and only impose a cost where DER exports resulted in a negative power system impact.

As an example, the WA Government recently announced a Distributed Energy Buyback Scheme which will pay consumers 10c/kWh for exports between 3pm and 9pm and 3c/kWh at other times.[3]

The Total Environment Centre (TEC) and Australian Council of Social Services' (ACOSS) rule change presents a different model which we also believe could provide valuable incentives and provide a broader benefit to all energy users.

TEC and ACOSS's proposed net market benefits model warrants consideration. To the extent that network augmentation in some areas to enable greater capacity of exports brings benefits then logically it would be sensible to pursue these projects. This does seem to be consistent with the existing Regulatory Investment Test for Distribution (RIT-D) process. We also consider that TEC and ACOSS's proposal that, where there is no net market benefit, allowing for consumers to purchase additional capacity in order to improve access and in turn, fund potential augmentations could provide a beneficial user-pays outcome driven by consumer preference.

Obligations on DNSPs

Faced with the relatively commonplace uptake of solar PV and the associated export of energy into distribution networks, it seems logical to update the definitions of a distribution service in the NER to include export services. The current definitions were written at a time when the distribution system was fundamentally a one-way system. The surge in rooftop solar on households with the gradual expansion to business premises along with the potential increased uptake of battery storage means that it would be better to address these issues sooner rather than waiting for more problems to arise.

As such, ERM Power considers that the suggestion to require DNSPs to consider DER integration as part of network planning to be a broadly sensible move in order to guide network planning and investment decisions

[2] Energy Security Board, 'Moving to a Two-Sided Market'. April 2020, p10.
[3] Energy Policy WA, 'Energy Buyback Schemes'. Last accessed 8 September 2020.

around additional DER hosting capacity. In order to complement the proposed rule changes and the possibility of some degree of export charging, we see that there is a strong case to require DNSPs to publish information about DER hosting capacity in different areas of the network. This would, along with other proposed reforms discussed in the rule change, give consumers and other parties more information to inform their investment decisions.

This could inform consumers if there may be additional charges or limits to exports in a particular network area depending on the size of their system. Armed with better information, consumers could make better informed decisions about the economics of installation, the viability of different sized systems and the value of battery storage. A customer may choose a PV system whose production closely mirrors their own consumption or choose to install a larger PV system with integrated battery storage in order to store excess solar PV production for use or export at a later time. The current network costs recovery framework fails to provide incentives for any of these actions.

Pricing arrangements

As a principle, any reform enacted as part of this rule change should not be applied retrospectively. Existing investments have been made based on the current market settings which prevailed at the time of installation and precluded some options such as export charging. It would be unreasonable to then expect owners of existing PV systems – be they households or businesses – to suddenly face charges for exports. As such, ERM Power supports grandfathering arrangements for existing DER

As part of the AEMC's deliberations on this rule change, we add that a cut-off date for grandfathering purposes will need to be determined and this should be set at such a point in time that it does not lead to a surge in demand in order to beat the cut-off date. The experience of state-based feed-in tariffs and other support has shown that installations tend to surge in order to take advantage of more favourable conditions, such as access to premium feed-in tariffs or higher up-front subsidies. Should the AEMC make these rule changes, ERM Power recommends that a cut-off date should be set close to the date of release of the final determination so as to minimise the risk of a rush to install and to avoid the risks to recent investments based on the current market settings.

We also consider there will be a need to determine to whom or what the grandfathering arrangements apply to: the owner or the installation/premises. For example, if a home with an existing solar PV installation is sold, does the new owner have access to the grandfathering arrangements? Or is it tied to the original owner at the time of the cut-off date? Similarly, the AEMC will need to consider how grandfathering arrangements apply to systems which have been upgraded or had battery storage added.

We consider that the regulatory framework can better recognise the benefits DER services provide to DNSPs. SAPN's proposal for negative prices for instance, is a novel solution that could provide an incentive to export at times of peak demand in the network – in the evening peak for instance. In this way, a negative export charge would effectively add on to existing feed-in-tariffs and could act as an incentive for battery storage or re-orienting solar panels.

The design of pricing arrangements may face a challenge in that there will need to be a balance struck between providing a strong locational signal so that in areas with excess hosting capacity there is less of a cost than in areas which are at or close to their limit. However, a locational signal may be at odds with the current postage-stamp pricing regime for distribution networks, tariffs that are reasonably capable of being understood by retail customers and the scope for retailers to pass on these costs in a transparent fashion, especially in light of the Default Market Offer and Victorian Default Offer. Any charge imposed must not unfairly target consumers in a network area where export capability is close to limit as this would be inconsistent to how costs for upgrading of the distribution network in a particular network area for energy consumption is socialised across all basic and standard network connections within that total distribution network area.

Given this, TEC and ACOSS's proposal of giving consumers the option to negotiation for supplementary connections, but for both import and export size may be preference to SVDP and SAPN's proposals for simple export tariffs. However, the latter can provide a more dynamic signal that would reward the right investments in the right locations. As such, we do not support one model over another but rather, wish to advise the AEMC of the kinds of issues it should consider in addressing these rule changes.

One potential model can be observed in France where households pay an effective maximum demand tariff for consumption as part of their daily charge. Such a model could be employed for DER exports (as well as consumption).[4]

Conclusion

ERM Power broadly supports the concept of these rule changes without expressly supporting one model over another. We consider there is still work to be done to better understand exactly how these rule changes would work in practice and how competing challenges can be adequately addressed. At a basic level, we support arrangements that are not retrospective and so, do not undermine investments made based on the current market design settings. We contend that any reform should provide better incentives for consumers to install DER that is appropriately sized relative to their consumption profile. Further, these reforms should not unintentionally create a barrier to future efficient DER investments such as solar PV or battery storage.

Please contact me if you would like to discuss this submission further.

Yours sincerely,

[signed]

Ben Pryor
Regulatory Affairs Policy Adviser
03 9214 9316 - bpryor@ermpower.com.au

[4] Electricité de France, 'Grille de prix de l'offre d'électricité – Tarif Bleu'. Last accessed 8 September 2020.