

Regulatory sandboxing

Positions Paper

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Contents

1	Introduction	4
1.1	Timeframe and next steps	4
2	Overview of the regulatory sandboxing toolkit	5
2.1	The regulatory sandboxing toolkit	5
2.2	Prioritising enquiries and waivers.....	6
2.3	Confidential information	6
2.4	Knowledge sharing	7
3	Innovation Enquiry Service.....	8
3.1	Purpose and scope of the Innovation Enquiry Service	8
3.2	Implementing the Innovation Enquiry Service	8
3.3	Engaging with the Innovation Enquiry Service	9
4	Facilitating trial projects	10
4.1	Trial projects	10
4.2	Trial waivers	12
4.3	Overview of our approach to assessing waivers	13

1 Introduction

The Australian Energy Regulator (AER) is finalising our approach to delivering a regulatory sandbox toolkit. The toolkit will help innovators understand how their new technologies or business models fit within current regulations and make it easier for innovators to trial their proposed services in a real-world environment. There are three parts to this new toolkit, which will be accessed via a dedicated new website. They are a new **innovation enquiry service** (IES), a new regulatory **trial waiver** power, and a new **trial rule change** process.

The regulatory sandboxing toolkit is expected to benefit innovators by enabling their projects to proceed. It will also benefit the wider industry through knowledge sharing, and customers by providing greater choice, improved services and cheaper energy. Insights from the enquiry service and trials can also inform policy makers on the future design of the regulatory arrangements and identify areas of regulation that may be reformed.

Regulatory sandboxes have been established in other sectors, such as financial services,¹ and in energy markets internationally.² While the way in which sandboxes are implemented differs across countries to suit their local needs, the common driver is an acknowledgement that existing market frameworks may not be able to accommodate innovations that would be of benefit to consumers.

1.1 Timeframe and next steps

In November 2021, the AER published an [Issues Paper](#) setting out how we will deliver the IES and our initial views on assessing trial waiver applications. We also held two information sessions in December 2021 and sought stakeholder feedback. This Positions Paper sets out our final proposal for how we will implement and deliver the regulatory sandbox toolkit. Throughout the paper we have considered matters raised by stakeholders in response to the Issues Paper.

The regulatory sandboxing legislation has not yet passed through the South Australian Parliament.³ Indicative timings for the launch of the IES and trial projects are:

- IES to launch in Q2 2022
- AER and the AEMC to begin accepting trial waiver applications and requests for trial rule changes provided regulatory sandboxing legislation passes through the SA Parliament following their election in March.

¹ For example, the Australian Securities and Investment Commission has established the Enhanced Regulatory Sandbox, which allows businesses to test innovative financial services or credit activities without having to first obtain the necessary licence.

² Energy regulators in Europe, the UK, Canada and Singapore have introduced sandboxes to encourage innovation and inform changes to their regulatory framework as the sector transforms.

³ Victorian sandboxing legislation has passed, and the ESC will begin consultation on the Victorian Trial Project Guideline in April 2022. The ESC must have regard to the AER's Trial Projects Guidelines in making its guideline.

2 Overview of the regulatory sandboxing toolkit

2.1 The regulatory sandboxing toolkit

There are three components to the regulatory sandboxing toolkit:

- **Innovation enquiry service** – the IES will provide innovators with informal feedback and guidance on business models that may be feasible within the current laws and rules, helping innovators enter the market or implement new approaches more quickly. The way in which we intend to implement the IES is set out in section 3.
- **Trial waiver power** – a new regulatory waiver power allows the AER and Victoria's Essential Services Commission (ESC) to temporarily address certain regulatory barriers by exempting trial projects from complying with specified rules and laws and assess whether there would be benefit from a permanent change.⁴ The trial waiver allows innovators to experiment in a real world context, while maintaining consumer, system and market protections and sharing insights gained from the trial with the wider industry. Section 4 provides further detail on the trial waiver process.
- **Trial rule change process** – the AEMC will have a new power to make temporary rule changes to allow trials to proceed. This could be used to temporarily amend existing rules or to temporarily introduce a new rule of limited application. To have a permanent change to the Energy Rules⁵ requires a standard rule change request under existing rules. The trial rule change function is not addressed further in this paper.

A new sandboxing website hosted by the AER will be the first step for innovators seeking to engage with the regulatory sandboxing toolkit. The website will provide a range of guidance information to address common queries, as well as providing a secure lodgement system for enquiries about specific innovations and submitting applications for trial waivers.

There are limitations on what the regulatory sandbox can do. For example, the sandbox will not provide funding or permanent waivers or rule changes. There are also limitations on how the feedback from the IES may be used, and limitations on the AER's liabilities in relation to trial projects. Further details are provided in section 2.1 of our previously released Issues Paper.

The AER has overall responsibility for delivering the regulatory sandbox. However, the AEMC and the ESC also have responsibilities for delivering certain tools, and we may also need to consult with AEMO and other state and territory-based regulators. We will need to work together to ensure that innovators receive the feedback, trial waivers and trial rules necessary to implement their trial projects.

⁴ In this paper, we refer to the draft rules as consulted on by the Energy Ministers (<https://www.energy.gov.au/government-priorities/energy-ministers/energy-ministers-publications/regulatory-sandboxing-legislation-consultation>). We note that the draft sandboxing legislation is still being considered by SA parliament and the draft rules may change prior to being made. The legislation we refer to is that introduced into SA Parliament on 25 August 2021.

⁵ The *Energy Rules* refers to the National Electricity Rules (NER), National Energy Retail Rules (NERR) and National Gas Rules (NGR).

2.2 Prioritising enquiries and waivers

As noted in our previously released Issues Paper, we will generally assess enquiries and applications on a first-in, first-served basis. However, if demand for the service is high, we propose to prioritise enquiries and applications based on the criteria set out in Table 1, which have been refined following stakeholder feedback. The prioritisation criteria will only be used if the AER does not have sufficient resources to process all enquiries and trial waiver applications in a timely fashion. This assessment will be made by AER staff and innovators will not be required to demonstrate they meet these criteria as part of their enquiry or trial waiver application.

Table 1: Prioritisation criteria

Prioritising enquiries	Prioritising trial waivers
Enquiries that will yield new or valuable regulatory insights	Projects focussed on addressing existing and emerging operational challenges in the NEM
Enquiries that will benefit consumers experiencing vulnerability	Projects that have consumer or local community support
Enquiries that are similar to other enquiries being progressed and that can be grouped together	Projects that are similar to other applications being progressed and that can be grouped together
Enquiries from innovators without extensive regulatory resources or the ability to access this knowledge on their own ⁶	Projects that have cross-industry support, for example (but not limited to) trials that stem from the Distributed Energy Integration Program ⁷
	Projects benefiting consumers experiencing vulnerability
	Projects that are closer to being ready to commence

We may also consider accelerating an enquiry or application if the applicant can provide a clear and reasonable justification for why their enquiry or application should be prioritised.

2.3 Confidential information

By participating in the regulatory sandbox, an innovator may need to disclose to the AER confidential information to support its enquiry or trial waiver application, potentially including intellectual property relating to its innovative project, for us to provide tailored guidance and/or to assess a trial waiver application.

The AER will design a secure lodgement system for both enquiries lodged under the IES and trial waiver applications that will enable innovators to submit all necessary information and distinguish information that is commercially sensitive or otherwise confidential.

⁶ While the IES is not exclusively available to new entrants and smaller players, the purpose of the IES is to transmit regulatory knowledge. We consider this is better achieved by prioritising innovators with fewer resources and/or industry experience.

⁷ The Distributed Energy Integration Program (DEIP) is a collaboration of government agencies, market authorities, industry and consumer associations aimed at maximising the value of customers' distributed energy resources (DER) for all energy users.

The AER's general policy on the collection, use and disclosure of information will apply to both enquiries and trial waivers and is set out in the [ACCC/AER Information Policy](#).

To ensure an innovator receives appropriate guidance and to assess a trial waiver application, the AER may need to consult with and disclose certain confidential information to other energy market bodies, government agencies and regulators, such as AEMO, the AEMC and the ESC. Our approach to obtaining an innovator's consent to disclose information for the purpose of responding to innovator enquiries and assessing waiver applications differs between enquiries (see section 3.2) and waivers: (see [AER draft Trial Projects Guidelines explanatory statement](#)).

2.4 Knowledge sharing

Knowledge sharing will be an important outcome of the regulatory sandbox. The industry as a whole will benefit from sharing findings not just from any trials that proceed as a result of a regulatory waiver, but from sharing the types of questions and enquiries the AER receives via the IES as well as the nature of the guidance that the AER provides.

Sharing the learnings from these processes will help reduce barriers to entry to new participants as well as help clarify the opportunities and challenges that exist within current regulatory frameworks for new approaches. Knowledge sharing can allow innovators to leverage off others' learnings, allowing innovation to occur more quickly. Learnings from projects granted trial waivers will also help inform the design of the regulatory framework to enable it to evolve for new and emerging technologies.

Innovators will benefit from the sandboxing tools, either via guidance or a trial waiver allowing proponents to test innovative approaches without having to comply with certain rules and/or obligations. In return, innovators may be required to share the learnings from their trials, particularly where new approaches have led to tangible benefits to consumers. Through this process we expect consumers to benefit from increased choice and value.

We are aware of the commercial sensitivities that come with innovation. It is not our intention that commercially sensitive information, or an innovator's intellectual property, be disclosed to the wider industry. Rather, the AER will work closely with innovators to identify what information may be published.

Generally, we expect knowledge sharing from the IES to include aggregated and de-identified case studies and web guidance. To facilitate this knowledge sharing function, innovators will be required to agree to aggregated and de-identified knowledge sharing arrangements to access IES support.

For trial projects, regular progress reports and a final outcomes report must be published as a condition of the trial waiver (see the [AER draft Trial Projects Guidelines explanatory statement](#) for further information). We expect these to include reporting against agreed indicators and success criteria, as well as the effectiveness of the trial in promoting benefits to consumers and insights about barriers to innovation and how these might be addressed.

3 Innovation Enquiry Service

3.1 Purpose and scope of the Innovation Enquiry Service

The purpose of the IES is to support innovation by helping innovators navigate the regulatory framework and conduct trials through informal feedback on the regulatory implications of proposed trials and innovative products, services and business models. The regulatory framework is complex, making it challenging for innovators to understand how they apply to their projects. Providing the IES is therefore an important element of facilitating innovation and proof-of-concept trials, by supporting innovators and new entrants to understand and apply the regulatory framework.

The scope of the service includes:

- guidance on the energy market regulatory framework that may apply to an innovator's specific project or business model
- informal steers on what options may be available to progress a project or business model with respect to the energy regulations
- guidance on what formal regulatory processes or applications are required for market entry, and who an innovator can contact to progress the process
- referrals to apply for a trial waiver or trial rule change, noting this service would not provide a definite view on whether a trial would be possible within the rules, or if an application would result in successful receipt of a trial waiver or rule change
- referrals to other energy sector stakeholders, where the query falls outside AER responsibility.

The IES will not provide:⁸

- legal advice, binding rulings, regulatory decisions, endorsements, or business incubation services (financial or technical advice related to launching a business)
- endorsement or certification that a product, service or business model is compliant with the rules
- an official organisational view from the AER or any other market body.

As such, the IES process will not include formal confirmation that a given innovation falls within the currently regulatory framework. This is similar to the approach in the UK, whereby feedback from Ofgem is to be considered a "regulatory steer" only, not a binding response.⁹

3.2 Implementing the Innovation Enquiry Service

The AER is responsible for providing feedback to innovators via the IES, which will be managed by a dedicated team within the AER. Staff will work collaboratively with other government bodies and regulators to provide guidance to innovators, coordinating input from

⁸ This approach is consistent with the AEMC's recommendations as set out in their Final Report on Regulatory Sandboxing Arrangements to Facilitate Proof of Concept Trials, 26 September 2019

⁹ Ofgem, What fast, frank feedback can and cannot offer, October 2018.

the AEMC, ESC and AEMO as required (our Project Partners). We may also seek input from other agencies if appropriate. This will allow innovators to benefit from the appropriate expertise via a single contact point.

The AER will capture and publish high level information regarding use of the sandboxing website, including the use of the IES. The AER will likely publish:

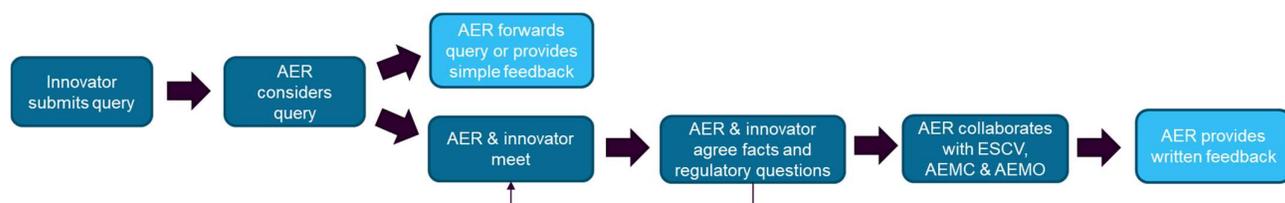
- the number of enquiries submitted to the IES
- the types and areas of innovation seeking guidance
- areas of regulation for which guidance is sought
- utilisation of the service
- how many trials went ahead under the rules, sought waivers as a result of guidance, sought a temporary rule change as a result of guidance, or did not proceed.

We will also draw on enquiries to publish frequently asked questions and standard guidance and update the regulatory diagnostic tool and case studies, ensuring confidential and private information remains protected. This regulatory guidance will be anonymised, and case studies may be based on aggregated information. We may also publish success stories and interviews with businesses who have received IES guidance, where these businesses have consented and are comfortable with information about them and their innovative project being shared publicly.

3.3 Engaging with the Innovation Enquiry Service

The way in which we expect innovators to engage with the IES is summarised in Figure 1 and briefly explained below. Further detail is available in our previously released Issues Paper.

Figure 1: Summary of the IES process



Innovators will be able to submit enquiries via a secure lodgement system on the regulatory sandboxing website. The innovator must acknowledge and agree to a legal disclaimer in order to access the enquiry service.

The AER's feedback will comprise three parts:

- our understanding of the innovation or trial project and regulatory questions, which will be agreed upfront with the innovator
- the consolidated feedback from the AER and other relevant parties
- a legal disclaimer reiterating the nature and scope of the feedback and how the feedback may be used.

4 Facilitating trial projects

4.1 Trial projects

The trial projects framework allows innovators to test new approaches in relation to:

- the supply of, or demand for, electricity
- customer connection services or customer retail services and/or
- natural gas services.

Examples of potential trial projects offered by stakeholders in response to our previously released Issues Paper included the use of hydrogen to decarbonise gas networks, alternative network pricing approaches and testing different customer billing styles.

To qualify as a trial project, a proposed trial must be “genuinely innovative”. The National Energy Laws¹⁰ contain a set of principles to guide the assessment of whether a proposed trial is genuinely innovative. These are set out in Box 1.

Box 1: Innovative trial principles

Under the **National Energy Rules**, the **AER** and the **AEMC** are required to take into account the following **innovative trial principles** in determining whether a **trial project** is “genuinely innovative”. Note these **innovative trial principles** relate to the **NEL**, but equivalent principles are set out in the **NERL** and **NGL**.¹

- whether the **trial project** is focused on developing new or materially improved approaches to the use or supply of, or demand for, electricity;
- whether the **trial project** is likely to contribute to the achievement of the **national electricity objective**;
- whether the **trial project** is able to demonstrate a reasonable prospect of giving rise to materially improved services and outcomes for consumers of electricity;
- whether the **trial project** maintains adequate consumer protections, including whether the **trial project** may involve risks to consumers and (if so), how those risks might be mitigated;
- whether the **trial project** is unable to proceed under the existing regulatory framework;
- whether the **trial project** has moved beyond research and development stages but is not yet established, or of sufficient maturity, size or otherwise commercially ready, to attract investment;
- whether the **trial project** may negatively impact **AEMO’s** operation of the **national electricity system** and **national electricity market** and, if there are impacts, how those impacts can be mitigated;

¹⁰ The *Energy Laws* refers to the National Electricity Law (NEL), National Energy Retail Law (NERL) and National Gas Law (NGL).

- whether the **trial project** may impact on competition in a competitive sector of the **national electricity market**;
- any other principle prescribed by the **Regulations**.

The **National Energy Regulations** stipulate the following additional principles:ⁱⁱ

- whether the **trial project** is able to be trialled and evaluated
- whether there is potential for the **trial project** to be successfully expanded
- whether the **trial project** will provide for public sharing of knowledge, information and data resulting from the trial project.

- Draft NEL clause 7B, Draft NERL clause 13A, Draft NGL clause 24A
- Draft National Electricity Regulations regulation 5B, Draft National Energy Retail Regulations regulation 9A, Draft National Gas Regulations regulation 5B.

There are two mechanisms to facilitate trial projects:

- First, the AER has the power to grant a trial waiver for a trial project under the NEL/NER, NGL/NGR and NERL/NERR in the jurisdictions where these apply. If granted, a trial waiver will exempt the trial project proponent from having to comply with certain laws and rules in relation to that trial project for a fixed period of time.
- Second, the AEMC is able to make trial rules under the NER, NGR and NERR. Trial rules may temporarily amend existing rules or temporarily introduce a new rule of limited application to allow a trial project to proceed.

The ESC is responsible for licensing, exemptions and trial waivers in the electricity and gas markets in Victoria. The ESC also makes and enforces customer protections and other rules predominately in the energy retail and distribution markets in Victoria, where the NERL and NERR do not apply. As such, applications for trial waivers will need to be separately made to, and considered, by the ESC in order to apply in Victoria.

To help us coordinate these processes, we encourage applicants to contact the AER *before* lodging an application for a trial waiver. This will give us an opportunity to form an initial view on whether an application to the ESC may be required and, if so, bring the ESC into the assessment process as early as possible.

To help streamline this process, the sandboxing website will provide a single source of information for innovators wishing to engage with the regulatory sandbox, irrespective of whether this is via a trial waiver or a trial rule.

Box 2: Do I need a trial waiver or a trial rule, or neither?

A trial waiver is intended for a situation where an existing energy markets regulatory obligation is an impediment to an innovator delivering their proposed business model. Where an innovator is proposing some new behaviour or procedures as part of their business model, or where the innovator is considering placing an obligation on other entities, a trial rule change request may be more appropriate. Innovators may apply for a trial waiver or rule without submitting an IES query. However, the IES could be used to help inform a trial waiver application or trial rule change.

New trials do not have to be part of the regulatory sandbox in order to proceed. The purpose of the trial waivers and rules is to allow innovative trials to proceed where they would not otherwise be able to under the current regulatory framework. Where the framework is not an impediment, new trials will proceed outside of the regulatory sandbox as they do today, although an innovator may use the IES to understand how the regulatory framework applies.

The AER has a number of other powers and functions in relation to trial projects once a trial waiver has been granted by the AER or a trial rule is made. These are:

- responsibility for monitoring trial projects
- the ability to terminate (in the case of a trial waiver), or recommend to the AEMC that they terminate (in the case of a trial rule), a trial project early
- the circumstances under which retail customers are able to opt out of trial projects.

4.2 Trial waivers

The purpose of the trial waiver is to allow innovative trial projects to proceed where there is currently a regulatory barrier that can be addressed through a waiver and where the trial meets certain eligibility requirements.

To provide guidance on how the AER will assess trial waiver applications and carry out our other functions in relation to trial projects, the AER is required to develop and make the Trial Projects Guidelines. See the [AER website](#) for more information on the Trial Projects Guidelines.

The AER is not able to issue waivers until the legislation is passed. However, the AER's power to issue trial waivers is not linked to the guidelines. As such, once the new power takes effect, the AER intends to begin accepting trial waiver applications immediately. To provide transparency, early trial waiver applications will be considered based on the draft Trial Projects Guidelines. Provided the regulatory sandboxing legislation is passed, the AER will make final Trial Project Guidelines.

The ESC will have a similar power for the Victorian energy framework and will begin consultation on the Victorian Trial Project Guideline in April 2022. The ESC must have regard to the AER's Trial Projects Guidelines in making its guideline. The ESC's final Trial Project Guideline will be published in June 2022 ahead of the 1 July 2022 commencement date.

Box 3: Role of the Victoria's Essential Services Commission (ESC) in trial waivers

In Victoria, the ESC has responsibility for licensing, exemptions and customer protections in the retail energy market which in other NEM jurisdictions is the responsibility of the AER under the NERL and NERR. ESC also makes and enforces many rules and standards in its distribution codes with respect to the supply of energy. The ESC is responsible for licensing various activities including energy retail, energy distribution, electricity transmission, and electricity generation.

For the purposes of regulatory sandboxing the ESC will be able to consider applications for a trial waiver in place of a licence or licence exemption under the new framework. The ESC waivers can provide exemptions from section 16 of the *Electricity Industry Act 2000* and section 22 of the *Gas Industry Act 2001*. Trial waivers granted by the commission may

contain bespoke conditions that respond to the unique characteristics of the innovative activity or project that an innovator is proposing to trial in Victoria. Trial rule changes are not a feature of the Victorian sandboxing framework.

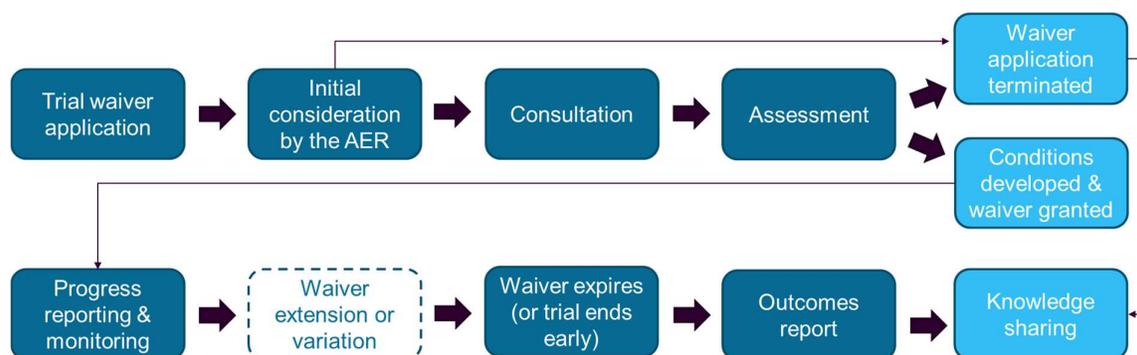
The AER will have the power to exempt trial project proponents from having to comply with provisions in the National Energy Laws relating to the requirement to register to operate in electricity, energy retail and gas markets,¹¹ and the power to exempt a project proponent from having to comply with the National Energy Rules or a provision of the National Energy Rules. Regulatory barriers that sit outside of these national frameworks, such as jurisdictional regulations, cannot be addressed via a trial waiver issued by the AER. Similarly, the AER only has the power to facilitate innovative trials of energy technologies if that technology is governed by these frameworks.

We encourage innovators to contact the AER to discuss their trial project prior to submitting an application for a trial waiver. This will provide an opportunity for the AER to form an initial view on whether an alternative approach may be appropriate, such as submitting a question to the innovation enquiry service, submitting a trial rule change request or applying for a waiver or exemption under a different framework. It also provides an opportunity for the AER to understand the potential complexity of the trial project and so the resources that may be required, including from other market bodies. Further, this will allow both the AER and the trial applicant to consider whether a separate waiver is also required from the ESC and/or whether a trial rule change may also be required.

4.3 Overview of our approach to assessing waivers

Our approach to assessing waiver applications and implementing trial waivers is summarised in Figure 2 and explained briefly below. The [AER draft Trial Projects Guidelines explanatory statement](#) provides further detail the trial waiver process.

Figure 2: Overview of the AER trial waiver process



¹¹ Specifically, the AER may exempt an innovator from having to comply with the following: section 12 of the NEL and/or the NER or a provision of the NER (Draft NEL section 18ZL(1)); section 88 of the NERL and/or the NERR or a provision of the NERR (Draft NERL section 121C(1); and sections 91BJ, 91BRD, 91BRR and/or 91LB of the NGL and/or the NGR or a provision of the NGR (Draft NGL section 30W).