Draft export service incentive scheme

Explanatory statement

March 2023

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Tel: 1300 585 165

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Version	Date	Pages
1.0	10 March 2023	16

Shortened forms

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CER	Consumer energy resources
CESS	Capital Expenditure Sharing Scheme
CSIS	Customer Service Incentive Scheme
DER	Distributed energy resources
DNSP	Distribution network service provider
EBSS	Efficiency Benefit Sharing Scheme
ESIS	Export Service Incentive Scheme
NER	National Electricity Rules
SSIS	Small-scall incentive scheme
STPIS	Service Target Performance Incentive Scheme

Contents

1 Introduction

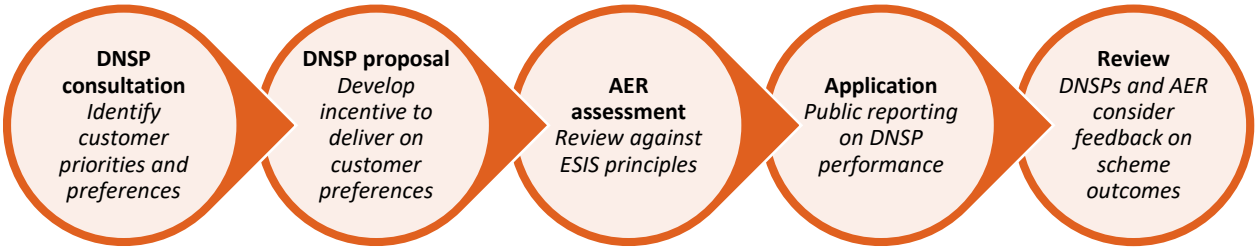
We, the Australian Energy Regulator (AER), regulate electricity distribution network service providers (DNSPs) to deliver the long-term interests of consumers in terms of price, quality, safety, reliability and security of supply. In accordance with our powers under clause 6.6.4 of the National Electricity Rules (NER) we have developed an Export Service Incentive Scheme (ESIS).

The ESIS is designed to encourage DNSPs to engage with their customers and provide export services[1] in accordance with their preferences. The ESIS allows us to set targets for DNSP export service performance and require DNSPs to report on performance against those targets. Under the ESIS DNSPs may be financially rewarded or penalised depending on how they perform against their export service targets.

The ESIS is a flexible 'principles based' scheme that can be tailored to the specific preferences and priorities of a DNSP's customers. This flexibility will allow for the evolution of customer engagement and adapt to the introduction of new technologies. The principles of the ESIS target customer preferences and provide safeguards to ensure rewards/penalties under the scheme are commensurate with improvements/detriments to export services.

Figure 1 illustrates how the ESIS will be applied in practice. The ESIS will encourage DNSPs to meaningfully engage with their customers about the export service levels that they are seeking and propose incentives for it to respond to and address their customer preferences. We will publish raw performance data shortly after we receive it from DNSPs and consider this information in our performance reports.

Figure 1: Application of the ESIS



[1] The NER does not define 'export service', however the AEMC's *Access, pricing and incentive arrangements for distributed energy resources rule determination* removed references in the NER that are specific to the direction of energy, making it clear that 'distribution services' relate not only to sending energy to customers (sometimes referred to as consumption services), but also to customers exporting the energy they generate (export services).

1.1 Request for submissions

This explanatory statement discusses key aspects of the proposed ESIS and poses questions for stakeholders to consider. For convenience, we have included a summary list of these questions in **Attachment A**.

We request all submissions be in Microsoft Word or another machine-readable document format.

We invite stakeholder submissions on the draft ESIS by **28 April 2023** and will consider all submissions received by that date.

Please email submissions to exportservicesreview@aer.gov.au.

We prefer that all submissions are publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. All non-confidential submissions will be placed on our website. Parties wishing to submit confidential information should:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

1.2 Project timeline

In developing a small-scall incentive scheme under clause 6.6.4 of the NER we must adhere to the distribution consultation procedures.[2] They require us to publish any scheme and its accompanying explanatory statement and invite submissions before making a decision. We must allow at least 30 business days for stakeholders to provide submissions on a draft scheme. Once we publish the draft documents, we must publish the final scheme and our reasons within 80 business days.

Table 1: Project timeline

Project step	Date
Draft ESIS published	10 March 2023
Submissions due on draft ESIS	28 April 2023
Final ESIS published	By 7 July 2023

[2] Set out at rule 6.16 of the NER.

2 Why are we proposing the ESIS?

We are proposing the ESIS to incentivise DNSPs to provide improvements in the delivery of export services where such improvements are driven by customer preferences. This proposal is one outcome of our recent review of incentive arrangements for export services.

2.1 Review of incentive arrangements for export services

On 12 August 2021 the Australian Energy Market Commission (AEMC) published its Access, pricing and incentive arrangements for distributed energy resources final determination (the Rule change).[3] The determination changed the NER and National Energy Retail Rules with the aim to integrate more distributed energy resources (DER[4]) such as small-scale solar, batteries and electric vehicles into the grid. The Rule change requires DNSPs to plan for providing export services and strengthens customer protections and our regulatory oversight.

The AEMC found that incentive frameworks in the NER, if left unchanged, could incentivise DNSPs to reduce costs at the expense of export service quality. The Rule change required us to undertake a review to consider arrangements (which may include a service target performance incentive scheme (STPIS)) to provide incentives for DNSPs to provide efficient levels of distribution services provided to retail customers for supply from embedded generating units into the distribution network.[5]

We have completed our review of incentive arrangements for export services.[6] Our review recommended that:

- we should not extend the STPIS to export services in the immediate term. This is due to differences in underlying incentives and network conditions and limited evidence that customers are experiencing export constraints across distribution networks. These factors mean that we cannot develop an incentive scheme that accounts for different network circumstances.
- we should enhance reputational incentives by reporting on the performance of DNSPs against a set of export service performance metrics. Our performance reports should also include qualitative information to account for differences in DNSP circumstances and jurisdictional requirements (which may impact performance), as well as differences in the availability of robust data to measure performance.
- we should develop a new small-scale incentive scheme (SSIS) to permit DNSPs to propose bespoke incentives. A SSIS will provide flexibility for DNSPs to demonstrate

[3] AEMC, *Access, pricing and incentive arrangements for distributed energy resources*, August 2021.

[4] We have sought to replace the term 'distributed energy resources' (DER) with 'consumer energy resources' (CER). CER includes devices and systems (such as solar PV, batteries and electric vehicles) located on the customer's side of the network connection (behind the meter), that are connected to the electricity distribution network and capable of exporting electricity to the grid and/or responding to price and remote-control signals to change export or consumption patterns. These can include both residential and commercial/industrial devices. The NER refers to these devices as embedded generating units.

[5] NER, cl. 11.141.3.

[6] AER, *Incentivising and measuring export service performance*, March 2023.

that their own network conditions and customer expectations warrant a financial incentive to improve export service quality.

In making these recommendations we also considered the application of current incentive schemes. The efficiency benefit sharing scheme (EBSS) and capital expenditure sharing scheme (CESS) encourage DNSPs to reduce operating and capital expenditure, respectively. The STPIS focuses on service quality rather than costs. It provides DNSPs with incentives for maintaining and improving network performance, to the extent that consumers are willing to pay for such improvements. The STPIS is currently geared towards the consumption of electricity rather than the export of electricity to the grid, as there are no explicit export service performance parameters specified (although the reliability of supply parameters also affect the export of electricity).

The Service Target Performance Incentive Scheme (STPIS)

What are the performance parameters?

- Reliability of supply, as measured by unplanned SAIDI (System Average Interruption Duration Index), unplanned SAIFI (System Average Interruption Frequency Index) and MAIFIe (Momentary Average Interruption Frequency Index event) or MAIFI (Momentary Average Interruption Frequency Index).
- Customer service, as measured by telephone answering, streetlight repairs, new connections and responses to written enquiries.
- Currently, there are no quality of supply parameters specified.

How are incentive rates calculated?

- The Value of Customer Reliability (VCR) is used to determine incentive rates. These values vary according to network type (CBD, urban and rural (short and long)).

What is the level of revenue at risk?

- ±5% (excluding the guaranteed service level component) for the scheme components in aggregate for each regulatory year within the regulatory control period.
- ±1% for customer service parameters in aggregate, or ±0.5% for an individual customer service parameter.

In theory, the quality of supply component of the STPIS could specify performance parameters related to network voltage levels, which may indicate the extent of voltage-related curtailment experienced by exporting customers. Voltage-related curtailment is often referred to as ‘active curtailment’ and is one way that customer exports can be constrained (although it is not as significant as the imposition of static export limits). Smart meters can provide data on voltage levels at the customer connection point, which could be used as a proxy for export capability. However, the AEMC noted that relying solely on voltage information could potentially create perverse incentives for DNSPs, whereby they could be

incentivised to provide most customers seeking to connect their DER with a static export limit in order to limit voltages on their networks.[7]

Some stakeholders raised similar concerns about the use of voltage data as part of our review of incentive arrangements for export services. AusNet Services noted that, from 1 October 2022, Victorian DNSPs will be exposed to financial penalties for non-compliance with voltage standards under the Electricity Distribution Code of Practice. They added that this creates a financial incentive for DNSPs to prioritise voltage management over export enablement in specific network areas where exports may result in voltage non-compliance.[8] Endeavour Energy submitted that voltage quality is a broad measure that affects more than export customers, and it is also difficult to discern the extent to which voltage fluctuations are impacted by, or contribute to, export service levels.[9]

More generally, developing a new SSIS was preferable to amending the STPIS for the following reasons:

- There are differences in underlying incentives, network conditions and the materiality of concern across distribution networks. This makes it difficult to develop an incentive scheme that accounts for different network circumstances.
- There is a lack of robust data to support the implementation of a standardised scheme. This makes it very hard to objectively measure export service performance, and therefore rewarding or penalising networks would be inappropriate.
- Export tariffs and flexible export limits are at a nascent stage, and their impacts on export service quality are yet to be established.

2.2 Draft decision

Our draft decision is to develop the ESIS under the small-scale incentive scheme framework. We consider that an incentive scheme which aligns the interests of DNSPs with the preferences of their customers will contribute to achieving the national electricity objective (NEO). We expect that the ESIS will be a transitional measure until it is possible to introduce a standardised scheme for all DNSPs via the STPIS.

DNSPs may propose bespoke incentives under the ESIS, based on consultation with their customers. However, DNSPs may propose not to apply the ESIS (based on network circumstances and customer consultation) and will not be required to apply the ESIS. The NER also provides us with the ability to amend or replace the ESIS in the future.[10]

The design of the ESIS is set out in the following section.

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[7] AEMC, *Access, pricing and incentive arrangements for distributed energy resources*, Draft rule determination, 25 March 2021.

[8] AusNet Services, *Submission on incentivising and measuring export service performance consultation paper*, September 2022.

[9] Endeavour Energy, *Submission on incentivising and measuring export service performance consultation paper*, September 2022.

[10] NER, cl. 6.6.4(c).

3 Design of the draft ESIS

The design of the draft ESIS is based on the existing Customer Service Incentive Scheme (CSIS), a type of SSIS which encourages DNSPs to improve customer service levels.[11] Like the CSIS, the proposed ESIS is principles-based and allows DNSPs to propose different 'incentive designs', which must meet the scheme's principles. The obvious difference is that the proposed ESIS is designed to incentivise improvements in the delivery of export services, rather than customer service. We will not apply an incentive design unless a DNSP can demonstrate that its customers support the incentive design through genuine engagement.

In this section we discuss our rationale for a principles-based incentive scheme, how the principles will work, and the proposed maximum amount of revenue at risk.

3.1 A principles based ESIS

We typically apply prescriptive incentive schemes that specify the components that can apply to a DNSP and the method of calculating rewards and penalties. For example, under the STPIS we specify precisely what is incentivised (such as service improvements as measured by the frequency and duration of unplanned outages), and how service improvements (or decrements) translate into rewards (or penalties).

This is simple to implement and provides certainty to stakeholders. However, it does not provide much flexibility. As a result, we consider that this approach is appropriate where the same measures are likely to deliver benefits to customers of all DNSPs and are likely to remain relevant over a long period. However, the ways in which DNSPs provide export services are evolving and DNSPs are developing different export service offerings. Therefore, we consider that a prescriptive approach to export service incentives is inappropriate. Further, export service measures that are relevant today may become less relevant in the future, as the uptake of newer types of CER such as batteries and electric vehicles increases. Therefore, we consider that it is appropriate to adopt a more flexible and shorter-term approach than amending the STPIS.

Question 1

Do you agree that a principles based ESIS is preferable to a prescriptive one?

3.2 Scheme principles

The draft ESIS divides the principles into four 'elements' that reflect the necessary components of an incentive scheme. These elements cover:

- performance parameters – what customers want to be incentivised under the scheme
- measurement methodology – how performance is measured
- assessment approach – how performance is rated
- financial component – how rewards and penalties are calculated and applied

[11] AER, *Customer service incentive scheme*, July 2020.

We outline the principles for each of these four scheme elements below.

3.2.1 Performance parameters

The relevant principles for performance parameters are that each performance parameter must be an aspect of the export service component of the DNSP's standard control services;

(a) that customers of the DNSP particularly value and want improved, as evidenced by genuine engagement with, and support from, the DNSP's customers,
(b) that is substantially within the control of the DNSP, and
(c) for which the DNSP does not already have an incentive under another incentive scheme or jurisdictional arrangement.

The purpose of the first principle is to ensure that the incentive design will address services that customers value. We consider that demonstrating strong customer support for export service level improvements is a crucial aspect of the DNSPs' ESIS proposal. We have decided not to prescribe how customer value might be demonstrated. We want DNSPs to take ownership of their consultations and undertake them in a manner that best suits their customers. To demonstrate customer support, we expect that DNSPs will consider whether improvements to the proposed parameters will benefit export service customers exclusively or benefit all customers and consult widely with the impacted customers.

For example, increasing the level of hosting capacity may benefit both export service and non-export service customers; export service customers would be able to export more electricity and receive more feed-in tariff revenue, whereas non-export service customers may benefit more marginally from lower wholesale electricity prices (since the additional electricity provided by the export service customers may reduce the need for electricity generated from costlier sources). The extent to which non-export service customers receive these benefits depends on the timing of the increase in hosting capacity, and whether additional CER electricity exports during this time result in benefits in the wholesale electricity market.

The second principle directs incentive designs to target services that are substantially in the control of a DNSP. This will ensure that the incentive designs do not reward or penalise DNSPs for outcomes that are outside their control.

The third principle ensures that the incentive design will not duplicate existing incentives. Duplication may over-incentivise a DNSP to pursue certain outcomes. To avoid this, we consider performance parameters should not duplicate incentives that DNSPs may already have under state or territory schemes.

3.2.2 Measurement methodology

Once the DNSP has identified performance parameters that their customers value, the next step is to consider how to measure performance. The measurement methodology principles govern this. The relevant principles for measurement methodology are that for each performance parameter, the proposed measurement:

(d) accurately measures the features of the performance parameter,
(e) is sufficiently independent, in that it is either conducted by an independent third party or based upon an independently developed methodology,

(f) is compiled in an objective and reliable manner with data retained in a secure and logically indexed database, and
(g) produces results that could be audited by an independent third party.

These principles are intended to ensure that the measurement methodology appropriately reflects the performance parameters. We consider that reliable and robust data is crucial to establishing baseline performance levels and accurately measuring performance over time. Principle (d) requires the methodology to accurately measure the aspect of performance that is of value to customers. For example, if the volume of export curtailment is a performance parameter, then a suitable measurement methodology may be to estimate the volume of electricity curtailed by (i) voltage-based curtailment, (ii) the imposition of static export limits, and (iii) flexible export limits (if applicable).

Principle (e) requires that the measurement be sufficiently independent, in that it is either; administered by an independent third party or based on an independently developed methodology. If we take the example of export curtailment, the DNSP could adopt a methodology developed by industry or in academic research. Principles (f) and (g) effectively require the DNSP to retain data in a way that can be independently reviewed, including by a third-party auditor. This ensures the integrity of the scheme. However, the benefits and costs of assurance must be weighed against each other. We have not specified the level or type of assurance, and DNSPs need to set this out in their incentive designs.

3.2.3 Assessment approaches

The assessment approach principles cover how performance is evaluated and then translated into an expression of improvement or deterioration, which can be used to determine a reward or penalty. These principles establish a baseline or neutral level of performance. We consider that, as a default, the historical performance of the DNSP should be set as the performance target (provided there is reliable data to demonstrate historical performance). However, we have not prescribed this in the draft ESIS as customers may desire a different base level of performance or historical performance data may not be available. These principles also govern that performance targets only reward genuine improvement in line with customer preferences.

3.2.4 Financial component

The financial component covers how an incentive design delivers penalties or rewards for a given level of performance. Our objective is that penalties and rewards under the ESIS are commensurate with customer benefits and do not provide an incentive for DNSPs to over-invest in the provision of export services.

The financial component of the ESIS covers the overall revenue at risk and the incentive rate. The overall revenue at risk sets the maximum amount of revenue that a DNSP can gain or lose under the incentive design. The incentive rate determines the degree to which we will adjust a DNSP's revenue based on a given level of performance.

Both components are required to be in line with the value that customers attribute to the level of service improvement or degradation observed. They also tie the incentive rate to the value customers place on those improvements or degradations.

Question 2

Do you agree with the principles for each of the ESIS elements?

Question 3

Do you suggest any additional ESIS elements and/or principles?

3.3 Revenue at risk and scheme application

Where we apply a SSIS to a DNSP, the aggregate rewards or penalties for a regulatory year in that regulatory control period that are provided or imposed under that scheme and any other small-scale incentive schemes that apply to the DNSP must not exceed 0.5% of the DNSP's annual revenue requirement for that regulatory year, or 1% where the DNSP consents.[12] Our draft position is to set a default maximum revenue at risk of 0.5%, provided that DNSPs can demonstrate that their customers support this level of revenue to be placed at risk. We consider that our draft position provides flexibility to DNSPs in how they seek to apply both the CSIS and the ESIS. For example, the level of revenue at risk under the ESIS could be up to 1%, and the level of revenue at risk under the CSIS could be up to 0.5%, however the total level of revenue at risk would be capped at 1%. Therefore, DNSPs could balance the value that their customers place on the export service and customer service equally or place more value on the provision of the export service.

Finally, we may require a DNSP to participate in a trial of a SSIS under which, for the duration of the trial, the DNSP is not required to bear any penalty and is not entitled to earn any reward.[13] This provides us with the flexibility to test performance metrics under the ESIS prior to including them in the STPIS.

Question 4

Do you agree that 0.5% of revenue at risk is appropriate for the ESIS?

Question 5

Are there any circumstances where we should require DNSPs to participate in a trial of the ESIS?

[12] NER, cl. 6.6.4(d)(1).

[13] NER, cl. 6.6.4(e).

4 Considerations in making this draft decision

As noted in section 2, our review of incentive arrangements for export services is now complete. In our draft report, we sought stakeholder views on our position to introduce a new SSIS and allow DNSPs to propose bespoke incentives. We asked:

- whether developing a new small-scale incentive scheme is the best way to facilitate DNSPs proposing bespoke incentives
- what the appropriate level of revenue at risk is for a small-scale incentive scheme for export services
- whether the benefits associated with a small-scale incentive scheme for export services will outweigh the costs of measuring performance and administering the scheme, and
- if there are any other factors we should consider when developing a new small-scale incentive scheme.

Stakeholders largely agreed that developing a new SSIS is preferable to amending the existing CSIS. Energy Networks Australia submitted that any SSIS for export services should apply in addition to the current CSIS (if applicable) and STPIS for consumption services to avoid weakening incentives on DNSPs to maintain/improve service performance for consumption services.[14] SA Power Networks submitted that the use of the SSIS should only be a transitory mechanism to implement bespoke incentive schemes for exports. It submitted that, as penetration of CER increases, the costs associated with, and value customers derive from the service, will reach a point where the rewards or penalties permitted under the SSIS may be inadequate to drive material investment and changes in service provision – warranting re-consideration of a more fulsome expansion of the current STPIS.[15]

A number of stakeholders also submitted that the benefits of a new SSIS will likely outweigh the costs. CitiPower, Powercor and United Energy noted that its experience with the CSIS is that administrative costs are low relative to the benefits to customers of improved service outcomes.[16] SA Power Networks submitted that the data requirements, and associated administration costs, will vary dependent upon the measured performance metric used and distributors' data capabilities. It added that the flexibility that comes with distributors being able to design their own customised incentives, will ensure that they can take into account the likely implementation and monitoring costs when designing these schemes to ensure that they drive overall net benefits to customers.[17]

Stakeholders provided a mix of responses in relation to the appropriate level of revenue at risk for the new SSIS. CitiPower, Powercor and United Energy submitted that the revenue at

[14] Energy Networks Australia, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

[15] SA Power Networks, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

[16] CitiPower, Powercor & United Energy, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

[17] SA Power Networks, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

risk for a bespoke export incentive SSIS should be 0.5%, in line with other incentive schemes proposed by networks in the past. This 0.5% should not displace the 0.5% applicable under the CSIS. SA Power Networks commented that the appropriate amount of revenue at risk for export services will likely need to vary across distributors on the basis of the customer demand for the measured export service performance metric relative to the distributor's annual revenue requirement.[18] Endeavour Energy submitted that there could be value in allowing DNSPs to vary the incentives of both the CSIS and export service SSIS to align with customer feedback so that the total ±1% ARR limit is unconstrained by a scheme specific limit. This would require removing the ±0.5% ARR cap on the CSIS.[19] We recognise there are a range of views on this particular issue and consider it important to seek further stakeholder views as part of this consultation process.

[18] SA Power Networks, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

[19] Endeavour Energy, *Submission on Incentivising and measuring export service performance draft report*, January 2023.

Attachment A: Stakeholder feedback template

The template below will enable stakeholders to provide their feedback on the questions posed in this explanatory statement and any other issues to which they would like to raise. We encourage stakeholders to use this template and to provide reasons for stakeholders' views to assist us in considering the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern.

1. Submitter details

ORGANISATION:

CONTACT NAME:

EMAIL:

PHONE:

AER Question	Stakeholder feedback
1. Do you agree that a principles based ESIS is preferable to a prescriptive one?	
2. Do you agree with the principles for each of the ESIS elements?	
3. Do you suggest any additional ESIS elements and/or principles?	
4. Do you agree that 0.5% of revenue at risk is appropriate for the ESIS?	
5. Are there any circumstances where we should require DNSPs to participate in a trial of the ESIS?	