

Australian Energy Market Commission
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DER Integration Combined Rule Changes

The Australian Energy Council (AEC) tenders the attached submission, *Responses to AEMC Consultation Paper on Updating Regulatory Arrangements for DER Integration*, prepared for the AEC by consultants Oakley Greenwood.

The AEC is the industry body representing 23 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The proponents of the three Rule change proposals are SA Power Networks (SAPN), St Vincent DePaul Society Victoria (SVDP) and the Total Environment Centre together with the Australian Council of Social Services (TEC/ACOSS). In our assessment, the combined rule change proposals address two key themes:

1. How to incentivise investment in increasing levels of export capacity for DER, and;
2. How to efficiently and equitably price the export of energy from increasing levels of DER.

The attached submission addresses these themes against the AEMC's consultation paper, testing the rule change proposals against economic theory and practice, as well as addressing the specific questions therein.

Any questions about this submission should be addressed to David Markham by email to david.markham@energycouncil.com.au or by telephone on (03) 9205 3107.

Yours sincerely,

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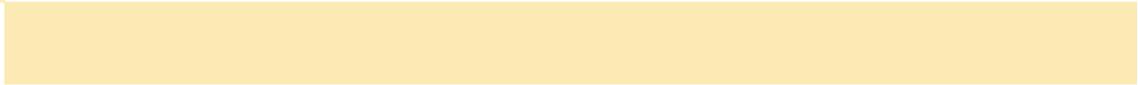
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Oakley Greenwood

Responses to AEMC Consultation Paper on Updating Regulatory Arrangements for DER Integration

prepared for:
Australian Energy Council



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1. Introduction

The Australian Energy Council (AEC) commissioned Oakley Greenwood (OGW) to prepare an independent response to the AEMC's *Consultation Paper on Distributed Energy Resources Integration - Updating Regulatory Arrangements* (30 July 2020).

The Consultation Paper is the first step in the AEMC's consideration of three Rule change proposals regarding amendments to the regulatory framework that would enable more efficient integration of distributed energy resources (DER) with the electricity grid. The proponents of the three Rule change proposals were SA Power Networks (SAPN), St Vincent DePaul Society Victoria (SVDP) and the Total Environment Centre together with the Australian Council of Social Services (TEC/ACOSS).

The terms of the engagement agreed between AEC and OGW was that OGW would:

- Develop our response based on fundamental principles of economic efficiency and the National Electricity Objective (NEO), and
- Provide independent views and have full control of the document including final editorial control of the document.

In accordance with that and the time and budget available, we provided the AEC with a list of the issues raised in the Consultation Paper that we thought were of primary importance and undertook to address as many of them as could be accommodated within the time and resources available for the work.

We also shared a draft of this submission with the AEC for their review and comment, and in accordance with the terms of the engagement, incorporated their comments as we saw fit.

In summary, this submission reflects our views as an independent party.

2. Providing incentives for efficient network expenditure

This section aligns with the AEMC's discussion in Chapter 5 of its Consultation Paper.

2.1. Summary of our understanding of the issue

Our understanding of the proposals, as presented in the Consultation Paper, is, in summary, that:

- SAPN considers export services should be subject to financial incentive schemes that promote efficiency in their delivery and outcomes that customers support. The AEMC indicates that SAPN says that this would introduce an appropriate incentive to encourage DNSPs to invest in export capacity to a level that meets community expectations and willingness to pay. SAPN notes that a direct way of understanding how much customers value a particular service level is to observe their response to a price, however, SAPN considers that network planning for the provision of export services, particularly augmentations for small customers, needs to be planned and funded on an ex-ante basis, which means that the value customers place on particular service levels needs to be understood upfront.
- TEC/ACOSS' proposal seeks to encourage networks to make the best use of existing infrastructure to maximise DER exports and to increase hosting capacity wherever that provides net market benefits.

2.2. Our general response to the proposal

Clearly, it will be important to ensure that *if* businesses are provided with capital expenditure *ex ante* to increase hosting capacity - as SAPN proposes - customers have some assurance that the additional hosting capacity funded by that expenditure will actually be built, if it is efficient to do so at the time when the expenditure is being contemplated (i.e., within the regulatory period).

On face value, the STPIS might appear to be a reasonable approach to leverage off to ensure that this occurs, because, as the AEMC states in its Consultation Paper, it discourages¹:

"DNSPs from cutting costs by inefficiently reducing service levels, [because] the AER applies the STPIS, which rewards or penalises DNSPs based on their outage performance. The STPIS aims to maintain service performance to customers and incentivise improvements over time when these can be undertaken efficiently - and if valued by customers, accounting for their willingness-to-pay".
[emphasis added]

However, as noted in the Consultation Paper, extending the STPIS to export services may be challenging. We completely agree with this statement and not just for the reasons identified in the Paper (i.e., because the performance measures and data may need to be developed over time).

In particular, in our view, hosting capacity is quite different to the other service attributes reflected in the STPIS (e.g., reliability), in particular because:

- Its primary value is already revealed 'in the market' (via wholesale market prices, contract prices, FiTs and FCAS)
- These values can change materially and irregularly.

By contrast, in the case of the existing suite of service attributes captured by the STPIS:

¹ AEMC, *Consultation Paper: Distributed Energy Resources Integration - Updating Regulatory Arrangements*, July 2020, page 29.

- There is no revealed 'market value' - which is why they are generally derived from customer willingness to pay (WTP) / contingent valuation studies
- They change only marginally in the short to medium term.

This begets a number of questions, including but not limited to:

- If customers' WTP for hosting capacity is subject to greater and/or more frequent fluctuation than their WTP for reliability improvements, how often should the marginal incentive rate be adjusted if a STPIS-type arrangement were to be introduced for hosting capacity (noting that for reliability, it is our understanding that the incentive rates are not changed during a regulatory control period)?
- If the marginal incentive rate related to hosting capacity were adjusted more regularly (e.g., say, every second year, to reflect changes in the wholesale market), does this create other consequential issues that need to be addressed? For example:
 - Who bears the financial consequences of any downside adjustment to this parameter? For example, if the market value ascribed to exported energy halves, should PV customers, shareholders, or all customers pay for the portion of sunk investments that are now uneconomic?
 - Would allocating this risk to DNSPs affect their willingness to make otherwise economic investments in hosting capacity, given this risk is predominately outside of their control?
 - Would the administrative costs of adjusting the incentive rate to reflect new information (e.g., expectations of future wholesale prices) exceed the economic benefits of such an approach?
- Notwithstanding SAPN's assertion that this type of investment (hosting capacity) "*needs to be planned and funded on an ex-ante basis*", our view is that this approach should not be presupposed (and is not the case for reliability improvements). If it is not the case, and in fact, the expenditure is predominately underpinned by the outturn workings of the STPIS mechanism:
 - Who bears the financial consequences if forecast take-up of hosting capacity doesn't transpire as forecast (e.g., due to a change in Government policy, say around PV or battery subsidies)?
 - To the extent that the STPIS incentive is for hosting capacity "availability" rather than the actual amount of energy exported back into the grid as a result of that hosting capacity, how would this be operationalised in a manner that still incentivises DNSPs to make efficient investments during the regulatory period in hosting capacity availability (and not just revert to 'building it' because 'availability' rather than 'utilisation', is the underlying incentive reflected in the STPIS arrangement)?
- If DNSPs provide customers with cost-reflective export prices, as both SVDP and SAPN have proposed, is a STPIS-style mechanism even required? Or will the market, faced with a cost-reflective export price, 'reveal' the efficient level of network hosting capacity via demand for those services², which in turn means that DNSPs' investments could either be:

²

SAPN appears to acknowledge this when it notes that "*a direct way of understanding how much customers value a particular service level is to observe their response to a price*".

- Self-funding over the long-run - that is, DNSPs would invest³ if their expectations of the incremental revenue that will be generated from the levying of an export tariff (or the sale of access rights) in the long-run exceeds the incremental costs - with any difference not recoverable from the broader customer base (analogous to an alternative control service); or
- Self-funding with some adjustment mechanism - as above, except with some mechanism to share downside risk between different parties under certain circumstances (to protect DNSPs from bearing the consequence of risks that they cannot manage)?

To be clear, due to the time constraints of this assignment, we are not in a position to opine on exactly what mechanism/approach should be adopted; however, we believe that any decision to move forward with a STPIS-style arrangement should, as a minimum, explicitly consider the issues outlined above.

2.3. Response to specific questions

The following provides our response to each question:

1. If 'distribution services' expressly include export services, are there any regulatory barriers to adapting existing incentive schemes to export services?

Our initial thinking is that there are unlikely to be any other material barriers, however, we have not investigated this in detail as part of this response.

2. Should the STPIS be extended to export services or is a new incentive scheme required?

Our view is that the AEMC should not apply the STPIS to export services until it has given explicit consideration to, amongst other things:

- Other feasible alternatives, in particular, whether a cost-reflective export price can lead to the self-funding of hosting capacity over the long run (potentially with some adjustment mechanism at the margin); and
- Who bears the risk of over-investment in hosting capacity, which could occur as a result of factors that are beyond the control of both network business' and their broader customer base?

3. If the STPIS or a new incentive scheme is to apply to export services:

- a. What are the practical challenges to designing relevant performance measures and collecting robust data? Can these challenges be overcome over time?

See the previous section of this report.

- b. Should the details of the scheme be prescribed in the NER or is it appropriate for the AER to design the scheme?

No comment

- c. Are there any additional factors the AER should be required to take into account (e.g., under NER clause 6.6.2 relating to the STPIS)?

No comment

³

Note that subject to interactions with the form of price control, this would incentivise businesses to make investments within period, even without a capital expenditure "allowance" being provided for as part of the regulatory submission process.



- d. Do export service standards (to meet customer expectations) need to be established to set a performance 'baseline' for the incentive scheme?

If there were to be an incentive scheme, a baseline would be needed, regardless of the metric used to drive the incentive.

3. Pricing of export services

This section discusses the issues and questions raised in Chapter 6 of the AEMC's Consultation Paper.

3.1. Summary of our understanding of the proponents' positions

Our understanding of the content of the three Rule change proposals with regard to the pricing of export services is as follows:

- SVDP's Rule change proposal focusses almost exclusively on the pricing of export services, with its primary recommendation being to allow networks to charge for costs incurred in supporting the export of electricity by 'DER participants'. This would include the explicit removal of Rule 6.1.4 from the NER.

SVDP suggests that this charge should be:

- Based exclusively on export throughput (i.e., \$/kWh exported), and notes that a connection charge, while potentially reflecting the cost of any assets required for the exclusive use of the DER participant, cannot provide a signal regarding the value of self-consumption vs export
- Locational to reflect the fact that the cost imposed by export will vary from place to place.

SVDP notes that the ability of the DNSP to levy this charge would not necessarily require the DER participant to pay. Rather, it would give the DER participant the opportunity to choose whether to export or not, and would provide a price signal regarding the potential value of storage as compared to export.

- SAPN supports the use of efficient price signals and rewards as means for (a) informing end customers' decisions regarding investment in and operation of DER, and (b) improving equity in the allocation of DER costs. Like SVDP, they recommend removal of Rule 6.1.4 and that DNSPs be allowed to charge DER participants for the "incremental costs associated specifically with the provision of export capacity" that exceeds the inherent export capacity included in network infrastructure already installed to meet aggregate customer (consumption) demand. They also recommend that these tariffs should be capable of providing a reward to customers (potentially in the form of a negative price) for exported energy at times when that export provides a benefit to the grid (for example, at times of peak consumption demand). This would provide an additional means for rewarding DER that reduces network costs to the existing ability to make demand response payments.

Like SVDP, SAPN notes that:

- Connection charges are inappropriate in the case of DER as they (a) will not influence the operation of a DER system once in place and (b) are primarily designed to influence where a customer chooses to locate, which is unlikely to be the case with regard to the addition of DER on a residential or small business property, and
- A variable charge for export could still be avoided by DER participants if they maintain their exports within the bounds of the inherent capacity of the network.

SAPN suggests that the incremental costs included in any export service charge to be levied by a DNSP should reflect the long-run marginal costs of providing that service, and that the specifics of "tariff design, assignment to customers, and transition . . . be left to networks to consider and customise according to their circumstances, in consultation with customers, stakeholders, jurisdictional governments and with AER oversight, via the TSS process".



- TEC/ACOSS explicitly rules out DNSPs charging for DER export where there is capacity in the network or where augmentation required to enable export provides net market benefits (i.e., where the benefits provided by DER across the electricity supply chain exceed the costs of the augmentation⁴). It does, however, recommend that DER participants be allowed to purchase additional export capability in those cases where the net market benefit test is not met.⁵

TEC/ACOSS also note that price signals that explicitly reflect the costs and benefits of export may be required as DER penetration and unit sizes increase, and foreshadow the possibility of a second Rule change request addressing this after the details of the 2025 market design are available.

3.2. Our response to the primary issues

3.2.1. DNSPs should charge for export where the provision of that service imposes costs on the network

Our view is that Rule 6.1.4 should be removed and DNSPs be allowed to levy charges that signal the efficient forward-looking costs of making those services available.

The provision of a price signal that reflects the forward-looking costs of export behaviour is valuable because it gives a point of reference against which alternatives can be assessed. For example, an export price would make self-consumption during times of export congestion more attractive, which could potentially result in a range of options becoming attractive to the DER participant including shifting the use of certain appliances such as a pool pump or dishwasher to those times, or installing on-site storage and using it (or using existing on-site storage capacity) more efficiently (particularly where charges for export that impose costs on the network are coupled with price signals that reward export when and where it reduces cost in the electricity supply chain, as discussed below).

To illustrate, consider a situation in which the retail tariff is \$0.30/kWh, export earns a FiT of \$0.10/kWh⁶ and an export price of \$0.06/kWh is introduced. At that point, the value of export reduces from \$0.10/kWh to \$0.04/kWh. This will reduce the financial attractiveness of the DER that exports. This might result in an end customer buying a smaller DER system, or make a customer with an existing DER system to consider adding battery storage, as it would increase the value of DER generation that is surplus to facility consumption by 20% as compared to the non-export price case.⁷

⁴ TEC/ACOSS also recommend that provisions be put in place that would reinforce the use of the net market benefits test as a means for ensuring the optimal level of DER hosting capacity is put in place by DNSPs.

⁵ While not recommending that DNSPs be allowed to charge for export services except as discussed above, the TEC/ACOSS proposal notes that DNSPs' consideration of the costs of network services should be allowed to include differences based on location and time. Such differences could be taken into account in the net market benefits test and the setting of charges for DER export capability where the net market benefits test is not met. TEC/ACOSS also support location and time-varying network consumption tariffs.

⁶ Noting that the FiT generally represents the wholesale market value of DER export, generally adjusted to reflect reduced transportation losses.

⁷ Without the export price the value of storage is \$0.20/kWh (the \$0.30/kWh retail price minus the foregone \$0.10/kWh FiT income). By contrast the export price increases the value of storage to \$0.24/kWh (the \$0.30/kWh retail tariff minus the net foregone income from the FiT of at \$0.10/kWh minus the export charge of \$0.06/kWh).



It is also important to note that the provision of a cost-reflective price signal can enlist innovation from intermediaries that can provide benefits to the electricity supply chain and the customer. The price signal provides a potential value proposition for specialised third-party agents who can earn revenue by assisting the end customer in modifying consumption or export behaviour in ways that reduce charges or earn financial rewards.⁸

We note that SVDP explicitly recommends that these price signals should be locational and time varying to be meaningfully cost reflective. The TEC/ACOSS proposal would allow (but not necessarily require) that these price signals be area specific. SAPN, by contrast, proposes that these services be offered at the system-wide long-run marginal cost for increasing hosting capacity, with the ability to provide short-run signals in the same way these can be offered via the RIT-D.

Given that the cost imposed, or benefits offered, by the operation of DER are inherently local, postage-stamp pricing will necessarily be less economically efficient than area-specific price signals would be. They will result in over-export in some areas and at some times, and under-export in others. The greater the penetration of DER in given locations and over a distribution service area as a whole, the larger these effects may become. Cost-reflective price signals provide the best way of informing prosumers of the economic impacts of their investment decisions and operating behaviour. Given that (a) the days and times of day on which congestion and voltage constraints are expected to occur are readily forecastable, (b) the metering and system cost information exists to provide cost-reflective pricing to all customers with DER systems, (c) the management and dispatch of these systems will likely become more frequently undertaken by third parties and/or automated systems, and (d) the decisions of those customers can affect the prices levied on all customers, we strongly recommend that the AEMC give serious consideration to measures that would result in the pricing of export services (and export benefits) being as cost-reflective as possible subject to the costs of developing and administering those prices.

However, we also note that the introduction of locational pricing that reflects the costs and benefits of DER export will require non-trivial changes to the billing systems and operating procedures of both electricity distribution businesses and retailers. As a result, it is likely that an appropriate transition period will be needed for their implementation.

3.2.2. A throughput-based export service charge would be practical and applicable; a price for access rights poses more significant issues

Both TEC/ACOSS and SAPN propose the use of access charges, though both note that physically firm access cannot realistically be provided and that the use of access pricing would require the addition of some form of service level penalty payment when the access was not available. Both point out that this would need to be a payment for inconvenience or failure to provide negotiated access, and that it should not in any case be a compensatory payment for lost revenue.

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A tangible example of this effect was provided by AusNet Services' introduction of its Critical Peak Day network tariff for customers with annual electricity consumption of 160MWh or more. The tariff was introduced in 2011 and by the summer of 2012-13, the customers subject to it reduced their aggregate peak demand by 7.3% largely through the assistance of intermediaries that provided equipment and/or operational advice and assistance. The majority of those services simply did not exist prior to the introduction of the tariff.

However, TEC/ACOSS proposes that DER participants who want to be able to export electricity that would require network investment that exceeds the market benefits it would create should be able to purchase additional access. To the extent that such a customer paid the full cost of that access upfront there would be no risk of that cost ultimately being borne by other customers. However, once purchased that access would logically be a right that the DER participant could sell to another end customer if the original DER participant was no longer interested in or able to export, or allow another DER participant to use in the event that the original purchaser was not in a position to use the access on a particular occasion. This level of complication might be more complex and expensive to administer than the benefit it would create.

3.2.3. The charge for export service should apply to all customers - small, large and embedded generators

The reason for providing a price signal is to signal the costs that DER can impose on (or the benefits it can provide to) the network. There does not appear to be any reason why the price signal should apply differently to customers of different sizes, given this intent.⁹

We note that the price signal should apply to all customers even in the case that SAPN proposes whereby customers that limit their export to the capability inherent in the network infrastructure built to meet customer consumption demand would not be charged for that level of export. This charge would provide an economically efficient price signal to these customers regarding exports above the inherent capability of the network, but importantly, would NOT provide a signal that would assist them in monetising the benefits of changing their export behaviour within the 'free' allowance provided by this mechanism.

SAPN proposes that large embedded DER generators that are connected to the distribution network should NOT be subject to export charges. Their rationale for this does not appear to be that generators connected at different voltage levels have different types of impacts on the costs of the respective networks, but rather that imposing those charges at the distribution level would create a regulatory asymmetry between larger embedded generators and generators that are connected to the transmission system. We agree that symmetrical regulatory treatment of generators that connect to the network at different voltages is a legitimate consideration in reviewing and reforming the Rules. However, we do not believe that it makes sense to allow economically inefficient pricing in one part of the market just because a similarly inefficient price signal exists in another part of the market.¹⁰ More specifically, even if transmission system pricing is not as economically efficient as it could be¹¹, this does not constitute a convincing rationale for introducing inefficient price signals at the distribution level.

3.2.4. Similarly, DNSPs' pricing arrangements should recognise and reward DER export that reduces network costs

All three of the proponents recommend that DER participants be rewarded for the use of their DER in ways that provide benefits to the electricity supply chain (and networks in particular). We fully support this position and agree with Rule change proponents that the regulatory arrangements should recognise the benefits provided by export services.

⁹ Cost-reflective price signals would vary, however, based on the voltage level at which the DER system connects to the distribution system.

¹⁰ Similarly, we do not think that the lack of cost-reflectivity in consumption tariffs is a reason for export tariffs to be non-cost-reflective.

¹¹ This is not to say that there are no price signals related to transmission connected generators; price signals regarding connection costs and loss factors play a valuable role in generation investment decisions.



We do not propose to offer up a specific, preferred export tariff structure as part of this response, but note that a menu of options that could serve as models for pricing structures that could be implemented to reflect the benefits that DER can provide to networks and the upstream portions of the electricity supply chain was the subject of an ARENA study.¹²

3.2.5. The use of “grandfathering” should be limited to the maximum extent possible

Grandfathering impedes economic efficiency. If put in place it would mean that a sizeable portion of the market (almost 25% of the households in the NEM) will not see and therefore not be able to respond to price signals that could reduce overall electricity supply chain costs - even if some of those customers would potentially have been able and willing to respond to those price signals.

We recognise that existing DER participants have made their investment decisions in good faith based on the information, pricing and incentives available at the time of that decision. However, those decisions and their outworkings in DER export behaviour may be producing outcomes that increase costs for the electricity supply chain and therefore other customers and/or constrain the access of other customers to the benefits of DER ownership and operation. It should also be recognised that DER participants’ decisions would also have depended on assumptions they made (consciously or not) about other factors, including the level of retail prices and the level and continued availability of the FIT. Grandfathering has not generally been considered with respect to those factors, so it seems disproportionate and inconsistent to consider grandfathering for a possible change in network tariff structures.

Grandfathering existing DER participants from cost-reflective prices for DER export services will only continue inefficient impacts, and as such, we see no reason for a grandfathering arrangement and particularly one that would permanently exclude these DER participants from cost-reflective export service pricing. In sum, it should be recognised that providing such ‘protection’ is essentially an equity measure, not a measure deriving from the NEO.

If the AEMC decides to provide some level of grandfathering for existing DER participants we strongly recommend that it investigates means by which cost-reflective export service pricing can be introduced that would avoid absolute disadvantage to current DER participants while also minimising the number of DER participants to whom non-cost-reflective pricing applies. In this regard we note that data exists that would allow calculation of the expected payback period for systems installed in previous years in each of the NEM’s distribution service areas. The expected payback period could be used to identify a minimum grandfathering period for each system and that period associated with that NMI.

This is only one idea; there may be other, better approaches and we strongly recommend that the AEMC investigate this and implement an approach that is fair to current DER participants while minimising the volume of DER capacity over time that is not subject to cost-reflective export service pricing.

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A summary of this project is available at <https://arena.gov.au/knowledge-bank/pricing-for-the-integration-of-distributed-energy-resources/>. The detailed report on the 26 pricing structures that were developed can be accessed at <http://oakleygreenwood.com.au/wp-content/uploads/2020/07/DER-Pricing-Approaches-Oct2019.pdf>

We further note that the transition to such cost-reflective pricing is expected to take some time.¹³ In this regard, we feel it is also important, when and if the decision is made to implement cost-reflective DER export pricing, that this intent be publicly announced and that the introduction of such prices would apply to all DER systems purchased after the date of that announcement. Such an approach will minimise the number of future DER participants for whom a claim could be made for grandfathering and minimise the economic inefficiencies that would be incurred by a continuation of the current lack of export service and benefit pricing.

3.3. Responses to specific questions

This section provides responses to the specific questions raised in Chapter 6 of the AEMC's Consultation Paper.

1. Should DNSPs have the option to propose to the AER charges for export services?

Yes, as discussed in section 3.2.1 above.

2. What are the potential benefits and costs of enabling export charges?

Please see the discussion in section 3.2.1 above.

3. If customers can already negotiate 'deeper' connection agreements, is a 'supplementary' connection arrangement required to allocate DER-related costs - as proposed by TEC/ACOSS?

We have not addressed this issue.

4. If NER clause 6.1.4 is removed, and DNSPs are able to develop tariffs for export services:

- a. What are the implementation issues?

As far as we can determine, the networks already produce virtually all of the information that would be needed to develop cost-reflective pricing for export services and export benefits. Noting that a transition period will be needed, we do not see any reason why these tariffs could not be incorporated with the existing processes whereby tariffs are developed, subjected to proper consultation and proposed to the regulator.

- b. Should the existing tariff structure statement process and pricing principles apply? For example, is a principle required to guide DNSP decisions on cost allocation between consumption and export services - as proposed by SAPN?

We have not addressed this issue.

- c. Are transitional or 'grandfathering' arrangements needed and, if so, should they be prescribed in the NER?

Please see the discussion in section 3.2.5 above.

5. Should the regulatory framework better recognise the benefits DER services provide to DNSPs? For example, does SAPN's proposal to allow for negative prices address the issue?

We agree that the regulatory framework should recognise - and require DNSPs to reflect in the price signals they provide - the benefits that DER can provide to the network.

We have some concern with negative pricing. To the extent that the way it is implemented makes it a difficult value stream to be accessed by third-parties (for example, VPP operators

¹³

We note that SAPN expects the transition to take several regulatory periods and TEC/ACOSS is not contemplating such prices being in place before 2029.



or other aggregators) such a price signal could reduce innovation and restrict customer choice in access to some DER value streams.

6. Should these reforms only apply to small customers?

No, the reforms to apply to all customers using DER, as discussed in section 3.2.3 above.

4. Possible new distributor obligations

This section aligns with the AEMC's discussion in Chapter 4.4.3 of its Consultation Paper.

4.1. Summary of our understanding of the issue

In the Consultation Paper, the AEMC indicates that SAPN proposes that expenditure proposals and assessment should not be limited to market benefit assessments, and should consider customer views and the extent to which they support particular levels of network investment. The AEMC indicates that SAPN highlights that the requirement would be for distribution networks to consider the least-cost way of meeting customer demand for export services and invest to meet that demand. As such, distribution businesses cases to the AER for investment would not be limited to meeting this goal based solely on market benefits analysis.

On the other hand, the AEMC states that TEC/ACOSS propose that obligations should be introduced in the NER for DNSPs to provide export services and that augmentation to provide capacity for export services would be assessed via a net market benefit test. According to TEC/ACOSS, this could be achieved by extending the principles set out in the RIT-D to all network planning decisions. Where augmentation to add hosting capacity does not pass the net market benefit test, prosumers should be given the option of paying for it themselves. Complementary to the proposed access considerations raised above, TEC/ACOSS suggest the introduction of a requirement for DNSPs to offer prosumers a base level of service for DER exports at no additional cost, where any augmentation to provide hosting capacity at this level passes the net market benefit test. TEC/ACOSS also:

- Suggest the introduction of a requirement for DNSPs to prepare a comprehensive DER integration strategy (DERIS)
- Suggest the introduction of an obligation that requires DNSPs to optimise the use of existing infrastructure to maximise DER hosting capacity
- Propose the introduction of a new pricing principle to guide the allocation of existing and planned export capacity between prosumers.

4.2. Our general response to the proposal

The proposals, in particular the TEC/ACOSS proposal, suggest a broad suite of changes to the Rules, which appear to be (quite reasonably) driven by a desire to ensure that economically efficient investments in DER hosting capacity are in fact both proposed by DNSPs, and subsequently, rolled out.

We believe that there is merit in the AEMC considering a number of those changes, in particular the introduction of a requirement for DNSPs to prepare a comprehensive DER integration strategy (DERIS) - which to our mind, ensures transparency regarding the planning that the DNSPs should be doing in relation to this issue. It would also demonstrate exactly how DNSPs have assessed expenditure against the Rules and the NEO (in accordance with any Guidelines that the AER provides - see below).

We would also agree with the concept of providing 'prosumers' with the option of paying for upgrades/augmentations themselves, with preferably this being a tradable commodity; this 'self-funding' of expenditure that is predominately driven by a sub-set of a DNSP's broader customer based is similar to what we discussed in the previous chapter, which would require businesses to send price signals to the market, with the market 'revealing' the efficient level of network hosting capacity via demand for those services.

However, we see less benefit mandating the use of a ‘net market benefit’ test; the reason being that the National Electricity Objective (NEO) already requires DNSPs to consider wider system benefits and costs in their investment and operational decisions, and the National Electricity Law (NEL) requires the AER to make decisions that will or are likely to contribute to the achievement of the NEO. As the AEMC notes on page 20 of the Consultation Paper, this requirement is made explicit in the RIT-D requirements set out in the NER. Therefore, it is not clear to us what additional coverage or clarity the TEC/ACOSS proposal makes¹⁴, and, to the extent that it is seeking to expand the NEO (e.g., to move beyond the electricity market in relation to the benefits that must be considered), then it seems inappropriate to have a Rule that in effect expands the coverage of the overarching objective - the NEO - which is defined in the Law.

If, rather, it is similar to SAPN’s recommendation that any assessment of the economic efficiency of additional DER hosting capacity should not be limited to a market benefit assessment, but rather, should consider customer views and the extent to which they support particular levels of network investment, then this may be appropriate, if the AEMC considers that this is otherwise not considered under the auspices of the NEO. However, in our view, we do not see this as being a significant issue, subject to the export services being defined as a ‘distribution service’. In particular, if appropriate WTP approaches were adopted to inform businesses’ assessments of their hosting capacity expenditure, we would be of the view that this aligns with NEO, which is an economic concept reflecting productive, allocative and dynamic efficiency.

Notwithstanding any of the above, we think that if an ex ante assessment of DER expenditure is proposed, there might be some benefit in the AER providing a detailed set of Guidelines (which we understand may already be occurring) that could (a) guide DNSPs’ assessment of DER hosting capacity expenditure; (b) lock in some values (e.g., wholesale market benefits) for certain periods of time; and (c) outline its assessment process, in the context of the Rules and the NEO.

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We also note that including such a test would not impact upon business incentives to make otherwise economically efficient investments during the regulatory period. These decisions are driven by the incentive mechanisms that are in place and/or whether additional revenue can be generated within period from the levying of an export tariff in order to offset the increased costs incurred in providing the hosting capacity.