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Incentivising and measuring export service performance

Stakeholder workshop

22 August 2022

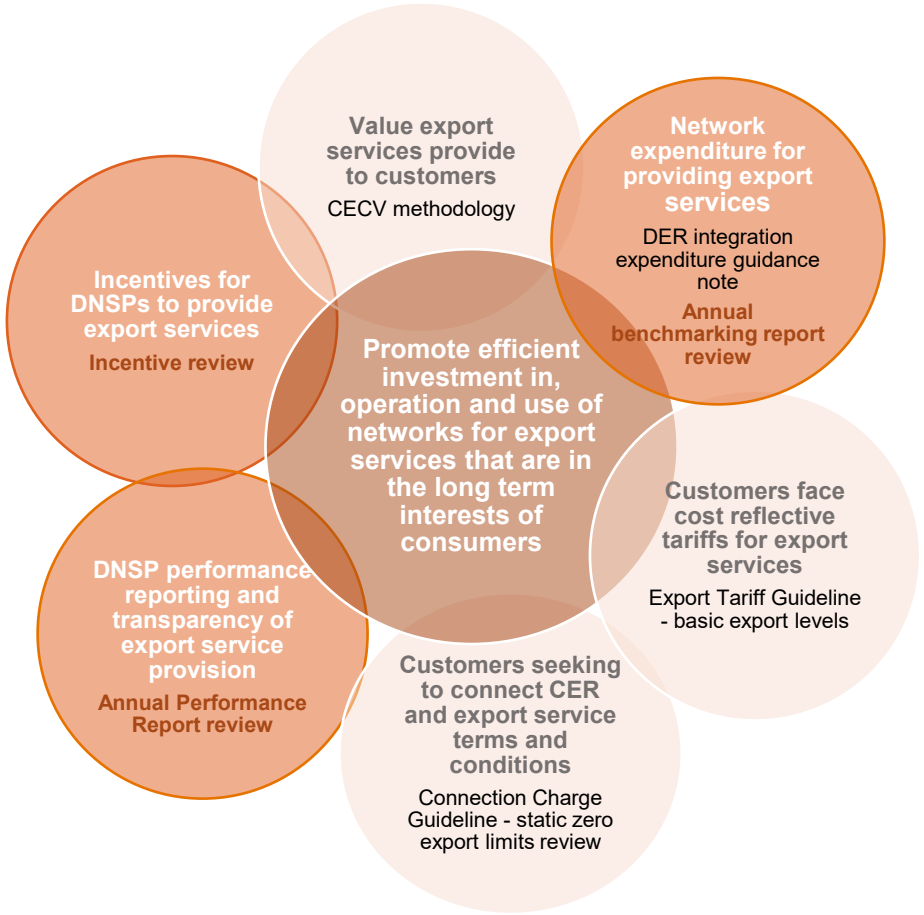
Housekeeping

- Questions may be raised at any time in the chat box or use the ‘raise hand’ function
- Please remain on mute unless speaking
- Note that views expressed by AER staff are not to be attributed to the AER

Agenda

Item	
Welcome, introductions and context	3-3.10pm
Incentive review for export services	3.10-3.20pm
Bryn Williams, SAPN – network insights informed by RACE 2030	3.20-3.35pm
Export service performance reports	3.35-3.45pm
Brian Spak, ECA – a customer perspective on incentives and performance reporting	3.45-3.55pm
5 Minute break	
Benchmarking reports	4.00-4.10pm
Timeframes, questions and feedback	4.10-4.30pm

Overview



- AEMC Access, pricing and incentives rule change requires export services be integrated into regulatory framework
- Focus for this consultation is incentives, monitoring and performance reports, and incorporation into annual benchmarking report
- Joint consultation given overlapping suitability assessment of export service metrics
- Following this workshop, the draft report will be published by 7 October 2022, with the final review report to be published in December 2022

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Export service incentives

Sara Stark, AER

Incentives – are they needed?

Objective is to ensure DNSPs invest in an efficient level of export capacity and design export tariffs that encourage retailers, aggregators and consumers to use that capacity

Current regulatory framework incentivises DNSPs to reduce expenditure through the application of existing incentive schemes including CESS and EBSS

This framework presents the risk that revenue capped DNSPs may adopt the approach to investing in export capacity that involves the lowest cost and risk to them rather than that which maximises overall efficiency

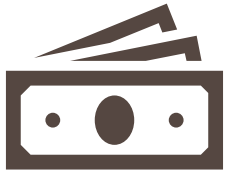
Currently very low levels of curtailment experienced predominantly by a small subset of customers (though constraints are projected to increase with higher levels of demand for export services)

Recent reset processes have introduced/increased expenditure to provide export services, indications for upcoming resets suggests this trend will continue

What are the options for providing incentives?

Financial Incentive Mechanism (STPIS)

Amending STPIS could better align the commercial incentives of DNSPs with the interests of consumers would promote the efficient delivery of export services.



Allowance/ margin mechanisms

DMIA or DMIS type incentives could provide DNSPs with specific funding arrangements for projects associated with improving export capacity.

Reputational incentive

This would require DNSPs to publish metrics on their export service performance to improve transparency for stakeholders. This would also facilitate comparability between the performances of DNSPs.

Financial incentive mechanism (STPIS)

STPIS consists of 4 components:

- Reliability of supply,
- Quality of supply,
- Customer service (collectively 's-factor components'), and
- Guaranteed service level (GSL)

The s-factor components reward (or penalise) a DNSP by providing annual revenue increments (or decrements) depending on the DNSP's performance against predetermined performance targets

An amendment to STPIS could be included in one or several components of STPIS and could include a financial reward and/or penalty focused on:

- increasing export capacity
- a targeted level of headroom
- increasing export capacity utilisation
- DNSP responsiveness to customer complaints about export service quality

Considerations with implementing STPIS

- Availability of data to support suitable performance metric
- Disproportionate quality of service issues
- Interaction with 'funded' export service levels
- Different levels of export services
- Quantifying the value of improvements in export services

Other financial based incentive options

Guaranteed service level – could limit a STPIS amendment to only including a GSL export service component rather than introducing export service metrics into the duration and frequency of outages STPIS component.

- may be scope for a GSL applied to basic export levels that could strengthen consumer protections
- though likely same data issues identified with respect to a broader STPIS measure

Bespoke incentive schemes – DNSPs could propose a mechanistic incentive scheme as part of their revenue determination process

- could allow DNSPs to propose incentive payment linked to measured increases in export capacity above a baseline level
- would still require the establishment of performance measures however, it could provide flexibility to agree to an incentive mechanism that is more aligned with the specific priorities of their customers
- though likely same data issues identified with respect to a broader STPIS measure

Allowance and margin mechanisms

DMIA – DNSPs propose an allowance for expenditure to enhance export hosting capacity according to criteria, submit compliance reports throughout the regulatory period for such projects to be funded by the allowance. Allows flexibility for DNSPs to implement export service-related projects that are highly responsive to consumers preferences

DMIS - DNSPs identify projects enhancing hosting capacity and commit to the deliverables. DNSPs identify an incentive margin (no greater than 50 per cent of costs) where the total project costs, plus the margin, are no greater than the project benefit.

Both mechanisms:

- present challenges in isolating outputs of these specific projects with broader export service performance outputs if a STPIS adjustment is also adopted
- are likely to remain complementary to other incentive options and could experience similar data metric concerns that a STPIS adjustment would
- may achieve limited additional benefit for consumers when weighed against administrative costs of the schemes

Reputational incentives

Allows for development of robust measures of performance without putting revenue at risk or inappropriately rewarding DNSPs and the assessment of trends over time and a comparison of the performance of DNSPs (with suitable controls)

Flexibility

- addresses disparity in DNSP access to export service data. DNSPs with access to higher levels of data could illustrate the use cases for broader export service performance

Transitionary

- could become a transitionary incentive approach as greater levels of access to data occur over time or remain a complimentary incentive measure

Transparency

- helps increase transparency for consumers and aid consumers in understanding how export services are provided on their network

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Presentation: Bryn Williams, SA Power Networks

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Export service performance reports

Lisa Beckman, AER

Export service performance reports

The consultation paper aims to get views on the following:

- What metrics should we ideally capture, even if this is only feasible in the long-term?
- What practical steps could we take to move towards the ideal (or the best possible proxy)?
- What metrics are useful and feasible to collect for reporting in 2023? And what's our proposed process for developing the inaugural report?

Export service performance reports – the ideal, longer-term

- Export service performance metrics would ideally capture forced interruptions to exports per exporting customer due to a network constraint
  - Ideally, equivalent to import service performance where possible. E.g. frequency and duration of interruptions, and both normalised (e.g. excluding extreme events) and experienced interruptions
- Faces many challenges, but we want to keep our eyes on the ideal as we continuously improve

Limitation and impact	Potential solution?
The network is unable to directly measure export curtailment as generation is on the customer's side of the meter.	Networks may be able to acquire inverter data from the relevant party: solar retailer, aggregator, inverter manufactures. Metering data may also be an option.
Forced export curtailment requires modelling customer generation and behaviour, which are affected by several interacting variables. Modelling choices could drive the performance outcomes.	The AER could specify common modelling assumptions so that modelled measures are at least comparable, transparent and unbiased. If these limitations are likely to exist, we will need to interpret metrics with caution and triangulate findings with other evidence where possible.

Export service performance reports – the pragmatic, shorter-term

Potential performance metric	Usefulness of metric
Export capacity approval rates: Approved to requested to export capacity ratio (%), complemented by export customers provided with export limit below requested (’s, %)	Proxies forced curtailment to the extent customer requested capacity reflects what they would have used. Otherwise, it still measures how networks are servicing export customers’ preferences. The complementary measure might highlight where outliers could bias results.
Availability to service exports: Approved export capacity to installed capacity (kVA as a difference, % as a ratio)	Assessing allowable export capacity against installed capacity tracks the network’s availability to support exports.
Export limits imposed: (%) of export customers with (a) static zero export limits, (b) non-zero static export limits, (c) dynamic/flexible export limits	Can help track performance, especially when considered alongside other information. For instance: • Are limits correlated with network constraints? And are there plans to address those constraints? • Do limits continue after constraints are remediated? • Are flexible export limits being used when efficient?

Export service performance reports – plan for report#1

- Inaugural report due by end-2023, but start early to get the data collected
- Preference to integrate into the electricity network performance report when published (Jul 2023) or as an update (Dec 2023)
    - We prefer an earlier publication if we are satisfied with the 2021-22 data collected through this consultation. However, we have a contingency if we need more time.
- Some consultation occurs when we develop network performance reports, but this relates to topics to report on and checking for errors of fact.
    - This consultation will do the bulk of the heavy-lifting for our inaugural report – and will result in an information request that will give us the dataset
    - Our ongoing annual network performance report consultations will support continuous improvements, as well as ongoing checking for errors of fact

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Presentation: Brian Spak, Energy Consumers Australia

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Update to benchmarking reports

Mark Langeluddecke, AER

Why are we considering changes to the productivity benchmarking?

AEMC rule change that AER must consult on how it will take into account the amending rule in the benchmarking reports and publish a report on the consultation conducted and the AER's proposed approach

Seeking stakeholder views on impacts of export services on the benchmarking models:

1- Do the inputs / outputs in our benchmarking account / not account for export services?

2 – What is the likely materiality of the issue where it is not accounted for – now and in the future?

3 – How might this change over time?

The AER uses benchmarking to report on and understand the productivity of distribution sector, including the results of the opex econometric cost function models to assess the efficiency of opex propose by DNSPs

Energy delivered into the distribution network via export services is not taken not into account in the benchmarking, meaning productivity may not be adequately measured

As benchmarking considers all inputs and outputs, export service specific reputational incentives unlikely to be strong

Options for changes to productivity benchmarking?

Benchmarking model specifications for the PIN and econometric models

Export service PPI benchmarking

Operating Environmental Factor (OEF) adjustment to econometric models

Possible two stage approach

OEF and initial views on model specification

Completed December 2022

Model specification

2023-24

Calculating an Operating Environment Factor (OEF) for export services

Standard approach for calculating an OEF

Identifying the **incremental efficient opex costs** because of the OEF.

Calculating these opex costs as a proportion of total average efficient opex.

Comparing the DNSP's proportion with the customer-weighted average proportion of the comparator 'efficient' DNSP's.

Calculating the difference in proportions as the OEF adjustment (+/- %).

- Possibility of deriving efficient incremental export services opex from actual expenditure data?
- Where consistent historical data is not readily available options include disaggregating these costs from historical opex or collection of new data?

- Possibility of estimating efficient incremental export service opex e.g. using regression analysis?
  - Calculating the incremental efficient cost, or cost elasticity, that estimates the average level of incremental opex an efficient DNSP would incur providing an additional unit of export hosting services

Considering model specification issues and possible updates

To consider the extent to which export services impacts the following, and any other model specification issues

Issue	Possible option
Outputs	
Energy delivered – to consider whether the current measures account for energy exported into the distribution network (and not just energy transported to customers).	Update the energy delivered definition e.g to include energy exported
Ratcheted maximum demand – to consider whether the current measures account for energy exported into the distribution network during the peak hours over which maximum demands at transmission connection points are calculated	Update the ratcheted maximum demand definition
Reliability – could be impacted by two way flows. To consider, including whether expenditure to increase export services is impacting the reliability output (and capturing the benefits of increased outputs)	
Export services – not currently an explicit output. To consider if need to be included of definitional changes were made to the energy delivered, ratcheted maximum demand	If required, add an export services output with measurement to be considered
Inputs	
Capital inputs – if DNSPs are undertaking export services-related capex that does not increase the 'transformers and other capital' input it may not be accounted for	Add a new 'other capital' input

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Timeframes, questions and feedback

Timeframes, questions and feedback

Milestone	Current	Option 1	Option 2	Option 3
Submissions on consultation paper	2/9 (4 weeks consultation)	9/9 (5 weeks consultation)	16/9 (6 weeks consultation)	30/9 (8 weeks consultation)
Draft report published	7/10	17/10	21/10	18/10
Submissions on draft report	18/11 (6 weeks consultation	25/11 (6 weeks consultation)	16/12 (8 weeks consultation)	27/01 (8 weeks consultation plus 2 weeks xmas break)
Final report published	16/12	6/01	10/2	10/3

Other concurrent engagement processes:

- Connection Charge Guideline (static zero limits) – issues paper submissions due 9/9/22, draft guideline published 28/9/22, draft guideline submissions due 11/11/22
- Flexible export limits – issues paper published late Sept
- AEMC metering review – draft report published late Sept, final report March
- Incentive review (CESS/EBSS) – position paper submissions due 9/9/22, draft decision published late October
- NSW/ACT/NT/Tas reset proposals – submissions due 30/01/23