

Consultation paper

National Electricity Amendment (Real-time data for consumers) Rule

National Energy Retail Amendment (Real-time data for consumers) Rule

Proponent

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About the AEMC

The AEMC reports to the energy ministers. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the energy ministers.

Acknowledgement of Country

The AEMC acknowledges and shows respect for the traditional custodians of the many different lands across Australia on which we all live and work. We pay respect to all Elders past and present and the continuing connection of Aboriginal and Torres Strait Islander peoples to Country. The AEMC office is located on the land traditionally owned by the Gadigal people of the Eora nation.

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Citation

To cite this document, please use the following:
AEMC, Real-time data for consumers, Consultation paper, 10 October 2024

Summary

- 1 The energy landscape is undergoing unprecedented changes in response to market and technology developments, changing community expectations, and the shift to a cleaner energy system. Millions of Australian households and businesses are embracing the change and adopting consumer energy resources (CER) like solar panels and batteries.
- 2 Smart meters make these changes possible. They play a crucial role in the energy transition and contribute to the electricity system becoming more intelligent, responsive, efficient and consumer-centric.
- 3 Smart meters can enable access to energy usage information in real-time. This information facilitates energy services that help consumers optimise their energy use and save money on bills.
- 4 Our [Review of the regulatory framework for metering services](#) (Review) suggested that consumers' access to their data from smart meters is limited, and changes to the regulatory framework may be necessary to ensure all consumers benefit from real-time data.
- 5 Following the Review, Energy Consumers Australia (ECA) submitted a rule change request to improve access to real-time data, consistent with our recommendation in the Review. This consultation paper is the first stage in our consideration of ECA's rule change request.
- 6 Given significant developments in the market since our Review, the consultation paper re-tests the case for change. We seek stakeholder feedback on the materiality of the barriers and other issues limiting access to real-time data, and the costs and benefits of improving access to real-time data.
- 7 This consultation paper takes the opportunity to seek input on the design of a framework for improving access to real-time data. A framework may be necessary should the benefits of improving access to data outweigh the costs. This approach acknowledges the complexity of implementing such a framework and the corresponding benefit of identifying issues early in the rule change determination process.

Should access to real-time data from smart meters be improved?

- 8 The rule change request considers the following issues constrain access to real-time data:
 - **cost** — consumers or their representatives are currently required to install and pay for separate devices to access real-time data from the smart meter. This may be inefficient because the smart meter may provide the data at lower cost.
 - **challenges with commercial negotiation** — consumers' authorised representatives have not been able to negotiate access to real-time data with metering parties on fair and reasonable terms.
 - **latency of alternatives** — currently, consumers may receive smart meter data at a lag, which can limit the utility of having the information.
- 9 Distribution network service providers (DNSPs) may face barriers to access real-time data. This could limit their ability to optimise network planning and operation and lead to higher network costs to consumers.
- 10 The rule change request identifies concerns that some metering parties are offering services to customers that leverage the metering platform. This may give metering service providers a competitive advantage over other parties who are excluded from the metering platform. This could constrain competition and innovation, resulting in higher costs for electricity consumers.
- 11 We are seeking stakeholders' views on whether these barriers and issues should be addressed by

improving access to real-time data. There are a range of costs and benefits to consumers from improving access to real-time data. We are seeking stakeholder feedback on the type and magnitude of these costs and benefits. Stakeholder input in this context may be used in assessing the merits of any changes to improve real-time data access.

How should access to real-time data from smart meters be improved?

- 12 We are seeking feedback on potential solutions to improve access to real-time data, if the benefits of improving access to real-time data are greater than the costs.
- 13 ECA proposes including an explicit right for consumers and their authorised representatives to access real-time data in the Rules and further changes to ensure that data is sufficiently accessible.
- 14 We are seeking stakeholder views on changes that may be needed to improve access to real-time data, including but not necessarily limited to:
 - **A definition of real-time data:** ECA proposes this could be data that is received instantaneously or received within no more than 300 seconds (5 minutes).
 - **Data sharing arrangements or expectations:** ECA proposes open access to smart meter communication port. It may be beneficial to enable multiple options to share and receive data beyond access to communication ports.
 - **Recovery of data sharing costs:** ECA proposes consumers should not pay for access to data. ECA suggests consumers' authorised representatives (and potentially other third parties) should pay for any new direct costs incurred to provide real-time data.
 - **Real-time data interoperability:** Changes are likely required to enable standards-based communication protocols and communications interfaces. This would ensure real-time data is readable across multiple different devices.
 - **Privacy and cyber security safeguards:** Existing confidential information protections in the NER would apply to real-time data, though some minor amendments may be required to support privacy and cyber security.
 - **Other considerations:** Data handling requirements and learnings from other frameworks may be considered.

Four assessment criteria are relevant to this rule change request

- 15 Considering the NEO and NERO¹ and the issues raised in the rule change request, we propose to assess the rule change request against four assessment criteria. We will test whether the rule change promotes:
 1. **Outcomes for consumers** — by lowering consumer energy bills. We will test whether improving access to real-time data, on balance, would give consumers access to cheaper services that help consumers better manage their energy use and respond to price signals, and support CER integration.
 2. **Principles of market efficiency** — by enhancing the efficiency of services that help consumers manage their bills and by ensuring competitive neutrality for services that help consumers manage their bills.
 3. **Innovation and flexibility** — by facilitating new and innovative tools and services to help consumers to manage their energy use and save money on their electricity bills.

¹ Section 7 of the NEL and section 13 of the NERL.

4. **Effective implementation** — we will test whether any rule change can be successfully implemented at least-cost to market participants given its complexity.

Submissions are due by 7 November 2024

- 16 Written submissions responding to this consultation paper must be lodged with Commission by 7 November 2024 via the Commission’s website, www.aemc.gov.au.
- 17 There are other opportunities for you to engage with us, such as one-on-one discussions or industry briefing sessions. See the section of this paper about “How to engage with us” for further instructions and contact details.

Full list of consultation questions

These questions should be read in two parts:

1. **The case for change:** questions 1–3 seek feedback on whether any changes are beneficial given the potential costs of implementing change.
2. **The changes that may be needed:** question 4–10 seek feedback on how change should be implemented if change is, on balance, beneficial to all consumers.

Question 1: What are the benefits of improving access to real-time data?

- a) What are the anticipated use cases of real-time data?
- b) What is the value of the benefits that flow to consumers ?

Question 2: What are the costs of improving access to real-time data?

- a) What are the types of costs that would be incurred to improve access?
- b) What is the magnitude of these costs?
- c) Who would incur these costs?
- d) Do the benefits of improving access to real time data outweigh the costs?

Question 3: Do metering parties currently have a competitive advantage?

- a) Do you agree with the proponent that metering parties have a competitive advantage in providing services not related to their core functions of settlement, billing and maintenance?
- b) How would any competitive advantage impact the costs of new energy services to consumers?

Question 4: Do DNSPs need more than PQD to improve network planning and operation?

- a) Do the benefits of improving DNSP access to real-time data outweigh the costs?
- b) What are the use cases for DNSPs and other network planners to have access to real-time data other than advanced PQD?

Question 5: Who should have a right to real-time data in the NER?

- a) Should consumers, their authorised representatives or any other party, including DNSPs, have a right to access real-time data?

Question 6: How should real-time data be defined ?

- a) Do stakeholders agree with the proposed definition of real-time data and customer power data?
- b) What should be defined and/or further expanded in AEMO procedures?
- c) Should data be validated or not?

Question 7: How should real-time data be accessed and shared?

- a) Do parties, other than metering service providers, need to locally connect directly to the meter to access real-time data? If so, what changes are needed to enable this?
- b) Are there alternative data sharing arrangements that should be enabled by a rule change, if made?

Question 8: Who should bear the costs of accessing real-time data?

- a) Should all consumers bear the cost of accessing real-time data?
- b) What would be the benefits of a dispute resolution framework and how should it operate?

Question 9: What changes would be required to ensure interoperability ?

- a) Would changes to the minimum services specification requirements be the most effective way to ensure interoperability of real-time data?
- b) Would any other changes be required to facilitate interoperability, for example, changes through device standards?

Question 10: Do existing arrangements sufficiently protect consumer privacy and maintain cyber security for any real-time data framework?

- a) Would any additional consumer privacy and cyber security protections be required if a real-time data framework were implemented?
- b) Do you consider other work programs could provide any additional protection required, such as the Roadmap for CER Cyber Security?

Question 11: What other changes would be required to enable a real-time data framework?

Would any other changes be required, for example to clarify data and storage arrangements or to implement relevant best practice features from other frameworks?

Question 12: Do you agree with the proposed assessment criteria?

Are there additional criteria we should consider or criteria included here that are not relevant?

How to make a submission

We encourage you to make a submission

Stakeholders can help shape the solutions by participating in the rule change process. Engaging with stakeholders helps us understand the potential impacts of our decisions and, in so doing, contributes to well-informed, high quality rule changes.

We have included questions in each chapter to guide feedback, and the full list of questions is above. However, you are welcome to provide feedback on any additional matters that may assist the Commission in making its decision.

How to make a written submission

Due date: Written submissions responding to this consultation paper must be lodged with Commission by 7 November 2024.

How to make a submission: Go to the Commission's website, www.aemc.gov.au, find the "lodge a submission" function under the "Contact Us" tab, and select the project reference code ERC0399.²

Tips for making submissions are available on our website.³

Publication: The Commission publishes submissions on its website. However, we will not publish parts of a submission that we agree are confidential, or that we consider inappropriate (for example offensive or defamatory content, or content that is likely to infringe intellectual property rights).⁴

For more information, you can contact us

There are other opportunities for you to engage with us, such as one-on-one discussions or industry briefing sessions. Please contact the project team with questions or feedback at any stage at submissions@aemc.gov.au.

² If you are not able to lodge a submission online, please contact us and we will provide instructions for alternative methods to lodge the submission.

³ See: <https://www.aemc.gov.au/our-work/changing-energy-rules-unique-process/making-rule-change-request/submission-tips>

⁴ Further information is available here: <https://www.aemc.gov.au/contact-us/lodge-submission>

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1 The context for this rule change request

This consultation paper seeks stakeholder feedback on a rule change request from Energy Consumers Australia (ECA). The rule change request can be found [here](#).

1.1 Australians are adopting CER at an exponential rate

Millions of Australian households and businesses are embracing consumer energy resources (CER) including solar panels, batteries, and electric vehicles (EVs). People are also using CER in the form of ‘smart devices’, such as hot water systems at home or at work, and controlling or programming CER to manage energy consumption through behaviours, timers, and dedicated applications (apps).

The increasing uptake of CER is paired with innovative energy services that use data to help lower consumers’ energy bills. This includes home energy management and aggregation services such as virtual power plants. These new services enable CER to support the electricity grid by harnessing and aggregating flexible demand when it is needed, thereby avoiding potentially more expensive investment in grid-based generation and poles and wires infrastructure.

1.2 Smart meter technology underpins the progress of CER

Smart meters are an important tool to facilitate consumers’ adoption of CER, and to support the cost-effective decarbonisation of the energy market. They offer a range of benefits, particularly for consumers, but also for market participants and the system overall.

Smart meter benefits include:

- helping facilitate the efficient integration of (CER) – such as solar photovoltaic (solar PV) systems, home batteries and EVs
- providing consumers with visibility and control of their electricity consumption and costs, and more access to alternative pricing options
- creating opportunities for greater data sharing - promoting competition and innovation, and support more targeted energy policies
- supporting Distribution Network Service Providers (DNSPs) to improve their management of the electricity network.

1.2.1 We recommended improving access to the data from smart meters

Recognising the importance of smart meters, our recent *Review of the regulatory framework for metering services* (Review) made several recommendations to improve the metering framework to ensure the efficient and timely deployment of smart meters across the NEM. We are separately progressing a rule change to accelerate the roll out of smart meters across the NEM.⁵

In addition to accelerating the deployment of smart meters, we considered that access to real-time data would enable consumers to maximise the value of smart meters. We recommended changes to the regulatory framework to provide clarity and certainty for accessing and sharing of real-time data.⁶

⁵ See [here](#) for more information on the rule change.

⁶ Ibid, p. 129.

Stakeholders supported the right to access real-time data and the enabling framework. They agreed it would clarify consumers' right to their data and allow products and services to be developed for consumers to optimise their CER and energy use.⁷

Other stakeholders considered there are no regulatory barriers for access because retailers offer real-time data services. They suggest the market should determine the services and cost of these service that consumers want from real-time data.⁸

The Review acknowledged that a subsequent rule change would need to explore an enabling framework, including the costs and benefits of various access framework options. We consider it is beneficial to re-test the case for change with stakeholders through this rule change process given the pace and scale of change across that time. As discussed in chapter 3, this consultation paper, as a step forward from our Review, provides stakeholders an opportunity to offer detailed views on what a workable access framework could look like, if the benefits of a framework would outweigh the costs to implement it.

1.3 ECA proposes a rule change to improve access to real-time data

The rule change request from ECA responds to our Review's recommendation. It recommends introducing a right for consumers and their authorised representatives to access consumers' real-time data from smart meters. It suggests further changes that should be considered to facilitate access.⁹

The rule change request defines real-time data as data from the smart meter (power quality data and any other category of data specified through AEMO procedures) which is delivered to parties instantaneously or within a five-minute time frame.¹⁰

ECA considers that real-time data would enable consumers to offer, and benefit from, services that will help them manage their bills and deliver the energy transition.¹¹ Specifically, the rule change request suggests real-time data is beneficial to consumers because it can:

- support consumers to manage their own energy usage and lower bills.
- facilitate a range of services that help consumers lower their bills including demand flexibility and CER coordination services.
- enable industry to operate the energy system more efficiently by better integrating consumer energy resources (CER) into the grid.

As outlined below, real-time data is already accessible under existing arrangements. However, as discussed in chapter 2, ECA considers that these arrangements do not lead to the best market outcomes for consumers. ECA suggests changes to the rules to ensure the full suite of benefits of real-time data from smart meters is available to consumers.

7 See submissions to draft report to the Metering Review: Australian Council of Social Service, p. 23; Clean Energy Council, pp. 3-5; Energy Consumers Australia, pp. 12-14; Public Interest Advocacy Centre, pp. 26-27.

8 See submissions to draft report to the Metering Review: Intellihub, pp. 10-14; PLUS ES, pp. 28-30; Vector, pp. 15-18.

9 ECA, rule change request, p. 9. A consumer's authorised representative is a service provider that has obtained consumer's consent to access their data and provide energy services to consumers.

10 Ibid, pp. 10-11. We will use ECA's proposed definition for the purposes of this consultation paper but are seeking stakeholder views on this proposed definition. See section 3.2.

11 Ibid, p. 3.

1.4 The rule change request would support the National CER Roadmap

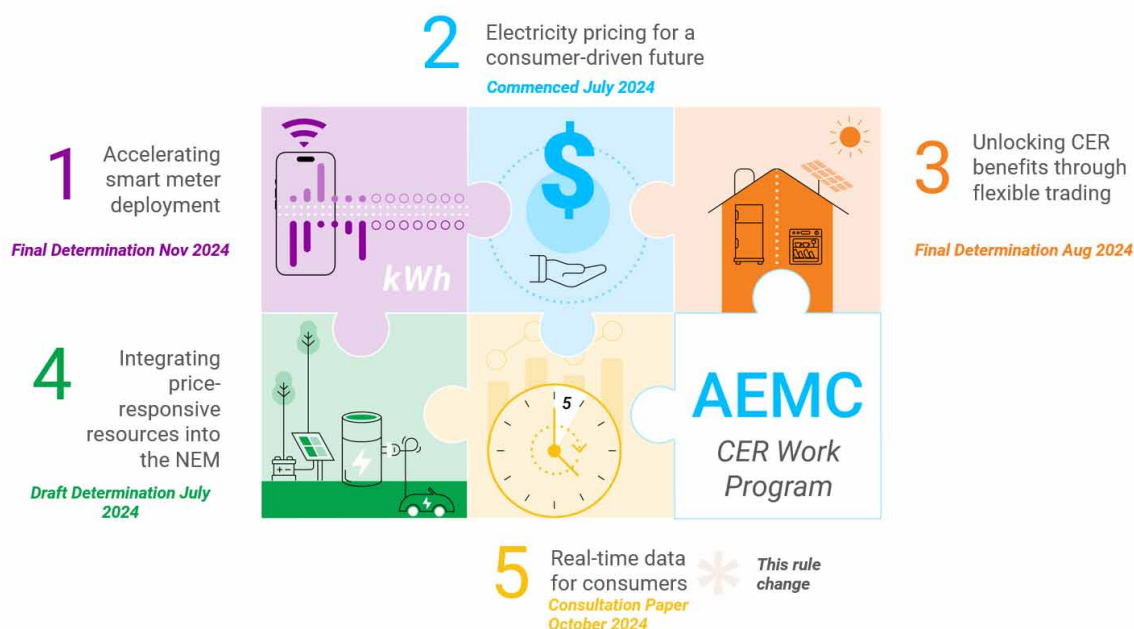
The Energy and Climate Change Ministerial Council's National CER Roadmap (the Roadmap) provides a national approach to reforms to ensure Australians can harness the full potential of CER.¹²

ECA considers that enabling access to real-time data would support consumers to maximise the value of their CER and support the integration of CER into the energy grid.¹³ This rule change is part of the Commission's CER work program to support the goals of the Roadmap.

1.4.1 The Commission is progressing other reforms to support the CER Roadmap

A range of reforms is required to realise the full potential of CER. We will consider this rule change request in this broader context.

Figure 1.1: The AEMC's work program to maximise the value of CER for consumers



Source: AEMC

Rule changes

- [The Unlocking CER benefits through flexible trading rule change](#) will make it easier for energy service providers to offer emerging and innovative products and services to consumers to reward and unlock the value of CER. It will facilitate better integration of flexible CER into the power system to deliver a more reliable and secure energy system that will benefit all consumers.
- [The Integrating price-responsive resources into the NEM rule change](#) aims to enable greater integration of unscheduled price-responsive resources, such as community batteries and virtual power plants, in the wholesale market. The rule change would make it easier for energy service providers to participate in dispatch by reducing the need for participants to forecast

¹² See Roadmap [here](#).

¹³ Ibid, pp. 5 & 16.

passive load, and make conformance and compliance requirements easier to meet at separate settlement points.

- [The Accelerating smart meter deployment rule change](#) seeks to enable the universal uptake of smart meters by 2030 by accelerating their deployment to consumers in a timely and cost-effective way, and with appropriate consumer safeguards in place.

Reviews

- [The Electricity pricing for a consumer-driven future review](#) addresses the important role that electricity pricing will play in delivering the CER necessary for the energy transition, as well as meeting the needs of a diverse set of customers. The review will examine how markets and regulatory frameworks can provide the products and services that best match consumer preferences, now and into the future.

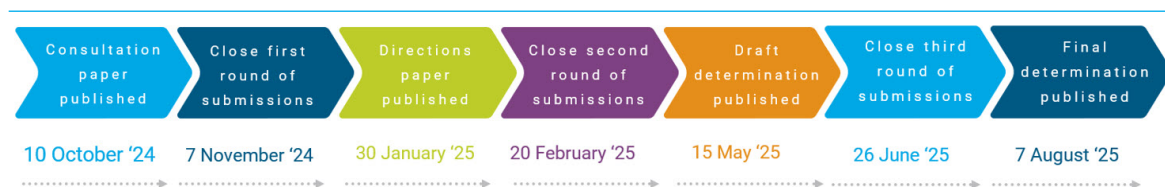
We are working with other market bodies and government officials on reforms that sit outside the Commission's remit, such as the CER Taskforce work on interoperability, and work on providing consumers with information and tools to make decisions that suit their needs. The CER Roadmap outlines this ongoing work.

1.5 We will undertake a standard rule change process

This paper is the first stage of our consultation process. We will undertake this rule change within the standard rule change process, but with a slightly longer time frame to:

- reflect the significant complexity of the issues raised in request and the time required to consider raised by stakeholders
- provide further opportunities for stakeholders to provide feedback on the issues.

Figure 1.2: Indicative timeframes for the rule change



Source: AEMC

Information on how to provide your submission and other opportunities for engagement is set out at the front of this document.

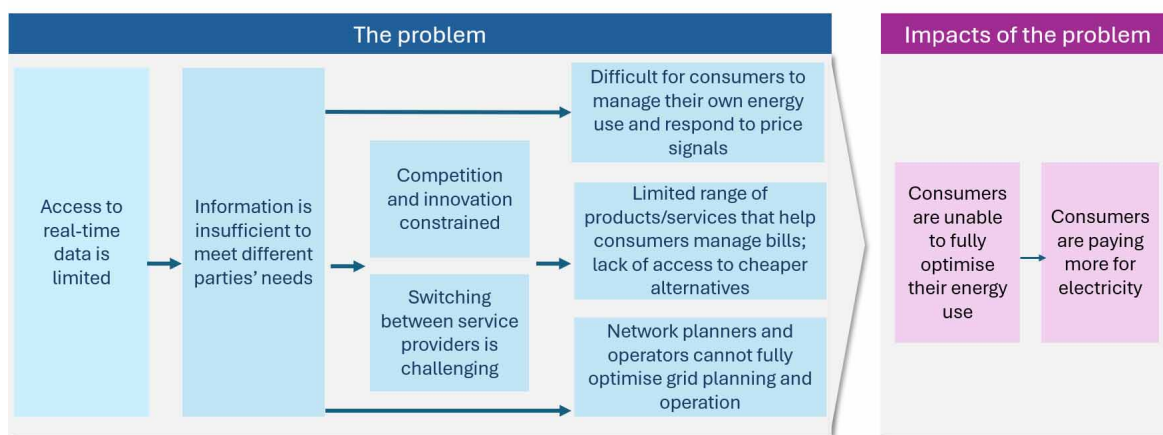
You can find more information on the rule change process on our [website](#).

2 The problem raised in the rule change request

The rule change request considers that real-time data from the smart meter is not widely accessible. It argues that constrained access to real-time data prevents consumers from realising the full benefit of real-time data.

As outlined in the figure below, real-time data can benefit consumers by helping consumers lower their bills through better informing and optimising their energy use.

Figure 2.1: The problem outlined in the rule change request, and its impact



Source: AEMC

This Chapter seeks stakeholder feedback on whether there are material barriers limiting access to real-time data from smart meters and the costs and benefits of addressing these barriers.

2.1 ECA considers access to real-time data is limited

2.1.1 Consumers and authorised representatives can access historical data

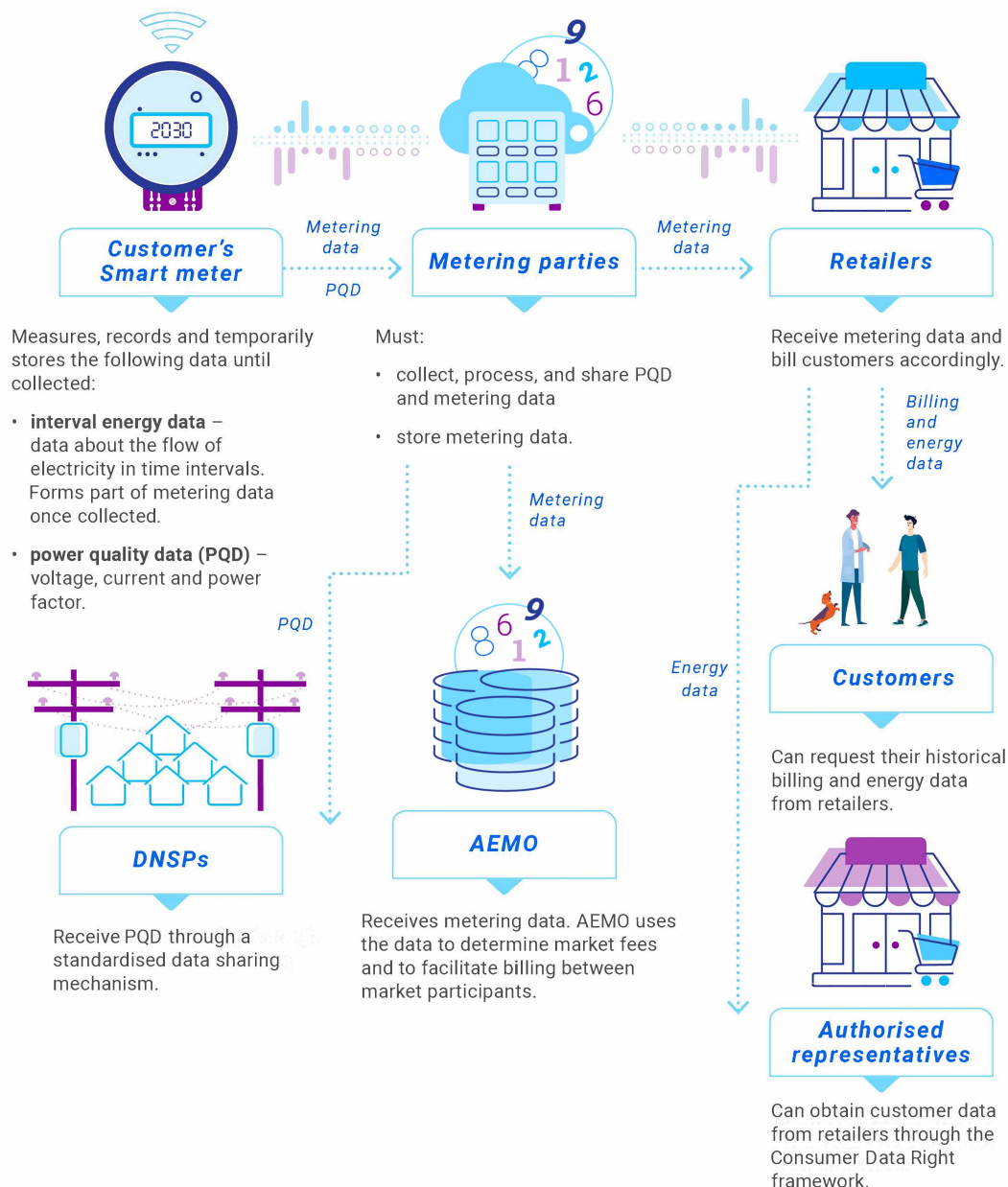
Under the NER, consumers and their authorised representatives have a right to access or receive metering data.¹⁴ [AEMO's metering procedures](#) outline how retailers and DNSPs should provide metering data. However, the metering data available to consumers and their authorised representatives is billing and settlement data is not real-time data. There is a significant delay between when the meter generates the data and when consumers and their authorised representatives receive the data. The NER does not specify a time frame within which metering data should be provided to consumers.

As shown in Figure 2.2 below, the right to metering data in the NER in practice means that:

- Consumers can request their historical data from retailers, but they may have to wait an unspecified amount of time to receive this data.
- Consumers' authorised representatives can request consumers' historical data from retailers. The [Consumer Data Right \(CDR\)](#) facilitates access to this data. Third parties who become accredited under the CDR can seek consumers' consent via the CDR framework to access consumers' data from the relevant retailer.

¹⁴ Clause 7.15.5 of the NER.

Figure 2.2: Current arrangements for sharing metering data



Source: AEMC

Note: Data sharing arrangements are different in Victoria. In Victoria, DNSPs share metering data with retailers, not metering coordinators.

2.1.2 Some consumers and authorised representatives already have access to real-time data

Real-time data from smart meters can be accessed locally via a communication port on the meter but local access is not currently permitted under the NER. The communication ports are protected by a seal which the NER prevents third parties from breaking and replacing. This can only be done by metering parties.¹⁵

¹⁵ Clause 7.15.2 of the NER.

As an alternative to local access, real-time data from smart meters can be remotely accessed. This can occur through commercial negotiation with metering parties.

Alternatively, third parties may install separate devices that interface or communicate with the meter, bypassing the need for local or remote access to the meter itself. This can provide sufficient data to enable these parties to provide various services to consumers.¹⁶

Consumers currently have access to real-time or near real-time data through:

- **Installing third-party devices** — which consumers can purchase and install on or around the meter. These devices can read data from the meter and provide customers with graphics and data summaries on a home display device, or mobile app.
- **Apps provided by CER service providers** — consumers with CER typically have access to real-time data, the cost of which is part of the CER service. For example, consumers with solar panels may receive access to an app that displays their electricity consumption and production in real time.
- **Retailer-provided applications or portals** — some retailers provide consumers access to estimated energy consumption data in close to real-time. This is often provided through an app. Apps may have the capability to provide real-time data.

2.1.3 ECA considers material barriers limit access to real-time data

The rule change request acknowledges existing products that enable consumers to access their real-time data. It considers that the existence of these products does not demonstrate a well-functioning market.¹⁷ This is because the following barriers limit access real-time data:¹⁸

- **Cost** — requiring consumers to install and pay for separate devices to access real-time data unnecessarily duplicates costs, both for:
 - consumers — who should not have to pay for a separate device to access their own data from a smart meter that can already provide the data.
 - third parties — who must install devices with similar functionality to the already installed smart meter, leading to unnecessary higher costs to consumers for these services.
- **Challenges with commercial negotiation** — in practice, consumers' authorised representatives have not been able to negotiate access to data on fair and reasonable terms¹⁹
- **Latency of alternatives** — it is challenging to provide consumers or other parties real-time data through apps or portals because of the time lag between when data is generated and when data is received by consumers through these platforms. ECA notes that it is not aware of any retailers offering less than 24-hour latency but considers this may be sufficient for many consumers accessing their data.

The rule change request argues that the current arrangements produce a market outcome where some, but not all consumers have access to real-time data which could help inform better energy use practices. It also argues that it is challenging for service providers to access the information necessary to support consumers to optimise their energy use, including through better products and services.

¹⁶ Third parties refers to consumer's authorised representatives and any other party wanting access to real-time data.

¹⁷ ECA, rule change request, p. 8.

¹⁸ Ibid.

¹⁹ ECA, rule change request, p. 7.

2.2 Do the benefits of improving access to real time data outweigh the costs?

2.2.1 What are the potential benefits of improved access to real-time data?

As discussed above, some consumers already have access to real-time data. These consumers already experience the benefits of that access. For example, some consumers with CER can access real-time data from their CER provider through an app or an in-home display.

The rule change request considers that it would be beneficial for all consumers to have access to real-time data. It identifies the following benefits of improving access for all consumers:²⁰

1. Consumers would have more control over their bills - consumers would have better insights to inform their energy use.
2. Consumers would save money by avoiding inefficient duplicative costs - consumers would not need to incur additional costs to install separate devices to access real-time data.
3. More consumers would take up services which help lower bills - improved access to real-time data may improve product and service offerings.

We recognise that advances in technology and innovation may increase the use cases of real-time data and increase the magnitude of benefits which flow to all consumers.

Question 1: What are the benefits of improving access to real-time data?

- a) What are the anticipated use cases of real-time data?
- b) What is the value of the benefits that flow to consumers ?

2.2.2 What are the costs that would be involved?

While there may be benefits of improving access to real-time data from smart meters, some parties would incur costs to implement an improved access framework. For example, metering service providers may incur costs to:

1. share data using telecommunications pathways
2. upgrade customers' metering infrastructure

There may be additional costs to multiple parties to administer any improved access framework.

The Commission considers that there may be a range of costs depending on the requirements imposed on parties to facilitate access. These costs would likely be passed to consumers in their bills.²¹

Question 2: What are the costs of improving access to real-time data?

- a) What are the types of costs that would be incurred to improve access?
- b) What is the magnitude of these costs?
- c) Who would incur these costs?
- d) Do the benefits of improving access to real time data outweigh the costs?

²⁰ ECA, rule change request, pp.15-16.

²¹ As discussed in section 3.4, we are interested in stakeholders' views on who should bear these costs.

2.3 Are changes needed to improve competition and innovation?

The Rules should enable consumers to engage (or not) in how they manage their energy usage, and to choose an energy service that best meets their needs.

As noted in the Review, the Commission does not expect all consumers to have the time or desire to monitor data in real-time. Instead, third-party systems or other intelligent electrical devices will be able to:²²

- collect and analyse real-time data quickly and effectively,
- identify patterns and trends in the data, providing the consumer with value-added insights and optimisation,
- independently act based on the data to maximise value for consumers and lower bills.

Many customers already benefit from these kinds of products. Competition and innovation are important to encourage the development of these products and services, which help consumers manage their energy use and lower their bills. The rule change request argues that under the current arrangements, competition and innovation may be constrained which could limit the benefits that consumers may experience.

Competition in the market for services may be constrained

The rule change request notes the importance of a competitive market for services that help consumers manage bills. It suggests that competition in the market would help ensure that these services are innovative and low cost.²³ ECA considers the market should deliver a positive experience for consumers which would encourage participation. Consumers should not be locked in or limited to a few providers and instead should be able to shop around in a competitive market with real choice.²⁴

The rule change request notes concerns that metering parties may be leveraging their metering platforms to provide services to consumers that are unrelated to its core functions of settlement, billing and maintenance.²⁵ This may give these parties a competitive advantage over other third parties. As discussed in section 2.2, while third parties can provide services without access to the smart meter, these services may be more expensive without access to real-time data from the smart meter.

Limited access to real-time data may discourage innovation

During the Review, the AEMC hosted an online workshop with Climate Salad members.²⁶ The majority of participants agreed that open access to real-time data would drive innovation and would be positive for start-ups. The Commission seeks stakeholders feedback on whether the rule change would facilitate innovation and support start-ups.

Question 3: Do metering parties currently have a competitive advantage?

- a) Do you agree with the proponent that metering parties have a competitive advantage in providing services not related to their core functions of settlement, billing and maintenance?

22 AEMC, Review of the regulatory framework for metering services final report (Review final report), p. 138.

23 ECA, rule change request, p. 5.

24 Ibid, p. 6.

25 Ibid, p. 5.

26 Climate Salad is a community of entrepreneurs, teams, scientists, mentors and investors helping to grow Australian climate tech companies.

b) How would any competitive advantage impact the costs of new energy services to consumers?

2.4 Should DNSPs' access to real-time data be improved?

Distribution network service providers (DNSPs) may benefit from customer-level data to improve network planning and operation, potentially lowering costs for consumers in the long term. This includes:

1. power quality data (PQD).²⁷
2. Other categories of real-time data, as characterised elsewhere in this paper.

2.4.1 DNSPs may benefit from real-time data other than advanced PQD

DNSPs' access to real-time data is currently limited. Metering coordinators are not required to give DNSPs access to real-time data, and would likely incur additional costs to do so. DNSPs can access real-time data through commercial negotiation with metering parties or with separate network devices.

ECA's rule change request does not consider the benefits of DNSPs accessing real-time data because it noted the Commission would consider this as part of the [Accelerated smart meter deployment rule change](#) (metering rule change).²⁸ As discussed below, the metering rule change is only considering DNSP access to power quality (PQD). This includes basic PQD and advanced PQD (real-time PQD). The rule change is not considering access to other categories of data which could be received in real-time.

We are interested in stakeholders' views on whether DNSPs need data beyond advanced PQD to optimise network planning and operation.

We contemplated this question in the Review, where we considered that using real-time data to forecast energy demand or distribution network planning requirements may be impractical given the significant costs involved.²⁹

This rule change process may establish access to real-time data for other parties which may lower the incremental costs of providing real-time data to DNSPs.

Question 4: Do DNSPs need more than PQD to improve network planning and operation?

- a) Do the benefits of improving DNSP access to real-time data outweigh the costs?
- b) What are the use cases for DNSPs and other network planners to have access to real-time data other than advanced PQD?

2.4.2 PQD for DNSPs is being considered in a separate rule change process

We are considering enabling better access to basic PQD through the metering rule change, at least once per day. Giving DNSPs better access to basic PQD, free of direct cost, allows DNSPs to better understand the network and unlocks a range of benefits for networks, consumers, and the broader

²⁷ Basic PQD is the characteristics of the power supply as measured by the meter, comprising voltage, current and power factor. Advanced PQD generally encompasses measurements in addition to those identified in basic PQD.

²⁸ ECA, rule change request, p. 9.

²⁹ AEMC, Review final report, p. 135.

energy system. For instance, DNSPs can use basic PQD to save energy by maximising CER hosting capacity, reducing line losses and minimising safety risks.³⁰

The metering rule change also considers providing DNSPs with advanced PQD (PQD in real-time). Our analysis and engagement with stakeholders suggest there are limited use cases for advanced PQD, and that the costs of providing DNSPs access to advanced PQD free of direct cost would likely outweigh the benefits to consumers. Our metering rule change therefore does not propose any changes to the current arrangements, which allow DNSPs to negotiate access to advanced PQD with metering parties where appropriate.

30 AEMC, *Accelerating smart meter deployment* draft rule determination pp. 17-18.

3 The proposed solution and implementation

The previous chapter seeks stakeholder feedback on the case for change and the costs and benefits of improving access to real-time data. Notwithstanding this, this consultation paper seeks input on the proposed solution and other changes that may be needed to improve access to real-time data, if the benefits of improving access to real-time data are greater than the costs.

This approach acknowledges the complexity of any potential changes and the benefit of identifying issues early in the rule change determination process. The questions included in this chapter should be understood in this context.

As discussed in section 3.1, ECA proposes introducing an explicit right to access real-time data. On its own, a right to real-time data in the NER may not be sufficient to improve access to real-time data. As suggested in the rule change request, other changes may need to be embedded in the Rules and AEMO procedures to ensure access is widespread.³¹

The rest of this chapter outlines several key areas or features to consider when developing a framework to improve consumers' and their authorised representatives' access to real-time data, including:

- whether parties should have an explicit right to access real-time data
- how real-time data should be defined
 - how data could be shared and received
- who would pay for real-time data
- how interoperability could be achieved
- how privacy and cyber security would be maintained
- other considerations including data handling requirements and learning from other frameworks.

The Commission's initial views on these features were explored at a high-level in the Review final report. We noted that further work is needed to explore these considerations in detail. This chapter gives stakeholders the opportunity to provide views on the Review's recommendations and provide detailed feedback on the design of an access framework which could successfully implement a right to real-time data.

3.1 Should parties have a right to real-time data?

The rule change request proposes introducing a right for consumers and their authorised representatives to access consumers' real-time data from smart meters.³² This solution seeks to emulate the effectiveness of similar existing arrangements for access to historical settlement and billing data.³³

The proposal is consistent with our Review recommendation to:

- require retailers and metering parties to give real-time data to consumers upon request.³⁴
- enable consumers' authorised representatives to request and receive real-time data on the consumer's behalf.³⁵

³¹ ECA, rule change request, p. 9.

³² ECA, rule change request, p. 9.

³³ Clause 7.15.5 of the NER.

³⁴ AEMC, Review final report, p. 136.

³⁵ Ibid, p. 139.

In putting forward this recommendation, the Review contemplated that:

- any obligation placed on the data provider should be based on the best endeavours of the provider,³⁶ recognising that providing data may be challenging in some cases, for example, due to the location of the meter.
- it may be necessary for retailers to provide more information to support and encourage consumers to access real-time data.

Question 5: Who should have a right to real-time data in the NER?

a) Should consumers, their authorised representatives or any other party, including DNSPs, have a right to access real-time data?

3.2 How should 'real-time data' be defined?

ECA suggests that 'real-time' should be defined in a way that ensures data is received in the time required by consumers' authorised representatives:³⁷

- to provide the service they are offering, or
- to inform consumers' energy consumption decisions.

ECA's rule change request proposes a definition for real-time that is consistent with the above. It suggests real-time data be defined in the NER as:³⁸

data received instantaneously.

Should a different definition of real-time data be adopted, ECA suggests that a maximum time frame for when data must be received should also be defined in the NER. It proposes that:

data should be received within no more than 300 seconds (5 minutes).

AEMO could then subsequently define the provision of real-time data in its Metering Data Provision Procedures.

ECA's proposal to define the maximum time frame:

- accounts for delivery lags (latency) because the definition refers to data that is "received" rather than "sent"
- is consistent with the five minute market settlement period
- is flexible and robust to future technological change, because AEMO could make amendments over time, as needed, through its Metering procedures³⁹
- is consistent with the Commission's recommendation from the Review.⁴⁰

36 Ibid.

37 Ibid.

38 Ibid, p. 10.

39 ECA suggests requiring AEMO to review the real-time definition either on a regular basis or on request by stakeholders. This acknowledges the dynamic nature of technology and accounts for potential variations in technical capabilities.

40 AEMC, Review final report, p. 127 and p. 132.

3.2.1 The rules could clarify the types of data to be provided in real-time

ECA suggests that the NER should also define ‘customer power data’ to clarify the types of data that would be shared from smart meters in real-time. ECA proposes that customer power data be defined as:

PQD and any other category of data specified in the relevant AEMO procedures as customer power data

Specifying the types or categories of data that would be shared in AEMO procedures would make these categories easier to update over time.

Under this definition, PQD would be included as a category of data that parties would receive in real-time. As noted in section 2.4.2, DNSP access to PQD is being considered in a separate rule change.

The rule change request does not specify whether real-time data should be processed data, such as validated or non-validated data. The EU Data Act requires non-validated metering and consumption data to be made available through a standardised interface or through remote access per the meter’s minimum functionality.⁴¹

Question 6: How should real-time data be defined ?

- a) Do stakeholders agree with the proposed definition of real-time data and customer power data?
- b) What should be defined and/or further expanded in AEMO procedures?
- c) Should data be validated or not?

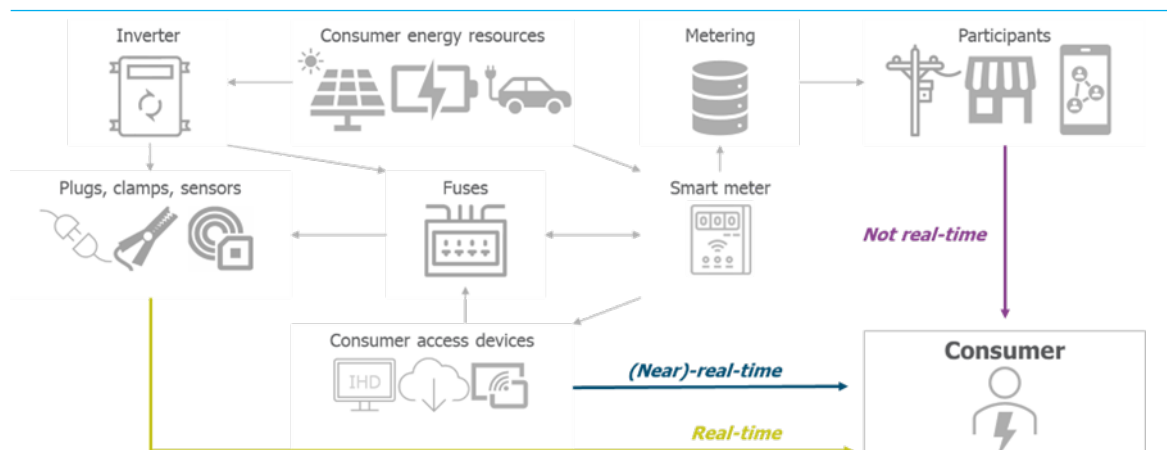
3.3 How should real-time data be shared and received?

Different smart meters have different data-sharing capabilities. There are multiple potential pathways for parties to access the data from smart meters. Technological advancement may further increase the number of data-sharing options.

Figure 3.1 illustrates the various pathways through which consumers can access their energy data.

⁴¹ Ibid, p. 132.

Figure 3.1: Examples of pathways through which consumers can access their data



Source: Adapted with prior written consent from LCP Delta, Real-time energy data: What role does it play for energy insights services?

Consumers have different needs and preferences which means that some pathways may be beneficial for consumers while others may not. For example, accessing data from apps may be sufficient for consumers who are interested in exploring their daily usage, though a large latency would not suit consumers using home energy management systems to coordinate devices in real-time.

We consider that any changes to the Rules to improve access to data should be fit for purpose and satisfy the needs of multiple use cases at efficient costs to consumers.

3.3.1 ECA proposes changes to enable local access to the smart meters

ECA suggests that parties should be able to access real-time data locally through the smart meter.⁴² With reference to Figure 3.1, this would enable consumers' authorised representatives to access real-time data using technology such as plugs, clamps, and sensors.

ECA considers that local access should be enabled by requiring that:⁴³

- all new meters have communications ports that can be accessed locally
- communications ports be unsealed and accessible to approved parties.

ECA notes that while local access via communication ports is preferable, it may be possible for wifi-enabled meters to facilitate data transfer without the data being sent off-site.⁴⁴

3.3.2 Stakeholders expressed mixed views on the costs and benefits of local access

During the Review, stakeholders provided feedback on whether parties, other than metering service providers, should have local access to the meter. This is summarised in the table below.

⁴² ECA, rule change request, p. 7.

⁴³ Ibid, p. 12.

⁴⁴ Ibid, p. 7.

Table 3.1: Stakeholder views on requiring specific local access pathways to be used

Factors that support a specified local access pathway ¹	Concerns raised against a specified approach ²
Avoids potential gate keeping - prevents some service providers from being locked out of the meter which negatively affects competition, innovation, and consumer choices in secondary markets.	Costs to consumers – to upgrade the existing metering infrastructure. The rule change request suggests that only new metering installations should have communications ports. Metering parties may have already procured a significant number of meters without ports which are yet to be installed. This may only be an issue for meters to be installed in the near-term though a significant number of meters is expected to be rolled-out in the near-term.
Data is received quickly - improves customer decision-making around energy performance and supports the development of novel business models focused on customer energy management.	Risks to security and technical challenges - including concerns around authorising and controlling data access. The rule change request suggests that AEMO should specify in procedures how communication ports on smart meters can be physically accessed by small customers or their authorised representatives in a way that does not unduly restrict access.
Future-proofs the meter - local access methods, particularly Ethernet and recommended standard serial cables, have proven resilient to technological change.	

Source: ¹ Submissions to the Metering Review - Draft report: CEC, p. 4; ECA, p. 13; ETU, p. 20; EDM, pp. 19-20; Momentum, p. 7; PIAC, pp. 31-32; Rheem and CET, p. 5; SwitchDin, p. 14; Secure meters, pp. 11, 14; SATEC, pp. 5-6; Telstra, p. 13; Watt Watchers, p. 7. ² Submissions to the Metering Review - Draft report: AGL, pp. 18-19; EnergyAustralia, p. 6; Energy Queensland, p. 32; Green Metering, p. 20; Intellihub, pp. 13-14; Origin, p. 8; Telstra, p. 14; Vector, pp. 16-1

Additionally, during bi-lateral engagement, stakeholders considered that the benefits of local access may be limited because:

- separate devices may still be required to extract data from any device connected to the communications port
- meters with communication ports have a limited number of ports, meaning the number of parties wanting access to the meter may be larger than the number of ports available.

3.3.3 The Review did not specify a preferred access pathway

In the Review we considered that specifying how a retailer or metering service provider must share real-time data is not likely to be in the long-term interest of consumers.⁴⁵ Instead, we considered that the rules should require market participants to deliver a set of access outcomes. This would provide flexibility to market participants to agree on the most efficient pathway to share data to meet the needs of a particular use case.

⁴⁵ AEMC, Review final report, p. 146.

We considered an outcome-focused approach should be flexible in implementation, prioritising consumer preferences and needs, while encouraging partnerships and ecosystem-building to achieve the desired outcome of enabling all consumers to access real-time data.⁴⁶

Question 7: How should real-time data be accessed and shared?

- a) Do parties, other than metering service providers, need to locally connect directly to the meter to access real-time data? If so, what changes are needed to enable this?
- b) Are there alternative data sharing arrangements that should be enabled by a rule change, if made?

3.4 Who should bear the costs of access to real-time data?

3.4.1 Should consumers pay for access to their real-time data?

ECA considers that consumers should not face additional costs in accessing data themselves. This is because consumers already pay for or contribute to the costs of metering installations through their retail bills.⁴⁷

This would mean that the cost of providing access to real-time data to consumers would be spread across all consumers through their retail bills.

Requiring consumers to incur additional direct charges for access to real-time data may limit most benefits of real-time data to those who can afford to pay for additional devices to enable access to real-time data.

Conversely, consumers who benefit the most from real-time data may be those with CER and higher energy consumption profiles. It may be inappropriate for all consumers to pay for access to real-time data, to the extent that access to the data disproportionately benefits a particular group of consumers.

An example of a potential access framework may be a 'consumer opt in' framework such that consumers only receive real-time data on request. In this framework, under ECA's proposal, consumers who do not request access would still contribute to paying the cost of access to real-time data.

3.4.2 Should authorised representatives pay to access real-time data?

ECA considers that consumer's authorised representatives should not be charged for the cost of data (data collection or production costs).

This is consistent with our Review recommendations. We considered that authorised representatives should pay metering parties for new and direct costs incurred to make real-time data available, but not for data collection or production costs.⁴⁸

As noted in the Review, the EU Data Act may provide the basis for a potential cost allocation framework. It defines direct costs as data reproduction, electronic dissemination, and storage expenses and excludes data collection or production costs. The Act states that direct costs

⁴⁶ Ibid.

⁴⁷ ECA, rule change request, p. 13.

⁴⁸ AEMC, Review final report, p. 142.

should be limited to the share attributed to individual requests, assuming that the setup of technical interfaces or related software connectivity is permanent.⁴⁹

DNSPs should also incur some costs to access real-time data

As noted in section 2.4, DNSPs may not pay for basic PQD. However, similar to consumer's authorised representatives, the Commission considers it may be appropriate for DNSPs to pay for the direct costs incurred by metering parties to share data.

3.4.3 Is a dispute resolution framework beneficial?

Consistent with the Review, the rule change request suggests there should be an effective dispute resolution arrangement where parties fail to agree on terms and conditions of access.⁵⁰

Consistent with Act 10 of the EU Data Act, our Review considered that metering coordinators should provide authorised representatives with a detailed basis for calculating compensation, enabling recipients to verify the fairness of the charges. The burden of proof should be on the service providers to demonstrate that prices or contractual terms are non-discriminatory.⁵¹

The Commission considered that the dispute resolution framework should focus on the terms of access and its fairness, reasonableness, and non-discrimination, not technical data sharing arrangements, as this may difficult to resolve through a dispute resolution process.⁵²

Question 8: Who should bear the costs of accessing real-time data?

- a) Should all consumers bear the cost of accessing real-time data?
- b) What would be the benefits of a dispute resolution framework and how should it operate?

3.5 Should real-time data be interoperable?

Interoperability refers to the ability of different systems, devices, apps, or products to connect, communicate, and exchange data without losing information or functionality.

Interoperable real-time data access would:

- ensure that customers and third-party providers can directly interact with smart meter functions, regardless of the chosen smart meter or service provider
- promote the adoption of new products and services without the need for proprietary protocol translations or frequent regulatory adjustments.

3.5.1 ECA proposed changes to create an interoperable real-time data access framework

Existing arrangements in the NER do not require smart meter interoperability. The minimum services specification in Schedule 7.5 of the NER does not require smart meters to have open standards-based protocols and standards-based communications interfaces.

ECA considers that real-time data should be presented in a usable format, in a language that can be read by other devices.⁵³ To enable interoperability, ECA suggests:

⁴⁹ European Parliament, Data Act, 2022, p. 27.

⁵⁰ ECA, rule change request, p. 13.

⁵¹ As discussed above, metering parties may charge authorised representatives and DNSPs for the new direct costs.

⁵² AEMC, Review final report, p. 143.

⁵³ ECA, rule change request, p. 12.

- changes to the minimum services specification requirements in Schedule 7.5 of the NER to allow standards-based communication protocols and communications interfaces for read-only data, such as real-time data.
- consideration of the interoperability provisions in the EU Data Act to support consumers and their authorised representatives' access to real-time data.

3.5.2 An outcomes-based approach would enhance interoperability

We previously recommended an outcomes-based approach for interoperability.⁵⁴ This approach defines the desired outcomes and functions for real-time data sharing between different smart meters and consumer and third-party provider systems, devices, and apps.

The outcomes-based approach would foster flexibility and innovation across systems and devices, and reduce implementation costs, by allowing industry participants to use established standards and methods to enhance interoperability. In turn, this would facilitate seamless integration across different systems and devices once future standards are established.

The approach aligns with the EU's Implementing Regulation and Data Act which we considered to present best practice examples of interoperable data-sharing directives.⁵⁵

Question 9: What changes would be required to ensure interoperability ?

- a) Would changes to the minimum services specification requirements be the most effective way to ensure interoperability of real-time data?
- b) Would any other changes be required to facilitate interoperability, for example, changes through device standards?

3.6 How should consumer privacy and cyber security be maintained?

ECA has proposed to classify real-time data as confidential information.⁵⁶ The classification means that registered participants must not disclose confidential information to any persons except as permitted by the NER and must not permit unauthorised persons to access confidential information. The classification would recognise that consumers generate the data that smart meters record, the data shows their energy use and behaviour, and the data becomes identifiable when provided with the small customer's National metering identifier (NMI).

ECA has also proposed consideration of whether changes to the NER and/or NERR are required to enhance the protection of consumer privacy and cyber security for real-time data. ECA identifies risks associated with collection of the data, such as from artificial intelligence and data leaks.

ECA suggests that the *Privacy Act 1988* (Cth) and the European Union's Data Act be considered to determine gaps applying to real-time data within Australia's privacy and consumer regulatory framework. This aligns with Commission's recommendation that further protections in the NER and NERR for real-time data were not necessary, but to continue to monitor the Commonwealth Attorney-General's Department's implementation of its recommendations to the Commonwealth privacy regulatory framework for any gaps or overlaps with the NER and NERR.⁵⁷

⁵⁴ AEMC, Review final report, pp. 148-151.

⁵⁵ Ibid, pp. 150-151.

⁵⁶ See the confidentiality framework in Rule 8.6 of the NER.

⁵⁷ AEMC, Review final report, pp. 151-152.

There are various existing legislative instruments that may protect consumers' personal information from privacy and cyber security risks. These include:

- Clause 7.15.1(a) of the NER, which imposes a requirement on specific meter data to be treated as confidential information in accordance with the Rules. The [Accelerating smart meter deployment](#) draft rule also proposed for this requirement to include PQD.
- The [Consumer Data Right](#) (CDR), which is an opt-in framework that allows businesses identified as designated data holders to share consumers' CDR data with other businesses, known as accredited data recipients, on the request of consumers. There are additional privacy safeguards that support the CDR framework.
- Australian Consumer Law, which provides consumers with protections from unfair contractual terms and conditions, false or misleading representations, unconscionable conduct, and with product guarantees.
- The *Privacy Act 1988* (Cth), which protects personal information which is any information or opinion about an identified individual or individual who is reasonably identifiable, and its requirements apply to small businesses and organisations. The Commission notes there may be future reforms as a result of a recent review into the Privacy framework.⁵⁸

Standards Australia and the Energy Security and Resilience Working Group are currently progressing the reform priority to establish secure communication systems for CER devices, under the *National Consumer Energy Resources Roadmap* and the *Roadmap for CER Cyber Security*. This work includes identifying and adopting international standards to improve cyber security, and developing technical specifications for CER cyber security for the Australian market and CER technology deployment.⁵⁹

3.6.1 The security framework for access should be clear

The NER provides some security for local and remote access to energy data from the meter. Metering Coordinators must ensure that energy data is protected from local and remote access by suitable password and security controls.⁶⁰

ECA considers real-time data should be communicated securely. To ensure a secure access environment to real-time data, ECA suggests changes to:

- the minimum services specification requirements in Schedule 7.5 of the NER or AEMO procedures to define the security environment for access, such as how to access real-time data, and to obtain and verify customer consent before real-time data is provided,
- provisions relating to security controls for energy data to reflect how data would be accessed, for example by giving small customers and their authorised representatives read-only passwords to real-time data.⁶¹

3.6.2 Additional responsibilities on authorised representatives may be necessary to safeguard consumers' interests

The Commission considers that, consistent with the EU Data Act, it may be beneficial for parties accessing real-time data on behalf of consumers to have additional responsibilities in the Rules to further safeguard consumers' interests. This could include requirements to:

⁵⁸ For more information, see [here](#).

⁵⁹ For more information, see [here](#).

⁶⁰ Clause 7.15.3(a) of the NER.

⁶¹ Clauses 7.15.3 and 7.15.4 of the NER.

- formally engage the customer, and obtain voluntary, informed, current, specific, and unambiguous consent
- not exploit or coerce the customer into providing access to their data, including by being misleading, deceptive, or withholding services
- not use data accessed on behalf of the customer to compete directly with metrology or offer products or services similar to core metering services
- use data for competition in upstream and downstream services complementary to metering services or that offer value added services to customers
- be Australian Energy Sector Cyber Security Framework accredited
- not share data with Australian Competition & Consumer Commission's Designated Digital Platforms.

To include any of these requirements in the NER and apply them to authorised representatives, these parties would need to be registered or accredited under the NER.

We welcome stakeholder views on whether it is beneficial to explicitly include these requirements in the NER and/or register these parties in the NER.

Question 10: Do existing arrangements sufficiently protect consumer privacy and maintain cyber security for any real-time data framework?

- Would any additional consumer privacy and cyber security protections be required if a real-time data framework were implemented?
- Do you consider other work programs could provide any additional protection required, such as the Roadmap for CER Cyber Security?

3.7 Are other changes needed to improve access to real-time data?

We welcome stakeholder feedback on any other key inputs to a fit-for-purpose real-time data access framework, including the issues discussed below.

3.7.1 Metering parties have obligations to handle real-time data

The current metering framework places obligations on metering parties to collect, process, store, and deliver metering data. These obligations recognise the value of the data and the need for the data to be treated in particular ways to enable certain outcomes. This includes, for example, enabling retail customers and their authorised representatives to request historical billing and energy consumption data.

Requiring metering parties to share real-time data may have implications on their obligations to handle data, such as requiring greater data management and storage capacity. A limited processing requirement could ensure that the data is collected from the intended meter and NMI.

We are seeking stakeholder feedback on whether any changes would be needed to data management and storage provisions or any other data handling provisions to enable access to real-time data.

3.7.2 Other arrangements could support the enabling real-time data framework

There may be further changes required to the rules or other arrangements that have not been discussed in the rule change request and this consultation paper that could support access to

real-time data. For example, we are aware that in New Zealand small customers were also persons able to appoint metering parties at a connection point. A similar change could benefit or hinder a real-time data access framework for consumers.

To ensure a robust and considered consultation on the framework, we are seeking input from stakeholders on any other changes to the NER and NERR that would enable or support the proposed real-time data access framework.

Question 11: What other changes would be required to enable a real-time data framework?

Would any other changes be required, for example to clarify data and storage arrangements or to implement relevant best practice features from other frameworks?

4 Making our decision

When considering a rule change request, the Commission considers a range of factors.

This chapter outlines:

- issues the Commission must take into account
- the proposed assessment framework
- decisions the Commission can make

4.1 The Commission must act in the long-term interests of consumers

The Commission is bound by the National Electricity Law (NEL) and the National Energy Retail Law (NERL) to only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO) and national energy retail objective (NERO) respectively.⁶²

The NEO is:⁶³

to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system; and
- (c) the achievement of targets set by a participating jurisdiction—
 - (i) for reducing Australia’s greenhouse gas emissions; or
 - (ii) that are likely to contribute to reducing Australia’s greenhouse gas emissions.

The NERO is:⁶⁴

to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to—

- (a) price, safety, reliability and security of supply of energy; and
- (b) the achievement of targets set by a participating jurisdiction—
 - (i) for reducing Australia’s greenhouse gas emissions; or
 - (ii) that are likely to contribute to reducing Australia’s greenhouse gas emissions.

The targets statement, available on the AEMC website, lists the emissions reduction targets to be considered, as a minimum, in having regard to the NEO and NERO.⁶⁵

The Commission must also, where relevant, satisfy itself that the rule is “compatible with the development and application of consumer protections for small customers, including (but not limited to) protections relating to hardship customers” (the consumer protections test).⁶⁶ Where

62 Section 88 of the NEL and section 236 of the NERL.

63 Section 7 of the NEL.

64 Section 13 of the NERL.

65 Section 32A(5) of the NEL and section 224A(5) of the NERL.

66 Section 236(2)(b) of the NERL.

the consumer protections test is relevant in the making of a rule, the Commission must be satisfied that both the NERO test and the consumer protections test have been met.⁶⁷ If the Commission is satisfied that one test, but not the other, has been met, the rule cannot be made (noting that there may be some overlap in the application of the two tests).

4.2 We propose to assess the rule change using these four criteria

Considering the NEO and NERO and the issues raised in the rule change request, the Commission proposes to assess this rule change request against four assessment criteria:

- **Outcomes for consumers** – The proposed rule change ultimately seeks to lower bills for consumers by:
 - helping consumers better manage their energy use and respond to price signals, and
 - supporting the integration of CER into the grid which lowers the need for more infrastructure investment.
- The Commission must be satisfied that any rule change made would put downward pressure on consumer bills. The means that we must test whether the benefits of improving access to data outweigh the costs of any new data sharing arrangements that may be introduced.
- **Principles of market efficiency** – The proposed change seeks to improve market outcomes by:
 - improving the efficiency of services that help consumers manage their bills by ensuring least cost access to data,
 - ensuring competitive neutrality in the market for services that help consumers manage their bills.
- The Commission must be satisfied that any rule change made would ensure data is accessed at efficient cost and deliver competitive outcomes in the market for services which help consumers manage their bills.
- **Innovation and flexibility** – The proposed change seeks to facilitate the provision of new and innovative tools and services to help consumers manage their energy use and save money on electricity bills.
 - The Commission must be satisfied that any rule change made would facilitate this innovation and is flexible to enable a range of future outcomes.
- **Implementation considerations** – the proposed change is complex to implement and may interact with various frameworks outside the NER and NERL.
 - The Commission must be satisfied that any rule change made can be successfully implemented at least-cost to market participants.

These assessment criteria reflect the key potential impacts – costs and benefits – of the rule change request. We consider these impacts within the framework of the NEO and NERO.

Consistent with good regulatory practice, we also assess other viable policy options - including not making the proposed rule (a business-as-usual scenario) and making a more preferable rule - using the same set of assessment criteria where feasible.

⁶⁷ That is, the legal tests set out in sections 236(1) and (2)(b) of the NERL.

Question 12: Do you agree with the proposed assessment criteria?

Are there additional criteria we should consider or criteria included here that are not relevant?

4.3 We have three options when making our decision

After using the assessment framework to consider the rule change request, the Commission may decide:

- to make the rule as proposed by the proponent⁶⁸
- to make a rule that is different to the proposed rule (a more preferable rule), as discussed below, or
- not to make a rule.

The Commission may make a more preferable rule (which may be materially different to the proposed rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule is likely to better contribute to the achievement of the NEO and NERO.⁶⁹

4.4 The proposed rule would apply in the Northern Territory

Parts of the NER, as amended from time to time, apply in the Northern Territory, subject to modifications set out in regulations made under the Northern Territory legislation adopting the NEL.⁷⁰

The proposed rule would apply in the Northern Territory, as it amends provisions in NER Chapter 10, which does apply in the Northern Territory.⁷¹ However, these amendments would have no practical effect in the Northern Territory.

⁶⁸ ECA describes its proposed rule in section 3 of the rule change request, pp. 9-15.

⁶⁹ Sections 91A of the NEL and 244 of the NERL.

⁷⁰ National Electricity (Northern Territory) (National Uniform Legislation) Act 2015 (**NT Act**). The regulations under the NT Act are the National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016.

⁷¹ Under the NT Act and its regulations, only certain parts of the NER have been adopted in the Northern Territory. The version of the NER that applies in the Northern Territory is available on the AEMC website at: <https://energy-rules.aemc.gov.au/ntner>.

Abbreviations and defined terms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
App	Application
CDR	Consumer Data Right
CER	Consumer energy resources
Commission	See AEMC
DNSP	Distribution Network Service Provider
ECA	Energy Consumers Australia
EU	European Union
EV	Electric vehicle
Metering rule change	<i>Accelerated smart meter deployment</i> rule change
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NERL	National Energy Retail Law
NERO	National Energy Retail Objective
NERR	National Energy Retail Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NMI	National Meter Identifier
PQD	Power quality data
Proponent	The proponent of the rule change request
Review	Review of the regulatory framework for metering services
Solar PV	Solar photovoltaic