Enabling market evolution: Market Operation Service Provider 10-year roadmap

Consultation paper

2/06/2026

ELECTRICITY AUTHORITY
TE MANA HIKO

Executive summary

The Electricity Authority Te Mana Hiko (Authority) is seeking feedback on our view of the issues facing our Market Operations Service Provider (MOSP) contractors and our proposed approach to modernising the services.

We contract five contestable MOSPs to operate the electricity markets efficiently and facilitate market development:

(a) **Clearing manager** – responsible for financial management and settlement of wholesale market transactions

(b) **Reconciliation manager** – ensures consumption volumes are allocated to the correct traders for settlement

(c) **Wholesale information and trading system (WITS) manager** - responsible for managing spot market data transfers and publication

(d) **Registry manager** – maintains the register of consumption ICPs and the registry hub for managing regulated consumption data requests from approved third parties

(e) **Financial transmission rights (FTR) Manager** – operates the FTR market

Demand for data is growing

The MOSP roles require that large amounts of data are transferred between themselves and market participants daily. These high-volume data transfers are usually scheduled and predictable. This has allowed legacy systems, such as CSV file transfers, to remain in service as they adequately support the data load. The relatively small number of interfaces and uses for the data has historically limited the need for significant upgrades.

As the electricity market has matured and technology has improved, the need for wider and more timely access to market data has increased. This is increasingly true of consumer data.

Changes, such as the increased use of domestic solar and battery systems and the need for greater operational visibility of resources, will likely increase the volume and complexity of data stored and transferred.

Administrative complexity vs contestable procurement

The five contestable MOSP contracts are contracted separately at present, reflecting the view that competition in provision is more likely if services are discrete and able to be performed by different entities. In practice, contestability of the services is more limited by their nature. In particular, delivering on the contracts requires significant asset-specific investment, the services must run at a very high degree of reliability, limiting the scope for innovation, and the Electricity Authority, rather than the providers, determines how the services change and funds the costs of making those changes over time. The MOSP contracts have also largely remained with incumbent providers over the last 20 years. The relatively small size of the individual contracts was thought to have restricted efforts to expand the pool of tender responses.

The number of MOSP contracts also presents costs and challenges to the Authority, particularly where adjustments to services in response to market changes impact more than one MOSP. The re-tender process also takes significant effort when five contracts are up for renewal. The Authority has staggered the contract expiry times in the past.

Our proposed changes

To address these issues, the Authority is considering a long-term plan to rationalise and re-scope four of the current MOSP roles to improve efficiency for both the Authority and the wider market. The FTR Manager role is self-contained and does not face the same data access and change management pressures as the other four services.

Our plan is one possible approach to enhancing the MOSP services. This approach has been developed based on issues raised by participants and issues noted by the Authority. We acknowledge this may not be the only way to restructure the MOSP services. We are keen to understand industry perspectives on how the MOSP services could be re-shaped to provide a more efficient wholesale market.

At this stage, we are proposing two main changes by the early 2030s:

a) **Redefine MOSP roles from a larger number of functional contracts to a smaller number of service-based contracts.** This will reduce the complexity of commercial management of the contracts and simplify future changes to the MOSP systems. The increased size of the MOSP roles may also increase competitive tension during contract renewals and reduce overall costs to consumers.

b) **Simplify and modernise data interfaces across the MOSPs and market participants.** This change should reduce barriers for entry, innovation and competition in the wholesale and retail markets. Simplifying data interfaces should also reduce unnecessary system friction for current participants. Providing modern, consistent data interfaces across industry will also better support new data uses, such as operational visibility of distributed and consumer energy resources.

Next steps

We don’t expect to make this scale of change immediately. In this paper we propose a staged approach to evolving the MOSP services that can adapt its pace and scope to meet the needs of the market and participants over the next 10 years.

Our first step will be to reinforce the need for up-to-date data sharing and cyber security arrangements through the current re-tendering round. These changes will take effect from June 2027.

Contents

Executive summary **2**
Administrative complexity 2
Demand for data is growing 2
Our proposed changes 2
Next steps 3
2 Purpose of this consultation paper **6**
3 How to make a submission **6**
4 What this paper is about **6**
5 What will follow **6**
6 Background **7**
Our MOSP contractual arrangements have not changed significantly since the early 1990s 7
But the use and usefulness of the underlying data has changed 7
EDB use of consumption data 7
No standard requirements for data communication and security protocols 8
Increased uses of data are being discussed 8
7 The Power system and consumer preferences are evolving **9**
We expect consumer involvement in the electricity market to grow 9
Stakeholders generally agree that consumer involvement will grow 10
Rewiring Aotearoa 10
Electricity Networks Aotearoa / Future Networks Forum 10
Consumer data right – electricity 10
We have explored these issues in previous consultations 11
Working together to ensure our electricity system meets the future needs of all New Zealanders 11
Evolving multiple trading and switching ..... **Error! Bookmark not defined.**
Our future is digital 11
Consumers and the market need to be supported with modern, flexible and scalable arrangements 12
8 Future market and consumers may be better supported with service-based MOSP roles **12**
The market has changed significantly over the last 30 years 12
New market arrangements may be better delivered with a service-focussed MOSP structure 12
Wholesale settlement manager 13
Data hub manager 14
Overseas markets are responding to the need for better data management arrangements 15
NEM – CER data exchange 16
NESO (UK) – Data Sharing Infrastructure (DSI) 16

NESO – sector digitalisation plan 17
Other CER/DER visibility projects 19
9 Foundational actions – 2027 MOSP contracting round 20
Intermediate development 21
Service based MOSP contracts 21
Datahub manager 22
Central meter data store 22
10 Next steps 22
Appendix A Submission form 23

2 Purpose of this consultation paper

2.1 The Electricity Authority Te Mana Hiko (Authority) seeks feedback on our view of the evolution of our market operations services.

2.2 The power system is changing rapidly and both the contractual and technical services provided by our service providers need to be able to adapt quickly and efficiently.

3 How to make a submission

3.1 The Authority's preference is to receive submissions in a Word document in the format shown in Appendix B.

3.2 Submissions should be emailed to **OperationConsult@ea.govt.nz** with 'Consultation - MOSP roadmap' in the subject line by 5pm, **14 July 2026**.

3.3 The Authority will confirm receipt of all submissions.

3.4 If you cannot send your submission electronically, please email [enter email address] or call 04 460 8860 to discuss alternative arrangements.

3.5 We will publish all submissions. If you consider that we should want publish any part of your submission, please:

(a) indicate which part should not be published and explain why,

(b) provide a version of your submission that we can publish (if we agree not to publish your full submission).

3.6 All submissions, including any parts the Authority does not publish, can be requested under the Official Information Act 1982. This means the Authority would be required to release material not published unless good reason existed under the Act.

4 What this paper is about

4.1 The New Zealand power system is undergoing significant change at all levels

4.2 New and lower cost consumer technologies are driving new business offerings for retailers and operating models for distributors

4.3 Regulatory changes such as consumer data rights and the need to see the flexible resources acting in the power system require more secure and timely access to data.

4.4 Traditional market service arrangements are not up to the task in their current form. Data transfer and storage platforms need urgent modernisation. The structural service provider arrangements, i.e. the number and scope of the contracts that we use, need to be able to meet the increasing pace of change efficiently and flexibly.

4.5 In this paper we're seeking feedback on our view of the changes needed to our MOSP services over the coming years to better enable the evolving market arrangements. Our time horizon is roughly the decade to 2035, but we are particularly interested in what changes might be necessary in the next two or three years. Our MOSP contracts have typically had three-year extendable terms.

5 What will follow

5.1 We will use your feedback to refine our plans for the MOSP services

6 Background

Our MOSP contractual arrangements have not changed significantly since the early 1990s

6.1 We contract a range of Market Operation Service Providers (MOSPs) to operate the electricity markets efficiently and facilitate market development. The core roles and responsibilities are defined in the Code with specific market-related obligations. Additional responsibilities and performance metrics are defined in the individual MOSP contracts.

6.2 For the most part, historic functional roles were transferred to the early market arrangements in the mid-1990s[1]. These early market arrangements were characterised by a relatively low number of participants and a common level of technological capability.

6.3 In October 1996, The Market Company (M-Co) was contracted to perform the clearing and pricing manager roles whilst Transpower retained the reconciliation manager role. M-Co also maintained the COMIT system for transferring wholesale market offers and schedule result information between Transpower and the wider market. The COMIT system was later re-developed into the wholesale information and trading system (WITS) and maintained as a separate MOSP contract.

6.4 As part of the 1998 electricity reforms, the ability for consumers to switch away from their region's incumbent retailer was introduced. In 1999, Jade Software were contracted to develop and manage the registry. At this point the registry only recorded those consumers that switched away from their region's incumbent retailer. This information was used exclusively in the reconciliation process to ensure the correct retailers were billed for their customer's electricity consumption.

6.5 The following years have seen only minor changes to the MOSP arrangements. The reconciliation manager role was awarded to M-Co in 2007. NZX subsequently bought out M-Co, taking over their MOSP contracts. The pricing manager role was disestablished in 2022, following the Authority's implementation of Real-Time Pricing.

6.6 The Financial Transmission Rights (FTR) market was implemented in 2013, with Energy Market Services (EMS), a subsidiary of Transpower, being awarded the first FTR Manager contract.

6.7 The MOSP contracts have remained with the incumbent providers through several re-tendering rounds.

But the use and usefulness of the underlying data has changed

6.8 As the market has matured and technology improved, the need for more timely and consistent access to market data has increased. This is increasingly true of consumer data. An example of this is electricity distribution business (EDB) access to consumer meter data.

EDB use of consumption data

6.9 Historically, EDBs accessed non-half hourly consumption data to assess consumer network charges and monitor load growth in their low voltage networks. The coarse resolution of this data, monthly total consumption, would have limited the usefulness of this data.

6.10 With the widespread rollout of advanced metering installations, or "smart meters", EDBs can now access consumption data with at least a 30-minute resolution. This allows much more useful analysis to take place: reviewing actual demand peak data on individual feeders, peak

[1] Chronology of New Zealand Electricity Reform

demand growth modelling, monitoring the impact of products such as Electric Vehicles (EVs) and battery and solar systems. Many of these meters can also record “power quality” data such as voltage, current and meter events (e.g. power interruptions). With regular data updates, EDBs can fault find much more quickly and have a better understanding of the dynamic health of their networks.

6.11 Some more recent smart meters can record data in 5-minute increments. This data, coupled with advances in communication technology, has allowed some EDBs to receive batches of demand data every 15 minutes. This greatly improves the ability of EDBs to monitor their networks and respond quickly to issues and outages.

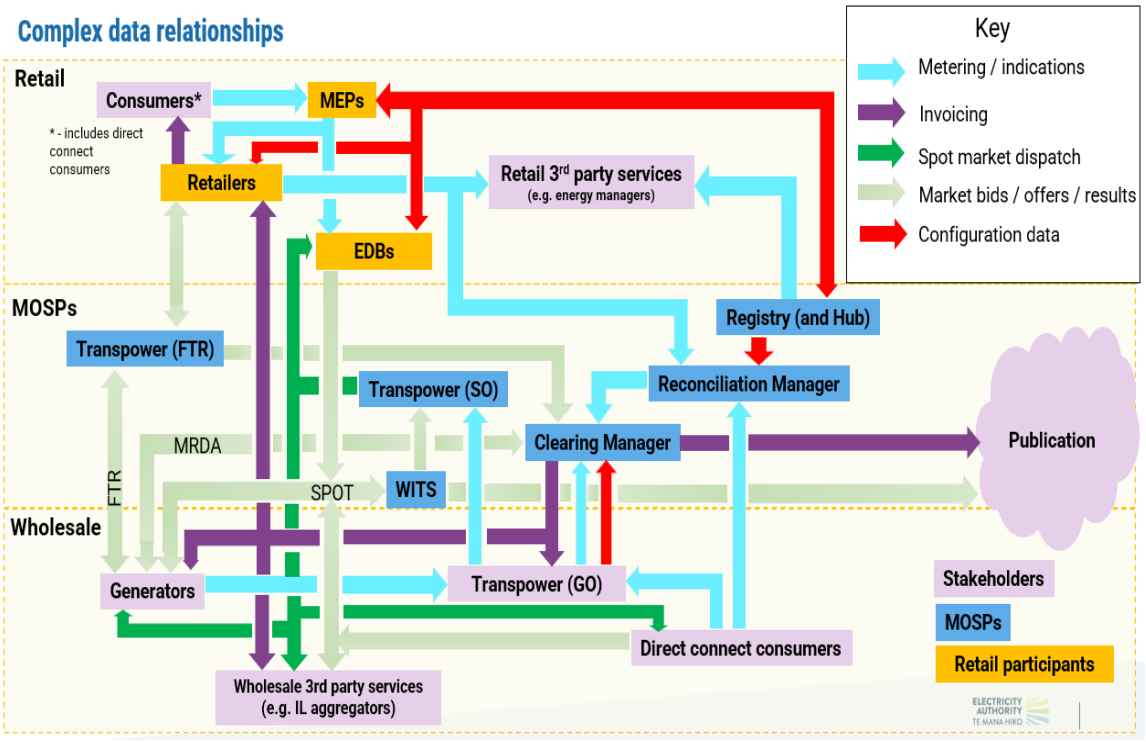
No standard requirements for data communication and security protocols

6.12 The variety of connection formats and methods used by different parties adds complexity. This particularly impacts retailers who must receive data from, or send data to, a large number of individual providers. For example, a retailer may need to agree to different data sharing requirements across each of the 29 EDB’s networks they want to retail on. This may not be an issue for large, incumbent retailers who have legacy agreements with EDBs but can be a significant barrier for new entrants to the retail market. They may also need agreements with more than one metering equipment provider, each with their own data transfer protocols and platforms.

6.13 Added to these commercial relationships, the Code places obligations on participants to share data with the Authority’s MOSPs. Each of these data transfers will have different archival, auditing and transfer frequency requirements, further complicating the data landscape.

Increased uses of data are being discussed

6.14 As we will discuss in the following section of this paper, the importance of data visibility and timeliness of transfer are become more pressing. From visibility of consumer flexibility to the timely transfer of consumption data to third parties, the MOSP infrastructure and contractual arrangements need to be flexible and able to adapt quickly to changing needs. On top of this, cybersecurity arrangements are further complicated by the large number of interfaces and platforms.



7 The Power system and consumer preferences are evolving

We expect consumer involvement in the electricity market to grow

7.1 Historically, the power system has been structured around the one-way flow of energy from large, remote generators to consumers via transmission then distributions assets. Until relatively recently, consumers have had very little incentive to manage when they consume and little ability to control when they inject surplus solar generation into the network.

7.2 Tariffs for water heating control provided a discount to consumers for allowing distribution businesses to switch off heating elements at times that benefited the distribution businesses. This provided some benefit to the consumer but did not provide an incentive to manage their consumption in a particular way – the control signal was sent based on wider distribution system conditions not whether the individual consumer was using electricity in a particular way.

7.3 Similarly, though domestic-scale solar systems have been installed in New Zealand for a number of years, there has been little economic incentive to invest in batteries to control when to inject power into the system. Flat and low feed in tariffs, compared to retail tariffs, provided no financial incentive to scale systems to inject additional power to the system.

7.4 Domestic systems tended to be scaled to offset consumption as much as possible. The cost of additional capacity did not make significant injection above this level worthwhile. This meant that most systems were scaled to the household's daytime load – not peak load. While some load shifting could take place to maximise the benefit to the consumer, they were still limited to avoided cost of consumption as their primary benefit.

7.5 The cost of domestic solar and battery storage systems has dropped dramatically over recent years. It is becoming economic for domestic systems to be scaled to meet household peak demand with daytime generation stored onsite. This stored energy can then be used over the morning and evening peaks to reduce, or completely mitigate, the household demand.

7.6 Advances in communication and control technology has enabled aggregated control of dispersed systems. There is now potential for value to be realised by consumers use of their assets in the wholesale market and as flexibility resources for distributors and retailers. The use of Virtual Power Plant technologies to respond to market conditions in a coordinated way, such as demonstrated by SolarZero in 2023[2], is starting to open the way for these resources to provide value beyond the site they're installed at.

Stakeholders generally agree that consumer involvement will grow

7.7 Most electricity industry stakeholders agree that the uptake of Consumer-owned Energy Resources (CERs) will increase over the coming years. Opinions vary on how quickly this will happen and the appetite of consumers to actively engage in the power system.

Rewiring Aotearoa[3]

7.8 A consumer focussed advocacy group promoting accelerated domestic electrification. Rewiring put forward that electrification of domestic appliances and vehicles makes economic sense and will reduce emissions now. Rewiring advocate for three changes to accelerate electrification:

(a) increased access to low-cost finance for appliance and vehicle replacement, and green home improvements (e.g. solar/ battery installation, improved insulation etc)

(b) cost reflective retail tariffs to incentivise flexibility to defer more expensive grid scale investment

(c) greater incentives for "demand side" involvement in the energy system

Electricity Networks Aotearoa / Future Networks Forum[4]

7.9 Electricity Networks Aotearoa represents the 29 electricity distribution businesses (EDBs) in New Zealand. In their Potential models for distribution system operation (DSO) in Aotearoa[5], the Future Networks Forum imagines a future in Aotearoa with:

(a) Close to 100% renewable generation

(b) Mass uptake of flexible CER and other distributed energy resources (collectively, DER)

(c) DER used for non-wires alternatives and system balancing

(d) Electric vehicles (EVs) and hot water responding to price signals

(e) Risks of 'herded' load and discharge

Consumer data right – electricity[6]

7.10 The Government is exploring the potential to make regulations that designate the electricity sector under the Customer and Product Data Act, which will enable a consumer data right in the electricity sector.

7.11 This would allow New Zealanders to share information about their electricity consumption with trusted third parties, such as retail plan comparison websites. It will also require electricity companies to share information – such as pricing – about the goods and services

[2] https://www.araake.co.nz/project/wpip

[3] https://www.rewiring.nz/

[4] Working groups and forums

[5] https://www.ena.org.nz/our-work/publications/document/1544

[6] Open electricity | Ministry of Business, Innovation & Employment

that they sell. This would enable New Zealanders to make more informed decisions about their electricity use.

We have explored these issues in previous consultations

7.12 Three recent consultations by the Authority have explored the increased installation of, and participation by, CERs.

Working together to ensure our electricity system meets the future needs of all New Zealanders[7]

7.13 In April 2025 the Authority released a Green Paper that explored the opportunities and challenges of a more decentralised electricity system. The electricity system in Aotearoa New Zealand is going through a significant transformation towards a more decentralised future.

7.14 The reasons for change are getting stronger. The costs of small-scale renewables, batteries, and other energy resources are dropping quickly. Renewable generation, storage and flexible demand are becoming more necessary and valuable. Consumers are more focused on energy resilience to disruptive events and on energy affordability.

7.15 However, there are many views on what this future decentralised system for electricity should look like, and what the pathways are to achieve it. This lack of alignment could lead to inconsistent decision making and an inefficient or delayed transition.

7.16 In the electricity sector, decentralisation means shifting from large scale electricity generation at a small number of sites across the country, to smaller scale renewables and other DERs located closer to consumers.

7.17 These DERs empower consumers and local communities, allowing them to actively participate and potentially shape local energy systems to fit their unique context, needs and aspirations.

7.18 Within these decentralised or local energy systems, supply and demand can be balanced as much as Access and affordability practicable, enabling a wide range of benefits for local consumers (or ‘energy communities’) and beyond. These local energy systems would be connected across the country by the grid’s strong central spine.

Our future is digital[8]

7.19 In July 2025, the Authority consulted on the future digitalisation of consumer use and participation in electricity. In the future, people will have even more choices to manage their electricity use and supply as technologies get smarter and more data becomes available. The systems and process that underpin New Zealand's electricity system will also become more data-driven and automated.

7.20 To help prepare for this future, we sought feedback on our discussion paper, our future is digital, to test our ideas on a more data-driven and technology-enabled electricity system.

7.21 A smarter, more digitalised energy system supports increased consumer mobility – a future where households and businesses are active participants, equipped with data and innovative tools to switch providers, take advantage of new products and services, and share power with others in a system that works for them.

[7] Green_paper_-_decentralised_electricity_system.pdf

[8] Our future is digital | Our consultations | Our projects | Electricity Authority

Consumers and the market need to be supported with modern, flexible and scalable arrangements

7.22 Significant physical and regulatory change is needed to realise the more consumer-centric power system. This will increase the complexity of the current market delivery arrangements, particularly in the secure provision of timely data to consumers and service providers.

7.23 The visibility of both static (e.g. location, capacity, technology) and dynamic (e.g. consumption/ injection data, operating forecasts) data about CER and DER in a timely manner will require significant development. The proliferation of service providers, data holders, communication formats and IT security requirements will make this development incredibly complex.

7.24 Rather than starting from a technical solution development approach, the Authority is considering whether early efficiencies can be realised through more efficient contracting arrangements first.

7.25 Much of the work already underway at the Authority focusses on the technical changes needed to support the future power system. It is appropriate that this work continues in its current workstreams. This will ensure that issues can be investigated and the right solutions implemented in the shortest timeframes for each project.

7.26 This paper discusses potential changes to the contracting arrangements for the five contestable MOSPs.

Q1. What else should the Authority consider when reviewing our MOSP arrangements? Are there other aspects of the services we should consider changing and why?

8 Future market and consumers may be better supported with service-based MOSP roles

The market has changed significantly over the last 30 years

8.1 The electricity market has changed significantly since its inception, and the pace of change has accelerated in recent years. We have seen a significant increase in the number of participants and stakeholders, not only generators and retailers but third-party service providers such as energy management and retailer comparison services.

8.2 As noted in the previous section, advances in technology are driving significant changes in the behaviour and expectations of consumers. The near ubiquitous use of data in other aspects of their lives is setting expectations of what can and should be achievable in the energy sector. Innovators are developing products and services that could allow monitoring of a household's consumption data and automated switching to the best available retail plan[9] or platforms that allow communication between smart enabled devices and a central coordination platform to enable flexibility[10].

New market arrangements may be better delivered with a service-focussed MOSP structure

8.3 The function-focussed structure of the MOSP arrangements has led to complex underlying arrangements for the electricity market. Implementing policy changes across multiple service

[9] Products such as the home smart panel from Basis https://www.wearebasis.com/

[10] For example, Lastmyle's Maestro platform: Lastmyle

contracts adds complexity and risk to these changes. This is reflected in both the time taken to complete changes and the costs incurred.

8.4 The Authority is considering whether having fewer and larger MOSP roles would deliver both operational and commercial benefits. It's possible that structuring the MOSP roles around contracts that deliver services to the market would lead to a more efficient arrangement.

Wholesale settlement manager

8.5 Four MOSP roles currently fulfil separate aspects of the wholesale settlement process:

(a) Registry manager – the registry provides a database of consumption meters and their responsible traders. It also provides further details such as the location of the meter and any generation assets at the location. The registry system provides two further services to the market: facilitates consumer retailer switching and third-party consumption data requests (via the registry hub),

(b) Reconciliation manager - reconciles consumer meter data with grid consumption and allocates electricity volumes to the responsible traders for billing purposes,

(c) Clearing Manager – calculates the final wholesale market prices and uses the reconciled metering data to invoice traders and pay generators monthly. The clearing manager also manages payments and receipts for the FTR market and ancillary services[11] as well as managing other financial requirements of the wholesale market,

(d) Wholesale information trading systems (WITS) manager – manages trading information transfers, such as generation offers and market schedule results, between wholesale market participants and the system operator. The WITS portal also publishes market schedule results for public consumption.

8.6 While three of these four MOSP roles are currently contracted to the same provider[12], each has a separate contract with some variation in terms across them. For example, the reconciliation manager contract has a specified monthly fee for "upgrade and improvement services" on an annually agreed workplan whereas the clearing manager contract provides for no such separate fee[13]. The cost of changes that affect both systems must be managed separately and may need to be financed differently. This adds complexity and ultimately management cost for change.

8.7 Except for the consumer switching and registry hub functions, all four MOSP contracts could be considered to fulfil one service: the financial operation and settlement of the wholesale market. The long-term consolidation of these roles under a single service provider contract could result in a number of benefits including:

(a) Simplification of contracting arrangements – operating under a single contract with a whole-of-system approach to funding and managing change would greatly simplify the management of the contract.

(b) Simplification of change – managing change across a single contract and system will be more efficient than the current arrangements. This should lead to lower cost, and shorter implementation times.

(c) Simplification of cyber security arrangements – the more external interfaces a system has, the higher the cyber security risk. By consolidating roles and systems, the number

[11] Ancillary services are additional wholesale market products that are used to maintain system security. These services can be provided by both generators and consumers.

[12] NZX Ltd fulfil the WITS, Clearing and Reconciliation Manager roles

[13] Schedule 1, clause 2 of the respective MOSP contracts: https://www.ea.govt.nz/industry/mosp/

of external interfaces and data transfers can be reduced and the risk of a cyber security breach occurring reduced.

(d) Increased competition for services – while the New Zealand electricity market has some unique characteristics, the functional roles carried out by the MOSPs are largely similar across jurisdictions. However, when the Authority tenders for renewed contracts, we generally see little interest from parties outside the incumbent providers. This limits the competitive tension in the tendering process. By consolidating four MOSPs into a single role, the increased value of the contract may encourage other potential providers to tender.

Data hub manager

8.8 As discussed in section 5, there are a large number of peer-to-peer data transfers between market participants and other stakeholders. The proliferation of communication protocols and platforms makes operating within the market complex. This is particularly true for new entrant retailers.

8.9 The variety of platforms and protocols also pose an increased cyber security risk as the uses and users of market data increase.

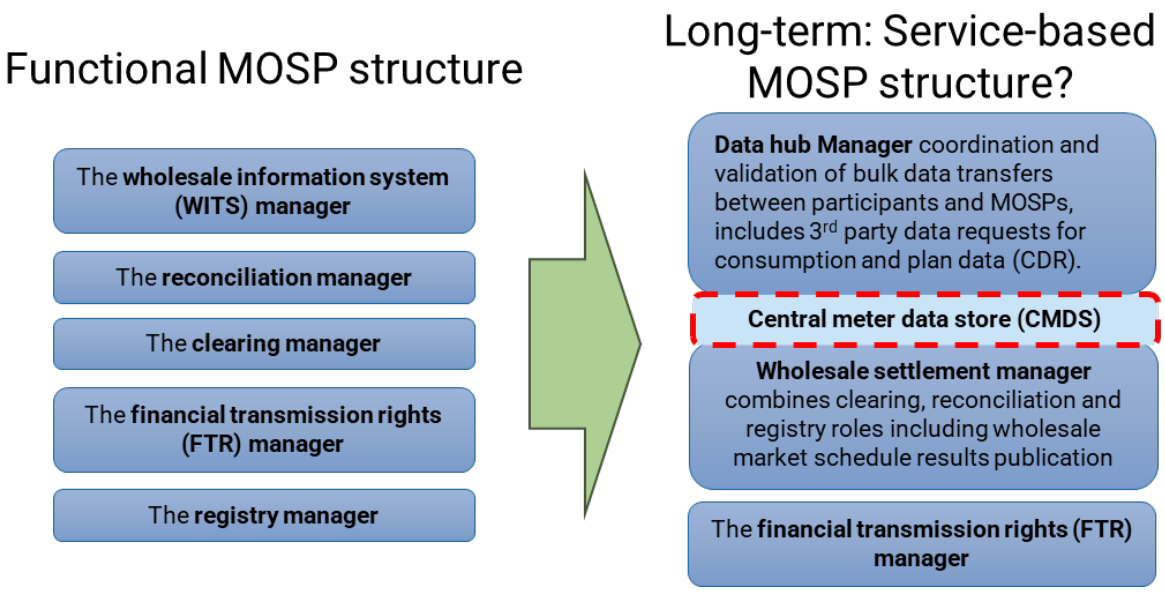
8.10 One solution could be to enforce a standard protocol across the industry through the Code[14]. This would have the benefit of providing an enforceable standard for communications. However, the regulatory change process can be slow and usually requires multiple rounds of public consultation. This may limit the ability to provide innovative solutions to problems as they arise and prevent communications protocols evolving with the underlying technology infrastructure.

8.11 Our currently preferred approach is to contract for a centralised data hub service. This service would provide verification and addressing services for the various data transfer requests that happen through the market. The actual data transfers would still be via peer-to-peer connections, but the data hub manager would define standardised protocols and formats for the transfers.

8.12 There have been industry discussions over a number of years on the need for a central meter data store (CMDS) for all metered consumption data. This would simplify data retention and archival requirements that are currently duplicated across retailers, metering equipment providers and the reconciliation manager. However, the centralised nature of the store could limit innovation in the services and measurements that consumption meters can provide. It may not be economic to upgrade the centralised store for an innovation by one metering equipment provider. This would mean that either the rest of the industry would have to implement a similar change or the new data or service would have to be provided outside the standard communications infrastructure.

8.13 A review and consolidation of the communication protocols, coupled with a broader review of the Code and MOSP contract mandated data retention and archival requirements, may negate the benefits a CMDS might bring in terms of lower cost to consumers.

[14] The Electricity Industry Participation Code 2010: https://www.ea.govt.nz/code-and-compliance/the-code-electricity-industry-participation-code-2010/



Q2. What do you think of the Authority's view of the future of MOSP services? What else should the Authority consider?

Q3. What factors should the Authority consider when investigating the need and benefits of a CMDS?

Overseas markets are responding to the need for better data management arrangements

8.14 International market arrangements vary. They are driven by the political and structural arrangements at the time their markets were formed. However, all markets rely on the secure and timely transfer of data between participants and service providers and have had to respond to similar technological and social changes.

8.15 Recent international efforts to improve data provision have focussed on the sharing consumer energy resources (CER) data for improved visibility and market integration. Changes are being implemented to enable the sharing of both static data, such as location and capacity, as well as metered data, to distribution and grid operation businesses. This is primarily to ensure that transmission and distribution assets can be managed securely and ensure wholesale market outcomes are as accurate as possible.

8.16 Separate work is being undertaken to implement consumer data rights and enable the timely transfer of consumption data to third parties. This work is generally ongoing.

8.17 The following sections provides a high-level discussion of recent changes in the United Kingdom and the Australian National Electricity Market (NEM). The UK approach integrates a common data store for smart meter data and "data spine" for authentication and sharing. While the NEM CER data exchange provides a framework for standardised P2P data sharing for limited use cases.

NEM – CER data exchange

8.18 This AEMO-led project aims to deliver enhanced CER and DER information provision for improved operational visibility[15].

8.19 The initial project is focussed on delivering 3 priority use-cases:

(a) Broader access to CER standing data

(b) Efficient sharing of network limits

(c) Network support and flex capability discovery

8.20 The project is not scoped to deliver:

(a) control of consumer or distributed resources,

(b) replacement of existing data storage systems and

(c) direct consumer access to data.

8.21 Conceptually, the data exchange provides a centralised trust and verification service and a requirement for standardised peer-to-peer data transfer interfaces. This structure aims to provide secure and efficient provision of data without duplicating data storage needs.

Figure 15: The CER Data Exchange concept

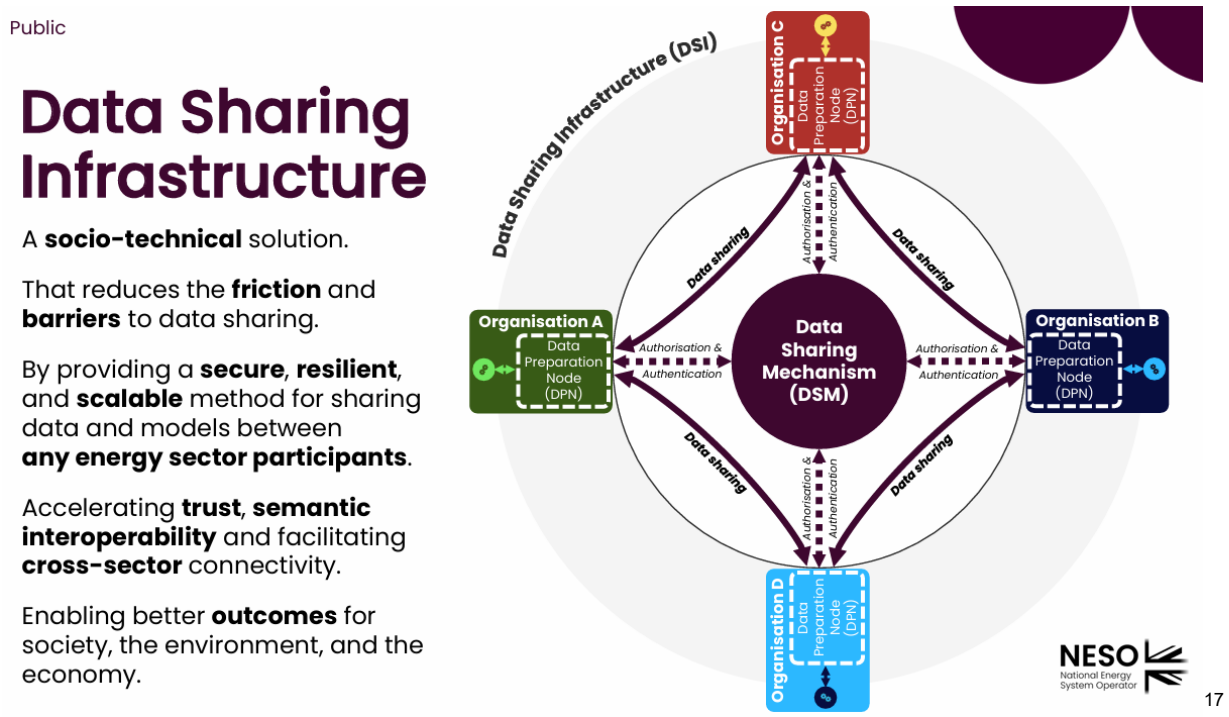
NESO (UK) – Data Sharing Infrastructure (DSI)

8.22 The DSI project moved to the proof-of-concept stage on sharing outage planning data between DSOs and the National Energy System Operator (NESO)[16] in mid-2025. A minimum viable product is expected to start early testing towards the end of 2026.

8.23 The initial focus of the DSI work is on ensuring infrastructure coordination between the National transmission system operator and the regional DSOs. No consumer data is planned to be shared in the MVP phase.

[15] https://www.aemo.com.au/-/media/files/initiatives/der/2025/cer-data-exchange-industry-co-design-all-final-documents.pdf?rev=23e8d09ef631441f81dd65e34b87c851&sc_lang=en

[16] https://www.arup.com/globalassets/downloads/projects/digital-spine-feasibility-study/digital-spine-developing-an-energy-system-data-sharing-infrastructure-executive-brief.pdf

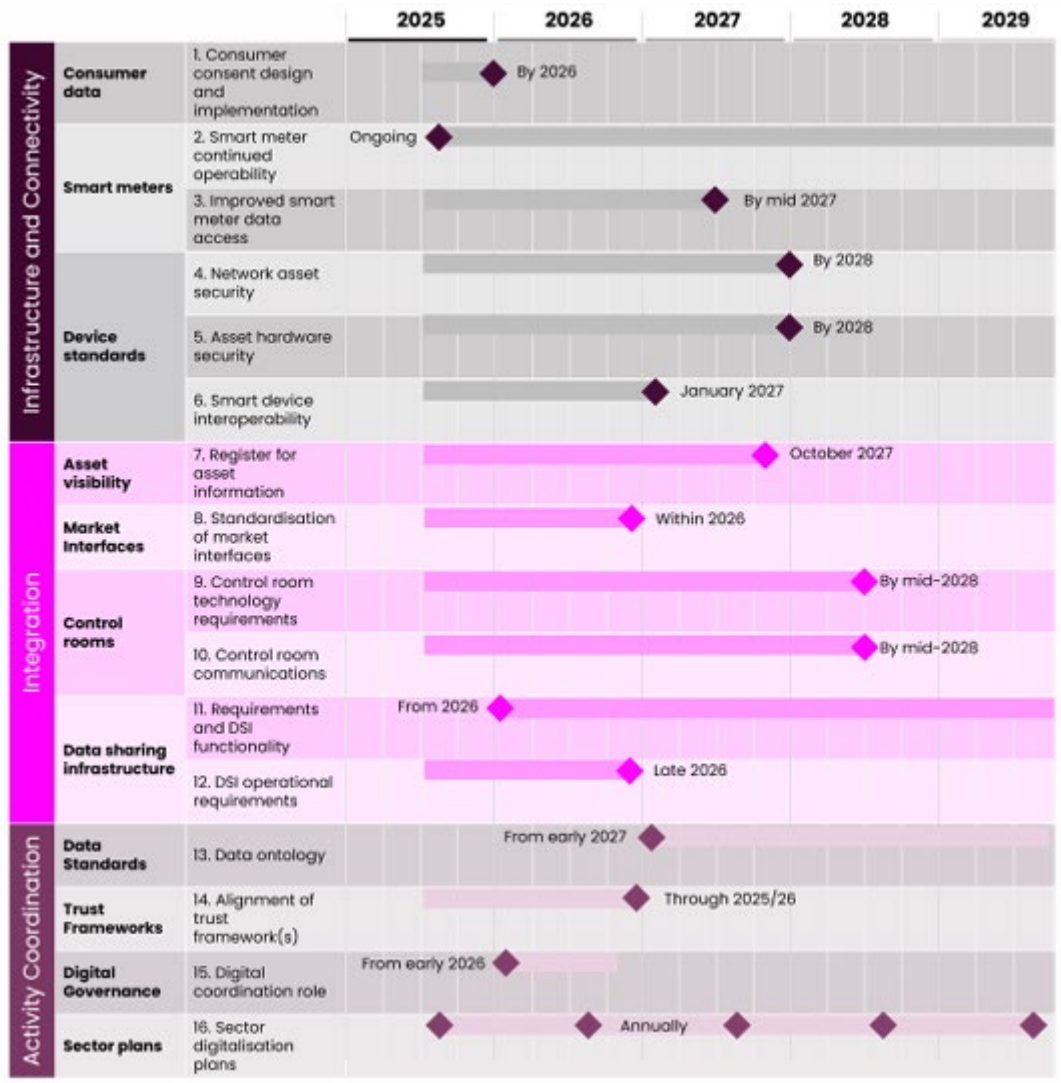


NESO – sector digitalisation plan

8.24 A parallel, more strategically focussed, piece of work is the Sector digitalisation plan[18]. This is a 16-action plan, of which the DSI MVP is one, to deliver a digitalised energy system by 2030.

[17] https://www.neso.energy/about/our-projects/virtual-energy-system/data-sharing-infrastructure-dsi#What%E2%80%99s-next

[18] https://www.neso.energy/about/our-projects/sector-digitalisation-plan#How-does-digitalisation-help-



8.25 In addition to the assigned actions, NESO have identified 17 gaps in the roadmap. The following table highlights the gaps across all three areas of the roadmap. Subsequent iterations of the roadmap will identify actions and owners to address the gaps.

			Clean Power 2030 outcome map						
Area	What is needed?	Action	Consumer simplicity	Consumer led flexibility	Grid decarbon-isation and security	Network access and connections	System operability	Supply chain and workforce	Clean Flexibility Roadmap action map
Infrastructure and connectivity	Consumer consent design and implementation	Action 1	✓	✓					44a
	Smart meter continued operability	Action 2	✓				✓		10a,10b,10c
	Improved smart meter data access	Action 3		✓			✓		
	Network asset security	Action 4				✓	✓		
	Asset hardware security	Action 5		✓			✓		
	Smart device interoperability	Action 6	✓	✓					
	Device firmware updates	Gap		✓			✓		
	Resilient telecoms	Gap	✓	✓			✓		
	Cross sector telecoms strategy	Gap				✓	✓		
	Resilience requirements for critical digital energy assets	Gap				✓	✓		
	Transmission and 'supply side' data requirements	Gap			✓	✓			
	Industrial and Commercial Data Requirements	Gap			✓		✓		
	Smart fallback operation modes	Gap		✓			✓		
	Smart Functionality for Smart Appliances and HEMS	Gap	✓	✓					
Integration	Register for asset information	Action 7		✓		✓			39a,39b
	Standardisation of market interfaces	Action 8	✓	✓					39c,40a,41c
	Control room technology requirements	Action 9		✓			✓		
	Control room communications	Action 10		✓			✓		
	Requirements and DSI functionality	Action 11			✓	✓			43a,43b,43c
	DSI operational requirements	Action 12			✓	✓			
	Planning Data Standard	Gap			✓	✓			
	Secondary Suppliers and Split Metering Requirements	Gap	✓	✓					
	Back Office and Improving Online Cust. Care	Gap	✓	✓					
	Network buildout process and tooling	Gap				✓		✓	
Activity coordination	Data ontology	Action 13			✓		✓		41b
	Alignment of trust framework(s)	Action 14	✓		✓				42a
	Digital coordination role	Action 15			✓			✓	46a
	Sector digitalisation plans	Action 16			✓			✓	
	Policy changes	Gap	✓					✓	
	Consumer Journey	Gap	✓					✓	
	Workforce Mobilisation	Gap				✓		✓	
	Risk register of digital infrastructure	Gap			✓		✓		
	Financing, cost-benefit and the value of data	Gap	✓		✓			✓	

Other CER/DER visibility projects

8.26 The UK and NEM are not the only jurisdictions grappling with resource visibility issues. Smaller scale projects, reviews and proof of concept work have been undertaken elsewhere. For example:

(a) Western Australia's Project Symphony was a pilot scheme using a virtual power plant to orchestrate consumer resources in the wholesale market. The pilot scheme ran from July 2021 to February 2024, and its recommendations informed the Western Australia DER programme.

(b) Transpower (System Operator) and Cortexo developed FlexVis in 2024 with support from AraAke. FlexVis provides a platform for the system operator to view aggregated CER/DER availability in the system operator control room.

(c) EPRI's 2022-23 project Improving visibility of DER and load through advanced real-time and short-term forecasting[19] took a different approach to improving DER visibility. EPRI investigated improving forecasting accuracy as an alternative to seeking DER indications.

(d) A survey of distribution businesses in the United States in 2023[20] has highlighted that the majority of those businesses have little to no visibility of DER in their networks. These networks have found DER management programmes difficult to implement, largely due to a lack of interest from consumers.

Q4. What other examples of data sharing arrangements should the Authority consider?

9 Foundational actions – 2027 MOSP contracting round

9.1 We have the opportunity to make some early changes with the upcoming re-tendering of the five contestable MOSP services. However, we don't have time to implement our long-term view for the services at this stage. This does allow us the benefit of being able to adjust our pace and scale of change should the market need us to.

9.2 With the current MOSP contracts expiring in 2027, work has already started on the tender process. This gives us limited scope to make changes to the MOSP contracts while giving potential respondents enough time to consider the roles and tender appropriately.

9.3 From a commercial position, there are updates and changes that can be made to the contracts relatively quickly that provide a clear view to the potential future shape of the MOSP services:

(a) Ensure appropriate contractual incentives are in place to proactively update software platforms and protocols to enable future market needs

(b) Strengthen contractual requirements regarding cyber security and information management

(c) Incentivise future scalability of platforms to allow for more efficient expansion of services should the need arise. This could include responding to an upsurge in domestic solar and battery connections increasing clearing and reconciliation volumes.

9.4 There are potential complementary policy changes to registry hub use that could support the increasing importance of timely data availability. These investigations would need to be prioritised by the Authority, and their implementation would be subject to the needs of the wider Authority work programme:

(a) Review Electricity Information Exchange Protocols[21] formats and uses. Is the current arrangement of regulated and non-regulated protocols appropriate?

[19] https://www.epri.com/research/products/000000003002024360

[20] https://assets.new.siemens.com/siemens/assets/api/uuid:92b96afd-8953-4689-9f4d-8ef42c311e95/Seeing-behind-the-meter-report.pdf

[21] https://www.ea.govt.nz/industry/retail/eieps/

(b) Investigate enhancements to the protocols and platforms used to manage consumer switching MBIE's the implementation the Consumer Data Right for electricity.

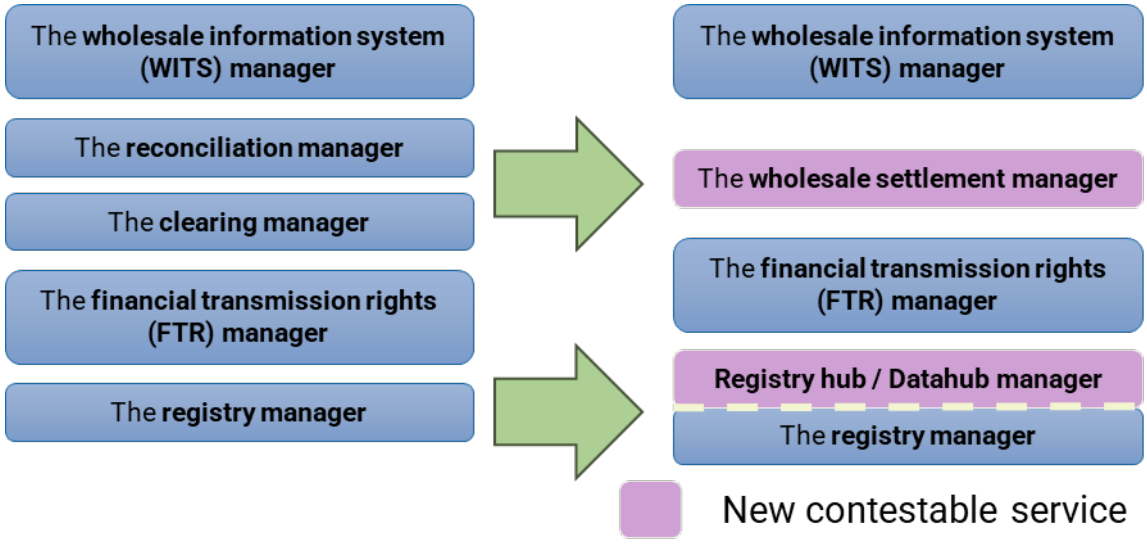
Intermediate development

9.5 The initial term of the 2027 MOSP contracts provides an opportunity to design the contractual and Code frameworks for the migration to the future MOSP services. Given the scale and complexity of the considered changes, it may be pragmatic to stage the changes. This will ensure that effort can be prioritised to fully consider the impact of the proposed changes. However, this could be reconsidered if the pace of change in market conditions requires it.

9.6 A pragmatic first step could be to consolidate the reconciliation and clearing manager roles to a single "Wholesale Settlement Manager" contract. These two services are most closely integrated in terms of market function and could be consolidated with minimal impact on other service providers and market participants.

9.7 This arrangement would still require an external interface with the registry.

9.8 The current registry hub could be expanded to be a first step towards the future datahub manager role. It's likely that the level of development needed would require significant infrastructure investment. This would be an opportunity to re-tender the service with a view to ensuring the best commercial and technical outcome for the market. This could also be an opportunity to enhance data transfers between retailers and third parties and consider the impacts of the CDR on existing data sharing infrastructure.



Service based MOSP contracts

9.9 The timing of the transition to the full service-based MOSP arrangements will depend on the pace of change in the electricity market and the time taken to implement the previous changes. The Authority already monitors factors such as the uptake of consumer level resources, EIEP data requests and retailer switching activity.

9.10 If the intermediate MOSP arrangements prove to be a limiting factor in the pace of CER/DER uptake and innovation in the sector, the full service-based arrangements could be accelerated. However, at this point, the Authority expects to be implementing the final MOSP changes in the early 2030s.

Datahub manager

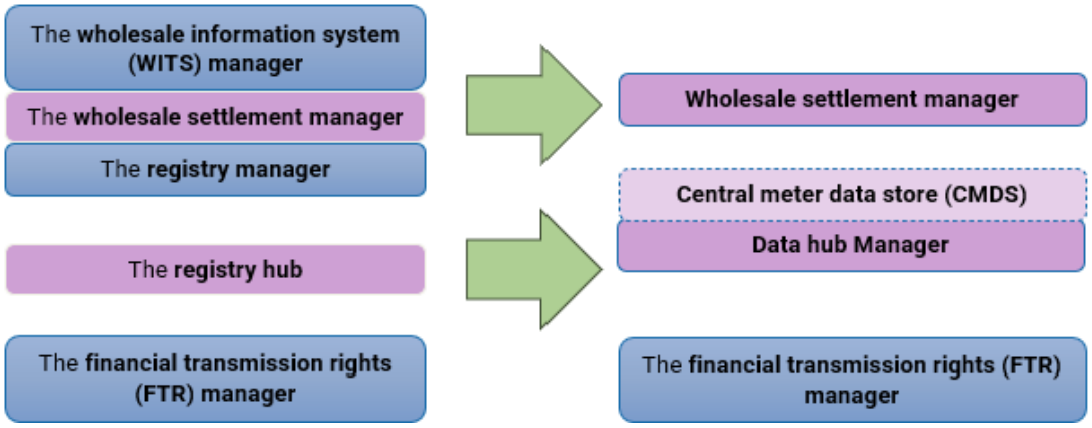
9.11 The datahub manager role would expand to coordinate data transfers between all participants. Previous work in the UK and NEM indicate that this may best be facilitated using a centralised authorisation model with peer-to-peer transfers implemented over a standardised communications protocol.

9.12 To provide consistency across the electricity market, the WITS functions may be split across the wholesale settlement manager and the datahub manager. Responsibility for managing wholesale market data transfers may more efficiently sit with the datahub manager while market schedule results publication may better reside with the wholesale settlement manager.

9.13 The Registry is primarily reference data for clearing and settlement, so could be combined with wholesale settlement manager role. This would allow for timely inclusion of consumer switching changes into the reconciliation process.

Central meter data store

9.14 At this point, experience with the operation of the intermediate changes to the MOSPs would help inform whether a CDMS was needed and, if so, whether it should be a stand-alone service or be included in one of the other new MOSP roles.



Q5. What else should the Authority consider in planning and scheduling changes to the MOSP services?

10 Next steps

10.1 We will consider submissions on the MOSP structure proposal and use it to inform our work programme over the coming years.

Appendix A Submission form

Enabling Market Evolution: a 10-year market operation service provider roadmap

Submitter	

Questions	Comments
Q1. What else should the Authority consider when reviewing our MOSP arrangements? Are there other aspects of the services we should consider changing and why?	
Q.2. What do you think of the Authority's view of the future of MOSP services? What else should the Authority consider?	
Q.3. What factors should the Authority consider when investigating the need and benefits of a CMDS?	
Q4. What other examples of data sharing arrangements should the Authority consider?	
Q5. What else should the Authority consider in planning and scheduling changes to the MOSP services?	