

Demand management innovation allowance guideline

Consultation paper

6 July 2021

Economic Regulation Authority

WESTERN AUSTRALIA

D235048

Economic Regulation Authority

Level 4, Albert Facey House

469 Wellington Street, Perth WA 6000

Telephone 08 6557 7900

Email info@erawa.com.au

Website www.erawa.com.au

This document can also be made available in alternative formats on request.

National Relay Service TTY: 13 36 77

© 2021 Economic Regulation Authority. All rights reserved. This material may be reproduced in whole or in part provided the source is acknowledged

Invitation to make submissions

Submissions are due by 4:00 pm WST, Friday 13 August 2021.

The ERA must develop a guideline on the demand management innovation allowance mechanism required under the *Electricity Networks Access Code 2004*.

The ERA invites comment on this consultation paper and encourages all interested parties to provide comment on the matters discussed in this paper and any other issues or concerns not already raised in this paper.

We would prefer to receive your comments via our online submission form <https://www.erawa.com.au/consultation>

You can also send comments through:

Email: publicsubmissions@erawa.com.au

Post: Level 4, Albert Facey House, 469 Wellington St, PERTH WA 6000

Please note that submissions provided electronically do not need to be provided separately in hard copy.

All submissions will be made available on our website unless arrangements are made in advance between the author and the ERA. This is because it is preferable that all submissions be publicly available to facilitate an informed and transparent consultative process. Parties wishing to submit confidential information are requested to contact us at info@erawa.com.au.

For further information please contact

General Enquiries

Elizabeth Walters
Ph: 08 6557 7958
info@erawa.com.au

Media Enquiries

Natalie Warnock
Ph: 08 6557 7933 | Mob: 0428 859 826
media@erawa.com.au

Contents

1.	Introduction	1
1.1	Regulatory requirements	1
1.2	Consultation paper	2
2.	Form of the mechanism	4
3.	Eligibility requirements	6
4.	Process for up-front consideration of a project	10
5.	Information that must be included in a compliance report	11
6.	Preparation, lodgement and form of compliance report	13

1. Introduction

On 18 September 2020, the *Electricity Networks Access Code 2004* was amended to support the delivery of the State Government's Energy Transformation Strategy.¹

The changes include a requirement that an access arrangement must contain a demand management innovation allowance mechanism.

The objective of the demand management innovation allowance mechanism as set out in section 6.32C of the Access Code is to:

Provide service providers with funding for research and development in demand management projects that have the potential to reduce long term network costs.

Projects eligible for the mechanism must be innovative and not otherwise efficient and prudent demand management options that the service provider should have provided for in its proposed access arrangement.

The ERA must publish a guideline on the demand management allowance mechanism, including the criteria for projects that will be eligible for the allowance. The guideline must also set out the information that Western Power is required to submit in a compliance report to the ERA for publication.

1.1 Regulatory requirements

As required by section 6.32G of the Access Code, in developing and applying any demand management innovation allowance mechanism, the ERA must take the following into account:

- 6.32G In developing and applying any demand management innovation allowance mechanism, the *Authority* must take into account the following:
- (a) the mechanism should be applied in a manner that contributes to the achievement of the demand management innovation allowance objective;
 - (b) projects the subject of the allowance should:
 - (i) have the potential to reduce long term network costs; and
 - (ii) be innovative and not otherwise efficient and prudent alternative options that a service provider should have provided for in its proposed access arrangement; and
 - (iii) comply with the demand management innovation allowance guidelines.
 - (c) the level of the allowance:
 - (i) should be reasonable, considering the long term benefit to consumers; and
 - (ii) should only provide funding that is not available from any other source; and

¹ On 6 March 2019, the Minister for Energy announced the Energy Transformation Strategy, which is the State Government's plan to respond to the technological change and evolving consumer preferences that are rapidly transforming the energy sector and to plan for the future of the power system. The delivery of the Strategy is being overseen by the Energy Transformation Taskforce, which is supported by the Energy Transformation Implementation Unit, a dedicated unit within Energy Policy WA.

- (iii) may vary over time; and
- (d) the allowance may fund projects which occur over a period longer than an access arrangement period.

Section 6.32D of the Access Code requires the ERA to publish a guideline on the demand management innovation allowance mechanism:

- 6.32D The *Authority* must make and publish guidelines which must include a demand management innovation allowance mechanism consistent with the demand management innovation allowance objective and the information specified in section 6.32J.

Section 6.32J of the Access Code requires that the guideline includes the following:

- 6.32J The demand management innovation allowance guidelines must include the following:
- (a) the eligibility criteria to be applied by the *Authority* in determining whether a project is entitled to receive the allowance;
 - (b) the process, manner and form by which a service provider may apply to the Authority for up-front consideration of a project;
 - (c) the information required to be included in a compliance report which must include:
 - (i) the amount of the allowance:
 - A. incurred by the service provider to date as at the end of that pricing year;
 - B. incurred by the service provider in that pricing year; and
 - C. expected to be incurred by the service provider in total over the duration of the eligible project;
 - (ii) a list and description of each project on which the allowance was spent;
 - (iii) a summary of how and why each project complies with the eligibility criteria;
 - (iv) the results of each project; and
 - (d) any requirements for the preparation, lodgement and form of a compliance report.

1.2 Consultation paper

The ERA will set the level of the demand management innovation allowance for Western Power as part of its determination of the framework and approach for Western Power's fifth access arrangement review.²

In the draft decision on the framework and approach, the ERA determined that the allowance should be set at 0.08 per cent of target revenue. Based on the target revenue for Western Power's fourth access arrangement period, this would equate to approximately \$7 million over

² See <https://www.erawa.com.au/electricity/electricity-access/western-power-network/western-powers-network-access-arrangements/framework-and-approach-2022-to-2027>

the five-year regulatory period, or \$1.4 million each year which is about \$1.17 for each customer each year.

The ERA considers that setting the allowance at this level, combined with the eligibility requirements governing how the allowance can be spent, is consistent with the Access Code requirement for the allowance to be reasonable, considering the long-term benefits to consumers from the research undertaken.

The ERA based the level of the allowance on the scheme operating in the National Electricity Market. Submissions from Western Power, Perth Energy, Synergy and the Australian Energy Council on the framework and approach issues paper supported this approach.

In this consultation paper, the ERA is seeking views on a proposed guideline that includes the form of the allowance and the compliance and reporting requirements. The proposed guideline takes account of relevant submissions received on the framework and approach issues paper. The consultation paper is structured in line with the proposed guideline as follows:

- form of the mechanism
- eligibility criteria
- process for up-front consideration of a project
- information that must be included in a compliance report
- preparation, lodgement and form of compliance report.

2. Form of the mechanism

Section 6.32B of the Access Code specifies that the allowance is:

An annual, *ex-ante* allowance provided to *service providers* in the form of a fixed amount of additional revenue at the commencement of each *pricing year* of an *access arrangement period*.

Section 6.32E of the Access Code requires:

The *Authority* must determine the maximum amount of the allowance under the *demand management innovation allowance mechanism* for an *access arrangement period*, which must be calculated for each *pricing year* in the *access arrangement period*.

As specified in section 6.32F, the allowance can be spent only on eligible projects and any allowance that is not used during the access arrangement period must be returned to users:

Any amount of allowance not used by the *service provider* or not approved by the *Authority* over the *access arrangement period* must not be carried over into the subsequent *access arrangement period* or reduce the amount of the allowance for the subsequent *access arrangement period*.

Section 6.32G(d) permits the allowance to be used to fund projects that occur over a period longer than an access arrangement period.

Section 4.A2(d) of the Access Code requires the ERA to determine the demand management innovation allowance mechanism in the framework and approach for the access arrangement.

As set out above, in the draft decision on the framework and approach, the ERA determined that the allowance should be set at 0.08 per cent of target revenue.

The Access Code requires the mechanism to set an annual allowance. In its submission on the framework and approach issues paper, Western Power stated that a flexible approach that allowed initiatives to be delivered within the overall allowance within the period would be more efficient than limiting initiatives to the annual cap within a given year.

The ERA considers that, although the Access Code requires the allowance to be set in the form of an annual allowance, there is no reason the expenditure profile cannot be varied, providing total expenditure during the access arrangement period does not exceed the total allowance.

Taking account of the Access Code requirements and submissions received, the ERA's proposed guideline is set out in the box below:

Proposed guideline**Form of the mechanism**

The demand management innovation allowance mechanism is an annual, *ex-ante* allowance in the form of a fixed amount of additional revenue at the commencement of each pricing year for an access arrangement period.

The ERA will determine the level of the demand management innovation allowance in the framework and approach that applies to the access arrangement period.

The demand management innovation allowance determined in the framework and approach will be included in the target revenue approved for the relevant access arrangement period.

During the access arrangement period to which the demand management innovation allowance applies, the service provider may spend the allowance on demand management innovation projects that meet the eligibility criteria set out in this guideline. The allowance may be used to fund projects which occur over a period longer than the access arrangement period.

At the next access arrangement review, the ERA will review the expenditure claimed by the service provider against the demand management innovation allowance to determine whether the claimed expenditure meets the eligibility criteria.

The ERA will make an adjustment to target revenue for the next access arrangement period to recover the amount of any allowance that was not spent, or any expenditure claimed that did not meet the eligibility criteria. This will include an adjustment for the time value of money.

3. Eligibility requirements

The guidelines must set out the eligibility criteria the ERA will apply to determine whether a project is entitled to receive the allowance.³

The Access Code includes the following provisions relevant to eligibility requirements:

- It must be research and development in a demand management project.⁴
- The project must have the potential to reduce long-term network costs.⁵
- The project should be innovative and not otherwise efficient and prudent alternative options that the service provider should have provided for in its proposed access arrangement.⁶
- Funding for the project is not available from any other source.⁷

A project must meet all the above criteria to be eligible for the allowance.

In its submission on the framework and approach issues paper, Western Power stated that the demand management innovation allowance should be sufficiently flexible to consider both network and non-network demand management solutions that improve network reliability, safety, stability, supply quality, visibility, forecasting and capacity to deliver outcomes that could reduce long-term network cost.

AEMO suggested that the eligibility criteria should require project proposals to include an assessment of potential impacts on power system security, power system reliability and the Wholesale Electricity Market.

The Australian Energy Council submitted that the guidelines were critical to ensuring the allowance only funded projects that:

- Were genuinely innovative and likely to provide consumers a positive cost/benefit outcome within a reasonable period.
- Did not duplicate other projects either nationally or internationally.
- Did not fund new lines of business for the network operator in competition with network users.

The Australian Energy Council raised the following questions for the ERA to consider:

- What activities involve research and development?
- How is a demand management innovation project defined?
- How will the ERA identify whether a potential demand innovation project is already being considered or undertaken by third parties?
- Will a national and international survey be conducted to ensure the demand management innovation project hasn't already been progressed elsewhere?

³ Section 6.32J(a) of the Access Code.

⁴ Section 6.32C of the Access Code.

⁵ Section 6.32G(b)(i) of the Access Code.

⁶ Section 6.32G(b)(ii) of the Access Code.

⁷ Section 6.32G(c)(ii) of the Access Code.

- What criteria will be used to determine whether a demand management innovation project is actually innovative and likely to provide a positive benefit within a reasonable period?
- What criteria will the ERA apply to ensure a demand management innovation project does not fund new lines of business for the network operator in competition with network users?
- What criteria will the ERA apply to assess if the demand management innovation project will generate unregulated revenue?
- Who determines, and how, whether other sources of funding are available?
- Will each demand management innovation project be subject to public consultation?

The ERA has considered the matters raised in submissions to develop the proposed guideline.

The objective of the mechanism is to provide funding for research and development in demand management projects that could reduce long-term network costs. There is no restriction on whether the mechanism funds network or non-network demand management research and development projects, or what parameters the projects involve, such as network reliability, safety, stability, supply quality, visibility or forecasting.

The mechanism objective contained in the Access Code refers only to the potential to reduce network costs. However, the network affects the operation of the Wholesale Energy Market, including power system security and reliability. Consequently, forecast cost reductions must take account of any effects on other elements of electricity costs.

The ERA considers that the definition of core research and development activities used by the Australian Taxation Office provides a useful reference point for the demand management innovation allowance mechanism:⁸

Core R&D activities are experimental activities:

- whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:
 - is based on principles of established science; and
 - proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions
- that are conducted for the purpose of generating new knowledge (including about creating new knowledge or improved material, products, devices, processes or services).

The costs of administering the scheme need to be commensurate with the level of the allowance.

As the proposed level of the allowance is small, it is reasonable to expect Western Power will use it effectively and will not select projects that have already been investigated by other parties or could be funded from an alternative source.

Western Power will be required to provide evidence that the project is innovative and that it has sought funding from other funding sources. The information provided by other funding

⁸ [Eligible activities | Australian Taxation Office \(ato.gov.au\)](https://www.ato.gov.au/Eligible-activities)

bodies that decide not to fund the project may provide an indication of whether the proposed project is considered innovative.

The ERA does not consider it is necessary to undertake its own national or international survey of research and development projects. The demand management innovation allowance reports published by the Australian Energy Regulator and various reports published by other bodies that either provide funding (such as the Australian Renewable Energy Agency) or run competitions for innovative projects (such as Energy Networks Australia) will provide useful material to inform an assessment of whether a project is innovative.

In addition, the projects claimed under the allowance during an access arrangement period will be included in the public consultation on Western Power's access arrangement proposal for the following access arrangement period. This will provide an opportunity for stakeholders to comment on the eligibility of projects that are being claimed under the allowance.

Eligible projects must have the potential to reduce long-term network costs and, if successful, offset the costs incurred by users through lower network charges. Whether Western Power subsequently chooses to develop a project further as a non-regulated business is a matter for it to decide. Additional costs would not be funded by network users.

Taking account of the Access Code requirements and submissions received, the ERA's proposed guideline is set out in the box below:

Proposed guideline

Eligibility requirements

To determine whether a project is eligible for the demand management innovation allowance, the service provider must demonstrate each of the following:

- The project consists of research and development. The service provider must demonstrate that the project is for experimental activities whose outcome cannot be known or determined in advance using current knowledge, information or experience and that the activities are conducted for the purpose of generating new knowledge.
- The project is for demand management. The service provider must provide details of the effect the project, if proved viable, will have on network demand usage patterns.
- The project has the potential, if proved viable, to reduce long term network costs. The service provider must provide a description and estimation of the costs that can be reduced. Any additional costs that may arise in total electricity costs as a result of the demand management project (for example, effects on power system security, power system reliability or other aspects of the wholesale electricity market) should be taken into account when estimating the reduction in costs.
- The project is innovative and not an otherwise efficient and prudent option that a service provider should have provided for in its proposed access arrangement. The service provider will need to describe and demonstrate that the project is innovative in terms of one or more of the following:
 - It is based on new or original concepts.
 - It involves technology or techniques or concepts that differ from those previously implemented or used in the relevant market.
 - It is focused on customers in a market segment that significantly differs from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect demand.
- The service provider must identify all potential sources of funding for the project with an explanation of why it was not able to obtain funding for the project from those sources. This should include sources such as the Australian Renewable Energy Agency, and federal or state government schemes.
- The costs were not included in the forecast capital expenditure or operating expenditure approved in the ERA's determination for the access arrangement period under which the demand management innovation mechanism applies, or under any other incentive scheme in the access arrangement determination.

4. Process for up-front consideration of a project

The guidelines are required to include the process, manner and form by which a service provider may apply to the ERA for up-front consideration of a project.⁹

In its submission on the framework and approach issues paper, Western Power noted that the scheme operating in the National Electricity Market was highly prescriptive and administratively complex. Western Power considered that a less complex approach with lower administrative overheads was in the long-term interests of consumers.

Undertaking a pre-approval process would incur costs for both the ERA and Western Power. Given the likely level of the total allowance, the ERA considers that the costs incurred would outweigh any benefits from a pre-approval process. It would be more cost-effective to conduct a single review at the end of the access arrangement period to confirm that the total expenditure claimed by the service provider over the access arrangement period meets the eligibility requirements.

The Access Code provisions on eligibility, combined with the guideline should provide sufficient guidance for a service provider to identify what projects can be claimed under the allowance. If it is subsequently determined that a project does not meet the eligibility criteria, the financial effect on the service provider is unlikely to be material.

Proposed guideline

Process for up-front consideration of a project

The ERA proposes not to include a process for up-front consideration of a project.

⁹ Section 6.32J(b) of the Access Code.

5. Information that must be included in a compliance report

The Access Code requires the following information to be included in a compliance report:¹⁰

- The amount of the allowance:
 - Incurred by the service provider to date as at the end of that pricing year.
 - Incurred by the service provider in that pricing year.
 - Expected to be incurred by the service provider in total over the duration of the eligible project.
- A list and description of each project on which the allowance was spent.
- A summary of how and why each project complies with the eligibility criteria.
- The results of each project.

In its submission on the framework and approach issues paper, Perth Energy submitted that, as the projects were funded by market participants, the report should be made available to the market and include the results of each project.

The information provided in the compliance report will inform the ERA's assessment of a service provider's compliance with the demand management innovation allowance mechanism and entitlement to recover expenditure under the allowance.

The compliance report should also provide useful information to stakeholders on the nature of the projects that may ultimately become operating activities or more mature investments. The information may also facilitate the participation of non-network providers for those projects that go beyond the research or testing phase.

Taking account of the Access Code requirements and submissions received, the ERA's proposed guideline is set out in the box below:

¹⁰ Section 6.32J(c) of the Access Code.

Proposed guideline

Information that must be included in a compliance report

The compliance report must include the following information for each project:

- The nature and scope of the project.
- The aims and expectations of the project.
- The outcomes if the project is successful. This should include quantifying the potential to reduce long-term network costs, taking account of any additional costs that may arise in total electricity costs as a result of the change to demand (for example, additional essential system services that may be required).
- The amount of the allowance:
 - Incurred by the service provider to date as at the end of that pricing year.
 - Incurred by the service provider in that pricing year.
 - Expected to be incurred by the service provider in total over the duration of the project.
- Details of how and why the project meets the eligibility criteria specified in this guideline.
- For projects that have not been completed during the year, the report should include:
 - A summary of the project activity to date.
 - An update on any material changes to the project in that regulatory year.
 - Any preliminary results.
 - A summary of planned future activity.
- For projects completed during the year, the report should include:
 - The quantitative results of the project.
 - Analysis of the results.
 - A description of how the results of the project will inform future demand management projects, including any lessons learnt about what demand management projects or techniques (either generally or in specific circumstances) are unlikely to form technically or economically viable non-network options.
 - Any other information required to enable an informed reader to understand and evaluate the project.

6. Preparation, lodgement and form of compliance report

Section 6.32J(d) of the Access Code requires the guideline to include any requirements for the preparation, lodgement and form of the compliance report.

Section 6.32H of the Access Code requires the service provider to submit a compliance report to the ERA in accordance with the guidelines.

Section 6.32I of the Access Code requires the ERA to publish the compliance report.

In its submission on the framework and approach issues paper, Perth Energy considered that the compliance report should be published each year.

The Access Code does not specify the frequency of the report but does specify that the report should include expenditure for a pricing year.

The ERA proposes the compliance report should be submitted annually, no later than four months after the end of the pricing year.

Taking account of the Access Code requirements and submissions received, the ERA's proposed guideline is set out in the box below:

Proposed guideline

Preparation, lodgement and form of compliance report

A service provider must submit a compliance report each year to the ERA, no later than four months after the end of the pricing year.

The report must be in an electronic form suitable for publishing on the ERA's website.

If the service provider's compliance report contains confidential information, the service provider must also provide a non-confidential version of the report in a form suitable for publication. The service provider must also provide reasons and evidence to support any claim of confidentiality.

The ERA will assess confidentiality claims against the requirements in section 14.12 to 14.15 of the *Electricity Networks Access Code 2004*. The ERA can publish information claimed as confidential information if the public benefit in disclosing the information outweighs the detriment to the affected parties.