
AEMO Submission: ACCC Consumer Data Register Energy Consultation Paper

March 2019

Consumer Data Right (CDR) in Energy
Submission for the Australian Competition and Consumer Commission

Structure

AEMO's submission is structured in two parts. Part one outlines some considerations relevant to designing CDR in energy. The second part presents AEMO's response to the questions posed in the ACCC Consultation Paper on Data Access Models for Energy Data (The Consultation Paper).

1. Consumer Data Right

Designing an access regime to deliver value to consumers.

The development of the Australian 'Data Economy' is forecast to be one of the key drivers of growth across the Australian economy. The Consumer Data Right (CDR) program is a key foundational element of this development, and therefore effective implementation of CDR is crucial.

As the ACCC Consultation Paper rightly highlights, there have been a multitude of wide-ranging inquiries which have enunciated the potential benefits in data liquidity for consumers¹. More recently, the COAG Energy Council (COAG EC), through the Houston Kemp process, considered several options for CDR in energy, and following stakeholder engagement recommended a model for energy which aligns with the Commonwealth legislative framework. It is disappointing that 12 months on from the COAG EC work, the options are being re-considered by the ACCC and we have not progressed this important work, delaying the potential value to energy consumers at a time when the industry is undergoing significant change and data and information will play a key role in enabling consumers to make informed decisions and access better deals that serve their needs from existing and new players.

AEMO considers that the gateway model best meets the objectives of CDR now and into the future accounting for a range of factors including:

- J observations from the inquiries referenced by the ACCC
- J the objectives and principles of CDR
- J structures in place to facilitate consumer outcomes including the role of AEMO in facilitating this
- J significant reforms through the introduction of the Shared Market Protocol (SMP - also known as the e-hub) implemented 12 months ago
- J learnings from our international counter-parts, respects the roles of various players in the markets including retailers, and the simplicity and flexibility of the model noting the multitude of players and the changing energy landscape.

AEMO considers the "economy wide" model has limitations including introducing complexity and duplication into the sector, does not appropriately recognise the multitude of players in the industry including the role of data in both transactive-based and system-based processes, and the changing energy landscape.

The implementation of the CDR in the energy sector presents an opportunity to unlock considerable value for consumers in the energy market and beyond. An efficient and cost-effective solution to third-party access to energy data can be achieved and it could underpin innovation in these markets, driven by both new and existing participants. To achieve this, the ACCC needs to consider the appropriate access regime for data considering the following:

¹ The Paper

CDR objectives and legislative principles - we are designing an access regime.

As the ACCC correctly notes, the CDR “provides individuals and businesses with a right to efficiently and conveniently access specified data in relation to them held by businesses. The CDR authorises secure access to this data by trusted and accredited third parties. The CDR requires businesses to provide public access to information on specified products they have on offer. CDR is designed to give customers more control over their information leading, for example, to more choice in where they take their business, or more convenience in managing their money and services.”² The legislation also references designing rules for the sector that are in the “...interest of consumers, efficiency of relevant market, promotes competition, promotes data driven innovation, privacy and confidentiality, and the public interest...³. It is these principles that need to be considered when deciding about CDR.

When considering the objectives and principles, at the heart of CDR is designing an “access regime” and so incentives play a key role in enabling third parties to, in a timely and efficient manner, access data and drive competition in consumer offerings, whilst continuing to evolve CDR in the interest of consumers. In addition to this, there are important learnings from our international counterparts around designing CDR type regimes and what has and hasn’t worked. At the heart of these learnings is recognising the role of players in the sector and their incentives to encourage competition and innovation. AEMO would question the ability for the economy wide model to achieve these objectives and principles.

Data access exists in energy – but it doesn’t work.

Facilitating consumer access to data is not a new concept in the Australian energy market. There are existing data access provisions in energy regulatory frameworks, such as under Chapter 7 of the National Electricity Rules (NER), yet despite these, energy data liquidity in Australia is poor. The key drivers of this outcome are firstly, a lack of definition with regards to how consumers and their agents gain access to relevant data, particularly consent management obligations and processes. Secondly, there are no ubiquitous set of standards for provision of the data; and thirdly, incentives to facilitate competition in the provision of data and information services by existing requirements. These issues sum to a process that creates unnecessary barriers to access and impaired usability of the data once sought. The implementation of the CDR can change this, if the process is informed by lessons learnt from previous attempts at the same outcome, and from the experience in similar markets around the world.

Multitude of players in the provision of services to consumers.

The Australian energy sector encompasses a wide range of participants, including service providers at various stages of supply and value chains, consumers at the end of these various chains, and various government actors overseeing outcomes across the sector. Today, there are approximately 80 retailers trading the electricity market, 13 distribution businesses, over 20 metering service and data providers, 25 embedded network operators, and many third-party providers.

Recognising the multitude of players in the energy sector, ranging in size, in 2014 the AEMC as part of competition in metering reforms, completed its access review in which it recommended the implementation of the Shared Market Protocol (SMP or e-hub, which is in effect a communication platform linking various parties in the energy eco-system). The AEMC recommended the SMP to promote competition, reduce duplication, and reduce barriers to new energy service companies without inhibiting innovation in communication methods. AEMO, in consultation with industry, implemented the SMP in December 2017. The SMP includes various features to support large and small players in the industry (including Low Volume

² Treasury Laws Amendment (Consumer Data Right) Bill 2019, Explanatory Memorandum, paragraph 1.1.

³ The Bill, section 56BP (which applies the matters in sub-section 56AD(1)).

Interface processes for very small players), today over 148 participants use the e-hub, and it supports on average 21,000,000 transactions per day.

AEMO as the independent market and system operator in the energy sector currently plays a role in data flows throughout the industry. Our capabilities in this space are unique and are intended to maximise efficiency and minimise costs. Through the offering of the SMP, AEMO effectively and efficiently plays the role of both the 'postman' and the 'translator' for the entire sector. Services are requested and acknowledged, and essential flows of information enabled, via standardised means and formats, through these existing mechanisms. They ensure that data transfer processes underpinning broader service provision benefits all consumers and the market more generally. Through leverage and augmentation of existing systems, processes and capabilities, AEMO is well placed to play a supporting intermediation role in the CDR in energy, negating unnecessary and inefficient cost associated with duplication of the development of technical capabilities, in addition to the associated auditing and compliance regimes. This process also enables parties to access the data sets afforded to AEMO as part of its system and market operation function.

The energy landscape is changing and so too are the relationships with the consumer.

The energy system is moving from a one-way power system with an exclusive customer-retailer relationship to a distributed and digitally enabled system with consumers having a multi-party relationship with a range of energy services such as energy aggregators, neo retailers, community-based retailers, home automation providers etc. As we move to a distributed system, AEMO as the independent system and market operator in energy, will use distributed resources to manage the power system securely and reliability, and will need to be able to have visibility of the consumer data and rely on it for operational purposes to run the power system, and forecast and plan the system.

As the ACCC paper highlights, in today and tomorrow's landscape, there is no one holder of data. Given the various roles and responsibilities, data resides with various parties including AEMO. Furthermore, parties need at least 12 months' worth of data to ensure they make appropriate consumer offerings. This recognises the seasonal nature of energy consumption. This together with a high churn environment, presently up to 25% churn per month and this is likely to increase with improvements to switching processes, it is therefore important to design a regime which is flexible to various and multiple data holders. On the other hand, for those seeking to access data, it is important to minimise complexity in their ability to access the data, otherwise it undermines the purpose of CDR. The gateway model respects multiple data holders while at the same time enabling data recipients to come to the one place to access the necessary data either from AEMO if we have the data or others through the e-hub.

AEMO's independent role.

Unlike banking and telecommunication, AEMO exists in energy to ensure services are delivered to consumers reliably, securely, efficiently, at least costs, by creating a level playing field and facilitating consumer choice. Unlike other industries, energy data plays a role in both system operations as well as facilitating transaction-based markets and processes. To enable the various electricity and gas systems to operate as effectively as possible in the dynamic and transforming energy industry requires internal capability, systems and robust data management policies, as well as industry-leading cyber security programs. It is this unique set of responsibilities, knowledge and associated capabilities which puts AEMO in a position to play a key role in working with the industry to implement CDR in energy.

Data is a key part of running and optimising the power system. AEMO is currently a data and information provider. AEMO does not just "pull" data in, but "pushes" data and information out to help all stakeholders, including consumers, make short and long-term decisions regarding operation, investment and consumer offerings. As we move to the kind of future projections we are seeing with adoption of rooftop solar, electric

vehicles, battery storage, smart meter data and other IoT devices and the move to more granular data, 5-minute settlements, and high resolution data of the kind we are seeing with the virtual power plan (VPP) products, we are projecting a future where we need to manage significant volumes of data.

AEMO as an independent party, will be responsible for providing the best possible service to third parties and consumers – facilitating greater competition and choice between third parties and retailers. This also creates a level playing field between players in the market. No other party has an interest in enabling a frictionless experience in the provision of data to facilitate greater competition in the provision of services to consumers.

Consumer privacy and security.

AEMO acknowledges consumers' number one concern when it comes to the CDR is the privacy and security of the information at the core of the program. Alongside the frameworks to facilitate the portability of this data, an equal, or greater amount of attention needs to be paid to how consumers provide consent to the use of their data, the timeframes in which this use occurs, and how the data is treated once the service is provided. AEMO is committed to ensuring the best outcomes for consumers in this context and sees that a consent management function could be a key role of an independent, trusted intermediary with a strong record of prudent and secure information management. Establishing such a function would not only facilitate a single point of connection for consumers seeking to understand the use of their data, minimising friction in the system, but would also minimise costs to the all parties engaging in CDR transactions.

With regards to data security, AEMO is leading a cyber uplift program across the industry, which includes data security. AEMO has proven experience and the systems to handle large volumes of data and presently facilitates data access within an environment of maintaining data security. As a function of our existing services, AEMO handles consumer data, including sensitive information such as life support. While AEMO does not store this in our system today, ensuring controls are in place to secure this, and any additional personal or sensitive information, would be of the highest priority in the implementation of CDR.

Interoperability doesn't mean like-for-like alignment to the detriment of consumer outcomes.

Whilst a key tenant of the CDR is interoperability, that doesn't necessarily translate to like-for-like alignment of the implementation regime across sectors. From the perspective of AEMO, the goal of CDR should be to achieve a level of data liquidity within and across sectors, such as never been seen before in the Australian economy, underpinning a wave of growth and innovation. With the program being rolled out in the Australian banking industry, albeit in a limited fashion at first, and then subsequently across the energy and telecommunications sectors, the focus should be on understanding the differences between these, rather than seeking seemingly arbitrary points of alignment. Particularly in the comparison between the banking and energy sectors, understanding the fundamental difference in the role of data is crucial. In the case of the former, data flows are underpinned by entirely virtual constructs, with only a passing semblance of physicality. The latter is underpinned by predominantly physical constructs, and the nature of data flows reflects this. It is points of differentiation such as this which the process to-date has failed to consider.

This notion isn't revelatory, but in fact supported by the drafting of the Consumer Data Right Bill (The Bill). Section 56BA(2) of The Bill clearly sets out the powers the ACCC has in acknowledging the differences between sectors, and the ability of the Commission to make differentiated rules based on these, such that the overarching goal of the legislation is achieved, for the ultimate benefit of Australian consumers. AEMO is of the view that proper work needs be done to understand these differences, and advice sought from appropriate sources within each designated sector, such that the best outcomes can be realised.

The notion of the CDR being an 'economy-wide' data right is one AEMO supports, acknowledging that there is potential for the amalgamation of data sets across sectors to provide considerable value to consumers.

Acknowledging that, the right applying across sectors doesn't entail that the approach to the implementation of the right needs to be identical for each individual industry. Taking into account the circumstances for each sector under consideration is not only logical, but also prudent. In the energy sector, this entails the consideration of the aforementioned data transfer processes and standards, technology already in place and the roles played by existing actors.

2. AEMO Responses to ACCC questions

The below sets out the AEMO response to the questions posed by the ACCC in The Paper.

Question 1: Are there any other assessment criteria or relevant considerations which the ACCC should use to determine a preferred model for consumers to access their energy data under the CDR?

AEMO considers that the major shortcoming of the paper as structured, fails to ask the central question of whether respondents agree with the implicit premise of the models, or which of the models presented align with the overarching objectives of the CDR program. If this question were posed the Commission would be, in short order, able to ascertain the alignment between the models, the legislation, and the themes and issues which are driving the change. Consideration at this highest level may result in the choice between implementation outcomes being considerably simpler, even if solely based on improving competitive outcomes and driving increased value for consumers.

Question 2: Having regard to the assessment criteria, what are the advantages and disadvantages of each of the models?

The second option set out in The Paper, the so-called 'gateway' model, has the greatest potential to meet the objective of energy data liquidity, driving competition and innovation to the ultimate benefit of the consumer. As aforementioned, AEMO plays a unique role in the energy sector and exists solely to facilitate energy markets and consumers.

) User Functionality

The Consultation Paper makes two major points with regards to any future use cases of CDR; firstly, that meaningfully understanding energy consumption patterns requires a minimum of 12 months of data, to account for the considerable impact of seasonality, and secondly, consumer engagement requires as minimal friction during the process as is possible to be achieved. AEMO agrees with both assertions, and experience from existing providers, such as Victorian Energy Compare (VEC) and NSW Energy Switch, provides evidentiary support also.

At present, Victorian consumers are effectively empowered to access their energy consumption data, via their DNSP under the [Victorian Regulatory Instrument], for the purposes of sourcing a comparison via VEC. The VEC website, and relationships with several of the DNSPs facilitates this to an extent, but the uptake of data access still only accounts for 10% of total usage of the VEC's service, despite the near complete rollout of Advanced Metering Installations (AMIs) across Victoria. The friction created by both the fragmented route to access, with five DNSPs playing a role, and the aforementioned access and consent management processes undermines the user experience provided by VEC, and thus the significant value of data in this context goes unrealised.

This is only a single potential use case for the CDR, amongst many others including the similar experiences of equivalent services in other jurisdictions in attempts to facilitate data access but highlights that consideration of the user experience is crucial to the overall efficacy of the program. These issues will increase exponentially under the implementation of the economy-wide model, in the context of a system that has over 80 retail providers (Financially Responsible Market Participants (FRMPs) servicing over 10 million connection points. Under the 'gateway' model, the single point of access for both Third-Party Providers (TPPs) and consumers, combined with a well considered and apportioned consent management regime and consistent data standards, provides a solution that meets these needs. The ability for the 'gateway' to source data from both AEMO databases, imposing no additional cost on participants, or databases managed by other providers is a key benefit of the model, both from a user functionality and cost effectiveness perspective. The existing AEMO retail market systems highlight this benefit for users at present, providing a multi-lateral, standardised service that participants can leverage that negates the need for bi-lateral arrangements, reducing friction and thus cost to consumers, across the sector. Such obvious benefits could be provided to consumers and TPPs under a well-considered CDR implementation.

) Cost Effectiveness

Under any of the models being considered there will need to be some development of connectivity solutions for various data holders, to create a complete dataset spanning 12 months. Having said that, there is certainty of duplication in build and associated costs under the economy-wide model across at least two areas, third party accreditation confirmation and consent management.

For a data holder to confirm the accreditation status of a TPP they will need an interface with the ACCC 'Address Book' solution. Under this model, each individual holder will have an identical requirement and the fixed costs of meeting this will mirror every other solution. This requirement to build out an interface with the ACCC database will impose significant fixed and ongoing costs on organisations that already need to maintain similar connectivity with market systems, without being able to leverage these existing resources, and the costs of doing so will be borne equally by participants large and small. With over 80 participants in the market, this significant expense could become a further barrier to competition for those less well-capitalised.

The situation for consent management is likely to be a similar. Rather than requiring all data holders to build individual solutions to manage consumer consent to the transmission of their data, including ongoing oversight and audit requirements, an appropriately specified and agreed solution could be offered as an element of the intermediated solution. A gateway-hosted consent management solution would mean that consumers could rely upon a single, independent, trusted source for this key piece of the CDR infrastructure. This would simplify the experience and reduce the associated costs for both consumers and accredited third parties.

This is an additional benefit of an AEMO intermediated solution, with each participant who has a requirement levelled against them under CDR being able to benefit from the provision of an industry-wide service. The upfront costs to build the solution as an element of a 'gateway', as well as the fixed ongoing costs, would be able to be scaled against all data holders, current and into the future, for the benefit of the market and ultimately to consumers.

) Interoperability

As covered earlier in the document, designing an interoperable solution doesn't entail identical solutions between sectors. The key point on interoperability is a consistent implementation data and access standards, irrespective of which organisation may be hosting the service. On that basis, the 'gateway' model is capable of meeting the interoperability requirements of CDR implementation as any other model under consideration.

As a counterpoint, implementation of the economy-wide model in the energy sector, on the basis that it mirrors the implementation in the banking sector, may in fact hinder interoperability. The expected rollout of CDR in banking has been done such that it leverages internet banking portals, existing mechanisms for access and consent management that the major banks utilise in servicing their customer base. Equivalent customer

access mechanisms and services don't exist in ubiquity in the energy sector, as to-date consumers haven't been aware of the need to be as actively engaged with their energy data as they have with their banking data. Online portals in the energy sector are being built by some providers, mostly the largest participants, but are certainly not a requirement of doing business as they are in the banking sector.

Thus fit-for-purpose solutions to managing these access and consent management requirements will need to be developed which are guaranteed to differ from banking implementation. With the requirement for a continuous dataset spanning and minimum of 12 months, the solution designed will need the ability to ensure that once a consumer switches retailer, their data from previous providers is still accessible via the same mechanism. Also, the opportunity for consumers to actively control which TPPs have access to their data, via a single platform, hasn't been a consideration for CDR in banking. In this respect the energy sector presents the Commonwealth Treasury, ACCC and Data61 with an opportunity to develop new elements of the framework which will facilitate interoperability between sectors, such as an intermediary function.

) Efficiency of relevant markets

An important benefit of any intermediary function is the promotion of competition. The prerogative of the intermediary is to facilitate trade in products and services and scale the fixed costs of such facilitation, for the benefit of those seeking to engage in such trade. Thus, there could be expected to be even greater benefit in appointing an independent, non-profit third-party to the role of intermediary, or 'gateway', in the context of CDR in Energy. As previously referred to, the roles which AEMO fills in the Australian energy system and markets is to the benefit of those, and ultimately consumers. The 'gateway' model for CDR in energy is proposed as such that not only would it facilitate trade of data between TPPs and energy market participants, but also to leverage data resources which AEMO manages. This goes beyond a standard intermediated model, further reducing costs and increasing efficiency due to leveraging assets, systems and processes already in place. This outcome would drive increased competition, and consequently innovation, in the Australian energy markets, through facilitation of efficient and cost-effective access to data, both sets designated initially and any added under future iterations.

Conversely, under the economy-wide model, placing the onus for providing data liquidity on those with a clear self-interest in the illiquidity of the resource is highly unlikely to result in more efficient outcomes in competitive markets and greater value flowing through to consumers. There are lessons to be learnt from the implementation of data access regimes in other markets around the globe, such as the Green Button initiative in the United States. Under the initiative, the utilities are tasked with facilitation of the data provision through to third parties acting as agents of the utility's customer base. The result of this decision has resulted in the service being largely ineffectual, with large time delays, and associated costs, for those seeking data. This has had direct and undesirable consequences for energy markets and innovation, resulting in ultimately no greater levels of competition in target markets.

) Reliability, security and privacy

There are several points to be made on the security, reliability and privacy elements of the data access regime in the energy sector. Firstly, the SMP currently facilitates the flow of both personal and sensitive information between market participants and has the requisite security protocols and reliability standards in place to support this function. AEMO's cybersecurity regime is industry-leading, and appropriate for the purposes envisaged under the implementation of the CDR, and operating a single, highly secure point of connection would be expected to be a preferable outcome to many points of connection being managed separately. AEMO understands and agrees with the views of many stakeholders that appropriate privacy and security controls are central tenants of a successful implementation of the CDR, giving consumers confidence in their use of the system whilst facilitating competition and innovation on the part of third-party providers.

Secondly, from a reliability perspective, AEMO retail systems have recorded uptimes in the order of 99% historically. On both bases, as a function of work underway, and irrespective of the CDR, AEMO is further expanding its capability to manage far larger transaction volumes across our suite of systems, whilst maintaining or improving both security and reliability standards.

) Flexibility and Extensibility

AEMO agrees with the iterative approach to the implementation of the CDR in energy, with NEM consumption and standing data being the key datasets designated initially, but consideration needs to be paid to the future as much as the present. Looking beyond the initial arrangement, data holders for future data sets will be a separate set of entities to those being considered for the initial implementation, as the market evolves, and new participants emerge. As such, an intermediary function will minimise friction, cost of access and speed to market for future iterations. A well-designed and standardised access regime, one which is agnostic to which organisation holds relevant data at present, will future-proof the system in a time of significant change. The 'gateway' model is the basis of such a design, with the ability to connect stores or data with those seeking access. When further datasets are designated under future iterations of the CDR in Energy, such as gas and non-NEM electricity consumption data, the gateway will be able to connect TPPs with the data holders, many of whom are well-versed in use of the B2B and B2M technology that AEMO operates. As such, there is a strong case for the implementation of the 'gateway' model as a hedge against changes in the energy sector which in another decade, bare increasingly less resemblance to the system as we know it today.

Question 3: What is the likely implementation/compliance costs for market participants (including accredited data recipients) under each of the models, including costs associated with IT system changes or data storage?

Calculating the exact costs of implementation is not something which can, or should, be sourced via a consultation process such as this. Such an assessment is a specialist piece of work, which would rely upon careful consideration of assumptions of decisions yet to be made and should be undertaken separately by a specialist provider. AEMO supports such a piece of work being undertaken as a function of the implementation of CDR.

Having said that, what can be known for certain is the simple math associated with specific elements of the proposed system underpinning the CDR in Energy. As aforementioned, the development of the accreditation regime and associated ACCC 'Address Book' function will be costlier under the economy-wide model than either of the other two under consideration. This could also be extended to the development of the consumer consent management model designed for the system as it is implemented in energy, although the work on defining the details of this are still yet to be done by the relevant parties. The ability to scale the upfront and fixed ongoing costs of these requirements over all data holders presents a significant opportunity for minimising cost to consumers. Doing so would be also be taking the effect of the CDR rules on the interests of consumers, the efficiency of relevant markets, and the promotion of competition into direct account.

Furthermore, in Energy all industry data holders currently have IT systems that interface to the SMP.

Question 4: What additional requirements should the ACCC consider including in the CDR rules for the energy sector if the gateway model is adopted?

If the 'gateway' model is preferred for implementation of CDR in energy, consideration will need to be paid to maximising the benefits of an intermediated solution. Raising the question as to which functions of the system are best served by being hosted at the level of the 'gateway', such as connectivity to the 'address book' solution and consent management, to maximising the efficiency of costs incurred during implementation and maximising value flowing through to consumers as a result.

Question 5: What emerging technologies do stakeholders believe will have an impact on the energy sector with respect to the CDR?

The Australian energy sector is undergoing the largest transition in decades, and possibly ever. Consumers are being empowered through the development of and access to distributed resources, new markets are being created and new entrants are investing across the sector. In the years to come the sector will witness the development of new product and service offerings, the increasing incidence of multi-party relationships,

and the emergence of a truly two-sided market. The expanding requirements on system planning and operations to take account of these changes, clearly highlights the role AEMO plays in managing these for the benefit of all participants and consumer.

The CDR needs to take account of these significant shifts in the sector, and what roles existing, and new participants will play as the transition progress. In the first instance, the development of the Distributed Energy Resources Register (DERR), a record of the static details of DER assets at a connection point, needs to be considered. The register will be a function that AEMO operates and maintains, and access to under the CDR needs to be considered independently to other static data store, such as NMI Standing data. Beyond the DERR, other emerging activities, such as Virtual Power Plants (VPPs) and Demand Response Mechanisms (DRMs) are ways in which the energy sector is rapidly shifting, and access to associated data flows will be crucial for consumers to maximise the value they can derive from these types of developments.

Question 6: What are the cost differences to participants of providing data once a day (to an AEMO repository) or on demand?

AEMO as a data holder provides both on-demand and daily data services to stakeholders in most of the energy markets. In our experience, the potential cost differences between on-demand and a daily publish are largely based on the service levels and availability required of the on-demand service and whether a business has already stood up capability to provide on-demand services.

Again, as with question 3, a holistic assessment of the costs of implementation of any model being considered, is a specialist piece of work and should be treated and sought as such.

Question 7: What is the competitive impact, if any, of accessing data through AEMO rather than through a retailer?

The potential role for AEMO in the implementation of the CDR in Energy is to facilitate data-sharing, trade, development of products and services, and ultimately competition. The role of a 'gateway' is to serve as the bridge between service providers, data holders and the market, enabling value to be unlocked for consumers through efficiency gains and costs being managed in the most effective manner for this key beneficiary. AEMO serves as an element of the systemisation of data liquidity, not a competitor itself in the markets underpinned by this system.

Further comments related to the efficiency of markets and the competition outcomes of the implementation of CDR in energy are covered under the relevant section of question 2.

Question 8: Are there any other issues that stakeholders wish to raise?

There are two key points that AEMO views as not having been drawn out as an element of this consultation. Firstly, the parties charged with implementing CDR should fully acknowledge the iterative nature of the program, both within and between sectors. Leveraging the knowledge garnered from the experience of the implementation banking industry will be crucial to ongoing positive outcomes as the program progresses across the economy. Such learning includes the decisions made relating to leveraging existing infrastructure and processes, and how these may or may not translate across industries. Understanding this will require insight from key players in each designated sector, utilising knowledge of past, current and future initiatives, as the execution of the program progresses.

Secondly, engagement with a comprehensive suite of stakeholders will be crucial to receiving feedback to this consultation process from all relevant stakeholder groups. Feedback will only be valid if the Commission seeks to engage not only with the existing market participants, but also with new entrants to the sector and those driving the innovation agenda across the industry. A well-informed decision on the implementation of CDR in Energy will encompass where the sector has been, where it is at present, and understanding the direction in which its headed.