



Consumer  
Data Right



Australian Government  
The Treasury

DATA  
STANDARDS  
BODY

# Peer-to-peer data access model in the energy sector

## CDR rules and standards design paper

30 April 2021

# Opportunity to provide feedback

This paper is designed to obtain feedback in order to develop draft CDR rules and standards. Draft CDR rules and standards will be the subject of formal consultation at a later stage, with the opportunity to make formal submissions.

You are invited to provide informal feedback to the Treasury and Data Standards Body by **26 May 2021** through either:

- lodging comments on the public [GitHub repository](#) maintained by the Data Standards Body; or
- by email to Treasury at [data@treasury.gov.au](mailto:data@treasury.gov.au). Respondents who would like to provide feedback on a confidential basis should ensure that this is clearly indicated.

Feedback posted on GitHub is public by nature at the time of submission. Content posted on GitHub should be made according to the community engagement rules published by the Data Standards Body.

Treasury will also provide opportunities for discussion and feedback during May through various CDR forums and engagement mechanisms.

# Part A – Overview

## Context and purpose

1. In June 2020, the Australian Government made the decision to formally extend the Consumer Data Right (**CDR**) regime to the energy sector. The scope of CDR in energy has been set in a designation instrument, made by the Treasurer on 26 June 2020, specifying the energy data holders and data sets to which CDR applies.
2. On 27 April 2021, the Treasury [announced](#) that following further feedback from the energy sector and CDR community, the Government has determined that a peer-to-peer model (**P2P model**) is the more effective data access model for the energy sector rather than a gateway model.
  - In 2019, consultation on data access models for energy data was conducted, which led to the development of an Australian Energy Market Operator (**AEMO**) gateway data access model.
  - Subsequent developments through the implementation process of CDR in energy have revealed that the gateway model may not be able to leverage existing National Electricity Market systems as intended, increasing total cost for AEMO and thus retailers. In addition, there is a renewed focus on ensuring CDR is interoperable and extensible, within and across sectors, following the release of the Inquiry into Future Directions for the Consumer Data Right in December 2020.
3. Now that the data access model is settled, we seek views on the design and principles to support the development of rules and standards to implement CDR in the energy sector on the basis of a P2P model.
4. Part B, section 1 of the paper outlines how the P2P model works and how the change will impact participants, by outlining the policy objective, rules considerations, standards considerations and implementation considerations.
5. Separately this paper also seeks stakeholder views on consumer accounts in the energy sector (**section 2**). Energy sector consumer accounts vary from the structure of accounts in the banking sector, which was the first sector CDR was rolled out to. Due to this variance, we would like to understand whether the existing account selection data standards are appropriate for the energy sector, and, if not, the extent to which any divergence may be required to support economy-wide standards.
6. Other relevant issues that are being considered separately in relation to the extension of CDR to the energy sector are:
  - a. eligibility requirements for CDR consumers;
  - b. internal and external dispute resolution requirements for retailers and ADRs;

- c. the implementation timetable for the rollout of the CDR in energy (this paper discusses the proposed order in which participants will become subject to the regime but not the timetable for commencement of CDR obligations);
  - d. definitions of data sets, required data and voluntary data for CDR in energy; and
  - e. product data requirements for CDR in energy.
7. Some of these issues were canvassed in the Australian Competition and Consumer Commission’s July 2020 consultation on the [Energy rules framework](#).

## Relevant artefacts

8. Wireframes accompany each design paper as visual aids for certain concepts, proposals, scenarios, and queries. Wireframes that are relevant to this paper cover the P2P model and the topic of consumer accounts.
9. A wireframe titled ‘[2.2: Energy | P2P Model](#)’ demonstrates how the P2P model could work in energy and can be found online [here](#), or via [downloadable PDF here](#).
10. [Flows 2.1 – 2.3](#) provide hypothetical examples as stimulus for the consumer account topic, discussed in section 2 of this paper. These wireframes can be found online [here](#), or via [downloadable PDFs here](#).
11. These wireframes are intended to elicit feedback and should not be interpreted as a final policy position on proposed implementation.
12. To provide feedback on the wireframes, or to refer to the wireframes in a submission, participants should specify the flow number and the numbered component. For example, referencing **2.2.4** would specify the point where the consumer is redirected to their retailer for authentication.

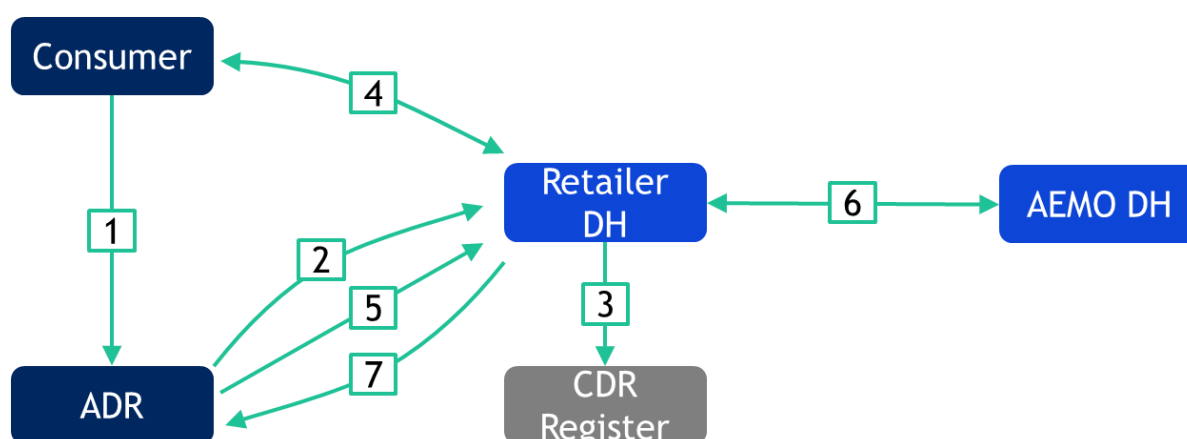
## Part B – Issues for feedback

### 1. Peer-to-peer data access model in the energy sector

#### 1.1. Topic Overview

13. **Figure 1** provides an overview of the data flows of the P2P model in energy. Notably, compared to a gateway model, the role of the retailer and AEMO as data holders are respectively expanded and reduced under a P2P model. For consumer data requests that relate to both retailer held data sets (customer data, billing data and tailored tariff data) and AEMO held data sets (metering data, National Metering Identifier (**NMI**) standing data and distributed energy resources register data), AEMO will be authorised to disclose the relevant data that it holds to the retailer when requested, for subsequent sharing with the accredited data recipient (**ADR**).

**Figure 1 – Data flows of the P2P model in energy**



1. The consumer consents to an accredited data recipient (**ADR**) obtaining their data.
2. The ADR contacts the retailer Data Holder (**DH**), seeking access to the consumer's data.
3. The retailer DH authenticates the ADR using the CDR Register.
4. The consumer is redirected to the retailer DH's authentication and authorisation service. The retailer DH authenticates the identity of the consumer via a one-time password. The Consumer authorises the retailer DH to disclose their data to the ADR.
5. The ADR requests a specific set of data that is covered by the authorisation.
6. The retailer requests the relevant data, covered by the authorised consent, from AEMO as a data holder (**AEMO DH**). AEMO DH provides the requested data to the retailer DH. The retailer may also obtain relevant data from its own data holdings.
7. The consumer's data is shared between the retailer DH and the ADR.

## Role of retailers

14. Under the CDR regime, retailers will be responsible for:

- a. receiving and responding to consumer data requests, including requesting and receiving relevant CDR data from AEMO, in accordance with the data standards;
- b. interacting with the CDR Register to authenticate an accredited person making a consumer data request on behalf of a CDR consumer;
- c. conducting the authentication and authorisation processes, for CDR data held by the retailer and AEMO, in accordance with the data standards, and storing all authorisation information;
- d. providing consumer dashboards to consumers, for authorisations that relate to data held by the retailer and AEMO;
- e. record keeping and reporting obligations relevant to the retailer's role;
- f. receiving and managing all CDR consumer complaints for retailer and AEMO held data; and
- g. data holder privacy safeguard obligations for AEMO-held data from the point the retailer receives the data and additional obligations consistent with the retailer's role and the privacy safeguards in relation to CDR data provided to retailers by AEMO.

## Role of AEMO

15. Under a P2P model AEMO will operate as a 'secondary data holder' that will disclose relevant CDR data to a retailer, when requested in accordance with the data standards. AEMO has significant data holdings as a result of its role as the energy market operator, however, AEMO is not able to contextualise the data it holds as it does not hold information that would allow it to identify a consumer to which the data relates.

16. Under the P2P model, AEMO will not be involved in a number of CDR processes, including interacting with consumers, and the authentication and authorisation processes that involve consumers. Additionally, AEMO will not be required to directly interact with accredited persons, or the CDR Register, at any point for the purposes of facilitating data sharing. The Registrar will not be required to keep and maintain meta data for AEMO as a data holder. AEMO will be required to respond to API calls from the Register for reporting purposes.

17. Broadly, under a P2P model AEMO will be responsible for:

- a. receiving and responding to requests from a retailer, for CDR data that is required for the retailer to respond to a consumer data request, in accordance with the data standards;
- b. providing reasonable assistance and information to retailers in connection with dispute resolution processes and CDR consumer complaints to the extent these processes relate to functions and activities performed by AEMO under a P2P model; and

- c. record keeping and reporting obligations relevant to AEMO's role and functions under a P2P model.
18. An important objective is for the CDR in energy to support anticipated use cases such as price comparisons and switching. To facilitate these and other use cases, an issue still to be resolved is the effective provision of historical metering data. Currently, AEMO does not capture information about when the customer associated with a NMI changes. Without this information, it is impossible to provide metering data in response to a CDR request for a period before the consumer signed up with their existing retailer. This is to ensure the privacy of previous residents of a property remains protected.
  19. The Australian Energy Market Commission (**AEMC**) is currently exploring whether this issue can be addressed through potential regulatory changes, in light of the AEMC's current market review of the regulatory framework for metering services.<sup>1</sup>

## 1.2. Rules considerations

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### Interoperability and extensibility

20. For the purpose of this paper, the P2P model is being discussed in the context of the energy sector, however, we consider the P2P model is extensible to other sectors. A key design principle of CDR is implementing a universal approach. Therefore, the rules that give effect to a P2P model will be economy-wide provisions to the extent possible. Sector-specific rules for the energy sector will only be developed where necessary, having regard to the unique characteristics of the sector.

### Data holder to data holder interactions

21. The rules will make clear what a retailer is required to do when a retailer receives a consumer data request that involves AEMO held data. The retailer will be required to request AEMO to disclose the relevant CDR data that it holds to the retailer so that the retailer is able to disclose the requested CDR data in response to a consumer data request.
22. To enable a P2P model to function, AEMO must be able to receive and respond to requests for CDR data made by a retailer. The rules will require AEMO to provide an online service that is able to receive and respond to requests from retailers for CDR data that it holds. The provision of this service will be the extent of AEMO's requirements to provide online services and AEMO will not be authorised to respond to requests from other CDR participants or CDR consumers.
23. The rules will authorise the disclosure of CDR data from one data holder to another, therefore we expect the rules will reflect that AEMO is authorised, but not required, to respond to a request from a retailer for CDR data. As outlined below in section 1.3 Standards considerations,

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<sup>1</sup> See <https://www.aemc.gov.au/market-reviews-advice/review-regulatory-framework-metering-services> for further information on the AEMC's review of the regulatory framework for metering services.

we expect that the rules will require binding data standards to be made that govern the interactions between retailers and AEMO.

24. A P2P model will be designed to be consistent with CDR privacy obligations and ensure that the consumer data requests made to retailers are for the purpose of an ADR receiving and using the requested CDR data in accordance with a CDR consumer's consent given to the ADR. The rules will therefore prohibit retailers from being able to use or disclose the CDR data that retailers receive from AEMO, except for the purpose of securely transmitting the data to an accredited person to fulfil a consumer data request.

#### Authorisations and consumer dashboards

25. The rules will require retailers to be responsible for providing consumer dashboards and all associated obligations relating to consumer dashboard management, including any withdrawal of authorisation by the CDR consumer.
26. AEMO will not be involved in the authorisation process, including the provision of consumer dashboards, and will not receive or hold any authorisation information. Nor will it be required to verify that a valid authorisation is in place to disclose the requested CDR data to the retailer.

#### Refusal to disclose required consumer data in response to consumer data request

27. A P2P model involves multiple data holders responding to a single consumer data request for a single product. The rules will specify that in circumstances where the retailer has received a consumer data request for both retailer and AEMO held data and has subsequently requested the relevant CDR data from AEMO, and AEMO has not disclosed the relevant CDR data it holds in response to the request from the retailer, the retailer will only be required to disclose the CDR data that it holds in response to the consumer data request.
28. As AEMO will not be interacting with CDR consumers or accredited persons, the rules will specify that in circumstances where the retailer has refused to ask a CDR consumer for an authorisation or refused to disclose consumer data in response to a consumer data request for any of the reasons listed in current rule 4.7, the consequence of such a refusal will be that AEMO will not receive a request for CDR data from the retailer.

#### Record keeping and reporting

29. The rules will require retailers to keep and maintain records for all existing matters contained in rule 9.3(1). Additionally, retailers will be required to keep and maintain records that relate to requests for CDR data they make to AEMO and relating to the responses they receive in response to any such request. AEMO will similarly be required to keep and maintain records regarding the requests made by a retailer for CDR data and any disclosures made, or not made, in response to any such request.
30. Reporting requirements under the rules will reflect any amendments made to record keeping obligations. This includes reporting requirements for AEMO relating to requests from retailers to, and responses from, AEMO for CDR data that it holds.



## AEMO – Internal and external dispute resolution requirements

31. As outlined at paragraph 15, AEMO will not be interacting with CDR consumers or accredited persons, nor will AEMO be able to determine the identity of a CDR consumer using the data they hold. The rules will reflect that due to the unique nature of AEMO’s role in the energy sector and CDR, AEMO will not be subject to the existing dispute resolution requirements for data holders. The rules will reflect that a retailer may request relevant information from AEMO in relation to a consumer complaint or dispute that relates to a consumer data request that involves AEMO held data, and that AEMO must provide the relevant information, to the extent that it is reasonable to do so.

## Privacy safeguards

32. The CDR privacy safeguards are integral to the privacy and control CDR provides to consumers and impose obligations on data holders and accredited persons.
33. Data holders are currently subject to obligations under the privacy safeguards in relation to CDR data for which there is a CDR consumer. As outlined in paragraph 15, AEMO is unable to identify CDR consumers from the data that it holds. Given this, regulations will be developed, for the purposes of section 56GE of the *Competition and Consumer Act 2010*, that will apply the relevant data holder privacy safeguard obligations to retailers, as the consumer facing entity in energy, for CDR data provided to the retailer by AEMO. These safeguards will apply to AEMO held data from the point the retailer receives the data from AEMO. For example, after responding to a consumer data request that involves AEMO held data, retailers will be required to notify the CDR consumer of the disclosure of AEMO held CDR data, in addition to notifying the CDR consumer of the disclosure of CDR data that the retailer holds.
34. A privacy impact assessment that includes a P2P model in energy, alongside a number of other issues will be conducted as part of the CDR rule making process.

## 1.3. Standards considerations

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35. With the exception of consultation on the account selection standards and the creation of data language standards for electricity data, we do not anticipate consumer experience data standards changes to support a P2P model.<sup>2</sup>
36. In relation to technical standards, the existing information security profile, CDR Register standards and high-level standards will not need to be altered to accommodate a P2P model. However, the expected technical standards changes are:
- a. a new information security profile to cover the communication between retailers and AEMO will be consulted on and defined. We initially intend that this security profile would be based on a B2B model and will, as far as possible, leverage existing mechanisms offered by AEMO to third parties;

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<sup>2</sup> Consumer experience data standards changes may be required for other areas that will impact energy sector participants, including the approach to joint accounts, which is being consulted on [here](#).

- b. technical standards defining the endpoints that AEMO will expose to retailers;
- c. modifications to non-functional requirements<sup>3</sup> to clarify the separate obligations of retailers and AEMO in responding to CDR data requests for data clusters for which AEMO is the designated data holder; and
- d. modifications to the metrics reporting mechanisms<sup>4</sup> to accommodate the reporting of metrics by AEMO.

37. Some changes to the CDR Register standards may be required to accommodate additional meta data for both data recipients and data holders to identify sectoral support. Specifically, this relates to a data holder nominating the sectors they support so that ADRs know which data holders to represent to a customer in the consent process. This is not strictly a requirement of the P2P model, but is a potential standards change nonetheless.

#### 1.4. Implementation considerations

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38. Stakeholders are invited to consider implementation of the CDR. See [wireframe 2.2](#) for a demonstration of how the peer-to-peer access model could work in energy. This wireframe can be accessed interactively [here](#), or via [downloadable PDF here](#). This can be compared with the current state model for banking [here](#), or [via PDF here](#).
39. The staged application of the CDR rules to CDR participants was a feature of the rollout of CDR to the banking sector. The banking sector phased in obligations both by participants and by the type of product offered by participants.
40. We are considering whether a staged approach to introducing data holder obligations may be appropriate, similar to the approach implemented in the banking sector. For example:
- a. the first tranche of participants might be the Australian Energy Regulator and (subject to the agreement of the Victorian Government) the Department of Energy, Land, Water and Planning, as data holders of product data only;
  - b. the second tranche of participants might include the largest retailers and AEMO, sharing consumer data with accredited persons;
  - c. a small customer connections threshold for mandatory participation in CDR may be worth considering. If a threshold is adopted, the third tranche of participants might be the remaining retailers above the threshold.

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<sup>3</sup> Non-functional requirements consist of the technical thresholds and levels that participants need to meet for their technical implementations. These requirements include considerations such as availability, responsiveness and capacity.

<sup>4</sup> The metrics reporting mechanisms include APIs to report of specific measures of performance. These metrics allow the regulator to understand both the performance and compliance of individual participants and the overall health and performance of the CDR regime as a whole.

41. The proposed implementation timetable is yet to be set by the Australian Government but we welcome feedback on considerations for the potential implementation timetable as outlined above.

#### Questions

1. Do you have any comments on the proposed rules as outlined at section 1.2?
2. Do you agree with the proposed approach to the standards changes as outlined at section 1.3? If not, why not?
3. Would you support a staged approach to the application of CDR rules as outlined in section 1.4? Why/why not?
4. Do you support a threshold for mandatory participation in CDR? What number of customer connections would be a suitable threshold?

## 2. Consumer accounts

### 2.1. Topic overview

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42. CDR is an economy-wide consumer-centric regime that provides consumers with intuitive, informed, and trustworthy data sharing experiences. How consumer accounts are structured and treated in the energy sector for CDR purposes is an important aspect of how consumers will experience data sharing in the sector. This topic seeks to obtain feedback from stakeholders on consumer accounts, to support the following objectives:
- a. ensuring the consumer experience for CDR in energy intuitive, informed, and trustworthy; and
  - b. extensibility and consistency in consumer experience in CDR across sectors.
43. When consumers share their CDR data today, they are able to select which accounts to share data from before they share that data with an accredited person. This requirement was developed for banking based on community feedback and to align with existing data sharing patterns, such as that of Open Banking in the UK.
44. The account selection requirements are considered appropriate in the context of banking given the meaning and value attributed to banking accounts. We understand that consumer accounts in the energy sector, for example, vary from banking accounts. Due to this variance, we would like to understand whether the existing account selection requirements are appropriate for the energy sector and, if not, the extent to which any divergence may be required to support an economy-wide approach.
45. The relation of accounts to authorisation is largely dealt with in the data standards. The technical data standards associate accounts with authorisations, meaning accounts are not bound to authorisations, and the consumer experience data standards allow consumers to select which accounts to share data from as part of the authorisation flow.

46. The current standards for account selection are as follows:

**Authorisation: Account Selection**

*Data holders MUST allow the consumer to select which of their accounts to share data from if the data request includes account-specific data, and if there are multiple accounts available.*

*Data holders MAY omit this step if none of the data being requested is specific to an account (e.g. Saved Payees).*

47. The account selection step is only required where the requested data relates to an account, or more than one account exists. We understand that most energy consumers only hold one account with their data holder. As a result, the account selection step will only be relevant to a small portion of energy consumers who hold multiple accounts with their data holder.

48. We seek feedback on whether accounts remain a meaningful element<sup>5</sup> of data sharing beyond banking, and what other considerations exist concerning consumer control over the sharing of accounts or equivalent elements to support an economy-wide CDR.

49. Initial analysis suggests three possibilities exist for the account selection standards:

- a. The account selection standards are deemed appropriate for the energy sector and maintained. This will allow energy consumers with multiple accounts to choose which accounts to share from but will add implementation cost and complexity when most energy consumers have only one account.
- b. The account selection standards are deemed inappropriate for energy and are amended to apply only to banking. This will mean that non-banking consumers with multiple accounts will not be able to choose which accounts to share from. All available accounts will be shared by default, which will reduce implementation cost and complexity.
- c. Elements other than ‘accounts’ are deemed more meaningful in energy or other non-banking sectors and the standards are amended accordingly. This can provide more control for non-banking consumers with multiple accounts or equivalent elements but will add implementation cost and complexity based on the appropriate element to disclose from by sector.

50. See [Flows 2.1 – 2.3 \(PDF versions\)](#) for hypothetical examples concerning the account selection step.

## 2.2. Rules considerations

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51. The treatment of consumer accounts in the energy sector will not have a significant impact on rules considerations and will not require amendments to the rules.

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<sup>5</sup> For the purposes of this paper, the term ‘element’ is used to refer to a potentially discrete aspect of a consumer’s plan or account that may generate data about different subjects. A hypothetical example for an electricity consumer may include two distinct NMIs which relate to two separate properties.

### 2.3. Standards considerations

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52. The standards implications vary significantly for the various options for the treatment of consumer accounts in the energy sector. These implications affect both the technical and the consumer experience aspects of the standards.

#### Technical standards considerations

53. The key impact for the technical standards is whether electricity accounts are treated as a normal data record for data sharing, such as an invoice or a transaction, or whether an explicit election to attach an account to an authorised consent must be made by the consumer.
54. For the technical standards, the first scenario is simplistic to define and for data holders to implement. The authorisation of the data scopes that include account data will allow for all accounts to be shared using the APIs allowed by the authorisation of the scopes.
55. To align with the principle of cross-sector consistency, if the alternate model is adopted, energy accounts would be treated in the standards in the same way that the standards treat bank accounts in the banking sector. Specifically, this would mean that accounts would be 'attached' to an authorised consent and could, at the explicit instruction of the consumer, be detached or reattached to the consent without the consent itself being affected.

#### Consumer experience considerations

56. If the existing account selection standards are found to be appropriate for sector-wide application, then no changes to the consumer experience standards are required and these standards can apply similarly to the energy sector and subsequently designated sectors.
57. If the account selection standards are not seen as appropriate for the energy sector, these standards will be reviewed, and any appropriate changes consulted on. We expect that this would result in an amendment to the account selection standards to clarify how and why they do not apply to the energy sector.
58. If the account selection standards are not seen as appropriate for sectors other than banking, these standards will be reviewed, and any appropriate changes consulted on. We expect that these standards would become specific to banking unless a need arises to support an equivalent pattern in a subsequent sector.
59. If more appropriate elements than accounts are proposed for selection, the account selection standards will be reviewed, and any appropriate changes consulted on, so these standards apply appropriate and flexibly for sectors beyond banking. We expect that this would result in the concept of 'accounts' being amended in a sector-agnostic way, so these standards can apply flexibly to equivalent elements, deemed meaningful, based on the relevant sector.

### 2.4. Implementation considerations

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60. Based on the experience gained in the banking sector, we expect that the adoption of the more simplistic model for consumer accounts would significantly reduce the implementation time and cost for data holders and accredited data recipients.

61. If a consumer is able to choose which accounts should or should not be included in a specific data sharing arrangement, then each retailer will need to implement 'account attachment to consent' as a technical pattern. It should be noted that this impact is independent of how secondary users, non-individual and business partnerships are managed, as these requirements would normally be implemented as attributes of the account rather than attributes of consent.
62. If the ability for consumers to elect to include or exclude accounts from a consent is adopted, then data holders and accredited data recipients would need to accommodate the following in their implementations:
  - a. the ability for a consumer to choose which accounts to share from during the authorisation flow; and
  - b. the ability for a data holder to reliably communicate an amended list of accounts if it is later changed and a data request is made.
63. While the more simplistic model will reduce implementation time and costs, it will also mean that non-banking consumers will not be offered the choice to control which elements to disclose data from. All available accounts or equivalent elements will be included by default.
64. See [Flows 2.1 – 2.3 \(PDF versions\)](#) for hypothetical wireframe examples concerning the account selection step based on current and hypothetical states.

#### Questions

5. Are the existing account selection standards appropriate for the energy sector and, more broadly, economy-wide? Why/why not?
6. Are other elements appropriate equivalents to or substitutes for 'accounts' in other sectors for the purposes of this standard? If so, what are some examples?
7. Should the account selection standards be amended to apply flexibly and in a sector-agnostic way? If so, how might this occur?
8. What other considerations exist concerning consumer control over which elements to share data from?