

30 January 2019

Australian Energy Market Commission

By email: [Owen.Pascoe@aemc.gov.au](mailto:Owen.Pascoe@aemc.gov.au)

Dear Mr Pascoe,

## **Regulatory Sandbox Arrangements to Support Proof-Of-Concept Trials - EPR0068**

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments Energy Council (the Energy Council) in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply.

We appreciate the opportunity to comment on the Regulatory Sandbox Arrangements to Support Proof-Of-Concept Trials as set out in the Consultation Paper published by the Australian Energy Market Commission (AEMC) on 20 December 2018.<sup>1</sup>

Energy Consumers Australia supports the creation of formal Regulatory Sandbox arrangements as a key element to developing the future energy system. We encourage market bodies and industry participants to focus on how such arrangements can be leveraged to best promote the long-term interests of consumers and deliver an affordable, individualised and optimised energy system.

The success of a formal Regulatory Sandbox arrangement in facilitating proof-of-concept trials whilst maintaining consumer protections will depend on the design of the arrangement. The eligibility of trials for the Regulatory Sandbox, the relief provided and the ability to access the Regulatory Sandbox should be crafted to focus on good consumer outcomes from a high-level design perspective.

### **The long-term interests of consumers and innovation**

The guiding objective of the National Energy Market is to serve the long-term interests of consumers – a broad concept which can be summarised as ensuring prices are commensurate with the level of quality, reliability, safety and security of supply that consumers prefer and that consumers pay no more than is necessary for their energy services.<sup>2</sup> This ‘LTIC’ objective is set out in the Australian Energy Market Agreement and is adopted as the objective of the three energy laws.

The Australian Energy System is subject to extensive regulation.<sup>3</sup> Regulation serves one of three purposes in society; to protect from harm (e.g. safety standards, some consumer protection), to design markets (e.g. structural separation, the wholesale markets) or to set prices in cases of market power (e.g. in cases of natural monopoly). Some markets require more conscious design than others; the

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<sup>1</sup> Available at <https://www.aemc.gov.au/sites/default/files/2018-12/Regulatory%20sandbox%20Consultation%20paper.pdf>.

<sup>2</sup> Energy Consumers Australia *Business Plan 2018-19* (page 8).

<sup>3</sup> It is useful to refer to the ‘Australian Energy System’ since it consists of wholesale and retail markets for both gas and electricity, pipeline, electricity transmission assets and distribution networks, together with the developing market for the services provided by Distributed Energy Resources (DER). The gas and electricity markets are interrelated as gas is an input fuel for electricity and a substitute for some electricity consumption.

wholesale (spot) electricity market was completely designed, while the contracts market evolved from previously designed generic contracts markets.

It is to be expected that markets that were created as part of market reform in the 1990s are grounded in the technologies available at the time of their development. This includes the wholesale and retail markets and the framework of economic regulation. Some of the elements were designed, tested and implemented in a discrete way (e.g. the wholesale electricity market) while other parts have been continually redeveloped (e.g. economic regulation of networks) as circumstances have changed. Overall though, the traditional market design is not always conducive to innovation, with core electricity services – energy-only products and quarterly paper billing – changing little for most consumers over the past 20 years.

Consumers are telling us through the Energy Consumer Sentiment Survey and other research that energy affordability is their primary concern: they want comfortable homes, competitive businesses and bills that do not shock them. They are however are eager to take charge and are reaching out for greater control over their energy use and costs, but they are telling us they have done everything they can within the constraints of the current energy market.<sup>4</sup> A central driver for innovation and an objective for the new energy system must be to equip consumers with the right information, tools and the support they need to make choices and manage their energy use.

In the context of the LTIC objective, the question that should be guiding policy makers and regulators is how to redesign the system to deliver these core consumer needs and preferences. We believe that this requires a shift from ‘Trilemma’ thinking – a concept that sees energy system transformation as a problem requiring three (potentially competing) objectives to be balanced – affordability, reliability and reliability – to a framing that is more consumer orientated, ambitious and reflective of technological developments:

### **Affordable**

*Affordability must be a constraint on all our investments and decisions about energy – an explicit criterion in our decision-making up and down the supply chain.*

### **Individualised**

*Energy services must be built around individuals to reflect their unique circumstance; enabling people to easily manage their own use and costs.*

### **Optimised**

*Existing and future investment in the power system – networks, generation and retail – must be optimised based on consumers demands that not one more dollar is spent than required, and new investments are not made one day earlier than necessary. Key to optimising our existing energy system is providing genuine choice and control to households and small businesses, rewarding their flexibility and embracing them as partners in change.<sup>5</sup>*

The realisation of the affordable, individualised and optimised energy system requires ongoing innovation. The Finkel Review (the Independent Review into the Future Security of the National Electricity Market)<sup>6</sup> in a section headed ‘Enabling Innovation’ observed:

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<sup>4</sup> <https://energyconsumersaustralia.com.au/publication/energy-consumer-sentiment-survey-findings-december-2018/>

<sup>5</sup> The approach of focussing on ‘affordable, optimised and individualised’ energy services underpins our 2019-20 Business Plan.

<sup>6</sup> <https://www.energy.gov.au/government-priorities/energy-markets/independent-review-future-security-national-electricity-market>.

*The emergence of new technologies and increased consumer participation in energy choices can drive innovation in the NEM. Innovative technologies can help reduce the costs of providing secure and reliable electricity supply and contribute to reducing emissions.*

*Irrespective of the type of electricity innovation that may occur in the future, there must be a framework for rapid proof-of-concept testing to demonstrate new technologies and accelerate their integration into a competitive market.*

The Finkel Review recommended updating the proof-of-testing framework and suggested there may be an opportunity to learn from mechanisms used in the United Kingdom to achieve similar objectives.<sup>7</sup> The Finkel Review also referred to the Australian Securities and Investments Commission (ASIC) locally operating a ‘regulatory sandbox’ to facilitate innovation.

This recommendation was one of the 49 out of 50 recommendations that was accepted by Energy Ministers, who advised COAG that:

*The Council will direct the AEMC to review and update, by the end of 2018, the regulatory framework to facilitate proof-of-concept testing of innovative approaches and technologies.*

We note that in its 2018 Economic Regulatory Framework Review Report<sup>8</sup> the AEMC concluded:

*A regulatory sandbox is an arrangement to allow businesses to trial innovative products and services, business models and delivery mechanisms that cannot operate under existing regulations. These trials generally run for a fixed period of time with a limited number of customers. Ofgem’s ‘Innovation Link’ offers a regulatory sandbox if it considers the innovative proposition meets its sandbox eligibility criteria. The criteria require the proposal to be genuinely innovative, have the potential to deliver benefits to consumers and that consumers will be protected during the trial and that regulatory barriers inhibits the progress of the trial. Ofgem’s sandbox guideline also states that the regulatory sandbox is not a means to permanently change regulation. To make permanent change to regulations, Ofgem would need to follow appropriate processes and make the changes available to all parties.*

*It is likely that technological change and innovation would transform the electricity sector faster than the changes that occurred in the past decade. Where innovation may benefit consumers, there may be merit in applying a regulatory sandbox arrangement so that any changes to the regulatory framework can be fast tracked.*

*Under the current regulatory framework, trials and other forms of regulatory innovation can be facilitated by the AER exercising its enforcement discretion, including its powers to issue “no action letters”. The Commission’s current view is that this power can be used to enable regulatory sandboxes and other forms of innovation. However, the Commission is interested in stakeholders’ view on the need for any more formal regulatory sandbox for the NEM or whether current arrangements already allow for a similar arrangement to occur.*

The AEMC further advised that whether there is need for more formal arrangements for regulatory sandboxes to enable innovation was one of the issues it intended to consider in its 2019 Economic Regulatory Framework Review.

In October 2018, the Senior Committee of Officials (SCO) wrote to the AEMC, noting the AEMC’s intention and adding:

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<sup>7</sup> Recommendation 2.8.

<sup>8</sup> <https://www.aemc.gov.au/markets-reviews-advice/electricity-network-economic-regulatory-framework-1>

*As part of this work, SCO requests the AEMC to provide interim advice by February 2019 on how to best facilitate co-ordination of proof-of-concept trials and the need for formal regulatory sandbox arrangements to support innovative projects offering benefits to customers while managing any risks. This advice should consider whether existing or proposed projects could be used as a sandbox trial.*

We note that this request specifically asked that the AEMC engage closely with Energy Consumers Australia, together with the Australian Energy Regulator (AER), the Australian Energy Market Operator (AEMO) and the Australian Renewable Energy Agency (ARENA).

### **Our general comments**

In addition to our responses to the questions in the Consultation Paper set out below, we make the following general comments:

1. Having discussed various new business models in the energy sector that have the capacity to benefit consumers with a number of Australian innovators (for example solar on rental properties to overcome the issue of split incentives between renters and landlords), we agree that there are a number of barriers (perceived or actual) in the current regulatory regime that can be potentially overcome through a ‘fast, frank feedback service’ analogous to that provided by OFGEM in the United Kingdom. While this service is distinct from the Regulatory Sandbox as it merely assists innovators to comply with existing regulation, it is in fact integral. Its benefits are that it both assists innovators in navigating a complex regulatory landscape and may also enable the regulators to better understand the mindset and objectives of the newer players influencing the energy landscape. It also helps better define what parts of an innovation actually need the sandbox.
2. There are a number of additional benefits of the Regulatory Sandbox set out in the Consultation Paper and we would add the benefits of the cultural change that is necessary and signalled through the creation of a Regulatory Sandbox. The existence of a sandbox mechanism, supported by a formal guidance and advice function, reinforces the value of innovation in the energy system more broadly. It allows the regulator to work with innovators on a range of matters, not just the consumer protections, and in a constructive and beneficial way that can bring more of an understanding of new models into the energy system

A Regulatory Sandbox also has the potential to allow for innovative energy products and services that benefit consumers to be brought to market sooner through a “right size” regulatory approach in the first instance.

3. As set out in the Consultation Paper, the existing arrangements in the NEM allow the Australian Energy Regulator (AER) to issue “letters of no action”, provide waivers and exemptions in certain circumstances. However, the letters of no action do not preclude third parties from taking action against the innovator, which creates risks that need to be mitigated.
4. In terms of current proof-of-concept trials that may be relevant to the Regulatory Sandbox, we are aware of a number of potential trials through our involvement in ARENA’s A-Lab and the Distributed Energy Integration Program (DEIP). However, the main point to note is that some of the promising ideas that are incubated through A-Lab appear to face real or perceived regulatory challenges at some point prior to “trial phase”, which negatively impacts their capacity to get funding and take the idea forward. Therefore, it may be that in future the A-Lab projects and those developed through DEIP could be considered as a “pipeline” for projects for the Regulatory Sandbox with data on those that progress through to trials whereas previously they may not have. Given that innovation is very much an ecosystem, it will also be necessary to ensure that ARENA has sufficient resourcing to ensure the programs noted above are ongoing.

5. Finally, we encourage the AEMC to reach out directly to innovators, to the extent that it has not already, to seek their feedback on the Regulatory Sandbox proposal and in particular, the need for the Regulatory Sandbox. This could be through channels such as the Energy Lab,<sup>9</sup> the Melbourne Energy Institute,<sup>10</sup> and the Renewables Innovation Hub.<sup>11</sup> Often smaller energy start-ups are focused on launching businesses rather than regulatory and consultation processes, so opportunities to speak to innovators directly in their working environment could prove beneficial.

### Specific responses to consultation questions

#### Question 1: Other regulatory sandbox examples

*Are there other examples of regulatory sandbox arrangements that are relevant when considering these arrangements for the NEM?*

We note that in addition to the examples of regulatory sandbox arrangements set out in the Paper, the *Radiocommunications Act (Cth)* 1992 contains provisions (sections 166-170) for the Australian Communications and Media Authority (ACMA) to issue permits for non-standard devices to make radio emissions. Permits can be issued for education, research, testing or design. This is a particularly relevant example because it covers things that are physical and for which the permit needs to consider how the activity would affect others (i.e. radio interference).

#### Question 3: Barriers to Proof-of-Concept Trials

*(a) Are proof-of-concept trials being inhibited by current market regulations or processes?*

*(b) If so, what are the potential barriers to proof-of-concept trials that might be addressed by a regulatory sandbox initiative?*

Energy Consumers Australia considers that both the NewReg project and the Virtual Power Plant (VPP) trials through the Australian Energy Market Operation (AEMO) provide useful insights to answer these questions.

Under NewReg, the parties are attempting to trial an alternative regulatory approach while being constrained by the current rules. This eliminates specific options, such as how much evidentiary weight the Australian Energy Regulator (AER) can place on the negotiated (if there is one). However, the fact that the process is bound by the current rules is part of the insurance that consumers are relying on to be comfortable with the trial.

The VPP demonstration projects may not extend to trialling alternative distribution charging arrangements because of limitations under the current regulations. Consequently, the VPP trials may not be able to capture all the possible value across the value stack, including for consumers.

Interestingly, for both of these examples, the AER ‘no action letters’ are of little benefit because the AER is the entity being bound by the rules (on how to make a revenue determination or on what charges can be made for small scale generators injecting into distribution networks). In discussions with Energy Consumers Australia, OFGEM staff indicated that legislative provisions impose limitations in their ability to operate the sandbox regime.

Ultimately, the need for regulatory sandboxes may be driven by the form of regulation. Regulation by principles or outcomes would enable greater innovation than the approach adopted which is primarily

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<sup>9</sup> <https://energylab.org.au/>.

<sup>10</sup> <https://energy.unimelb.edu.au/>.

<sup>11</sup> <http://2degreeshub.com/>.

regulation by process. Equally, a regulatory sandbox arrangement still requires a specification of what the outcomes are that must be achieved while some aspects of the highly specific rules are suspended.

#### **Question 4: Access to guidance on the regulatory framework**

*(a) Is there a lack of access to guidance for innovative new entrants on navigating the energy regulatory framework?*

*(b) If so:*

- *What type of guidance is needed?*
- *Who should provide it?*
- *Should guidance be coordinated across the AER, AEMO and AEMC? How should the provision of guidance be funded? If so, what criteria should apply?*

*(c) Is there a role for binding advice from market bodies on certain aspects of the regulatory framework to support proof-of-concept trials?*

As stated above, we believe that there is a need for guidance on the regulatory framework as this is something that is often raised by innovators in our discussions with them. We also understand from our discussions with OFGEM that this advice giving (appropriately couched in terms of scope and implications) has been warmly received by the market – particularly for smaller innovators. Furthermore, this also provides the regulator with a coal face view of the issues that innovators are grappling with.

#### **Question 5: Trials under AER enforcement discretion**

*(a) Is the AER's ability to issue no action letters, provide waivers and exemptions, and use its enforcement discretion sufficient to facilitate proof-of-concept trials in the NEM? If not, why?*

*(b) Is there a need for a more formal process for proponents of proof-of-concept trials to seek a no action letter?*

*(c) Should no action letters that facilitate innovation or proof-of-concept trials be made public?*

As raised above, the AER's no action letter cannot empower the AER to do something differently. The 'no action' pathway could be restricted to its presumably intended purpose which is to encourage self-reporting of breaches while rectifying and a formal sandbox pathway be created.

#### **Question 6: The need for a formal regulatory sandbox**

*(a) Would formal regulatory sandbox arrangements, where some regulatory requirements are relaxed on a time-limited basis whilst appropriate safeguards remain in place, serve to better facilitate proof-of-concept trials in the NEM?*

*(b) What other regulatory tools are needed to facilitate proof-of-concept trials?*

Non-energy market legislation may also impede the ability to conduct trials. For example, a common impediment is privacy legislation, or more accurately the interpretation of privacy legislation. A mechanism of guidance followed by advice and then, if required and desirable, forbearance would have made the proposals for an energy only Consumer Data Right viable.

#### **Question 7: Design of a formal regulatory sandbox arrangements, if required**

*(a) If required, should the objective of the formal regulatory sandbox arrangements be to facilitate further proof-of-concept trials in the NEM? If not, what should the objective be?*

*(b) If required, what metrics should be used to measure the success of a formal regulatory sandbox arrangement?*

*(c) If required, what should be the high-level criteria for accessing a regulatory sandbox arrangement?*

*(d) How could fairness be addressed in the case where proponents of similar trials apply to access sandbox arrangements but only a limited number of trials can be accepted?*

*(e) If required, what should be the key features of a formal regulatory sandbox arrangement for the NEM?*

- *What regulatory arrangements should be within scope to consider for relaxation?*
- *What should be the safeguards for consumers?*
- *What obligations should be placed on the participants (e.g. knowledge sharing requirements)?*

This will depend on the preliminary design criteria. We note, however, that a successful sandbox regime may not need to be used frequently. The innovation impediment created by rules is often a matter of ‘perceived barriers’ by the innovators and the responsiveness of the regulator.

#### **Question 8: Trialling innovative regulatory processes**

*How could formal regulatory sandbox arrangements be used to trial changes to regulatory arrangements to guide adoption of reforms across the market?*

A regulatory framework for sandbox arrangements is unlikely to be fully achievable only through changes to the rules. For example, some obligations (such as Retail Price Information Guidelines) derive from the laws itself.

The AEMC correctly states that trials should only be occurring in circumstances where the weighted expected value of the trial would contribute to the achievement of the relevant objective. That is a successful trial would promote the long-term interests of consumers and the ‘size of the prize’ is such that it is worth the risk of an unsuccessful trial.

We note, however, that in the absence of trial provisions such a proposal could not be approved by the AEMC even in its time limited form.

#### **Conclusion**

Energy Consumers Australia is supportive of the creation of the Regulatory Sandbox for the reasons set out above. In short, we are of the view that a regulatory sandbox arrangement could make it easier for additional proof-of-concept trials to take place that help achieve better consumer outcomes in the energy sector.

We also encourage the AEMC to engage directly with innovators who are involved in new energy products and services to confirm the need for the Regulatory Sandbox, and if created, its most efficient and effective design form such that it leads to tangible consumer benefits.

If you have any questions regarding our submission, please contact Sabiene Heindl on 0412 039 747 or [Sabiene.heindl@energyconsumersaustralia.com.au](mailto:Sabiene.heindl@energyconsumersaustralia.com.au).

Yours sincerely,



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